Digital Media for Community Engagement in Enhancing Effective Primary Healthcare Service Delivery in Cross River State

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Abstract

The world's population is largely made up of digital media products. The implication of this remains evident in many industries, even those that are not typically associated with digital media. Overtime, the Nigerian society has been plagued with numerous social issues - poverty, gender inequality, unemployment, youth restiveness, hunger, kidnapping, banditry, farmers/herders clashes, communal crises, and climate change. Since Internet access and mobile phones have become ubiquitous in our country, ICTs now represent the fastest, broadest and deepest technical change necessary for community engagement and development communication, affecting every development sector including healthcare, national security, politics, agriculture, and climate change, though not without digital inequalities and harms. Using the qualitative approach, backed by the Technological Determinism theory, this study seeks to identify the indispensable role of the digital media in supporting effective primary healthcare service delivery in Cross River State between 2016 and 2018 fiscal year. With findings portraying the immense support of digital media in awareness creation and data gathering, the researchers recommend among others that improved digital health awareness of the public can help to educate, inform, motivate and empower individuals and families by helping them navigate the risks of participating in the online world.

Keywords: *Digital Media, Community Engagement, Development Communication, Community Development*

Introduction

The world today is populated by digital media products found in such areas as e-Commerce, games (console, online and mobile), websites and mobile applications, animation, social media, video, augmented reality, virtual reality, data visualization, location-based services, and interactive storytelling. Digital media have impacted all industries – entertainment, technology, publishing, e-Commerce, government, sports, marketing, advertising, environment, education, and so on. This development has changed the old narrative where medical information was the sole currency of medical practitioners. In that era, an average health consumer was only exposed to limited options beyond turning to a medical doctor or a nurse for health-related advice. Today, to stay relevant and

reach these audiences, the healthcare industry and professionals need to meet consumers where they are via the digital media.

Digital media is a system where digitized contents are transmitted over the Internet or computer networks. Such contents come in text, audio, video, or graphic forms. This means that news from a TV network, newspaper, magazine, etc. that is presented on a website or blog can fall into this category. Digital media in healthcare, therefore, refers to the various tactics that healthcare organizations, payers and providers leverage to connect and engage with their patients in order to improve quality of care and decrease readmission rates. This is made possible through the recent advances in mobile technology development and use, having serious implications on how health services can be administered (Bhattachajee & Hussein, 2018).

There is nearly limitless information readily available via digital media as a majority of people pool medical advice primarily from these online platforms. This makes the use of digital media in the healthcare sector no longer an option especially going by the rate at which young people are accelerating in this trend. Innovations in health care are still considered "slow" by many. Healthcare system is complex and for innovation to take traction, there are many stakeholders to satisfy. There are systems level solutions offered but it is the stakeholders' "buy in" (or "out") that usually dooms interventions to fail. Lowering the barriers to beneficiaries' engagement maybe a solution.

Social media play active roles in engaging both providers and beneficiaries in healthcare change. Thus, having a social media platforms and good communication strategies is no longer optional requirements for advocacies and social mobilization campaigns for effective healthcare delivery. They serve as powerful tools for building trust, reaching more patients, and spreading valuable medical information to target audiences. For instance, Facebook and Twitter have been effective in monitoring or reporting disease outbreaks for some major organizations such as the International Medical Corps, Village Reach and WHO. Other health organizations like Health Leads, Medic Mobile, African Medical and Research Foundation (AMREF), D-Tree International, Global Viral and Vision Spring have also employed social media platforms to pressure health policy changes in some countries and have won (Radu, Radu, Condurache, & Purcărea, 2018).

The Internet and social media constitute the "new media". Internet gatekeepers and social media platforms keep changing their policies, algorithm and strategies to achieve their bottom line - profit for their owners and shareholders. That is not altogether bad given that these platforms both succeed in providing desirable value to the general public while maintaining a profitable and sustainable business model.

Many organizations (old and new power structures alike) are restructuring and recalibrating their health campaigns to align with the intricacies of new power tools, like social media. That digital media is hog washed in false information and dubious health messages is also not true. Increasing the number of people who interact directly or indirectly with that health organization leads to increased brand visibility and an effective digital promotion. The Internet has made it easier for consumers to give a review or to comment on something. Thus, we can see a growing trend of people who rely on such reviews. According to Keselman, Arnott-Smith, Murcka and Kaufman (2019), there is no dearth of superior quality health information online.

Developing countries like Argentina and Rwanda have experienced how effective community engagement and networks are supportive development efforts. These supports provide immeasurable assets in their potential capacity for driving social change, thereby emerging as an important priority among development agencies and experts. As against the typically conceived one-way approaches of delivering knowledge and service to the public, community engagement emphasizes a two-way approach for major stakeholders to collaborate, develop and apply knowledge to address societal needs. Community engagement has gained momentum over time due to its numerous positive influences in the development communication efforts. In some sense, community engagement means community empowerment that results in delicate balancing act between the government agenda and community interest as it highlights the role of community practitioners and provides an interface between governments and their citizens.

Weather app on a smartphone, a racing game on a video game console and an ultrasound imaging device in a hospital are all digital media products. They are successful because they are engaging, easy to use (even fun in the case of games), and deliver results. Digital Media are a blend of technology and content, and building digital media products requires teams of professionals with diverse skills, including technical skills, artistic skills, analytical and

production coordination skills. All of these skills need to be balanced on a team, with all members focused on creating the best user experience.

The Cross River State Primary Health Care Development Agency (CRSPHCDA) was established on the 2nd of March, 2016 by His Excellency Sen. Prof. Ben Ayade following the national policy of bringing together primary health care service providers and staff from the various Ministries, Department and Agencies [MDAs] under one roof. The agency was saddled with the responsibility of coordinating primary health care services which was hitherto divided among staff of the Local Government Areas, the Ministry of Social Welfare, Ministry of Women Affairs, and Ministry of Health.

The agency's mission was to promote and implement sustainable, high quality primary health care services to 90% of the population in Cross River State and to support primary health care delivery through partnership, collaboration, resource mobilization, development of community-based systems and functional primary health care infrastructure in the state.

Statement of the Problem

Cross River is one of the 36 states in Nigeria. Lying within the coastal region with a tropical-humid climate, with an estimated population of about 3,104,446 people [NPC, 2005], the state has an ideal environment for disease transmission throughout the year as the average temperature of the state still grapples with the challenge of effective healthcare delivery especially in the rural areas. Despite the state's constant attempts to ensure prompt health service delivery, remarkable success has not been recorded as there are still frequent reports of morbidity and infant mortality due to absence of adequate healthcare personnel, facilities and information to enable the citizens manage their health challenges. The presence of superior quality and credible online health information has not helped the situation either. This study, therefore, evaluates the compliance of CRSPHCDA in applying the available digital media and community engagement platforms towards ensuring effective healthcare service delivery as a way of helping the people make informed decisions on how to stay safe. The evaluation period for this study was between 2016 and 2018.

Objectives of the Study

The objectives of the study are

i. To identify the dominant digital media platforms of the CRSPHCDA in Cross River State within the period under review [i.e. between 2016 and 2018];
ii. To examine how the application of digital media fostered community engagement in ensuring effective healthcare service delivery in Cross River through CRSPHCDA;
iii. To determine the challenges encountered by the agency in ensuring public involvement in effective healthcare delivery through digital media within the intervention period [2016 and 2018].

Research Questions

The research questions are

i. What dominant digital media platforms were adopted by the CRSPHCDA to enable effective primary healthcare service delivery within 2016 and 2018?
ii. How did the application of digital media foster community engagement in ensuring effective primary healthcare delivery services in Cross River State through CRSPHCDA?
iii. What were the challenges faced by the agency in ensuring compliance to digital media and community engagement in effective service delivery within the period under review?

Digital Media and Development

The media and communication landscape reflects the diversity and complexity of culture, languages, geography, populations, history, politics, transnational networks, infrastructures, and policies of the region. Media industries in some countries include private, government, and community media, across radio, newspaper, and TV platforms. In other countries, mass media industries are comprised only of government-funded media (Papoutsaki, McManus, & Matbob, 2011; Tacchi, Horst, Papoutsaki, Thomas, & Eggins, 2013).

Similarly, digital media technologies play increasingly important roles in socio-economic and communicative activities in the world. Numerous debates exist on the correlation between ICTs and development. Many of such literatures have centred around three main discourses: modernization, dependency and human

development (Sein, & Harindranath, 2004). The underlying assumption in modernization is that development is linked to the insertion in a market economy, and the underlying value is that this insertion provides people more than mere survival. Nicholson, Nugroho and Rangaswamy (2016) stated that development, understood from this perspective, inscribes people in an accumulation process.

The dependency discourse posits that economic growth in developed countries results in the underdevelopment of poorer countries, mostly former colonies that may be subject to negative terms of trade and technology and industrial dependency. The human development discourse is focused on building capabilities and realizing individual potential with people at the center of the development process economically, environmentally, socially and even politically. This implies that people may progressively improve the quality of their environment, invest in a better livelihood, acquire more sophisticated equipment and have easier access to means of working, as well as benefit from wider participation in politics and decision-making processes.

However, in the context of this research, our interest is focused on the conditions under which digital media can be transformative in human development and the ways in which digital media may be used in order to raise the capabilities of people to better and more effectively improve their livelihoods – development purpose. Development discourses have rather been conservative in nature, focusing mainly on impacts/outcomes that can be quantified, measured and generalized. "When we speak of development today, we are mainly concerned with the mass of people in the so-called developing societies which have a colonial past, a basically agricultural economy and a galloping birth rate. We focus on the small farmers, labourers, fishermen and others who make up the greatest number in any developing country [and are] poor" (Quebral, & Gomez, 1976 cited in Manyozo, 2006, p. 87).

Globalization has turned citizens to critical consumers and creative contributors of digital media contents by aligning them with discourses on *Development 2.0* (Heeks, 2010). Nicholson et al. (2016) have also submitted that digital media for development requires a new understanding of development beneficiaries. To be specific, digital media for development should approach beneficiaries as netizens by pairing them as objects of development and as social artifacts deeply entrenched in multiple aspects of everyday usage. Consequently, digital media continue to capture the imagination of communities, nations, organizations, and funders as a way to engage in and alter the future, thereby causing increased

attention to the inter-play between digital media and development. Historically, informed and critical scholarships on the empirical realities of these aspirations as they are enacted and reimagined remain essential (Horst, Papoutsaki, & Schmidt, 2016).

Digital media for development complicates the linear understanding of socio-economic progress, development benefits and beneficiaries and moves away from normative understanding of "users" in emerging economies as unique and utilitarian beings and more as typical participants in this digital age (Bruns, 2008; Rangaswamy, & Arora, 2014). This fluidity enables social media for development scholars to contribute to contemporary and critical preoccupations within social media studies more broadly.

Reorienting Primary Healthcare Service Delivery toward Digital Media: Empowering People, Engaging Communities

Digital media technologies are helping people to manage their health issues more effectively, diagnose their diseases, and monitor the impact of health policies on the population. Digital technologies for health (*digital health*) are having profound effects on how health services are delivered and how health systems are run. According to Global Observatory for eHealth (2018), the impressive trend in national policies for digital health (with more than 120 countries by 2015) reflects the firm commitment to use digital technologies to advance the Sustainable Development Goals (SDGs), support universal health coverage and shape the future of primary health care. Digital media tools in health care help individuals and the public to get health messages that can be acted on instantaneously. Personalized support for health behaviour change is another growing application of digital media in healthcare management (WHO, 2018).

For example, *Be Healthy Be Mobile*'s mCessation programme has successfully helped tobacco users in India to quit smoking as registered participants get support through mobile text messages (Gopinathan et al, 2018). Again, an empirical qualitative focus group study conducted by Lupton (2016) on the use and value of digital media for information about pregnancy and early motherhood in the global North, revealed the importance of using digital media to establish and maintain social connections and intimate relationships with other mothers. Participants got highly valued expert advice that motivated their desire for greater access to information and support from healthcare professionals. Pregnant women

and those with young children placed a high value on the information and support they enjoyed through online sources and apps.

Another empirical study by Radu, Radu, Condurache, and Purcărea (2018) to determine the influence of digital media on the success of a health care unit revealed that ICTs make a decisive contribution towards improving competitiveness, increasing efficiency and reducing bureaucracy, thus contributing towards improving the health of the overall population. Radu et al. submitted that access to education and healthcare is considered a fundamental right of the individual in all civilized countries. Critical appraisal skills regarding information sources, the reliability and safety of health products and apps, and awareness of social media influences (such as anti-vaccine messages) are essential skills to foster in both children and adults. Further research and health technology assessment are needed on the benefits, acceptability, unexpected outcomes and risks of digital technologies to patients and the public. Unfortunately, the digital divide is still a reality to be tackled in many countries in order to achieve the goals of primary health care. Too many people do not have access to affordable digital technologies, with the problem being more acute in low- and middle-income countries (Global Diffusion of eHealth, 2018).

Theoretical Framework

This study is anchored in the Technological Determinism (TD) theory of Thorstein Veblen (1857-1929). The basic assumption of the theory is that the media of technology shape how individuals in given societies think, feel, and act, and how societies operate as the world migrates from one technological era to another (Tribal-Literate-Print-Electronic-Internet). This also explains how human beings learn, feel, think and act in certain ways due to the messages they receive through the current technological media available to them (in this case, the digital media, which offer subscribers information on-the-go via their devices).

Situating the theory within the context of this study, it can be said that the digital media have been adopted as solution platforms for users' health issues. Health workers and their beneficiaries who applied the digital media platforms of the CRSPHCDA were able to be mobilized, educated and sensitized on how to stay in touch with and find solution to their health issues, irrespective of their geographical location.

Methodology

This study was an evaluation in nature, applying the qualitative approach. An intensive interview was conducted with the Director-General of CRSPHCDA in Calabar, who was purposively sampled for this study due to her position in the agency. Similarly, 3 FGDs were conducted in 3 Primary Health Centres (PHCs) in Ikang (Bakassi LGA), Itigidi (Abi LGA) and Okpoma (Yala LGA). The selection of these health centres followed a multi-stage sampling technique. First, the state was stratified along the three senatorial districts – North, Central and South. Then, three health facilities were randomly sampled from each of the districts ensuring that at least one facility was sampled to represent each of the three senatorial districts.

Both the intensive interview and the FGDs generated rich data that helped the researcher in examining what was done in terms of what digital media platforms were applied in enhancing effective primary health care service delivery in the state (especially in rural communities), how it was done and the possible outcome within the period under review.

After the intensive interview, a verbatim transcription of data collected was done, establishing a set of categories and comparing similarities found. Thereafter, categories were refined to describe the underlying meanings defining the categories to examine what was learnt about the issue under study. Relationships, themes and patterns were searched for among the categories to reveal the common patterns and examine the propositional statements, looking for meaningful connections existing among them. Lastly, a summary report was written about the study and the analysis was integrated into some coherent explanation of the phenomenon, a brief explanation (but in sufficient details) was written, conveying ideas of the scope of the study.

Data Presentation and Analysis

After a careful coding process, the following categories, themes and patterns were deduced and used to present the data gathered:

i. Increased knowledge and use of digital media by health care providers;
ii. Heightened public awareness and acceptance of digital media innovations ; and
iii. Demonstrated community engagement and public participation.

i. Increased Knowledge and Use of Digital Media by Health Care Providers

Intensive interview data revealed an increased knowledge and use of the various digital media innovations and platforms among health care workers across the state. This introduced them to the world of technological knowledge which was hitherto lacking as computer training workshops were organized for staff on the application of computer software for health information management, dissemination, patients' health diagnosis, treatment as well as monitoring and evaluation.

> *Our staff in all the departments were exposed to these innovations through constant training and re-training and regular assessment. Workshops, seminars and practical sessions were organized for them as a way of getting them acquainted with the basic knowledge and skills to be able to handle the 'challenges' that may come with the migration of health care service delivery from analog to digital.*
> (Intensive interview with DG, CRSPHCDA).

ii. Heightened Public Awareness and Acceptance of Digital Media Innovations

FGD participants indicated heightened awareness and acceptance of digital media innovations of the agency and stated how this helped them to connect, interact and share ideas with people in more developed areas and finding solutions to their health challenges without having to visit the health facility or to see the doctor/nurse who may not be readily available. They indicated their commitment to future digital innovations depending on their affordability and availability.

> *The way things are done in the health centre these days is very good. Now I can chat with my doctor/nurse and tell him/her what my problem is (especially now that I am pregnant) and they will tell me what to do. Sometimes they will prescribe some drugs for me to buy and take or other things to do until my next ante-natal date. Sometimes, before that day, my health condition will become normal. I will only go to the health centre for my palpation and other check-ups. It's really nice and helpful…*
> (FGD with community members)

Participants also stated their initial resistance to the innovations due to lack of awareness. But data from the intensive interview has confirmed the heightened awareness and acceptance of the new technologies introduced into the primary

health care service delivery by the agency and how effective they have been to their subscribers.

> *At first, we were faced with the challenge of poor acceptance of the agency's digital media platforms. We also had issues with the misinterpretation/ misunderstanding of messages on the platforms where clients sometimes tended to understand messages differently from what the sender intended to pass across and this sparked negative responses from the clients, mostly those in the rural areas. But the situation is different today. The acceptance is there. In fact, their awareness is so high now that they will sometimes be the ones to remind you of your next appointment with them. They have not attached any cultural barrier to it. They see it as part of life and are making good meaning out of it and it has helped them a lot.*
> (Intensive Interview with DG, CRSPHCDA).

iii. Demonstrated Community Engagement and Participation

Health care messages were delivered to beneficiaries through various digital media handles to ensure public engagement and participation. Community members hear about the agency's planned activities in their communities and actively participate. The various platforms helped to keep them active and well informed.

> *Apart from using the mainstream media like radio and television, we reached our clients through our digital/social media handles - Twitter (@CRSPHCDA), Website (www.crsphcda.org), Facebook (www.facebook.com/crsphcda) and also the use of over 500 WhatsApp groups. The interactivity of digital media supported in awareness creation and also enabled the agency to collect qualitative data thereby enhancing the involvement of local communities, front line health workers as well as ward, local government and state stakeholders in ensuring effective primary health care service delivery across the state*
> (Intensive Interview with DG, CRSPHCDA, Calabar).

Discussion of Findings

RQ 1: **What dominant digital media platforms were adopted by the CRSPHCDA to enable effective primary healthcare service delivery within 2016 and 2018?** Data gathered from the study revealed the application of various digital media platforms such as *Twitter*, *Facebook*, *Website* and *WhatsApp* to

engage the subscribers. The agency's digital media compliance enabled their success within the period under review.

> *CRSPHCDA is one of the few government agencies that are digital media compliant. We recognized how far these platforms can support our efforts that was why we put in a lot of effort towards acquainting our staff with ICT knowledge. The platforms have helped us to keep in touch with all our clients anywhere, anytime.*
> (Intensive interview with DG, CRSPHCDA).

Reponses from FGDs further portrayed the clients' awareness of the digital media platforms that the service providers applied to keep in touch with them and help find solutions to their various health issues in their remote areas.

> *They taught us how to use our phones to solve our problems. They showed us how to browse with our phones, created Facebook accounts for us and showed us how to use it. The health workers also helped us download and register us on WhatsApp groups where we got useful information about health care services.*
> (FGD with community members).

RQ 3: **What were the challenges faced by the agency in ensuring compliance to digital media and community engagement in effective service delivery within the period under review?** Findings highlighted some of the challenges faced by the agency in enforcing clients' compliance with digital media in health care service delivery.

> Due to the vast geographic terrain of Cross River State, accessibility to digital facilities and network was almost lacking. Most times, (whenever there was need to transmit data from the field to the secretariat in Calabar), the Ward Focal Persons (WFOs) together with their Local Government Primary Health Care (PHC) Coordinators would have to find their way to the LG Council Headquarters where they will have network coverage to be able to send data across.
> (Intensive Interview with DG, CRSPHCDA).

Conclusions and Recommendations

The findings outlined above provide some nuanced insights into why digital media resources are valued for effective health service delivery. They show how clients use information from digital media and their role in creating this information. This engagement helps them in seeking health support and

connection with others and getting help from health service providers. There are significant implications of these findings for healthcare and family support professionals. Clients become willing and able to generate reams of detailed information about themselves and their health-related issues using digital media. They engage in close self-tracking of their own bodies and health and that of their children. Healthcare professionals need to be well-equipped to discuss and negotiate these self-generated details with their clients as well as maintain awareness of the other sources of information they access.

Furthermore, the study showed how clients in these modern age are accustomed to being able to access information online easily using mobile media and ubiquitous internet connections. They expect immediate access to health information. Obviously, while clients ascribe high value to the practical and intimate types of information they receive from non-professionals such as other community members going through the same experiences, it was evident that they also want the information from experts in primary health care services. The study participants strongly articulated their desire to have more ready and instantaneous access to such professional information through services such as online messaging or video services like *Skype* or *Zoom* offered in real-time. Recognizing and finding ways to meet these needs should be part of healthcare provision and support for this group.

Effective use of digital media technologies can also support self-care, provide ways to address health needs, and enable access to health services even when health expertise is at a distance. With technology, service users can feedback their experiences of care with the potential for increased transparency in the policy processes and assessments of health services. Improving the digital health literacy of the general public can help to educate, inform, motivate and empower individuals and families, and help them navigate and reduce the risks of participating in the online world. Harnessing digital technologies for health requires cross-sectorial collaboration, commitment and strategic planning. Policy-makers need to build the mechanisms and capacity to identify, assess, support and oversee the integration of promising – as well as proven – technologies into primary health care and public health. There should be careful consideration of the country context when introducing innovative approaches, ensuring the necessary oversight and regulation in order to realize the benefits and avoid harms.

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