



Community Radio, Gender and ICTs in West Africa

A Comparative Study of Women's Participation
in Community Radio Through Mobile Phone
Technologies

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This case study analyses the intersection between radio, gender and information and communication technologies (ICTs) in Sierra Leone, Liberia and Guinea. Specifically, it examines whether recent improvements in radio broadcast coverage and the spread of SMS technology are increasing women's access to information and providing them with a platform that adequately meets their needs. The findings show that, despite cultural and socio-economic barriers, women enjoy listening to radio and want to contribute to debates in their local public sphere. For today's younger women, it has become easier to overcome traditional obstacles to expressing themselves publicly, as well as to embrace the newest communication technologies, such as text messaging, that allow them access to a public platform. However, it is still difficult to get ordinary women of all ages to communicate with their local radio. Community radio is a male-dominated entity that often consigns women's programming to a narrow interpretation of gender issues, focused on women's roles as wives, mothers and homemakers, and does not address the listening needs of women as political and economic

actors in their own right. Thus, while the research findings show that women are listening to radio, it is evident that *radio is not listening to women*. However, women *are* willing to contribute more input into their community radio stations, if provided with the right incentives: more female presenters to increase women's voices, quality programming reflecting a more accurate picture of women's experiences, and interaction channels systematically designed to take into account the communications obstacles women face.

Despite the growth of social media and access to mobile phones throughout West Africa, radio remains the leading source of information, far outpacing television, newspapers and the Internet. It is a sustainable, cost-effective medium, able to reach large populations in a way that is relevant to local cultures and oral traditions. Radio has the advantage of accessing both literate and illiterate audiences, making it more appropriate for populations across Sub-Saharan Africa with low literacy rates. While itself a neutral tool, it is a medium that can lend the marginalized a voice and spread useful information, invaluable functions in transitional states such as the three under study here—Sierra Leone, Guinea and Liberia.¹² Community radio is a specific form of radio with added benefits: it is dedicated to serving the public interest of a particular geographic group or community and is usually broadcast in local languages. In contrast to state broadcasters, “community radio involves community organization, joint thinking and decision-making, all of which ... entail great potential for empowering communities and building a democratic society” (Center for International Media Assistance & National Endowment for Democracy, 2007).

Due to their dedication to serving community needs, community radio stations in West Africa play a valuable role in informing and representing public opinion. Current rapid expansions in information and communications technologies (ICTs) present a great potential for community radio stations to better serve audiences and encourage broad participation, in particular through mobile phones

¹² Sierra Leone experienced strife and civil conflict from 1991 to 2002. Liberia experienced war from 1989 to 2003. Guinea, while not experiencing war, has been in a fragile state since holding its first democratic election in 2010.

and short message service (SMS). Africa's poor fixed-line infrastructure, coupled with increasingly low mobile phone costs due to robust competition amongst service providers, has paved the way for the so-called 'mobile revolution.' The rate of mobile phone usage in Africa is growing faster than anywhere else in the world. Furthermore, text messaging from mobile devices has become the most widely used data application globally, with over 5 billion active users; currently approximately 200,000 SMS are sent per second (ITU, 2010).

Community radio stations in West Africa have begun to harness the power of mobile phones and SMS technology. For example, SMS is already being used by 83.8 percent of stations surveyed in a seven-country study across West Africa (Panos Institute West Africa, 2008). Listeners can call and text during interactive radio broadcasts to contribute news, views, stories and feedback. This input means radio stations have access to up-to-the-minute insight on the most pressing issues in their community and an instant form of evaluation of the quality of their programming. On the audience side, this communication tool allows listeners to have a voice in their community radio. In the long-term this leads to greater democratization, as there is little restriction to who can call or text (as compared to who might be chosen to participate in panel discussions, for example), and thus promotes inclusion of a broad spectrum of opinions in debates.

Nonetheless, it is important to recognize that revolutions in the media and technology landscape are occurring within social and cultural systems that, though increasingly under pressure to change, are in many cases still conservative. Communication and access to information is overwhelmingly concentrated in traditional centres of power such as the capital city or provincial administrative seats. In Sierra Leone, Liberia and Guinea, public channels of communication are dominated by men, with women's voices limited to the private sphere, if at all given a space. Even community radio stations, with the mandate to reach out to all sectors of the population, tend

to be male-dominated structures, with token women's programs and participation.

To better understand the role of gender in the convergence of community radio with new technological innovations, Search for Common Ground (SFCG) conducted a comparative research study in Sierra Leone, Liberia and Guinea, between November 2010 and June 2011, with funding from Carleton University's Centre for Media and Transitional Societies. SFCG is an international conflict resolution organization operating in five countries in West Africa,¹³ which works in close partnership with radio stations to open channels of information and dialogue that can effectively mitigate rumours, prevent and resolve conflict, and promote a more inclusive exchange of opinions to help move societies toward security and development. One key axis of SFCG's West African strategy is to promote inclusion of women in decision-making and other societal processes. This research project was intended to both provide evidence-based information on the gender, radio and ICT landscape in West Africa and to better inform SFCG's approach to peace and development issues in the countries in which it operates.

Gender, Development and Limitations to ICT Access

Development practitioners and feminists have long theorized that access to knowledge is key to women's empowerment. This hypothesis has been confirmed by a series of rigorous investigations on ICTs, participatory information, and women's access to Internet and mobile technologies. These include, for example, work by the United Nations Development Program on Communication for Empowerment (UNDP, 2006), a study by the Organization for Economic Cooperation and Development on the African Economic Outlook (OECD, 2009), and research by the National Endowment for Democracy on

¹³ Sierra Leone, Liberia, Guinea, Nigeria and Côte d'Ivoire. SFCG also has several other country offices in Africa, Asia, Europe and the Middle East.

the Impact and Challenges to the Development of Community Radio (Center for International Media Assistance, 2007). Projects carried out by the Gender Research in Africa into ICTs for Empowerment project (Gertrudes, Mandlate, Ginger, Gaster & Macome, 2009) and by the International Development Research Centre (Opoku-Mensah, 2000) highlight how ICTs provide a platform for women's voices to have a greater impact in the shaping of public opinion. Researchers Hafkin and Taggart (2001) argue that ICTs allow isolated women to gain access to information that was not previously made available, thus helping them to become better-informed members of society and empowering them to speak on issues previously limited to men.

Despite the benefit that ICTs can bring to movements for women's empowerment, there remains much work to be done to fully tap this potential. Conservative cultures prevail in West Africa, particularly in rural areas, and are usually structured around a highly patriarchal system. According to Elijah and Ogunlade (2006), women are traditionally restricted to the family network, while public and community systems are the male domain. Since their main role is expected to be domestic, the vast majority of rural women normally listen to the radio at home, where access to newer technologies such as Internet is more limited (Huyer, 2002). Even community radio, as a *public* forum, remains dominated by male voices and interests.

Further, the education system favours male uptake of new technologies. A lack of education is a significant obstacle to women's capacity to access technologies, and to understand and articulate themselves in public debates (Myers, 2004). Even in more affluent settings where women have opportunities to become educated, it is men who are encouraged to learn and use technology, giving them a distinct advantage in a knowledge-based society (Khan & Ghadially, 2009). Due to confinement to the private sphere and a lack of access to ICTs, women are more likely to be passive receivers of technology than producers (Hafkin & Taggart, 2001). This often means that

women's needs, interests, and priorities are marginalized by male-dominated media production structures.

Methodology

This research project involved a comparative study across three West African countries (Sierra Leone, Liberia and Guinea) to explore the current intersection between radio, gender and ICTs. The broad research questions were:

- 1) **Listenership:** Is community radio station programming taking into account women's preferences and improving their access to information?
- 2) **Participation:** Are the increasingly popular methods of interactive radio broadcasting – including text-messaging and call-ins – sufficiently engaging women and providing a platform for information and dialogue that meets their interests?
- 3) **FrontlineSMS:** Can implementing an SMS mobilization program like Frontline SMS increase women's interaction with radio programming? FrontlineSMS is a software program which manages text messages on computers, thus facilitating the ability of radio stations to engage their audiences.¹⁴

An expected outcome of the research was to provide evidence-based recommendations for inclusive development and peacebuilding strategies in West Africa. To respond to the research questions and achieve this outcome, an integrated methodology and tools were employed for all three countries. An all-female research team was recruited, as SFCG's previous experience, particularly in rural areas,

¹⁴ This software program was selected above others for several reasons: its easy accessibility as free, open-source software (meaning it is regularly updated with feedback from users); its small size and simplicity, making it easy to download and train target groups to use; and the commitment of the FrontlineSMS community to using ICTs for empowerment. For more information see www.frontlinesms.com.

has shown that it is far more likely for women to freely express themselves to other women than to men.

Research was carried out in a total of six communities (two each from Sierra Leone, Liberia and Guinea), for a period of six weeks each, according to the following selection criteria:

- Geographically outside the main urban hub of the country (i.e. Freetown in Sierra Leone, Monrovia in Liberia and Conakry in Guinea);
- Proximity to a well-established community radio station with wide coverage in the region (so that both urban and rural populations are able to tune in), regular interactive programming and using computer-based technology.

To conduct this study a mixed method of qualitative and quantitative methods were employed:

1. Surveys administered to women
2. Community Radio Staff Questionnaires and Station Observation Forms
3. Focus Group Discussions
4. FrontlineSMS Data Collection

Table 1: Selected Communities

Country	Town	Community Radio Station
Liberia	Gbarnga	Radio Gbarnga
	Buchanan	Radio Gbehzohn
Guinea	Mamou	Mamou Rural Radio
	Kindia	Kindia Rural Radio
Sierra Leone	Mile 91	Radio Gbafth FM 91
	Kenema	Eastern Radio

Surveys

To investigate women's radio listening and participation habits, enumerators administered surveys among adult women, of all education levels, civil statuses and occupational backgrounds. Following previous research and cultural conventions in West Africa,¹⁵ women were considered 'adult' after the age of 15 years, rather than the legal age of majority (18). This definition allowed the survey to capture the demographic of young students, an important element since young women are more likely to embrace new technologies. To best capture generational disparities, the surveying was weighted to the general population distribution, approximately the same in the three countries: of adult women, 60 percent are between the ages of 15-35 years old; 40 percent are 35 years and older. The former group was considered 'younger' women for research purposes, while the latter was considered 'older'.

The purposive method was used, meaning deliberately seeking out the required targets in places where they were likely to be found: markets, health centres, salons, schools, etc. An element of randomisation was introduced by selecting for interview every second woman who fulfilled the criteria. Efforts were made to obtain a reasonably representative sample, by surveying both rural and urban areas. Though it was not always possible to question women on their own (especially in markets), as far as was possible, each interviewee was isolated to avoid third-party interference.

¹⁵ See, for example The Hironnelle Foundation 2010 Media Use Survey.

Table 2: Total Female Population Surveyed

Country	Total sample size	Younger women		Older women	
		Number	%	Number	%
Sierra Leone	535	323	60.5	212	39.5
Liberia	600	359	59.8	241	40.2
Guinea	518	312	60.2	206	39.8
TOTAL	1653	994	60.1	659	39.9

Community Radio Staff Questionnaires and Station Observation

Researchers conducted two separate interviews at the community radio station in each target area, one with the radio station manager and one with the presenter of a program favoured by women listeners, to explore their qualitative level of “buy in” and commitment to addressing women’s needs.

The questionnaires provided baseline information on each radio’s in-house procedures for developing programs, assessing quality and gathering listener feedback, as well as an overview of their assumptions concerning women listenership/interaction. As a complement, the researchers observed the radio station’s programming to gain an overall understanding of the general nature of broadcasts and audience interaction.

These tools enabled researchers to assess the unique broadcast contexts of each radio station: different broadcast hours (for example, in Guinea, the stations were off-air throughout the afternoon); different emphasis on local languages (most programming in Liberia was in English; in Sierra Leone, mainly in the official national languages English or Krio; in Guinea, almost entirely in local languages,

rather than French); different percentages of interactive programs; different formats for women's program, etc.

Focus Groups

Consolidating the results from the women's surveys, researchers probed for a deeper, qualitative understanding of the way in which women were using their community radio, their degree of use and ease with mobile phones, and the barriers to participation in interactive programming that they faced. A variety of focus group sessions were conducted in each community, covering a range of socio-economic groups: younger women (15-35 year olds); older women (36+ year olds); illiterate women or those from more vulnerable groups; women leaders in the community; and female radio station staff.

Table 3: Focus group discussions conducted

Country	Community	Number of FGD	Total number of participants
Sierra Leone	Mile 91	4	25
	Kenema	4	16
Liberia	Gbarnga	4	20
	Buchanan	5	22
Guinea	Mamou	5	24
	Kindia	4	25
Total		26	132

FrontlineSMS Data Collection

For each participating community radio station, the researcher provided a GSM modem and a laptop computer containing the Front-

lineSMS software.¹⁶ Staff were then trained on how to use the program; thereafter it was launched to archive all text messages received during programming.

For the first three weeks, FrontlineSMS was simply used to collect baseline data on listeners texting in for the most popular program and for the program identified as most popular among women listeners through the survey. The data was disaggregated by gender based on the name of the sender.

During the last three weeks of monitoring, some of the advanced features of FrontlineSMS were implemented: text messages were sent to all saved contacts in the FrontlineSMS database, to remind listeners to tune into each upcoming women's-preferred program. In addition, a "thank you" reply was automatically sent via SMS to all listeners who texted in during broadcast so as to demonstrate appreciation and encourage future interactivity.

At the end of the research period, data from the two periods was compared to determine any changes in interactivity, particularly among women.

Research Limitations

With a limited amount of time for field research, it was more difficult to reach women in isolated areas, although local field contacts and radio station staff facilitated access as much as was possible. As a result, there was an urban bias to the data, as demonstrated by the fact that the average levels of literacy and education in the sample were far higher than the national averages.

The limited timeframe also prevented long-term mentorship of radio station staff – many of whom had very limited ICT skills – in the use of FrontlineSMS prior to data collection. As a result, there were inconsistencies in the implementation of the software by sta-

¹⁶ The equipment remained with the station afterwards, to encourage them to use the new tools sustainably.

tion staff over the six weeks, the consequences of which are discussed further below in the results section.

Finally, the research focused almost entirely on women and radio – yet there are many other actors, such as husbands and traditional leaders, who directly influence listening habits. A longer timeframe and larger scope for the study would have enabled a more comprehensive analysis of the determinant factors in women’s listenership and interaction with their local radio stations.

Key Findings

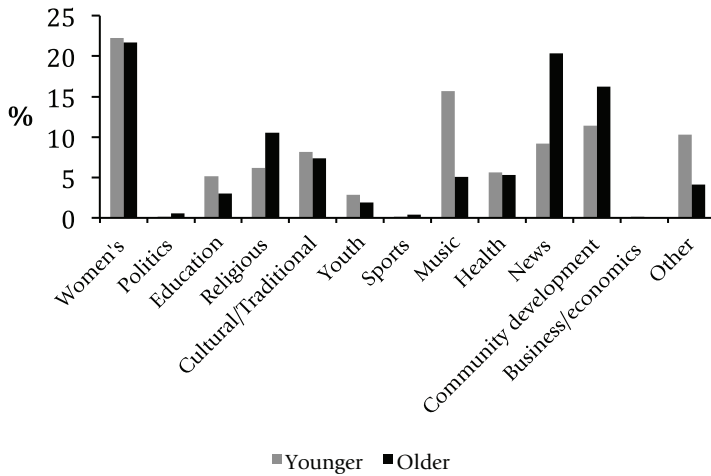
Though certain urban biases emerged in our survey samples, and each context demonstrated distinct characteristics, some broad trends from survey results, focus groups and interviews nonetheless emerged with regard to the potential for gender-inclusive radio and women’s participation.

Listenership

Overall, Sierra Leone had the highest radio listenership rate at 85.8 percent of those women surveyed, followed by Liberia at 81 percent and Guinea at 73.6 percent. Women overwhelmingly responded that they would like to hear more women’s programming in all three countries.¹⁷ In terms of what they actually listened to most, women’s programming is also the overall favourite type of programming for both older and younger women, as shown in Figure 1 below.

¹⁷ Women’s programming refers to radio broadcasts explicitly designed by the station to target their female audiences.

Figure 1: Favourite program, by age



There were variations within this pattern however: in Liberia, women's programming was much more entertainment-based and therefore younger women preferred it more than older women did. In Sierra Leone, on the other hand, older women preferred women's programming, which was more focused on domestic issues, marital relations, child-rearing and education. In Guinea, women's programming was far less popular among both age groups than in the other two countries, likely due to the unfavourable programming hours.¹⁸

Generally, women in the respondent sample liked to listen to programmes that informed and educated them, and dealt with the interests and issues that affect their daily livelihoods. Women appreciated women's programmes as a space to express themselves, to participate in public life, educate them on their rights and give them protection against harmful traditional mindsets.¹⁹ Also, women usu-

¹⁸ In Kindia the programme was broadcast at 10:00 a.m. on Sunday mornings when most women were at their farms. The popularity of the women's programme was much higher in Mamou, where it was broadcast in the evening.

¹⁹ For example, in Mamou, the radio station offered specific programming on the need to stop the practice of female genital mutilation, despite receiving much criticism and harassment from community, traditional and religious leaders. Indeed, the radio was

ally listened to the radio with their families and thus messages on women's issues also reached men. Indeed, during focus groups across all three countries, older women testified that listening to the radio with their husbands had led to some degree of abandonment of traditional mindsets and behaviour, including domestic violence. "The radio," noted one participant, "is helping women to become responsible and that is an element of emancipation."

Almost no women surveyed cited politics or business/economics/finance programmes as their favourite type. Yet these are issues that greatly affect women's livelihoods, especially as women are usually a source – if not *the* main source – of income for their households. While women did not tend to listen to such programmes, they did express a desire to do so. For example, having greater access to informed and tailored programming on economics was cited as important for agriculturalists, petty traders and businesswomen. As for politics, in Liberia, where presidential elections were scheduled for late 2011 with an incumbent female candidate, women had ideas for elections-based programmes. In Guinea they highlighted the need for radio to push for women's registration in the anticipated legislative elections, as well as for programmes that would advocate for greater female participation in decision-making bodies.

There was a notable interest in political and economic issues by women, but radio stations were failing to present these issues in such a way as to engage women. A contributing factor may be that these subjects are traditionally male-dominated, leading to few public female voices weighing in on debates and thus less encouragement for women to listen and participate.

Another important research finding was that women prefer to listen to the voices of other women on the radio and are better able to relate to issues when hearing them from a woman's perspective. As

one of the few institutions openly discussing this deeply-rooted custom and calling for its abolition.

explained in focus groups, women felt that, “every woman who speaks on the radio expresses the needs of all of us.” Younger women claimed to feel more inspired and motivated to follow advice on the radio when it came from another woman and noted that female broadcasters talked about issues that they did not feel comfortable raising with their parents or even friends. Guinea was the only country where the surveys showed the opposite trend, in that most women surveyed preferred hearing men’s voices. However, when probed in focus groups discussions, all women across age and occupational groups agreed that they would rather listen to women talking about the issues that concerned women specifically.

Participation

Based on observation and interviews with station staff, interaction between female listeners and the local community radio station is significant. Interactive programming in all three countries had no shortage of female callers. According to survey results, over a quarter of women who listened to radio had called a station at least once, though only 13 percent had sent text messages.²⁰ Liberia had the highest percentage of women callers (32 percent) despite not being the top in terms of access to or ownership of phones among respondents. The relatively high level of participation (compared to 22 percent in Sierra Leone, for example) can be partially attributed to the fact that the two Liberian radio stations had a better technical set-up for interaction: both had set up partnerships with private phone companies to ensure constant electricity and provide a choice of networks to allow people to call more cheaply or for free.

When disaggregating the results, the research showed that the principal determinant for calling was, unsurprisingly, direct access to mobile phones. Indeed, the most common reason given for never

²⁰ Given that only 38% of respondents claimed to know how to use text messaging functions, the low figure is perhaps unsurprising.

having called was the lack of a mobile phone. There was no consistent trend in favour of either age group; in spite of the fact that younger women are significantly more likely to know how to text, age was not a direct determinant of likelihood of interaction. Rather, the key demographic factor in participation in community radio appeared to be social class, as defined by literacy, education and occupational status: women who called, and in particular those who texted, tended to have higher literacy rates, to be more highly educated, and to have higher occupational status (for example, as a government or office worker compared to a petty trader).

Overwhelmingly, women who called and texted said they did so because they wanted to contribute their viewpoint to the programme. Furthermore, very few of the women who had never contacted their stations claimed this was because they were uncomfortable with sharing their opinion or having their voice publicly heard. This discredits more conservative notions that women are not interested in having a public platform to express their experiences or in having a stake in key debates.

However, one important finding from the research was that nearly one-quarter of radio listeners who had never called a station cited a lack of interest for their failure to participate. This implied that radio station programming was failing to motivate women sufficiently to engage. Yet 90 percent of women who said they had never called also said they were open to calling in the future. This again demonstrated that women wanted to participate in their community radio but there remained significant obstacles to overcome in order for them to do so.

FrontlineSMS

There were several technical challenges encountered during the implementation of FrontlineSMS, including electricity outages and computer breakdowns, highlighting the challenges of technology in

rural areas and affecting the ability to collect data consistently. Furthermore, despite recognising the utility of the new software and its features, a general lack of proficiency in ICTs among radio station staff proved to be an obstacle, especially in Guinea. Finally, high staff turnover in stations (with most presenters being volunteers) meant the programme was not used consistently. As a result of these challenges, it was impossible to draw conclusions from statistical data or compare across samples.

However, from a qualitative perspective, the software did prove to be of value to radio stations: it enabled them to streamline their interaction process, dedicating a single number for feedback and avoiding the need for individual presenters to use personal phones to collect messages. It also provided a new means for audience interaction: Guinea, where there had previously been no texting-in option at the two stations, had the highest numbers of listeners choosing to contact the station by text message, showing the existence of an untapped market. The software also enabled the stations to permanently archive messages (where previously they were deleted from phones) for regular review of audience feedback.

Implications of Findings

Listenership

Women were listening to radio, but radio stations were not listening to women. Radio was failing to meet the needs of women in their communities despite a stated belief from radio station staff that they were capturing the interests and opinions of women. The overwhelming majority of radio staff was male (no station had more than two female presenters, most having only one, some with none). Women's broad range of concerns and interests, such as in economic self-sufficiency, were not sufficiently being taken into account in programming. Instead their interests were generally narrowly de-

defined as issues relating to children, housekeeping and their marriages. Yet, the results showed a significant demand for programming tailored to women's needs, including their political and economic participation in their communities. Furthermore, since women's programming was often considered a "token" measure, rather than as an intrinsically valuable tool to reach out to and engage the female half of the population, there were cases—as in Kindia, Guinea—where programming schedules were completely unsuited to the listening habits of the target group.

There are some basic measures that radio stations can take to improve on their responsiveness to women listeners, including programming adequate timeslots. Radio stations must take into account the listening habits of women when defining their program schedules if they truly intend to engage with female listeners. It is also important to diversify women's programming and not limit it to stereotypically feminine issues such as childcare or romance. Women have a vested interest in other issues, such as economics and politics, yet they are not being engaged on such programming sufficiently. These are also areas that are traditionally dominated by male voices and, indeed, the lack of adequate female voices and opinions on the radio contributes to the lack of women's engagement in such programming.

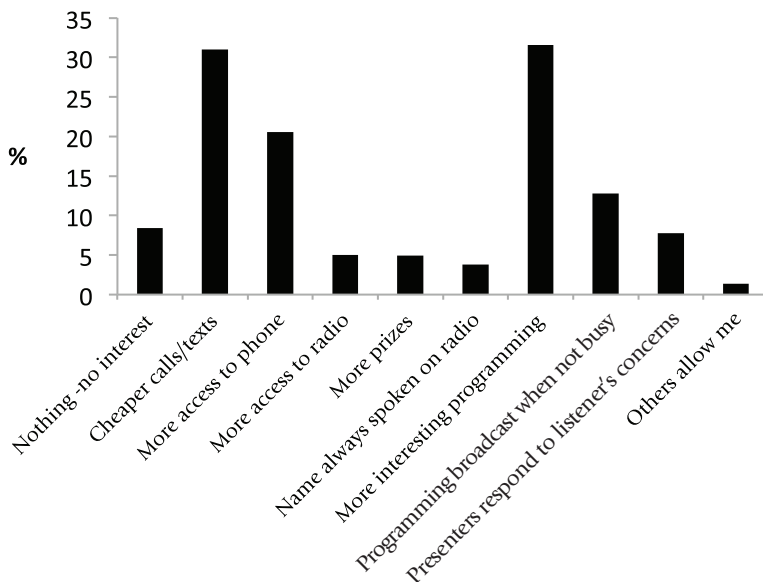
Participation

Women felt more empowered to participate when they heard other women on a public platform. Research showed there are few women in radio (in some stations even the women's program was presented by a man). Women listeners stated that even the best-trained men could not transmit information on women's issues as well as a female presenter. Furthermore, it is not solely a question of bringing on board more female presenters, but also of soliciting the voices and opinions of a range of ordinary women during programmes. Radio sta-

tions need to reach out to their community and enable even the most marginalised women to have a say. As the station manager in Mile 91, Sierra Leone, admitted, presenters who could not relate to the experiences of the most disadvantaged populations frequently gave advice that was not necessarily useful or relevant to their lives. One of the reasons their "Tata Su" program was so popular in rural areas around Mile 91 was that it gave a public voice to the most disadvantaged and vulnerable of women, allowing them to feel a sense of worth and belonging in their community.²¹ In Mamou, Guinea, one female radio presenter had worked over several years to get more women's voices on air, going to markets and rural areas to interview ordinary women on their perspectives. As a result, most of the women interviewed in focus groups in this town (young, old, community leaders, market traders, fish vendors, tailors, etc.) had been to the rural radio station to talk about their various experiences. This contrasted starkly with focus groups in other communities where, though the participants had listened to the community radio for years, the vast majority outside of the 'community leader' group had never been invited to the station. Thus women found radio programming more encouraging and easier to relate to when they listened to other women, and not just professional female journalists or community elites.

²¹ Tata Su, produced by Radio Gbafth in Mile 91, Sierra Leone, is an original local language program, in which the presenter travels to rural settings to listen to people's requests and concerns and broadcasts messages and information to family members in other locations. As it takes the time to go into communities and talk to families, women are afforded a greater voice than in other programs.

Figure 2: Suggestions by women to increase their interaction during radio programmes



While those who called or texted during radio programming constituted a minority, women who did so because they felt they had something of value to contribute. Furthermore, those who did not participate very rarely cited cultural barriers that dictated they should remain quiet. The main inhibitors to interaction were that the radio stations were not engaging women in the most effective ways during programming, a lack of female voices on air, and material factors (lack of credit, phones, radios, etc.). Increased socio-economic development will contribute towards a greater trend for participation, by giving women both the confidence and tools necessary. As Figure 2 shows, there is significant scope for radio stations to take action to better engage women.

FrontlineSMS

Text messaging technology is a useful alternative for listeners to participate in radio programmes, and particularly so for women, given that they tend to have more economic restrictions and texting is a cheaper option than calling. It also gives a degree of anonymity to those who want to talk about the sensitive issues that often concern women (rape, female genital mutilation, domestic violence, etc.), which are still controversial to speak publicly about. In sum, it allows those who are unwilling or unable to have their voices on air to nevertheless have their opinions heard.

Efforts to systematically use the advanced features of FrontlineSMS to encourage interaction and collect data were a failure due to a lack of technical proficiency and logistical issues outside of radio station staff control. Nonetheless, the adoption of this software (and the upcoming version specially tailored for radio use) is likely to produce benefits in the long term. In the short term, radio station staff noticed a marked improvement in the ability to choose and read text messages on the air, and appreciated the ability to store records of audience participation.

Conclusions and Recommendations

Despite certain cultural and socio-economic barriers, women are increasingly showing they have something important to contribute to the national discourse and to their local public sphere. Community radio is an important tool for this empowerment and has contributed to the education and development of women. But radio, community or otherwise, is still male-dominated and carries traditional social stereotypes. In addition, there appears to be a prevalent, self-serving assumption that if a radio station provides a women's program then it has somehow met women listeners' needs. Radio too often consigns women's programming to a narrow interpretation of gender issues including marriage, childcare or domestic responsibili-

ties. Women are usually viewed through a traditional model – in the context of their relationship to their husbands or children – and not as individual agents with a broad range of interests and needs.

It is still far from straightforward to get ordinary women to talk on the radio about their experiences, opinions and interests. This will not change without an increase in female radio presenters and contributors, which women cited as a main factor in their listening preferences.

For the latest generation of young women, it has become easier to overcome traditional cultural obstacles as well as to embrace the newest technologies that allow them access to a public platform. However, increasing participation hinges on opening up access to the radio for all age and social demographic groups. This can be done in a variety of ways, some of which have been tested and shown to be successful. In Liberia, the station's technical set-up shows that providing listeners with more and cheaper means of calling has a positive impact. In Mamou, the influence of a dedicated radio officer in actively recruiting more marginalised groups to participate has had significant results. The introduction of text messaging technology provides yet another alternative to communicate with radio stations.

Software programmes such as FrontlineSMS provide radio stations with new tools to improve audience participation. As a system of mass communication, FrontlineSMS gives radio stations direct access to a large database of repeat callers and texters, from which it can learn more about an audience's concerns, preferences and motivations. Over time, this will allow radio stations to develop more targeted programming, better attuned to the needs and interests of the community it aims to serve. Better knowledge of the audience is also crucial for radio stations, as it allows them to develop more intelligent business models. By capturing the interests of its listeners, they will be more able to tap into a larger source of revenue through deals with private companies, such as advertisers and phone net-

works. By promoting the use of texting technology, stations are simultaneously raising the profit of phone networks, and therefore have leverage to negotiate for service deals (such as free call-in lines) that can further encourage user interaction. Economically-speaking, the use of text messaging through technology such as FrontlineSMS is beneficial to listeners, radio stations and private companies.

In conclusion, the convergence between ICTs and traditional forms of communication has presented women with new opportunities for raising their public profile. However, while certain obstacles of cost and access to mobile phones can certainly be lessened due to ICT solutions, technology is not a panacea in and of itself. Community radio stations in West Africa have proven themselves to be agents of change in favour of peace and community cohesion; to continue this trend they must be active and deliberate in engaging all stakeholders, including women, in community development. The increasing convergence between radio and ICTs is a positive sign for women's empowerment, but needs further impetus from social institutions with the capacity to bring about or promote change. Community radio stations must now seize the initiative to develop programming that effectively incentivises women to engage, so as to maximise the potential of ICTs to improve the lot of women and hence of societies overall.

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