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Disruptions and Transformations of Digital Media in Africa: An Interdisciplinary Overview

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While the economic, political, cultural, and social transformations brought about by the rise of digital technologies, particularly in the media and telecommunications sectors, are visible all over the world, it is in African countries, some say, where they are projected to have the biggest impact in the coming years (Adegoke, 2017). The reasons for this are multifold. For example, African countries, particularly those South of the Sahara, have some of the fastest growing internet and mobile phone adoption rates in the world (People Daily, 2019). At the same time, while other continents are facing the prospects of dwindling populations, many countries in Africa have a growing proportion of individuals under the age of 35, a demographic that is thought to be more prone to the adoption of new communication technologies (Umeh, 2019). In addition, research has shown that the embracing of tech also increases with economic stability and growth, both of which have been on the raise. According to the Afrobarometer (2018), a

large social values survey fielded in two dozen African countries, the number of people who said they did not own a TV went down from 65% in 2008/2009 to 47% in 2016/2018. Similar patterns are seen with radio and cellphone ownership. While the uptake of new digital technologies has not been homogenous across the continent (there are substantial geographical and demographic imbalances in technological adoption), the upward trend can be seen in most countries and across most social groups.

Scholarship on technological development and progress in the Global South, including most African countries, has often heralded the arrival of new technologies as positively transformative. Once commonly used theoretical frameworks by communication for development scholars, such as modernization theory (Lerner, 1958) and diffusion of innovation theory (Rogers & Shoemaker, 1971), gave technological progress a central role in their models. As Shah (2011) puts it in his critical review of the work of Daniel Lerner, one of the prime contributors to modernization theory,

> [w]ith each innovation in communication technology after radio—television, communication satellites, microwave telephony, Internet, social media, and so forth—scholars of development communication, excited by the promise of a new technical solution for the problems that poor societies face, embrace anew the potential power of mass-mediated content to stimulate the traditional-to-modern transformation (p. 8).

Not only have academics been drawn towards the optimistic technological determinism described by Shah. Policymakers and practitioners, particularly those working at multilateral fora and supranational institutions, have also gone down the same path. Take the World Bank, which has for long held the view that widespread access to information and communication technologies (ICTs) should be seen as an opportunity to "leapfrog", a concept that the institution

defines as making "a quick jump in economic development" by adopting technological innovation (World Bank Group & China Development Bank, 2017).

In Africa, this technological triumphalism, which is linked to development models that have led to capitalist societies in most of the Global North, is often described alongside successful case studies in transformative adoptions of digital technology, be it the success of African startups like Ushahidi, a crowdsourcing mapping tool created in Kenya (Tully, 2011), or Jumia, Nigeria's number one online retailer (Peprah & Giachetti, 2017); the opening of Google's Africa AI center in Ghana (Adeoye, 2019); and the ever-growing presence of mobile payment and banking across the continent (Asongu, 2015). Digital communication technologies have also been used strategically by citizens in the continent to engage in grassroots political movements that have toppled long-time rulers, led to (sometimes short-lived) regime changes, and brought about changes in legislation (see Bosch, 2019; Dwyer et al, 2019; Orji, 2019). At the same time, the fast growth of digitally enabled communications and services has also brought challenges for the continent. For example, well-before the notion of "fake news" became a buzzword in U.S. politics, many African nations were targets of large-scale misinformation campaigns over social media such as WhatsApp and Facebook (Wasserman & Madrid-Morales, 2019). Additionally, young, highly educated, and digitally savvy graduates in many African countries have been employed by transnational tech companies such as Facebook for data processing in what some authors describe as "digital sweatshops" (Jozuka, 2016).

Far from the techno-optimist views that we outlined at the beginning of this essay, the back-to-back technological revolutions that have occurred in the media and telecommunications sectors in the last century have had both positive *and* negative consequences. Both are, therefore, important to consider when assessing the impact of increased uptake of digital technologies

across African countries. With that goal in mind, the essays in this Special Issue of the *Journal of African and Media Studies* revisit some long-held assumptions on the disruptive and transformative roles of digital media technologies in five African countries (Rwanda, Zambia, Egypt, Tanzania, and Kenya).

In this introduction, we seek to contextualize the apparent contradictions in the coexistence of the two debates described above: the hopeful narratives that connect with discourses on Afro-optimism and which are reminiscent of debates around modernization theory, and the less enthusiastic tales of limited change caused by technology in African countries' path towards more equitable societies. Our goal is to place the six articles that are featured in this *Special Issue* within the extant literature and provide some points of connection between fields of research that do not always engage in interdisciplinary dialogue. In line with the topics of the essays, our focus is on four subfields in the study of media and communication where the debates around the disruptive and/or transformative nature of new technologies is, to our understanding, most prominent: journalism studies, political communication, interpersonal communication, and communication for development.

Journalism and the Digital Era

One profession which has witnessed unprecedented changes with far-reaching ramifications because of the "digital revolution" is journalism. In Africa in particular, digital technologies have revolutionized journalism practice— majorly in relation to content production, dissemination, and audiences' engagements. As Mabweazara (2014) puts it "African newsrooms (as elsewhere) are experiencing the disruptive—somewhat cataclysmic—impact of new digital technologies on the way news is generated, disseminated and consumed by various audiences" (p. 2). For instance, a Media Council of Kenya (2016) research shows that while Kenyan journalists believe

digital technologies have aided the news production, a vast majority of them say the technological tools have affected their work (81%), and enhanced news collection (90%).

However, despite the various challenges that characterize the daily practice of journalism on the continent, Berger (2005) observes that

> African journalists are far from being mired in 'backwardness' or passively awaiting external salvation regarding attempts to use digital technologies. Nor are they lacking when it comes to critical perspectives towards the technologies. They have molded Internet tools to suit their specific needs, devised ingenious technical solutions to overcome the idiosyncrasies of their situations, and continue to apply the medium effectively in various contexts (p.3).

To be laconic, the journalists are "determined to be part of the technological revolutions of the modern world" (Nyamnjoh, 2005, p.4). What has accelerated the adoption of digital tools among African journalists is that many countries have functioning new technology facilities and dimensions of internal newsroom creativity and adaptations to the digital revolution – their sizes notwithstanding (see Berger, 2011; Mabweazara, 2011; Mabweazara, Mudhai & Whittaker, 2014). The range of digital technologies which they use in their daily routine work include computers, mobile phones, email, and various applications. Something to note that the impact of digital technologies has both positive and negative implications.

While scholarship on digital journalism in Africa is slowly gaining currency (see Accone, 2000; Berger, 2005; Mabweazara, 2010; Mabweazara, 2014; Media Council of Kenya, 2016; Muindi, 2018), research of this nature – on the continent and other world regions has coalesced around formats and convergence, social media use, news production, interactivity, user-generated content, information needs, creativity, implications, and alternative journalism.

Scholars have, however, advised that research on African journalism whether traditional or digital media should be contextualized within localized realities (culture, institutions, communication environment) and not Western fantasies (Mabweazara, 2014; Nyamnjoh, 1999; Obonyo, 2011) – something which Mabweazara (2014) says might help develop "African digital journalism epistemology" (p.5). The impact of digital technologies in African journalism has been founded on such theories as structuration, sociology of journalism, gatekeeping, and diffusion of innovations (see Akinfemisoye, 2014; Mabweazara, 2014; Mare, 2014; Muindi, 2018). Qualitative data collection techniques (in-depth interviews, Focus Discussion Groups, ethnography, and field observation) seem to be more popular in this type of research.

In creativity, Mare (2014) has investigated the various ways in which a community newspaper in Mozambique is employing new media technologies to enhance its news production and distribution practices. While spawning new ways of practicing journalism, Mare argues that the pervasiveness of new media technologies has engendered collaborative storytelling, which destabilizes traditional journalism. Across nations, Africa included, journalists have adopted the use of such social media platforms as Twitter and Facebook for their daily editorial tasks. Therefore, in this issue of *Journal of African Media Studies*, Ahmed El Gody examines the utilization of information communication technologies (ICTs) – specifically social media in three Egyptian newsrooms in 2012, 2014, 2015 and 2018. Findings indicate that social media has brought about fundamental changes at the level of organizational structure, which blurs the boundaries between traditional and new forms of news-making by increasing cooperation and compatibility across different elements of the production cycle. In this context, Bosch (2014), has explored how Facebook and Twitter are used in news production, among community radio journalists in South Africa. She concludes that social media has led to greater access and

participation for online audiences. In Kenya, Muindi (2018) found that by adopting Twitter, *Daily Nation* journalists increased the speed of sharing news to stay relevant in the news market.

Convergence is another pronounced aspect of digital journalism with far-reaching impact. In African, it has resulted in restructuring editorial practices, streamlining business and related news reporting, analyses and presentation on various multi-platforms, increased workload for journalists, migration of audiences from digital media to digital media, diversified revenue streams, and significant job losses. As such, in converged newsrooms, most Kenya journalists are expected to be multi-skilled (75%) and write for more than one medium (54%). Largely, as a cross-cutting measure triggered by convergence, African journalists without various skills needed in digital journalism have experienced job layoffs.

While digital technologies are associated with positive impact as demonstrated above, they also have the negative implications – especially ethical dilemmas emanating from alternative journalism, where ordinary people without journalistic training are involved in use-generated content – somehow watering the central of gatekeepers in determining what to publish or not. As Akinfemisoye (2014) explains, the weakened professional role of gatekeeping especially in Nigerian citizen journalism has opened floodgates of abuses and extremist views that pose serious threats to the core values of news as well as the normative ideals of traditional journalism.

Social Media, Information Technologies, and Political Communication

The wave of grassroots pro-democracy protests that swept, first most of North Africa at the beginning of the 2010s, and then multiple countries across the continent (from Sudan to Gambia, Ethiopia, and South Africa) marked a turning point in the study of the connection between technology and politics beyond the Global North (Mutsvairo & Rønning, 2020). Regardless of

whether scholars studied the relationship between mobile phones and political protests (De Bruijn, Nyamnjoh, & Brinkman, 2009), the impact of social media on political participation (Mutsvairo, 2013), the link between satirical news content and democracy (Riley, 2019), or the connection between Internet use and political inequality (Ahmed & Cho, 2019), in all cases, the debates use very similar arguments and, most important, are far from settled. In most debates around technology and political outcomes in Africa, there tends to be a continuum that ranges from seeing technology as a catalyzer of change (e.g., decreasing inequality, increasing political participation, promotion democracy), to seeing technology as an enabler of the status quo (e.g., perpetuating existing inequalities, limiting participation of minorities, perpetuating autocratic rule…). The conclusions that fit in one social, cultural, historical, or political context fail to apply in another one. This is, of course, nothing out of the ordinary given that the 54 countries that constitute Africa are far from a uniform entity. However, the fact that some of these questions remain unanswered, has meant that scholarship in this area, which is already abundant, has continued to grow at the expense of explorations of other equally important and pressing phenomena.

For example, a byproduct of the relative liberalization of the public sphere that has been facilitated by the arrival of digital communication technologies, including social media, has been the proliferation of communicative (often negative) externalities—many of which remain understudied—that range from the raise of misinformation (Mare, Mabweazara, & Moyo, 2019) to the increased use of hate speech, particularly on social networking sites (see Asogwa & Ezeibe, 2020; Ezeibe, 2020). Gondwe's paper in this Special Issue presents the case of Zambia, where online incivility and hate speech have often been connected to instances of political violence. Using data from Facebook accounts linked to the two main political parties in Zambia,

the Patriotic Front (PF) and the United Part for National Development (UPND), Gondwe argues that online incivility, which has been widely studied in Europe and North America () but not so much in Africa (), deserves a space in the study of political communication on the continent.

Alongside the study of communicative externalities, scholars and practitioners have also developed a growing interest in understanding where agency resides in the communication spaces that have been created by digital technologies. As noted earlier, one set of new information agents that have emerged are citizen voices. Even though dialogue between scholars of political communication and those studying journalism on the continent is not particularly fluid, both fields have explored the role of so-called "citizen journalism" (Banda, 2010) and the rise of new platforms for the diffusion of political information, commentary, and debate (Cheruiyot & Uppal, 2019). Concurrently, governments have become more adept at making use of some of these same digital technologies that have given agency to citizens. In some instances, contrary to the optimistic narrative of technological determinism, in some cases, as governments have become more competent in the use of the technologies, they have used them to restrict public speech. Research has shown an increase in the number of restrictions in the use of social media, including internet shutdowns (Marchant & Stremlau, 2020), more restrictive regulatory frameworks (Asogwa & Eeibe, 2020), and other forms of curtailing of citizen agency in the political communication process (Dwyer & Molony, 2019).

In other cases, state institutions, political parties, as well as individual politicians have become more adept at using social media to communicate directly with citizens. Sobel Cohen's and McIntyre's study featured in this issue examines the case of Rwanda's president Paul Kagame's use of Twitter. The authors' quantitative content analysis reveals that in his first ten years of use of this social network, Kagame has portrayed Rwanda as a "progressive, democratic

player that is connected multilaterally to both African and global affairs". Their work builds on and contributes to previous studies by Dimitrakopoulou and Boukala (2018) in the use of Twitter by Burundi's president, Ndlela (2015) who looked at the use of social media among Kenyan politicians, and Ngomba's (2015) similar study in Cameroon. The strategic use of social media, mobile communications, and other types of digital technologies has not been limited to domestic actors. As Madrid-Morales (2017) has shown, many African countries have also seen the rise of foreign powers' use of these new technologies for political goals through digital diplomacy, and other forms of State-sponsored communication.

Political scientists, and more and more scholars of political communication, have also been keen on understanding the role that higher levels of media literacy, digital competence, and widespread use of technology can have on governance. Included in this issue is work by Churk and Volkmer that studies the role of social media in the policymaking process in Tanzania. After interviewing thirty policy experts, the authors found that there is an informal network of cooperation and cocreation between digital policymakers in Dar es Salaam and those based in other parts of the continent. They argue the need for these networks to be institutionalized and formalized to engage intercontinental and inter-regional collaborations. Doing so would promote civic digital interaction.

Mobile Phones in Communication for Development, and Interpersonal Communication

While social media occupies a central position in debates around the impact of digital technologies in the study of political communication in Africa, scholars of communication for development (or COM4D) have tended to focus more on studying the potentially transformative role of media and communication hardware (radio, television, mobile phones, satellite dishes) rather than software (e.g., media content) or platforms (e.g., social media). Some scholarship in

this area is connected to the study of some of the phenomena we already discussed. For example, there is plenty of studies that have looked at how community (and citizen) journalism projects enabled by ICTs can lead to reconciliation in post-conflict societies (Gustafsson, 2016; Moore, 2009) or can contribute to the empowerment of minority groups (Chikaipa & Gunde, 2020). Another fertile area of inquiry has focused on the role of technology in overcoming (or enhancing) existing social inequalities and divides. In this line of research, many scholars have demonstrated that there is a relationship between higher levels of mobile phone use and ownership and women empowerment (Buskens & Webb, 2009). Evidence of this is plentiful across the continent, from female WhatsApp users in Nigeria (Abubakar & Dasuki, 2018), to women entrepreneurs in Egypt (Beninger et al, 2016), Ugandan women market vendors (Svensson & Wamala Larsson, 2015), and South African youth (Lewis, Tigist, & van Vuuren, 2013).

The study of COM4D, and the affine disciplines of ICT4D and media for development, differs from scholarship in journalism studies and political communication in other significant ways. Methodologically, it draws a lot more on participatory research; theoretically, it tends to draw on a longer historical set of references and frameworks (see Vokes 208; Scott, 2019). Despite these differences, debates do not differ much from those described so far in the sense that the arrival of new technologies has often been equated with promises around development, progress, and change. Research on mobile phone use and upward economic adoption, for instance, has been abundant (Aker & Mbiti, 2010). In this Special Issue, we feature a study by Tuwei and Tully that departs from the predominant themes in the study of mobile phone use in Kenya, to investigate the role of M-Pesa change agents (individuals who act as intermediaries between the consumers and the company) in technological innovation and adoption.

Another area of study in which mobile phones have become a prime object of study is interpersonal communication, which can be defined as any communicative act involving the exchange of information, ideas, and feelings between two or more communicators. Bochner (1989) conceptualizes it as involving at least two communicators; intentionally orienting toward each other; as both subject and object whose actions embody each other's perspectives both toward self and toward other (p. 336). On the other hand, in-group communication (also known as group communication) refers to exchange of messages within a common group focusing on a particular agenda(s).

Today, because of the "digital revolution" – dynamics of both interpersonal and in-group communications have experienced huge transformations – positive and negative – mostly revolving around the use of mobile phones. As a fact, across various civilizations, the use of mobile phone is ubiquitous. For example, as of June 2019, most Americans owned a mobile phone of some kind (Pew Review Center, 2019), while ownership in some Africa countries is also quite high – standing at 91% (South Africa), 80% (Ghana, Nigeria, and Kenya), and 79% in Senegal (Elliot, 2019). In fact, Africa's communication landscape has undergone tremendous change since the introduction of mobile phone technology (De Bruijn et al., 2009). The phones have also become a means of identity representation among Africans (see Schoon and Strelitz, 2017). Thus, in the context of interpersonal or group communications, mobile phones enable users in Africa to use popular apps such as WhatsApp, exchange texts, and to access social media sites like Facebook for information, entertainment, communication, and social interaction.

Therefore, mobile phones in Africa have become "our everyday companions" – as such altering the social fabrics of the traditional in-group or inter-personal communications. A mobile phone has become parts-and-parcel of human beings' everyday life to a point where people of all

walks of lives in Africa can't think of a life without the gadget. Some jokes in African rural and urban streets are that some people have become somewhat "married" by a mobile phone – because of the greater attention they give it – whether in Church, classroom, meeting, washrooms, or when sleeping, driving, and many more.

There are many merits and demerits associated with digital technologies such mobile phones. For instance, Rainie and Zickhur (2015) found that 78% of those who used their cell phone in a social gathering used the device to contribute to the group through actions such as sharing a photo from the gathering. When people use their cell phones in public places, the majority (70%) often use the device to coordinate get-togethers with their friends (Rainie & Zickhur, 2015). On the drawbacks, Alsop (2013) explains that since Millennials spend more time using online communication, they have missed out on valuable face-to-face interactions and failed to learn how to speak in a polished manner, listen attentively and read other people's expressions and body language. The use of social media via mobile devices also affects how we engage one another across avenue and ages – as people tend to prefer mediated communication where they'd rather email than meet or text than talk on phone (Keller, 2013). Relatedly, as captured below, technological tools are also disrupting African family settings, more so in relation to personal space or what Eunson (2012) calls proxemics – the use of personal space or territoriality or the way we create and cross spaces between ourselves and others.

Though research on interpersonal and in-group communications in the context of digital technologies is rare in Africa, studies have explored interpersonal skills, personal space, human communication, identity, effects or impact on face-to-face communication, social media impact, challenges, and merits vs. demerits. In human communication, Onyeator and Okpara (2019), have examined the changes in one-on-one communication among Nigerian family members, due

to constant engagement with digital technologies. Their findings show that most family members lose interest in communicating interpersonally, and reduced cues and non-self-disclosure often pulls family members apart. Similarly, in the current issue, Peter Masibo interrogates the place of "space" (an important component of communication) in the digital communication era – from the perspective of a family setting in Kenya. He reports that territoriality stills exist – because personalization of mobile devices by use of layers of passwords is a clear indication of the desire for users to keep their spaces.

Yet another study in Nigeria has investigated how technology has affected the willingness to engage in interpersonal communication among family members (Achakpa-Ikyo & Ogaba-Egba, (2016). Findings show that digital technologies have created a gap in interpersonal communication in family relationships where people aren't interested to communicate interpersonally. Elsewhere in the US, Misra et al. (2014), investigated the effects of iPhone on in-person social interactions in the presence of mobile devices. They found that conversations in the absence of mobile communication technologies were rated as significantly superior compared with those in the presence of a mobile device, above and beyond the effects of age, gender, ethnicity, and mood.

About this Special Issue

In late February 2020, shortly before much of the world was forced to retreat into different forms of quarantine, lockdowns, and faced travel restrictions due to the COVID-19 outbreak, the University of Houston's Jack J. Valenti School of Communication organized its third Global Communication Summit, under the title "@frica digital media conference". All the essays included in this collection were presented at the event, which brought together two dozen scholars of African media based at academic institutions in Africa, North America, Europe,

Australia, and Asia. Recordings of all the presentations at the event, including those that could not be featured in this issue, as well as a keynote speech by Ushahidi's Chief Executive Officer, Angela Oduor Lungati, and several fireside chats with African media practitioners can be found at: https://uh.edu/infotech/services/streaming-media/events/digital-africa. The two-day event also featured the premiere of the documentary film "Digital Kenya", produced by faculty and students of the Valenti School. The film represents the outcome of a two-week study abroad program in Kenya. It explores several of the topics raised in this introduction within the context of Kenya, and can be watched at https://uh.edu/class/communication/documentary-digital-kenya/index.php.

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