



State literacy: lessons from social struggle in the Colombian Amazon

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Abstract

Introduction. This paper introduces the concept of state literacy, drawing on the struggles of *campesino* or peasant communities in the Colombian Amazon and interdisciplinary literature on state-citizen interactions.

Method. Using feminist and action-research methodologies, the study is based on ethnographic fieldwork in Guaviare, Colombia (April–December 2023). Data collection involved participant observation, interviews with peasant community leaders and members, and analysis of documents and photographs. Thematic analysis explored *campesino* interactions with state bureaucracies and their information practices.

Analysis. Historically marginalized by state zoning policies that deem their lands unsuitable for peasant practices, *campesino* communities have organized collective efforts to reinterpret state governance frameworks. They use tools such as state maps and digital applications to foster state literacy, challenging exclusionary policies and advocating for alternative governance models.

Results. State literacy emerges as a collective, networked, and critical practice that enables marginalized communities to engage with state systems. It is supported by informal sociotechnical infrastructures. It configures subversive practices that transform bureaucratic systems.

Conclusions. State literacy represents a vital set of skills and practices for marginalized communities to navigate and resist bureaucratic marginalization. It highlights the potential of marginalized communities to challenge and reimagine governance structures, while proposing ethical, community-driven alternatives.

Introduction

While working with *campesino*, or peasant, community leaders in the northwestern border of the Colombian Amazon, I was struck by their deep familiarity with the department's land-planning terminology. Terms like 'forest preserve zone Type A or B' were part of everyday conversations among them. People responded to the question 'what figure is your farm located in?' as naturally as I learned to answer questions about my ethnicity in surveys during my first year as an international student in Illinois. However, while my categorization as 'Hispanic' has been a minor inconvenience at most, for my interlocutors, living in Type A or Type B areas of the forest preserve zone entails a specific governance regime that limits access to rights and the realization of family and community projects.

As I continued working with peasant community leaders, my attention was continuously drawn to their knowledge of the state—how they developed and used it, and why. Perhaps because my main research interest was on the integration of information technologies to peasant struggles in the Amazon, I noticed that digital information technologies played a key role in supporting this knowledge. Drawing on this modest insight, this short paper introduces the concept of state literacy, defined as the ability to obtain, understand, and engage with information about the conditions of governance of one's community in situated encounters with the state. By looking at the illustrative case of one particular peasant community in the department of Guaviare, I identify three characteristics of state literacy emerging in the struggles of marginalized communities: 1) it is collective, networked, and critical, 2) it is embedded in alternative sociotechnical infrastructures, and 3) it configures subversive information practices. Mobile phones have become key tools for peasant community leaders, and they are part of each of these characteristics.

Background literature

Researchers have centered the agency of marginalized communities and individuals, examining their responses to barriers and risks imposed by structural inequalities (Espinoza Vasquez & Oltmann, 2023; Kitzie et al., 2020). Espinoza Vasquez and Oltmann identify '*defensive, proactive, and subversive information practices*' employed by communities to navigate information marginalization. Defensive information practices are those in which people react to new barriers, seeking to protect themselves, their family, or their community. Proactive information practices are actions undertaken in anticipation of actual barriers or risks, stemming from social interdependency and shared vulnerability and deep understanding of community needs, structure, and knowledge. Subversive information practices are actions that counter or challenge the status quo and systemic inequalities (Espinoza Vasquez & Oltmann, 2023, p. 528).

Within science and technology studies (STS), '*material literacy*' describes how communities navigate bureaucratic infrastructures by sharing tacit knowledge about their material constraints. This knowledge helps create alternative infrastructures, enabling new forms of existence and restoring justice through alliances between committed groups of humans and accessible material objects (Mora-Gámez, 2020; Papadopoulos, 2018). In these situations, Espinoza Vasquez (2023) identifies activists' '*seamful work*' (Vertesi, 2014), where situated knowledge and available resources (actors, organizations, technologies) are used to build sociotechnical infrastructures that counter state-driven inequalities. Research has also shown how communities organize to intervene state infrastructures and tools of governance that '*quietly determine the limits of the possible by both narrowing down certain options and opening the possibility of creating different, and maybe better, worlds*' (Ballesterio, 2019, p. 5). This type of activism requires a nuanced understanding of the relationship between knowledge/legibility and power, as explained by scholars like Foucault or Scott (Foucault, 2012; Scott, 2008).

In public administration and political science, scholars have explored everyday encounters between subaltern citizens and the state, focusing on how the state's failure to deliver services

disproportionately affects those lacking cultural capital, bureaucratic literacy, or social networks (Moodie, 2013). Döring (2021) extends the concept of health literacy to 'administrative literacy', defined as '*the capacity to obtain, process, and understand basic information and services from public organizations needed to make appropriate decisions*' (p. 1155). Administrative literacy often emerges in specific contexts over time, as citizens compensate for the state's inability to provide training opportunities or usable information (Abou Moumouni & Krauß, 2023). Moodie (2013) illustrates how bureaucratic literacy gained through state employment may become collective knowledge, supporting community struggles through imaginative applications. Her research invites attention to the importance of bureaucratic literacy emerging from unintended information flows and proximities in state policy.

Research in community informatics has long explored the relationship between information infrastructures and the practices of social movements and local communities. For example, Jack Linchuan Qiu introduced the concept of the '*have-less*' to describe social groups in China who had limited access to ICTs but used them to network their communities under structural constraints (2009). Similarly, David Nemer studied how marginalized residents of Brazil's favelas appropriated technology centers to navigate oppressive conditions (2022). In Colombia, Rocio Rueda Ortiz and her team analysed how an indigenous organization integrated digital technologies into their struggles by centering the life and work of one of the organizations' key figures (Rueda Ortiz, 2011). Researchers have also examined the domain learning that occurs in interactions with digital infrastructures, which is often mediated by social actors that help others achieve certain tasks online (Prieto-Nanez, 2016; Williams, 2012). Finally, they have studied forms of community learning and teaching mediated by computing infrastructures (Grisales Bohorquez et al., 2021; Levy, 1999).

Method

This research draws on ethnographic fieldwork conducted between April and December 2023 in Guaviare, Colombia. Working with eight campesino leaders, I employed feminist and action-research methodologies, conducting participant observation, collecting field notes, documents, and photographs, and focusing on information practices and interactions with state bureaucracies. Semi-structured interviews were conducted with seven community leaders and eight community members to explore their relationships with information technologies and discuss ethnographic observations. The data was analyzed using thematic analysis and iterative coding, emphasizing the work and knowledge campesinos use to navigate and challenge marginalization.

Results

In 2013, the Colombian state divided the lands of the forest preserve zone in Guaviare into Type A areas, reserved for ecological processes, and Type B areas, designated for sustainable forestry management. The zoning effectively rendered peasants '*unfit*' to inhabit these lands, reinforcing stereotypes of peasants as coca-growers allied with armed guerrillas. In response, peasant communities in the municipality of Calamar, Guaviare have organized to demand recognition as valid interlocutors in territorial management and access to rights. For more than a decade, they have engaged in protective, proactive, and subversive practices, including refusing to sign documents and provide information, writing letters, attending meetings and trainings with state officer and NGOs, participating in mobilizations, sought the support of lawyers and activists, and collectively developed strategies to achieve the recognition of community expectations and plans for their own future. In 2023, community leaders presented a comprehensive proposal for the recognition of their collective land rights that was grounded in existing Colombian law, but alternative to the state's proposed strategy. This demonstrated an understanding of conditions under which the state made peasants and their land legible, and thus governed or administered them (Scott, 2008). The community's proposal made peasants legible as environmental agents, demanding recognition of their collective rights inhabit and decide over their territory as a strategy for the protection of the Amazon jungle based on community environmental governance.

State literacy in practice

In ongoing interactions with state officers, documents and spaces, community leaders gain information about how the state operates (or not). Miguel, a community leader, recounted how he gained access to a crucial piece of information—a state map used to delineate environmental zones:

those maps were used by professionals from the corporation or the environmental ministry to identify where environmental damage occurred, for example. I became friends with one and convinced him to give me the map, though he warned me not to reveal the source. This tool, though informally obtained, has helped us resolve conflicts with environmental authorities. Before, we were always defensive because we didn't understand the zoning, we didn't even know where we were standing. Now, this tool is crucial. It has given us elements of weight for discussions with the institutions and allowed us to make more grounded proposals in relation to the environmental zoning of the territory (community leader, 42, personal communication).

Using a geospatial PDF file on the Avenza maps app that he got from his friend, Miguel shared state perspectives on their lands with his community, fostering understanding of the state's environmental priorities and revealing peasants' exclusion as obstacles to conservation. In this story, Miguel's experience illustrates *state literacy*—the ability to obtain, understand and engage with information about the conditions of governance of one's community. State literacy, supported by a heterogeneous socio-technical network, empowered campesino leaders to continue to challenge state narratives and propose grounded, alternative governance models.

Characteristics of state literacy

The following three characteristics of state literacy were identified in the struggles of peasant communities in Calamar, Guaviare.

Collective, networked, and critical

State literacy of peasant communities in Calamar is an ongoing collective achievement. Every new encounter with state bureaucracies provides information about old or new constraints that is discussed with neighbors in everyday conversation, in community WhatsApp groups and in community assemblies, particularly when they result in failure to receive attention. Additionally, individual skills and knowledges are embedded in community practices of consensus and reciprocity. While individuals cultivate specific skills used for personal benefit, quotidian information practices are used to guide individual literacies toward the common good, including making jokes about individualist behaviors and asking for help in navigating state bureaucracies. As state interactions have become increasingly digitized, neighbors have helped each other learn and use digital technologies for these purposes.

State literacy is networked because it relies on distributed knowledges and social mediators working from the local to the international scale. In dealing with the state, it is true that nobody knows everything, everyone knows something, and all knowledge resides in networks, paraphrasing Pierre Levy (1999). Peasant leaders recurrently call on their weak links; national activists, NGOs, and ally state officers, whose sporadic interactions with members of remote local communities are extended through networked technologies.

Finally, it is critical because it emerges from accumulated experiences of information marginalization. Critical state literacy enables communities to engage with and transform bureaucratic systems, viewing them as dynamic and malleable rather than fixed or determined structures.

Embedded in alternative sociotechnical infrastructures

State literacy of this marginalized community is sustained by heterogeneous sociotechnical infrastructures that community leaders patch together to address information asymmetries and

barriers. For example, Miguel combines a state map, situated knowledge, a smartphone, community assemblies and casual conversations to build informal infrastructures that disseminate state literacy and sustain collective practices. Smartphones and internet infrastructures, however limited, have been key elements of peasants' alternative sociotechnical infrastructures since 2016, when state and international cooperation agencies began implementing projects in Calamar to support the peace agreements with armed guerillas. Smartphones, and specifically WhatsApp, began mediating the relationships between local community leaders and institutions, whereas community leaders were the designated as information brokers by their communities. This is why most of them gave a similar account: *'when I became president, leader, the community made me buy a phone.'*

Configures subversive information practices

State literacy is heightened by subversive information practices that destabilize the status quo and challenge inequalities, and it contributes to subversive practices of marginalized communities. Miguel's appropriation of the map exemplifies a subversive information practice that challenges information asymmetries framing peasants as ignorant of environmental zoning. Using his smartphone, Miguel shared state literacy stemming from this subversive practice with his community. Collectively, campesinos used this critical state literacy in subversive information practices that challenge governance structures while proposing alternative models prioritizing conservation and campesino rights as commentary rather than contradictory. For example, in 2023 groups of peasants georeferenced the borders of the collective territory they demanded recognition for, using GPS devices and smartphones, as well as community agreements regarding where the borders should go. The information was patched together by allied experts from a national NGO and a state agency to create a new state map of the territory including a patch of land for peasants *and* conservation, which challenged stereotypes and institutional constraints to peasants' recognition as environmental agents.

Conclusions

This paper has introduced the concept of state literacy, demonstrating how it emerges from the struggles of marginalized communities as a set of skills, knowledge, and attitudes enabling communities to navigate, challenge, and transform their conditions of governance. Future research should explore how peasant leaders carefully resist governance by illegal armed groups while simultaneously dealing with state marginalization, a dangerous endeavor given the ongoing threats to social leaders in Colombia. Since 2016, over 1,200 social leaders and human rights defenders have been murdered in the country (Human Rights Watch, 2023). This situation highlights the importance of supporting community leaders and human rights defenders by approaching *'access to information'* from their situated perspectives, considering the specific risks, burdens, and barriers they face and working with them to address them. Further research should also look at the emergence and use of state literacy in the struggles of marginalized communities in diverse situations, so that a more general framework related to theory of information marginalization and precarity might be proposed.

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