

Use and misuse of Data in Advocacy, Media and Opinion Polls in Africa: Realities, Challenges and Opportunities

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Abstract

This article offers a reflective perspective of the uses and misuses of data and statistics in public communication and development as a construct of democracy. It begins by situating data use in light of the “big data” revolution characterised by devolution and globalisation of information. Drawing on illustrations from advocacy, journalism and political corruption, the article demonstrates that despite the positive uses of data by activists and journalists, the dissemination of incorrect data has grave consequences for public opinion formation and digital social engagement. From the analysis, the article argues that generators, users and recipients of data need a mind-set for data accuracy and fact-checking, especially in a digital age which is a mine-field for mass misinformation. It calls for more training in data journalism, alignment of data in the public sector and increased responsibility for data generating institutions and fact checking organisations. Finally, we advocate for stricter regulation of election opinion polls to avoid misinformation and manipulation of the electorate, which has serious consequences for democracy in Africa.

Keywords: *data revolution, data journalism, data for development, public communication, misinformation, public opinion*

Introduction

Data are an important resource in achieving development and democratic outcomes, yet they are often misused. The current digital age is awash with processed and unprocessed data, which has created the phenomenon called ‘big data’. Advances in digital technology and speedy information processing have now resulted in a data revolution, leading experts, such as Mayer-Schonberger and Cukie, (2013, p. 19) and Groves *et al.* (2014, p. 2) to the conclusion that big data is poised to shake up everything in life from business to the science of healthcare, government, education, economics, the humanities among other aspects of the society. But there are also constraints with effective data use, especially in a digital world, where information or misinformation goes viral with a click, with limited opportunities for adequate retraction or ‘corrigendum’. Data and social statistics have been misinterpreted and misrepresented causing major misinformation within interpersonal and mass communication. Within the framework of development, these

intricacies in data management may be having adverse effects on countries with fragile democracies.

In light of this challenge, this paper explores some of the uses and misuses of data and statistics in different areas of public affairs, drawing references from some countries. Our goal is to advance scholarly debate on the problems and prospects of data use in a digital age and how data can be a tool of development, good governance, and democracy in Africa. The paper starts with some conceptual observations on the trend towards big data and the role of data in development. It then examines some of the critical issues in the use of statistics by advocates, journalists and pollsters. Following the analysis, specific recommendations to enhance data use and mitigate the impact of erroneous data in public affairs are proposed.

Era of Big Data

Contemporary society is awash with a vast quantum of processed and unprocessed data from various domains and platforms including call logs, online user-generated content and satellite images. This is currently referred to as 'big data', largely supported by web-based applications and digital devices. In calculating the volume of data available today, we have moved from binary bytes, to kilobytes, megabytes, gigabytes, terabytes, petabytes, exabyte, zeta bytes and yottabytes and this still continues. Big data has its origin in the integration of digital technology, the science of informativity and high level analytics. Technological innovations have created horizontal integration of the society and new patterns of social interaction and information flows which is multipolar, multidimensional and multidirectional (Ayish, 2005, p.25). New sources of information include data exhaust, online data, physical sensors and crowdsourcing (United Nations Global Pulse, 2013, p. 1). And a new field of data science which is expected to influence various dimensions of life has also emerged.

Across the board, it is believed that the digital age, with sophisticated computer automated analysis of various data sources and tools, is capable of terminating decision-making based on experience, intuition and other non-data driven approaches (Provost & Fawcett 2013. p. 51). According to Mayer-Schonberger and Cukie (2013, p.17) data are no longer regarded as a static or stale resource but a major raw material in business, a vital part of economic input and a critical tool for creating new economic value. Neither is it any longer the hard headed statistical packages and dead information available in the archives or in inaccessible data bases. In the digital age, data are expected to be mined and effectively utilized for social change and effective decision making (Provost & Fawcett 2013. p. 55). However, with near universal access to big data come major risks and challenges relating to its correct utilization to avoid misinformation and disinformation. Thus, we argue that the current data environment requires a new level of responsibility and a critical approach by data generators, users and recipients.

Big Data in Africa

Data has also become a critical input of democracy and good governance. At the onset of the advent of globalization; African countries (and other developing countries) were described as the "periphery" in global information flow. There were concerns that Africa was "losing out" and "neglected in the global information highway" because of limited access to information and telecommunications technology. The perceived imbalance and asymmetrical global information flow led to the call (and sometimes acrimonious debate) for "a new world information and communication order" (See "Many Voices One World", UNESCO, 1980). While we do not suggest that information asymmetry has been totally eliminated on the continent, it is noteworthy that advances in digital technology have created a data revolution in Africa. The continent has one of the highest levels of digital penetration in the world and young people are now more connected via social media than before.

In many African countries, there are initiatives revolutionizing the pattern and flow of information and enhancing a vibrant culture of data utilization. For example, through the support of various organizations, data on the Constituency Development Funds in Kenya have been made available for public accessibility invariably, helping to track utilization of funds. Examples of innovative crowdsourcing platforms in Africa include Ushahidi – a crowdsourcing mapping tool capable of obtaining, verifying and disseminating large volumes of data. Ushahidi was also used for real-time transmission of information during the 2013 elections in Kenya. The U-Report in Uganda - provides real time coverage of children rights in the country. However, in light of the differentiated access to digital media, it is essential to observe that some populations and constituencies are still left behind.

Data for development

The optimism around the use of big data has been extended to health and international development. Data for development is now a major intervention undertaken by different development agencies. The UN has established the Global Pulse, an initiative aimed at bringing expertise from the public, private, development and academic sectors to harnesses the power of big data for development policy and action (United Nations Global Pulse, 2013, p. 3). Furthermore, the World Economic Forum (2012, p.1) report, *Big Data Big Impact: New possibilities for International Development* underscores the great potential of the use of new data in development. With concrete examples from financial services, education, health and agriculture where the impact of data has been proven, the Report argues that the flood of data in the world needs to be channeled to actionable information to improve public good. Several development organizations have also initiated processes to make more programme data widely accessible for public access and invariably utilization. Data sites that enable users to map, chart, and compare various forms of indicators and statistics are now in existence.

Despite the promise of data use in democracy, development and communication, it is subject to various misuses and abuses, which is a major concern in our digital society. The democratisation of information and diversity of content generation bodes significant challenges for effective data use.

Data for Foreign Assistance-The case of African countries

Foreign governments, particularly those in the West and North America, as well as the World Bank, IMF, and other intergovernmental institutions rely heavily on census data to provide aid to African countries. Since the introduction of Structural Adjustment policies in the 1950s by the World Bank and IMF aimed at providing loans conditional on the adoption of such policies that included drastic reduction of government controls to enhance aid effectiveness, implementation of anti-corruption measures, and the advancement of market competition as part of the neo-liberal agenda, some African countries resorted to falsifying data in order to meet the Banks' terms. The IMF and World Bank saw limited government control and empowerment of the people to control their own futures as the right approach to expediting social change and economic growth in Africa. Here again, the need for appropriate and accurate data on government employees would inform the decisions of those organizations.

Non-governmental organizations (NGOs) and other external assistance groups also rely on published data to make decisions on the countries that need immediate interventions. The African Development Bank, a regional finance institution headquartered in Abidjan, Cote d'Ivoire, assists countries in gathering data on various development issues and publishes data on development. Although most governments have their own statistics divisions set up to collect and process data on various sectors such as health and population, climate change, water management, etc., they rarely update the databank. In some cases it is impossible for the public

(e.g. researchers, aid groups, companies) to obtain access to existing data due to bureaucratic red tapes, lack of appropriate legislation or policy and incompetence. The external groups eventually turn to online publications and other secondary sources that are unreliable.

Common problems with generation and use of data

Several attempts have been made to document the challenges associated with the generation and use of numerical data in social sciences and public affairs. One of the pioneering works on the improper use of data is *How to Lie with Statistics*, which has been in existence for up to 60 years. Huff (1954) examines various dimensions of wrong use of statistics such as sample bias, data manipulation, dredging, and misreporting and recommends different approaches for data seekers to avoid being caught in a web of bad statistics. Other publications have built on Huff's ideas. Two important works by Best (2001; 2004) with interesting titles *Damn Lies and Statistics* and a revised version titled *More Damned Lies and Statistics* catalogue some of the major uses of bad statistics by politicians, journalists and activists. According to Best (2004), social statistics describe the society and are tools used for a specific purpose. Thus, any type of data or statistics (including bad ones) can be retrieved for predetermined agendas, which then affects how such information is used. Other challenges identified by the author are data fabrication, use of wrong statistical basis and data mutation.

In a digital age, the potential for data misrepresentation is quite high. First, we are living in an age of citizenship journalism in which everyone is a global communicator without official gatekeepers. The democratization of information technology implies that everyone can decide what to communicate and how they communicate without any major vetting function. This has great merits for information devolution but it also embodies significant challenges as regards information accuracy. While citizenship journalism or what is referred to as 'networked journalism' enhances participatory communication, it has great potential for misinformation. In the next section, we shall examine some of the challenges associated with the use and misuse of processed data such as social statistics in advocacy, health reporting and election opinion polls.

Data Use and Misuse in Advocacy

Advocacy is an important strategy of achieving health and development outcome (Johnson, 2009; Samuel, 2010; Waisbord, 2009). Its overall goal is to elicit changes in a vast spectrum of areas such as policies, programmes, positions, strategies, practices, and other instruments of governance. Development agencies, non-government organizations (NGOs), non-profit institutions, donors, activists and public health practitioner's associate advocacy with actions and efforts intended to influence decisions, behavior, collective attitude and positions of critical decision makers and influencers on different issues in any society. This is the premise for the design and implementation of a fleet of advocacy campaigns and mobilisation programmes to influence key individuals or institutions for public good.

The use of quantifiable evidence is critical for advocacy because of its capacity to present issues and causes in a compelling way. Most advocates agree that measurements, numbers and statistical evidence are helpful to prove or disprove a belief, assertion or proposition. For example, Fayoyin (2013, p. 186) found that the strategic use of evidence is a major tactic of argumentation and positioning in advocacy. More than two-thirds of the participants in the study indicated that evidence is the first essential element of effective advocacy communication. They agreed that evidence must be generated from 'accurate, unvarnished, and verifiable research'. They also noted that such evidence must not be 'massaged or manipulated' for specific ends. According to the interviewees, advocacy without solid and credible evidence is just 'shouting or noise making'. But experience has shown that inaccurate measurement can be used to promote a good cause (Best, 2006, p.3).

Scholars in the field of advocacy have expressed divergent views on the role of data in designing policies. For Shifman (2009, 2007), institutional arrangements also have an effect on policy interface and the technical capacity to undertake complex social research. Although there are ambiguities on the impact of research in policy-making, there is a strong consensus that knowledge and policy research are critical to advocacy practice.

There has been an increase in the use of survey data in various advocacy interventions. Development agencies have learned a major lesson that demonstrating evidence is better than a publicity stunt and issue spinning. A few of the data utilisation and packaging techniques in advocacy are examined below.

1. Impact of Performance score cards

According to Hood (2007) performance management often involves simple, multiple, composite, complex measures, and focusing on inputs, outputs outcomes, throughputs. It also uses ranking and intelligence systems. Focusing on performance evidence helps to move advocacy from mere 'noise making to 'evidence-based advocacy'. An example is the recent use of performance scorecards on specific issues and indicators by UNICEF in Northern Nigeria. The goal was to establish an accountability framework for assessing the effectiveness of collective actions on child health and development indicators. The scorecards or stocktaking reports also take the form of a league table to classify and compare the performance of various States in Northern Nigeria. The performance-ranking tool persuaded decision makers to take action on specific issues because they could see how their States were performing in relation to others. But experience with some political organizations like the African Union (AU) and South African Development Community (SADC) has revealed sensitivity to performance ranking and league of tables. Many political leaders especially of countries not performing well on indicators being measured do not like to see their countries compared with others.

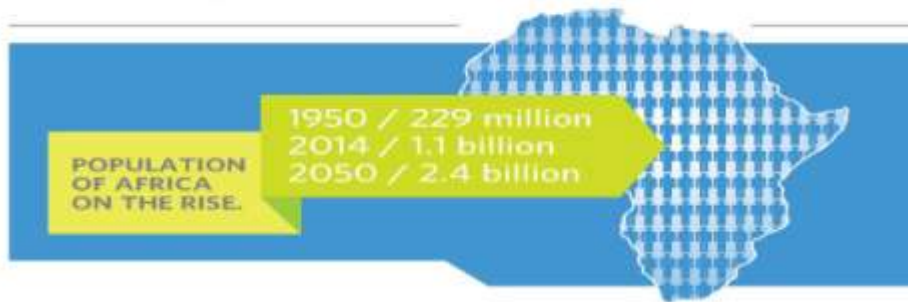
2. Thematic analysis

Advocates also undertake various thematic analyses to generate a variety of data. These include budgetary allocation analysis, expenditure information, and comparative data across countries, country status reports, facility utilization/data, bottleneck analysis, investment cases, return on investment analysis, cost benefit analysis, policy or programme impact analysis, or strategic modelling approaches. Findings from these activities can be presented in creative ways – such as interactive maps, infographics, factographs, dashboards, stories of change, etc., which can be targeted at specific decision makers and influencers. The idea is to ensure that decision and actions are based on compelling evidence and not ideology or personal impression.

3. Situation assessment

Most development organisations carry out situation analysis as the basis of their development support to countries. Usually, this provides the quantitative and qualitative context of development interventions. But in addition, such analysis may be developed for specific thematic issues as the backdrop for policy and programmatic change. For example, these authors recall that in its campaign for adolescent girls in Africa *aimed at building the health, social and economic assets of adolescent girls, especially those at risk of child marriage*, the UNFPA has developed info graphics to inform and influence decision makers to invest in young people. The documents have been used to engage different policy makers, the donor community and media professionals. The package presents complex information on adolescence issues in easy-to-use formats, including for online campaigns and advocacy on adolescent girls (UNFPA, 2014). Some examples are presented below.

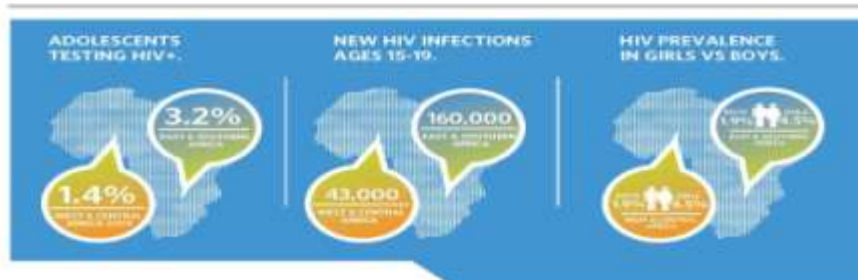
POPULATION MATTERS



Africa's 251 million adolescents represent 27 per cent of the continent's total population. This is expected to rise significantly if current growth trends continue.

Source:
World Population Prospects, ITC, 2012 revision

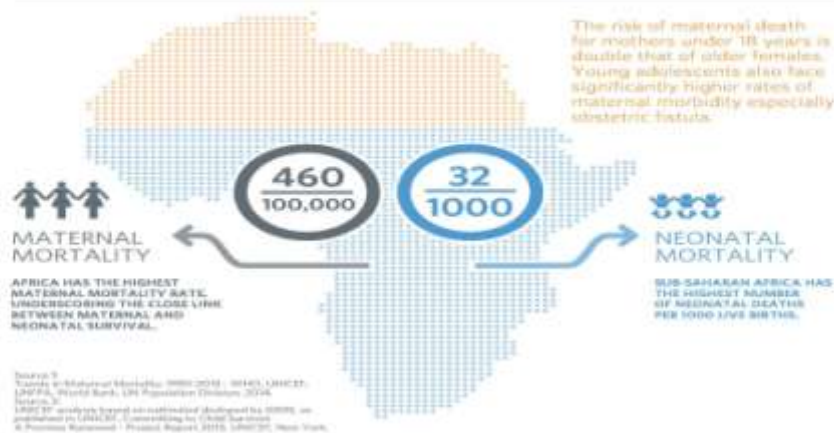
REDUCING NEW HIV INFECTIONS



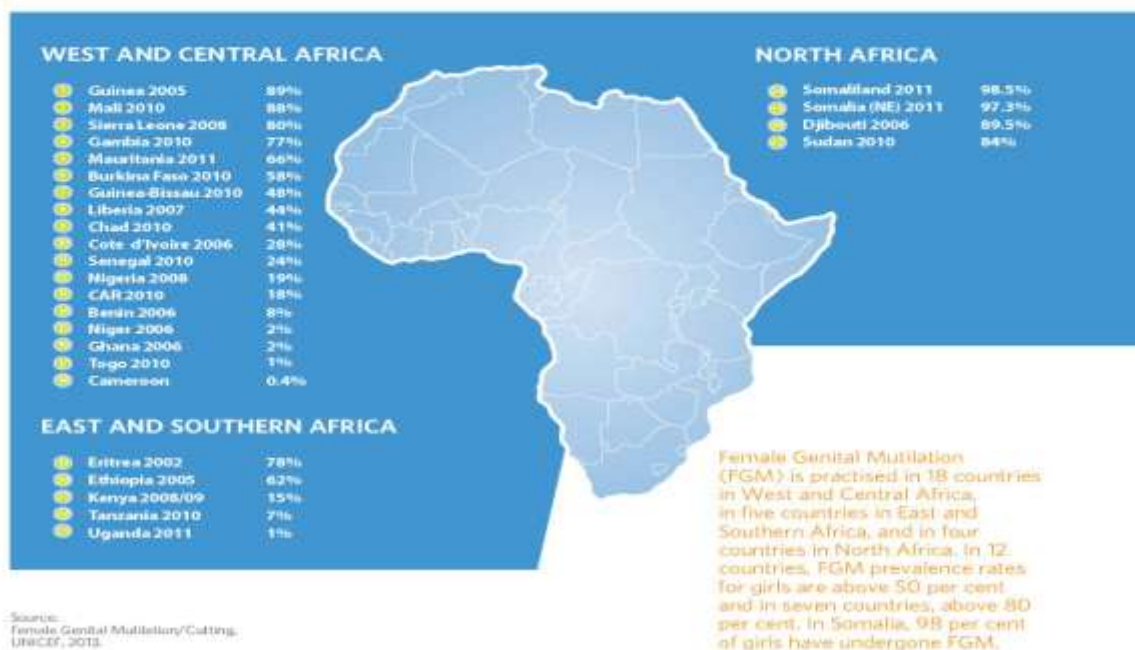
East and Southern African countries have the highest rates of adolescents testing HIV positive, with most countries having rates above 2 per cent.

Source:
State of the World's Children 2012, UNICEF

HELPING MOTHERS LIVE



FGM PREVALENCE AMONG ADOLESCENTS AGED 15-19

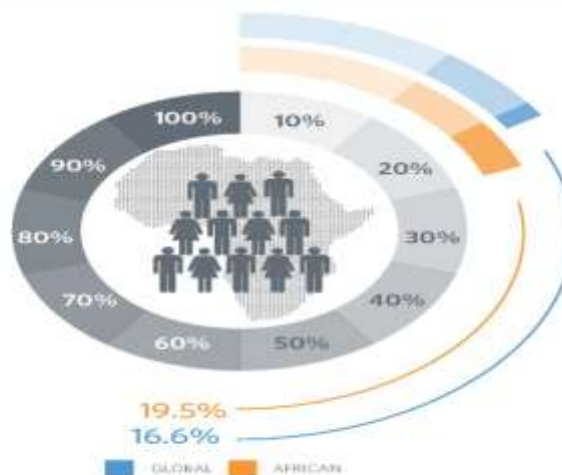


EVERY ADOLESCENT COUNTS

NUMBER AND PERCENTAGE OF THE POPULATION AGED 15-24 YEARS.

AFRICA: 221 MILLION
GLOBAL: 1,199 MILLION

Young women aged 15-24 account for 31 per cent of new HIV infections in sub-Saharan Africa and 22 per cent globally, yet young girls in particular find it difficult to access critical sexual and reproductive health services.



Source: World Population Prospects, the 2012 revision.

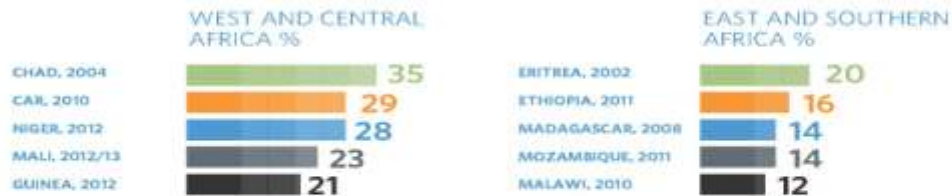
ADVANCING GENDER EQUALITY



In many countries, adolescent girls who experience school-based violence and become pregnant are expelled and do not have an opportunity to continue their education, further impacting on their lives.

Source: Progress of the World's Women, 2013; UN Women. Data for South Africa from the Preliminary Results of the Gauteng Gender Violence Indicator Project by Gender Links and the Medical Research Council.

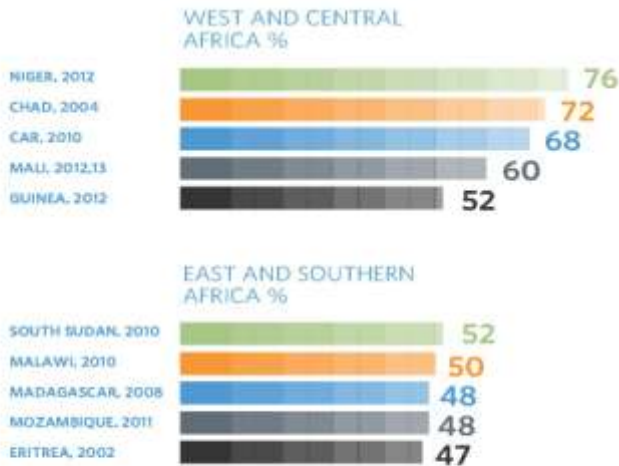
TOP 5 COUNTRIES PER REGION WITH THE HIGHEST RATES (%) OF CHILD MARRIAGE BEFORE AGE 15



West and Central African countries have the highest levels of child marriage, with more than 20 per cent of girls marrying by age 15 in the Central African Republic, Chad, Guinea, Mali, Mauritania and Niger. In East and Southern Africa, more than 20 per cent of girls in Eritrea marry by age 15.

Source:
World Population Prospects, the 2012 revision.

TOP 5 COUNTRIES PER REGION WITH THE HIGHEST RATES (%) OF CHILD MARRIAGE BEFORE AGE 18



Source: World Population Prospects, the 2012 revision.

Challenges of data use in advocacy

The use of data in advocacy is not without challenges. The first concern is with the ‘intentional’ nature of advocacy, which is inherently replete with influence and persuasion. To Chapman (2001) advocacy is “unashamedly purposive” while to most development agencies, advocacy is a deliberate process of influence. The following snapshots of the perspectives on advocacy appear below:

- UNAIDS ...advocacy is “a *strategic process designed to influence...*”
- UNICEF ... advocacy is “*deliberate process of influencing decision makers....*”
- Pathfinder International... advocacy is ‘*a wide range of activities conducted to influence decision makers at various levels....*’
- Johns Hopkins University JHU... policy advocacy is ‘*effort to influence public policy through various forms of persuasive communication*’
- Care International ... advocacy is “a *deliberate process of influencing those who make policy decisions....*” (Fayoyin, 2015)

Based on those notes, messaging aimed at influencing people is characterised by a deliberate choice of what to say and how to say it. In reality, therefore, advocates frame issues for specific reasons and use data with the aim of achieving their stated objective. Thus, statistics are not used with neutrality in mind but with a deliberate and planned intention. As noted by Best (2001), advocates may skew the use of evidence and data.

One sector of health and development that has seen a robust and targeted use of data to make a case is HIV. To convince the world to take action on HIV, UNAIDS made the data

scream by creating a compelling picture” for the global community (Pisanni, 2008). UNAIDS undertook ‘manipulative gymnastics of the Global Reports’ which resulted in ‘cooking up an epidemic’, that finally ‘hit the headlines’. Overestimation of the AIDs situation has been a subject of recurring controversy and, in 2007 UNAIDS agreed that AIDS in Africa was overstated (GAVI Report, 2007, p.4; McNeil Jr, 2007, p.1; Timberg, 2006.p.2). Faulty methodology was seen as the cause, but it does not rule out politics and pure advocacy.

Another example of the deliberate use of data for “inspire and inform” action is the campaign against rape by an advocacy organization, **Blow the Whistle**, in South Africa. According to the organization, one person gets raped within every 36 seconds in the country, resulting in the estimation that 74, 400 women were expected to become victims of rape in the country in August 2014. These statistics were published by the *Times Live* newspaper in South Africa on August 20, 2014, and was picked up by other local media organisations. The website of the organisation had a clock which showed that a rape occurs in the country every 36 seconds. However, an investigation by a fact checking organisation, **Africa-Check**, confirms that the claim made by the NGO was wrong. The investigation concluded that the organisation “overstated the number of rapes reported to the police and also seem to have thump-sucked under reporting rates” (Africa Check, 2014, August 28)

Advocacy data generation and research

While some problems with data use in advocacy may be related to how it is communicated, part of the challenge is with how it is generated. Advocates possess and have used various sources of data, with various levels of comparability in development. From unstructured interviews conducted with professionals in many African countries, the following causes of poor data have been identified: unreliable sources and fragmentary data set, limited accessibility of data, collection of inaccurate data, collection of incomplete data, delays in reporting, inconsistent data for same type of indicator, under/over reporting from data collectors and conflicting data sources. When these challenges are coupled with the use of different reporting and monitoring systems, tools, and modalities by different development agencies and national partners, and the practice of measure fixation and gaming, they create conflicts in the use and dissemination of data.

Data and evidence generation are among the basic principles of research, but barriers affect the process and findings. Specifically in health policy making research, some of the problems encountered are poor methodological quality, weak internal validity and haphazard evidence diffusion. In most areas of policy, there are problems with timeliness of research, dearth of primary research, and weak capacity of policy makers to access and apply scientific knowledge in decision-making. Without a doubt, these challenges seriously impact data dissemination and utilisation.

One additional challenge with data use in advocacy is the ‘politics’ of data in development. Data are not just a technical issue; it is a political product, which evokes significant political sensitivities, as mentioned above. There have been instances where agencies do not agree on certain indicators and instances where government data did not match the data from development agencies and took action that negatively affected the population. Further, this creates inherent wariness about data acceptability by decision-makers.

Another critical issue that determines how aid agencies use data is the need to demonstrate results. Critics of development aid such as Easterly (2002) have accused development agencies of performing poorly on a number of variables. For example, Easterly & Pfütze (2008) argue that many development agencies are performing below expectation with regard to the effectiveness of the assistance they provide.

From the foregoing, we have established that despite the positive uses of statistics in advocacy, there are technical and communication problems which result in data

misrepresentation. Some of the constraints are inherent in the purposive and intentional nature of advocacy communication while others may be caused by errors in the data generation process. Thus, we argue for greater control and responsibility in data generation and dissemination in general and in journalism in particular.

Data Use and Misuse in Journalism

Data is one of the sources of news in journalism and reliability of information and accuracy of data is one of the normative principles of contemporary journalism. In particular, media reports are expected to abide by the mantra ‘facts are sacred, but comments are free’. Data are a major source of information in journalism, but data misrepresentation is also common in the field. Data use in journalism can be neutral and purposive. When used by a journalist to present a story, it may be neutral, but when used as part of opinion writing, there is a possibility of intentional use.

In a digital age characterised by decentralisation and democratisation of information resources, erosion of traditional gate-keeping and agenda setting functions, enhanced dialogues and near instant feedback (Lasica 2003), the potential for data misrepresentation in journalism seems to have increased. The experience of the authors of this article in training media professionals and having practical interaction with development, science and health journalists is that the latter face many challenges associated with data gathering and dissemination. These include restricted access to health data and statistics, lack of ability to critically analyse and interpret information, and weak interface between media and scientists. Another major barrier to effective use of data in journalism is the relatively complex nature of the health and development sector, which is characterised by social statistics that are sometimes difficult to understand. Such data may include population censuses, demographic and health surveys, sentinel surveys, surveillance systems trend analysis, forecasting, estimates, and use of projection from different development agencies. Such constraints result in the dissemination of distorted social data, mangled meaning of statistical findings, laundering of statistics and transmission of ‘rogue’ statistics from one channel to the other. Therefore, we argue that health and development reporting requires enhanced skills in data processing, interpretation and presentation. In the following story, we illustrate some of the challenges associated with data presentation in the media.

Data Use and Misuse in Politics

There are many aspects to the use of data in politics. However, we shall focus on political polling. Polling is a major source of data and information in a democratic dispensation. It has become an important part of contemporary political process, especially during multiparty political elections. While in some cases, polls have educated the electorate on the political trend, in many they have been embroiled in public controversies because of their misuse. Conceptually, opinion polls are part of survey research, which helps to describe, understand, explain, analyse and predict the behaviour of a population or its sample. Polling seeks to explore or explain voter preferences on specific political issues and may be useful in guiding voter action. The electorate tends to believe the findings of such polls. However, in many countries, political opinion polls have been fraught with several weaknesses. As illustrated below, polls have been found to be misleading and in some cases, fraudulent. Although the science of polling has inbuilt techniques to ensure acceptable levels of validity of the process and reliability of its results, the authors opine that many opinion polls during elections have been used to prove whatever the pollsters wanted to prove.

Public Opinion Polls in Africa: Questionable Pollsters, Questionable Statistics?

Since the emergence of multi-party politics in African countries, election polling has been gradually introduced into the democratic polity. The level and scope of election polls in Africa can at best be described as “poll frenzy”. The polls are usually conducted by professional polling organisations and research institutions, but others are carried out by media institutions, NGOs and shadowy institutions with no track records. In addition, findings from many polls have also been the subject of contention among the media, academics, politicians and opinion leaders. A few examples are presented below.

The election in Kenya in 2013 was characterised by numerous opinion polls, especially from leading pollsters such as Infotrack, Synovate and Strategic Research. Findings from such polls received extensive coverage, many times making headline news. However, commentators described the polls as ‘poll pollution’, ‘corrupt pollsters’, or ‘poll controversies’. In an insightful analysis of the role of political polling in the election, Makulilo (2013) identified seven weaknesses of the polls conducted by one of the leading pollsters which potentially affected the quality and accuracy of the findings. They were sampling bias, problem with the design of the polls, contexts of the study, level of honesty of the responses, polls design, timing of polls, technical competence of the pollsters, and response rate. From the detailed analysis, the author concluded that the polls were problematic on all the seven variables of analysis which caused “overestimation or underestimation in projecting the electoral outcome” (Makulilo, 2013, p.26). Makulilo (2013, p.1) basically described the behaviour of one of the polling organisations as that of a “weather forecaster,” conducting four polls in just a week and projecting for the entire elections. In simple terms, the findings and data presented from the polls were inaccurate.

Various assessments berated the quality of the polls. According to *The Business Day* (2014) pollsters created “misplaced expectations” which could trigger tension and chaos. Other commentators, (Ngaji, 2013; Gathigah, 2013), criticized the accuracy of the polls due to vested political and business interests. According to Chessman (2014, p.1), some of the polls lacked methodological accuracy and could be flawed in their presentation of data. So, the author concluded that “polling methods were frequently misunderstood, overlooked or studiously ignored by politicians and media outlets.” Overall, data from the polls were unreliable, but were still published in the media. Such data were picked up by different individuals and used in private and public conversations. They also featured on social media discussions. Such data may have contributed to the political tension in the country during the election.

Election polls from other African countries have the same problems. For example, in an examination of the polls in Tanzania during the 2010 elections, Makulilo (2011) revealed that the pollsters lacked a good understanding of the political structure in the country and eventually produced faulty results. Cheeseman (2008) describes the polls in Zambia in 2006 as “missing the point”, thereby producing incredulous findings. While the Nigerian election polls were reportedly well conducted (Casimir, Omeh, & Ike (2013, p. 173), polls can serve as a deterrent to electoral fraud, and some of the exit polls in the country can be used for fraud and diverge from final results.

Political election polls in Ghana also follow a similar pattern of contention as a result of poor design and questionable results they have published. Some of the polls conducted in 2012 resulted in acrimony and controversy as they were described as propaganda for specific politicians. In the 2014 Malawi election, opinion polls were blamed for creating confusion in the electoral process, apathy and electoral manipulation. Based on the corruptive practices with data perpetuated by the media and pollsters, the Malawi Electoral Commission warned the electorate to beware of pollsters with “questionable credentials” who produce “questionable statistics” (*Malawi Voice*, 13 May 2013).

Findings from election polls in less contentious political contexts like Uganda have also been subject to controversy. Opposition and media commentators queried the findings and methodology of the election polls in 2011 which showed that President Museveni would win the

election. Undoubtedly, the integrity of the agency that conducted the polls - Afrobarometer – was also questioned (Conrol-Krutz & Logan, 2011, p.4). However, Afrobarometer predictions were proved right in Malawi and Uganda.

That brief review of election opinion polls in those countries affirms our submission that elections polls and statistics are largely problematic in Africa. At best, many of the polls may be described as ‘rogue polls’ with deficient data integrity and they are intended to advance specific political interests. Specifically, Makulilo (2013, p.5) opines that the polling industry in Africa has remained controversial and progressively incredible. This is consistent with suggestions in the literature that opinions polls should be used and applied with wisdom (Best, 2006, p. 4; Barone, 1997. p.1).

Effects of Data management in development, democracy & public communication research

Several lessons can be identified on the impact of data and social statistics for broader development and communication contexts. However, three main ones are examined here. Within the political context, reliable data is useful in educating voters on political behavior during elections. However, its inappropriate use can undermine democratic policy as evidenced from election opinion polls in Africa. They result in voter apathy or manipulation of the electorate. The audience’s heavy reliance on the print and broadcast media information to form opinions about the conditions of democracy in their country is another problem (Ngwainmbi, 1994; 2004; 2005). During the campaign period, local newspapers, in a mad rush to sell more copies habitually publish stories without verifying data; hence misinforming and misdirecting voters and politicians alike.

Because of the believability of information from the electronic media, the actions and thoughts of the electorate are affected to a great extent by information disseminated through that source. People have held mass rallies in support of or against elected officials after reading press reports. In their editorials and news coverage, private press reporters in Nigeria, South Africa, Ghana, Kenya, Niger and Cameroon where there is relative press freedom challenge the polls or accuse the ruling party of election fraud. Even though those countries have their own electoral commissions that should remain impartial and maintain accurate data, journalists have faced difficulties accessing it. A number of reasons account for this: (1) lack of capacity and resources to collect the data, (2) incompetence of data collectors, (3) apathy among low-paid employees of the Commission, (4) corrupt officials serving the interests of influential politicians, etc. Hence, the electorate cannot be properly educated about its rights and the press cannot tell the whole truth to its audience.

We might expect a dramatic change in the sharing of data with growing access to social media products and activities in more African countries. It is expected that data and statistics from controversial opinion polls would be twitted, i-chatted or Face-booked within social networks without discernment and critical interrogation. In relation to development and health advocacy, data can be used as an effective tool for media advocacy and policy influence.

Conclusion

We have established that data misuse is common among advocates who frame issues based on their predetermined goals. Data generation and utilisation is a political tool in advocacy, and it is only issues that attract the attention of activists or those with substantial donor interest that seem to motivate researchers to conduct investigations. Thus, issues that do not achieve the ‘celebrity status’ do not get media attention, and public and policy discourse are underreported or not advocated. In this case, we foresee more improper use of data and underreporting of issues. Within journalism, social statistics are a great source of news with the potential for informing and educating the public on various issues. Nevertheless, due to a variety of factors, media

misrepresentation of data is a common occurrence. This implies that the use of data in journalism can be a source of public misinformation. We, therefore, contend for a critical mindset in the dissemination of data at all levels to reduce mass circulation of erroneous data and statistics in the media. All variants of journalism--traditional, digital or trado-digital-- need a critical approach and a sceptical mindset in dealing with data, statistics, evidence and numbers. That aggressive interrogative attitude will enhance fact checking before publication.

Recommendations

- **Skills building in data use**

Journalists and other media professionals handle a lot of data in the process of informing and educating the public. Therefore, improving their skills in data appreciation has become more imperative for effective dissemination of statistics and data to the public. Here are some recommendations to consider:

- (1) Media professionals need sophisticated insight in data interpreting and data communication.
- (2) The current revival in data journalism in many countries needs scaling up.
- (3) Agencies that produce data for the public consumption need to strengthen their interface with media professionals in order to enhance adequate reporting of data from such fields.
- (4) Regular orientation is necessary for journalists to understand emerging trends in health and development in order to communicate such issues adequately.

- **Data alignment in public sector**

Inadequate data alignment in the public sector has been one of the factors contributing to data misreporting. To address these issues, (a) data generating institutions and organisations need to establish a data verification mechanism, conduct regular spot checks and prepare metadata for all indicators. This is necessary to harmonize the various types and forms of data collected and disseminated by different organisations. (b) Technical and financial investments are needed to enhance data generation, validation, verification and contextualisation for meaningful dissemination.

- **Stricter regulation of opinion polls**

Because election polls greatly impact democratic processes in many African countries, strict mechanisms are needed to ensure effective 'policing of pollsters'. The consequences for publishing unreliable data lead to the election of the wrong candidate and in some cases the death of innocent people. Thus, stricter regulations are needed to guide the practice of opinion polling in Africa. Such mechanisms are not intended to restrict freedom of information, but to help in the democratisation processes in the countries.

- **Need for a more active role for fact checking organisations**

The role of fact checking is critical in correcting data misuse. In recent times, few organisations have been established in some African countries focussing on promoting data accuracy in media and public debate. It is necessary that this role be institutionalised in many organisations at the national and regional levels. Academic institutions that deal with data also need to invest more resources in ensuring fact checking for various thematic areas since data validity cannot be left to corrections after errors have been made.

References

- Ayish, M, (2005, March 2).
From “Many Voices, One World” to “Many Worlds Once Voice”: Reflections on International Communication Realities in the Age of Globalisation, *The Public* 12, (3) 13-30.
- Barone, M. (1997, April/May)
Polls are part of the air Politicians Breathe *The Public Perspective*,1-2.
- Best, J. (2001, May 4).
Telling the Truth about Damned Lies and Statistics, *The Chronicle Review*,
<http://chronicle.com/free/v47/i34b00701.htm>. Date accessed?
- Best, J. (2004).
More Damned Lies and Statistics. University of California Press: Berkeley.
- Best, J. (2001).
Damn Lies and Statistics. University of California Press: Berkeley.
- Business Day, (2014).
10 Lessons for Kenya from the 2013 General Election.
<http://businessdailyafrica.com/opinion-and-analysis/53948/1737838/-view/>
Accessed 04/11/2014
- Casimir, A., Omeh, E., & Ike, C. (2013).
Electoral Fraud in Nigeria: A philosophical Evaluation of the Framework of Electoral Violence. *Open Journal of Political Science*, 3 (4) 167-174.
- Chapman, S. (2001).
Advocacy in public health: Roles and challenges. *International Journal of Epidemiology*, (30) 1226-1232.
- Cheeseman, N. (2008).
The Kenya Election of 2007: An Introduction. *Journal of Eastern Africa Studies*, 2, (2) 166-184.
- Conrol-Krutz, J. & Logan, C. (2011, September).
Museveni and the 2011 Uganda Election: Did Money Matter? Afrobarometer Working Papers, No 135. Africa Barometer.
- Easterly, W. (2002, July–August).
The Cartel of Good Intentions. *Foreign Policy*, 40–49.
- Easterly, W., Pfitze, T. (2008).
Where does the money go? Best and Worst Practices in Foreign Aid, Brooking Global Economy and Development, Working Paper 21.
- Fayoyin, A. (2015).
Advocacy Nuts and Bolts, Nairobi, Kenya, Nairobi Academic Press. (In Press)
- Fayoyin, A. (2013).
Advocacy as a Strategy for Social Change: A Qualitative Analysis of the Perceptions of UN and Non-UN Development Workers, *Journal of Social Studies* 35 (2) 181-193.
- Gathigah, M. (2013, February 27).
Kenya’s Electoral Opinion Polling Marred by Suspicion, *InterPress Service*, Nairobi, Kenya.
- Gresge, J. K. (2007, July-August).
HIV Prevalence Estimates: Fact or Fiction. *The Publication on International Aids Vaccine Research*, 11 (4) 1-20.
- Grooves P., Kayyali, S., Krust, D., van Kullen, S. (2013).

- The Big Data Revolution in HealthCare*. New York: McKinsey & Company.
- Hood C. (2007, April). Public Service Management by Numbers: Why does it vary? Where does it come from? What are the gaps and puzzles? *Public Money and Management* 27 (2) 95-102.
- Huff, D. (1954).
How to Lie with Statistics. New York: W.W. Norton & Company.
- Johnson, S.A. (2009).
Public Health Advocacy. Edmonton, Alberta: Healthy Public Policy – Alberta Health Services.
- Lasica, J.,D. (Ed.) (2003).
We Media: How Audiences are shaping the Future of News and Information. The Media Centre: The American Press Institute.
- Malawi Voice, (2013, May 13).
MEC cautions media on opinion polls. Some pollsters have questionable credentials, produce questionable statistics.
<http://www.malawi.voice.com/2013/05/13/mec.-cautions-media-on-opinion-polls-some>. Accessed 05/11/2014.
- Makulilo, A. (2013).
Poll “Pollution”? The Politics of the Numbers in the 2013 elections in Kenya.
Africa Review, 40, (2) 1-32.
- Makulilo, A. (2011).
The Dark Side of Opinion Polls in Tanzania. 1992-2010. Lambert Academy Publishing. Saarbrücken
- Mayer-Schonberger, V., Cukier, K. (2013). *Big Data*. Boston: Mariner Books.
- McNeil, D.G.Jr., (2007). UN to say it overstated HIV cases by Millions. New York Times, <http://www.nytimes.com/2007/11/20/world/20aids.html>?
Accessed 04/11/2014.
- MOPAN (2010).
Multi-lateral Organisation Performance Assessment Network Common Approach. Finland: MOPAN.
- Ngaji, D. (2013).
What if Kenya’s election violence points to corrupt pollsters? <http://www.theafrica.report.com/News-Analysis/what-if-kenyas-election-violence-point>
Accessed 2014/11/04.
- Ngwainmbi, E. K. (1994).
Communication Efficiency and Rural Development in Africa. New York: University Press of America.
- Ngwainmbi, E. K. (2004March) Glocalization, Local Urban Culture and Change in West Africa: Toward Negotiating Socioeconomic Understanding with Foreign Companies and International Organizations *Columbia University International Affairs Online Journal-*
- Ngwainmbi, E. K. (2005)
NEPAD’s Development Perspective: Bridging the Digital Divide with Good Governance. *Journal of Black Studies*, 35, (3), 284-309.
- Pissani, E, (2008).
Wisdom from Whores. London: Granta Publications.
- Provost, F, & Fawcett, T. (2013, March).
Data Science and its Relationship to Big Data and Data-Driven Decision Making. *Big Data*. 1 (1), BD 51-59.
<http://wenku.baidu.com/view/72d8c8c76f1aff00bed51ee3.html>. Accessed 7/12/2014.

- Rademeyer, J. (2013, March 20). Media Mis-reporting HIV rate among SA school girls. True Rate is 12.7 percent. *Africa Check: Sorting Fact from Fiction* <http://africacheck.org/reports/media-misreporting-the-hiv-rate-among-schoolgirls/> Accessed 07/10/2014.
- Samuel, J. (2010). Public Advocacy and People Centred Advocacy: Mobilising for Social Change. In Cornwall A, Eade D. (Ed.) *Deconstructing Development Discourse – Buzzwords and Fuzzwords*. Oxford: Oxfam.
- Shiffman, J. (2009). A Social explanation for the rise and fall of global health issues, *Bulletin World Health Organisation*, 87 608-613.
- Shiffman, J. (2007). Generating political Priority for Maternal Health Reduction in 5 Developing Countries. *American Journal of Public Health*, 97(5) 796-803.
- Waisbord, S. (2009). Advocacy journalism in a Global Context. In K. Wahl-Jorgensen & T. Hanitzsh (Eds). *The Handbook of Journalism Studies*, (pp. 371-385).Routledge: New York.
- Wilkinson, K. (2014, August 28). Will 74,400 women be raped this August in South Africa? *Africa Check: Sorting Fact from Fiction* . <http://africacheck.org/reports/will-74400-women-be-raped-this-august-in-south-africa/>.
- World Economic Forum (2012). Big Data Big Impact: New Possibilities for International Development, Geneva: The World Economic Forum.
- UNESCO, (1980). Many Voices, One World: Report of the International Commission on the State of Communication Problems, Paris: UNESCO.
- UNFPA (2014). *Investing in adolescent Girls for Africa's Development: Challenges, Realities and Opportunities*. UNFPA: Johannesburg.
- United Nations Global Pulse (2013). *Big data for Development. A Primer*. New York: United Nations