International Journal of Communication 13(2019), 1252–1270 1932–8036/20190005

Communication for Development and Social Change and the Challenge of Climate Change

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The field of communication for development and social change (CDSC) has a crucial role to play in how citizens of the developing world adapt to the effects of climate change. To help inform this role, this article posits three interrelated points of consideration. First, CDSC should have an understanding of how environmental discourses imbue ecological agency. Second, CDSC must be informed by past research about what citizens in the global South know about climate change and how awareness impacts action. Finally, scholars should be guided by the lessons from past climate change–focused CDSC initiatives. As an example, a multistakeholder climate change action campaign in Kenya is examined. Weaving together these considerations, the article concludes by suggesting ways that CDSC scholars and practitioners might imagine how the adaptive challenges of climate change can animate future CDSC initiatives focused on ecological rights and responsibilities.

Keywords: climate change, ecological citizenship, development communication, global South, global warming, Kenya, social change, social justice

After years of warning, many climate change scientists now argue that we can no longer mitigate the Earth-warming force of anthropogenic climate change by simply adjusting our industrial practices, consumer urges, and other environmentally unfriendly activities. Rather, the task now for humankind is to learn how to adapt our lifeways to survive on a less hospitable planet. Indeed, the Union of Concerned Scientists (2016) asserts that some of the consequences of climate change are already here, in the form of more frequent and intense heat waves, accelerated sea level rise, heavier precipitation and flooding, more damaging wildfires, mass extinction of flora and fauna, the expansion of invasive species, and the exponential growth of public health issues. Not everyone will encounter these consequences with the same intensity or frequency, because the impact of climate change is uneven, carrying with it a cruel irony. The effects will be experienced most profoundly in the

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Date submitted: 2018–09–21

[1] We are grateful to Thomas Jacobson and Clemencia Rodriguez for their comments on earlier versions of the article. Thanks are also due to the anonymous *IJoC* reviewers.

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"riskscapes" of the developing world—high-density cities with poor infrastructures, low-lying zones susceptible to flooding or rising seas, and dry places already vulnerable to drought. With the looming prospect that the global population will exceed 9 billion by 2040, the conditions created by climate change will force the world, as climatologist Mark Maslin (2009) plainly puts it, "to deal with the forgotten billions of people on the planet" (p. xiii).

Given this scenario, adaptation to climate change must become the focus of more research and analysis among social and cultural theorists. For communication scholars, the need to face "the forgotten" in the Anthropocene needs to be recognized and responded to with a sense of urgency, particularly for those working in the field of communication for development and social change (CDSC). CDSC is a broad field and has been defined in various ways, often with conflicting visions of development shaped by different institutional agendas, political and social contexts, and understandings of civic engagement (Waisbord, 2001). Tufte (2017) provides a useful overview of three salient features of different CDSC camps: The "convergence model" draws on mixed typologies between diffusion of innovation and participatory paradigms; Manyozo's (2004) "six schools of thought" emphasize geographical setting, institutional affiliation, and ideological stand; and Tufte's own "three generational models" focus on how development problems are defined and how those definitions determine the nature and need for a communication response. Although Tufte (2017) notes that these camps are quite distinct, he asserts that they nevertheless share a commitment to "social justice, equity and human rights" (p. 20).

With this core commitment to improving the quality of marginalized people's lives, in this article we argue that CDSC scholars should understand climate change as *the* challenge of the 21st century because its most unforgiving aspects will manifest through other, more localized problems such as disease, poverty, resource scarcity, food security, displacement and migration, and armed conflict. This means that, regardless of the model, as a field CDSC has a vested interest and a necessary role to play in how subaltern populations learn about, negotiate, and understand climate change and how they can anticipate and increase their resilience in the face of its many effects.

To fully embrace the challenge of climate change, CDSC theorists, planners, and practitioners will have to navigate some difficult political terrain. For instance, at the global level the conversation about the climate change crisis and the need for action has been fairly exclusionary. As Ulrich Beck (2010) has argued, the "discourse of climate politics so far is an experts and elitist discourse in which people, societies, citizens, workers, voters and their interests, views and voices are very much neglected" (pp. 254–255). In this respect solving the problem of anthropogenic climate change shares some interesting parallels with early development discourses around modernization in that both were envisioned to be tackled through expert-led problem-solving strategies. For instance, at the 1944 Bretton Woods Conference, Western elites crafted a plan for post–World War II global recovery that called for an international economic order designed to operate through top-down development initiatives—a historical point of departure that profoundly shaped both the thinking behind and funding of early CDSC. In similar fashion, despite its continual calls for international cooperation and recognition of different realities and capabilities, the United Nations Framework Convention on Climate Change has

struggled to produce plans for climate change action that are not first and foremost driven by the costs and benefits identified by elite interests.

Yet even with these institutional moorings and histories of exclusion, both climate change and development discourses have moved progressively toward more integrated and collaborative models for action. In fact, CDSC and environmentalism share some interesting overlaps in terms of how assumptions about agency have transformed and been reimagined in inclusive, participatory, and culturally responsive problem solving. As such, we argue that climate change–focused CDSC can draw productively from and build on these shared trajectories to elaborate initiatives that engage marginalized groups and their interests so that their views, voices, and cultural knowledge are empowered to drive adaptations at the local level that speak to both ecological rights and responsibilities and that inform broader (regional, global) strategies. This call is consistent with recent environmental communication scholarship that asserts the need to politicize climate change by shifting the focus from public awareness to political engagement (Carvalho, van Wessel & Maeseele, 2017; Pepermans, 2015)—a task that, given its valuation of public consultation and citizen action, CDSC theory and practice have much to offer.

In this article, we suggest three crucial and interrelated points of consideration to help those involved in CDSC initiatives better understand and address the knowledge and power imbalances that undermine effective climate change communication. First, politically, CDSC theorists, planners, and practitioners would benefit from an understanding of how the problem of climate change—or, more broadly, the environment—has been theorized by environmental policy scholars and how this theory dovetails with CDSC's own corpus of scholarship. This approach is useful because, despite many of their Western origins, in various ways the more prominent environmental discourses have been globalized and thus provide insights into how environmental agency and responsibility have been communicated to people throughout the world (Murphy, 2017). Moreover, these discourses present identifiable sites of ecological conflict and cooperation tied to assumptions about agency (who or what has the power to act) that are often not dissimilar to those found in the CDCS literature (e.g., power, governance, voice, community, rights, cultural knowledge).

Second, in terms of awareness, what do we already know about what marginalized communities in the global South understand about climate change and its connections to their lives? To create prosocial, inclusive, and sustainable development that is responsive to community needs in our planet's unfolding climate crisis, CDSC scholars should have a guiding sense of what past research has found. Finally, what lessons have climate change–focused CDSC initiatives taught us? How have they attempted to move communities toward forward-thinking, ecologically responsive lifestyles while changing environmentally detrimental practices? To explore this last question, we examine Kenya's 2009 Road to COP (Conference of the Parties) "Rauka" hip-hop climate change campaign. We have selected this case example because it cuts across the CDSC models identified by Tufte (2017) by operating with multiple stakeholders and in vertical and horizontal directions, involving the Kenyan state, external actors (Oxfam and Norwegian Church Aid), local artists, local media, community hearings, and meetings with local policy makers.

In the article's conclusion, these three points of review and analysis are woven together to present suggestions for how CDSC scholars might imagine ways that the adaptive challenges of climate change can animate CDSC that speaks through and to the local while also confronting the broader, truly global terrain of the Anthropocene.

Environmental Discourses

An agreed-upon understanding of the problem of anthropogenic climate change is hardly universal, in large part because its treatment in the public sphere is typically driven by conflicts and competing interests rather than connections and cooperation. Therefore, to consider how citizens can better respond to the challenge of climate change, CDSC must focus on how communication articulates environmental agency. Environmental communication scholars Carvalho and colleagues (2017) argue that mainstream communication practices render an oddly depoliticized vision of climate change politics that places people in passive as opposed to active roles. Practices of depoliticization include "scientization," which reduces policy making to technocratic, expert-led decision making; "economization," which marginalizes citizens by privileging market-based solutions; and "moralization," which frames climate change as a humanitarian struggle between people and CO_2 and, by extension, between "us" and those who do not select the correct path by favoring apocalyptic consequences (p. 128). They conclude that such practices discursively appropriate climate change, leading to its depoliticization through the manufacturing of the "symbolic conditions that demobilize, discourage and delimit citizen political engagement" (p. 129).

Although troubling, these orienting practices do not represent the only discursive arrangements that CDSC theorists, planners, and practitioners should take note of. Indeed, environmental policy scholar John Dryzek (2013) asserts that there are numerous "Earth discourses" defined by disparate ontologies and antagonistic positions that have historically shaped how societies, communities, and citizens respond to ecological challenges. The two foundational, big-picture environmental discourses that Dryzek identifies are in direct competition: The "Promethean" discourse emphasizes the capacity of innovation, technological change, and entrepreneurship to produce growth. The "limits" discourse has a more alarmist, survivalist orientation that calls for greater control over the planet's finite stocks and nonrenewable resources to avoid ecological collapse. These overarching discourses are important to recognize because they have been present in some shape or form in the West since at least the Industrial Revolution and now, thanks to neoliberal globalization, have established political currency and cultural resonance in the global South (Murphy, 2017).

Emerging from the debates between the Promethean and limits discourses has been a quest for sustainability, which strives to resolve the conflicts between ecological values and economic interests. This turn toward sustainability has given rise to several "problem-solving" and "radical" discourses with various prescriptions for crafting policy and strategies for motivating human action. Within these, the Earth discourses that place the greatest emphasis on collaborative problem solving and alterative thinking are what Dryzek (2013) has dubbed "sustainable development," "democratic pragmatism," and "green radicalism."

Of these three, the discourse most explicitly linked to the politics and institutional encasements of CDSC is sustainable development. Tied to the work of international governmental organizations and nongovernmental organizations (NGOs), this is an environmentally hopeful discourse closely associated with *Our Common Future*, a report published by the World Commission on Environment and Development (1987) led by Norwegian prime minister Gro Harlem Brundtland. The discourse is grounded in the Brundtland Commission's focus on ecologically responsible economic development planned and coordinated though intelligent, collective decision making. More recently, the United Nations (2016) issued its own sustainable development goals, which recognize that climate change threatens the other goals of development. The underlying position of the Brundtland Commission's report, the UN's sustainable development goals, and the overall cautionary element of the discourse is that, while the needs of the world's poor require economic development, satisfying these needs cannot be pursued by merely mimicking the industrial nations' growth path (Dryzek 2013). Rather, economic growth must take place in direct relationship to environmental stewardship and social equality within broader networks of knowledge, which must include knowledge from different parts of the world about how people are addressing its impacts.

This auspicious, institutionally anchored declaration and subsequent adjustments mean that, as a discourse, sustainable development is defined by unity between the environment and development and unfolds through the interlinked goals of growth, cooperation, and distributive justice—a prosocial bundling that dovetails directly into the social justice aims of more recent CDSC theory and practice (Dutta, 2011; Gumucio Dagron & Tufte, 2006; Melkote & Steeves, 2001; Tufte, 2017). Yet for all its hopefulness, institutional force, and potential to inform global-national-local solutions, as a problem-solving environmental discourse, sustainable development remains more normative than operational. That is, while it proclaims important ideas that can inspire more inclusive, multilateral policies and practices for social improvement, in most situations where sustainable development is professed, economic growth is privileged over environmental protection, social equality, and knowledge sharing (Stevenson, 2018).

Alternatively, the discourse of democratic pragmatism is built on the promise of interactive problem solving. It is not just a philosophical orientation but an action-based discourse founded on policy dialogue and deliberation designed to advance environmental governance (Dryzek, 2013). In the West, democratic pragmatism has surfaced in state-driven environmental impact assessment and thus has manifested via the institutional structures and affordances of liberal capitalist democracy. More recently, elements of democratic pragmatism can be detected in incentive-based forest stewardship and related climate policy initiatives designed to bring together communities, NGOs, and industry to craft and monitor multistakeholder regulation, such as Forest Law Enforcement, Governance and Trade (Overdevest & Zeitlin, 2014). For CDSC, a key characteristic of democratic pragmatism worthy of attention is "public consultation" and how it relates to environmental policy. In short, citizens are understood to be key stakeholders and are given voice through opportunities for public comment, thus privileging "governance" over "government" in environmental policy making. This mechanism is designed to give communities real influence over environmental decision making.

Of course, this understanding of shared governance rests on the assumption that political participation will be protected by elected officials and democratic institutions that adhere to constitutional

law and environmental policy. Although this may be a reality in most Western nations, many developing countries do not have the luxury of such political stability, or the traditions of democratic decision making and public consultation simply do not exist. Moreover, the potential to practice real shared governance in many societies today is negatively shaped by exclusionary social relations (e.g., gender and power arrangements, racism, social hierarchy). While acknowledging the difficulty of overcoming some of these contextual factors, the collaborative lessons from democratic pragmatism still suggest some points of potential leverage and thus, for CDSC initiatives, have strategic value even for populations with tenuous experiences with democracy. For instance, social actors such as NGOs, civil society groups, and corporations, not just local and national governments, are often involved in CDSC projects. This means that, in order to accommodate different perspectives and foster collaborative problem solving, participation will likely involve interests both within and outside government. It also means that a community's voice and thus its interests can be registered and even amplified in relation to opportunities created through public–private partnerships (Odugbemi & Jacobson, 2008). But importantly, consultation must be understood as a requisite to secure the authentic representation of a given community's interests and not merely as a mechanism to appropriate the collaborative possibilities of democratic pragmatism to enable corporate or state actors and their interests.

This balanced approach suggests that the principles of democratic pragmatism resonate with Dreze and Sen's (2002) notion of a multi-institutional format for participation and development. Multi-institutional participation is concerned with how both the state and private sectors can be involved in doing development work *with* communities. This is particularly important with climate change because all these players are significantly impacted and therefore must find together a meaningful way of addressing this challenge. Moreover, this understanding of public consultation echoes the lessons from both past and more recent CDSC scholarship—particularly the "participatory paradigm" (Huesca, 2008; Waisbord, 2014), which presumes that project beneficiaries should actively participate in addressing their own social issues because they also possess important cultural knowledge. Van de Fliert (2014), for instance, argues that sustainable development requires "a more dialogic mode of communication, one that is based on interactive, participatory approaches. It is about sharing knowledge to understand options for change and approaches" (p. 130).

This view of multi-institutional participation situates CDSC as a means to facilitate a human-centered approach to development, where the role of participation and its tools of communication support the exchange of ideas between communities and other stakeholders by documenting, sharing, and understanding local knowledge (e.g., cultural memory) in relation to institutional knowledge (e.g., climate science). In this sense, multi-institutional participation reveals links between democratic pragmatism and consultative CDSC theory, underscoring that solutions for adapting to the many challenges of climate change will not come exclusively from one actor or community but rather through shared knowledge and action across a network of social actors while still recognizing the importance of local interests.

Conversely, given the history of exclusion and neglect and the power of existing structures and their sponsors, the discourse of green radicalism (Dryzek, 2013) has a considerably less charitable understanding of how institutional participation, or governance, might be established via consultative problem solving found in different ways in sustainable development and democratic pragmatism. Instead,

new forms of diplomacy and global climate governance must be established. That is, unlike democratic pragmatism or sustainable development, green radicalism is a discourse deeply invested in altering the status quo, not working through it, by transferring power to presently disempowered actors.

International relations scholar Hayley Stevenson (2014) characterizes green radicalism as a practice of citizen diplomacy grounded in self-authorized representation constructed to make claims that question the "Westphalian norm of sovereignty, which recognizes the state as a unitary actor and the sole legitimate representative in international affairs" (p. 179). This counterhegemonic cast aligns green radicalism with CDSC scholar Mohan Dutta's (2011) notion of a culture-centered approach to participation, which privileges the "agency of subaltern communities in negotiating structures and in seeking spaces of change" (p. 9). As such, it converges with the more politically progressive elements in CDSC, which emphasize inclusivity and community empowerment, because green radicalism is concerned with changing both the way people think and detrimental social structures (which Dryzek, 2013, labels, "green consciousness" and "green politics," respectively). In the United States, this green radicalism discourse, like democratic pragmatism, surfaced in relation to racial, social, and economic factors implicated by the prevalence of toxic industrial waste dumps in minority and low-income communities. So there is a link here to the objectives of democratic pragmatism in that both place value on voice. However, whereas democratic pragmatism sees voice as a means to practice good governance and revise and reshape policy, green radicalism conceptualizes voice as a means to directly challenge power and introduce alternative ways of thinking. This challenge to power is rooted in issues of the politics of place, the connection between race and place, the rights of the Earth, and ecological unity, among others.

Given this objective, green radicalism has become the operating discourse for a wide range of social movements and philosophies, including antiglobalization, ecofeminism, environmental justice, and climate justice. These share a desire to take on intractable practices and have all, in different ways, politicized the environment through confrontational voices and activities. In the process, green radicalism has established a considerably more global scope because of a growing sense of shared experiences with the corporate abuse of the Earth. At the center of concern in most cases in the global South is how the interrelationships among ecological devastation, human rights, and cultural recognition are tied to histories of extractivism, the Cold War modernization agenda, and, most recently, the "race to the bottom" of structural adjustment economic policies.

Collectively, the voices of green radicalism have confronted how Western notions such as modernity, progress, and perpetual growth correspond with unsustainable practices and normative ideas of private property and "the rights" to natural resources championed by corporate globalization. More progressively still has been green radicalism's approach to problem solving, which gives full weight to cultural knowledge, different ontologies, and citizenship building tied to a range of ideas about who or what is endowed with agency. Finally, green radicalism offers an epistemological framework for social emancipation and transformative action tied to a conceptualization of social justice that values ecological balance, not material well-being and the individual capacity to consume. This privileging of ecocentrism is important to recognize because it suggests how citizens might both think and act in relation to the various problems associated with climate change, instantiating that people have a responsibility to take action

within the global commons in ways that redress the imbalances created by more anthropocentric ways of living.

As alternatives to big-picture environmental discourses, sustainable development, democratic pragmatism, and green radicalism present problem solving–driven visions for the care and treatment of the Earth, what is assumed to have value, who or what has agency, and who or what has ecological rights and responsibilities. Understanding these articulations and their implications is thus critical for the planning and execution of climate change–responsive CDSC that politicizes the environment while seeking to maximize engagement—a point to which we return in this article's conclusion.

Public Perceptions of Climate Change: A View From the Global South

Beyond understanding how the meaning of "the environment" is socially constituted and how this shapes action, part of the problem with dealing with climate change is that it is not always clear what people around the world already know about it beyond their own localized experiences—or even whether what they have experienced is indeed related to global warming. There are also lingering questions about how awareness impacts action. For instance, past research in the United States has found that, although media exposure corresponds with an increase in awareness about climate change, this increase has not necessarily fostered citizen-based climate change adaptation and mitigation efforts (McCright & Dunlap, 2011; Moser & Dilling, 2007; Olausson, 2011). In their review of public opinion research on climate change in Europe, North America, and Australia, Wolf and Moser (2011) assert that a recurring conclusion in this pool of research is that the path to engagement is best established by making individuals more fully aware of their own contributions to climate change and how they can take practical action to implement solutions. Storytelling (cultural narratives) and social interaction, as opposed to scientific consensus, "tend to motivate people more deeply, even if they are not deeply knowledgeable about climate change, and can better motivate interest and sustain engagement" (p. 551).

Given the disjuncture between awareness and action in developed nations, initiating a shift to adaptation and mitigation in the global South seems even more daunting. First and foremost, this is because a high proportion of citizens of the developing world have never heard of climate change (Lee, Markowitz, Howe, Ko, & Leiserowitz, 2015). In addition, information about environmental issues is usually much less readily accessible (Thaker, Zhao, & Leiserowitz, 2017), and when information is available, climate change is attributed to nonlocal sources that often fail to reflect local manifestations (Midttun, Coulter, Gadzekpo, & Wang, 2015). Nevertheless, recent studies of public perceptions of climate change in the global South do provide a sense of the terrain that environmentally driven CDSC practitioners face. Thaker and colleagues (2017) conducted a major study of how the media (newspaper, television, and the Internet) in India inform and engage the public about global warming impacts and solutions. They found that, although media coverage of climate change is low compared with coverage in Western countries, Indian media do cover climate change and present human-caused global warming as a real problem that poses risks to the nation (pp. 355–356). Media discourses of climate change in India tend to be nationalistic and climate solutions market driven, yet they are consistent with aspects of sustainable development in that environmental policies should adhere to international mitigation targets even as the country continues to address domestic priorities such as poverty reduction and progress through energy

access. The authors found that, in this context, "consistent and accurate coverage of global warming through trusted (media) sources can likely increase public engagement among a currently largely unaware, yet highly vulnerable population" (p. 363). An additional finding of particular importance for CDSC is the "strong association between perceived personal experience of global warming and risk perception and policy support" (p. 366).

In their study of radio and climate change communication in Nepal, Shrestha, Burningham, and Grant (2014) found that, as in India, "climate change is constructed as a certain and an already evident problem as well as a future risk" (p. 173). Yet through their focus groups with Nepalese audiences, the authors discovered that, although climate change communication created greater awareness among these individuals, it was also perceived as alarmist, distant, expert driven, and void of information about local impacts and mitigation strategies relevant to their lives. As a result, in a turn that resonates with established CDSC theory and practice as well as elements of democratic pragmatism, the authors call for more collective, contextually grounded participatory approaches to climate change communication, moving from a model that communicates *to* audiences to one that communicates *with* communities. They posit that "this might include the development of more interactive programs with the involvement of rural people and mechanisms for the development and distribution of localized programs in local media" (p. 174).

One of the more ambitious studies of people's perceptions of climate change is the BBC Media Action's Climate Asia study.[2] Conducted from 2012 to 2013, Climate Asia is based on a combination of qualitative and quantitative methods that included surveys of 33,500 people, in-depth interviews with households and opinion leaders, and community assessment meetings. The study produced country reports on China, India, Bangladesh, Vietnam, Indonesia, Nepal, and Pakistan (BBC Media Action, 2013). The precursor to Climate Asia was a smaller 2010 study of nine African nations titled "Africa Talks Climate." After seeing the results of African study, the Climate Asia project was supported by the UK Department for International Development (N. Stoll, personal communication, June 21, 2013).

Taking what BBC Media Action labeled an "impact approach" (L. Oram, personal communication, June 21, 2013), the surveys of the seven project countries were organized into regional segment profiles, which represent the extent to which people perceive impacts and are taking action to respond to them. These regional segment profiles include surviving, struggling, adapting, willing, and unaffected. According to the Climate Asia report, "Across the region, the majority (77%) are currently feeling the impacts of changes in climate, the environment and resources now: surviving (17%), struggling (21%), adapting (20%) and willing (19%). The unaffected (23%) are feeling fewer impacts and are taking less action" (BBC Media Action, 2013, p. 2). Brief descriptions of the five regional segment profiles and communication recommendations follow:

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[2] In addition to Climate Asia's published reports, information of Climate Asia presented in this article is based on interviews conducted by Patrick Murphy with Climate Asia researchers Naomi Stoll and Lottie Oram on June 21, 2013, at the BBC Media Action office, White City Place, London, UK.

- The *surviving* segment is composed of those who face high climate change impact but find it difficult to take action. These respondents feel excluded from local decision making, feel isolated from communities, tend to distrust institutions and media, tend to be relatively poor and have a higher proportion of women, and tend to be focused on survival. Climate Asia's communication recommendations for this segment include increasing "self-belief" and confidence so that people feel more connected to community issues and providing more support to foster a climate of social acceptance to inspire people to take small household actions (e.g., recycling water) so they can feel engaged.

- The *struggling* segment is composed of people who feel the impact of climate change and expect it to increase. They understand that action is necessary but find it difficult. However, unlike the surviving segment, the struggling segment feels connected to community and involved in decision making. They are worried about the health of the commons and see action as necessary at both the community and individual level, yet question that they have the needed resources. Many feel government and other actors need to help more. Climate Asia's communication recommendations for this segment include better, more relevant information through channels that the people can access and trust. When possible, this effort should be coordinated with other actors (e.g., NGOs, the state) to amplify the message and show support. The focus should be on what people can do together to problem-solve, and so should feature community involvement.

- The *adapting* segment is composed of people who express interest in doing more and are guided by a sense of responsibility and concern. They tend to have a higher level of education and income, and so are often in a better position to adapt than those in the other groups. They are generally more active and committed, involved in awareness campaigns, and open to innovative, anticipatory solutions. They desire more information to help guide their actions. Climate Asia's communication recommendations for this segment include providing practical tools and guidance so that people can continue to adapt and pursue effective changes.

- The *willing* segment tends to be well educated and resourced and more responsive to the need for lifestyle change. They are well acquainted with the topic of climate change and are worried about its future impacts. Though well equipped to act, they are not taking as much action as people in some of the other segments. Climate Asia's communication recommendations for this segment include providing more information to motivate real action.

- The *unaffected* segment is the most disengaged from the topic of climate change, feeling that it does not impact their daily lives. They have other priorities and see lifestyle change as unnecessary. They tend to have lower levels of education than those in the willing and adapting categories. Climate Asia's communication recommendations for this segment include creating awareness about positive actions that people might already unknowingly be taking so they are encouraged to do more.

In addition to these broad segments, the Climate Asia study released country-by-country reports that consider in much greater detail how communication needs could be developed in relation to the individual (e.g., helping to increase climate change awareness, knowledge, and skills), the community (e.g., community problem identification and group problem solving), and institutions (e.g., seeking out and creating strong support systems). Some clear differences emerged among the seven countries. Respondents from Bangladesh, India, and Nepal, for example, had much higher rates for the segments of surviving and struggling with climate change, whereas respondents from China and Vietnam had much higher percentages of the unaffected segment.

According to the assistant project manager of Climate Asia, Lottie Oram, the mission of Climate Asia was to develop recommendations for practitioners working in the media or development based on people's understanding of their climate, how they want to receive information, their main values and worries, and what kind of information they trust (personal communication, June 21, 2013). This mission serves as a means to develop more complex and integrated communication practices and strategies with the end goal of affecting action. Underlying questions for the project were: What are people's barriers to action, and in what ways can communication overcome those barriers and encourage action?

Answers to these questions varied regionally and by community, but a unifying lesson from the research was discovering how audiences in different countries had to be approached about the question of climate change. In short, a majority of the people who participated in these studies reported that climate change was impacting their lives and even understood that mitigation was needed, but many were either unable or unwilling to take action (e.g., because of feelings of exclusion, distrust, isolation, or lack of resources) or felt that climate change communication did not present the problem in a way that resonated with their own lives. However, as the Climate Asia studies revealed, a sizable segment of the research participants (23%) also still felt "unaffected" by climate change and thus saw no need to take action.

Although none of these studies outlined in this section adhere to the more contextually grounded approaches to working with communities that inform much CDSC, they nevertheless provide some useful insights. These include participants' desire to get better information through trusted channels to help guide their action, the need for community participation in the communication process, the need for individuals to understand their own impact on the environment, and the need to coordinate with other actors (e.g., NGOs, the state) to amplify messages and show support. In short, to catalyze a sense of ecological responsibility, communication's role should center on what multiple actors can do together to understand and engage the risks of global warming and be exercised through a sense of local action built on voice, participation, and trust.

Climate Change CDSC: The Case of Hip-Hop in Kenya

In addition to gaining a better understanding of climate change awareness and its possible barriers within audiences, CDSC should be informed by lessons from past climate change–driven initiatives to learn how to move citizens to action. To illustrate, we focus in this section on one campaign, Kenya's 2009 Road to COP Taskforce—a multistakeholder initiative that provides many indicators about how to engage different social actors and their interests that represent quite distinct discourses.

In preparation for the 2009 United Nations Climate Change Conference (also known as the Copenhagen Summit), the Kenya Climate Change Working Group (KCCWG)—an organization that brought together civil society groups, donors, and governmental organizations interested in addressing climate change issues—launched the Road to COP Taskforce. KCCWG was formed:

> as a resolve by members of various civil society organizations and donor partners in Kenya, to come together to form a united front in confronting the causes and effects of climate change in broad and specific terms in Kenya, Africa, and elsewhere where their contribution would be needed. The issues of concern include; the continued livelihood threats posed by climate change, the fact that Kenyan people are among the most vulnerable groups and the need to unite in diversity to enhance the advocacy, create synergies on their strengths and strengthen climate response actions. (KCCWG, 2017, para. 1)

Leading up to the Copenhagen Summit, the Road to COP Taskforce created a campaign titled "Rauka ama Hatutasurvive" (Wake up or we won't survive) to show Kenyan citizens why climate change is a topic of crucial social importance and engage them as active social agents in the fight against global warming.

The Rauka campaign was sponsored by Oxfam and Norwegian Church Aid, and it addressed the need to create climate change awareness in Kenya in a way that departed from past approaches, in which news media were predominantly used to inform the public. Instead, the Rauka approach was stakeholder-based and included engaging communities in climate hearings (testimonies of the vulnerable communities) as well as a series of breakfast meetings with policy makers. In addition, the Rauka campaign collaborated with local artists to reach out to young people and move them to action—a pivotal ingredient of the campaign as the task force understood that this was the group most likely to grapple with the realities of climate change during their lifetimes.

At the center of the campaign's youth outreach efforts was Juliani, a popular Kenyan hip-hop artist who was tasked with writing a song and producing a music video to educate young people about climate change. The premise of Juliani's song, "Rauka ama Hatutasurvive," was to encourage young people to take care of the environment for the next generation. As a conversation between an unborn child and its mother, the song begins by acknowledging that climate change is a global phenomenon and, regardless of where the child is born, she or he will experience its effects. The child protests being brought into a world where carbon emissions are rising due to pollution by industries, causing global warming–related droughts and floods. The unborn child refuses to be born, saying that society needs to do something about the environment, to protect and defend it.

In addition to the song's rotation on community and commercial radio, its broadcast on television as a music video, and its spreadability through social media and mobile media devices, it was performed at free concerts. The multiplatform delivery assured that the song was widely circulated throughout the country, with Juliani holding events as part of the Rauka campaign's climate hearing meetings. These knowledge-sharing sessions were held in different parts of the country and involved talking to communities about how

they had experienced climate change and asking for ideas about what could be done to mitigate its effects. Dialogue between the public and private sectors were held in the form of breakfast meetings where representatives were invited to discuss climate change, facilitating a conversation between community and institutional stakeholders to generate problem-solving ideas.

The selection of Juliani to write the song and go on tour for the campaign was an exceptionally strategic move. As one of Kenya's most visible gospel hip-hop artists, Juliani had won a Groove Award (Gospel Music Awards) for hip-hop song of the year and album of the year, and he held celebrity status. Perhaps even more importantly, what qualified Juliani for this CDSC initiative was his association with Ukoo Flani Maumau, a music group comprised of hip-hop artists with the objective of providing "quality enhancement to enable hiphop to be the language to pass the real/true message to society" (Ukoo Flani Maumau, 2016). The artists in Ukoo Flani come from backgrounds characterized by poverty, with most of them being raised in slums, and they write songs to protest social issues such as government corruption, social inequality, and crime. Juliani's activist orientation through music, his upbringing in Dandora—a slum with one of the largest dumps in Kenya—and his status in the music industry all endowed him with the authentic credentials to serve as the face of the campaign.

Moreover, Juliani's song was produced in Kiswahili (Kenya's national language) and Sheng (a hybrid language of Kiswahili and various ethnic languages largely spoken by youth). In an interview, the artist echoed some of the BBC Media Action findings. He stated that, because young people may not understand "big words" such as "global warming" and "carbon emissions," it is important for him to deliver the message in a language they can understand. He used Sheng and Kiswahili to explain the meaning of those "big words" related to climate change. In addition to rapping in the song, Juliani delivers a monologue directly to the youth:

> I am responding to the cries of my unborn child and their question of what inheritance I have left them. I used to think it was riches, but I have discovered that it is more than that. Money can buy air conditioning but it doesn't stop the heat. . . . I have now decided to wake up, wake up or we won't survive. (Juliani, 2009)

The song exposes the contradiction between industrialization and progress, asserting that industrialization was supposedly the rope that was meant to pull society out of poverty, but instead became the rope that is strangling society through its impact on the environment. Here, Juliani implicates the false promises of the modernization paradigm as industrialization and urbanization were assumed to lead to development and progress. But through his lyrical critique, the singer also makes salient the unspoken effect of modernization: the environmental devastation experienced by the very societies it sought to modernize. In addition to this take on the not-so-hidden environmental baggage of the modernization thesis, the song calls out the complacency and excesses of Kenya's youth, whom Juliani sees as being invested only in having fun while the effects of climate change unfold. The artist questions the lack of civic engagement among young people, who, despite being the group that will be most impacted by the long-term effects of global warming, largely remain in the background as policy makers implement actions without their input.

The Road to COP Taskforce's Rauka campaign presented an innovative way of engaging the public. It pursued this engagement through a number of interrelated CDSC theories and practices. First, the campaign operated through both top-down (vertical) and collaborative (horizontal and dialogic) modes of development communication by involving a mixture of policy makers, external donors, and community groups. This permitted the campaign to be framed by the broader political and ecological context of climate change while also working through more localized, grounded strategies that invited citizens and artists to participate, dialogue with institutional stakeholders, and help identify problems and craft policy. Second, the campaign adopted an attractive style of climate change message delivery, departing from using conventional news media, using instead popular culture and localizing the content to make the subject more identifiable to the audience. It drew from the tool kit of entertainment education (Singhal & Rogers, 2012), which is the "process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience members knowledge about an educational issue, create favorable attitudes, shift social norms and change overt behavior" (Singhal & Rogers, 2004, p. 5). This approach has been used effectively in cases such as *Soul City*, a local television show in South Africa, to address issues such as HIV/AIDS and domestic and sexual violence (Usdin, Singhal, Shongwe, Goldstein, & Shabalala, 2003). Through a similar approach, the consequences of climate change were presented through the localized lenses of music, culture, language, and social class to animate creative, effective climate change communication even as the science of the lesson was left out. Instead, the message of social change was delivered as a soundtrack for social change, following Turino's (2008) assertion that music functions in every dimension of our lives, becoming, as suggested by Nyairo and Ogude (2005), interwoven with events. This idea largely informed the production of the song "Rauka," as it became the soundtrack of the campaign and, by extension, the cautionary soundtrack of climate change for the youth of Kenya.

Conclusion: Lessons for Communication for Development and Social Change

What lessons might CDSC theorists and practitioners take from the Earth discourses, the study of climate change communication and vulnerable audiences, and the task force campaign described above?

First, to face the forgotten billions of the Anthropocene, CDSC theorists and practitioners must anticipate how different problem-solving Earth discourses (Dryzek, 2013) present certain assumptions about environmental stewardship. By understanding how these discourses promote various environmental imaginaries (e.g., sustainable development's focus on growth, cooperation, global exchange, and distributive justice; democratic pragmatism's emphasis on public consultation and ecological citizenship; and green radicalism's valuation of local/non-Western knowledge and environmental justice), the field of CDSC can establish a better sense of how the problem of climate change can be communicated to shape action, and in whose interest. Within these discourses, the articulation of agency is key because it suggests who or what (e.g., industry, the state, NGOs, communities, individuals, nature itself) is imbued with the power to act.

Second, drawing from the Climate Asia study and others, if climate change CDSC is driven by an underlying desire to engage marginalized groups so that it no longer remains the exclusive domain of experts and elites, as a communicative practice it must be designed to move audiences from the realm of passive (e.g., surviving, struggling, or unaffected) to the more active categories of ecological citizenship

(adapting and willing). Initial steps for those who feel the most disempowered and excluded along this continuum must involve efforts to increase self-belief and confidence regarding smaller actions (e.g., reusing and recycling), while more robust efforts will require greater emphasis on trust, access, and collective problem solving in concert with knowledge sharing that can guide meaningful adaptive practices. Depending on the context, CDSC efforts should consider how to privilege environmental problem-solving discourses that foster multistakeholder partnerships and public consultation designed to draw from local experiences. Within these discourses, the views, voices, and cultural knowledge of the marginalized are critical for developing a sense of environmental responsibility that is grounded in local or regional realities yet connected to a broader, more globally interconnected understanding of climate change.

Third, though it is just one case, Kenya's Road to COP multistakeholder campaign provides a vision of how an integrated CDSC initiative can engage and resonate with vulnerable communities on multiple levels. First and foremost, the "Rauka" song was created to increase knowledge and awareness of climate change among Kenya's youth, especially the poor. Importantly, the song was designed to inspire self-reflexive action anchored in local realities but connected to a global understanding of the problem. To speak to the audience, the Road to COP Taskforce enlisted Juliani, a national celebrity whose association with social inequality, poverty, and activism, coupled with his language skills, endowed him with the credentials to serve as the face and voice of the campaign. This outsider/activist identity aligned not only Juliani but the campaign itself with elements of green radicalism—particularly when considered with his critical take on the modernization project. Yet at another level, the campaign's organizational structure was enmeshed in the multistakeholder model of sustainable development, because the KCCWG was a collaboration of civil society groups, artists, external donors, and government agencies interested in addressing climate change and promoting climate justice. And at yet a third level, the Rauka campaign was conceptualized in the context of the Copenhagen Summit and the need to ensure that local voices were heard. This agenda suggests a link with the discourse of democratic pragmatism in its concern with how state and private sectors can purse environmental problem solving through public consultation. The campaign's public climate hearings and breakfast meetings were central sites of dialogue and discovery, taking place in different parts of Kenya and asking communities not only to share their experiences with climate change but also to present ideas about what might be done to mitigate its effects.

The Rauka campaign also met the program-specific factors that are features of the cultural and contextual elements of CDSC-informed entertainment education (Singhal & Rogers, 2012). The song used language that the audience could understand and had a balanced mix of entertainment (the beat and the tune) and education (with the message embedded in the lyrics). Repetition of the educational content and timing the airing of the content to reach a large audience were key factors achieved by Rauka. The song was distributed to radio stations, aired on television music shows, and posted online to ensure that the audience was surrounded with the message. This wide distribution was supplemented by free concerts, social media activity, media interviews, and climate hearings.

Overall, the Rauka campaign suggests not only how Earth discourses can shape and frame the politics of climate change, even in the context of a single, regionalized campaign, but how stakeholder-centered CDSC strategies might move audiences from feeling uninformed, helpless, or excluded (e.g., what the BBC Media Action Climate Asia report labeled the surviving, struggling, and unaffected

segments) to feeling connected, informed, and even empowered (Climate Asia's adapting and willing segments). Indeed, as our analysis of the Rauka campaign demonstrates, agency can be articulated on multiple discursive planes (shared, community, institutional, individual) even within one campaign, suggesting that CDSC initiatives can work on multiple discursive levels concurrently.

As the defining global problem of the 21st century, anthropogenic climate change must directly drive the future of CDSC scholarship and practice. This article presents an argument based on the interpretive schemes of environmental policy scholars and CDSC and environmental communication theory, massive regional and country-based research studies of audiences' understanding of climate change, and a nationwide campaign case study to demonstrate why this focus is of vital importance and what factors should be taken into consideration to guide such an agenda. Indeed, given its rich history and commitment to social equality, CDSC has an obligation to lead communication scholarship in the study of how this most pressing challenge can be confronted.

References

BBC Media Action. (2013). *Climate Asia: Regional segment profiles*. Retrieved from http://www.bbc.co.uk/climateasia

Beck, U. (2010). Climate for change, or how to create a green modernity. *Theory, Culture and Society*, *27*(2–3), 254–266. doi:10.1177/0263276409358729

Carvalho, A., van Wessel, M., & Maeseele, P. (2017). Communication practices and political engagement with climate change. *Environmental Communication*, *11*(1), 122–135. doi:10.1080/17524032.2016.1241815

Dreze, J., & Sen, A. (2002). *India: Development and participation*. Oxford, UK: Oxford University Press.

Dryzek, J. (2013). *The politics of the Earth* (3rd ed.). Oxford, UK: Oxford University Press.

Dutta, M. J. (2011). *Communicating social change*. New York, NY: Taylor & Francis.

Gumucio Dagron, A., & Tufte, T. (Eds.). (2006). *Communication for social change*. South Orange, NJ: CFSC Consortium.

Huesca, R. (2008). Tracing the history of participatory communication approaches to development. In J. Servaes (Ed.), *Communication for development and social change* (pp. 180–200). Thousand Oaks, CA: SAGE Publications.

Juliani, O. (2009). *Rauka*. Nairobi, Kenya: Kijiji Records. Retrieved from https://www.youtube.com/watch?v=behmSLQnO7M

Kenya Climate Change Working Group. (2017). *Our projects*. Retrieved from http://www.kccwg.org/projects.html

Lee, T. M., Markowitz, E. M., Howe, P. D., Ko, C. Y., & Leiserowitz, A. A. (2015). Predictors of public climate change awareness and risk perception around the world. *Nature Climate Change*, *5*(11), 1014–1020.

Manyozo, L. (2004, December). Locating the praxis of development radio broadcasting within development communication. *Journal of Global Communication Research Association.*

Maslin, M. (2009). *Global warming*. Oxford, UK: Oxford University Press.

McCright, A. M., & Dunlap, R. E. (2011). The politicization of climate change and polarization in the American public's views of global warming, 2001–2010. *Sociological Quarterly*, *52*(2), 155–194.

Melkote, S., & Steeves, L. (2001). *Communication for development in the Third World* (2nd ed.). London: SAGE Publications.

Midttun, A., Coulter, P., Gadzekpo, A., & Wang, J. (2015). Comparing media framings of climate change in developed, rapid growth and developing countries. *Energy and Environment*, *26*(8), 1271–1292. doi:10.1260/0958-305X.26.8.1271

Moser, S., & Dilling, L. (2007). *Creating a climate for change*. Cambridge, UK: Cambridge University Press.

Murphy, P. (2017). *The media commons: Globalization and environmental discourses.* Champaign, IL: University of Illinois Press.

Nyairo, J., & Ogude, J. (2005). Popular music, popular politics: *Unbwogable* and the idioms of freedom in Kenyan popular music. *African Affairs*, *104*(415), 225–249. doi:10.1093/afraf/adi012

Odugbemi, S., & Jacobson, T. (2008). *Governance reform under real world conditions.* Washington, DC: World Bank.

Olausson, U. (2011). "We're the ones to blame": Citizens' representations of climate change and the role of the media. *Environmental Communication*, *5*(3), 281–299. doi:10.1080/17524032.2011.585026

Overdevest, C., & Zeitlin, J. (2014). Assembling an experimentalist regime. *Regulation and Governance*, *8*(1), 22–48. doi:10.1111/j.1748-5991.2012.01133.x

Pepermans, Y. (2015). *Manufacturing climate consent: From a depoliticized consensus to a politicized debate* (PhD dissertation). University of Antwerp, Antwerp, Belgium.

doi:10.13140/RG.2.2.11443.63527

Shrestha, S., Burningham, K., & Grant, C. B. (2014). Constructions of climate change on the radio and in Nepalese lay focus groups, *Environmental Communication*, *8*, 161–178. doi:10.1080/17524032.2014.906480

Singhal, A., & Rogers, E. M. (2004). The status of entertainment-education worldwide. In A. Singhal, M. Cody, E. Rogers, & M. Sabido (Eds.), *Entertainment-education and social change* (pp. 3–20). Mahwah, NJ: Lawrence Erlbaum.

Singhal, A., & Rogers, E. M. (2012). *Entertainment-education*. Mahwah, NJ: Lawrence Erlbaum.

Stevenson, H. (2014). Representing green radicalism. *Review of International Studies*, *40*(1), 177–201. doi:10.1017/S0260210513000077

Stevenson, H. (2018). *Global environmental politics.* Cambridge, UK: Cambridge University Press.

Thaker, J., Zhao, X., & Leiserowitz, A. (2017). Media use and public perceptions of global warming in India. *Environmental Communication*, *11*, 353–369. doi:10.1080/17524032.2016.1269824

Tufte, T. (2017). *Communication and social change*. Cambridge, UK: Polity Press.

Turino, T. (2008). *Music as social life.* Chicago, IL: University of Chicago Press.

Ukoo Flani Maumau. (2016). Retrieved from https://www.facebook.com/pg/ukooflani/about/?ref=page_internal

Union of Concerned Scientists. (2016). Confronting the realities of climate change. Retrieved from http://www.ucsusa.org/global_warming?gclid=COLa9O33gtECFUZLDQodXm8KPQ#.VH4LFU0tCHs?s_src=promo&s_subsrc=googleads

United Nations. (2016). *The sustainable development goals report 2016.* New York, NY: Author.

Usdin, S., Singhal, A., Shongwe, T., Goldstein, S., & Shabalala, A. (2003). No short cuts in entertainment-education: Designing Soul City step-by-step. In A. Singhal, M. Cody, E. Rogers, & M. Sabido (Eds.), *Entertainment-education and social change* (pp. 153–175). Mahwah, NJ: Lawrence Erlbaum.

van de Fliert, E. (2014). Communication, development, and the natural environment. In K. Wilkins, T. Tufte, & R. Obregon (Eds.), *The handbook of development communication and social change* (pp. 125–137). West Sussex, UK: John Wiley.

Waisbord, S. (2001). Family tree of theories, methodologies and strategies in development communication. Report prepared for the Rockefeller Foundation. Retrieved from http://www.portalcomunicacion.com/obregon/pdf/Waisbord_2001.pdf

Waisbord, S. (2014). The strategic politics of participatory communication. In K. Wilkins, T. Tufte, & R. Obregon (Eds.), *The handbook of development communication and social change* (pp. 145–167). West Sussex, UK: John Wiley.

Wolf, J., & Moser, S. C. (2011). Individual understandings, perceptions, and engagement with climate change. *WIREs Climate Change*, *2*(4), 547–569. doi:10.1002/wcc.120

World Commission on Environment and Development. (1987). *Our common future*. Oxford, UK: Oxford University Press.