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MEDIA DEVELOPMENT

Advancing Freedom of Expression

Using digital innovation to foster Article 19
in the Global South

II. Best Practice

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This publication is part of a series presenting individual chapters from the study
Advancing Freedom of Expression - Using digital innovation to foster Article 19 in the Global South

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Overview of initiatives

Numerous digital technology projects in the Global South aim to support freedom of expression in some way. These projects operate in diverse countries and regions, target differing groups of users or contributors, and use a broad range of technologies to try to achieve their goals. However, the sheer variation of, and variety of nuances within, individual projects can make it difficult to gain a general overview of what is happening in the technology for freedom of expression field.

There are 16 projects covered in this study that explore and embrace innovative technologies to nurture freedom of expression and access to information. Below is a short introduction to each initiative:

263Chat, Zimbabwe

263Chat originally started off as a Twitter hashtag used to discuss a set issue related to Zimbabwe at a set time each week on Twitter. The idea was to provide a space for both Zimbabweans living in Zimbabwe and those living outside of the country to share information and opinions. 263Chat has now evolved into a media organization that produces its own online content as well as posting other Zimbabwe related news to a variety of social media, including Twitter, Facebook, WhatsApp, and SoundCloud. It had more than 60,000 Twitter followers in June 2015.

Africa Check, South Africa

Africa Check is an online fact-checking site that analyzes the truth of statements made by politicians and other influential public figures, as well as the media. Findings are published on the Africa Check site, which at the time of conducting this study, was the only fact-checking site in Africa and one of the few in the Global South.

African SkyCAM, Kenya

African SkyCAM is a drone journalism project testing how unmanned aerial vehicles (UAV) and camera-equipped balloons can be used in Africa to tell stories in new ways and add new perspectives. Projects include the creation of a 3D virtual model of Nairobi's Dandora dump site and aerial footage from Tanzania for a wildlife poaching story. This project is no longer operational due to the Kenyan government's restriction of drones in 2015.

CGNet Swara, India

CGNet Swara is an audio news portal that provides information to communities living in India's Central

Gondwana region who have little other source of information. Community members use their mobile phones to call and leave reports and also to listen to reports left by others. CGNet Swara has proved particularly successful in having issues redressed by listing phone numbers of the person responsible for a particular problem and urge readers or listeners to ring them to exert pressure.

Extra's WhatsApp, Brazil

Extra's WhatsApp is a WhatsApp group used by the popular Rio-based newspaper, Extra, to receive a wealth of information, photos, and videos from its readers. The Brazilian paper has dedicated editorial staff manning the WhatsApp group, and also using the messaging system to ask for information to be verified. They had 30,000 users in their WhatsApp group as of November 2014 and received more than a million WhatsApp messages in their first year of operation.

Follow the Money, Nigeria

Follow the Money uses data journalism to track aid funding promised by the Nigerian government. It also visits the communities to see if the aid money has arrived where it was promised, and to inform the communities about their findings. They conduct media-savvy advocacy campaigns using traditional and social media and have had several successes in pressuring officials to release funds.

HarassMap, Egypt

HarassMap is an organization working to end the social acceptability of sexual harassment and assault in Egypt. As part of its activities, it encourages those who have experienced sexual harassment to report this to the organization. These crowdsourced reports, which can be sent via SMS, email, or webform, are automatically collated and mapped to an Ushahidi platform. While the digital reporting system has been successful in the past, it is now receiving considerably less reports and at the time of interview, the organization was rethinking how it integrates its reporting and mapping technology into its activities.

InfoAmazonia, Brazil

InfoAmazonia is an online platform with a wealth of data and information relating to the Amazon basin. Using the data they collect, the team creates visualizations and richly detailed maps that can be used and shared by others. In addition, the site aggregates news stories about the Amazon region, that are geolocated, and published as layers on the maps. InfoAmazonia has inspired several other sites to track and display geographic data in a similar manner.

Mera Swasthya Meri Aawaz, India

Mera Swasthya is a crowdsourcing project that monitors and maps the collection of illegal fees in maternal hospitals in the northern Indian state of Uttar Pradesh. It is run by the NGO Sahayog, which works in the field of maternal health. Due to low literacy levels and the target group's difficulties in using SMS, the project uses a mobile phone reporting system based on voice-activation, rather than the more common SMS reporting method. The reports are collated and mapped to an Ushahidi platform. This is one of the few examples of a successful utilization of mobile phone monitoring with information gathered from marginalized, rural women.

Open Development Cambodia, Cambodia

Open Development Cambodia (ODC) is an independent open data website that aggregates a wide range of publically available development-related information on Cambodia, ranging from laws and regulations to company profiles and land concessions. ODC staff digitize the data into open formats making it easier for others to use, as well as create interactive maps from the data and prepare briefing papers. The website is available in English and Khmer.

Our Health, South Africa

Our Health is a community reporting project run by Health-e, a health news agency operating in South Africa. They have a dedicated group of citizen journalists operating in 22 mainly rural communities who produce several reports each month about people's experiences of using South Africa's new national health insurance scheme. The reporters use tablets to take photos and videos, write and file stories, and the content is published online, and at times, in mainstream media. This project is an example of the trend of paying citizen or community journalists with the aim of making projects more sustainable.

Plaza Pública, Guatemala

Plaza Pública is an independent online news site with a focus on in-depth investigative reporting on topics not otherwise covered by traditional media, such as investigations into political figures or long-reads on the fate of migrating minors. The site also hosts dozens of bloggers.

Poderopedia, Chile

Poderopedia is a customized online database with thousands of entries about influential people, businesses, and organizations in Chile. Users can click on an entry

to create a network map of a particular person or entity. The visualization automatically shows, in visual form, other people and entities related to them. The idea is to expose conflicts of interest and networks of power. Poderopedia has subsequently launched chapters in Colombia and Venezuela.

Rutas del Conflicto, Columbia

Rutas del Conflicto is an online database and mobile app that allows users to search, filter, and visualize information on 700 of the 2,000 massacres carried out during Colombia's civil war. The tools allow users, for example, to see specific locations of massacres or to search for massacres carried out by a specific paramilitary group over a period of time. Researchers and victims can also submit any additional information they might have about a specific event. The information in the Rutas del Conflicto database was previously only available offline.

Trac FM, Uganda & Somalia

Trac FM is an innovative software platform that uses SMS to enable media organizations to collect and track citizen opinion on a range of subjects for call-in radio or TV. Listeners can respond to a question asked during a live radio talk-show by sending a free SMS with their answer and their district to the advertised short-code. The Trac FM software automatically categorizes these answers and charts them into simple graphs and maps, which update in real time. Presenters can then use these charts to present the results of polls.

VozData, Argentina

VozData is a crowdsourcing project to liberate data. It uses a collaborative online platform where members of the public help digitize information contained in PDF documents that cannot be machine-read. It was created by the Argentinian newspaper La Nación who used crowdsourcing to help turn thousands of pages of scanned senate expenses into digital form, so that this data could then be analyzed. This project was one of the first in the Global South to use the crowd for collaboration in a data project.

4. Methodology

This study is based on four main sources of information, namely:

1. Semi-structured interviews conducted with the founders of 16 initiatives, based in the Global South, which use digital technology to foster freedom of expression and access to information.
2. Academic research and evaluation studies (where available) of the 16 initiatives.
3. Focus group of 14 digital innovators working in the Global South who came together for a four-day media dialogue to discuss the possibilities and pitfalls of using technology to foster freedom of expression.
4. Interviews with five media development and technology experts who manage or support digital technology projects in developing and emerging countries.

Semi-structured interviews

The interviews were conducted by phone or Skype between October 2014 and May 2015 with each interview taking approximately one hour. In most cases, the founders of the initiatives were interviewed. The interviews were taped and transcribed. In several cases, follow up questions were asked via email. The participants were also sent a questionnaire seeking information such as their annual running costs, the number of staff employed, and their primary sources of revenue.

Focus group: South to South media dialogue

DW Akademie invited 14 people working on innovative digital projects in Africa, Latin America, the Middle East, and Asia to a four-day media dialogue, which was held in South Africa from November 26-29, 2014. (Seven of those involved in the media dialogue were later interviewed for the project overviews.) As well as presenting their particular initiative and talking about the challenges and lessons learned, the participants worked together to develop a set of seven guiding principles and concrete recommendations for using digital technology to foster freedom of expression and information.

The guiding principles from the focus group, as well as information which emerged during the structured interviews with both initiative founders and experts were used to form the basis of the recommendations. (see Annex)

Selection of initiatives

The initiatives were selected in consultation with media development experts with expertise in various world regions, and by searching through articles, conference proceedings, and academic studies. They include traditional media outlets as well as rights and advocacy organizations – all of which use digital technology in some way to foster Article 19 of the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights.

We only included initiatives based in the Global South which were also created by people or NGOs located in the Global South. As such, we excluded projects initiated or run by international development organizations (although we did not exclude initiatives receiving international funding). We also deliberately excluded projects funded by DW Akademie to avoid social desirability in the interviews. In order to have a better understanding of the issues faced by such initiatives, we tried to include projects which had been operating for several years – although given the newness of these kinds of projects, this was not always possible. Given the language focuses of the researcher, the initiatives all produce information or content in English, Spanish, or Portuguese.

Table 1: The initiatives

Project	Location	What it does	How it works	Technology
263Chat	Zimbabwe	Independent media organization seeking to stimulate discussion on issues affecting Zimbabwe	Promotes Zimbabwean topics on Twitter and WhatsApp, and is highly active in posting assorted media content about Zimbabwe to social media	Twitter, WhatsApp, website
Africa Check	South Africa	Nonprofit fact-checking site	Fact checks claims and statements made by politicians and other public figures in South Africa and other regions of Africa	Online website based on WordPress
African SkyCAM	Kenya	Project investigating the use of drones for journalism and storytelling in Africa	Tests the use of drones in diverse situations and for different types of stories	Camera-equipped drones
CGNet Swara	India	Nonprofit providing local news in audio form to rural communities in central India	Allows community members to use a standard mobile phone to leave audio messages and also to listen to stories left by others	Audio portal platform accessible by web and mobile phone
Extra's WhatsApp	Brazil	Popular Rio daily paper using user-generated content in its newsroom	Allows for the general public to send tips, photos, and videos to an editorial team via WhatsApp	WhatsApp, desk-top emulator
Follow the Money	Nigeria	Advocacy organization tracking aid funding promised by the Nigerian government	Uses data journalism to track aid money, publishing the results in easy to understand graphical form. Distributes its findings on social media and in traditional media	Facebook, Twitter

Project	Location	What it does	How it works	Technology
HarassMap	Egypt	Advocacy organization which collates reports of sexual harassment around Egypt	People can report incidents of sexual harassment using a Ushahidi platform that automatically collates and maps reports made via phone, SMS, tweets, and web postings	Ushahidi platform
InfoAmazonia	Brazil	Online environmental site dedicated to the Amazon Basin	Provides richly detailed maps, data, and news from the nine countries bordering the Amazon	Custom designed WordPress theme that integrates with MapBox maps
Mera Swasthya Meri Aawaz	India	Women's rights organization which collates reports of illegal fees charged by maternity hospitals in northern India	Set up so that women who call to report an illegal fee are guided by an interactive voice response system. The reports are collated and mapped on an Ushahidi platform.	Mobile phone reporting system using an interactive-voice response system combined with an Ushahidi platform
Open Development Cambodia	Cambodia	Online open data website and information hub for Cambodia	Aggregates data, maps, legislation, and research publications on Cambodian development issues	Website
Our Health	South Africa	Citizen journalism health reporting project	22 citizen journalists file monthly reports on people's experiences of using South Africa's new national health insurance.	Tablet computers, Internet
Plaza Pública	Guatemala	Online investigative reporting site	Publishes analysis and in-depth investigative and data-driven journalism reports	Online website based on Drupal
Poderopedia	Chile	Database of influential people and organizations in Chile	Holds information and also visualizes this information to make it easier to see the connections between the rich and powerful in Chile	Online database and network mapping tool

Project	Location	What it does	How it works	Technology
Rutas del Conflicto	Colombia	Online database of massacres perpetuated during Colombia's civil war	Allows users to easily search, map, and filter its database of massacres	Online database and mapping tool
Trac FM	Uganda & Somalia	Software platform used for SMS opinion polling during radio broadcasts	Permits general public to send SMS responses to opinion polls held on radio. The software automatically collates and charts the responses for radio hosts to read out.	Software tool
VozData	Argentina	Project run by La Nación newspaper that uses crowdsourcing to help digitize data	Users collaborate to convert scanned PDF documents into a usable dataset	Collaborative software tool

5. What are the opportunities, challenges, and pitfalls for freedom of speech in innovative projects using digital technologies? (RQ 1)

The first section of this chapter explores the initiatives' primary goals and motivations for using digital technology to support freedom of expression. As outlined in Chapter 2, realizing freedom of expression contains several components: creation of public sphere, supporting participation and inclusion, providing access to information and holding those in power to account. For the purposes of this study, we will discuss how the initiatives seek to support freedom of expression according to these categories. Projects often have several goals and therefore fall into more than one category.

Creating a public sphere

Digital technologies can potentially enlarge the public sphere. They offer the possibility of creating new platforms and forums for discussion and new ways of setting the agenda discussed in the public sphere, as well as potentially influencing how a debate is carried out. In the following section, we examine how some of the initiatives are using digital technologies with the aim of developing or extending the public sphere.

New public spaces

One aspect of the creation of a public sphere is about creating or providing a space (whether physical or virtual) where people can freely exchange opinions and ideas.

In environments where traditional media offer limited possibility for public debate because they are largely controlled by powerful interests, digital technologies can offer an alternative public sphere. The founder of 263Chat (Zimbabwe) Nigel Mugamu originally simply wanted to enable Zimbabweans, both inside and outside of the country, to share information and discuss issues affecting their country. To do this, he used the Twitter hashtag #263chat to create a forum where users discussed a predetermined topic at a set time per week (although these set discussion sessions have now fallen by the wayside). An important function of the #263chat discussions, according to Mugamu, was that they exposed the wide variety of opinions that people held. The organization, which now has more than 60,000 Twitter followers, has expanded its activities to include other social media, such as WhatsApp, and also holds live events where people can come face-to-face to discuss issues.

As for researcher Evgeny Morozov's (2011) fear of the poor quality of debate in the digital world, Mugamu says he originally had to moderate discussions because "some people got nasty ... and there were obviously trolls."¹ He found that call-

ing on participants to stick to the topic at hand solved many of these issues. "People understood that if they are going to partake in this discussion, they should try and hear what people have to say and if others stop them, then it won't work," says Mugamu. Over time, the crowd itself fulfilled part of that task saying (as Mugamu paraphrases it), "we are taking time out of our busy schedule to engage in this discussion, and we want to get the most out of it. So if you have nothing positive to say, then bugger off." Mugamu stresses, however, that initially he had to continually repeat this message to maintain a constructive atmosphere in the forum.

While discussions on 263Chat are open to all, the independent investigative reporting site Plaza Pública (Guatemala) favors a different approach. Plaza Pública provides space on its site for around 25 bloggers to share their opinions. The media organization sees these voices as a vital contribution to public debate because according to Plaza Pública editor-in-chief Alejandra Gutiérrez Valdizán, they "give another view of the reality in Guatemala and alternative solutions to solving some of our country's issues."

When safeguards against digital surveillance are in place, digital technologies can help to create a safe space. Creating such a virtual space where people can anonymously talk about sexual harassment was one of the motivations for HarassMap (Egypt) to launch its sexual harassment reporting tool in 2010. HarassMap allows people to report cases of sexual harassment via email, SMS, Twitter, or directly to the website. These reports are automatically collated, then stripped of any identifying information by moderators before being mapped online using the open-source Ushahidi mapping platform. It must be noted that the map is not set up as a discussion forum but rather as a space to report incidents – however, for the founders, this idea of creating "a safe space" where people could express what happened and how it made them feel was a driving motivation for installing the tool. At that time, the topic of harassment was relatively taboo in Egypt and only a few organizations were dealing with the issue.

Sensitizing people for a topic (agenda setting)

Agenda setting is about the media's potential to influence which stories the general public feels are important – that is to say, which stories enter into public debate.

The audio news portal CGNet Swara strives to put the issues of marginalized indigenous people in central India on the public agenda by gathering their voices and publishing them.

The community journalism project, Our Health, is an attempt by the Health-e news agency in South Africa to make a larger section of society aware of the issues faced by the rural population using South Africa's National Health insurance scheme. It

does this by commissioning health stories from citizen journalists in rural areas and attempting to place these stories in community or regional press.

Changing the way the debate is carried out

Another way of potentially strengthening the public sphere is to try to influence the manner in which public debates are conducted (as opposed to the type of topics debated). According to Peter Cunliffe-Jones, the director of the South African fact-checking site, Africa Check's primary goal is to promote accuracy in public debate "both by publishing reports that fact-check the key claims heard in public debate and by encouraging and supporting fact-checking by others in the media."

Trac FM (Uganda) also understands its mission as providing citizens and journalists with tools to engage in "informed" debate and to this end has developed software to allow radio stations to easily conduct SMS opinion polls.

Supporting participation and inclusion

Minority and disadvantaged groups and communities often face greater hurdles to expressing themselves freely and accessing information (which, in turn, can exacerbate the problems they already face). An essential part of strengthening Article 19 is to make society more inclusive. Freedom of expression and access to information should be enjoyed by all people and groups, regardless of factors such as where they live, what language they speak, their gender, what region they belong to, and how old they are. Supporting participation and inclusion is very much about bridging gaps within a society and giving minority and disadvantaged groups a voice, thereby allowing them to participate in public debate. It is also about ensuring such groups are able to access information in order to form their ideas and opinions.

Hearing from the people

Generally, in cases in which the quality of Internet connections is still low, or projects work with disadvantaged groups with poor online access, many projects found mobile phone communication to be a viable tool to engage with their target groups. As a rule, if you want to hear from people, you need to use the means of communication they are using.

In an attempt to give a voice to a specific marginalized group, CGNet Swara uses standard mobile phones to gather and distribute local audio news stories intended for Adivasis (indigenous groups) living in rural areas of central India (CG stands for Central Gondwana while Swara means 'voice' in Hindi). This audio news service is based on a system which allows people living in these communities to ring CGNet and leave an audio recording. The content, which is moderated before being put

into the system, ranges from help to get a grievance redressed, to community information, or even singing a song in a local language. Having an audio reporting system as opposed to the more usual SMS reporting system is an important part of promoting inclusion in this project; illiteracy rates among targeted contributors are high, those who can read are not in the habit of sending texts and feature phones do not necessarily support typing texts in Hindi. Community members can ring CGNet Swara and listen to the latest reports on their mobile phones. The reports are also posted online along with Hindi or English text translations to try to increase the reach of these voices beyond the communities.

The South African citizen journalism project, Our Health, also wants to make rural voices heard, though it strives to do this using a very different model to CGNet Swara. The aim of the Our Health project is to ensure a regular supply of stories about rural people's experiences of using South Africa's National Health Insurance Scheme. To achieve this, Health-e, the health news agency running the project gives journalism training to selected health activists living in rural communities not usually covered by mainstream media. These community journalists, who are provided with tablets to take photos and write and file their stories, are paid a small monthly retainer. The Our Health reports are published on Health-e's online site and, as previously mentioned, the agency also attempts to place these stories in community or regional newspapers.

The Brazilian newspaper Extra uses the mobile messaging app WhatsApp to amplify the voices, concerns, and experiences of their readers, who are primarily the emerging or new middle class (known as the 'C' class in Brazil). It does not seek citizen journalism reports, but rather user-generated content such as photos, videos, and tips from the general public via a WhatsApp group. According to the project's initiator Fábio Gusmão, WhatsApp's ease of use, its ubiquity, and its perceived safety has led to Extra readers quickly adapting to using the tool to contact the paper. Gusmão says Extra receives many more reports via WhatsApp than it did via Facebook before it introduced the WhatsApp service. He also says the reports touch on a wider variety of subjects, including topics which people are usually more hesitant to report, such as drug traffickers moving into a *favela* or police violence. Extra distributes suitable content it receives via WhatsApp by either posting it to its designated WhatsApp page, or including the information (along with attribution of the source) within an online or print article.

In some cases, initiatives are not about making the individual voices of marginalized groups heard (in the way that CGNet

¹ In the following, quotes from the semi-structured interviews will not be referenced.

Swara does), but rather about bringing to light the experiences of a *group of people* in order to remedy the situation. For example, Mera Swasthya Meri Aawaz (My Health My Voice), a maternal health project in India, uses mobile phone technology to collect information on illegal fees charged by maternity hospitals – it is primarily poor, uneducated women who are charged such fees. To report illegal fees, affected women can use a standard mobile phone to call a toll-free number. A voice then guides them through the process of making a report (press 1 if demands were made for money to cover medicines, press 2 if...) to leave information on which clinic is charging the fee, what the fee is being charged for, and how high the fee is. According to an evaluation of Mera Swasthya, an advantage of using digital technology was that the anonymity of using the service meant women felt they could safely return to a clinic without fear of retaliation from clinic staff (Prabhakar 2013). However, although pains were taken to make the system as user-friendly as possible, the organization found it was still problematic for some users to dial the ten-digit phone number. To combat this, the organization designated women within individual communities to help others make reports.

The examples of Mera Swasthya and CGNet Swara show that when working with disadvantaged groups, using the right technology is vital for fostering inclusion and participation.

It is also relatively common for freedom of expression initiatives to try to encourage some kind of community participation, even when it is not their main focus. Poderopedia (Chile) encourages users to submit data or suggest a new databank entry; Rutas del Conflicto (Colombia) urges massacre victims to report their version of the event as information about massacres often stem from the paramilitaries; InfoAmazonia (Brazil) calls for citizens to post stories about the Amazon region to its website; and Africa Check (South Africa) asks readers to submit claims for the organization to verify. Contact for all of the aforementioned initiatives is via an online web form.

Getting information to diverse people

Inclusion is not just about certain groups and communities being able to impart information but also about being able to receive information. Several of the initiatives included in this study have developed strategies in order to try to reach diverse audiences. Some of these strategies are dependent on digital technologies, others are not. The question of how to foster inclusion, thus, often means finding ways of bridging the gaps within society.

One way of reaching marginalized groups is to take digital projects offline. The investigative site Plaza Pública (Guatemala) publishes, in the words of editor in chief Alejandra Gutiérrez Valdizán, “long and complicated” articles that are

primarily accessed by a young, educated, urban readership. To allow the information in the articles to reach a wider demographic, Plaza Pública is developing partnerships with other media organizations. In 2014, for example, Plaza Pública organized for rural radio stations to broadcast summaries of articles and interviews snippets from its election coverage. In a separate partnership, it regularly publishes simplified versions of its articles on a popular Guatemalan news site. “We have published about eight summaries and they have been really, really huge, receiving up to ten times the readers that are coming to our site,” says Gutiérrez Valdizán.

The Nigerian initiative, Follow the Money, uses data journalism techniques to track aid money. While it also published its research online and in social media, part of the project’s focus is on visiting communities promised specific funding and informing them about the promises made so that the affected people themselves are aware of their entitlements.

“In Nigeria, only 25 percent of people use the Internet. So it is important to create a link between opening this data and the people in the communities,” says Follow the Money co-founder Oludotun Babayemi.

CGNet Swara’s (India) approach of distributing its news in an audio format takes into account the low literacy levels of Adivasi, while enabling listeners to make a free call to hear the reports is another attempt to bridge the divide within society. Several of the initiatives, such as Africa Check (South Africa), Plaza Pública (Guatemala), Poderopedia (Chile), and Open Development Cambodia seek to encourage others to publish their content for free by publishing under creative commons licenses (these set out the conditions for republication). This can help expand the reach of the original information.

The South African nonprofit news agency Health-e allows nonprofit media to republish for free the articles produced as part of its ‘Our Health’ project, while the opinion poll initiative Trac FM (Uganda) regularly organizes for the publication of its more popular polls as infographics in newspapers.

Challenges of fostering inclusion

On the other hand, being online often creates new problems, especially when it comes to fostering inclusion and participation for disadvantaged groups. Often, initiatives understand participation as input from the general public; however, for initiatives using information and communication technologies (ICTs), the public often turns out to be young, educated, urban males. Even projects which deliberately try to target marginalized communities often end up with participation skewed more towards the educated males in those communities. Consequently, projects need to explore ways of increasing participation from under-represented groups.

Several of the projects seeking user content or participation have conducted research into exactly who is participating. By and large, these initiatives found that they failed to attract certain users – primarily women and older people. The projects for which there is information suggest the following:

– **Women’s voices are less present.** Only 12 percent of contributors on CGNet Swara (India) are women, Trac FM (Uganda) has only 10 percent females, and #263Chat (Zimbabwe) only attracts 17 percent females. While Extra newspaper (Brazil) does not have exact figures for their WhatsApp user group, the project’s founder Fábio Gusmão estimates females send in around 40 percent of contributions.

– **Educated are over-represented.** CGNet Swara is set up as a service for minority Adivasis; however, they still struggle to receive reports in local languages – most are in Hindi, indicating that the reporter has some degree of education.

– **Lack of older voices.** Extra estimates the majority of its users are aged between 15 and 35, while the average age of Trac FM participants is between 25 and 45.

While these patterns do reflect Internet use and mobile phone ownership, it is difficult to know to what extent they might also reflect the reluctance of certain groups to speak up or talk about certain issues. In any case, CGNet Swara succeeds in giving minority Adivasis a voice. However, their usership is biased towards the educated and male. These results show that although participation of disadvantaged groups can be enhanced to a certain extent it remains difficult for projects to use digital technologies in order to foster inclusion and participation of the most disadvantaged.

Providing access to information

Access to information is a fundamental human right inscribed in Article 19. Fostering this right has many facets. It can be about the gathering of new information, finding alternate means of distributing information, helping people locate information, or providing tools for diverse groups to understand and use information.

Traditional media have historically served as one of the ways people access information. Therefore, strengthening media outlets has always been a substantial part of media development work. Our research shows that projects using digital technologies are able to fulfill this function as well. At the same time, digital technologies offer additional opportunities for strengthening this aspect of Article 19.

ICTs are being used to help gather new information using crowdsourcing; to collect, collate, and analyze data; and to publish online databases and data repositories. Furthermore, they offer impressive new ways of making information understandable (e.g., through search tools, maps, and visualizations).

In seeking to promote these various aspects of access to information, initiatives are using digital technologies in very diverse ways. At the same time, there are a number of common motivations driving these efforts, which are analyzed below.

Putting independent information online – new ways of publishing in-depth investigations, fact checking and hyper-local news

Numerous independent media organizations have been launched in the past few years. These organizations, which operate outside of corporate systems, are often set up as non-profits with the goal of providing unbiased and credible information and filling the gaps left by mainstream media. Several such initiatives are included in this study.

“We want to tell the other side of the story,” says Alejandra Gutiérrez Valdizán from Plaza Pública. “There are many structural problems in Guatemala that haven’t been explained and we think it is important to have another voice giving another view of the reality.”

Shubhranshu Choudhary had a similar motivation for founding CGNet Swara (India). “When we started, there were very brutal local militias and exposing this was very important; the mainstream media is owned by very powerful interests which were part and parcel of the military campaign.”

CGNet Swara is an expensive project. In many other cases, however, digital technologies were important in reducing the costs of providing access to information and, thus, made the emergence of these new media outlets possible in the first place. For Plaza Pública, digital technology is a “huge, huge advantage,” says Gutiérrez Valdizán. Print is simply too expensive and radio and TV stations are mostly in the hands of a few media owners, which leaves online as the viable option for publishing their content. In addition, technology allows them to use data journalism as a means of conducting investigations.

The low costs of being online also allow the South African fact-checking site Africa Check to operate independently. While several fact-checking initiatives around the world are embedded within traditional media organizations, Africa Check’s founder Peter Cunliffe-Jones believes editorial independence is critical to its acceptance as a credible, reliable source of information given that media houses in Africa are normally seen as having a political slant.

Creating new information using the crowd

One of the issues surrounding access to information is the lack of reliable information in the first place. An increasingly popular method of creating knowledge is crowdsourcing – that is, enlisting the services of the general public to monitor and report on a certain issue. Crowdsourcing existed long before digital technologies – the Oxford English dictionary, which was first published in 1928, drew on the resources of thousands of people who helped collate words. However, digital technologies (mobile phones, social media, the Internet) can be a means of crowdsourcing data that is otherwise difficult to collect via traditional means because of barriers such as the remoteness of a region, fear or shame of talking about certain topics face-to-face, or the cost of doing field research or interviews.

The Egyptian rights organization, HarassMap, for example, generated a wealth of sexual assault data that was not previously available in Egypt by crowdsourcing reports from the public, and publishing and mapping these to an online Ushahidi platform. The organization also conducts traditional field interviews in order to have responses from a broader cross-section of society, but, says Noora Flinkman from HarassMap, “we wouldn’t necessarily have had this information as quickly and in the same way if we didn’t have the [digital] reporting system.”

The maternal health project Mera Swasthya Meri Aawaz (India) combines the Ushahidi platform with mobile phone reporting to crowdsource reports of illegal fees charged by maternity clinics. Having such hard data makes it easier to lobby officials for change, says project manager Yatirajula Kanaka from Sahayog, the NGO running the project. “What we have successfully done is move from having anecdotal data to having data which is now trustworthy, which the government feels is hard data. That is the additional ... leverage that this particular helpline has given.”

The Trac FM software, currently in use in Uganda and Somalia, is also used to create data by automatically collating SMS responses sent into opinion poll questions broadcast on radio stations. Trac FM invites respondents to register as ‘active users,’ which allows the organization to collect information about respondents such as their age, gender, and education status. This, in turn, means Trac FM can analyze the opinion poll responses according to demographic characteristics. Although sending text messages to radio stations has a long tradition in Africa, the aggregated answers produced by the Trac FM software reveals more about public opinion than having individual responses read out on air as they come in.

The crowd can also be used to help digitize information which is otherwise impossible to analyze electronically. In a first for

Latin America, Argentina’s La Nación newspaper developed an online platform called VozData which harnessed the crowd to help digitize 6,500 senate expenses documents. According to Florencia Coehlo, who managed the VozData project, “we couldn’t have achieved this without technology or it would have taken many months or even years.”

Extra newspaper in Brazil uses WhatsApp to ask the general public to verify information. When the paper hears a rumor of something happening, the newspaper contacts users they know are in that area via its WhatsApp group, and asks them to send in any information, photos, or videos. “They are not only readers; they are walking witnesses to the facts of everyday life,” says Fábio Gusmão, the founder of Extra’s WhatsApp group.

Pitfalls of information from the crowd

Involving people in crowdsourcing presents multiple challenges because it relies on a whole chain of interlocking factors to make it work. It needs technology that the targeted groups have access to and can easily use; it also needs the crowd to know about the service and most importantly, there needs to be a reason or motivation for the crowd to report to the service over the long term.

HarassMap (Egypt), for its part, has seen a significant fall in the number of reports of sexual assault it now receives compared to when it first started its reporting service. Although the exact reasons are unknown, HarassMap believe the drop in numbers could have a variety of reasons, such as other organizations offering similar services, changes in how people prefer to express themselves about the experience and HarassMap’s lack of a reporting application.

InfoAmazonia (Brazil) originally wanted people within the Amazon region to upload local stories to its site, but it has proved difficult to attract this kind of involvement. This is partly due to the fact that their main aim is to share factual maps and data on the Amazon basin to inform regional influencers and less time has been dedicated to collating and writing news articles in the region.

The example of Mera Swasthya Meri Aawaz in India, already mentioned above, also shows that finding technology the target groups can easily use, is far from trivial. Although the organization paid a lot of attention to user-friendliness it found it was still problematic for some users to dial the ten-digit phone number.

On the other hand, information from the crowd raises the issue of whether the information received is actually usable. Extra (Brazil) newspaper receives thousands of messages a day via WhatsApp but says many of these messages are either ir-

relevant or too hyperlocal. These extraneous messages create backlogs in the system and delays discovering more pressing news.

In a similar vein, CGNet Swara (India) receives around 100 reports a day. For various reasons, such as poor audio quality or insufficient information, only around ten of these reports are published. The organization reports that contributors are “peevied” when their reports are not used and this affects the long-term motivation of participants.

Collecting and collating information – open data, online databases, and data repositories

Digital technologies can help make existing data accessible that was previously only available to small segments of society. In developing countries, the traditional holders of research material (such as government archives or university libraries) often have limited resources to compile and to distribute such material. As such, even when information is publicly available, it is not always easy to find or obtain because sources can be dispersed in a wide variety of physical locations or published on diverse websites (if they are published at all).

In order to combat this issue, a number of digital technology projects in the Global South are collecting these scattered data sources and placing either the sources themselves, or the data they contain, in central online repositories. Some of the repositories are devoted to a single theme, others are broader in scope.

For example, the online platform Open Development Cambodia (ODC) provides a wide range of information on development issues related to Cambodia, ranging from fisheries data to mining licenses and forest areas, as well as laws and regulations. As is common practice on such sites, it also seeks to extract data from the sources and makes it available in standard digital formats (open data formats) so that others can more easily use and analyze the information. ODC also has a digital library of articles, research publications and other documents. The idea for the site, says ODC’s founder, Terry Parnell, came out of work with Cambodian citizens’ groups who were looking for reliable information on development. “We started to compile and organize a wide range of information ourselves and realized what a rich trove of information existed but was not being well utilized.”

InfoAmazonia (Brazil), as another example, has the goal of “communicating the Amazon” by being a sort of one-stop shop on the topic: it aggregates diverse data sets, maps and satellite imagery, as well as news articles on the Amazon Basin on its website, Facebook page and Twitter, and also provides data and visualizations on the topic.

Similarly, journalist Oscar Parra created the site *Rutas del Conflicto*, an online databank of massacres perpetrated during Colombia’s civil war, because this information was otherwise “kept in academic institutions and newspaper archives and is difficult to find.”

In the same vein, *Poderopedia* provides verified biographical information and documentation about influential people and organizations in Chile.

However, such data initiatives report several common challenges:

Firstly, it can be difficult to gain initial access to the data, whether from official sources, nonprofits, or private entities. “We are still working on cultural attitudes which are against sharing information,” says Terry Parnell from Open Development Cambodia.

Secondly, data is often released in formats that cannot be analyzed by technical means, such as scanned documents or PDFs. This means that organizations which seek to release data in open formats (thereby making it easier for others to use) have to spend time and resources converting the data, which can hinder the publication of timely data.

Thirdly, the organizations reported difficulties finding local staff that had the background to be able to work with data, which meant investing heavily in training to bring staff up to speed. Projects working with data, whether a fact-checking site seeking information for its own articles or an initiative which publishes data to its site, often have issues accessing information themselves. The problems range from the absence of complete and reliable data in many parts of the Global South to the reluctance of public institutions and private entities holding data to release it. And if it happens to be released, the data is often incomplete and outdated. As a result, it can take much longer to do any kind of investigative or fact-checking story in the region compared to doing a similar story in the US or Europe.

Helping understand the data – search tools, maps, and visualizations

Access to information is not only about making information available, but also about helping people understand, interpret, or analyze the information provided. Digital technologies offer new opportunities to do this by providing additional tools and materials, such as filters and search tools, as well as visualizations in the form of charts, graphs, infographics, maps, and network maps. Some of the initiatives examined here use tools created by others; in other cases they have developed their own analytical software.

The data in *Rutas del Conflicto* (Colombia), for example, is created in Google Fusion Tables which allows for the massacres to be visualized on a timeline or on a Google map. It is also possible to carry out advanced searches for massacres perpetrated by a certain paramilitary or guerrilla group, location, or time period. “I wanted to show information about Colombia’s massacres in a better way – to inform people about the context, the history, and the geography – because most Colombians don’t have a good idea of why we have been killing each other for the past twenty years,” founder Oscar Parra says.

InfoAmazonia (Brazil) has specialized in creating richly detailed maps of the Amazon region based on publicly available data such as deforestation, mining claims, or indigenous land. In addition, news articles aggregated by the site are geotagged and linked to the site’s various maps with the aim of providing additional context to the data compiled on the platform. To achieve this, InfoAmazonia created its own WordPress theme that integrates with MapBox mapping software.

For its part, the Poderopedia (Chile) platform is to make it easier to research and see the connections between individuals and organizations. The custom developed software tool does this by creating network maps that are automatically mapping and visualizing the links between influential people, business, and other entities held in its database.

The Trac FM (Uganda & Somalia) software tool does not just collate opinion poll answers sent in by SMS, it also automatically charts the responses as graphs and maps. By mousing over the chart, the software automatically displays the absolute numbers who voted for this option, as well as giving a percentage breakdown.

However, a problem encountered by some of the initiatives is that targeted users often do not have the necessary skills or education (or the time) to analyze the provided data or information effectively – even when provided with analytical tools. This can also be a problem for sites that do not target the general public, but rather niche groups, such as journalists, who would presumably have a higher level of education. Site creators mentioned users having difficulties in using mapping tools or creating their own visualizations from data. Even simple technical knowledge, such as how to zoom in and out on a map, cannot be taken for granted.

As such, the provided data is not necessarily being analyzed or interpreted by users in the way that certain initiatives originally assumed it would be. InfoAmazonia (Brazil) believes it would now be better to have in-house staff writing articles based on newly acquired data, rather than assuming others would have the skills to do this. Uganda’s Trac FM says radio presenters using its software are not analyzing opinion polls results beyond

the information automatically presented by the software. Because of this, they would like to further develop the software to give a deeper demographic breakdown of the polls.

In addition, assuming that targeted users of a particular project do actually have Internet access, they can have problems with their Internet connections being slow and unreliable. In the Global South, this can render sites incorporating large number of visualizations and high-resolution maps virtually unusable. It can also make it challenging for journalists to submit high-resolution photos or video in the first place. This was a difficulty encountered by Our Health’s citizen journalists in South Africa.

Holding those in to power account

The importance of freedom of expression for the conduct of public affairs is stressed in General Comment No. 34 of the United Nations Human Rights Committee (United Nations International Covenant on Civil and Political Rights 2011). In fact, the General Comment qualifies freedom of expression and access to information as enabling rights that help citizens to stand up for other fundamental human rights. Indeed, many of the initiatives included here value freedom of expression and access to information beyond the intrinsic value of permitting people to express their ideas and feelings; they see it as important because of freedom of expression’s potential contribution to democratic affairs. As such, the initiatives often cite advocacy and pushing for change as part of their goals. In this, they are motivated by the notion of their activities and actions strengthening democratic structures and accountability. But instead of simply providing access to information in order to change public opinion and thus build up pressure on officials, many understand themselves to be part of civil society effecting that change.

Follow the Money in Nigeria uses social media as an advocacy tool. Its first campaign was #SaveBagega, which called for the release of funds promised, but not delivered, to the town of Bagega where children were dying from lead poisoning. After documenting the situation on the ground, the Follow the Money team launched a Tweet-a-thon calling for people to post to then-president Goodluck Jonathan’s Facebook page asking for the release of the funds. Within 48 hours, the funds of around four million euros were released.

“The government and leaders now have Twitter handles and Facebook pages, thus creating an avenue to engage them directly via those platforms,” says Follow the Money co-founder, Oludotun Babayemi.

CGNet Swara (India) also sees accountability as one of its central goals and has developed a strategy to turn its listeners into activists. When it publishes a grievance (such as non-payment

of wages or a broken bore) on its website and audio portal, it provides the phone number of the responsible government official and encourages listeners and those who visit its site to call this person. A designated ‘follow-up team,’ made up of community volunteers, also receive an SMS notifying them of the issue. These volunteers use a variety of methods (email, calls, face-to-face visits) to apply pressure for redress. When a grievance has been settled, the person is encouraged to call CGNet Swara again and leave an ‘impact post’ recounting the story. This evidence of redress is seen as encouraging even more people to inform the CGNet Swara community about community issues.

The project manager of Our Health (South Africa), Sibongile Nkosi, says it was more difficult than anticipated to get grievances with health clinics addressed, even when issues were

picked up by other media outlets. It is currently exploring the practice of sending the citizen journalism articles directly to responsible officials and asking for comment – in the hope that this direct contact will prompt action.

Mera Swasthya (India) is taking an opposite approach with its crowdsourced data on illegal fees. It says hospital officials are often not interested in taking action, even when they are confronted with information showing the number of illegal fees demanded by their facility. Therefore, it is now focusing on the mainstream media by conducting workshops explaining what is wrong with informal fees and what the media can do to try to change the situation.

For HarassMap holding to account is an important element of the project: the organization uses the data collected in the

Table 2: Motivations for using digital technology to foster Article 19

Four Functions of Media Development				
	Creating a Public Sphere	Supporting Participation and Inclusion	Providing Access to Information	Holding those in Power to Account
263Chat	X		X	
Africa Check			X	
Africa SkyCAM			X	
CGNet Swara		X	X	X
Extra WhatsApp		X	X	
Follow the Money			X	X
HarassMap	X		X	X
InfoAmazonia			X	
Mera Swasthya Meri Aawaz			X	X
Open Development Cambodia			X	
Our Health		X	X	
Plaza Pública	X		X	
Poderopedia			X	
Rutas del Conflicto		X	X	
Trac FM	X	X	X	
VozData			X	

map for its advocacy work. So access to information was never an aim in itself; rather, the map and the information it collates about sexual harassment was always only a tiny part of its activities. HarassMap's mission is to "end the social acceptability of sexual harassment and assault in Egypt." The organization has more than 1,500 registered volunteers who conduct awareness activities about sexual harassment on the streets – and the data collected via the map informed HarassMap's understanding of sexual harassment in order to do better community work, rather than being the primary goal of the initiative. Thus, HarassMap is an example of an advocacy group providing access to information with the help of digital technologies, without considering its primary motivation to foster the rights inscribed in Article 19.

On the contrary, the initiatives that try to hold to account merely by publishing information are relatively few. For example, La Nación's goal in running the VozData project – the opening up of Argentinian Senate expense accounts – is "facilitating access and control of the information produced by the state." (Nación Data 2014) As a newspaper the project does not engage in direct advocacy. The media organization firmly believes in the power of open information: "[Through its VozData project] La Nación aims to activate demand for more and better public information produced by governments no matter what format it comes in, it is better to have these documents published online and not hidden or disappearing as many cases have already demonstrated." (Nación Data 2014) Hence, holding to account is an implicit aim that is to be reached through publication.

The online network mapping tool Poderopedia is a database that, according to its website, illustrates the "relationships among political, civic, and business leaders" in Chile (Poderopedia). Its aim is to "promote greater transparency," thereby "shedding light on any conflicts of interests." It very much subscribes to the traditional understanding of investigative journalists of holding those in power to account.

The open data site Open Development Cambodia does not name accountability as one of its explicit aims. However, the initiative believes that its digitally collated information can foster good governance. "ODC's mission is to make a broad range of development-related information available, in accessible forms, in order to inform public dialogue on development, in hopes that this will contribute to good governance and best practices in development planning and implementation, across stakeholders," says the initiative.

For the most part, there seem to be two separate approaches to using digital technology to support freedom of expression for the purposes of holding those in power to account. On the one hand, there are advocacy organizations (such as Mera Swasthya or Follow the Money) whose primary goal is to effect change in a specific area (health, aid payments) and as part of

their wider activities, support some aspect of freedom of expression in order to do this (crowdsource data, make freedom of information requests). On the other hand, there are organizations (such as Poderopedia or Africa Check) whose overriding focus is to strengthen freedom of expression in the hope this will strengthen holding to account mechanisms in general. CGNet Swara can be considered a rather unusual hybrid of the two.

In general, however, it is the aspect of holding to account in which the projects selected for this study differ most in their approach from what is covered by Article 19. For many of them freedom of expression and access to information are only means for pursuing their own political or social goals. Meanwhile, for some holding to account, and thus Article 19, is the main focus in itself.

Conclusion RQ 1: What are opportunities, challenges, and pitfalls for freedom of speech in innovative projects using digital technologies?

This study demonstrates that digital technologies can help foster freedom of expression and access to information in all its aspects. They can offer new ways of creating a public sphere, foster inclusiveness of society, help to provide access to information, and hold those in power to account.

At the same time, this study illustrates the diversity of approaches to supporting freedom of expression taken by the various initiatives. Some are more successful, some are less. Generally, this seems to depend to a certain extent on what side of the digital divide projects are trying to work on. Extra is getting a very active response from the Brazilian middle class; CGNet Swara in India engages successfully with underprivileged audiences from a poor educational background. However, it is still struggling to engage with the most underprivileged audiences from the poorest educational background, namely women and people without a sufficient knowledge of Hindi. Thus, working with marginalized groups remains a challenge. Learning from best practice in other countries in the Global South what digital tools to use in what way is therefore vital.

This study also indicates that digital technologies seem to have stronger benefits in some areas than in others. If used well, they offer many new opportunities in providing access to information – especially in terms of gathering this information through crowdsourcing or using open data. This also gives them the ability to trigger new debates and to introduce neglected issues into that debate. Fostering inclusiveness of society, on the other hand, seems to be a more challenging task for digital projects since it is often the marginalized groups in need of more inclusion that do not have access to digital technologies or the necessary media and information

literacy to use them. In some cases, projects found a combination of digital and non-digital technologies to work best.

Holding those in power to account, in general, seems to be an area in which digital projects often cannot live up to their own expectations. In addition, it is this function which divides the projects of this study in two distinct groups. On the one side, there are those that see cultivating freedom of expression and access to information as their main task and hope that the information they provide will enhance accountability. On the other side, there are those that assume an activist's position and use the information gathered for their lobbying and advocacy work. The latter do very valuable work with regard to access to information, fostering public debate and inclusion. In fact, Article 19 especially stresses the importance of freedom of expression and access to information for human rights defenders. Here, however, Article 19 can be seen as an enabling right: a foundation to do advocacy work more effectively and to reach other goals.

At the same time, projects using digital technologies are often fraught with challenges, in part because it is a relatively new field and in part, because using technology brings its own problems especially in regions with low levels of technical skills. To sum it up, the rise of digital technologies has created a whole array of potential new partners for MDOs in their work to strengthen Article 19.

6. Media and innovation – the role of digital technologies

What lessons can be learned from a project's evolution and possible changes of focus over time? (RQ 2)

As discussed in the theoretical part of this study, the way media are being used is currently in tremendous flux. Readers and audiences are no longer simple consumers of information: rather, they are actively involved in sharing, commenting on, editing, and creating content themselves. Thus, they are shaping media and media environments themselves. The Australian media scholar Axel Bruns (2014) describes this phenomenon as “produsage.” Analyzing how projects evolved and changed focus over time can thus offer important insights into how societal and user innovation influence projects using digital technologies.

From being ignored by the media to drowning in its own success – CGNet Swara

When CGNet Swara initially launched in India in 2010, its co-founder Shubhranshu Choudhary lobbied the mainstream media to pick up community issues reported to the service in

the hope this attention could resolve specific problems. This proved less successful than hoped, potentially because the media have concerns about the accuracy of CGNet Swara reports, do not find rural issues newsworthy, and because they often will not publish a story without payment. Thus, in these initial stages, CGNet Swara did not succeed in holding those in power to account in the way it originally had hoped to do.

As a result of the difficulties in promoting issues raised on CGNet Swara, CGNet Swara developed its own strategy of grievance redress. Over time, this process has become highly structured and now primarily focuses on activating listeners to directly lobby government officials.² A recent evaluation report by Marathe and Thies (2015) found direct lobbying has proven to have considerable impact in redressing grievances compared to the previous practice of approaching mainstream media.

An important component of this grievance redress process is the ‘impact reports’ (also discussed in chapter 5.4) which were integrated into CGNet Swara around 2011. CGNet Swara asks contributors to ring up again once a grievance is resolved and record an impact report outlining what the issue was and how CGNet Swara helped solve it. These impact reports are listed separately on the website and can also be listened to as a separate category when listeners ring the service. According to Marathe and Thies (2015: 6), about 1.5 impacts a month were posted in 2011. This climbed to 10 a month in 2014.

“The primacy of grievance redressal as an impact category seems to arise from a combination of three things: that people’s grievances are resolved; that such resolutions are regularly reported on CGNet itself; and that CGNet makes it seem easy relative to other options.” (Marathe and Thies 2015: 6)

However, as listeners increasingly view CGNet as being able to solve problems, they are increasingly turning to it. In January 2015, CGNet received daily calls from about 100 contributors and 1,000 listeners. Because it is working with impoverished, marginalized communities CGNet bears the cost of these calls – something that it says it cannot continue to do in the long term.

“Each person calls for ten minutes and this accumulates for us; we have a huge telephone bill”, says Choudhary. “This is where we have to find a sustainable model. We need to find a way to use radio to broadcast these voices.” Thus, the active response from the community is serving as an impetus to further evolve the project.

² As previously outlined, CGNet Swara publishes grievances along with the responsible official's telephone number – thus reducing the barriers for listeners who otherwise do not have a way of finding out who to call. It also activates ‘follow up’ teams who assert additional pressure on the official.

What to do when the map is not working? HarassMap

HarassMap was the first initiative in Egypt to use online crowdsourcing to address a social problem – in this case, sexual harassment. In the first year of the map's operation, from October 2010 to September 2011, the organization received 504 reports of sexual harassment to their online map, which is an average of 42 reports a month. The number of reports received by HarassMap has fallen significantly in the past few years, however: the organization recorded 142 reports during a similar one-year period from October 2013 to September 2014, and only 50 reports in the six months from October 2014 to March 2015.

Noora Flinkman, the head of the marketing and communications unit at HarassMap, sees several reasons for this drop. When HarassMap started, few initiatives in Egypt dealt with the topic of sexual harassment but recent years have seen a rise in the number of groups working on the issue. Consequently, sexual harassment can now be reported to a much larger number of organizations. In addition, the map, which was created in 2010, is now looking somewhat old and the organization lacks a mobile app.

HarassMap is currently reviewing and discussing what new direction the map could possibly take; however, collecting reports is also less important now that the organization has credible data. It must also be noted that HarassMap's mission is to "end the social acceptability of sexual harassment and assault in Egypt" and that the map is only a small part of its advocacy activities. The organization has more than 1,500 registered volunteers who conduct awareness activities about sexual harassment on the streets – and the data collected via the map informed HarassMap's understanding of sexual harassment in order to do better community work, rather being the primary goal of the initiative.

Moving from creating maps to creating stories – InfoAmazonia

The online site InfoAmazonia provides a wealth of information, from data to satellite imagery, maps, and aggregated news items, about the Amazon region. Its goal is to communicate information about the Amazon in order to conserve it.

Part of the means of reaching this goal, though, is to create a community of journalists and citizens who use and analyze the data provided by InfoAmazonia to tell local and regional stories. The idea is that these stories are then uploaded back to InfoAmazonia, thereby adding context and meaning to the data. According to InfoAmazonia founder, Gustavo Faleiros, this strategy has proved less fruitful than originally hoped potentially because the data on InfoAmazonia is too difficult for the majority of targeted users to use as it did not meet their media practices. "I was suspecting much more impact of the issue of the Amazon," he says. "And I think the main reason is that

we were working a lot with data without generating a lot of context." Drawing the consequences from this, InfoAmazonia needs "to do traditional storytelling and narratives around the data instead of focusing on the mapping," says Faleiros.

As a result, the InfoAmazonia team, who are highly skilled in analyzing data and have a strong understanding of the issues at hand, are now exploring the idea of generating their own content from the data they collate instead of relying on journalists and others to generate this content for them. However, much of the team's expertise is currently tied up in carrying out projects (which are not reporting projects) for which they already have funding. A change of direction would therefore require finding additional sources of revenue.

Listening and reacting to the groundswell

Several of the initiatives were founded in a reaction to existing demands within society. So they developed along with identified needs of the people.

Terry Parnell, founder of the open data site Open Development Cambodia explains that the idea for the organization came from working "with a variety of Cambodian citizens' groups who were looking for reliable information on development and could not find it easily. We started to compile and organize a wide range of information ourselves and realized what a rich trove of information existed but was not being well-utilized."

The idea for Plaza Pública came from the Guatemalan university Rafael Landívar who approached a well-known journalist about whether he was interested in establishing an independent journalism project. As such, this is an example of a societal innovation.

Other projects, such as Extra's WhatsApp, Trac FM, or CGNet Swara obviously meet untapped needs for expression, although they are not examples of societal innovation stemming as they do from single individuals. The number of users participating in such projects demonstrates that people want to express themselves and feel that they are being heard.

Conclusion RQ 2: What lessons can be learned from a project's evolution and possible changes of focus over time? (RQ 2)

As these examples show, projects often change over time. Some things work well initially but then lose momentum, some ideas do not work from the very beginning, and other ideas are so successful that they struggle to meet the demands of high usage. This highlights several important factors of running projects supporting freedom of expression, especially when using digital technologies. Firstly, it demonstrates that because projects are dynamic and changing, it is vitally important to continually evaluate and reassess a project's goals

and the means by which a project aims to reach these goals. If CGNet Swara had continued its original focus on depending on mainstream media to apply pressure, it might not have developed an alternative impact approach. Similarly wanting to increase their impact, InfoAmazonia is beginning to explore other ways to do so.

Secondly, it shows that just because one aspect of a project is not working that well or stops working, it does not mean the project as a whole is a failure. HarassMap's reporting tool initially provided crucial data but the initiative does not need to continue to collect reports for its ongoing activities of sensitizing the general public about sexual harassment. For its part, InfoAmazonia has inspired others to replicate its model of layering information on maps and helped fire the debate around visual presentations of information. During its initial years when it was less successful at getting grievances redressed, CGNet Swara was still valued by its users as a means of imparting and receiving information about their communities.

Thirdly, and this is an important point for funders, making strategy changes mid-project may require additional financial support. CGNet Swara is now attracting larger audiences, which will require either more funding or a different distribution model. If HarassMap wants to keep attracting reports of sexual harassment, then it needs to respond to the changing communications landscape by creating an app or harvesting reports from social media. Likewise, if InfoAmazonia is to produce more of its own stories from the data it collects, then it needs journalists on staff to do this.

This, in return, means that current project cycles implemented by MDOs might not work in this highly volatile field. Setting targets for grants limits the initiatives' need to develop their projects further over time. Success or failure cannot necessarily be measured by the goals that were initially set. On the contrary, not meeting the initial targets might actually benefit certain projects.

At the same time, it is crucial that any new initiative or project arise from the notion of fulfilling a recognized need, supporting specific target groups, rather than focusing on using technology for technology's sake. The organizations interviewed in this study all had hands-on experience working within particular communities that enabled them to identify day-to-day problems or gaps that their project then sought to fill. Rutas del Conflicto, for example, emerged from the founder's own experience of searching for scattered information about Colombia's massacres while Mera Swasthya was looking for a way to collect hard data about illegal fees.

In general, this study reveals how dynamically projects can evolve. As such, funders, supporters and MDOs need to take this into account and have an open development approach.

After all, nobody knows where exactly innovation will lead to and this, perhaps, is the beauty of the projects.

What is the relationship between technological innovation and innovation in media practices in fostering freedom of expression? (RQ 3)

The projects included in this study are innovative in the sense that they have all created new approaches to nurturing the rights anchored in Article 19. For media development, it is important to understand how they actually created this added value for freedom of expression and information. Was the development of new digital technologies the decisive factor? Or rather in times of "technological abundance" (to quote Bruns, 2014), do innovative media practices (as opposed to innovative technologies) offer new ways of fostering freedom of expression? And importantly, how do these different types of innovation interact?

Answers to these questions can offer valuable insight into how MDOs can best help strengthen Article 19 through digital technologies. This section will look at the various ways in which the projects included in this publication innovate and their experiences of implementing their innovations.

Creating innovative technologies or tools

Software tools and integration of existing technologies were the primary technological innovation developed by the initiatives included in this study.

For some, software development was always part of the initial project goal: for example, Trac FM always intended to develop software to enable radio stations to collate, visualize, and analyze SMS answers to poll questions and Poderopedia's funding was for the development of an online platform that is both a database and a visualization tool. The example of Trac FM demonstrates how a technological innovation that builds on established media practices can help with the uptake of the technology. Stations using Trac FM for opinion polling had a much higher than expected response rate when the service first launched in 2011. Founder Wouter Dijkstra attributes this to Trac FM making use of the long-standing tradition in Uganda of sending text messages to radio talk-shows. In addition, the widespread popularity of radio means participants know their opinions are being heard.

Other projects did not initially aim to create new digital tools from scratch but were forced to do so in the absence of other alternatives. In these cases, technological innovation became a substantial component of their approaches to fostering freedom of expression. For example, the founder of CGNet Swara started with a supposedly simple idea – wanting to give people living in remote areas access to local news. Community radio

was not an option because it is not allowed to carry news in India and an SMS-based system was deemed unsuitable because of high illiteracy rates. Because of their project requirements, the team was forced to develop its own voice-based portal to do the job.

Yet, as discussed above, the case of CGNet Swara shows how closely solutions have to be tailored to the needs and abilities of a project's target group. While the initiative proved to be successful in addressing the marginalized rural population, problems getting the most underprivileged involved proved difficult (as described above). This illustrates that it is indeed difficult to achieve innovation in media practices when working with the most disadvantaged groups.

Similarly, La Nación did not originally intend to develop the CrowData software for its crowdsourcing project, VozData. La Nación approached the Guardian newspaper – the inspiration for VozData – about using its software but it proved incompatible.

The development of these digital tools often was (and in some cases still is) replete with challenges. Poderopedia intended to launch within three to six months of receiving funding but it took nearly a year before the site could go up. This longer-than-planned development consumed a large proportion of its funding and as a result Poderopedia found itself with limited resources to attract users and market the site once it was up and running (Arabella Advisors 2014).

CGNet Swara took more than three years to find a workable and cost-effective solution. Co-founder Choudhary initially had a Knight International News Fellowship for one year, which ended up being extended for an unprecedented two more years.

VozData's crowdsourcing tool has been one of the project's major challenges, says Florencia Coelho who manages the project at La Nación. The tools still fails to meet their exact needs and they are going to have to pay for further software development.

Developing software or technology tools may be necessary when solutions to specific problems do not exist out of the box. However, as these examples show, it is vitally important to realize that developing these types of tools often takes much longer than anticipated, diverting valuable financial and human resources away from the project's core mission. It is also important to be aware that these difficulties are often compounded by an organization not having the internal capacity to manage a project, or the ability to judge the expertise of external developers to deliver. The situation can be further aggravated by the difficulties of recruiting staff and contractors in the Global South who have the appropriate expertise.

Overall, it is possible to differentiate two paths here: some initiatives start with an idea for a useful new tool while others develop a tool because of lack of alternatives. Regardless of whether the development of the tool was part of the original project or not, however, initiatives are often not able to develop the tools in the time they expected and can even take years longer than anticipated.

Adapting existing technologies for new uses

Adapting an existing technology is usually associated with lower costs than creating new software from scratch. But just because a technology already exists, does not mean its adoption is trouble-free.

When HarassMap decided in 2010 to base its sexual reporting system on an Ushahidi-based platform, the organization found it quite difficult to set up – they did not have enough technical experience in-house and at the time, developers in Egypt also had no experience using the software. (In fact, a recent evaluation of Ushahidi by Brandusescu et al. (2013) found that the technical skills demanded by the platform were not to be underestimated).

Many of those interviewed for this study said they, or their staff, had difficulties judging which technology was the best to suit a specific project's needs, and did not have the necessary skills to implement and maintain even basic software themselves.

"Initially, we had no knowledge about the skills you need to work with this technology. We were always scraping around for someone to help us", says Noora Flinkman from HarassMap. Several interviewees said their lack of experience in working with developers or managing technology projects resulted in the project going considerably over time and over budget, or resulted in developers being brought into the project who were not suitable for the job.

A common result of the lack of experience with technology projects was that initiatives often set their technology budgets too low and failed to make provisions for future maintenance and further development of the software or platform.

Although the degree of technical expertise in the Global South varies tremendously (think for example of the difference between the Indian capital New Delhi and rural subsistence communities in states such as Bihar or Uttaranchal), low levels of technical skills are often the norm. This can adversely affect initiatives in several ways.

Several projects said they had difficulties finding local developers or technical support capable of working with a particular software or tool. In many cases, they were forced to turn overseas. This in turn brought its own set of problems with

language, time zones, and the cost of international calls, or the cost of international hosting of servers.

A few initiatives had difficulties in filling in-house technical positions (such as mappers) and had to employ less-skilled staff and invest time in training, which slowed down projects.

Innovation in media practices within projects that use digital technology

Initiatives can also develop innovative practices to support freedom of expression where the digital technology is used as a project tool only.

Brazil's Extra newspaper uses WhatsApp, a popular, free, and easy to use messaging app that runs on most smartphones, to receive user-generated content and verify information from more than 40,000 contributors. So originally, the project's central innovation was in establishing new media practices for the WhatsApp tool.

However, this original innovative practice also triggered, in turn, technological innovation. When WhatsApp started, the software was only designed to run on a smartphone. However, a phone is not a suitable instrument for reading, sorting and replying to thousands of messages a day. Project initiator Fábio Gusmão has experimented with several different software solutions (so-called emulators) to run the app on a computer, but he still believes the solution they are currently using could be improved. Another factor hindering the use of WhatsApp for large groups is that, unlike Facebook where many people can have administrative rights to the same page, WhatsApp only allows one person to have rights. This means only one newsroom editor at a time can administer the messages, thereby restricting the speed with which the newsroom can evaluate and respond to messages. This is creating large backlogs as the service becomes increasingly popular.

As for other projects which encourage people's participation, even when the technology is simple to use, initiatives still need to develop ways of motivating people to contribute. When setting up its crowdsourced data project, for example, VozData (Argentina) were aware that similar enterprises had had difficulties maintaining participation over time. For this reason, they decided to develop partnerships with transparency and accountancy organizations and university departments in the hope these would ensure a regular supply of volunteers. (This was in addition to making the project open for users in general.) The desire to establish innovative practices is, as we have seen before, also pushing technological change; the team is looking to redevelop the VozData platform so that an organization can have multiple logins. That way, VozData can aggregate and display the total number of documents con-

verted by a particular organization – giving it more incentive to motivate its members to take part.

One of the issues often encountered in citizen journalism projects is that people are not motivated to keep contributing and either only contribute irregularly or drop out of projects completely. Our Health in South Africa has developed a process of keeping their community journalists involved through payments and bonuses in order to ensure a regular supply of quality content. Their 22 community journalists are paid a small monthly retainer for two stories a month but can earn bonuses if they file more stories. As an incentive to encourage quality reporting, journalists who regularly produce higher quality content are paid a larger retainer, and a journalist receives an additional bonus if they file the story voted 'story of the month.' The organization has initiated an annual awards night with prizes for its community journalists, too.

For its part, Follow the Money (FTM) in Nigeria combines traditional grassroots advocacy with data journalism in an innovative process to track the public monies promised to communities and apply pressure for the release of this money. The Nigerian founders of the initiative were working with data, but felt the people behind the data were being forgotten. "I work mostly in Nigeria where only 25 percent of people use the Internet," said co-founder Oludotun Babayemi. "So how do we create a link between opening this data and the people in the communities?"

Using traditional methods such as Freedom of Information requests and collecting information from government agencies, FTM collects data on how much money has been promised and/or released and who it has theoretically been released to. In an additional step not usually taken by journalists in the region or transparency groups tracking aid money, it returns to the community promised aid, and documents if funds have arrived and if so, what has been done with the monies so far. This enables the project to show the gap between monies promised and the reality on the ground. FTM holds meetings within the communities to pass on information about what has been promised. They also use the information they gather from the communities for public information campaigns, combining both traditional media such as radio and new media (primarily Facebook and Twitter) to spread the word about the government completely or partially withholding funds. Projects that are innovative in their media practices are not necessarily free from technology issues. Our Health (South Africa) was "surprised" at how many problems their citizen journalists have in sending their content (and photos in particular) via their tablets because of poor Internet connectivity. CGNet Swara's (India) system of grievance redress (described in chapter 5.4) is also a good example of an innovative practice – however, as outlined above, the organization needed to

develop an innovative communication tool before its impact strategy could emerge.

The experiences show that it is more effective to use ICTs in conjunction with existing forms of communication channels in order to widen reach. Examples include Follow the Money, which uses both social media and radio to campaign for the release of funds and Africa Check (South Africa), which allows other media organizations to publish its content for free.

Equally, it proved important to conduct an assessment of what ICTs the targeted group uses to send and receive information, how exactly it uses this technology (if it uses it at all), and what are the barriers of use. Initiatives which do not gather specific and detailed on-the-ground knowledge of the specific context of technology use by specific groups of users are more likely to fail.

As is the case with any new product, initiatives providing new information or new services need to market themselves to attract contributors and/or users. But even here, it is vital to promote the initiative according to who the target user is. For example, operating in a region with high illiteracy and no community radio services, CGNet Swara uses a traveling puppet theater to teach people about how they can use its services. The study shows that innovation in media practices is only possible when factors which may unfairly disadvantage certain demographics are taken into consideration and strategies devised to overcome this. For example, providing toll-free calls make it easier for socioeconomically disadvantaged groups to access, or contribute to, a particular service.

At the same time, it is often not enough to provide just information or a service. Targeted users need to be supported or trained in using the technology. CGNet Swara users who submit reports that prove unsuitable for publication are contacted and asked if they would like to resubmit their report with additional information. When Mera Swasthya Meri Aawaz (India) discovered that women found it difficult to dial the ten-digit number to report an illegal fee, they developed a system of women in villages who could support others in making calls.

Conclusion RQ3: What is the relationship between technological innovation and innovation in media practices in fostering freedom of expression?

The cases previously described highlight some of the issues and considerations of implementing innovative freedom of expression projects, whether using innovative technologies or innovative practices. Above all, they demonstrate several important considerations.

A technology strategy is essential, and needs to include an assessment of available technical skills (both internal and external) and an infrastructure assessment – even when only basic

technologies are foreseen for the project. In many cases, MDOs will have to build up new expertise in order to judge the suitability for support of certain projects and to assist them in the course of implementation.

Technology works best when it is integrated within a strategy with a specific goal or objective. As such, innovation is not about developing new tools or software for the sake of it. Rather innovation is about creating innovative practices and processes that realize some aspect of freedom of expression. Of course, as seen in the case of CG Swara Net (India) or Voz-Data (Argentina), there are situations that require the creation of new systems and software. However, the technology needs to be seen as a tactic or tool that supports and advances a project's goals, rather than the goal itself.

As such, technical innovation can play diverse supportive roles:

1. Either they stand at the beginning, because completely new, dedicated tools need to be developed – and then later used. Here the technology is first developed according to an envisioned use or practice. Later, in the process of technical development the technology is then further adapted to needs assessed through different forms of testing. Then the practices for the use need to be developed and established while the technology is further improved. Obviously these processes need time.
2. Existing technologies are adapted, which does not mean that e.g., software is changed but also that the practice of using this software needs to be adapted to the possibilities.
3. The focus is from the onset on creating innovative practices – and the technology only fills gaps in this process.

As to the relationship between technological innovation and innovation in media practices, in all the cases described here, the creation of innovative media practices is vital. This is because it is these practices that best fulfill the objectives of realizing diverse aspects of freedom of expression.

How do digitally projects survive and what are their requirements and approaches to sustainability? (RQ4)

With the exception of La Nación's VozData (Argentina) and Extra's WhatsApp (Brazil), which are embedded in large media organizations, almost all of those spoken to said the financial sustainability of their initiative was one of their biggest challenges, if not the biggest. They are nearly all reliant on external, short-term funding (mostly from international donors) that is often project-based.

Many of the initiatives in the study seem to have the following approach: have an idea, find donor funding to realize the idea, realize the funding is not enough or sustainable in the long term, look for alternative funding or revenue sources, implement them. The projects were all at different stages of this process, and therefore had differing priorities. Some were still focused on sourcing donor funding, others at the stage of exploring alternative sources of revenue.

Several initiatives talked of how financial restrictions limited their abilities to promote their service, reduced the amount of content or information they could publish and made it difficult to hire experienced staff.

While limited financial resources cause problems within any nonprofit, it can be even more of an issue when running a technology project because technology expenses continue beyond the initial implementation phase – after all, both software and hardware need to be maintained and updated.

In addition, as already highlighted, developing a new tool or software can swallow immense resources and take much longer than originally planned (although, of course, digital technology projects are not just about inventing new tools). As described above, CGNet Swara (India) ended up taking three years to develop the system it needed for the audio news platform, but was fortunate to have its original one-year funding extended for a further two years. Not all projects can rely on such good fortune.

Although we did not seek in-depth information about financial practices, financial planning, and income generation in the interviews, information about revenue sources still reveals some of the issues that the initiatives face regarding sustainability.

One effect of insufficient financing that came up in several interviews was the difficulty in hiring suitably skilled staff because of limited funding. It led to the unsustainable situation of project initiators and a few core staff working nearly all the time to deal with the workload. Lack of revenue also led to limitations in updating or further developing the technology (both software and hardware) and limited the ability of the initiative to promote its services.

Reliance on international donors

Nearly all of the projects included in this study were initiated by individuals or nonprofit organizations and are primarily funded by external grants. The vast majority of the funding stems from international donors.

Even VozData (Argentina), a project embedded within a larger media organization, had external support: the software for the

VozData platform was developed by two successive Knight-Mozilla OpenNews Fellowships.

The Rutas del Conflicto project (Colombia) and Plaza Pública (Guatemala) are relatively unusual in that they are backed by local institutions as opposed to international donors. Rutas del Conflicto was achieved with a single batch of project funding. When talked to, the project founder was looking for additional funding to develop the project further.

In the case of Plaza Pública it was actually the backers, the Universidad Rafael Landívar, who first proposed the idea of launching an investigative site. The university provides office space, infrastructure and IT support as well as paying staff salaries and a reporting budget. In total, the university covers two-thirds of the organization's running costs; however, the funding is not for an unlimited period. (The rest of the funding stems from international donors who fund specific projects such as election-reporting.)

Follow the Money (Nigeria) has just received traditional donor funding for the first time (the project was self-funded beforehand), and is not looking to change anything at the moment as its founders are happy to have received funding and be able to pay themselves a salary instead of volunteering their time.

As a result of these funding structures, nearly all of the projects see the need to reduce their dependency on donor institutions for several reasons: there are a growing number of organizations competing for the funds available; many donors strictly limit how long they will provide support; being dependent on funders made the organization vulnerable in the long term; and writing fundraising proposals was time-consuming and directed staff resources away from core activities.

Although some initiatives received reporting or research grants, all of the people talked to said that donors had not tried to influence how they worked or the kind of content they produced. Although in the case of Plaza Pública, the organization has said because the university that funds them is a Christian religious order, they will not report on the Pope, the Society of Jesus, or the university itself.

Alternative sources of revenue

Several of the initiatives are exploring diverse ways of generating alternate sources of revenue.

“When we launched, all the funding came from one organization. It then went to two organizations, we now have about five. But if one of those organizations pulls out, then all of a sudden you have a crisis,” says Africa Check (South Africa) founder, Peter Cunliffe-Jones.

Africa Check has a dedicated staff member to develop both donor funding and crowdfunding. In addition, the nonprofit has recently created a new position to set up and run paid services, which could take the form of research consultancies. Open Development Cambodia is also exploring how they can offer paid services and expand crowdfunding.

InfoAmazonia (Brazil) and Poderopedia (Chile) both hold courses and trainings and provide paid services, such as consultancy or creating applications and websites. Plaza Pública (Gutalema) has started holding funding raising events and wishes to develop these further.

Many of the organizations also cultivate forms of indirect support. Africa Check, for example, is based at the University of Witwatersrand, which covers overheads and provides some administrative help. More commonly, the indirect contributions are technical expertise (technical support, help with digital security, website design and maintenance) donated by individuals or organizations – and the value of this kind of support is such that it can make or break a project. For example, CGNet Swara (India) co-founder, Shubhranshu Choudhary says the project would have been “impossible” without ongoing and extensive support from IT expert Bill Thies. “Bill’s contribution, you couldn’t calculate in rupees and dollars. This is more than five years now he has been working and we don’t pay him a cent.”

Further examples of in-kind pro bono support include project evaluations, help with transport and accommodation, and the waiving of fees for setting up short-codes.

In the case of CGNet Swara, whose telephone costs are becoming unsustainable, the organization is not looking for alternative sources of funding but rather alternative sources of distribution to cut costs.

Conclusion RQ4: How do these projects survive and what are their requirements and approaches to sustainability?

Given the diverse scopes and circumstances of digital technology initiatives, there is no ‘one-size-fits-all’ solution to financial sustainability. However, most of the initiatives show a desire to become less dependent on donor organizations, and diversify their income streams. Methods being explored include soliciting individual and corporate donations, starting crowdfunding campaigns, holding fundraising events, and the sale of services such as consulting and training.

The question of sustainability was also discussed at the South-2South-Dialog in Cape Town which served as a focus group for this study. Some of the recommendations are (See also Appendix: Chapter 9):

– **Strengthen the capacity of staff to perform core functions.** While many of the organizations turn to external contractors to develop and implement the technology, quite a few interviewees said that staff was not able to judge the suitability of certain technology or whether technical providers could deliver what they promised. In order to increase the long-term viability of an initiative, it follows that staff need to be trained in managing technology projects.

– **Explore multiple models of financing from a variety of sources.** Most of the initiatives interviewed here talked of how they were exploring various forms of revenue generation (including grants, donations from corporations and individuals, crowdfunding, sale of services, events) in order to decrease dependence on single donors.

– **Plan revenue generation from the beginning of the project.** Several of the initiatives were started by individuals who had an idea, and who then worked tirelessly to develop this idea. After securing the first round of funding to put this idea into practice, they then realized they lacked a plan for continuing beyond this initial funding. Financial planning contributes significantly to the success.

– **Ensure funding and income sources do not hinder independence.** Although none of the interviewees cited cases where funders sought to influence their objectives and strategies, initiatives working in the field of freedom of expression need to remember the importance of remaining objective and credible.

– **Use freeware and open source tools to be cost-effective.** Open source software might not cost money to purchase, but it still requires maintenance, configuration, and ongoing support that need to be financed. And the Global South’s smaller pool of developers means that this support may have to come from overseas, which can engender higher support costs or language and time zone issues. However, open source software carries many benefits which are often seen outweighing their disadvantages. Thanks to the peer review process, it is usually secure and thanks to the ability to modify the source code, it can be adapted to specific circumstances.

– **Prepare for changes in technology and technology use.** Sustainability is not just about financial resources, but also about having the technical resources to continue to serve your goal or mission. Be aware of shifting patterns of what technology is available to your users and how they use this technology.

– **Build lasting partnerships.** Partnerships and collaborations can help an initiative advance its long-term aims. These can either be formal, such as Plaza Pública’s partnership with the University of Rafael Landívar, or informal, such as VozData’s collaboration with university departments and transparency organizations for volunteers to digitize data.

In general, although financial sustainability is definitely a major concern for projects using digital technologies, it should not be the defining factor for MDOs deciding whether to support a certain project or not. A holistic approach to viability includes a sustainable concept for strengthening freedom of expression and access to information. Many of the projects studied here do offer valuable new opportunities for fostering the rights inscribed in Article 19. According to Bruns (2014), they are examples of an “innovation push” introducing new media practices to their countries’ media ecologies and pushing other media outlets or initiatives to react to their innovation with changes of their own. Thus, they can play a vital role in the pursuit of freedom of expression and access information although they are not yet economically viable in the long term. Especially the field of using digital technologies to cultivate Article 19 needs the chance to experiment with different approaches. The cases in this study illustrate how valuable their innovation is with regard to freedom of expression and access to information. Nevertheless, how to make these innovations financially viable for the future remains an open question.

Table 3: Examples of donors and partner organizations past and present

Africa Check	AFP Foundation, IPI/Google, African News Innovation Challenge, Open Society Foundation for South Africa, Open Society Initiative for Southern Africa, Open Society Institute, Konrad Adenauer Stiftung, Omidyar Network, African Media Initiative, Shuttleworth Foundation, Wits University Johannesburg
Africa SkyCAM	African News Challenge
CGNet Swara	Knight International Journalism Fellowship 2009-2011, UN Democracy Fund, Environics Trust, Sitara, MIT, Gates Foundation, Hivos, Macarthur Foundation
Follow the Money	Indigo Trust, Heinrich Boll Stiftung Nigeria, Open Society Initiative for West Africa, Partnership on Open Data
HarassMap	International Development Research Center, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
InfoAmazonia	Knight International Journalism Fellow, Avina, Google, Code for Africa, CLUA/Ford Foundation
Mera Swasthya Meri Aawaz	Macarthur Foundation, Averting Maternal Death and Disability Program at Colombia University, Feminist Approach to Technology
Open Development Cambodia	USAID, Spider Foundation, American Jewish World Service, Open Society Foundation, Norwegian People's Aid
Our Health	DG Murray Trust, Atlantic Philanthropies, Making All Voices Count
Plaza Pública	Rafael Landívar University, Open Society Foundation, Hivos, Friedrich Ebert Stiftung
Poderopedia	Knight News Challenge Winner 2011, Start-Up Chile 2012, Knight International Journalism Fellow, Hivos, Open Society Foundations
Rutas del Conflicto	Verdad Abierta, Centro Nacional de Memoria Historica, Colombia
VozData	Knight-Mozilla OpenNews Fellowships

Appendix

Interview partners

Oludotun Babayemi. Co-founder, Follow the Money. Nigeria

Penhleak Chan, Research and Volunteer Coordinator, Open Development Cambodia. Cambodia

Shubhramsu Choudhary. Founder, CGNet Swara. India
Florencia Coelho. VozData Project manager, La Nación. Argentina

Peter Cunliffe-Jones. Founder and Director, Africa Check. South Africa

Wouter Dijkstra. Founder and Director. TRAC FM. Uganda
Gustavo Faleiros. Founder, InfoAmazonia. Brazil

Noora Flinkman. Head of Marketing and Communications Unit, HarassMap. Egypt

Fábio Gusmão. WhatsApp users group Project manager, Extra. Brazil

Nigel Mugamu. Founder and CEO, 263Chat. Zimbabwe

Sibongile Nkosi. Our Health Project Manager, Health-e. South Africa

Alejandra Gutiérrez Valdizán. Editor-in-Chief, Plaza Pública. Guatemala

Dickens Olewe, Africa Skycam Project Manager, Star newspaper. Kenya

Parnell, Terry, Director, Open Development Cambodia. Cambodia

Oscar Parra Castellanos. Founder and Editor, Rutas del Conflicto. Colombia

Miguel Paz. Founder, Poderopedia. Chile

Yatirajula Kanaka Sandhya. Mera Swasthy Meri Aawaz Assistant Coordinator of Sahayog and Project Manager of Mera Swasthya Meri Aawaz, India

Experts consulted

Bill Adair. Co-author of the 2015 Fact-Checking Census and Professor of Journalism and Public Policy, Duke University.

Douglas Arellanas. Co-founder and Director of Innovation, Sourcefabric.

Eva Constantaras. Data Journalism Adviser, Internews.

Friedrich Lindenberg, Technology expert.

William Shubert. Senior Program Coordinator of the Earth Journalism Network, Internews.

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