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Technology and Politics in the Horn of Africa

Iginio Gagliardone, **The Politics of Technology in Africa: Communication, Development, and Nation-Building in Ethiopia**, Cambridge, UK: Cambridge University Press, 2016, 190 pp., $99.99 (hardcover).

Victoria Bernal, **Nation as Network: Diaspora, Cyberspace, and Citizenship**, Chicago, IL: University of Chicago Press, 2014, 208 pp., $25.00 (paperback).

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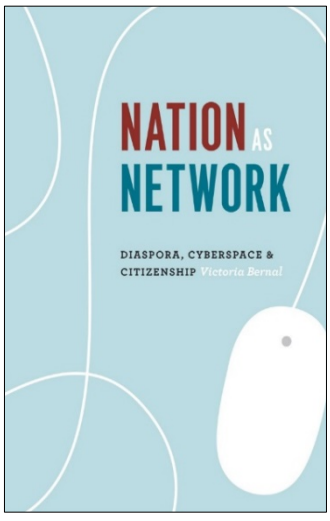
In 2018, the Ethiopian and Eritrean governments reached a peace agreement that marked a historic moment in African politics by putting an end to decades of war and standoff between the two countries. Though Western media reports mostly attributed these changes and the many reforms taking place in Ethiopia to the actions of political leaders, mainly Ethiopia's recently appointed and reform-oriented prime minister, civilians and political stakeholders from these two countries have long used communication technologies to tactically and strategically influence both regional and national politics.

The books reviewed here consider how communication technologies are harnessed and deployed by stakeholders within these two Horn of Africa countries, their diasporas, and international interests for national and political ends. Iginio Gagliardone's 2016 ***The Politics of Technology in Africa: Communication, Development, and Nation-Building in Ethiopia*** examines the complex relationships and events that came to shape the ICT landscape of contemporary Ethiopia. Victoria Bernal's 2014 ***Nation as Network: Diaspora, Cyberspace, and Citizenship*** considers diasporic Eritreans' use of new media communication technologies to engage in and alter homeland politics as well as create modes of citizenship and nationhood that move beyond the boundaries of the traditional nation-state.



The recent political reforms and events taking place in the Horn of Africa, and the role that ICTs play in facilitating these changes, make it interesting and timely to read these two books side by side. Anyone interested in understanding the changing geopolitical dynamics in the Horn of Africa and making sense of how technologies (especially ICTs) are appropriated, adapted, and used by Africans for sociopolitical ends would find these books worthwhile and enriching.

The Politics of Technology in Africa

Iginio Gagliardone documents the complex and political relationships that came to shape contemporary Ethiopia's contradictory ICT landscape and approach to development. He grounds his book theoretically by using literature on technology, networks, development, Ethiopian history, and contemporary Ethiopian politics while analytically weaving together gray literature, media artifacts, interviews, and 10 years of field experience. With the aim of challenging the assumption that technologies are neutral tools for development, passively accepted by Africans, Gagliardone argues that "ICTs should be analysed as sites of multiple conflicts, understood for their ability to embed values and visions, which can be accepted or contested, and can serve to quietly, but no less effectively, enact political plans" (p. 3).

Although Ethiopia consistently scores low on regional and global rankings that assess access to ICTs and has one of the African continent's lowest levels of Internet penetration, the introduction positions Ethiopia as having some of the very first ICT investments and innovations in Africa. Ethiopia has experienced unprecedented investments in its ICT sector from international interests like China and has long had a complex relationship with communication technologies (p. 140). For instance, Ethiopia is home to the continent's first commodity exchange (ECX), and Ethiopia has implemented government-led ICT projects like Woredanet and Schoolnet (Gagliardone's case studies) in an attempt to streamline and consolidate the federal government's access and control of the country's numerous ethnolinguistic regions. Despite its commitment to invest in and implement new ICTs for development, the Ethiopian government's resistance to public uses of ICTs that fall outside the country's state-led development agendas has made Ethiopia one of the most highly surveilled regions in the world.

Gagliardone exemplifies the government's resistance by giving readers an account of how the then ruling regime responded to civilian protests around the time of the country's 2005 parliamentary elections. Before and after the 2005 elections, Ethiopian protestors, including those in the diaspora, used traditional media and new media technologies to inform, influence, and mobilize action from civilians—a process Gagliardone describes as "media relays" (p. 2). Though these protests garnered little attention internationally, the Ethiopian government responded by jailing protesters, implementing technologies to surveil and control communication, and making opposition websites inaccessible to local Ethiopians. These actions directly challenged and fell outside the technology uses international interests like UN agencies advocate for within Ethiopia—uses aimed at substantially transforming Ethiopia's approach to development into ways that align with liberal Western models of modernization, democratization, and globalization.

To make sense of these contradictions and explain the role of politics in Ethiopia's development and ICT use, as well as give shape to the central arguments of the book, the author asks the following questions:

> How, and to what extent, have the visions championed by international organizations, technology entrepreneurs, and philanthropists—that ICTs could transform development processes and be a force for progress—found realization in Africa? Why have some of the discourses characterizing "ICT for development" policy and practice been embraced while others have been actively resisted? And, more broadly, how can the innovations that have emerged in Africa, making original uses of ICTs to address local challenges, be studied and understood in their own terms? (p. 3)

Keeping these questions in mind, Gagliardone traces how varying international and local actors sought to deploy and control the use of ICTs for development as well as how it came to be that certain uses of ICTs were accepted and championed by governing officials and various stakeholders while others were actively resisted and curtailed.

In the second chapter, the author elaborates and extends on Gabrielle Hecht's concept of *technopolitics*. In doing so, he explains how technopolitical regimes are assemblages constituted by those wielding strategic modes of power as well as networks of technologies, actors, and discourses. Gagliardone describes a technopolitical regime as being "both the medium and outcome of a negotiation between a specific technology, a cultural and political context, and the actors that animate it and compete for power" (p. 13). Later, using the case of Ethiopia's revolutionary democracy in the late 1980s and 1990s, the author shows that the emergence of technopolitical regimes is not linear but a result of "conflicts between conceptions of technology and society, actors competing to assert power, and technological artefacts resisting or allowing change to flow through them" (p. 14). In addition to this, the author elaborates on the differences between strategic and tactical uses of technology for power. He gives readers an overview of how strong and weak actors compete for the power to determine the accepted uses and meanings attached to technological artifacts as well legitimize certain assemblages over others.

The third and fourth chapters explore how networks of international organizations, nongovernmental organizations, and epistemic communities promote and attempt to implement specific agendas for ICT adoption in Ethiopia—in the process, advancing the application of ICTs for Western modes of modernization, globalization, and democratization. However, the chapters also consider how Ethiopian stakeholders (including government and nongovernment actors like the private sector and diaspora) respond to international attempts at influencing Ethiopia's application of ICTs. Ethiopian stakeholders have advanced and attached alternative and competing meanings to ICTs in order to influence and justify their own uses of these technologies rather than simply accepting international stakeholders' agendas for the modernization, globalization, and democratization of African countries through ICTs. Gagliardone demonstrates how technologies, rather than being simply adopted, become adapted by local actors in ways that suit the political, historical, and cultural contexts of the local—even if the international actors that brought these technologies into these local contexts contest the new meanings and applications. Through detailed analysis, Gagliardone shows how technologies come to be harnessed and interpreted differently by international, state, diasporic and local non-state actors.

For instance, while a variety of international organizations and epistemic communities sought to theorize and explain the advantages of the changes they were advocating for within Ethiopia and worked to familiarize national actors to these technologies, it became clear that the Ethiopian government had a different (and more local/political) ICT agenda. Realizing the Ethiopian government's resistance to the globally advocated ICT agenda, the World Bank and the United Nations Development Programme employed their resources to directly influence and shape Ethiopia's information society. However, such efforts were largely ineffective because agendas to democratize the state with ICTs were largely reliant on "idealized principles of liberal democracy" with no reference to collective and communal rights or locally specific political concerns—and thus, unproductive in enabling international interests to shape politics in Ethiopia with ICTs (p. 28). Because of this, the ruling regime in Ethiopia was able to use its own definitions of democratization to employ ICTs in ways that differed from international and liberal definitions of democracy—creating a largely authoritarian, technopolitical, and developmental state.

The fifth and sixth chapters offer more in-depth analysis of Woredanet and Schoolnet—Gagliardone's original case studies based on his fieldwork experience in Ethiopia. These chapters look at how these two state-led technological projects came to be designed and implemented and how they failed to meet their intended goals as a result of breakage and conflict. The Ethiopian People's Revolutionary Democratic Front, the ruling coalition governing Ethiopia, implemented Woredanet (an Internet protocol [IP] based communication technology meant to provide Internet connection, video conferencing, email service, and voice-over-IP service) to connect the government's center to its peripheries (p. 87). Schoolnet, which uses a similar architecture as Woredanet, was designed to broadcast prerecorded classes in Ethiopia's secondary schools as well as to offer political education to school teachers and government officials. Both Woredanet and Schoolnet were intended to streamline governance by eliminating distortions and intermediaries—and, in effect, assist the government in its nation-building processes as well as give the federal government more control over the more than 80 ethnolinguistic groups that constitute the country's ethnofederalistic arrangement. However, Gagliardone illustrates how in the process of embedding political goals into the technologies and implementing the communication technologies, the government faced design, infrastructural, and political challenges that ultimately led to failure. Through theoretical and historical grounding, detailed analyses, and case studies, Gagliardone demonstrates the importance of understanding the ways in which local (and international) political interests and cultures shape the adoption and adaptation of ICTs within Africa.

Nation as Network

In her 2014 book, *Nation as Network,* Victoria Bernal examines the historical formation and political impact of diasporic Eritrean civil society on Eritrean national politics. By using ethnographic methods to study three websites established by diasporic Eritreans, Bernal examines how Eritreans in the diaspora use the Internet to engage in Eritrea's national politics while living outside the country's geographical boundaries. In the first couple of chapters, Bernal works through the concepts of diaspora and *infopolitics* (a term she coins), historically contextualizes Eritrea's formation and complicated internal politics, and highlights how a prolonged history of war and conflict with Ethiopia came to shape the politics of the Eritrean diaspora and state. In chapters 2, 3, 4, and 5, Bernal closely examines diasporic Eritreans' adaptive use of digital media (i.e.,

websites) to directly engage in homeland politics and influence each other. Through participant observation of the three websites, she examines how new technological affordances and the growing mobility of people can come to transform longstanding arrangements of borders, sovereignty, nations, and citizenship

In the introduction chapter, Bernal presents and works through the concepts of diaspora, sovereignty, (sacrificial) citizenship, and infopolitics. The central argument arising in this chapter and supported in subsequent chapters is that the combination of diasporification, politics, and new communication technologies (i.e., digital media) gives rise to the emergence of "the nation as network" (p. 2). Because war and diasporification are significant aspects of Eritrea's recent history, Eritreans in the diaspora are important stakeholders when it comes to shaping Eritrea's future—not only though remittances and investments, but also through their online engagements, which "shape public opinion, revise national history, mobilize demonstrations, amass funds for national projects, engage in protest, and exert influence on the government of Eritrea" (p. 3). For Bernal, these online activities are not to be understood simply as a feature of diaspora but as "a configuration of Eritrean nationhood" (p. 3). In order to talk about Eritrea and its politics of nation-building, we must take into account how the Eritrean diaspora uses digital media to communicate with each other and influence homeland politics—a process that results in reconfiguring the ways in which national boundaries, sovereignty, and citizenship are understood in the contemporary moment.

In chapter 1, Bernal further develops the concepts of "diasporic citizenship," infopolitics, and "sacrificial citizenship" and interrogates how such modes of transnational politics and relations to the homeland alter the meanings and practices traditionally attached to citizenship and sovereignty. Bernal coins infopolitics to fill a gap that exists within the leading theories of sovereignty. Theories like biopolitics and necropolitics fail to explain why diasporic Eritreans, those who are outside Eritrea and the Eritrean government's authority, come to "understand themselves as Eritrean subjects with obligations to the nation" (p. 47). With infopolitics, Bernal offers readers a conceptual shift from the contemporary theories of necropolitics and biopolitics, which argue that power lies in the ability to determine the life and death of bodies. Unlike through biopolitics and necropolitics alone, infopolitics allows the state to exercise power through the management, censorship, authorization, dissemination, and communication of information (p. 31). Because the Eritrean diaspora falls outside the state's direct (bodily) control, infopolitics can be used to account for how the Eritrean state and diaspora forge political ties, disseminate information, negotiate the construction of unifying national narratives like "sacrificial citizenship" and martyrdom, and use diasporic websites to extend Eritrea's borders beyond its geographic limits.

In the remaining chapters, Bernal empirically examines and illustrates historical shifts in the diaspora's use of cyberspace—going from primarily using cyberspace to extend "Eritrea's borders beyond national territory" toward using the websites "as a kind of offshore platform from which the state can be openly challenged" (p. 55). In other words, these chapters consider how cyberspace made it possible for diasporic Eritreans to not only "participate in the consumption and dissemination of national narratives but also to collectively construct and circulate alternative perspectives on Eritrean history, politics, and identity" (p. 47).

Since Dehai's (www.dehai.org) start in 1992 as the first computer-mediated network of Eritreans, it has played an important role in establishing online Eritrean culture and nation-building practices (p. 62). While engagement (e.g., posts and comments) on websites like www.dehai.org initially extended Eritrean nationalism and the Eritrean state's agendas, Eritrean diaspora members eventually began to use these websites as platforms from which to challenge and call the legitimacy of national leaders into question, demand government accountability, and raise awareness of state corruption. Dehai, and later on websites like Asmarino (www.asmarino.com) and Awate (awate.com), became important online spaces for the contestation of state-controlled infopolitics because they allowed diasporic Eritreans to form subjectivities and discourses that were otherwise unauthorized and denied to citizens living within Eritrea by the increasingly militarized and authoritarian Eritrean state (p. 118).

Bernal illustrates the challenges these sites posed for the state in chapter 4 by considering how Eritreans in the diaspora created the Martyrs Album on awate.com, a virtual war memorial not authorized by the state. The virtual memorial commemorated Eritreans who died during the 1998–2000 border war with Ethiopia by using leaked government documents the Eritrean state kept secret from Eritreans through infopolitical strategies. According to Bernal, Awate's online memorial went beyond challenging the state's silence and secrecy around the war by "actually taking for itself and for the Eritrean people some of the state's power" (p. 126). Said differently, Awate stepped into the state's role and created an online memorial to acknowledge the death of Eritreans on behalf (and in defiance) of the state for Eritreans.

In chapter 5, Bernal examines the role of gender in Eritrean national politics and Eritrean online public spheres. While online engagements like Awate's Martyrs Album challenged the state, Bernal argues that "Eritrean cyberspace is a venue where gendered boundaries are maintained and women are excluded from full political participation" in the public sphere (p. 150). For instance, before the 1998–2000 border war with Ethiopia, Eritrean women posting on dehai.org to raise concerns about the rape of women in Eritrean military and training camps were "viewed by men who are the majority of posters as spreading rumors, as being too easily led to believe what others tell them, as politically unsophisticated, and possibly as inherently less loyal to the nation than men" (p. 160). Even postwar debates about the rape of Eritrean women in military service and training camps worked to silence, objectify, and strip Eritrean women of their agency. The posts and debates Bernal analyzed from sites like www.asmarino.com and awate.com show the "gendered struggles over political participation and women's citizenship and indicate the limitations of the internet as a means of transcending gender and empowering women" (p. 168). Even though diasporic engagements on these websites push us to rethink our understandings of citizenship, borders, and national sovereignty broadly, they still reproduce and reflect the gendered and exclusionary nature of Eritrean (info)politics, citizenship, and culture.

Conclusion

Gagliardone and Bernal conduct analyses critically attuned to the technological and social nuances of a region that is often overdetermined by Western assumptions and stripped of onto-epistemological agency. Exploring the mutual processes through which human actors and technological artifacts come to constitute and shape one another, the authors deploy frameworks like infopolitics (Bernal) and technopolitics (Gagliardone) to demonstrate the enabling capacities of new media and communication technologies as well

as show us how technologies can be culturally constructed and deployed in ways that are unintended by designers and Western interests. While communication technologies have affordances (and limitations) when it comes to nation-building and development, the authors show that the particular sociohistorical and political contexts of users importantly inform the uses and meanings that come to be attached to technological artifacts. These two books would be especially useful for communication and cultural scholars interested in understanding more about the various stakeholders, networks, political interests, and histories that came to shape Africa's information and technology landscape.