ASHOKA changemakers®

SMS
QUICK START GUIDE

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CO-PRODUCED WITH:

kiwanja.net
where technology meets anthropology, conservation and development

ASHOKA changemakers

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1 OVERVIEW

WHAT IS SMS?

SMS – also known as Short Messaging Service or text messaging – is a feature available on all mobile phones which allows a small amount of text to be sent between one user and another.

Text messaging has becoming increasingly popular in recent years, particularly among youth, and it is being increasingly adopted by non-profit organizations as a valuable communications channel because it is two-way, direct and immediate.

This "quick start" guide is intended to demystify SMS and help get you set up to using text messaging in your work in the shortest possible time. The guide is not intended to serve as a comprehensive look at the use of SMS, but rather a short overview of SMS considerations and an introduction into how it works. For more in-depth information, this guide is supplemented by a resource section to help you as you continue your SMS journey.

HOW SMS IS USED FOR SOCIAL CHANGE

Text messages are used in a wide array of non-profit activities, and an increasing numbers of NGOs are adopting SMS in their work.

Changemakers used SMS in several African countries as part of a recent outreach campaign, which was particularly helpful in reaching social innovators in rural areas. Changemakers drew upon leader in the field kiwanja.net and used their free, open source text messaging application FrontlineSMS.

Our collaboration was so successful, we chose to rely on kiwanja's expertise and they have co-authored this guide. Throughout the guide we use FrontlineSMS as our default example but you'll also find alternative SMS progam options listed in our resource section.

Here are some other examples of how SMS is being used for social change today:

- Farmers receive details of market prices and demand for their products before heading off to market.
- Health NGOs send dietary advice and information to people with eating disorders.
- Young people living in the slums of Nairobi receive texts alerting them of urban job opportunities.
- National parks communicate details of dangerous animals, providing an early warning system to reduce human and wildlife conflict.
- Water sanitation advice and community training updates are sent to municipal counsellors.
- Patients receive reminders to take their medicine, saving time and money travelling to clinics.
- Security and emergency alerts are sent to staff and fieldworkers in high-risk situations.

WHY USE SMS?

- Mobile phones are the most rapidly adopted piece of technology in human history.
- The majority of people in the developing world will make their first phone call on a mobile phone and experience the Internet for the first time on one.
- The spread of mobile phones into even the most rural of areas opens up new ways for NGOs to communicate with their audiences.
- Although mobile phones can include many features and may seem overly complex, many phones aimed at new users in developing countries are simple devices that emphasize voice calls and SMS.
- While text messaging has its limitations, it is still the only guaranteed way to reach all mobile phone users.
- A single SMS can be powerful, saving the recipient a lot of time and unnecessary travel, increasing trading opportunities or acting as a call for help.

Text messages can be automated, and simple text messaging systems can be run using low-cost computers and cheap mobile phones.

2 WHAT TO CONSIDER

Experimenting with SMS doesn't have to be expensive or complicated but we recommend that after considering some of the main issues below, you conduct an assessment to identify your needs and feasibility.

COST

When considering the use of SMS in your project or campaign, it is important to be aware of the potential costs, particularly if you are looking to run your SMS service for a sustained period of time.

With the exception of the United States, it is free to receive text messages, so if your work primarily involves having people send information to you - in an election monitoring project, for example - then costs are much less of an issue.

The person or organization sending the message is the one who pays and the cost of sending messages vary. If you send a message with FrontlineSMS for instance, you'll be charged the standard SMS sending rate for the account you're using. Ask your cell phone service provider if they have special rates for sending large amounts of messages. Also keep in mind that if you are working with individuals with low levels of disposable income, asking that they send you messages on a regular basis may become a barrier for them.

Some other costs to consider are: equipment (listed below) and logistical support such as running an overseas SMS campaign if you are not on the ground. Check out the links under the resources section of this guide for a budgeting checklist and country specific examples of communication costs.

AUDIENCE AND APPROPRIATENESS

Text messages allow for a maximum of 160 characters in length, so think carefully about how to craft your message. If you decide to use abbreviations to save space, be aware that not all users may be able to understand. In addition, the use of 'text speak' (such as "L8R" for "later") may be inappropriate for your audience.

As mobile phone users vary it is important to understand who you are interested in targeting and how different groups use SMS (ex. young people use SMS more than older people), so that you can better tailor your SMS outreach to them.

Finally, think carefully about the kinds of messages you are sending, particularly if it contains personal information and is potentially being sent to a shared phone.

LOCATION

If you are not running your campaign in-country, you will need to consider the logistics of running it from abroad. Depending on your choice of platform – i.e. a short code via an operator or a long code through a platform such as FrontlineSMS (see below for an explanation of these terms) – you may need local staff to run the system for you. Outlined a little later are the advantages and disadvantages of each approach and what equipment is generally needed.

SECURITY AND PRIVACY

As you build a database of messages both sent to users and received, consider the potentially sensitive nature of the data you are collecting. Health information or reports of human rights abuses, for example, can be very personal and cause distress or danger if fallen into the wrong hands. Furthermore, there are sometimes rules and regulations dictating what data organizations can hold. Those working in countries with oppressive regimes will already be well aware of many of the security-related risks and dangers.

SHORT CODE VS. LONG CODE

There are typically two technology options – referred to as codes – available when using SMS services, and each comes with its own unique advantages and disadvantages. These codes are the numbers a sender will enter on his or her phone to send a message to your organization.

Short codes - also known as short numbers (and often used by major media such as television networks) are typically five- or six-digit numbers. Short codes are available only if you deal with a specialist company or directly with a mobile service provider. Short codes can deal with large volumes of messages in a very short space of time.

Long codes - also known as long numbers (such as full mobile numbers) can be used without needing to speak to anyone, and accessing one is as easy as purchasing a new SIM card in your local market. Long codes are generally only useful if your project is expecting a low to medium number of messages, or messages spread over a long period of time.

Here are two examples:

Imagine an NGO in Malawi wanting to carry out a major nationwide election monitoring campaign. Because they anticipate receiving potentially hundreds of thousands of messages, and they want a number that's easy to remember for members of the public to use, they would likely go for the short code option.

On the other hand, a smaller NGO in India wanting to send messages to a couple of hundred local farmers, and allow them to ask agriculture-based questions in return, might go for the long code option because of a much lower anticipated volume of messages.

SHORT CODE

Advantages:	Disadvantages:
• Easier for people to remember • Can handle high volumes of incoming messages (hundreds of thousands) • Can be set to be a free number (no cost to sender) or to cost extra (premium rate) • Usually comes with a web-based backend which allows you to analyse incoming messages/data	• Can take a long time to set up (months) • Number needs to be harmonised across all operators in a country • No global short code so needs to be set up in every country you operate in • Has a monthly rental charge (ongoing cost) • Overseas people cannot text to a short code which is set up outside their country

Example: using a number like 64122

LONG CODE

Advantages:	Disadvantages:
• Very quick to set up (needs a mobile phone or GSM modem, and a computer with a local SIM card) • No running costs (sender pays except in USA) • Can be replicated and copied in any country quickly (no need to speak to operators) • No need for the internet to access incoming data (data all held locally on the computer) • Anyone, anywhere can send a text to the number (don't need to be in the country)	• Only suitable for lower-volume of messages (thousands) • The number cannot be set to be free for the sender (or to cost more)

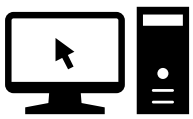
Example: using your mobile number along with an SMS program like FrontlineSMS

3 WHAT YOU'LL NEED

This section details what equipment you'll need to get started and how it all fits together.

WHAT YOU NEED FOR A LONG CODE SYSTEM

Typically, projects using FrontlineSMS include the following components:



1. **A computer** to which you have the necessary administrative permissions to install software and connect peripheral devices. The computer will also need one or more USB or serial ports available in order to connect a mobile device.

2. **A copy of FrontlineSMS software** for the appropriate operating system of your computer; Windows, Linux, or Mac. You can download the software for free at http://www.frontlinesms.com Operating system specific requirements are listed at http://www.frontlinesms.com/download/requirements.php

3. **A mobile phone or a GSM / GPRS modem device.** A GSM modem is basically a mobile phone without the screen or keypad. If using a mobile phone, look at the list of supported models at: http://www.frontlinesms.com/download/requirements.php. Note: if you are using an online web-based platform, you may send and receive text messages via the Internet and therefore would not need a modem. In this case you would be accessing your menus, messages and SMS campaign settings through the Internet using a web browser like Internet Explorer or Firefox.

   For example: www.clickatell.com allows you to send and receive messages through its service, which is web-based. If you want to send a thousand messages via Clickatell, you register and use your credit card to buy message 'credits', you add your numbers, type your message and hit 'Send'. On their website you would also be able to view sent and received messages, or view your balance.

   If however you are a grassroots NGO working in places without the Internet, you can't use this service and you'd have to attach a phone or modem to your computer and use something like FrontlineSMS.

4. **The USB or serial cable** used to connect your mobile phone to the computer. A GSM modem typically plugs straight into your computer so there is usually no need for a cable.

5. **Driver installation disk** – it may not be required for all mobile phones or modems, but generally you will need to have the computer's driver installation disk available to be able to successfully connect your modem.

6. **A SIM card** with either a service plan or credits that allow it to send and receive SMS. The SIM card should be installed in the mobile device you intend to connect to a computer.

7. **A second mobile phone that is not connected to the computer and which can both send and receive SMS.** Alternately, you'll need a friend or colleague with a mobile phone you can message. This is just to test installation and configuration of FrontlineSMS.

If you wanted to experiment with SMS, you could begin by testing out long code, which would allow you to implement your SMS project much quicker and keep costs low.

WHAT YOU NEED FOR A SHORT CODE SYSTEM

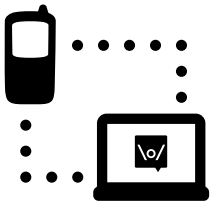
To find out how to go about applying short code, we recommend you contact your local telecommunications service provider as the process is quite different and varies by country.

Also check with them to ensure you are complying with their terms of service and the national regulations.

For more general information about using short codes; rules for compliant short code programs; and sharing short codes, check out: http://www.sumotext.com/ShortCodes.html

HOW IT ALL COMES TOGETHER

Now that you have all of the components, here's what you'll have to do to create your very own SMS system, also referred to as an SMS hub.



Your SMS hub is a complete system that will enable you to send and receive text messages through a mobile phone network. This system is best used in tandem with a long code system as outlined above. You do not need to be connected to the Internet (or any computer network for that matter), which makes this a very useful system for nonprofits and individuals - especially those working in areas where Internet connectivity may be an issue.

So, if you've decided to go with a long code system here's the breakdown of how to create your SMS hub:

- Attach a regular mobile phone to your computer with a cable - that is all the equipment you need to create your own SMS hub.
- Install specialist software on the computer (such as FrontlineSMS), which allows you to control the sending and receiving of messages to groups of people through that phone.
- You pay for these messages in the normal way: if you are on a pre-paid system (pay-as-you-go) you will need to buy a top-up voucher for your phone and then send your messages; or if you are on a post-pay system (where you get a monthly bill), then you will be billed later by your local operator for the messages you send.
- Heavier users can use a GSM modem in place of the phone. The SIM card is usually inserted in the side of the modem, and all communication between the GSM modem and your computer is handled by your SMS hub software.

You now have everything in place to start experimenting with SMS and running your project or campaign!

4 LINKS & RESOURCES

Now that you know the basics, here are just a few of the many online resources available to provide you with more in-depth information on various topics.

CASE STUDIES

- Case studies and successful stories in developing countries.
- Programme experiences reflecting Mobile Phones for Social Change in Africa.

CHALLENGES

- Common challenges and tips such as: How to plan the most cost-efficient approach; Money-saving ideas; and Using short codes for fundraising.
- Mobile advocacy challenges such as: Finding and tracking your audience; Technological challenges; and Language and font issues.

COSTS

- Budgeting checklist for possible costs like: Set-up; Human Resources; Technology; and Maintenance.
- Specific data on communication costs, mobile coverage and operators by country.

RURAL AND POOR SMS USERS

- Grameen AppLab is facilitating the use of mobile technology for improving the lives and livelihoods of rural and poor people.
- Nokia Life Tools offer a range of easy-to-use services particularly suited for users in rural settings interested in agriculture and education issues.
- Mobile Money for the Unbanked is one way to go if you don't have or can't get a bank account. You can also arrange to pay for goods and services through your phone with Pay-Buy-Mobile.

SMS PROGRAMS AND SUPPORT

- Access your FrontlineSMS program and view Online Help Guide manuals.
- RANET: This handy step-by-step presentation outlines considerations for working with SMS applications (see Caveats and Limitations module) and provides a practical FrontlineSMS How To.
- Other SMS programs: Kannel, RapidSMS,SMSCaster, SlingshotSMS.

SMS FOR SOCIAL CHANGE DIALOGUE

- kiwanja.net is a resource for people interested in using mobiles in their non-profit work. Check out their blog and the Facebook Social Mobile Group.
- Nonprofits and NGOs Using Mobile Phones and SMS for Social Change.
- Mobileactive.org is a global network of people using mobile technology for social impact.

STATISTICS

- Statistics from W3C, such as mobile web usage and mobile infrastructure in developing countries.
- SMS campaign feasibility and coverage.

TOOLS

- Online resource filled with plenty of tools, guidelines, services and free software.
- The kiwanja.net mobile database contains details of projects from around the world which use mobile technology.
- mDirectory for How-Tos according to your area of practice, type and sector.

5 ABOUT THE CREATION OF THIS GUIDE

THE GUIDE CREATION PROCESS

This guide was created by Changemakers and kiwanja.net in order to give our community a better understanding of using SMS as a strategic tool for working towards social change.

We would like to thank all of the group members that participated in the collaborative online process who offered feedback and insights. Thanks to their gracious contributions we arrived at a better understanding of what would be helpful for our communities. As a result, Ashoka's Changemakers and kiwanja.net have realized the need for producing a series of SMS guides ranging from introductory to technical.

CHANGEMAKERS

Changemakers is an initiative of Ashoka, an organization with over three decades of finding, funding and expanding the work of social entrepreneurs across the globe.

The Changemakers online community builds on this history and expands the Ashoka vision by creating an "Everyone a Changemaker" world through networking and relationship-building.

Changemakers creates opportunities for those who want to be at the center of social change by offering competitions that are supported by philanthropic organizations. The competitions and the community connect those who are passionate about change and make ideas come to life.

KIWANJA.NET

Since 2003, kiwanja.net has been helping empower local, national and international non-profit organizations to make better use of information and communications technology in their work. Specialising in the application of mobile technology, it provides a wide range of ICT-related services drawing on over 25 years experience of its Founder, Ken Banks.

kiwanja.net believes that all non-profits, whatever their size and wherever they operate, should be given the opportunity to implement the latest mobile technologies in their work, and actively seeks to provide the tools and the environment to enable them to do so.

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