

# Mobile Technologies for Child Protection

*A briefing note*

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## Acronyms and abbreviations

API	Application Programming Interface
ATM	Automated Teller Machine
CCT	Conditional Cash Transfer
CHI	Child Helpline International
CMI	Crisis Management Initiative
ICT	Information and Communication Technologies
ICT4D	Information and Communication Technologies for Development
ITU	International Telecommunications Union
UNICEF	United Nations Children’s Fund
PDA	Personal Digital Assistant
PIN	Personal Identification Number
SMS	Short Message Service (mobile phone text message)
UCT	Unconditional Cash transfer
UTL	Uganda Telecom Limited
VRS	Vital Record System
WCAR	West and Central Africa Regional Office (UNICEF)

## Glossary

Cyber-bullying	Use of the Internet and related technologies to harm other people in a deliberate, repeated and hostile manner.
Frontline	Open source software that allows large-scale text messaging solutions for NGOs and other non-profit organizations.
Mobile Vital Record System	Mobile phone-based system for transmission of vital records, e.g. directly from hospitals to the government server.
M-PESA	Mobile transfer solution enabling customers to transfer money
Nokia data gathering	Open source software for data collection via mobile phones
RapidFTR	Mobile phone application and data storage system for information collection in emergencies, specifically for family tracing and reunification purposes.
RapidSMS	Open source framework for data collection, logistics coordination and communication.
Smartphone	Internet-enabled mobile phone
Ushahidi	Open source software for information collection, visualization and interactive mapping
ThoughtWorks	Global IT consultancy

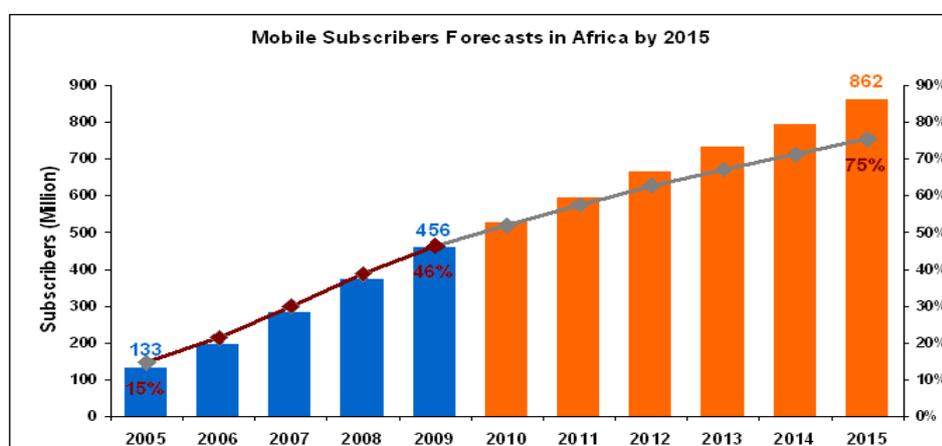
## 1. Introduction: using mobile technologies in child protection

Mobile and digital technologies are becoming increasingly important for international development and humanitarian work. Currently, some of the most relevant mobile applications for child protection include: Frontline SMS and Ushahidi for violence reporting; RapidFTR for family tracing and reunification in emergencies; RapidSMS for data collection, awareness raising and violence reporting; and the Mobile Vital Record System and Nokia data gathering for mobile birth registration.

Practical applications of Information and Communication Technologies for Development (ICT4D) have been developed for health, nutrition, education, social transfers, child protection and other areas of development programming. ICT can contribute to support the achievement of development objectives through existing technologies (such as radios or mobile phones) or through new technical innovations. In both cases, cost-analysis, functionality and participatory assessments are needed to analyse implications for existing communication patterns and culture. A number of guiding questions can assist in the selection of the most appropriate applications:

- Is there a need to create new applications or can existing solutions be used?
- What are the characteristics of the user group and the environment (urban – rural, existing networks and coverage etc.)?
- What technical expertise is required for installing and maintaining the system?
- How well will investments in equipment and capacity meet the needs, expected impact, benefits and outcomes in terms of result delivery?
- What are the potential partnerships for sustainable capacity-building and service delivery? What are the roles of public and private service providers?
- What are the financial resources needed in the short, medium and long term to establish and maintain the system?

Trends in mobile subscriptions in Africa 2005 – 2015



Source: Dataxis Intelligence

The purpose of this briefing note is to provide an overview of current applications of mobile technologies with relevance for child protection. This is an area of rapid innovation and new applications are being developed all the time. Telecommunications is one of the fastest growing sectors in Africa and the relevance and reach of mobile technologies for development and humanitarian work is only going to increase over the coming years. Many technical, legal and security aspects of these new technologies remain to be fully addressed and worked out. The dependence on technology, network coverage and electricity supply also mean that mobile technologies cannot be used everywhere.

The main part of this note presents three different types of mobile applications for: (a) gathering and transmitting data by child protection service providers; (b) self-protection and for complaints mechanisms; (c) social transfers.

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## 2. Gathering and transmitting data by child protection service providers

### 2.1 Child protection surveys and rapid assessments

Mobile phones are useful tools for collecting data and overcoming delays in data gathering, transmission and data entry. A mobile solution can either replace an existing paper-based system or constitute an entirely new business process. RapidSMS, for example, has the potential to collect information and provide regular data on daily basis.

**What is it?** RapidSMS can be used in various ways for child protection. For example, in countries where school absenteeism is related to child labour, drop-out and attendance rates of children and teachers could be monitored with the help of SMS.

**How does it work (technical description)?** Mobile data collection systems typically integrate data collection, transmission, storage and retrieval. Several technological options exist for each component and communication channel. This allows mobile data collection systems to be adapted to different situations. It is important to understand the options and limitations imposed by the technical system design. The following components are required for mobile data collection:

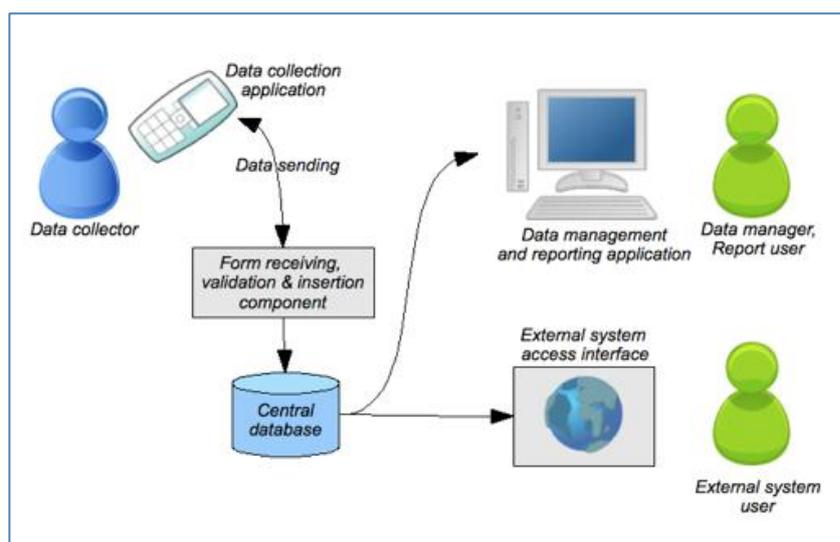
- Data collection interface for data input and transmission
- Data transfer method, which dictates how the entered information is transmitted from the mobile phone to a central server for storage, retrieval and analysis.
- Server components to receive and store the data, and allow users to display and manage the database.

The graphic below shows how these three components relate to each other.

**Examples:** RapidSMS for child protection has mainly been used for family tracing and reunification, specifically in emergency situations. See examples in 2.3 Family tracing and separated children.

#### Challenges

- Limited amount of data that can be gathered on a mobile phone
- Focus on quantifiable data, and less scope for qualitative data
- Dependency on technology and the supply of electricity for recharging devices



### 2.2 Case management (social work)

**What is it?** Social workers use mobile phones and the Internet to gather and transmit data about specific vulnerable children. This interagency child protection data system is a tool for case management and referral and it facilitates the provision of family welfare service and family reintegration. Services linked to the data system share a common referral pathway with clear standards, policies and levels of access to data. The data platform is being used by partners (NGOs and decentralized governmental social and judicial services). It offers information on vulnerable children, the capacities of NGOs and service providers, and current practices along the referral pathway. This case management system offers the following services:

- Social actors identify and monitor vulnerable children in order to register them with the civil registration systems;

- Reintegration of children with their family or community
- Monitor the reintegration process to sustain positive effects on child, family and community
- Mapping of social actors and community resources to optimize services for vulnerable children

**How does it work (technical description)?** Data on vulnerable children are collected through mobile phones (rapid SMS for signaling and reporting cases) and smartphones, or through a web-based application, which allows uploading more complex child and family assessment forms. Users, data managers and service providers can access the data at different levels, depending on their role in the system. The Web-based system is divided into two referral pathways: one for ‘emergency care services’ and case management before a child is ready for reintegration, and a second one to manage the family (or other) reintegration process. The design of the data system enables collaboration between agencies on individual children (‘cases’). To support such communication, specific applications are developed for mobile phones (to orient a child to a service) and smartphones (to identify, register and monitor children).

**Advantages:**

- New way of collaboration, real-time interaction and networking among social welfare actors
- Rapid and efficient registration of separated children and children in need of care and protection
- Allows quick access to service availability and to the referral of children in real time
- Ability to track individual children throughout the entire case management process
- Access to real-time data: the data sent via smartphones on children is synchronized with the Web-based system in real-time, thereby allowing real-time case management monitoring.
- Confidentiality assurance: a common case referral pathway has been developed among the partners based on minimum standards of protection. This process includes the development of a data management policy with confidentiality protocols as a pre-condition for the platform to be effective.

**Example**

This data system is being implemented in several departments in Senegal. It includes a function to map social actors in order to optimize the provision of services for vulnerable children. The mapping function allows the services to be located through a visual interface on the Web or smartphones through which the child can be sent to the nearest service. All services that are part of the system have been accredited. Once a request for service is sent by SMS or smartphone, a record is automatically sent in real time to the child’s dossier.

The system is also being used to monitor the steps in the reintegration process in order to sustain the effects on the child, the family, and the community. The reintegration process begins with the initial identification of the child and ends with case closure. Each step of the process is documented and monitored through manual data entry on the Web, through SMS traffic from mobile phones and smartphones. Each action leaves a trail of real-time and historic data that can be used to inform the decisions made on each individual child. Every action and decision (or lack of) can be monitored through direct access and alerts (following the confidentiality protocol and alert system). The system incorporates a manual, paper-based system, which can be uploaded in the system, if full platform deployment is not possible.

The service platform allow to produce reports on family evaluation and status, the date of a monitoring visit, the upload of a child status report, and an option for case closure. An alert system is being added to enhance the monitoring efforts. The monitoring system is evolving as partners build functional working relationships and systems with other agencies facilitating the return and reintegration of children.

**Challenges:** The system is still under development in Senegal. A number of challenges have been encountered:

- A functional inter-agency coordination mechanism needs to be developed at national level to ensure compliancy with the policy
- Validation of the common case referral pathway based on minimum standards of protection among all partners still on-going
- Hard to find qualified and trained people to manage the system at each level of the structure
- Integration of the judicial services in the process
- Resistance of older social workers to make the shift from paper-based systems to the new electronic version. A cultural shift in the way social workers practice their work is required rather than just training.
- Lack of institutional support

## 2.3 Family tracing and reunification of separated children

**What is it?** RapidFTR is a mobile application and data storage system that helps aid workers collect, sort and share photographs and information about children in emergency situations. The children can be registered for care services and, ultimately, reunited with their families.

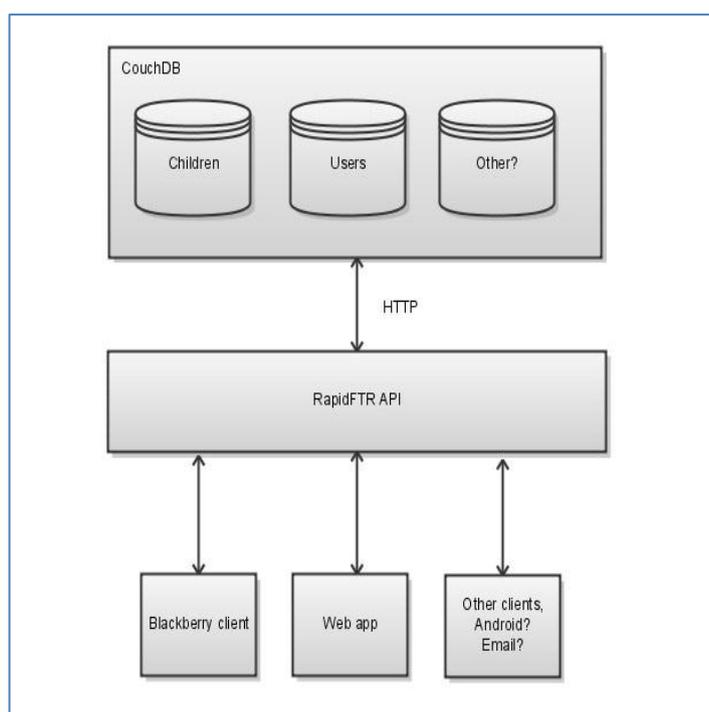
In times of crisis, families may get separated and dispersed. Children can get lost, especially in places with limited infrastructure and lines of communication. Family Tracing and Reunification (FTR) is often time-consuming and expensive. RapidFTR can be used as a tool to speed up and streamline Family Tracing and Reunification efforts.

The RapidFTR system can work as a stand-alone data gathering system. It can also be synchronized with the Inter-Agency Child Protection Information Management System (IA CP IMS), which is a case management tool for vulnerable children in emergencies supported by the child protection sub-cluster. Once tested and rolled out, this technology can serve to strengthen the child protection sector's emergency response capabilities.

### Advantages:

- Rapid and efficient registration of separated or unaccompanied children
- Speed of data collection and transmission during a sudden onset emergency
- Ability to instantly check data for consistency and for certain types of data errors

**How does it work (technical description)?** RapidFTR is a mobile phone application and data storage system that allows for quick input of a child's photo and essential details. This information is uploaded to a central database whenever network access becomes available so aid workers can register children in their care, and search existing entries to help parents and other relatives find missing children. Initial development is focused on building an API and web interface. The development of on-phone applications for multiple mobile platforms has also begun. The structure of the RapidFTR project is presented in the graphic to the right.



### Examples

**Uganda:** In October 2010, RapidFTR was introduced in Uganda for field trials and user feedback. In January 2011, the UNICEF child protection section and the UNICEF Uganda Technology for Development (T4D) group, in close collaboration with ThoughtWorks, implemented a limited pilot of RapidFTR in northern Uganda in anticipation of potential population movement following the South Sudan Independence Referendum.<sup>1</sup>

**Haiti:** In 2010, in response to the challenges of the Haiti earthquake, students and ThoughtWorks developers, with support from UNICEF, began building the open-source project. The testing of RapidFTR is due to start at the end of 2011. RapidFTR has the potential to enhance the speed and efficiency of registering separated or unaccompanied children.<sup>2</sup>

### Challenges:

- Limited amount of data that can be entered with RapidFTR
- Focus on quantifiable data, and less scope for qualitative data collection
- Dependency on technology and the supply of electricity for recharging devices

<sup>1</sup> [www.rapidftr.com](http://www.rapidftr.com)

<sup>2</sup> Ibid.

## 2.4 Birth registration

**What is it?** Birth registration provides a child with a legal identify. Without a birth certificate, children may not be able to access basic social services, such as health and education. Children who are not registered are also more vulnerable to a range of age-related abuses, including early marriage, hazardous child labour, military conscription, sexual exploitation, imprisonment in adult facilities and prosecution as an adult. Without a birth certificate a child may be denied inheritance in case of the death of a parent. The urgency of this issue has been highlighted in the context of HIV and AIDS. In many developing countries, millions of children are not registered at birth – in part due to the fact that birth registration is time-consuming and costly. There is growing interest among donors and implementing agencies in the use of mobile technologies for scaling up birth registration as part of a modern civil registration system.<sup>3</sup>

**How does it work (technical description)?** Various applications are in use for data transfer by mobile phone. The Nokia mobile data gathering, for example, is based on a smartphone application where data collected at village level are entered into digital forms on a smartphone and are then transmitted to the civil registrar's office who issues the birth certificate. The data are then sent to a central birth registration database. Mobile technology speeds up the birth registration process, enhances data accuracy and security, and facilitates access to and dissemination of data among relevant state authorities who need the data for planning and resourcing of public services.

### Advantages:

- Cost-effective for both registration officials and families: saves time and money in reduced travel
- Computer database reduces staff time for registration and record searching
- Increased data accuracy, checking, speed and ability to use data for other purposes

### Examples

Several countries are piloting the use of mobile phones in birth registration, including Vanuatu (UNICEF and Digicel), Uganda (UNICEF and Uganda Telecom Limited, UTL), Kenya (Plan and Nokia) and Liberia (CMI and Nokia). Other countries are planning to experiment with the technology (e.g. Nigeria).

**In Uganda**, of the approximately 1.5 million babies born each year, only one in five is registered before reaching the age of five. Due to high registration fees and other hidden costs (such as transport charges) as well as the bureaucratic paper-based registration system, it can take several months from the time a child is registered to the time the birth certificates arrives. The delay is particularly long for children born outside of hospitals. To respond to these challenges, the Uganda Registration Services Bureau decided to automate the registration of births, deaths and marriages, with support from UTL and UNICEF. The Mobile Vital Record System (MobileVRS) that has been developed virtually does away with traditional paper forms. In the new system, data are entered and transmitted by mobile phone from the community and by a web-based application from hospitals and then uploaded in real time directly onto a central government server. The advantage of MobileVRS is that it can be used freely with any type of mobile phone, wherever there is network coverage.<sup>4</sup>

**In Kenya**, Plan has been testing the potential of appropriate and accessible ICT, such as mobile phones, to enhance existing social protection and civil registration services. Plan Kenya has been supporting communities and local partners to enhance the birth registration process, with the support of international donors and private sector companies. At the same time, the Kenyan government is developing a nationwide web-based civil registration system, to be rolled out in 2012. Plan aims to develop and test an ICT-enabled local registration system, which could link into the national web-based registration system. Furthermore, Plan will work on raising awareness of the benefits of registration and the use of the new system among communities. These experiences and impacts will be documented, and stakeholders networked to support the wider development and replication of decentralized birth registration models.<sup>5</sup>

<sup>3</sup> see for example: [www.smartplanet.com](http://www.smartplanet.com) and [blog/pure-genius/bill-gates-mobile-health-technology-will-save-lives-help-overpopulation/4908](http://blog/pure-genius/bill-gates-mobile-health-technology-will-save-lives-help-overpopulation/4908)

<sup>4</sup> [www.unicef.org/infobycountry/uganda\\_57195.html](http://www.unicef.org/infobycountry/uganda_57195.html)

<sup>5</sup> [http://www.plan.fi/File/313852dc-874f-444c-b810-c9e13a98f767/ICT+Enabled+Development+\(Plan+2010\).pdf](http://www.plan.fi/File/313852dc-874f-444c-b810-c9e13a98f767/ICT+Enabled+Development+(Plan+2010).pdf)

A country recovering from a crisis, such as **Liberia**, can greatly benefit from ICT-based solutions that support the re-establishment of key governance functions. Birth registration is one of the basic services of state but only 4% of all children in Liberia have a birth certificate. With the aim to register 90% of all children below the age of five years, Crisis Management Initiative (CMI) works with the Ministry of Health and Social Welfare and the Universal Birth Registration Task Force of Liberia to re-establish a decentralized system of data collection and entry for birth registration. CMI contributes to the programme through Mobile Birth Registration, a solution that complements traditional paper-based birth registration and helps build a central database of births and birth certificates.<sup>6</sup>

**Challenges:**

- Does not remove traditional bottlenecks in registering births (e.g. children born at home for parents without identity documents)
- Legal status of mobile birth registration has to be clarified
- Dependence on technology and electricity supply

### 3. Using mobile technologies for self-protection and for complaints mechanisms

Reporting violence against children with the help of mobile technology and mobile phones can be an effective tool of child protection. Systems for reporting abuse can be established through which cases of violence, mistreatment, sexual harassment, female genital cutting, child marriage and other rights abuses can be reported directly by children and adults. In addition to responding to individual demands for assistance, the data collected provides important information for advocacy and helps to plan further child protection interventions, including impact assessments of awareness raising campaigns.

#### 3.1 Child helplines

*"Access to mobile technology coupled with these confidential helplines gives a voice to children to expose what can often be taboo subjects. We know that these results are only the tip of the iceberg in exposing the level of abuse children are facing daily in schools".* Plan International CEO Nigel Chapman.

**What is it?** Child helplines aim to link children in need of care and protection to available services, and use data to advocate for the availability and improvement of these services. Most child helplines offer free phone numbers, but SMS, chat, outreach are other ways for children to report abuse and ask for help. In Kenya, the child helpline began as a landline phone service in 2009. When an SMS text messaging service was added, demand for helpline services increased 20 times. This massive jump in usage indicates the power of mobile phones to provide solutions to social issues. Child helplines may be the first point of entry into the child protection system for many children. According to the worldwide data collected from CHI, abuse and violence are the main reasons why children contact child helplines.

**Advantages:**

- Easy to access: toll-free, nationally accessible, easy to remember 3 or 4 digit number
- Allows systematic collection of data from children (who is calling and why), while preserving anonymity and confidentiality
- Focus on children's rights and promoting children's right to be heard
- Linking children to resources, services and emergency assistance
- Consists of different methods of communication: phone, online, outreach, post, caravans, radio, etc.
- Using technologies available, and use the data to advocate for improved services

**How does it work (technical description)?** Helplines use both mobile as well as fixed line telephony. Most helplines use the telephone but new technologies that are now being piloted include chat facilities in countries with efficient internet connections, as well as the use of SMS where children can text and get information on a specific intervention. When calling a free phone number, the cost of the call is paid by the helpline operator, or by the mobile phone service provider.

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<sup>6</sup> <http://cmi.fi/africa/ict4statebuilding-governance-out-of-a-box.html>

## Examples

In December 2009, Child Helpline International (CHI) began a joint pilot project with Plan International. The project sought to use child helplines to collect data on the incidence and nature of violence against children in schools in four countries (Egypt, Paraguay, Sweden and Zimbabwe). **The Learn without Fear** pilot was successfully carried out during 2010 and it highlighted the importance of reporting mechanisms such as child helplines in helping to bring the issue of violence and abuse in schools to the forefront. Having an outlet to be heard is an important first step for children to get help when they need it most. Child helplines and information technology play a far greater role in developing countries where a lack of infrastructure can be a challenge. There are many alternative innovative and cost-effective technologies that help reach marginalized children and link them to available services.<sup>7</sup>

Childline **Kenya** works with the aim of challenging the existence of violence against children in the country and advocating for better services for children to protect them and uphold their rights. The organization aims to use ICT to promote this overarching goal and does this through a 24 hour helpline in conjunction with the Government of Kenya, the ministry of Gender, Children and Social Development- Department of Children's Services. The child helpline and its referral partners offer counselling, legal advice and representation, child abuse case investigations, home visits and public education on child rights and parenting skills for prevention of abuse.<sup>8</sup>

### Challenges of child helplines in general (not specific to mobile phone services):

- Online counselling can be time-consuming and have to be adequately resourced and staffed
- Links may be weak between helpline call centres and child protection services

## 3.2 Reporting violence

*"Violence and abuse in schools not only affects children's well-being, but also their very development and right to learn. This is more than evident from the millions of contacts received by child helplines worldwide each year. Together, child helplines and other child protection services can and should work to combat this phenomenon."* Nenita La Rose, Executive Director of CHI.

**What is it?** Text messages have been successfully used in violence reporting, enabling the use of information to trigger immediate responses to child abuse and also raise awareness. Ushahidi is a crowdsourcing software, which enables many individuals to enter data into a web-based system. For example, Ushahidi can map data from text messages onto a website to consolidate and visualize complex information.

**Advantages:** Easily accessible and child-friendly reporting system and service

**How does it work (technical description)?** People send a text message to report an incidence of violence that is then automatically mapped on a website, using Frontline SMS (software for sending and receiving multiple text messages through a computer) and the Ushahidi crowdsourcing website. The website is monitored by an administrator, who verifies and organises the response to each case, working closely with local authorities and child protection service providers. Linking to local child protection services enables the mobilisation of appropriate medical and social services. In the longer term, collecting and mapping the data will provide evidence for better planning of prevention and response services, as well as for awareness raising and campaigning.

## Examples

In **Benin**, acts of violence against children routinely go unreported, and even when they are reported, responses are often inadequate. Plan Benin has been experimenting, with the use of text messaging (SMS) and the Internet, to support reporting of violence against children, and improve both immediate and longer term responses to the problem of violence. An important component of the project is the building of the capacity of young people to articulate and report on their experiences of violence, of social services to respond, and of social workers to make the violence prevention and response system work. The pilot has involved awareness

<sup>7</sup> Child Helpline International, Annual Report 2010.

<sup>8</sup> [www.netsquared.org/projects/mobile-phones-child-safety-fighting-violence-against-children-mobile-phon](http://www.netsquared.org/projects/mobile-phones-child-safety-fighting-violence-against-children-mobile-phon)

raising and training for young people to create and upload multimedia content about the situation in their area. During the pilot phase, district authorities have been greatly involved to meet the increased demand for services in connection with evidence building and advocacy for more public resources to sustain the approach.<sup>9</sup>

#### **Challenges:**

- High volume of calls requires a high degree of response, which is not always possible
- Response to reported cases seems particularly challenging in remote areas
- Dependence on technology and on skilled administrator for the website
- Need to ensure confidentiality and anonymity for children and adults who report violence

### **3.3 Community mapping for violence prevention**

**What is it?** Community mapping can help young women and girls to identify and map risks related to their health and protection. This is done through the actual *mapping*, on the one hand, that helps members of the community to identify and pinpoint dangerous areas and to raise awareness. The mapping allows the collection of information directly from residents – with the use of a mobile phone or computer – and the publication of reports on issues that affect people’s lives, including violence and abuse. The community mapping has so far focused on reporting emergencies but there are examples where government agencies have increased services in order to respond to citizen’s needs.<sup>10</sup>

#### **Advantages:**

- Allows real-time data provision and monitoring
- An example of a community initiative that has become an influential social movement

**How does it work (technical description)?** Ushahidi is a tool for crowdsourcing information that uses multiple channels, including the Internet, SMS and Twitter that the citizen reporting project<sup>11</sup> uses to aggregate and map reports. Ushahidi, which was built in response to the post-election violence in Kenya in 2008, assists in gathering and mapping incidents of violence and peace efforts based on the reports, submitted either by web or mobile phone SMS from the public.

#### **Examples**

**Map Kibera (Kenya) a partnership between local youth, non-governmental organizations and several United Nations agencies (including UNICEF).** Map Kibera engages young people, particularly young women and girls, in the participatory digital mapping of risks and vulnerabilities related to their health and protection in their community. Through this process young people gain new awareness about their surroundings, enabling and empowering them to amplify their voices on critical issues. The project is helping identify safe and unsafe physical spaces, as well as raising awareness and offering advocacy opportunities around the issues of HIV and AIDS and other vulnerabilities. The resulting map is the most detailed child protection, public safety, or girls’ vulnerability map of Kibera made available. Results from the mapping will be used to identify physical and psychological areas of risk or vulnerability and patterns of risk perception. Furthermore, the information being publicly available and owned, the project increases accountability of policy planners and grassroots advocates to young people.

**UNICEF Uganda:** In early September 2010, UNICEF Uganda launched an initiative called uReport where Boy Scouts from across Uganda are trained as ‘social monitors,’ tasked with reporting via SMS directly from their communities on issues important to their region, including child protection. These reporters, currently 30,000 in total, are providing UNICEF and project partners with a real-time pulse from every area in the country. Polls are being conducted on a regular basis and visualized on a web-based user interface. In just minutes, UNICEF can find out, for example, how many youth are within a ten-minute walk of safe water, what are the child protection related issues in the region and where disparities are greatest. As this network grows, the data are becoming increasingly accurate. Better information will enable better aid allocation decisions by donors, better planning decisions by partner-country governments, and will empower community members to use the

<sup>9</sup> [http://www.plan.fi/File/313852dc-874f-444c-b810-c9e13a98f767/ICT+Enabled+Development+\(Plan+2010\).pdf](http://www.plan.fi/File/313852dc-874f-444c-b810-c9e13a98f767/ICT+Enabled+Development+(Plan+2010).pdf)

<sup>10</sup> [www.mapkibera.org](http://www.mapkibera.org)

<sup>11</sup> Voice of Kibera in Nairobi

information for advocacy, and hold governments and donors to their promises.<sup>12</sup>

**Challenges:** Technological limitations linked with poverty: only 30 % of Kibera residents currently use the platform for reporting, simply because few have access to web-enabled mobile phones

## 4. Transmitting information and money

### 4.1 SMS campaigns

**What is it?** SMS campaigns send text messages to raise awareness and to collect feedback. Simple SMS campaigns have been used as a prevention tool to raise awareness on child protection issues, such as violence or child abuse. SMS campaigns are being done in local languages and offer the possibility of a reply free of charge.

**Advantages:**

- Easy to reach large numbers of people
- Cost-effective in delivering messages
- Minimum of technical expertise required to set up a campaign
- Can be used as a mapping tool for attitudes, knowledge and practices through low-cost feedback from target audience

**How does it work (technical description)?** Raising awareness among communities through an SMS campaign can be done by sending out a series of messages and by challenging mobile phone users on their existing knowledge. SMS quizzes where multiple choice questions are sent to a database of cell phone users in targeted communities can help in mapping and analysing existing attitudes, knowledge and practices. SMS campaigns can also collect messages or slogans from individuals to be distributed widely by the campaign.

**Examples**

**Uganda** is one of the leading countries in SMS campaigns with various initiatives on health information and promotion, including HIV. In November 2009, an awareness raising campaign against child abuse was launched in Northern Uganda. The campaign reached 1,000 persons in Lira District with the aim to create awareness and mobilise people against the practice of caning of children.

**Challenges:**

- Collecting phone numbers in a database for campaign purposes is a privacy issue that needs to be well communicated to people with the option of being removed from the database at any time.
- The impact of SMS campaigns has not yet been measured

### 4.2 Cash transfers by text message

**What is it?** Cash transfers by text message are a growing market in Africa, contributing to poverty reduction and social protection. Programmes for delivery include conditional cash transfers (CCTs) and unconditional cash transfers (UCTs). The benefits of cash transfers to both governments and recipients are well known in terms of improved cost efficiency and flexibility of access as well as improved accountability, efficiency, and programme sustainability. The rapid diffusion of mobile phones in Africa in terms of signal coverage and handset ownership makes distribution of cash transfers by mobile phone a viable proposition, at least in better-off countries. Individual use of mobile phones for cash transfers has increased rapidly, mostly in the form of remittances sent from urban to rural areas.

**Advantages:**

- While only few people have access to a formal bank account, mobile technology allows retrieving cash directly from ATMs with the help of a temporary ATM PIN
- Options for instant cash transfers without fees

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<sup>12</sup> www.ureport.ug

- Simple to use
- Bridging the gap between the 'banked and unbanked' people through better and immediate access to cash without a bank account

**How does it work (technical description)?** The M-PESA service, currently in use in Kenya, does not require access to a bank account. Instead, users need to register at an authorized M-PESA agent by providing their Safaricom mobile number and their identification card. Once registered, the user can buy digital funds at any M-PESA agent and send that electronic cash to any other mobile phone user in Kenya by SMS. Recipients can either redeem this for conventional cash at M-PESA agent outlets or buy Safaricom airtime for themselves and other subscribers. An M-PESA-enabled mobile phone can also function as an electronic wallet, holding up to €500 (50,000 Kenyan shillings).

Send Money is another example of a simple mobile technology in use for cash delivery developed by the First National Bank in South Africa. It is an instant solution to transfer money to anyone with a South African mobile phone. Send Money is a secure money transfer service offering various electronic transaction options. The receiver gets an automated SMS indicating how much money has been sent and instructing how to access that. The receiver does not need to have a bank card or a bank account to access the money, but instead the money can be withdrawn from one of the First National Bank's ATMs across the country.

### Examples

**In Kenya**, where Safaricom's M-PESA programme pioneered SMS money transfers, the popularity of the service has soared from 52,000 users to 9.7 million in only two years. The transfers are made using M-PESA system which allows cash to be sent over the Safaricom network without need for a bank account. Families whose livelihoods have suffered from the post-election violence receive virtual cash via their mobile phones, redeemable at any M-PESA agent nationwide. Cash transfers done via mobile can have a doubly empowering effect by introducing new tools to beneficiaries, or by advancing their technological skills. Furthermore, by requiring recipients to engage in a novel, technological process, beneficiaries become active participants in their own development.<sup>13</sup>

### Challenges:

- Potential increase in security risks with the information for cash withdrawal stored in mobile phones
- Hard to make sure women have control over the income
- Not targeting the poorest. In Sierra Leone, for example, initial efforts to reach the poorest were unprofitable and had to be abandoned in favour of the high-end mobile phone users

## 5. Arguments and counterarguments on the use of mobile technologies in child protection

**The use of mobile technologies is not available or affordable for most children in low-income sub-Saharan African countries.** Mobile phone use in sub-Saharan Africa has spread rapidly in recent years: the number of mobile phone users has more than doubled since 2008 up to more than **500 million** mobile phone subscribers in 2011<sup>14</sup>.

- A child does not need to own a mobile phone to send a text message. Borrowing or renting out mobile phones is a common practice in Africa and other developing regions.
- The cost of services is an important determinant of usage. Although the data are limited, analysis of the ITU mobile price basket data indicates a global trend of decreasing prices. Between 2008 and 2009, 125 countries saw reductions, some as much as 80%<sup>15</sup>.
- By creating a demand for mobile phone technology for child protection, mobile service providers will have an increased incentive and motivation to create appropriate solutions.
- Mobile technology is by far the cheapest way to achieve wide-scale coverage.

### Internet and mobile technologies expose children to further risks and serious crimes

- While cyber-bullying is a significant risk in the Western countries, notably in the US, the phenomenon is still minimal in Africa. Further research is required, however, in order to understand the actual prevalence and

<sup>13</sup> <http://thereboot.org/blog/2011/01/27/mobile-banking-in-international-development/>

<sup>14</sup> *Mobile Africa Report 2011: Regional Hubs of Excellence and Innovation*

<sup>15</sup> *Mobiles for Development, 2010*. [http://www.mobileactive.org/files/file\\_uploads/UNICEF%20Mobiles4Dev%20Report.pdf](http://www.mobileactive.org/files/file_uploads/UNICEF%20Mobiles4Dev%20Report.pdf)

impact of cyber-bullying in developing countries with the emerging use of (mobile) technology.

- Capacity building in media literacy, internet ethics and information seeking skills to filter and find useful information and to recognize trustworthy connections should go hand in hand with the introduction of new technology.
- Some operators have launched initiatives to specifically protect children accessing inappropriate content on the Internet as part of their social corporate policies. Some have gone beyond that in protecting children by providing care and support for orphans, disadvantaged and children living with disabilities as well trying to tackle the issues of child labour, prostitution and trafficking through improved education<sup>16</sup>.

### **The use of mobile technologies in child protection is not cost-effective or sustainable and it is largely out of reach of the poor**

- An increasing number of countries currently have mobile networks that cover even the remotest areas.
- Solar energy is already in use for battery recharge and solar cell phones have recently been introduced worldwide.

## **6. Resources**

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<sup>16</sup> *Mobiles for Development 2010*. [http://www.mobileactive.org/files/file\\_uploads/UNICEF%20Mobiles4Dev%20Report.pdf](http://www.mobileactive.org/files/file_uploads/UNICEF%20Mobiles4Dev%20Report.pdf)

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## Websites

Child Helpline International: [www.childhelplineinternational.org](http://www.childhelplineinternational.org)

Frontline SMS: <http://frontlinesms.org>

Linda Raftree's blog on mobile technologies: Wait... What? Bridging technology and development: <http://lindaraftree.wordpress.com/>

Map Kibera project: <http://www.mapkiberaproject.org/>

Mobile Active: [www.mobileactive.org](http://www.mobileactive.org)

NetSquared: [www.netsquared.org](http://www.netsquared.org)

Nokia Data Gathering: <http://www.nokia.com/corporate-responsibility/society/nokia-data-gathering/english>

Plan International: [www.plan-international.org](http://www.plan-international.org)

RapidFTR: [www.rapidftr.com](http://www.rapidftr.com)

RapidSMS: <http://mobileactive.org/how-to-rapidsms>

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Ushahidi: [www.ushahidi.com](http://www.ushahidi.com)

Voice of Kibera: <http://voiceofkibera.org/>