



# “Citizen Access to Information”

## *Capturing the Evidence across Zambia, Ghana, and Kenya*

Gerry Power, Samia Khatun, and Klara Debeljak

When the crucial information and communication needs of the poor go unmet, quality of life may significantly degrade, resulting in social exclusion, marginalization, isolation, alienation and humiliation. (World Bank 2003, p. 36).

In this chapter, we argue that citizen access to information is a catalyst to the achievement of the Millennium Development Goals (MDGs), a set of country-based targets to be reached by 2015. They include reducing extreme poverty and child mortality rates, fighting epidemics such as AIDS, and developing a global partnership for development. We examine how “citizen access to information” (Khatun, Debeljak, and Power 2010) varies across a range of population sub-groups, different countries, and across a variety of topics and the extent to which access to information is related to people’s health, finance, livestock, and agricultural practices. We draw on data from the *AudienceScapes* Research Initiative, gathered in three countries: Zambia, Ghana, and Kenya.

The “citizen access to information” framework and data analysis afford a rich discussion of the methodological challenges of comparing data across three countries. What access exists to information resources and mass media? How much exposure is there to the information that is available? How do people relate to or evaluate the content? How specific is the information to the needs of citizens? How do citizens attribute what they know to what they have seen or heard? In the next section, we review the barriers to conducting valid and reliable comparative research.

Comparative research is not without its challenges, which is why many scholars believe its use should be limited. Comparative research has become even more difficult as it is no longer possible to consider nations as a single unit due to the heterogeneity of societies within a specific region. With globalization and increasing movement across national borders, cultures are no longer separate or autonomous. This is why thinkers such as

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Chisholm (1995) and Steier (1991), among others, believe that it is impossible to compare nations as they are too diverse. Livingstone (2003) argues that cross-national research can produce measurements out of context, while focusing on universal theories and methodologies at the cost of cultural specificities (see also Power 2011). Comparative research is believed to work better with quantitative research as this type of data can be easily collected and coded according to universal guiding practices. Qualitative data are more dependent on the cultural context, making comparisons more complex.

There are many different approaches to comparative studies. Kohn (1989) identifies four approaches. The first uses the nation as an object of study. The second employs the nation as a context of the study. The third uses the nation as a unit of analysis and the fourth approach considers the nation as a component of a larger international or transnational entity. When conducting research it is important to be aware that research projects across continents, while capturing grand differences, may miss the finer distinctions. On the other hand, research on similar countries may miss the bigger picture. When carrying out comparative research, it is essential to get the balance between similarities and differences right, which raises the question of methodological standardization. In the next section, we review the challenges of conducting comparative research in Africa.

## Comparative Research in Africa

Conducting multicountry national studies across Africa is extremely challenging for various reasons, including low literacy rates, gender issues, weak infrastructure, and population diversity. First, to address challenges related to illiteracy, data enumerators have to be native speakers of the local languages and in areas with high levels of illiteracy the questions have to be read out at a slower pace. The latter negatively affects the maximum length of the questionnaire, which needs to be considerably shorter than in countries with higher literacy levels.

Second, gender issues also play a very important role in most African societies and often special care is needed, particularly when interviewing women, as not all subjects are deemed appropriate for discussion, especially with strangers. Certain questions, particularly those related to political issues, income, or religion can be especially sensitive and may cause suspicion and therefore need to be given additional attention. Further, researchers often need to obtain permissions from national and local authorities prior to the start of the fieldwork. This can be a long process, and in some cases the authorities may decide to ban certain questions of a more sensitive nature. Security risks in certain areas represent another challenge and often individual regions need to be excluded from the sampling plan due to the instability of the security situation. Close cooperation with the local elders is therefore often crucial to ensure the safety of the researchers in the field as well as to successfully complete the fieldwork.

Third, the road infrastructure and flight connections in many African countries are extremely limited, making transport costs and logistics very expensive. In some countries, such as Sudan, the use of road transport is not always recommended due to high levels of banditry, forcing researchers to rely on flight connections. These are frequently

subject to delays and cancellations, which may create a large number of layovers and overnights and therefore further inflate the overall cost of transport. Poor transport infrastructure may also negatively affect the time in the field and result in unexpected delays. Due to low penetration of landline phones, it is often necessary to conduct national surveys face-to-face.

Lastly, many of the 53 countries in Africa (see [www.moibrahimfoundation.org](http://www.moibrahimfoundation.org)) have diverse populations comprising multiple tribal, ethnic, religious, and linguistic subgroups. Population proportionate representative samples can be extremely difficult, time consuming, and costly to achieve. Finally, census data for many countries in Africa are extremely out of date and the construction of reliable samples are further complicated in areas where there are significant transient populations.<sup>1</sup>

## Access to Information

In the North, information seeking increases during periods of instability and uncertainty (Valentino *et al.* 2008). People tend to seek out information on current events when there are heated political issues such as elections, public protests, referenda, or high profile court cases. Public conflicts and crises, in particular, attract large audiences in search of news and security information (Spence, Lachlan, and Burke 2008). Other types of events, such as public health crises, can also influence information-seeking behavior (Albright 2003). In the South, uncertainty and ambiguity can often revolve around daily food and water supplies as well as security.

Our approach to citizen access to information is influenced by the Communication Infrastructure Theory work of Ball-Rokeach and her colleagues (see Matsaganis, Katz, and Ball-Rokeach 2010). This theoretical approach is particularly relevant as it takes a communication ecology perspective, recognizing the larger context in which information is shared; it is multilevel and focuses attention on media resources that serve the interests of ethnic populations, a phenomenon that is common in many developing countries that are multiethnic, religious, and linguistic. The work of Twaweza ("we can make it happen" in Swahili), a three country (Kenya, Uganda, and Tanzania) initiative focused on strengthening citizen agency regarding accountability in the areas of health, education, and water, is also relevant to our approach (Twaweza n.a.). One of the key facilitators in Twaweza's methodology is to enhance citizen agency by increasing access to information:

First, we seek to enhance "citizen agency", by which we mean the ability of men, women and young people to get better information more quickly, cheaply and reliably; monitor and discuss what's going on; speak out; and act to make a difference ([www.twaweza.org](http://www.twaweza.org)).

We also draw on the work of Mody *et al.* (2010), who advocate for a return to the study of state media, since state radio and, sometimes, television are the only mass media sources available to large portions of rural populations in developing countries. We employ the term ICM (Information, Communication, and Media) resources to acknowledge the significance of the interplay between information sharing, communication

patterns, and media consumption or exposure (Chatterjee *et al.* 2009). Further, a focus on ICM embraces the potential of social media to facilitate information sharing between citizens. Finally, our work is informed by the key principles of the Panos Network, where citizen access to information is at the heart of development and central to change (Panos n.a.).

There are various definitions of access to information. The bulk of the theoretical and empirical analysis that has been undertaken, particularly in developing countries, has focused on connectivity, which is the narrowest form of the definition. Most would argue that access to information is more than just connectivity. We reject the limited focus on connectivity and define access to information as a composite measure of access to source/s or platform, exposure, evaluation, content, and self-reported differences in citizens' reporting of their relationship with their ICM resources. Below we elaborate on each of these dimensions in more detail. In the next section, we draw on the World Health Organization's Demographic Health Surveys (DHS), the most extensive citizen-level data-gathering program across developing countries.

### Demographic Health Surveys

The main aim of Demographic Health Surveys is to provide the latest information for researchers and policymakers to lead health policy initiatives. These surveys collect data using household questionnaires, individual questionnaires, and optional questionnaire modules. Individual questionnaires discuss a wide range of topics from HIV and AIDS, child health and reproductive health, among others. The optional questionnaire modules are produced to address any country specific information not addressed in the main questionnaire. The household questionnaire covers general household information, such as the age, sex, and educational attainment of each household member as well as household assets, sources of drinking water, and sanitation amenities.

Measuring access to mass media in DHS surveys is limited to asking respondents how often they read a newspaper, watch television, and listen to the radio. The DHS surveys use a standard questionnaire so that the data are comparable across countries (Measure DHS n.a.). The observations in these various studies raise important questions about the access to information that citizens have about issues directly relevant to their health and wellbeing. The following are the media questions and related health questions taken from the 2008 DHS Model Woman's Questionnaire:

- Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?
- Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?
- Do you watch television almost every day, at least once a week, less than once a week or not at all?
- In the last few months have you:
  - Heard about family planning on the radio?
  - Seen anything about family planning on the television
  - Read about family planning in a newspaper or magazine?

- In the last 12 months, were you visited by a fieldworker who talked to you about family planning?
- In the last 12 months, have you visited a health facility for care for yourself (or your children)?
- Did any staff member at the health facility speak to you about family planning methods?  
(Measure DHS 2008)

We argue that the questions in the DHS survey regarding media consumption are inherently limited in their generality and present limited insight into citizen's access to information. Further, establishing the relationship between citizen access to information and the achievement of a broad range of development objectives like the Millennium Development Goals (MDGs) is not possible with current data-gathering efforts.

## Millennium Development Goals

The Millennium Development Goals (MDGs) are eight international development goals that all 192 United Nations member states and at least 23 international organizations have agreed to achieve by the year 2015. They include reducing extreme poverty, reducing child mortality rates, fighting disease, epidemics such as AIDS, and developing a global partnership for development.

- Goal 1: Eradicate extreme poverty and hunger.
- Goal 2: Achieve universal primary education.
- Goal 3: Promote gender equality and empower women.
- Goal 4: Reduce child mortality rate.
- Goal 5: Improve maternal health.
- Goal 6: Combat HIV/AIDS, malaria, and other diseases.
- Goal 7: Ensure environmental sustainability.
- Goal 8: Develop a global partnership for development.

(UN Millennium Project 2005).

Currently none of the eight Millennium Development Goals mention the provision of information. In the context of MDGs, provision of information is mentioned only as one of the sub-targets and one of the indicators.

The provision of information therefore appears as an indicator for monitoring progress within MDG 6:

Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS (UN 2008).

Information Communication Technologies appear as an MDG target within Goal 8, specifically within target 8F:

In cooperation with the private sector, make available the benefits of new technologies, especially information and communications (UN 2008).

This target is measured by three indicators, namely, increasing telephone lines per 100 population, increasing cellular subscribers per 100 population, and increasing Internet users per 100 population.

Progress towards reaching the goals has been uneven. Some countries have achieved many of the goals, while others are not on track to realize any. The major countries that have been achieving their goals include China and India. The poverty rate in East Asia dropped from 452 million to 278 million primarily because of the dramatic reduction in poverty in China. However, areas needing the most reduction, such as Sub-Saharan Africa, have yet to make any drastic changes in improving their quality of life. In the same time as East Asia, the Sub-Saharan Africa regions reduced their poverty by about 1% and are at a major risk of not meeting the MDGs by 2015 (Besley and Burgess 2003). Table 15.1 summarizes the progress on each one of the eight MDG goals in the three countries focused on in this chapter: Zambia, Ghana, and Kenya. In general, Ghana fares the worst, while all three will only achieve many of their targets “if some changes are made” (MDG Monitor 2010).

In an interdisciplinary review of the MDGs, Waage *et al.* (2010) highlight the fragmentation and lack of synergy between the MDGs, particularly the division of the health MDGs concerning reducing child mortality (MDG4), maternal health (MDG5), and combating HIV/AIDS, malaria, and other diseases (MDG6). The authors believe that there are lost opportunities created by limited goals, especially with reference to universal primary education (MDG2). The focus on primary education means that secondary and tertiary education, which is essential for improving future incomes and training health care professionals to help achieve certain other MDGs, remains underdeveloped. There is no reference to the role of information in the report from nineteen academic authors from seven countries across multiple sectors.

In contrast, we argue that citizen access to information is an important catalyst for the achievement of the MDGs. Second, we believe that tracking citizen access to information over time would aid in resource allocation efforts to support all of the objectives. Third, we propose that a useful and active measure of citizen access to information should capture the experience of multiple dimensions across different subgroups within different countries, in order to be valid and reliable. In the next section, we review the literature linking information, communication, and media to the MDGs.

## Information, Communication, Media, and the MDGs

Much has been written about access to information and its role in development from poverty reduction to encouraging good governance. However, the discourse has been largely framed in the context of ICTs (Information Communication Technologies). While there is a general consensus that ICTs can play a pivotal role in enhancing citizen participation and contributing to the achievement of the MDGs there has been a lack of empirical evidence and statistical analysis to support this assumption. In 2003, the World Bank in their paper entitled ICT and the MDGs highlighted the impact of ICTs on all eight of the MDGs. They maintain that ICTs can bridge geographical distances and provide rural residents with relevant information, which can significantly reduce poverty.

**Table 15.1** Progress by goal – MDG Monitor ([www.mdgmonitor.org](http://www.mdgmonitor.org)).

	ZAMBIA	GHANA	KENYA	LEGEND
Eradicate extreme poverty and hunger				ACHIEVED
Achieve universal primary education				VERY LIKELY TO BE ACHIEVED, ON TRACK
Promote gender equality and empower women				POSSIBLE TO ACHIEVE IF SOME CHANGES ARE MADE
Reduce child mortality				OFF TRACK
Improve maternal health				INSUFFICIENT INFORMATION
Combat HIV/AIDS, malaria and other diseases				
Ensure environmental sustainability				
Develop a global partnership for development				

They claim that ICTs can improve information flows and communication services to make government and organizations serving the poor more efficient, transparent, and accountable. ICTs can help the disenfranchised voice their concerns, demand their rights, and take control of their own lives.

In 2006, those who took part in an InfoDev online discussion (Shields, Chetley, and Davies 2008) about the role of ICTs and health pointed out that they had yet to find any studies or research, especially on the issues of child mortality and maternal health (MDG 4 and 5). Most could only provide case studies on the issue of disease prevention (MDG 6). The overall conclusion of the discussion was there was a lack of “impact” data and analysis about ICTs and health, which is essential for proving effectiveness. The main theme running through the discussion was that ICTs were only as good as the communication they enabled. Furthermore, the consultation concluded that ICTs cannot be considered individually, they were only a tool for development, and their main purpose is for communication and information. There was also recognition that although ICTs play a pivotal role in health communication there was a risk of overemphasis on ICTs at the cost of other communication tools that could be more effective and appropriate depending on the specific circumstances.

In a 2006 report (UNDP 2006), the UNDP referred to “Communication for Empowerment” as a critical driver for securing the necessary participation, ownership, and accountability for achieving the Millennium Development Goals. The rationale behind these initiatives stems from the assumption that for media to play an effective role in international development, support is required to develop “healthy” media systems. These media systems should be able to respond to and reflect the information and communication needs of citizens. The same report also highlighted the call for “information and communication audits” in order for the development sector to direct the role of media in international development better. According to Wilson, Warnock, and Schoemaker (2007), there is a need to take a holistic view of communication processes, and thus integrating communication into development planning should be essential, as political processes are communication processes. They argue that: “reaching the MDGs in 2015 will require a belated recognition that communication is a prerequisite and central to all aspects of sustainable development” (Wilson, Warnock, and Schoemaker 2007, p. 4).

Many researchers point out that there is a need to combine both old and new technologies. For example, it is important to find out whether new technologies are being used in such a way that they strengthen existing information channels. In the same vein, convergence of communication technologies can spread knowledge more quickly and reach a larger proportion of people at a cheaper cost. Inagaki (2007) highlighted a limitation in the current research on communication for development, noting that the majority of the empirical analysis report positive impacts of communication on development projects and that there was a lack of evidence of failure. One of the reasons for the lack of evidence is that MDG monitoring has been relatively new. The International Telecommunication Union (ITU) argue that more applicable indicators of universal access should be measured while Bedi (1999) notes it has been difficult to substantiate the quantitative impact of the ICT–growth link. In the next section we review the challenges of establishing the impact of media on development.

## Media Development

The study of media environments in developing countries has largely adopted a media mapping perspective, documenting the scope and breadth of the media landscape. Such was the approach adopted in the *African Media Development Initiative* (BBC World Service Trust 2006). This work, while timely and focused on policy development to advance the robustness of the media sector, did not address the needs of the citizenry (BBC World Service Trust 2006). Furthermore, while anecdotal evidence and calls for research on the information and communication needs of people living in poverty are in abundance, limited empirical research has been undertaken to assess the extent and nature of those needs.<sup>2</sup> A comparison of results from decades of media intervention activities across developing countries has given rise to doubts about the influence of the media in the world of international development (Puddephatt 2007; Putzel *et al.* 2005). There are a number of reasons for this state of affairs. First, the objectives of stakeholders are inconsistent. The field of media and development is fragmented, largely because it represents a confluence of stakeholders with varied and sometimes conflicting priorities – bilateral and multilateral donor agencies, media development agencies, civil society organizations, journalists, media practitioners, activists, and academicians. The fragmentation of the field is reflected in the plethora of terms employed including ICTs for development, media development, media for development, educational broadcasting, and development communication (DANIDA 2007). Second, there is a dearth of robust evidence to substantiate the claims about the importance of the media. Much of what is known about the history and experience of media and development exists in the gray literature – unpublished theses and dissertations, donor agency policy papers, NGO reports, and websites. Efforts to centralize these data have been made by the Communications Initiative, the Global Forum for Media Development, CommGAP, CAMECO, and the National Endowment for Democracy's Centre for International Media Assistance.<sup>3</sup> Third, part of the reason that it is difficult to measure the effectiveness of media for development is that while there are great expectations (Sugg and Power 2011), the expected "effects" are rarely expressed in specific and precise terms. Rather, they appear as broad sweeping and general statements in project documentation that are not always operationally defined in terms that are easily captured either quantitatively or qualitatively. Further, the standard of technical research skills in the field is often extremely low and the inability to gather empirical evidence of impact of media initiatives is often not a failure of the initiatives but a shortcoming of the research endeavor. In their critique of media development indicators, McCurdy, Power, and Godfrey (2010) point especially to the difficulty of interpreting generic measures or questions about "media", without specifying the identity of the source in more detail. Wasserman (2010) also argues that there is a content divide where the global media expresses the interests of its producers, and whether one is talking about television, radio, or the Internet, global media are still largely the media of the developed world. Sometimes there is a "Third World" voice, but it usually speaks a First World language (Manyozo 2010; Deane 2008). Yet, despite these circumstances, there is continuing investment in information and media initiatives and interventions by a range of

stakeholders in developing countries, fuelled by a belief in the power of information dissemination to citizens on a range of issues. In the next section we describe the multicountry initiative *AudienceScapes* that supported a program of research on information, communication, media, and development trends across Africa, to illustrate how these methodological issues were addressed.

## Information Measurement in Developing Countries

In this section we review InterMedia's *AudienceScapes* research initiative. We also describe the questions that are asked in the DHS surveys in the context of Zambia, Ghana, and Kenya.

### AudienceScapes

*AudienceScapes* is a research initiative launched by InterMedia in 2009, with initial support from the Bill and Melinda Gates Foundation. Building on InterMedia's experience and expertise conducting ICM research with hard-to-reach populations under difficult conditions, the key aim of *AudienceScapes* is to provide development organizations with a better understanding of communication, information, and media environments they work in, to help guide their advocacy and communication efforts, and, therefore, indirectly support better development outcomes.

Many stakeholders in the development process, particularly those working for smaller, locally based NGOs, have limited access to empirical research that could help them better target and deliver communication, information, and education efforts in a range of development activities. These include HIV and AIDS prevention campaigns, gender equality programs, dissemination of better agricultural techniques, and supporting media development. *AudienceScapes* aims to fill this knowledge gap. In addition, the *AudienceScapes* project is designed to facilitate healthier two-way communication in the development process by making the practitioners more aware of the information assets and needs of citizens and policymakers in developing countries.

The primary data source for the research initiative is the *AudienceScapes* research program, which was piloted in four African countries – Kenya, Ghana, Zambia, and Tanzania<sup>4</sup> – and includes both a quantitative and a qualitative component. Nationally representative surveys (the quantitative element) focus on the grassroots level and provides insight into media and ICT use, word-of-mouth communication patterns, levels of trust in various information sources, levels of access, and the use of information on key development topics among the general population. In addition, within the qualitative element, in-depth interviews with high level policy makers and policy influencers give insights into how these policy actors gather, share, and use information that is relevant to their policy-making and provide guidance to development practitioners about ways to improve communication and media efforts aimed at the policy level.

Nationally representative surveys in Ghana and Kenya were conducted in July and August 2009 and included face-to-face interviews with adults aged 15 and older. The

nationally representative survey in Zambia was conducted in April and May 2010. The sampling plans for all surveys were based on the probability-proportional-to-size (PPS) sampling approach and included a sample of 2051 respondents in Ghana, a sample of 2000 respondents in Kenya, and a sample of 2000 respondents in Zambia. The qualitative element of the study included in-depth interviews with senior-level members of the Kenyan, Ghanaian, and Zambian policy community, including representatives from parliament, government ministries, business associations, nongovernmental organizations, and multilateral donor institutions, who are directly involved in development-related policy formulation and implementation. Fifteen one-hour interviews were completed in Kenya, 15 interviews were completed in Ghana, and a total of 17 interviews were completed in Zambia (Debeljak 2010; Bowen 2010a; Montez 2010).

### The DHS Perspective on Zambia

In the 2007 DHS report for Zambia, 59% of women and 74% of men responded that they listen to the radio at least once a week and 31% of women and 37% of men said they watched television at least once a week. Overall, one-third of women and one-fifth of men are not exposed<sup>5</sup> to media of any type. In Zambia, urban residents were more likely to be exposed to all types of mass media than rural residents.

The 2007 report highlights general patterns in access to the media in Zambia. We use the example of family planning messages to illustrate the variations in access to health information among different population subgroups:

More than half of women (56 percent) and about four in ten men (41 percent) were not exposed to any family planning messages through radio, television, newspapers, or magazines. Radio is the most frequent source of family planning messages for both women (39 percent) and men (52 percent). One in five women and one in four men reported seeing a family planning message on television in the 12 months preceding the survey. Newspapers and magazines are the least common source of family planning messages for both women and men (12 and 19 percent, respectively) (Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. 2009, p. 85)

### The DHS Perspective on Ghana

The 2008 DHS survey for Ghana found that, in general, men had greater access to mass media than women. For example, 76% of women listened to the radio at least once a week compared to 88% of men. Furthermore, men and women in urban areas were four times as likely to be able to access the mass media compared to their rural counterparts. Residents in greater Accra (24% of women and 43% of men) were more exposed to all three mass media compared to people in the other nine regions.

These findings highlight general patterns in access to the media in Ghana. For example, radio is the most common source of family planning messages for both women (60%) and men (69%). Specifically, the DHS analyses consider how people in Ghana are

accessing health information through the mass media. Again exposure to family planning messages illustrates the variations in access among different population subgroups:

Approximately half of respondents (45 percent of women and 51 percent of men) saw a family planning message on the television. Newspapers and magazines are the least common source of family planning messages for both women (11 percent) and men (20 percent). Roughly one in three women (32 percent) and one in four men (24 percent) were not exposed to any family planning messages in the three media. (Ghana Statistical Service (GSS), Ghana Health Service (GHS), and ICF Macro 2009, p. 100).

In 2003, only about one in five women (20%) and one in eight men aged 15–59 (12%) were not exposed to any family planning messages through radio, television, or newspaper/magazines in the few months preceding the survey. The 2009 figures, therefore, represent a considerable decline in exposure to messages on family planning in radio, television, newspapers, and magazines over the past five years.

### The DHS Perspective on Kenya

The 2008–2009 DHS report for Kenya uncovers similar patterns to Zambia and Ghana. Men had more access to all mass media than women. Radio was the most popular medium for both men and women while reading a newspaper was the least popular. Urban women had more access to all mass media relative to women residing in rural areas. Access to all three mass media is greatest in Nairobi. Access to mass media was positively correlated with wealth and education for both men and women. The proportion of women who access all three mass media increased from 13% in 2003 to 16% in 2008/2009.

There are similar patterns in exposure to family planning messages among different population subgroups, with a sharp contrast between urban and rural areas regarding exposure to television and in print media. In urban areas, for example, 64% of women and 60% of men are exposed to family planning messages through television, while in rural areas only 29% of women and 31% of men are exposed.

About 30 percent of women and 25 percent of men have not been exposed to family planning messages through the media. Most women (69 percent) and men (71 percent) hear family planning messages through the radio, while almost 40 percent of women and men hear messages on the television, and 34 percent of women and 40 percent of men see messages in the print media. (Kenya National Bureau of Statistics (KNBS) and ICF Macro 2010, p. 72).

### The Context of Citizen Access to Information

A significant body of media and communication research has dominated the field of development, focusing on the “digital divide”. Hilbert (2009) identifies two types of digital divide: international divide and domestic divide. International divide refers to the

divide between societies while domestic divide is concerned with different groups within a specific society. Hilbert (2009) finds income distribution to be the most influential and predictive variable for the digital divide although he also reports that other socio-economic inequalities define the digital divide, including level of education, skills, employment status, geographical location, age, gender, and ethnicity. Gerster and Zimmermann (2003) suggest that access to information is determined by:

- (1) Connectivity: are the services available?
- (2) Affordability: can people afford the access?
- (3) Capability: do the potential users have the skills to access?

Scholars have also debated the definition of ICTs. Skuse (2004), Tacchi (2005), and Gigler (2004) believe there is a need to avoid the phrase ICT if we are only referring to the Internet. They argue that the term needs to be more inclusive and should be acknowledged as including a wide range of communication technologies – both the new (Internet, email) and traditional (radio, film, TV, press). The influence of gender on access to ICTs in developing countries has received much greater attention.

Constraints on women's time or their movement outside of the home can reduce their ability to access any type of technology (Marker, McNamara, and Wallace 2002). Kaplan (1994) argued that women were more likely to be forced to use computers due to the nature of the jobs held by women; this, however, cannot explain the differences in mobile phone usage. Bimber (2000) points out that women tend to be less intensive Internet users than men and less frequent users. The research also highlighted different uses between men and women. Men tend to use the Internet for entertainment while women use the Internet for education and training. Overall, gender-related inequalities accounted for less than 0.5% of the variations in ICT (Hilbert 2010). Another important variable in access to ICTs in developing countries is whether one lives in a rural or urban location.

Typically a high percentage of developing country residents live in rural areas. Evidence, however, shows that access to media and technology platforms is clustered in major urban areas and in industrial regions (Huyer and Mitter 2003). At every level of income, households in rural areas are significantly less likely (sometimes half as likely) to have home Internet access (Hudson 2007). Network costs are higher in rural areas because providing networked services to low population-density rural areas, such as forest or mountain regions, is more expensive than providing those services in urban areas (Kenny 2002).

On the other hand, radio still dominates across the African continent and remains the most important communication tool despite the recent growth in mobile telephony and the Internet. Radio is by far the most widely used medium and is a vital information vehicle for some of the poorest and disadvantaged people in developing societies. Radio is a popular medium as it does not exclude those who cannot read or write (Skuse 2004, 2006). Skuse (2006) believes that there is a need to provide direct training to radio staff on pro-poor content creation and supporting radio-based educational opportunities for those children who are still not attending school.<sup>6</sup>

Radio also dominates the media markets in Ghana, Kenya, and Zambia. As findings of the *AudienceScapes* national surveys in all three countries show, radio is not only the most widely available but also the most trusted mass medium. In Ghana, for example, 86% of all respondents said they have radio available in their household in working order and more than nine in ten (95%) of all respondents find it either very or at least somewhat trustworthy (Bowen 2010c). Similarly, in Kenya 87% have a radio in their household and 98% find it either very or at least somewhat trustworthy (Bowen 2010b). Radio is also the most widely available medium in Zambia, although the share of the population that has radio available in their home is substantially lower than in Kenya and Ghana. In the *Zambian survey* 73% of respondents said they had a radio in their household and 87% of all respondents find information obtained via radio trustworthy.<sup>7</sup>

As in many other developing countries, radio is also an indispensable tool for delivering development content, such as information about health issues and personal finances. In the 2009 *AudienceScapes* Kenya survey almost four in five (79%) respondents said they received information about HIV and AIDS via radio; in Ghana this share was 75%. Similarly, radio is a key source of information on using mobile phones for financial transactions: in Kenya, for example, almost two-thirds of all respondents (65%) received information about this issue via radio, far ahead of friends and family as the second most prominent source, with 36% (Bowen 2010b). In Zambia, almost two thirds of respondents (63%) perceived radio as a very important source of information on health issues.<sup>8</sup>

Beyond the platform or technology, attention has also focused on the quality of the content. A significant concern about both state and commercial media in the developing world is the low quality of the content, partly due to the lack of resources, skills, and often inherent bias in the selection and coverage of topics (BBC World Service Trust 2006). Observers have noted the limited and often biased perspectives of those who own and control the mass media systems in developing countries.

The quality, diversity and relevance of information are as important as the sheer volume of information available in a society, or the scale of its communication networks (Marker, McNamara, and Wallace 2002, p. 9). Until they come to trust new sources of information, poor people may not switch quickly to new technologies even if these allow quicker access to information. This is particularly relevant in countries where information is not freely available and where the media are controlled or heavily influenced by the state or concentrated in the hands of a small elite (Marker, McNamara, and Wallace 2002, p. 17).

Liberalized media environments can lead to capture of the media by narrow commercial, religious, ethnic, or political interests. State broadcasters, on the other hand, are often the only media actors capable of reaching rural audiences across the whole of the country, which means that their information may be sub-regionally limited compared to their urban counterparts (Mody *et al.* 2010). These concerns over the ownership and control of mass media systems have partly fuelled the growth of community media and community radio in particular, which afford a higher degree of citizen participation in knowledge production (Manyozo 2011).

In recent years, much attention has been paid to the growth in mobile telephony across the developing world. Mobile telephony has increased considerably in developing countries. Across Africa, Asia, the Middle East, and Latin America, there is a profound transformation in the way people are gaining access to information (Bar, Pisani, and Weber 2007; West 2008). Global mobile phone subscriptions are expected to reach 7.9% of the world's population during the period 2007–2012, boosting the number of global mobile phone subscribers to 4.5 billion in 2012. Most of that increase is happening in developing countries in which it is having a transformative effect. Since 2000, mobile ownership has grown by 70% every year across the fifty of the poorest countries of the world. The ITU (2009) reported that mobile phone subscriptions have increased dramatically in Africa from around 4% to 28% of the total population in the period from 2002 to 2007. One of the main reasons for this is that wireless technology requires less upfront investment in infrastructure, which results in lower prices compared to fixed-line telephones.

Most people in developing countries use mobile telephony to mainly communicate with friends and family. This goes against the expectations held by many in the development sector who believed that mobile telephony would lead to people accessing more direct beneficial information such as health, government information, etc. (Sey 2007).

But as far as mobile phones are concerned, users for now seem to place a higher emphasis on communication, not because information is not important, but because by communicating, they are able to get the information they need (Sey 2007, p. 13).

Mobile phones have also become an important platform for sharing development focused content and play an increasing role in the delivery of various services. For instance, M-PESA, a mobile money service launched in Kenya in 2007, enabled millions of previously unbanked people to have access to financial services without needing to visit a bank branch (CGAP 2009). In November 2010, the Bill and Melinda Gates Foundation announced several grants to scientists who are pioneering the use of mobile phones to improve health care in poorer communities. Among others, grants were given to scientists who aim to develop a disposable malaria biosensor based on a SIM card platform, which will make diagnostic testing more widely available in remote areas. A grant was also given to a project aiming to develop a mobile-phone-based tool that will quickly identify women at risk during labor and delivery and assist with emergency transfer to a hospital, thereby reducing maternal and infant mortality rates (Gates 2010). Ushahidi is another example. The website, originally developed to map reports of violence in Kenya after the post-election fallout in January 2008, for instance, tracks near real-time stockouts of medical supplies at pharmacies in Kenya, Uganda, Malawi, and Zambia, to ensure access to essential medicines for treating common diseases, such as malaria, pneumonia, diarrhoea, HIV, TB, diabetes, and hypertension.<sup>9</sup>

In terms of evidence of impact it is argued that the case for mainstreaming ICTs to meet the MDGs cannot be made without more thorough analysis and empirical evidence (Gilhooly 2005). Furthermore, it is difficult to quantify the impact of ICTs and to separate their influence from other factors such as economic growth and governance. Although there has been an increasing amount of literature and evidence on the

significant impact of ICTs, it is not clear to what extent ICTs have been responsible in reducing development concerns as reflected in the MDGs (ITU 2003). ICTs cannot replace the need for political stability and physical infrastructure. The basis of the ICT and MDG discussion is whether ICTs can step up the achievement of the MDGs. There is growing consensus that ICTs can improve the delivery of services and facilitate management and transfer of knowledge, which is a main issue in achieving the MDGs. The next section lays out our approach to establishing the link between “citizen access to information” and development outcomes embedded within the MDGs. We present a more nuanced approach to capturing citizen access to information in developing countries, with a focus on Zambia, Ghana, and Kenya.

### Capturing “Citizen Access to Information”

As stated earlier in the chapter, we propose five dimensions and several sub-dimensions within the five dimensions designed to capture the variation in citizen access to information in developing countries. In each case, we illustrate the dimensions with data from the *AudienceScapes* research in Zambia, Ghana, and Kenya. Where possible, we focus on survey questions that are directly relevant to the MDGs. Figure 15.1 summarizes the key dimensions and sub-items proposed to capture a robust, valid, and reliable measure of “citizen access to information”. This is followed by a description of each of the dimensions and the sub-dimensions.

#### Access to Source or Platform – Foundation: Dimension 1

*Access to platform or source* is the basic criterion for the other four dimensions. In the case of media and technology, it is important to distinguish between those who have access and those who own. Second, it is valuable to know whether access occurs in a public versus private space. Third, access may be restricted at certain times, because of electricity cuts or because of weak signals. Finally, identifying the medium of access is important, recognizing that, in the context of convergence, citizens may be using one medium to access the content originated from another:

- *Access versus ownership.* It is imperative to establish the distinction between access and ownership in measures of access to platforms and sources. High levels of group listening to radio and viewing of television, use of Internet Cafés, and pay-as-you-go customers rather than mobile subscribers can lead to dramatic underreporting if access to a source of information or a platform is based on a question about ownership of the technology.
- *Public versus private.* Similarly, it is valuable to understand the context in which the information source or platform is accessed. Certain information may be culturally or politically sensitive and may not be appropriate for dissemination with strangers. For example, family planning content may be more comfortably consumed by parents without their children or by young people without their parents.

**Foundation Dimension 1: Source or Platform**

Access versus Ownership  
 Public versus Private  
 Restricted Access  
 Time  
 Electricity  
 Signal  
 Medium

**Dimension 2: Exposure to Content**

Frequency  
 Amount of Time  
 Recency  
 Recall – Format-specific  
 Indexing – Dose effect

**Dimension 3: Content**

Named Source  
 Genre  
 Topic versus Sub-topic  
 Date

**Dimension 4: Evaluation of Content**

Appeal  
 Interest  
 Trust  
 Diversity  
 Relevance  
 Objectivity

**Dimension 5: Self-reported Response**

Self-report  
 Political Participation  
 Health  
 Education  
 Gender  
 Livelihoods

**Figure 15.1** Five dimensions of citizen access to information.

- *Restricted access.* Access to a platform or source of information may be interrupted at certain times of the day. For example, not all radio stations broadcast 24 hours every day. Second, electricity cuts will interfere with access to media requiring electricity and not all homes or media outlets will have a generator. Finally, signals may barely reach remote areas, with the result that the audio or video content is not comprehensible.

Better access to information can help small producers participate in markets on more equal terms: for example, the Internet and text messaging are being used in many countries to enable small farmers to know what price their products are fetching in local and national markets. Access to this information puts them in a stronger position for negotiating prices with intermediaries (Wilson, Warnock, and Schoemaker 2007, p. 19):

- *Medium.* With the rise of technological convergence, it is imperative to establish the platform where the medium is accessed. For example, is the citizen listening to radio on her radio, on the Internet, or on her mobile phone?

In 2002, in South Africa mobile phones, Short Messaging Service (SMS) technology, and a pilot computer database have been used in an integrated approach to health monitoring. Every half-hour, the database scans a list of patients and sends an SMS text message to those patients needing to take their medication. However, establishing the direct relationships between the use of ICTs on media platforms and development platforms can be challenging to substantiate empirically (World Bank 2003).

Figure 15.2 demonstrates the high degree of usage of mobile phones in both Kenya and Ghana and Figure 15.3 shows the high level of convergence between different media platforms. In both countries, about one third of all those who used mobile phones in the past year, for example, also used it to listen to the radio and, in Kenya, about a fifth also used it to access the Internet.

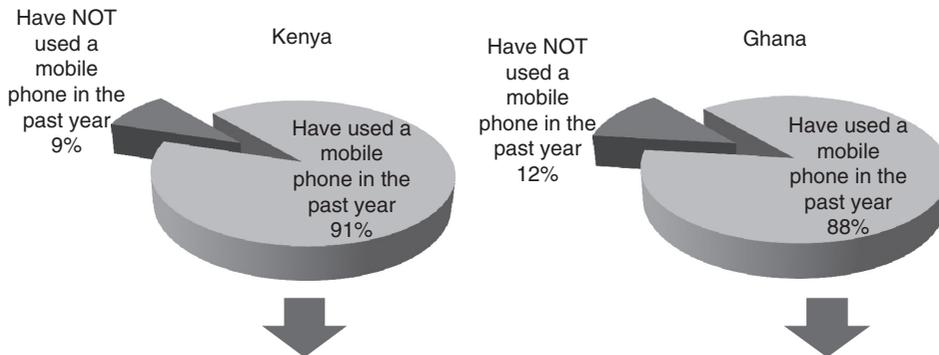
Figure 15.4 illustrates the variation in access to broadcast mobile and Internet platforms in Ghana, between educated and uneducated men and women and between citizens living in urban and rural areas. Further, among rural residents who have access to only one platform, the overwhelming majority are reliant on radio.

## Exposure to Content: Dimension 2

Access to a medium or technology does not imply access or exposure to information. It is imperative to establish the frequency of exposure, the amount of time exposed, the recency of exposure, and the criteria for confirming accurate recall of the content and specific format. The combination of responses may afford the possibility of indexing the exposure along a continuum of exposure intensity, sometimes referred to as the dose effect.

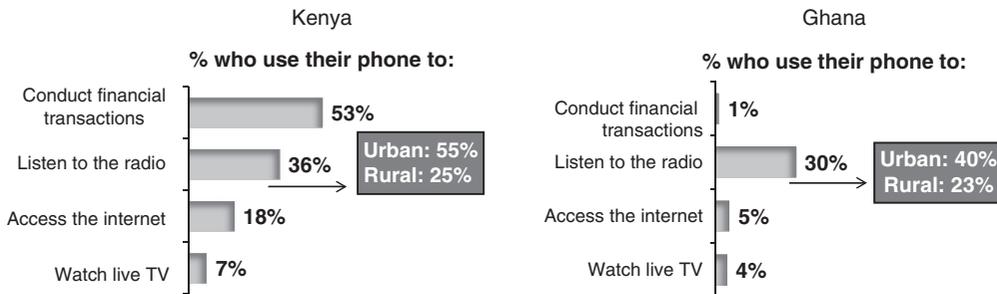
Without understanding the nature and extent of the exposure to the information available, it is impossible to attribute the variation in any outcome measure in terms of knowledge levels, attitude change, self-efficacy, interpersonal communication, or self-reported behavior change:

- *Frequency.* Citizens may be exposed to information about an issue multiple times in one day, multiple times in one week, month, or year. The number of times and the time elapsed between the first and last exposure is important to record.



**Figure 15.2** Mobile phone usage in Kenya and Ghana.

Sources: AudienceScapes national survey in Kenya, n = 2000, 15+, 2009; AudienceScapes national survey in Ghana, n = 2051, 15+, 2009.



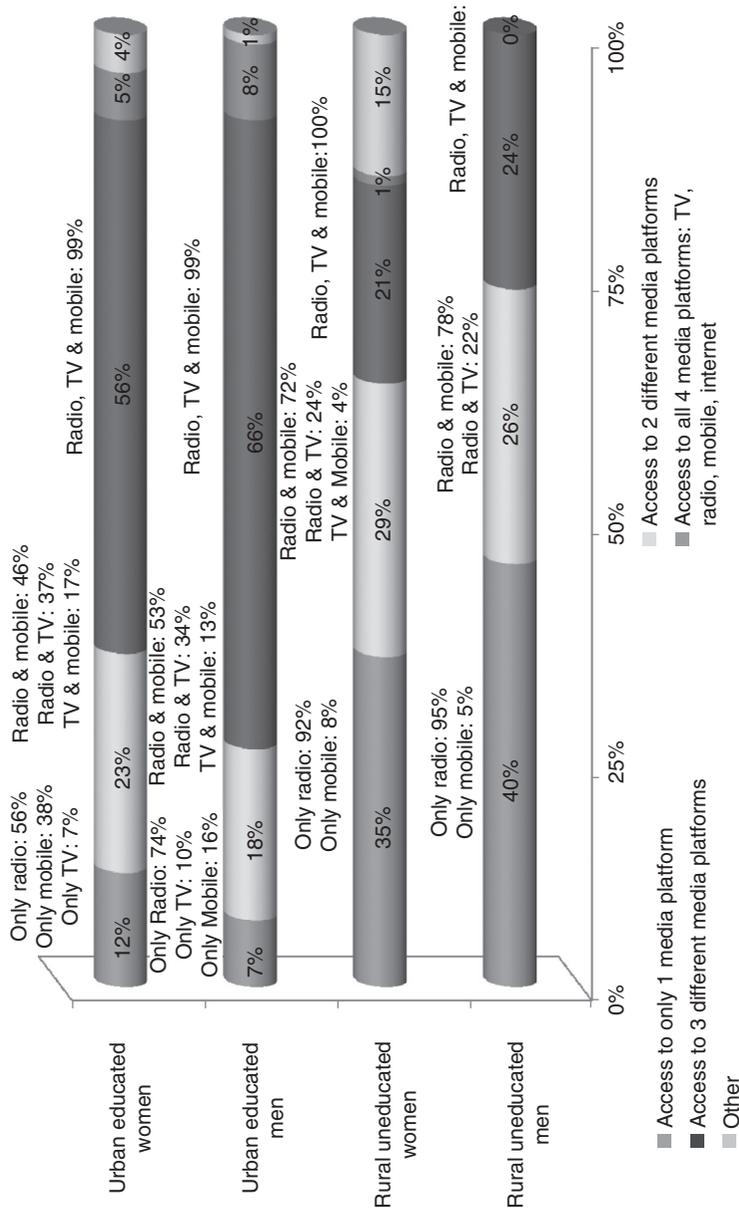
**Figure 15.3** Level of convergence between media platforms in Kenya and Ghana.

Sources: AudienceScapes national survey in Kenya, n = 1808 respondents who used a mobile phone in the past year; AudienceScapes national survey in Ghana, n = 1812 respondents who used a mobile phone in the past year.

- *Amount of time.* While the reported frequency of exposure to information may be high, the absolute time spent may be very short. For example, an individual may hear the daily news every evening but only for the first 5 minutes, not for the entire one hour broadcast.
- *Recency.* A common currency in reach figures for broadcasting is recency – viewed last night, listened in the last week, listened in the last month, etc. It is important to capture this aspect of exposure as well.
- *Recall – format specific.* It is valuable to establish format-specific recall, for example, that citizens are recalling the information about the upcoming election from a public service announcement (PSA), rather than on the state news bulletin. The nature of the exposure and the content might be very different.
- *Indexing – dose effect.* Ideally, questions and response categories and scales are constructed in such a way that they can be aggregated to create an “Index of Exposure”, where post hoc analysis will facilitate a complex measure of those who can be classified as more exposed or less exposed. This is sometimes referred to as the

**Access to Media is Not Access to Information**

**Access to media platforms in Ghana**



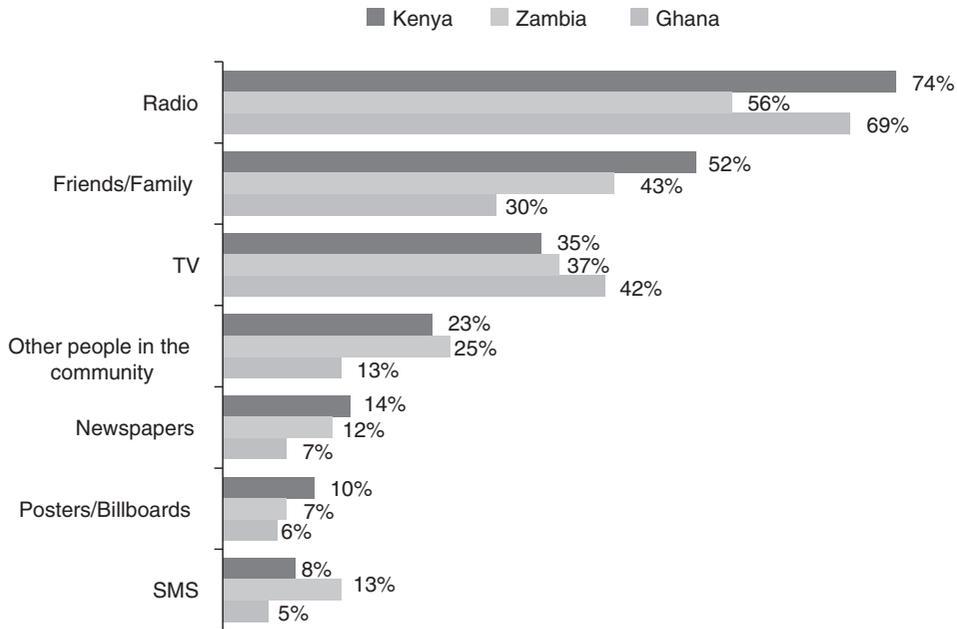
\* Household ownership has been used as a proxy for access

\* Media platforms: Radio, TV, Mobile phones, internet

8/31/2009

**Figure 15.4** Access to ICM resources in Ghana.

Source: InterMedia.

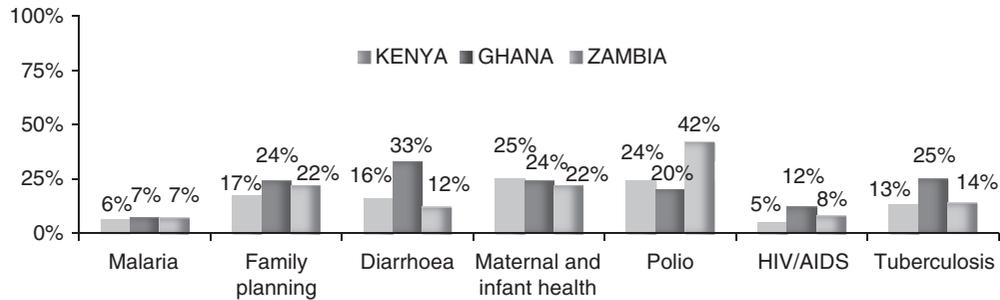


**Figure 15.5** Percentage of the population using the source for news and information *every day*. Source: AudienceScapes national surveys in Ghana, Kenya (2009) and Zambia (2010). Base: n = 2000 for Kenya, n = 2051 for Ghana, n = 2000 in Zambia, 15+. Please note: Only top sources are shown. Other sources that were included in the survey but are not shown are internet, government officials, magazines and brochures/pamphlets.

dose effect. Dose effect analysis seeks to measure the level of exposure of those surveyed to specific communication programs, controlling for the social economic status of respondents. Dose effect analysis allows investigation into whether those with higher levels of exposure are more likely to report desired behaviors (Bertrand 2005).

In the case of the Stop AIDS Love Life campaign in Ghana, 80 per cent of the audience was exposed to at least one medium, with TV having the widest reach. In the Ghana analysis, the exposure score was based on the number of channels reported by the respondent. One then tests to determine whether those with greater exposure were more likely to practice the desired health behaviour, controlling for socio-demographic factors (UNICEF 2005, pp. 54–55).

Figure 15.5 shows the variation in the daily usage of different media and nonmedia sources for obtaining news and information across Kenya, Ghana, and Zambia. While radio plays the dominant role in all three countries, Zambians seem to rely on this source much less than Ghanaians and Kenyans. Nonmedia sources, such as friends and family, play a key role, particularly in Kenya, where more than half of the adult population uses them to obtain news and information on a daily basis. These results may also speak to the value of distinguishing between news and information as content genres and, perhaps, to specifying the type of news and the type of information.



**Figure 15.6** Percentage who never received information on health topics or received it more than 12 months ago.

*Source:* AudienceScapes national surveys in Kenya, Ghana (2009) and Zambia (2010). Base: n = 2000 for Kenya, n = 2051 for Ghana, n = 2000 in Zambia, 15+.

### Content: Dimension 3

Access to information does not imply that the information on the sub-topic is of specific value or interest to the citizen. In this case, it is imperative to identify the specific attributes of the content. For example, instead of a question about “health content on the radio”, it is critical to ask about information on acute respiratory infection (ARI) on the program for young mothers on Channel 4 on Friday at 6 pm. The content dimensions include the medium, named station or source and program/format, the subtopic, and the date and time:

- *Named source.* Building on the medium-specific data in Dimension 1 and the format-specific data in Dimension 2, it is imperative to establish the named source of the information. Citizens may remember that they heard the information on a women’s discussion program on the radio but not remember the exact program. The accurate recall of the radio program may be aided and determined by the branding and prompting with audio jingles.
- *Genre.* Traditionally, the underlying assumption in media and development studies is that news and current affairs content is of primary importance (Roman 2005), particularly in the delivery of factual information. This has shifted somewhat with the attention being paid to the potential for radio and television and other media to deliver engaging development content using entertainment genres, including drama (Skuse, Gillespie, and Power 2011). Entertainment content can be more interactive and has the potential to impact assumptions and perceptions about cultural norms and practices. It is valuable, therefore, to identify the genre of content that citizens are accessing.
- *Topic versus sub-topic.* As Figure 15.6 illustrates, asking survey questions about a generic health information category masks and often dilutes the variation in access to information about a range of significant health sub-categories. Similarly, asking generic questions about news and current affairs may disguise the fact that many young people regard celebrity gossip as news and current affairs.

- *Date.* When the information is provided in a serial format or series of programs, it is important to confirm the date when the content was consumed. For example, if the content is delivered in one episode of a drama and the viewer did not see it, then the information will not have been received.

Figure 15.6 shows the variation in citizen's access to information on a range of health sub-topics across Ghana, Kenya, and Zambia, all issues that constitute key components of the targets around health for MDGs 4, 5, and 6, in particular.

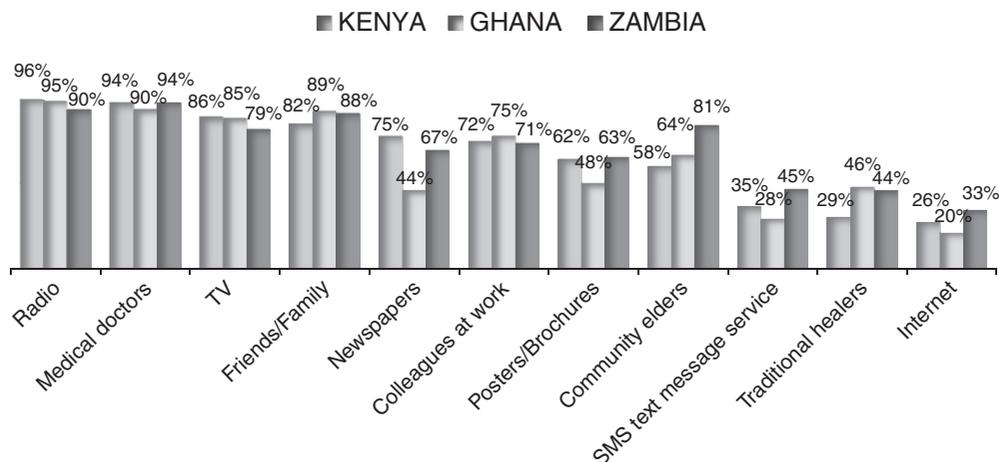
#### Evaluation of Content: Dimension 4

Access to information does not imply access to quality information. Establishing measures of quality according to the citizen is an essential dimension in understanding the potential of information to effect individual and social change. The salient dimensions are appeal, interest, trustworthiness, diversity, relevance, and objectivity.

Engagement with content can be evaluated on a broad range of dimensions:

- *Appeal.* The extent to which citizens find information appealing may be influenced by a combination of factors, some of which are listed as sub-dimensions. However, this is a useful generic measure to understand the general resonance of the content for citizens (Bertrand 1978).
- *Interest.* Capturing the degree to which citizens regard the information of interest to them is a more cognitive than affective measure. The intention here is to go beyond what Petty and Cacioppo (1986) would refer to as the peripheral cues to the central cues.
- *Trust.* Trustworthiness and credibility of the source of the content are important, particularly in the socio-cultural contexts where the ownership and control of media sources may exercise more explicit editorial control. In a recent study in Zambia, Debeljak (2010) reports a variation in trust in different information sources from 87% trusting in radio to 22% trusting the Internet.
- *Diversity.* An important challenge for media sources in developing countries is to produce content that represents a number of different perspectives. This applies to governance, economic, health, human rights, and livelihood-related issues.
- *Relevance.* While citizens often acknowledge the value of content to others, they do not always regard it as relevant to themselves. Establishing the degree of perceived personal relevance of the information is also important.
- *Objectivity.* A common measure in studies of media content is the extent of its objectivity, often defined in terms of absence of bias or presence of opposing viewpoints. It is important to recognize that objectivity is often culturally defined and should not be assumed to be universal. Capturing a culturally nuanced measure of objectivity is also valuable.

Figure 15.7 illustrates the differences in trustworthiness of different sources for information on health issues across Kenya, Ghana, and Zambia.



**Figure 15.7** Percentage who find the source at least somewhat trustworthy for information on health issues.

*Source:* AudienceScapes national surveys in Kenya, Ghana (2009) and Zambia (2010). Base: n = 2000 for Kenya, n = 2051 for Ghana, n = 2000 in Zambia, 15+.

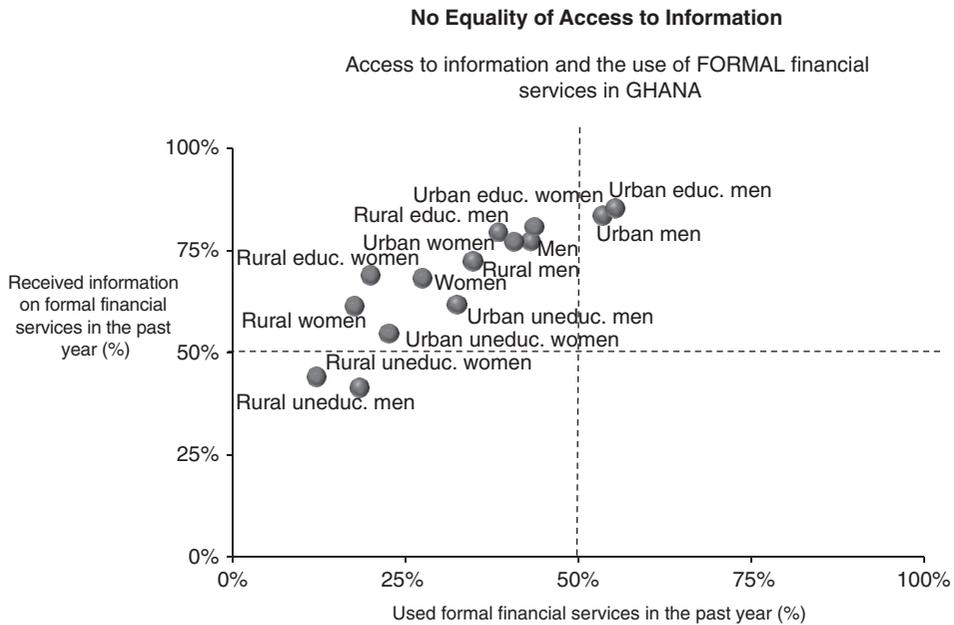
### Self-Reported Response: Dimension 5

Self-reported data on behavior change presents a challenge in studies designed to capture impact (Pisani 2009). This dimension is designed to explore the extent to which citizens identify that their knowledge levels, attitudes, or self-reported decision-making or behavior can be attributed to information they received from a particular source.

The objective of this dimension is to capture the extent to which citizens attribute their newly acquired knowledge, change in attitude, or a shift in their behavior to information acquired from a particular source or platform. This may be in the realm of health, governance, livelihoods, human rights, etc. As with all self-reported data, it is important to be aware of the potential bias introduced by the assumed social desirability of the response and the possibility that this might result in over- or underreporting (Kreuter, Presser, and Tourangeau 2008). Further, it would be valuable to corroborate the survey research findings by triangulating with other sources of secondary data. Ideally, service delivery agencies might include a question in their intake or registration forms to identify where citizens found out about a particular service or offering (see Twaweza.org).

ICTs can empower women and help them overcome gender inequality by raising awareness of their social and political status and creating new economic opportunities. They can also be an invaluable tool in positively changing people's attitude, including women themselves, toward women by providing educational programs on gender equality, by providing information platforms for educational programs on gender equality (World Bank 2003).

The intention here is not to capture any self-reflexive processes, although we acknowledge that these may occur as a result of citizens being challenged to think about and



**Figure 15.8** Access to information and access to formal financial services in Ghana.  
*Source:* InterMedia.

explain the reasons why their thinking or behavior may have changed (see Gumuchio-Dagron and Tufte 2006).

Figure 15.8 illustrates variations in citizen access to information on formal financial services and the use of these services between different population subgroups. We include these data as an example of the differences in self-reporting on information reception and related use of services between men and women, urban and rural, and educated and uneducated citizens in the same country.

## Conclusions

Drawing on the experience of nationally representative studies of citizens in Zambia, Ghana, and Kenya, this chapter proposes a framework that employs citizen access to information as the means to understand the relationship between ICM resources (Information, Communication, and Media) and development outcomes. We argue that “citizen access to information” is a catalyst for achieving the Millennium Development Goals (MDGs) across a broad range of development indicators in health, education, and livelihoods.

We use the term ICM to incorporate traditional mass media (radio, television, and print) and newer platforms (Internet and mobile). We recognize that social media facilitate the propensity to share information. Although radio remains dominant in Africa, the adoption of the mobile is dramatic; the availability of media and technology platforms varies across different population subgroups; men and women, among

educated and uneducated citizens, and between those living in rural and urban areas. The results of the studies from Ghana and Kenya suggest the increasing importance of convergence, where citizens are using their mobile phones to listen to the radio and to access the Internet. While much of the research in the area of media and development has focused on ICTs and we draw heavily on that literature, we believe that the digital divide debate has distracted attention away from the low quality of content available on a range of media and technology platforms in developing countries.

We propose a five-dimensional index with multiple sub-items to capture the complexity of “citizen access to information” in developing countries, where conditions are very different from those extant in the North. The five dimensions are based on the following three assumptions: first, that information is a key facilitator in achieving development targets; second, that access to media or technology does not guarantee access to information; and, third, that access to information does not guarantee access to information that meets the specific development needs of citizens.

Finally, the framework proposed in this chapter is a work in progress, informed by our research practice on the ground in Zambia, Ghana, and Kenya, and in multiple other countries around the world. We expect that the thinking reflected here will evolve as we draw on new work and as our methods and measures are tested and refined in future studies. The comparative approach is a key pillar to our work in reminding us simultaneously not only of the similarities and differences across countries and sub-populations but also of the inherently static nature of those comparisons in information, communication, and media environments that are fluid and dynamic.

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## Notes

1. These were among the challenges experienced by the team of African researchers, who collaborated in the African Media Development Initiative, a study of the media sector across seventeen countries in 2006 (BBC World Service Trust 2006). The multicountry research in Africa on the Internet and mobile use is also worthy of note for its methodological rigor (see Gillwald and Esselar 2005), as is the work of the African Media Barometer, <http://fesmedia.org/top/resources/amb-reports/#c102>.
2. In the United States, understanding the information and communication needs of communities has recently been recognized by the John S. and James L. Knight Foundation and the Aspen Communications and Society program. These two organizations have established a nationwide initiative called the Knight Commission, focusing on the information needs of American communities.

3. Communications Initiative: <http://www.comminit.com/>, Global Forum for Media Development: <http://www.gfmd.info/>, CommGAP: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTDEVCOMMENG/EXTGOVACC/0,,menuPK:3252017~pagePK:64168427~piPK:64168435~theSitePK:3252001,00.html>, CAMECO: <http://www.cameco.org/>, and the National Endowment for Democracy's Centre for International Media Assistance: <http://cima.ned.org/>.
4. The results from the 2010 *AudienceScapes* pilot survey in Tanzania were not included in this article as the data were not readily available at the time of writing.
5. In all DHS Surveys exposure to the media is assessed by asking how often a respondent reads the newspaper, watches television, or listens to the radio.
6. Most recently, the *Global Monitoring Report on Education for All 2010* and *Reaching the Marginalized* both report shocking figures about the state of education in the developing world. Less than 55% of school-age children in developing countries attend secondary school, 72 million children are still out of school, and, if current trends continue, there will still be 50 million out of school by 2015. We know that investment in education produces significant returns in poverty reduction, economic growth, child survival, and democracy. We also know that there is huge potential for radio and mobile platforms to meet the information needs of people living in poverty. However, the extent to which the educational and other benefits of the increased access to information and communication technologies will be shared equitably among citizens of developing countries has been challenged (Etzo and Collender 2010).
7. *AudienceScapes* nationally representative survey in Zambia, 2010,  $n=2000$ , 15+.
8. *AudienceScapes* nationally representative survey in Zambia, 2010,  $n=2000$ , 15+.
9. <http://www.usahidi.com/platform>.

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