

Project Narrative for Milestone #1:

Our goals for this Stage 1 grant period include **developing** and evaluating a novel approach to **increase** rural farmers' handset management skills and **their** use of m-agriculture services in Kenya. If our pilot is successful, our long-term goals are to conduct a multi-year evaluation and eventually expand the use of educating shorts across Africa. To achieve our **initial** goals we developed an implementation plan that builds on the PIs prior fieldwork and takes advantage of our established partnerships with individuals who can provide us with in-country support and help us film and broadcast the shorts. This plan includes two **mixed-methods** evaluation studies to assess the impact of our shorts on improving device illiteracy and increasing use of m-agriculture services. Findings from this pilot evaluation will also be used to inform survey development and study design for a longer-term and controlled evaluation of the impact of our shorts among our direct beneficiaries. Four components make up our 14-month-long plan:

(1) Participatory content development: We will begin the project by conducting participatory research with 40 women farmers at five different sites in western Kenya. We will visit sites where we have established working relationships with farmers. Our goal will be to assess their knowledge and attitudes regarding the capabilities of their mobile phones, determine which m-agriculture service would benefit them most and investigate how best to introduce the service to them. We will run group discussions in rural schools, churches, and homes to achieve these goals and to collect the data necessary to inform the creation of our shorts. We will recruit women with different levels of familiarity with mobile phones to get a broad understanding of the challenges they face and insight into different learning styles. All sessions will be digitally recorded and moderated with the help of an English/Swahili research assistant with whom we have previously worked. We will return to the U.S., analyze our data and use what we learn to develop scripts, storyboards and publications (initial 2 months).

	Project Timeline for "Simu Shape Up": Edutainment to Shape Up Cellphone use Among African Rural Farmers, September 1, 2014 to March 1, 2016					
Activity	August-October	November-January	February-April	May-September	October-December	January-April
Develop interview protocol and baseline survey; apply for IRB approval from MSU, hire local research assistant and driver, purchase plane ticket.	█					
Wyche travels to Nairobi and western Kenya, September 17-27. <ul style="list-style-type: none"> Visit sites outside of Bungoma Fieldwork: participatory content development and baseline survey (10 days) (30-40 participants in 2-3 sites) Meet with Mediae.org partners to discuss content development, scripting and production of educational video segments 	█					
PIs and graduate assistant analyze data in East Lansing, MI; send scripts and storyboards to David Campbell		█				
Partner organization—Mediae—films and edits segments.			█			
Broadcast segment(s) during Shamba Shape Up episodes.			█			
Monitor feedback on Shamba Shape Up Facebook Page (http://www.facebook.com/ShambaShapeUp)				█	█	█
PIs travel to western Kenya (May 2015) <ul style="list-style-type: none"> Organize group showings of clips, administer baseline survey, focus groups and interviews Fieldwork: Evaluation of pilot segments (Kenya) through viewer interviewer, survey; viewing workshops with community groups (~2 weeks)(60-70 participants in 3-5 sites) 				█		
Scale-up & partnerships: meet with potential sponsors, participate in DIV, DfID, Gates grants and competitions, research proposals to NSF, others				█	█	█
Data analysis and write-up for refereed journals; brainstorm new topics for video shorts; develop long term evaluation plan				█	█	█
Local research assistant assesses long-term impact of videos, administer final survey (~10 days)						█

Note: Qualitative methods will be used during the project's formative stages. My primary goal is develop a deep understanding of the issues affecting rural women and mobile phone use. This research approach does not support numerical measurement.

Indicator #1

Title: Assessing Device Literacy

Definition/Rationale: Device illiteracy, or not knowing how to perform basic mobile phone operations hinders adoption and use of m-agricultures services.

Measurement Notes: I will conduct interviews and observations to assess study participants' abilities to perform the following tasks on their mobile phones:

- Send a text message
- Reply to a text message
- Input an SMS short code
- Enter a name into handset's mobile directory
- Delete message from handset's inbox

How to measure it: If participants complete the tasks without assistance they will demonstrate a level of device literacy.

Indicator #2

Title: Knowledge of M-Agriculture Services

Rationale: Low awareness translates to low usage, since a new user cannot use a product that they know nothing about.

Measurement Notes: I will conduct interviews and ask study participants if they are familiar with the services that target them, such as Esoko, MFarm and KACE.

If they are familiar with the services, I will ask them to describe the last time they used it.

How to measure it: If participants tell me they are familiar with these mobile services and indicate that they have used them, I will assume they have knowledge of them.

Michigan State University, East Lansing, Michigan, U.S.

Project Title: Using Edutainment to Increase Mobile Phone Literacy Among Rural African Farmers (formative research)

Investigator: Susan Wyche, Ph.D. and Charles Steinfield, Ph.D.

Interview Protocol

1. Introduction: [Statement of purpose, study goals, informed consent, permission to digitally record interview, rapport building]

a. Introduce self, observers and each other. We are professors at Michigan State University, in the United States, and are interviewing you as part of a larger study of sustainable food production. We want to ask you questions about how you use your mobile phone. We will use this information to develop video clip that will be featured on the Shamba Shape Up television shows. There are no right or wrong answers to our questions. You do not have to answer questions you do not want to answer.

You will receive 100 KES for Safaricom airtime to compensate you for your time. *Give participant scratch card prior to interview.*

2. Socio-demographic information

I would like to collect some basic information about you.

Age:

Marital Status:

Level of Education:

a. Please tell me about yourself.

- How long lived in area? Place of birth?
- Family size? (type of household)

3. Mobile Phone

Now I want to ask you questions about your mobile phone.

- a. Do you or one of your family members currently own a mobile phone? (If no, ask why. If yes, proceed with next series of questions.)
- b. If the phone is available, may I see it?
 - a. Note model, brand and condition.
- c. Tell me how you acquired this phone.
 - a. Bought it new? Gift?
 - b. When was it acquired (Month/Year)
- d. I would like to know what you use the phone for?
 - a. Voice, SMS, M-Pesa
 - b. Frequency of each activity
- e. Please tell me about how you learned to perform these activities? (Probe: How did you learn to receive a call?; How did you learn to use M-Pesa?)
 - a. Relative, instruction manual, trial and error?
 - b. How did you learn to use M-Pesa?
- f. Were any of activities more difficult to learn than others?
 - a. Explain.
- g. Is there an activity you would like use your phone for, but you do not know how to do it?

I would like to observe you perform these activities using your mobile phone.

- h. Can you show me how you make a phone call?

- a. Ask participants to call my phone number.
- i. Now can you send me a text message?
- j. I will send you a text message.
 - a. Can you open the message in your phone?
 - i. Observe
 - b. Please show me how you delete this message from your phone

5. Conclusion

- Do you have questions for me?

Project Narrative for Milestone #2:

Our goals for this Stage 2 grant period included travelling to Kenya and conducting the formative fieldwork for our video clips, translating/transcribing interviews, analyzing the data and developing storyboards. We released the press release about our project, see: <http://cas.msu.edu/researchers-working-to-improve-livelihoods-of-farmers-in-kenya/> We also discussed our project with Catherine Hight, Mobile For Development Specialist at GSMA. Catherine is leading a project that is similar to ours and is also interested in improving mobile phone literacy among rural women, see: <http://www.gsma.com/mobilefordevelopment/beyond-the-red-and-green-buttons-a-visual-and-audio-mobile-literacy-toolkit>

Activities completed for Milestone #2

September 19	<ul style="list-style-type: none"> • Drive from Nairobi to Bungoma • Local research assistant organized a pilot focus group with 7 women in Bungoma Town
September 20	<ul style="list-style-type: none"> • Visited Safaricom store in Bungoma town and talked to store manager about problems customers encounter when using their handsets. • Focus group with 13 women in Kakichuma, village ~30 minutes away from Bungoma Town • Focus group with 10 women in Sikata • Note: After informed consent was obtained, all sessions were conducted in the languages women felt most comfortable speaking. All of the women's mobile phones were documented and each participant was compensated with 100 KES of mobile phone airtime. •
September 21	<ul style="list-style-type: none"> • Drove from Bungoma to Homa Bay
September 22	<ul style="list-style-type: none"> • Met with Jacob Otieno Ongow, Program Coordinator Kenya Agricultural Value Chain Enterprises Project (KAVES)
September 23	<ul style="list-style-type: none"> • Focus Group with 10 women in Benga • Focus Group with 10 women in Kendu Bay
September 24	<ul style="list-style-type: none"> • Focus Group with 9 women in Ruga • Focus Group with 13 women in Odongo • Focus Group with 4 women in Papndega
September 25	<ul style="list-style-type: none"> • Drive back to Nairobi
September 26	<ul style="list-style-type: none"> • Return to East Lansing, MI, USA
September 26 November 1	<ul style="list-style-type: none"> • Transcription and Translation of Focus Group Transcripts • Data Analysis
October 15- December 1	<ul style="list-style-type: none"> • Data Analysis • Storyboard development

Key Findings:

- Roughly half of the farmers interviewed owned substandard and counterfeit mobile phones, commonly referred to as “China-Makes.” These substandard phones and counterfeit Nokia models phones tended to stop working after falling onto the ground, could rarely be fixed by mobile phone repairers and had other problems that stemmed from their low quality internal components. They cost ~\$12 or about \$5 to \$8 less than an original phone.
- Findings from our prior research suggest that farmers rarely use SMS for communication. Given the possibilities associated with using SMS to deliver farmers pertinent information and the recent questions raise about its effectiveness, we asked participants about their use of SMS. Our findings provide additional evidence suggesting that SMS is rarely used among Kenya’s rural farmers. Women, tended to laugh when we asked them if they sent text messages, telling us it was a feature they did not use because they did not know how to compose a message on their basic handsets. Texting is difficult enough to use with English, much less for Swahili, Bukusu and Luo,, languages characterized by long words and imprecise spellings.
- Although sending a text message typically costs less than calling, farmers overwhelmingly preferred voice communication because of its immediacy and assurance that the message was received.
- Although most farmers rarely sent text messages that did not preclude them from receiving them. We looked at the message inbox and saw dozens of messages with content farmers told us was of little use to them. Rather than containing pertinent information about weather, crop prices or best agricultural practice, messages were typically advertisements from Safaricom, or content from services that farmers had, often unknowingly, subscribed.
- More than half of the women interviewed who discussed their interactions with this service complained about not knowing “how to unsubscribe.” Details about how to unsubscribe were typically included at the end of an SMS, or the last few lines that inexperienced users who are unfamiliar with scrolling to the bottom of a message may miss. Consequently these farmers continued to receive text messages with information they could not read or that was irrelevant to their rural context.
- Typically one Kenyan farmer in each group discussion described receiving a scam message related to the country’s popular mobile money transfer system, M-Pesa. Awareness of these scams emerged from word of mouth and bad luck stories of friends and family members beings duped by them.
- Women were unaware of and did not use m-agriculture services such as KACE and M-Farm.

Landscape Analysis of Selected Mobile Phone Service Available to Kenyan Farmers

The applications featured in our Shamba Shape Up video clips showcase services the women we surveyed wanted to know about and how to use. The vast majority of women surveyed were unfamiliar with m-agriculture services, such as iCow, M-Farm and Esoko. They were familiar with Facebook, WhatsApp and Google and repeatedly asked to know more about these applications. This document describes m-agriculture services and presents their individual strengths and weakness.

Service/ Mobile application	Strengths	Weaknesses
<p>Kenya Agricultural Commodity Exchange (KACE) Description: SMS-based market information service. Available to Safaricom subscribers.</p>	<ul style="list-style-type: none"> • Provides crop market prices • Can access the service using the mobile phones women have 	<ul style="list-style-type: none"> • Receiving information requires having available credit on your mobile phone • Service is unavailable in local dialects (e.g., Bukusu in Western Province and Dholuo in Nyanza Province) • Accessing the information is cumbersome and complicated. This quote from a study participant, who is familiar with KACE captures this problem: <i>"It takes step one, step two, step three, step 24, then you get the information you need."</i>
<p>iCow Description: SMS-based agricultural information service that provides dairy farmers with a gestation calendar, tips and advice. (see: http://icow.co.ke/)</p>  <p>iCow Application, Samsung GT-E12</p>	<ul style="list-style-type: none"> • Provides crop market prices • Can access the service using the mobile phones women have 	<ul style="list-style-type: none"> • Women surveyed do not own dairy cows, unclear why they would want to pay for information the service disseminates. • Receiving information requires having available credit on your mobile phone • Service is available in Swahili, but Service is unavailable in local dialects (e.g., Bukusu in Western Province and Dholuo in Nyanza Province). • Limited awareness of service among smallholder farmers • Requires users to register

Landscape Analysis of Selected Mobile Phone Service Available to Kenyan Farmers

<p>M-Farm Description: SMS-based market information service. Available to subscribers.</p>  <p>Response to Query sent to M-Farm service</p>	<ul style="list-style-type: none"> • Provides crop market prices • Can access the service using the mobile phones women have • Easier to use than KACE, but requires knowing how to compose and send a text message 	<ul style="list-style-type: none"> • Submitting a price a request costs 1KES • Provides prices for large markets in Nairobi, Eldoret, Kisumu, but not the smaller markets where the women surveyed are more likely to sell crops • Service is unavailable in local dialects (e.g., Bukusu in Western Province and Dholuo in Nyanza Province) • Limited awareness of the service • Service does not provide process for crops women grow, e.g., black nightshade and local vegetables • Few women have the sell in quantities presented on MFarm. For instance, women do not typically have “90 kg Bag” of dry maize to sell. Instead of bags women sell in little tin or plastic containers called "korogoro," one of these holds about 2.5 kg of maize. • Requires users to register
<p>Kilimo Salama Description: SMS-based insurance service available to registered users. (see: https://kilimosalama.wordpress.com/)</p>	<ul style="list-style-type: none"> • Unclear whether or not women would benefit from this service because they grow in small quantities. • Can access the service using the mobile phones women have 	<ul style="list-style-type: none"> • Little interest in purchasing crop insurance • Lack financial resources to purchase insurance • Service is unavailable in local dialects (e.g., Bukusu in Western Province and Dholuo in Nyanza Province) • Requires users to register
<p>Voice call to Agricultural Extension Agent Description: Encourage women to use their mobile phones to call their extension agent to access information.</p>	<ul style="list-style-type: none"> • Women already use mobile phones for voice communication • Speak in local dialects 	<ul style="list-style-type: none"> • Making a voice call requires available airtime/credit on the phone

Landscape Analysis of Selected Mobile Phone Service Available to Kenyan Farmers

<p>Kenya Plant Health Inspectorate Service (KEPHIS) “Variety SMS service” Description: SMS-based agricultural information service that provides farmers with information about recommended crop varieties for their region. (see: http://www.kephis.org/index.php/2014-03-25-12-07-54/2014-04-14-06-15-42)</p>	<ul style="list-style-type: none"> · Provides content relevant to women farmers · Service has been featured in prior SSU episodes · No registration required · 	<ul style="list-style-type: none"> · Costs 2 KES to access information
<p>Esoko Description: SMS-based service that provides subscribers with pricing, weather and best agricultural practices information. (see: https://esoko.com/about/)</p>	<ul style="list-style-type: none"> · Can access the service using the mobile phones women have · Provides content relevant to women farmers 	<ul style="list-style-type: none"> · Service is not yet available for commercial use in Kenya · Requires users to register · Receiving information requires having available credit on your mobile phone · Service is unavailable in local dialects (e.g., Bukusu in Western Province and Dholuo in Nyanza Province)
<p>Lipa Na M-Pesa Description: Safaricom service that allows merchants to accept payments for goods and services from their customers using M-PESA.</p>	<ul style="list-style-type: none"> · Women expressed interest in wanting to use this service · Do not have to carry cash · Service is similar to M-Pesa and women know how to use this application on their mobile phones this 	<ul style="list-style-type: none"> · Must have money in M-Pesa account to make transactions
<p>Facebook</p>	<ul style="list-style-type: none"> · Women expressed interest in wanting 	<ul style="list-style-type: none"> · Requires Internet access and knowledge about how create a profile and use the site

Landscape Analysis of Selected Mobile Phone Service Available to Kenyan Farmers

	to use this service	<ul style="list-style-type: none"> · Unable to access on the mobile phones women own
Google	<ul style="list-style-type: none"> · Women expressed interest in wanting to use this service 	<ul style="list-style-type: none"> · Requires Internet access and knowledge about how to enter a search query · Unable to access on the mobile phones women own
WhatsApp	<ul style="list-style-type: none"> · Women expressed interest in wanting to use this service 	<ul style="list-style-type: none"> · Requires Internet access and knowledge about how create a profile and use the service
<p>SMS to Shamba Shape Up to receive informational flyer</p> <p>Description: TV show sends flyers in the postal mail to individuals who request one by submitting an SMS to a short code features in episodes.</p>	<ul style="list-style-type: none"> · Flyers feature content that is relevant and useful to farmers · Flyers feature pictures and illustrations making them accessible · Findings from our focus groups suggest that women appreciate paper materials because they can read them over and over again. 	<ul style="list-style-type: none"> · Women must know how to correctly enter the short code and accompany information on their mobile phones

Project Indicators v2

Indicator #1

(updated) Title: Beyond “Red and Green Button” Use: Using Mobile Phone to Call and More

(updated) Definition/Rationale: Device illiteracy, or not knowing how to perform basic mobile phone operations—in addition to making and receiving voice calls—hinders adoption and use of m-agricultures services.

Measurement Notes: After participants view our video clips, we will conduct interviews and observations to assess their abilities to perform the following tasks on their mobile phones:

- Send a text message
- Reply to a text message
- Input an SMS short code
- Enter a name into handset’s mobile directory
- Delete message from handset’s inbox
- (updated) unsubscribe from unwanted SMS services
- (updated) create a secure PIN code

How to measure it: If participants complete the tasks without assistance they will demonstrate device literacy.

(updated) If participant sends a text to Shamba Shape Up short code requesting a flier.

Initial Findings from formative research:

- Findings from our prior research suggest that farmers rarely use SMS for communication. Given the possibilities associated with using SMS to deliver farmers pertinent information and the recent questions raise about its effectiveness, we asked participants about their use of SMS. Our findings provide additional evidence suggesting that SMS is rarely used among Kenya’s rural farmers. Women, tended to laugh when we asked them if they sent text messages, telling us it was a feature they did not use because they did not know how to compose a message on their basic handsets. Texting is difficult enough to use with English, much less for Swahili, Bukusu and Luo, languages characterized by long words and imprecise spellings.
- Although sending a text message typically costs less than calling, farmers overwhelmingly preferred voice communication because of its immediacy and assurance that the message was received.

- Although most farmers rarely sent text messages that did not preclude them from receiving them. We looked at the message inbox and saw dozens of messages with content farmers told us was of little use to them. Rather than containing pertinent information about weather, crop prices or best agricultural practice, messages were typically advertisements from Safaricom, or content from services that farmers had, often unknowingly, subscribed. We encountered reluctance among participants when we asked to count the messages in their inboxes and were unable to systematically collect this data. It was also common for participants' mailboxes to be filled with "Please call me messages," similar to the one in Figure 1. We learned that the women we surveyed were better able to enter numerical short codes, rather than text messages.



- More than half of the women interviewed who discussed their interactions with this service complained about not knowing "how to unsubscribe." Details about how to unsubscribe were typically included at the end of an SMS, or the last few lines that inexperienced users who are unfamiliar with scrolling to the bottom of a message may miss (Figure 1). Consequently these farmers continued to receive text messages with information they could not read or that was irrelevant to their rural context.

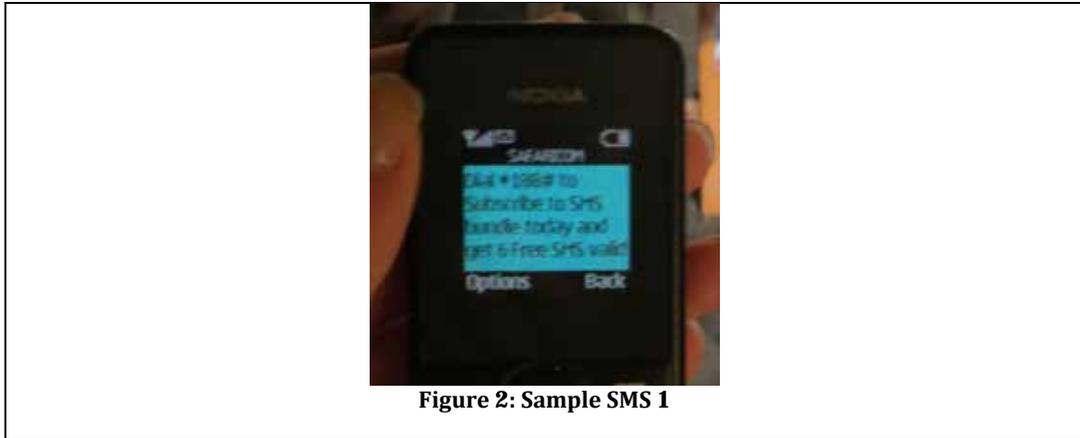


Figure 2: Sample SMS 1

- Typically one Kenyan farmer in each group discussion described receiving a scam message related to the country’s popular mobile money transfer system, M-Pesa (see Figure 1). Awareness of these scams emerged from word of mouth and bad luck stories of friends and family members being duped by them.

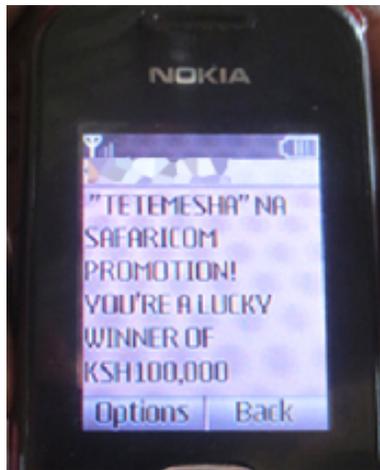


Figure 3: Safaricom Scam Message

Indicator #2

Title: Knowledge of M-Agriculture Services

Rationale: Low awareness translates to low usage, since a new user cannot use a product that they know nothing about.

(updated) Measurement Notes: I will conduct interviews and ask study participants if they are familiar with the services that target them.

We will ask farmers if they are familiar with and use the service presented in our video clip, “Maize Variety Service” sponsored by Kenya’s

Plant Health and Inspectorate Service (KEPHIS).

How to measure it: If participants tell me they are familiar with these mobile services and indicate that they have used them, I will assume they have knowledge of them.

Initial Findings from formative research:

- Women were unaware of and did not use m-agriculture services such as KACE and M-Farm.
- We know from our prior study and other research that many rural women smallholder farmers cannot read English messages. All of the m-agriculture services we reviewed disseminate information in English. Further, few women have sell in quantities presented on services such as MFarm. For instance, women do not typically have “90 kg Bag” of dry maize to sell. Instead of bags women sell in little tin or plastic containers called "korogoro," one of these holds about 2.5 kg of maize.

(updated) Indicator #3

Title: Knowledge of Internet and Related Services

Rationale: Women in the focus group wanted to know what the Internet is. They also asked questions about the differences between services such as Facebook and Google. Rural women must first be aware of these technologies if they are to one day use them.

Measurement Notes: I will conduct interviews and ask study participants if they are familiar with the services described in the video clip titled “What is the Internet?”

If they are familiar with the services, I will ask them to describe the last time they used it.

How to measure it: If participants tell me they are familiar with these mobile services and indicate that they have used them, I will assume they have knowledge of them.

Initial Findings from formative research:

- Women in each group expressed interest in wanting to learn about these services. They also asked questions that suggested confusion about understanding the differences between the Internet, Google and Facebook.
- There is limited to no awareness of m-agriculture services, but widespread awareness of Facebook and WhatsApp.

Project Timeline for "Simu Shape Up": Edutainment to Shape Up Cellphone use Among African Rural Farmers, September 1, 2014 to March 1, 2016						
Activity	August-October	November-January	February-April	May-September	October-December	January-April
Develop Interview protocol and baseline survey; apply for IRB approval from MSU, hire local research assistant and driver, purchase plane tickets. COMPLETE						
PI travels to Nairobi and western Kenya <ul style="list-style-type: none"> Visit sites outside of Bungoma Fieldwork: participatory content development and baseline survey (~2 weeks) (60-70 participants in 3-5 sites) Meet with Mediae.org partners to discuss content development, scripting and production of educational video segments COMPLETE						
<ul style="list-style-type: none"> PIs and graduate assistant analyze data in East Lansing, MI; send scripts and storyboards to David Campbell and USAID Developed "Landscape Analysis" UPDATED AND COMPLETED						
Partner organization—Mediae—films and edits segments. COMPLETED 3/2015						
Broadcast segment(s) during Shamba Shape Up episodes. UPDATED						
Monitor feedback on Shamba Shape Up Facebook Page (http://www.facebook.com/ShambaShapeUp); conduct mobile phone survey with 100 indirect beneficiaries UPDATED						
<ul style="list-style-type: none"> Voice over for clips. Translate content from English/Swahili to local dialects. IN PROGRESS Continue data analysis and update indicators Meet with Catherine Highet, GSMA to discuss evaluation plan COMPLETED 4/14/2015 Revise/Update evaluation plan Develop Educational Flyers to use in workshops IN PROGRESS SUBMITTED FOR REVIEW ON 4/30						
PIs travel to western Kenya UPDATED <ul style="list-style-type: none"> We will conduct our evaluation June 7-June 20. Bungoma groups – June 8-June 12 Homa Bay groups – June 15-20 Organize group showings of clips, administer baseline survey, focus groups and interviews Fieldwork: Evaluation of pilot segments (Kenya) through viewer interviewer, survey; viewing workshops with community groups (~2 weeks)(60-70 participants in 7 sites)						
Intermediate Evaluation UPDATED <ul style="list-style-type: none"> Local assistants will send SMS messages to participants to asses if they are using SMS and the m-agriculture service KEPHIS 						

Scale-up & partnerships: meet with potential sponsors, participate in DIV, DfID, Gates grants and competitions, research proposals to NSF, others						
Data analysis and write-up for refereed journals; brainstorm new topics for video shorts; develop long term evaluation plan						
Local research assistant assesses long-term impact of videos, administer final survey (~10 days)						

Project Indicators v3

Indicator #1

Title: Beyond “Red and Green Button” Use: Using Mobile Phone to Call and More

Definition/Rationale: Device illiteracy, or not knowing how to perform basic mobile phone operations—in addition to making and receiving voice calls— hinders adoption and use of m-agricultures services.

Measurement Notes: We will administer a pre and post survey to assess the impact videos, discussions and instructional flyers have on participants’ abilities to perform these tasks on their mobile phones:

- Send a text message to an individual recipient
- Send a text message to multiple recipient
- Delete message from handset’s inbox
- Unsubscribe from unwanted SMS services
- Use m-agriculture service KEPHIS to access information about the recommended crop varieties to grow in their region

How to measure it: If participants report that they are more confident in their abilities to perform these tasks at the end of the workshop.

Follow-up text message/short questions two weeks following workshop to assess whether participants can respond to a message.

Administer post-survey in October 2015 to assess long-term impact of workshops.

Indicator #2

Title: Knowledge of M-Agriculture Services (KEPHIS)

Rationale: Low awareness translates to low usage, since a new user cannot use a product that they know nothing about.

Measurement Notes: We will administer a pre and post survey to assess the impact videos, discussions and instructional flyers have on participants’ awareness of and ability to use the KEPHIS service:

- Use m-agriculture service KEPHIS to access information about the recommended crop varieties to grow in their region

How to measure it: If participants report that they are more confident in their abilities to use the service at the end of the workshop.

Follow-up text message/short questions two weeks following workshop to assess whether have used the KEPHIS services.

Administer post-survey in October 2015 to assess long-term impact of workshops.

Indicator #3

Title: Knowledge of Internet and Related Services

Rationale: Women in the focus group wanted to know what the Internet is. They also asked questions about the differences between services such as Facebook and Google. Rural women must first be aware of these technologies if they are to one day use them.

Measurement Notes: We will administer a pre and post survey to assess the impact videos and discussions have on participants' understanding of the Internet, Facebook and Google.

How to measure it: If participants report that they understand these services at the end of the workshop.

Administer post-survey in October 2015 to assess long-term impact of workshops.

Workshop Agenda

Overall Objective:

To evaluate the effects of using educational videos and instructional materials to teach women farmers in Western Kenya how to use mobile phone features.

Equipment Needed:

- AAXA Pico Projector
- External speakers
- External battery
- Laptop computer
- White sheet
- Thumbtacks
- 2-3 spare mobile phones
- 2-3 charged mobile phone batteries
- Laminated instructional materials

1) Objective:

Introduce the workshop (15-20 minutes)

- Continuous loop of images taken from October visit appear on the screen while we wait for women to arrive to the workshop location.
- Welcome participants.
- Introduce ourselves (each member of the research team)
 - Emphasize that we are professors and students at Michigan State University in the United States. ***We are here to learn from you and do not work for technology companies.***
 - Review IRB protocol and obtain verbal informed consent
 - § Explain why we are audio recording and taking pictures of the event.
 - § Explain that there are no right or wrong answers and that we want your honest opinions
 - § Confidentiality
- Introduce moderator(s)—Let them explain the project:
 - § Explain that we want to teach women how to use the other functions embedded in their phones. Specifically, features other than voice calling. We also want to introduce them to new services.
 - § Workshop Format
 - Moderators will administer a short survey at the beginning, then we will focus on 7 activities. We will show a video, distribute a flyer and have group discussion related to each mobile phone activity.

- Explain that the content of the videos and flyers is based on findings from the study Susan conducted in October.
- § Workshop will last ~3 hours
- § Lunch will served at the conclusion and during this time moderators will administer another short survey.
- Provide handsets to participants who did not bring one (**note: these individuals must return the handsets at the end of the workshop**)
- Provide charged batteries to participants whose handsets have little or no charge (**note: these individuals must return the batteries at the end of the workshop**)

2) Objective:

Administer pre-survey (20-45 minutes, depending on the size of the group)

- Distribute photos from first study and airtime scratch cards (*explain that participants will use airtime during the workshop and can keep leftover airtime*)
- Show video of how to top-up on a mobile phone (Airtel and Safaricom scratch cards)
- As women are looking at photos and adding airtime to their mobile phones, moderators will administer surveys.
- Moderators will administer the survey and, when necessary, translate questions from English to Swahili or Luo.
 - Provide moderators and participants some privacy during sessions, enough so that other women do not over hear participants' answers to questions

3) Objective:

Mobile Phone Warm-up Activity (10-15 minutes)

- Ask participants to access the menu on their mobile phones.
 - Name the two most common functions you use.
 - Name a function that you rarely or have never used, tell us that function, then access it and tell us what happens.

4) Objective:

Activity #1: Sending a text message to an individual recipient (15-20 minutes)

- Explain that we understand that sending an SMS can be complicated, time consuming and you never really know if it is received. Also explain the benefits of the service, in particular, saving money.
- Watch video
 - Brief discussion, watch video again if necessary
- Distribute instructional flyer
- Ask participants to send a text message that says "How are you?" to the woman to the right of them

- Discussion
 - Problems, if any, participants encountered.
 - Reactions to video and flyer.

5) Objective:

Activity #2: Sending a text message to multiple recipients (15-20 minutes)

- Explain the benefits of sending the same message to multiple people.
- Watch video
 - Brief discussion, watch video again if necessary
 -
- Distribute instructional flyer
- Ask participants to send the same message that says “Congratulations” to the woman to the right ***and left*** of them
- Discussion
 - Problems, if any, participants encountered.
 - Reactions to video and flyer.

6) Objective:

Activity #3: Deleting text messages (10-15 minutes)

- Watch video.
- Distribute instructional flyer
- Ask women to delete the last two messages in their inbox
- Discussion
 - Problems, if any, participants encountered.
 - Reactions to video and flyer.

TEA BREAK (15 minutes)

7) Objective:

Activity #4: Unsubscribing from Safaricom Premium Services (15-20 minutes)

- Discussion about Premium Services and losing airtime.
- Watch video.
- Distribute instructional flyer
- Ask women to subscribe to a service, if they are not already subscribed to one and then ask them to input the correct short code to unsubscribe.
- Discussion
 - Problems, if any, participants encountered.
 - Reactions to video and flyer.

8) Objective:

Activity #5: Introduction to Lipa Na M-pesa (10-15 minutes)

- Watch video.

- Brief discussion, watch video again if necessary
- Distribute instructional flyer
- Ask women if they understand the service and how to use it next time they are in town.
- Discussion
 - Problems, if any, participants encountered.
 - Reactions to video and flyer.

9) Objective:

Activity #6: Using KEPHIS M-Agriculture service (10-15 minutes)

- Explain KEPHIS service and that farmers can access information about the recommended crop varieties to grow in their region. Mention that the service costs 2 KES.
- Watch video.
 - Brief discussion, watch video again if necessary
 -
- Distribute instructional flyer
- Ask women to submit request to the service and to wait for a response.
- Discussion
 - Problems, if any, participants encountered.
 - Reaction to service and information received.
 - Reactions to video and flyer.

10) Objective:

Activity #7: Introduction to the Internet and Creating a Facebook Account (15-20 minutes)

- Watch Video that introduced participants to Internet, Google and Facebook.
- Discussion
 - Watch video again if necessary
 - Differences between the services.
 - How to access them.

11) Objective:

Conclusion, Lunch and Post Survey (20-45 minutes, depending on the size of the group)

- Summarize participants' key points to clarify and show understanding
- Questions for us?
- How can we improve the workshops?
- During lunch moderators will administer post-survey
- Tell they will receive follow-up messages from moderators and that Susan will return in October to ask questions.

- Thank women for their time.

Pre-Survey-“Simu Shape Up” Project: Instrument

Administer this questionnaire to each woman attending the workshop.

1) Participant’s name: _____ 2) Date: _____

3) Participant’s age: _____ 4) Location: _____

5) Participant’s phone number: _____

I would like to ask you questions about SMS or text messaging.

1) Have you ever sent a text message? (circle one)

YES NO

a. If YES, how confident are you with sending a text messages using your mobile phone? (circle one)

Very Confident Somewhat Confident Not Confident

**b. If NO, why not?
Briefly explain answer:**

2) Have you ever sent a text message to multiple people (group message)? (circle one)

YES NO

a. If YES, how confident are you with sending a text message to multiple people? (circle one)

Very Confident Somewhat Confident Not Confident

**b. If NO, why not?
Briefly explain answer:**

3) Have you ever deleted a text message from your phone)? (circle one)

YES NO

a. If YES, how confident are you with deleting text messages? (circle one)

Very Confident Somewhat Confident Not Confident

- b. If NO, why not?
Briefly explain answer:**

- 4) Have you received agriculture information via a text message? (circle one)**

YES NO

- a. If YES, what type of information did you receive?**

- b. If NO, why not?
Briefly explain answer:**

-
- 5) Are you familiar with the Safaricom’s “Premium Services”?**

YES NO

- a. If NO, continue to next question #6.**

- b. If YES, are you currently subscribed to one of these services?**

YES, name of service _____ NO

- c. How confident are you that you can unsubscribe from these services?**

Very Confident Somewhat Confident Not Confident

- 6) Are you familiar with Lipa na M-Pesa?**

YES NO

- a. If NO, continue to next question #7.**

- b. If YES, how confident are you that you can use this service?**

Very Confident Somewhat Confident Not Confident

Pre-Survey-“Simu Shape Up” Project: Instrument

7) I know what the Internet is.

YES

NO

a. If YES, briefly describe the Internet:

8) I know what Google is.

YES

NO

a. If YES, briefly describe Google:

9) I know what Facebook is.

YES

NO

a. If YES, briefly describe Facebook:

**10) That completes our survey. Is there anything else you would like to say?
Write-down comments.**

THANK YOU!

Post-Survey-“Simu Shape Up” Project: Instrument

Administer this Questionnaire to each woman attending the workshop.

1) Participant’s name: _____

I would like to ask you questions about SMS or text messaging.

1) How confident are you with sending a text messages using your mobile phone? (circle one)

Very Confident Somewhat Confident Not Confident

2) How confident are you with sending a text message to multiple people (group message)? (circle one)

Very Confident Somewhat Confident Not Confident

3) How confident are you with deleting text messages? (circle one)

Very Confident Somewhat Confident Not Confident

4) What type of information agricultural information did you receive from KEPHIS?

5) How confident are you that you can access this information again?

Very Confident Somewhat Confident Not Confident

6) How confident are you that you can unsubscribe from these Safaricom’s Premium services?

Very Confident Somewhat Confident Not Confident

Post-Survey-“Simu Shape Up” Project: Instrument

7) I know what the Internet is.

YES

NO

a. If YES, briefly describe the Internet:

8) I know what Google is.

YES

NO

a. If YES, briefly describe Google:

9) I know what Facebook is.

YES

NO

a. If YES, briefly describe Facebook:

10) Which information was most helpful for your learning? (circle one)

VIDEO

TALKING

FLYER

**That completes our survey. Is there anything else you would like to say?
Write-down comments.**

THANK YOU!

Milestone #4

USAID/DIV Project: Simu Shape Up”: Edutainment to Shape Up Cellphone use Among African Rural Farmers” APP 134663

Updated Project Narrative (including project activities and dates):

- **May 2015: Milestone #3 approved**
- **May-June: Editing videos and preparing for travel to Kenya**
 - We modified the videos Mediae created for our evaluation. Modifications included translating the video content into languages our participants could understand (i.e., Swahili and Luo) and adding additional instructions missing from the Mediae clips.
 - Videos that were shown during our sessions are here: <https://www.dropbox.com/home/1.USAID.DIV.Videos>
 - Please note that the content included in the flyer’s Shamba Shape Up makes available to viewers is also included in the DropBox folder named, “SSU.flyers.”
- **June 7-20, 2015: Travel to Kenya** (details below)
- **June 19, 2015: Shamba Shape Up Broadcast featuring our video clips**
 - “Fodder, Nutrition, Solar Light” Series 5, Episode 13. Available online: <http://www.shambashapeup.com/episode/256>
- **July-August 2015: Translation and transcription of interview data, data analysis, manuscript preparation**
- **August 8-14: On-the-ground collaborator call participants to and ask follow-up questions about the videos.**
- **September 9-14 2015: Facebook Contest** (details below)
 - See: <https://www.facebook.com/ShambaShapeUp?fref=ts>
- **September 11: Shamba Shape Up Broadcast featuring our video clips**
 - “Onions, Chicken, Dairy Cows” Series 5, Episode 23. Available online: <http://www.shambashapeup.com/episode/270>
- **September 18: Shamba Shape Up Broadcast featuring our video clips**
 - Series 5, Episode 24: **NOTE: THIS VIDEO HAS NOT BEEN POSTED ONLINE**

- **Ongoing: Continue to analyze data and write-up findings. Waiting for more materials from Mediae (i.e., data collected after broadcasts of Episodes 23 and 24)**
- **Next steps for dissemination (details below)**

Travel to Kenya: June 7-20

MSU Team: Susan Wyche, Charles Steinfield and Tian Cai¹

Purpose:

This trip to Kenya was to evaluate the effectiveness of our video clips in improving rural women’s device literacy, specifically their abilities to use their mobile phones to: 1) send a text message; 2) delete a text message; 3) use Lipa Na-Mpesa (a text-based mobile payment service); 4) unsubscribe from Safaricom’s Premium Services; and 5) join iShamba (Mediae’s voice-based, mobile agriculture service). We also developed and showed a video that introduced respondents to mobile applications, including Google and Facebook. We distributed this flyer advertising iShamba to the women in our sessions.



Figure 1: Flyer advertising iShamba

Trip Activities:

Methodology

We returned to the sites in Bungoma and Homa Bay counties—visited in September 2014—to update the women on the project’s status, to give them copies of the photographs taken of them, and to show them the videos that we developed based on findings from our previous field research trip. We also distributed 100 KES

¹ Cai’s travel was supported with funds from MSU’s Global Center for Food Systems Innovation (GCFSI)

(about USD 1) Safaricom scratch cards to women in our sessions. These were compensation for participants, and were also to be used when trying out the activities in the videos (i.e., sending an SMS).

Our local collaborators, are from, and currently live in, these counties. Both are known within them, and relied on contacts made through their personal and/or professional pursuits to recruit study participants, and to organize sessions. They moderated interviews, first explaining the purpose of the sessions and then asking respondents for informed consent; by and large, individuals were happy to take part.

Sessions began by our collaborators administering a short survey and then we showed the videos. In-between videos we asked women perform the activities shown in the clips and to comment on them. They were encouraged to speak in the languages they were most comfortable with, although codeswitching also occurred (i.e., in Bungoma county typically Swahili and Bukusi; in Homa Bay typically Luo). Participants used English terms, in particular when referencing mobile phone features and functions. A follow-up survey was administered at the end of each session.

Travel and Sites Visited

June 7: Departure from Nairobi to Bungoma

June 8-Bungoma Town (5 women)

June 9- Sikata (12 women)

June 10-Kakichuma Village (8 women)

June 11- Malakisi (11 women)

TRAVEL FROM BUNGOMA TO HOMA BAY

June 15- Benga (6 women)

June 16- Ruga (5 women)

June 17-Kodongo (5 women) and Papndega (7 women)

June 18- Video showing/Focus Group, Kendu Bay (5 women)

June 19- Meeting with Katherine MacMahon and Anne-Marie Steyn at Media Offices in Karen, Nairobi, Kenya to discuss project.

June 21-Wyche returns to East Lansing

Preliminary Findings

Overview of Women, their Handsets and Usage Practices

A total of 67 women participated in our sessions. Fifteen of these women were in their 20s, 21 were in their 30s, 19 were in their 40s, 12 were in their 50s and 60s, and one was 70. Nearly all reported their primary residence as being in a rural area and identified as smallholder farmers. Although, as is common, many also engaged in other income-generating activities, including selling charcoal or produce at local markets. Most women under the age of 40 had primary school education, a few had

attended secondary school; four were college educated professionals. All of these women spoke Kiswahili and some English, while those who were older than 40 generally had lower education levels, were less fluent in Kiswahili and English and most comfortable speaking the local dialects (primarily Bukusu or Luo).

Having a phone was synonymous with being a Safaricom subscriber, and all but three women had a SIM card from that company. Roughly a quarter of the women, in particular those with dual SIM phone models, also had an Airtel (Kenya's second most popular mobile network provider) SIM card. As is common in Kenya and elsewhere in Africa, knowledgeable consumers buy "lines" from more than one provider so as to maximize the benefits. The majority of women told us they had small amounts of airtime available on their phones (e.g., 2-6 KES) at the time of our session: "zero zero" was a typical response to our question about the amount of credit, and we encountered women with negative airtime balances.

"Communication"—specifically receiving voice calls—was the most frequent answer to our question about what the device was used for. Women mostly received calls from friends and relatives living far from them, to send "greetings" and share family updates, such as a birth or death. Furthermore, receiving a call was an operation all participants were capable of performing, and (as respondents told us) required pressing only one button on their handsets.

Women's reactions to the videos were mostly positive, and we typically showed each one twice so that they could view the content again. They understood the content being presented and appeared most interested in learning how to unsubscribe from Safaricom's premium-based services (i.e., Skiza Tunes) and in joining iShamba. We also learned that we could not rely on the videos alone to teach women how to perform the activities shown in the clips. Due to variations in the types of phones women owned, and their different skill levels (i.e., younger women were more familiar with how to use their phones than older ones) it was useful to have a moderator in sessions who could answer individual's questions and who could demonstrate how to perform operations on their handsets.

We also learned that some of the problems women encountered when using their handsets can be attributed to the limitations of the Unstructured Supplementary Service Data or USSD protocol (the text-only service underlying Safaricom's services). USSD is often considered to be the same as SMS messages, but in actuality they are different technologies. Unlike SMS which follows a store-and-forward oriented message transaction; USSD provides session-based connection. The primary benefit of USSD is that it works on virtually every mobile device; however, the text-only service provides no user feedback. For example when a session fails or times out (i.e., when women attempted to unsubscribe from a Safaricom services), it is impossible to know if a transactions was processed. Session time outs were also confusing to novice phones users who did not always realize that these events meant they must start a process over.

Finally, a conclusion drawn from our sustained engagement with these women is that few are fearful of using their mobile—a characterization reported on in other studies—most were eager to learn how to use them, instead their apprehensions surrounding their mobile phones stem from a fear of losing money to Safaricom. We detail the ways our respondents lost money to Safaricom in a manuscript that has been submitted to a leading venue for ICTD research.



Figure 2: Video screening in Benga (top) and Kakichuma (bottom)



Figure 3: Moderator Showing Respondent how to Send an SMS



Figure 4: Respondent's Mobile Phone

Project Indicators: Reporting on Key Metrics Developed in Milestones 1 and 2 Survey Responses

As part of our evaluation of the effectiveness of our approach, we administered brief questionnaires before and after each workshop. Prior to the workshop, women farmers were asked about their prior experience with, and confidence using, various mobile phone features and services, including SMS texting (sending, deleting, sending multiple texts), and premium services. They were also asked if they used Lipa-Na-Mpesa, had ever received agricultural information via text, and whether they had any knowledge of the Internet, Google, and Facebook. After the workshop, they were once again asked about how confident they felt accomplishing the following simple tasks: sending a text message, sending a text message to multiple recipients, deleting a text message, and unsubscribing from a premium service. They were also asked to indicate if they knew what the Internet, Google, and Facebook are.

A total of 67 women participated the 8 workshops and completed the questionnaires. Although more than half (59%) had sent a text and most (85%) had deleted a text in the past, participants' experience level with more advanced features and services was quite limited (Table 1). More than three-fourths (76%) had never sent a text to multiple recipients and 71% had not used their phones to obtain agricultural information. About half (48%) were not familiar with premium SMS services, and more than half (54%) were unfamiliar with Lipa Na Mpesa. Most reported not knowing what the Internet (71%), Google (94%), or Facebook (80%) were.

Table 1: Participants' Pre-Workshop Mobile Experience

Mobile experience	Percent Yes
1. Have sent an SMS	59%
2. Have deleted an SMS	85%
3. Have sent an SMS to multiple recipients	24%
4. Have received agricultural information via SMS	29%
5. Familiar with Safaricom's premium services	52%
6. Familiar with Lipa Na Mpesa	46%
7. Know what Internet is	29%
8. Know what Google is	6%
9. Know what Facebook is	20%

N=67

We created a simple mobile experience index by assigning a 1 for every yes answer to each of the nine mobile tasks and applications listed in Table 1, and taking the sum of responses for each participant. Hence, the index could range from 0 for someone who had never sent or deleted a text or used any other mobile applications, to 9 for someone who had experience or knowledge about all of the nine mobile features and applications in our questionnaire. Figure 1 below shows the wide range of experience on this index for the group of women who participated

in our workshops, with the average score falling at 3.46. Not surprisingly, participants' scores on the index are strongly correlated with their age – the younger the participant, the greater their reported experience and competence with their mobile phones (Pearson correlation = -0.42). This relationship can be clearly viewed in Figure 2, illustrating the average score on the experience index across the age groups of the workshop participants.

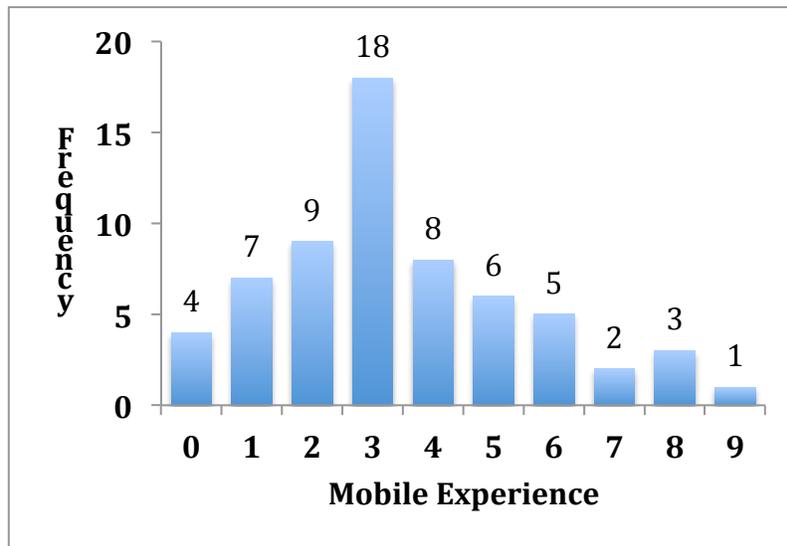


Figure 1: Frequency Distribution for the Mobile Experience Index

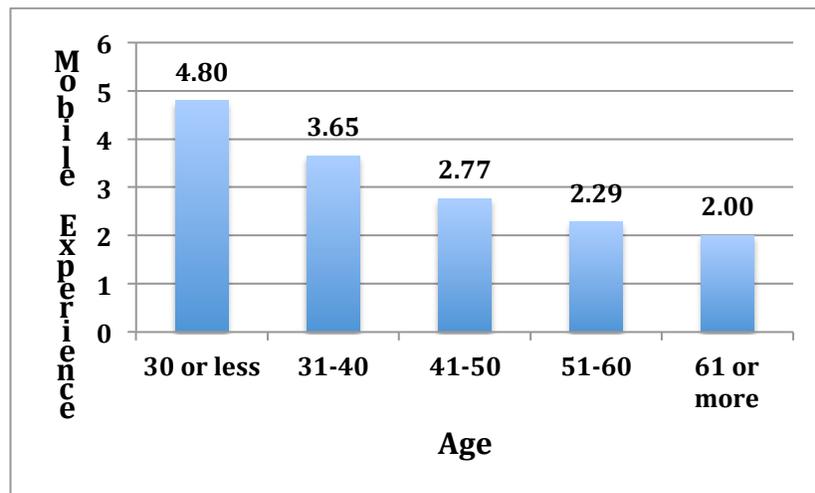


Figure 2: Mobile Experience by Age Group

Immediately after the workshop, as noted earlier, participants were asked to re-rate their confidence in accomplishing several simple tasks on their mobile phones. As an indicator of the effectiveness of the workshop, we contrasted the average confidence levels before and after the workshop for those who had no experience

with the specific task in question. Confidence level was measured on a simple 3 item scale where 1= not confident, 2= somewhat confident, and 3= very confident.

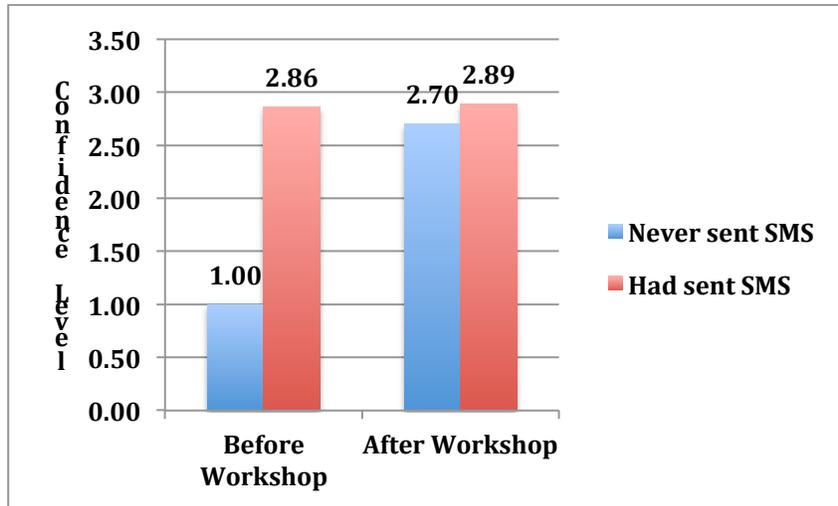


Figure 3: Gains in confidence in ability to send an SMS*

* The before-after difference in means for those who had not sent a text in the past (N=27) was highly significant using a t test ($p < .0001$).

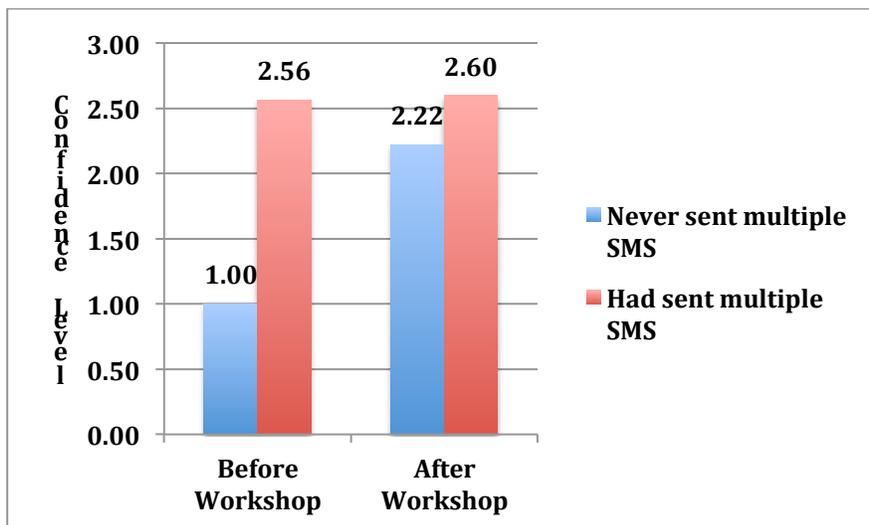


Figure 4: Gains in confidence in ability to send an SMS to Multiple Recipients*

* The before-after difference in means for those who had not sent a text to multiple recipients in the past (N=50) was highly significant using a t test ($p < .0001$).

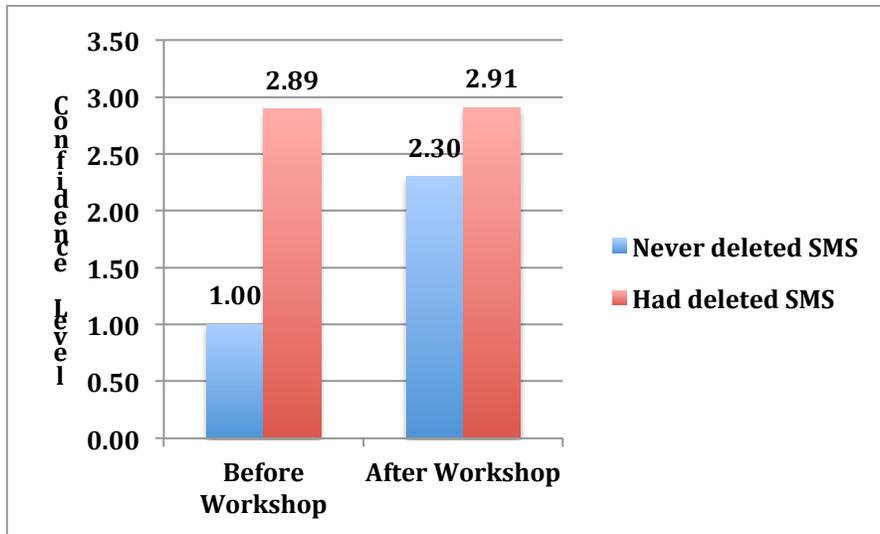


Figure 5: Gains in confidence in ability to delete an SMS*

* The before-after difference in means for those who had not deleted a text in the past (N=10) was highly significant using a t test ($p < .001$).

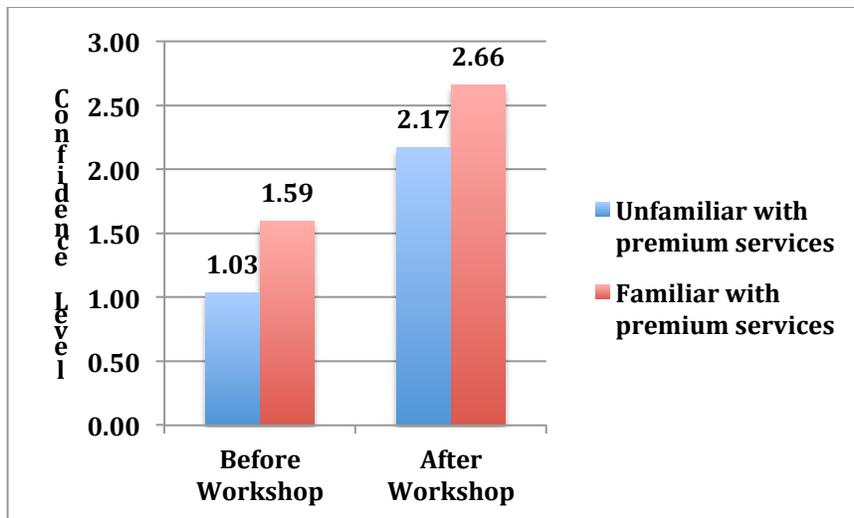


Figure 6: Gains in confidence in ability to unsubscribe from a Premium Rate Service*

* The before-after differences for those who were unfamiliar (N=30) and those familiar with Safaricom Premium Rate Services (N=33) were both highly significant using a t test ($p < .001$).

As shown in Figures 3-5, based on self-reports, participants learning how to do a specific task for the first time clearly gained confidence during the workshop, while those who already knew how to do the task showed little change in confidence. As shown in Figure 6, both those who were already familiar and those who were unfamiliar with Safaricom's Premium Rate Services increased their confidence in unsubscribing significantly during the workshop.

Finally, we compared the proportion of respondents who reporting knowing what the Internet, Google and Facebook are before and after the workshop, seeing large gains following exposure to the video clips (Figure 7).

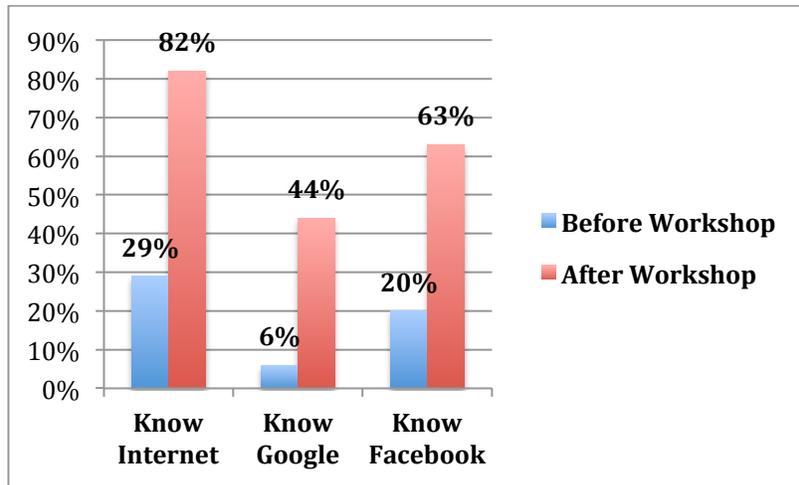


Figure 7: Growth in the proportion of those knowing what the Internet, Google, and Facebook are following the workshops*

* The before-after differences in proportion are all significant at the $p < .0001$ level using Bowker's Agreement Test.

The questionnaires provide some evidence of the effectiveness of the workshops, albeit only from a self-report perspective of very immediate perceptions of the participants. We concluded the post workshop evaluation by asking participants to indicate which of the video clips they felt was the most helpful and informative. Many respondents named several of the clips. The utility of connecting mobile phones with farming information with professionally produced images showing farmers using these services is suggested by the fact that the clip that introduced the iShamba farmer information service was the most frequently mentioned (Figure 8).

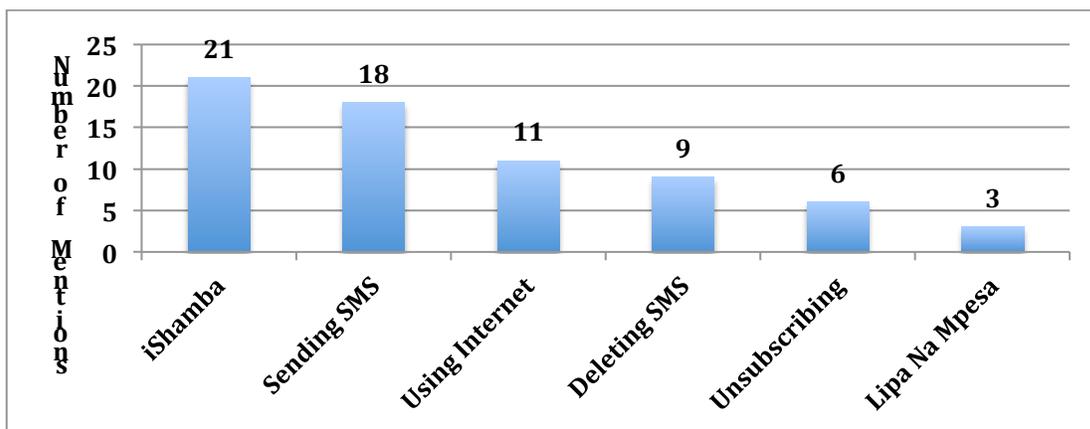


Figure 8: Frequency with which each video clip was mentioned as most informative or helpful*

* Note that many participants mentioned more than one clip so the total exceeds the number of participants.

Public broadcast of Video Clips

Katherine Macmahon, Mediae's Communication reported an increase in the number of "likes" on the show's Facebook Page (<https://www.facebook.com/ShambaShapeUp?fref=ts>), following the broadcast of the episode (no. 13) that included our clip which introduces viewers to the Internet, and related services (i.e., Facebook and Google). She provided us with these images and accompanying descriptions.



Image 1: This data shows the activity in the day of, and after, your episode. The peak highlighted (darker blue) is the peak over Pamela episode. As you can see it is a much larger peak than the others.

Other peaks on the graph usually indicate when an episode is on TV, as we get a spike in 'likes' when the show is airing.



Image 2: This data shows specifically how many 'likes' SSU Facebook page after your episode was broadcast.

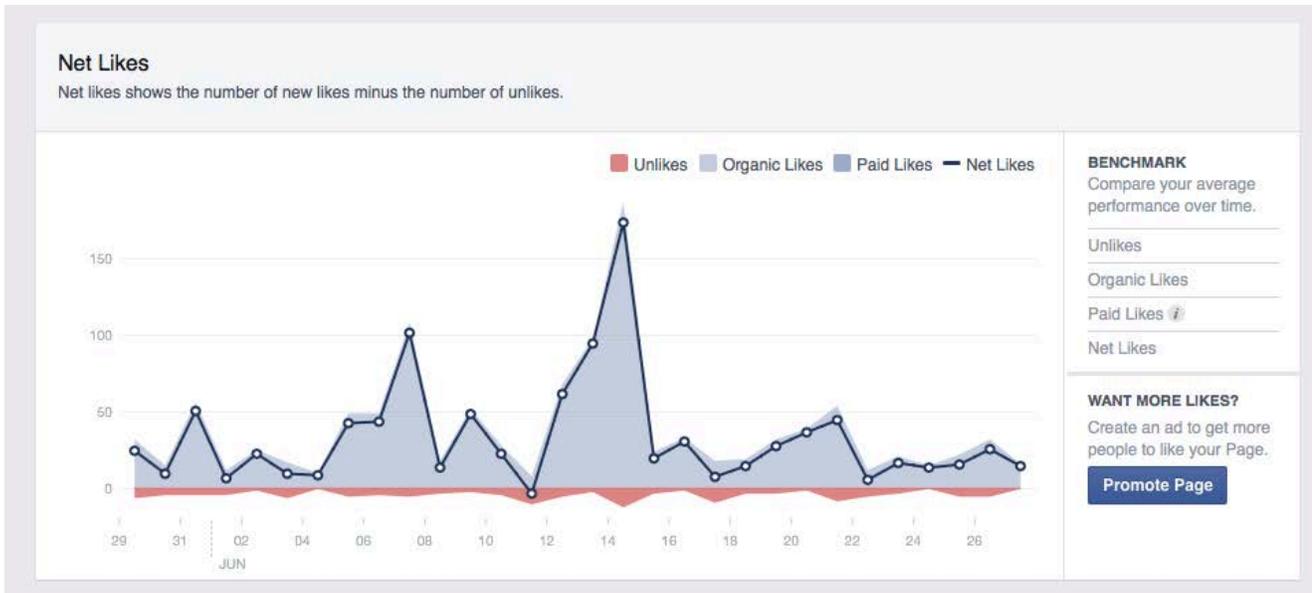


Image 3: This graph shows the peak in 'likes' in relation to other episode airing dates. As you can see the peak during Ep. 13 is higher than any other episode peak during the month of June.

To generate feedback from our indirect beneficiaries—people who watch Shamba Shape Up broadcasts— we ran a “contest,” where we asked viewers to do the following:

We have some great prizes to be won, in partnership with Global Center for Food Systems Innovation!

Answer the question (don't forget your email address too!) below to be in with a chance!

'Watch this weekend's episode and tell us how you and your family could use one of these mobile phones to shape up your shamba?

VIDEO: <https://www.youtube.com/watch?v=8229UcnW2pk>

By posting an answer you will become eligible to win one of four available Microsoft Lumia 435 Dual SIM handsets. Winners will be decided on 14th September and notified via email.

The episode will also be available online by tomorrow for those that missed it today!

Good luck!

[Shamba Shape UP](#)

Facebook subscribers were encouraged to post their responses between September through September 14 and 53 people posted answers to the questions.

On September the names of the winners were posted on the Shamba Shape Up's Facebook page:



Shamba Shape UP
September 14 at 3:25am · 🌐

Congratulations to our winners of the Nokia Lumia mobile phones - Charles Muriuki Githieya, Willy Mutai, Benter Chris & Queen Oongs.

Please check your email for a message from Shamba Shape Up!

CONGRATULATIONS to everyone that entered - a new competition coming up again this weekend so don't miss out!

And the
Winners
are...

1 Like 0 Comment 0 Share

Proposed Next Steps for Dissemination

We are preparing two academic papers based on findings from this research.

1. **Wyche, S., Simiyu, N., and Otieno, “Mobile Phone-as-Amplifier: Exploring the Role of Design in Benefitting Safaricom and in Disadvantaging Rural Users,** Under review, ACM CHI Conference on Human-Computer Interaction (CHI 2016)

Abstract

This paper provides a detailed analysis of rural Kenyans and their interactions with the products and services of Safaricom Ltd., Kenya’s dominant mobile network provider. Amplification theory of technology offers a framework for analyzing our data, and we find that differential motivation and capacity are mechanisms that appear to benefit the network provider, while disadvantaging rural mobile phone owners. In particular, the design of Safaricom’s airtime scratch cards and mobile services do not support rural users’ capabilities. Our analysis suggests important yet overlooked roles for HCI in socioeconomic development: addressing problems inherent in the design of mobile-phone interfaces and building HCI capacity within Safaricom and other corporate entities developing ICTs for low-income rural populations.

2. (in preparation) Wyche, S., Steinfield, C. and Cai, T. “To be determined,” will be submitted to The Eighth International Conference on Information and Communication Technologies and Development (ICTD2016). Deadline November 20.

- **We shared a photo from our project on Twitter (July 14):**



DIV at USAID “tweet”

- **During the spring 2016, Susan Wyche will present findings from our project at MSU's "Eye on Africa" Speaker series.**
- **Our video clips will remain online so that anyone with Internet access can view them.**