

RUNNING HEAD: POPULAR THEORY OF ALGORITHMS

Towards a Popular Theory of Algorithms

Ignacio Siles

Universidad de Costa Rica, Costa Rica

Email: ignacio.siles@ucr.ac.cr

(Corresponding author)

Edgar Gómez-Cruz

University of Texas at Austin

Email: edgar.gomezcruz@ischool.utexas.edu

Paola Ricaurte

Tecnológico de Monterrey, Mexico

Email: pricaurt@tec.mx

Full reference: Siles, I., Gómez-Cruz, E. & Ricaurte, P. (2022). Towards a popular theory of algorithms. *Popular Communication*.

Towards a Popular Theory of Algorithms

Abstract

This paper establishes dialogues between theories on the popular and critical studies on algorithms and datafication. In doing so, it contributes to reversing the analytical tendency to assume that algorithms have universal effects and that conclusions about “algorithmic power” in the Global North apply unproblematically everywhere else. We begin by clarifying how Latin American scholars and other research traditions have theorized the popular (“*lo popular*”). We then develop four dimensions of *lo popular* to implement these ideas in the case of algorithms: playful cultural practices, imagination, resistance, and “in-betweenness.” We argue that this dialogue can generate different ways of thinking about the problems inherent to algorithmic mediation by drawing attention to the remixes of cultural practices, imaginative solutions to everyday problems, “cyborg” forms of resistance, and ambiguous forms of agency that are central to the operations of algorithmic assemblages nowadays.

Keywords

Agency, Algorithms, Datafication, Decolonial theory, Global South, Latin America, Popular Cultures

Towards a Popular Theory of Algorithms

Introduction

Critical algorithm studies have done a remarkable job at demonstrating how algorithmic biases are a constitutive part of today's digital ecology (Benjamin, 2019). These studies have shown how algorithms often reproduce and amplify sexist, patriarchal, racist, and classist biases. Building on these insights, scholars in the Global South have increasingly turned their attention to algorithms. Research in Latin America has focused on the emergence of models of algorithmic governance and how these have worsened inequalities across the region (Barreneche et al., 2021; Bruno et al., 2019; T. Silva, 2020).

Despite the growth of critical algorithm studies in the Global South and their manifold contributions, a tendency persists to assume that conclusions about the power of algorithms in the Global North apply unproblematically everywhere else. In a typical statement, García Canclini (2020) noted:

the opacity of algorithms and the transparency of our data [...] [call] into question our ability to function as citizens. [...] [This] should lead to more radical questions than in any previous time about the type of hegemony that is being installed. In the old Gramscian distinction, hegemony differed from domination by not being a simple imposition. (pp. 81-82)

In García Canclini's view, algorithms throw into question some of the main lessons derived from work on cultural consumption in Latin America. He thus concluded that "today it is not so easy to sustain a phrase with which I titled an article in 1995: consumption is good for thinking" (García Canclini, 2020, p. 85). In a similar manner, Couldry and Mejias, arguably the most vocal critics of data colonialism, noted that "North-South, East-West divisions no longer matter in the

same way” (Couldry & Mejias, 2019, p. 337). The fact that the same algorithmic procedures operate in different places leads these authors to conclude that their effects are similar wherever data colonialism operates and, as a result, they fail to show how these effects might differ.

This premise tends to downplay cultural, historical, and material differences by favoring the analysis of how algorithms have led to the emergence of new forms of capitalist domination. Yet, a wealth of literature has shown that epistemic hegemony is a key site of dispute (Ricaurte, 2019). This premise also runs the risk of naturalizing disparities in the global production of knowledge as it prioritizes research on and from the epistemic North and, in so doing, could contribute to making invisible non-Western epistemes (Ganter & Ortega, 2019; G. C. Silva, 2019).

In this paper, we develop elements of a popular theory of algorithms that seeks to problematize these premises. Our argument proceeds in two steps. We begin by clarifying how Latin American scholars have theorized the popular (“*lo popular*”) and how these ideas relate to other intellectual traditions. We then elaborate on four dimensions of *lo popular* that work as conceptual tools to examine the case of algorithms: playful cultural practices, imagination, resistance, and “in-betweenness.” We do not mean this reflection as an exclusively Latin American theory but rather link it to epistemologies of the South as defined by de Sousa Santos (2018), that is, knowledges anchored in the experiences of social groups that have been traditionally excluded and oppressed. Nor do we think that any theoretical framework is sufficient by itself to account for algorithmic mediations and how they participate in shaping the world. Accordingly, we also elaborate on the challenges that the study of algorithms poses to theories of *lo popular*. The conceptual tools we propose are meant to establish a dialogue between work on the popular and studies of datafication in the spirit of Paulo Freire’s (2000)

pedagogy, that is, as an opportunity for developing critical awareness of novel thought and action possibilities. In other words, by exploring their intersections, we seek to supplement both scholarly work on the popular and critical algorithm studies through the intellectual strengths of each research tradition.

Algorithms of the Everyday

Given the multiplicity of ways in which the notion of the popular has been used, some conceptual clarifications are in order. According to Scolari (2015):

If traditional media studies in the United States homologated “popular” and “mass” culture [...], in Latin America “mass culture” refers to the homogenized cultural industry [...] while “popular culture(s)” relates to the folkloric, pre-industrial and/or the culture of the subaltern classes from a Gramscian perspective. (p. 1095)

In short, *lo popular* is a way of understanding daily life experiences of marginalized subjects with the media.

The study of *lo popular* occupied a central place in the work of Jesús Martín-Barbero (1993), who traced the evolution of popular classes as a historical subject since the beginning of modernity. Martín-Barbero centered on the study of *lo popular* through the notion of mediations rather than the media, that is, the processes rather than the objects, “the articulations between communication practices and social movements and the articulation of different tempos of development with the plurality of cultural matrices” (Martín-Barbero, 1993, p. 187). In practice, the study of mediations translated into a detailed analysis of how popular classes recognized themselves and their daily experiences in media such as television, particularly through interpellating genres such as *telenovelas*. In this way, Martín-Barbero emphasized a view of the

popular as a “place from which to rethink the processes, the locus from which the conflicts that culture articulates come to the surface” (Martín-Barbero, 1988, p. 458). *Lo popular* opened a rich terrain of study because of the diversity of practices and possibilities for expression that it articulates.

Martín-Barbero’s approach has become one of the most fruitful research traditions in Latin America. Scholars have worked to turn the study of *lo popular* into a theory of communication that centers on the study of how people create alternative meaning in their situated appropriations of the media. The popular is thus “a point of view, a perspective that looks at the world ‘from the other side,’ or the experience ‘of what people do with’—meaning what people do with what they consume” (Rincón & Rodríguez, 2015, pp. 173–174). Rincón and Marroquín (2019) aptly summarize this approach by defining *lo popular* as the “experiences whereby media become a part of people’s daily life, and how such practices reflect submission and resistance against the power, economy, and pretensions of the media’s political hegemony” (p. 44).

Building on this definition, a popular approach to the study of algorithms seeks to understand what people do with algorithms but also how the relationships between people and algorithms become involved in the transformation of sociocultural processes. Martín-Barbero’s approach embodies a challenge to dominant accounts of media hegemony (including datafication) that forsake the study of people’s own experiences and practices.

The approach we have discussed thus far has important affinities with work on the popular developed in other intellectual fields, most notably British cultural studies. In this body of work, according to Fiske (2005), the popular is understood as “made by various formations of subordinated or disempowered people out of the resources, both discursive and material, that are

provided by the social system that disempowers them” (pp. 1-2). In a similar manner, Stuart Hall reacted against the tendency to treat both the media as overpowering structures and the people as cultural dopes. Although he did not employ the notion of mediations, his approach to the popular has remarkable similarities with Martín-Barbero’s work. In Hall’s words,

If the forms of provided commercial popular culture are not purely manipulative, then it is because, alongside the false appeals, the foreshortenings, the trivialisation and shortcircuits, there are also elements of recognition and identification, something approaching a recreation of recognisable experiences and attitudes, to which people are responding. (Hall, 2016, p. 233)

Authors in this tradition have argued for theorizing the popular as a site of continuous struggle where forms of collective agency are constituted (Harsin & Hayward, 2013).

We argue that this intervention is a useful contribution to the study of algorithmization: *lo popular* nuances accounts of algorithmic power that discard people’s own practices and how they recognize themselves (or not) in their relationship with algorithms (Willson, 2017). We use the notion of “algorithmic mediations” to combine Martín-Barbero’s theory of re-cognition and the role attributed to algorithms in “enact[ing] and constitut[ing] the social world” (Beer, 2013, p. 10). In what follows, we develop four dimensions of *lo popular* and how they dialogue with critical algorithm studies.

Playful Cultural Practices

Lo popular is expressed in a series of playful and embodied practices through which culture is experienced and created. Rincón and Maroquín (2018, 2019) defined popular cultures as modes of living and narrating the world that derive from corporeal sensations. Popular

cultures thus involve: “Music and dance, sexuality, everyday life, spatiality, work, festivity, ceremony, religiosity, belief, politics--extended to that which seems pre-political and even non-political--, creativity, magic, conservatism, the urban world, the rural one, violence, migration” (Alabarces, 2012, p. 32).

A key characteristic of the popular is that cultural practices co-exist and are constantly combined. *Lo popular* constantly mixes references from the media and local customs and traditions, a point also made by Hall (2016). In this sense, popular cultures are always hybrid and impure in the sense that they depart from hegemonic views of what is clean, normal, and correct (García Canclini, 1989).

A focus on *lo popular* diverges from the established notion of algorithmic universal effects. Popular cultures have materialized into long-standing traditions that are both shaped by and shape people’s relationship with ideas, artifacts, and knowledge (Bar et al., 2016). In the case of Latin America, these cultural practices and traditions have resulted from particular infrastructures (or lack thereof), certain economic conditions, and the primacy of communities in the experience of the world.

These reflections offer important insights for a popular theory of algorithms. *Lo popular* brings to the fore long and complex histories that shape people’s relationship with artifacts (G. C. Silva, 2019). Work on datafication has identified a discrepancy between commercially driven initiatives and those that could respond to the needs of people and communities. Thornham (2019) refers to these discrepancies as “algorithmic vulnerabilities.” Studies informed by popular theories of algorithmic mediations could examine how these vulnerabilities are created, maintained, experienced, and challenged rather than assuming them at face value or presenting them as universal products of datafication.

The algorithm-culture relationship has gathered attention from scholars interested in “the *connections* that constitute what matters most about algorithms: their integration in practices, policies, economics, and everyday life” (Slack & Hristova, 2020, p. 16). However, these studies have tended to focus on what algorithms do to culture rather than the other way around. When researchers have written about “algorithmic cultures,” it has usually been to show how algorithms are implicated in the reorganization of cultural dynamics or in “[shaping] tastes and manipulating the circulations of popular culture” (Beer, 2013, p. 63). As a supplement, we vindicate the need to study “*popular* algorithmic cultures” that account for *both* the role of algorithms in shaping cultural categories and that *also* situate people’s systems of thought and practices within the specific cultural conditions in which algorithmic use takes place. Recognizing how algorithms and popular culture shape each other could shed light on the conditions that make the rise of certain algorithmic mediations possible in the first place.

Some work on so-called social media “influencers” has shown the playful relationship that people with certain skills establish with algorithms. Cotter (2019), for example, argues that Instagram “influencers” are not “gaming the system” but rather “playing the game.” Considering how the Argentinian government interpreted one tweet posted by a citizen, Gindin and colleagues (2021) posited the notion of a “meaning gap” (*desfase de sentido*) to theorize the differences in how algorithms are produced and appropriated. In their view, this gap is the site where cultural practices emerge that are constitutive of communication exchanges. We argue for turning these insights into a more explicit agenda that focuses on the playful combination of cultural practices. For example, studying the use of streaming platforms in the domains of music and television would imply examining the mix of common reactions provoked by certain

recommendations in audiences: complicities, provocations, irreverences, fantasies, and desires. In short, from a popular perspective, algorithms are themselves a melodrama.

In addition to the study of algorithmic mediations *in culture*, Seaver (2017) argued for considering algorithms *as cultures* in themselves. For Seaver (2017), whereas the former approach conceives of algorithms and culture as intrinsically different (although mutually dependent), the latter positions algorithms not as “unstable objects, culturally enacted by the practices people use to engage with them” (p. 5). This suggests that the ontology of technologies is a product of practice: algorithms are brought into being constantly in multiple ways. Building on Seaver (2017), we argue that more empirical analyses are needed to account for how this flexibility is achieved in practice. More precisely, we follow this invitation to study algorithms not only as culture but more precisely as enactments of *popular* culture. This perspective could apply to studies of both developers and users of algorithms, and the junctions where they meet.

The study of algorithms *in* and *as* popular culture requires a thorough consideration of methods. Ethnography, with its holistic, broad, and open nature, can “shed light on the complex intermingling of social, cultural, and technological aspects of computational systems in our daily lives” (Christin, 2020, p. 7) and, in this way, become a useful tool in the process of turning notions such as algorithmic power, data colonialism, and surveillance capitalism from theoretical premises to empirical products. Recent studies have shown the potential of methods such as diaries, drawings, scrollbar techniques, and so-called digital methods in revealing the unstated and taken-for-granted nature of users’ lively relationships with algorithms (Caliandro, 2018; Risi et al., 2020; Siles, Espinoza-Rojas, Naranjo, et al., 2019; Siles, 2020). Most research about algorithms has been conducted in the United States and has focused on young users. But examining algorithms through the lens of *lo popular* would require fieldwork in a wider diversity

of places and spaces, and particularly with underrepresented populations. It would also require a much more explicit discussion of the cultural and historical specificities in which both algorithms and culture come to exist and relate. This, we argue, could help further understand “popular algorithmic cultures” in their diversity, that is, to recognize that not all algorithms are the same, not all the cultures where they are used are equal, and not all the results from the intersection between cultures and algorithms are identical.

Imagination

Imagination is essential to understand how algorithms both are and become part of popular cultures. It embodies a capacity to conceive of future action trajectories; it highlights actors’ capacity to distance themselves from the past and “negotiate their paths toward the future” (Emirbayer & Mische, 1998, p. 984) by creating new possibilities for thought and action.

Imagination has become central in work on the appropriation of digital technologies in the epistemic Souths. These accounts suggest that there is not a single way to understand what technologies are. A prominent example is the notion of *jugaad* or everyday hacking in India. For Rai (2019), *jugaad* offers an alternative to neoliberal notions of innovation by embodying an “ethics of becoming in India’s caste--and gender--stratified smart/data cities” (p. x). There are numerous equivalents to *jugaad* as embodied capacities to imagine new trajectories for artifacts and ideas that enact long-standing cultural traditions in Latin America, such as *gambiarra* in Brazil or the ingrained attitudes of invention and practical problem resolution in places such as Cuba, which Oroza (2012) theorizes as practices of technological disobedience in the context of an architecture of necessity.

In Freire's (2000) pedagogy, imagination is not fantasy: it is directly related to the possibility to act and transform the world. To imagine, to know, and to transform the world are inseparable. Decolonial theorists have also devised analytical strategies for disempowering binary forms of thinking (Harding, 2016). The notion of creating knowledge that is otherwise, or "another" knowledge, appears recurrently in decolonial writings as an alternative to conventional modern Western conceptual and political frameworks.

Imagination as an intrinsic part of popular knowledge is a productive way to examine algorithmic mediations. Imagination and knowledge formation can be envisioned as mutually dependent attempts to reverse the epistemic order of domination based on datafication and on what can be considered an algorithmic "will to know": the epistemic basis for the production of "algorithmic truths" (Ricaurte, 2019). Imagination also allows understanding how people experience algorithms: it is a part of how people relate to them (by finding places for them in their daily life), but also in how people anticipate their arrival in their lives "before" actually using them and how they conceive of their implications for social relationships with others "after" they use them (Siles, 2023).

Some work in critical algorithm studies has begun prioritizing an empirical investigation of imagination. A growing group of studies has focused on the systems of thought (theories, imaginaries, understandings, beliefs, and expectations) that people have about algorithms and how these ideas shape their actions. Most--although not all--studies of this type have relied on methods such as interviews, focus groups, and surveys. Some have focused on the notion of "folk theories," that is, the "intuitive ways of thinking about things or issues, which are rooted in evolving practices and experiences, and are functional for individuals who adopt them" (Siles et al., 2020, p. 2). For example, a study in Chile showed how local contexts and values shaped

people's folk theories of data surveillance technologies (Tironi & Valderrama, 2021). In this way, the authors argue, users problematized the ideologies inscribed in algorithmic systems. More broadly, Segura and Waisbord (2019) contend that how people imagine surveillance in Latin America needs to be contextualized in the longer history of statal deployment of operations for collecting data about populations over the past fifty years (or lack thereof).

Authors have used the notion of "algorithmic imaginaries" in a similar way. Bucher (2018) defined these as "ways of thinking about what algorithms are, what they should be, how they function, and what these imaginations, in turn, make possible" (p. 113). A key insight from this body of work is the notion that people do not relate to algorithms in the same way. Similar to folk theories, imaginaries are contextual to the places and histories in which they are situated. They reflect patterns in how users think and how they behave in relation to those ideas.

Despite the interest the notions of folk theory and imaginaries have generated, we know little of how popular imagination, everyday hacking practices, and practical knowledges to resolve daily situations in relation to algorithms vary from place to place (Cotter, 2019; Kim et al., 2021). Moreover, comparative studies are required to transcend assumptions about the generalizability of certain algorithmic imaginaries across technocultural formations. By considering imagination as intrinsically tied to the possibility of acting and transforming the world (Freire's point), research could also go beyond the mere recognition that people think about algorithms in certain ways and interrogate instead how race, ethnicity, and class are implicated in folk theories and algorithmic imaginaries, and how this translates into particular modes of knowing, transforming, and resisting datafication.

Resistance

Resistance has historically occupied a central place in the British cultural studies tradition. As Fiske (2005) put it, “popular culture is made in relationship to structures of dominance. This relationship can take two main forms—that of resistance or evasion” (p. 2). This approach shares with Latin American scholarship a focus on resistance as rooted in the collective and the everyday. Both intellectual traditions have also sought to uncover the various strategies that people use to ensure their personal and collective survival. Both emphasize how, in contexts of scarcity and precarity, the joyful, irreverent, or burlesque can become resources of ordinary resistance (de Certeau, 1984).

One way to further this understanding through a popular perspective is Chicana scholar Chela Sandoval’s (1994) re-reading of the cyborg category. Sandoval wondered what resistance and oppositional politics of oppressed subjects meant at the turn of the century, in the face of economic, political, and cultural transnationalization. She concluded that oppositional and dissident consciousness must embrace methodologies that make emancipation possible. This oppositional consciousness is cyborg in the sense that it is flexible, mobile, diasporic, schizophrenic, and nomadic by nature. As Sandoval (2004) puts it, cyborg resistances create “trickster stories, stratagems of magic, deception, and truth to heal the world” (p. 87).

Work on *lo popular* also foregrounds the carnivalesque character of resistance. Rincón and Rodríguez (2015) theorized the carnivalesque as a form of dissidence. The popular, always polyvalent, is the interstitial space where the game, the grotesque, and the spectacular thrive. In this view, submission, subversion, and pleasure are not necessarily contradictory. Thus, *lo popular* simultaneously entails a form of narrative, an aesthetic experience, and a subaltern ethics. Corporeality and embodiment imply that, as a performative act, *lo popular* is an

expression of difference and diversity. In this way, subjectivities both resist and subsist through the corporeal character of their marginal experiences.

There has been an increasing interest in resistance in critical algorithm studies. Research has made visible the range of ordinary tactics--in de Certeau's (1984) sense--employed by users with different purposes: to disturb or obfuscate algorithmic operations (van der Nagel, 2018); to use platforms and algorithms in unanticipated ways, including making them serve opposite purposes to those they were conceived for (Velkova & Kaun, 2021); to express dissatisfaction with datafication procedures or show awareness about them to manifest agency (Siles, Espinoza-Rojas, Naranjo, et al., 2019); and to enroll algorithms as part of social movements and data justice initiatives (Dencik et al., 2016).

Theorizing popular dimensions of resistance, such as the cyborg and the carnivalesque, opens up numerous possibilities for further understanding how people resist algorithmic mediations. This can reveal how resistance is spread in everyday life through both formal and informal practices, both humor and rage. Sued and colleagues (2021) demonstrated how Latin American feminist groups have engaged in such forms of collective resistance to articulate a coherent message about issues such as the legalization of abortion and the struggle to eliminate violence against women. This has been achieved by blending algorithmic resistance and vernacular aesthetics, that is, platforms' own grammars and communication possibilities. Studies conducted in Brazil have also found that resistance to algorithmic platforms acquires meaning for workers through unofficial communication channels (such as encrypted messaging apps) where they exchange information about how to "play the algorithmic game" but also develop complex forms of solidarity (Grohmann & Araújo, 2021). In this way, people redefine themselves as employees (as opposed to platforms' official discourse that positions them as

“collaborators” or “entrepreneurs”) and claim the dignity that legal systems in their countries typically fail to provide to them (Artavia et al., 2020).

Studying resistances through the lens of *lo popular* could also emphasize the everyday experiences of women, their bodies, their bodily fluids, and their ways of circumventing the dominant logics of datafication for their enjoyment. Concurring with Nanda and Nadège (2017), the experience of the body and the ancestral are ideal starting points for understanding the relationship with technology and with others. Considerations of the body in critical algorithm studies have tended to focus on issues of representation. We argue for broadening this approach by also contemplating people’s relationship with algorithms as a corporeal experience, that is, as lived, expressed, and resisted in and through the body.

In-Betweenness

Finally, the notion of *lo popular* emphasizes how people both reproduce and resist forms of domination. This is a key for examining people’s relationship with algorithms. At its essence, the concept of mediations invites a consideration of “in between” spaces or, as Rincón and Marroquín (2019) put it, “the simultaneous occurrence of resistance *and* complicity, challenge *and* obedience, ancestral *and* modern issues” (p. 46, emphasis added). Underlying this approach is a conception of agency as inherently ambiguous and fluid, that is, as impossible to reduce to a single position (either the reproduction of structure or its constant change). In Martín-Barbero’s (1988) words, resistance and submission are “interlaced” (p. 462) or entangled in *lo popular*. Agency is always and simultaneously in-between spaces, positions, and worlds.

Martín-Barbero (1993) operationalized this approach by analyzing melodramas in Latin American daily life. In an Althusserian language, he saw in melodramas “the stamp of hegemony

[...] at work, precisely in the construction of an appeal that speaks to people out of the familiar conditions of daily life” (p. 218). Yet, for Martín-Barbero (1993) melodramas and television also allowed “the people as a mass to recognize themselves as the authors of their own history [and] provided a language for ‘the popular forms of hope’” (p. 240). In this way, he departed from a view of agency as an all or nothing condition by positioning mediations as a space where people could enact *both* domination *and* resistance, *both* obey *and* comply.

Similarly, García Canclini (1988) posited the notion of “transaction” to investigate how these tensions and contradictions were resolved in practice. A “transaction” referred to “a moment of political struggle, where traditional culture and contemporary social and political structures come into play and reveal accommodation, passive acceptance, and exploitation, as well as moments of resistance and invention” (Huesca & Dervin, 1994, pp. 60–61). García Canclini (1989) elaborated on this issue in his discussion of Latin American culture as the result of tensions between tradition and modernity, “high culture” and “low culture.” In this view, popular practices always express multiple temporalities.

Gloria Anzaldúa’s (1987) foundational work on the “new mestiza” articulated similar ideas. Drawing on Nahuatl language, she coined the term “*nepantla*” to refer to an “in-between” space of temporal and spatial liminality and transformation. She thus considered people who live in multiple worlds as “*nepantleras*.” Anzaldúa elaborated on the possibilities of simultaneously inhabiting and participating in various worlds. The contradictions of living in multiple cultures and groups are experienced in what she called the Borderlands. In such liminal spaces, people draw capacities to transform the worlds they inhabit without being reduced to any single one of them or without having to subscribe to a single identity.

Locating agency “in-between” challenges the way that scholars have conceived of people’s relationship with algorithms. Drawing on Foucault and Latour, researchers have envisioned power as meshed in and produced through networks or assemblages of actors, institutions, and technologies (Bucher, 2018). Yet, as they have analyzed the operations of these assemblages, it is algorithms who appear as actors and humans who, for the most part, become the recipients of this power distribution. Couldry and Mejias (2019) thus contended that datafication implies a loss of human autonomy in that it invades and erodes the conditions in which the self forms--or what they call “the space of the self” (p. 155). Similarly, most dominant approaches tend to reduce people’s action capacities to one specific set of identities defined for them through algorithmic procedures.

Exploring agency “in-between” spaces and worlds can inform analyses of the user-algorithm relationship by stressing how individuals can simultaneously resist, comply, challenge, and obey algorithms in their daily lives (Siles, 2023). Critical algorithm studies that have drawn on Stuart Hall’s classic encoding/decoding model to frame this relationship have sought to make a similar claim (Cohn, 2019). The underlying premise in these studies is that users’ relationship with algorithms is best framed as a communication interaction.

As useful as this has been, when scholars have applied Hall’s model to the case of algorithms they have also tended to reproduce a view of agency as an either/or capacity. Accordingly, they have typically assigned people to single forms of “reading” algorithms. Moreover, studies that have adopted this approach often downplay other parts of Hall’s work that are closer to Latin American work on *lo popular*. Hall himself noted that “the study of popular culture keeps shifting between [...] two, quite unacceptable, poles: pure ‘autonomy’ or total incapsulation” (2016, p. 232) and refused to reduce his position to any single one of them. As an

alternative, Hall emphasized notions of inherent contradictions, constant struggle, continuous process, and what he called the “double-stake” or “the double movement” between containment and resistance that shapes popular culture from the inside (Hall, 2016, p. 232). Hall (2016) thus concluded: “There is some part of both those alternatives inside each of us” (p. 239).

Building on these ideas, we argue that people can simultaneously enact different positions when they relate to algorithmic platforms (that is, they can follow, negotiate, and resist algorithms *at the same time*). Examining this capacity in practice is challenging but all the more necessary in the case of algorithms. Algorithmic platforms complicate “the stamp of hegemony,” as Martín-Barbero put it, in that algorithms not only offer content for people to recognize themselves but also adapt to people’s behavior constantly. Empirically, this requires revealing the ambiguities of people’s actions in relation to algorithms. It also invites a further consideration of the “transactions” with and through algorithms that both create and resolve spaces of ambiguity, that is, that are “resolved” in practice by the constant “readjustment” of both people and algorithms (García Canclini, 1988).

Going back to Anzaldúa’s reflections, establishing a relationship with algorithms can be seen as a means of “wordling” or staging the world in ways that render certain realities as natural (Omura et al., 2018). A study of the use of Spotify in Costa Rica illustrates this point. While the platform extracted and exploited their data, users *also* enacted its algorithms to negotiate belonging in both the North *and* the Global South (Siles et al., 2020). Users “forced” algorithms to comply with local rules of social interaction and public behavior (and thus rejected them when they failed to do so) *and* considered them a means to participate in global conversations about music and technology (and were thus embraced as a technology of proximity with the Global North). Reducing the discussion to either one of those positions rather than their simultaneous

performance would have failed to provide an appropriate account of how the experience of the local and the global are intertwined in algorithmic mediations.

Concluding Remarks

In this paper, we have argued for transcending the notion of universal algorithmic effects. As an alternative, we offered conceptual tools to replace the “constant generalisation of the implications of big data” (G. C. Silva, 2019, p. 86) in epistemic Souths with empirical investigations of algorithmic mediations centered on playful cultural practices, imagination, resistance, and in-betweenness in everyday life. Because most of our theoretical guides and examples come from the domain of media and communications, we think our approach could be productively applied to several algorithmic platforms in the domain of culture. Some work we have cited suggests it could also be useful in examining the experiences of workers in the so-called gig economy. Further research could reveal the extent to which automated systems finance or governance could also be examined through a popular lens.

Recent decolonial analyses have made visible the tendency in Western scholarly research to “talk about Latin American contexts [rather than] to integrate work from within this regional context into intellectual realities” (Ganter & Ortega, 2019, p. 69). By bridging work on *lo popular* and critical algorithm studies, we sought to provide conceptual tools that could help to think and theorize the realities of datafication both in the epistemic Souths and beyond.

This paper brought together two research traditions that have barely been in dialogue. Most research on the popular has been devoted to the study of practices in relation to the mainstream media or cultural products. Despite its importance for theory development in Latin America, this body of work has seldom been devoted to studying digital media (see Scolari, 2015

for an exception). Some authors have argued that this is a product of the theory's emphasis on symbolic processes (mediations) rather than material (media) (Siles, Espinoza-Rojas, & Méndez, 2019). Comparatively fewer studies of algorithmic mediations have been carried out in contexts such as Latin America and the Global South (G. C. Silva, 2019). As Rincón and Marroquín (2018) argue, Latin America's contribution to the study of (algorithmic) mediations is that “communication is a matter of re-cognition rather than cognition [...] [a view of] the popular [as] that [which] is flavorful and carnal, of tale and humor, which spares no emotions” (p. 80).

In algorithms, this approach also faces an underexplored and challenging object of study. In this context, critical algorithm studies offer a valuable supplement to acknowledge the constitutive role that algorithms have come to play in ordering the world and cultural phenomena (Beer, 2013; Bucher, 2018). Thus, by exploring their intersections, we expanded the premises of Latin American theories on *lo popular* by incorporating the main insights of empirical work on algorithmic formations, while also overcoming the “tendency to exclude scholarship stemming from outside [the Global North]” (Ganter & Ortega, 2019, p. 82) in studies of datafication and media technologies.

Establishing dialogues between *lo popular* and critical algorithm studies was not meant as a purely intellectual exercise. We argue it could generate different ways of imagining issues pertaining to algorithmic mediation that reveal the significance of the popular as a fundamental part of data assemblages' operations nowadays. We also think it could open methodological opportunities that can enrich the empirical understanding of the user-algorithm relationship within specific cultural settings.

References

- Alabarces, P. (2012). Transculturas pospopulares: El retorno de las culturas populares en las ciencias sociales latinoamericanas. *Cultura y Representaciones Sociales*, 7(13), 7–39.
- Anzaldúa, G. (1987). *Borderlands/La frontera: The new mestiza*. Spinsters/Aunt L.
- Artavia, L., Tristán Jiménez, L., Siles, I., & Ross, I. (2020). *Plataformas digitales y precarización laboral en Costa Rica. El caso de Uber y repartidores*. Fundación Friedrich Ebert América Central.
- Bar, F., Weber, M. S., & Pisani, F. (2016). Mobile technology appropriation in a distant mirror: Baroquization, creolization, and cannibalism. *New Media & Society*, 18(4), 617–636.
- Barreneche, C., Bermúdez, A. L., & Martín, J. R. (2021). Datificación en contextos de corrupción: Imaginarios sociotécnicos y prácticas de resistencia frente a sistemas antipobreza en Colombia. *Palabra Clave*, 24(3), e2434–e2434.
- Beer, D. (2013). *Popular culture and new media*. Palgrave Macmillan.
- Benjamin, R. (2019). *Race after technology: Abolitionist tools for the New Jim Code*. Polity Press.
- Bruno, F., Cardoso, B., Kanashiro, M., Guilhon, L., & Melgaço, L. (2019). *Tecnopolíticas da vigilância: Perspectivas da margem*. Boitempo Editorial.
- Bucher, T. (2018). *If.Then: Algorithmic power and politics*. Oxford University Press.
- Caliandro, A. (2018). Digital methods for ethnography: Analytical concepts for ethnographers exploring social media environments. *Journal of Contemporary Ethnography*, 47(5), 551–578.
- Christin, A. (2020). The ethnographer and the algorithm: Beyond the black box. *Theory & Society*, 1–22.

- Cohn, J. (2019). *The burden of choice: Recommendations, subversion and algorithmic culture*. Rutgers University Press.
- Cotter, K. (2019). Playing the visibility game: How digital influencers and algorithms negotiate influence on Instagram. *New Media & Society*, 21(4), 895–913.
- Couldry, N., & Mejias, U. A. (2019). Data colonialism: Rethinking big data's relation to the contemporary subject. *Television & New Media*, 20(4), 336–349.
- de Certeau, M. (1984). *The practice of everyday life*. University of California Press.
- de Sousa Santos, B. (2018). *The end of the cognitive empire: The coming of age of epistemologies of the South*. Duke University Press.
- Dencik, L., Hintz, A., & Cable, J. (2016). Towards data justice? The ambiguity of anti-surveillance resistance in political activism. *Big Data & Society*, 3(2), 1–12.
<https://doi.org/10.1177/2053951716679678>
- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology*, 103(4), 962–1023.
- Fiske, J. (2005). *Reading the popular*. Routledge.
- Freire, P. (2000). *Pedagogy of the oppressed*. Bloomsbury Academic.
- Ganter, S. A., & Ortega, F. (2019). The invisibility of Latin American scholarship in European media and communication studies: Challenges and opportunities of de-westernization and academic cosmopolitanism. *International Journal of Communication*, 13, 24.
- García Canclini, N. (1988). Culture and power: The state of research. *Media, Culture & Society*, 10(4), 467–497.
- García Canclini, N. (1989). *Culturas híbridas: Estrategias para entrar y salir de la modernidad*. Grijalbo.

- García Canclini, N. (2020). *Ciudadanos reemplazados por algoritmos*. CALAS.
- Gindin, I. L., Cingolani, G., & Rodríguez-Amat, J. R. (2021). Autoridades interpretativas: Una perspectiva teórica sobre datificación y producción de sentido. *Palabra Clave*, 24(3), 1–27. <https://doi.org/10.5294/pacla.2021.24.3.6>
- Girardi Júnior, L. (2018). From mediations to mediations: The issue of technicity in Martín-Barbero. *MATRIZES*, 12(1), 155–172.
- Grohmann, R., & Araújo, W. F. (2021). O chão de fábrica (brasileiro) da inteligência artificial: A produção de dados e o papel da comunicação entre trabalhadores de Appen e Lionbridge. *Palabra Clave*, 24(3), 1–30. <https://doi.org/10.5294/pacla.2021.24.3.8>
- Hall, S. (2016). Notes on deconstructing “the popular.” In R. Samuel (Ed.), *People’s history and socialist theory* (pp. 227–240). Routledge.
- Harding, S. (2016). Latin American decolonial social studies of scientific knowledge: Alliances and tensions. *Science, Technology, & Human Values*, 41(6), 1063–1087.
- Harsin, J., & Hayward, M. (2013). Stuart Hall’s “Deconstructing the Popular”: Reconsiderations 30 Years Later. *Communication, Culture and Critique*, 6(2), 201–207. <https://doi.org/10.1111/cccr.12009>
- Huesca, R., & Dervin, B. (1994). Theory and practice in Latin American alternative communication research. *Journal of Communication*, 44(4), 53–73.
- Kim, S., Oh, C., Cho, W. I., Shin, D., Suh, B., & Lee, J. (2021). Trkic G00gle: Why and how users game translation algorithms. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW2), 1–24.
- Martín-Barbero, J. (1988). Communication from culture: The crisis of the national and the emergence of the popular. *Media, Culture & Society*, 10(4), 447–465.

- Martín-Barbero, J. (1993). *Communication, culture and hegemony: From the media to mediations*. SAGE.
- Nanda, & Nadège. (2017). *#From steel to skin*. Fermentos.
<https://web.archive.org/web/20210505221836/https://fermentos.kefir.red/english/aco-pele/>
- Omura, K., Otsuki, G. J., Satsuka, S., & Morita, A. (Eds.). (2018). *The world multiple: The quotidian politics of knowing and generating entangled worlds*. Routledge.
- Oroza, E. (2012). Technological disobedience. *Make Shift-A Journal of Hidden Creativity*, 1(3), 50–53.
- Rai, A. S. (2019). *Jugaad time: Ecologies of everyday hacking in India*. Duke University Press.
- Ricourte, P. (2019). Data epistemologies, the coloniality of power, and resistance. *Television & New Media*, 20(4), 350–365.
- Rincón, O., & Marroquín, A. (2018). Los aportes del popular latinoamericano al pop mainstream de la comunicación. *Perspectivas de la Comunicación*, 11(2), 61–81.
- Rincón, O., & Marroquín, A. (2019). The Latin American lo popular as a theory of communication: Ways of seeing communication practices. In H. C. Stephansen & E. Treré (Eds.), *Citizen media and practice: Currents, connections, challenges* (pp. 42–56). Routledge.
- Rincón, O., & Rodríguez, C. (2015). How can we tell the story of the Colombian war?: Bastardized narratives and citizen celebrities. *Popular Communication*, 13(2), 170–182.
<https://doi.org/10.1080/15405702.2015.1021468>
- Risi, E., Bonini, T., & Pronzato, R. (2020). Algorithmic media in everyday life. An experience with auto-ethnographic student diaries. *Etnografia e Ricerca Qualitativa*, 13(3), 407–422.

- Sandoval, C. (1994). Re-entering cyberspace: Sciences of resistance. *Dispositio*, 19(46), 75–93.
- Sandoval, C. (2004). Nuevas ciencias. Feminismo cyborg y metodología de los oprimidos. In B. Hooks, A. Brah, C. Sandoval, & G. Anzaldúa (Eds.), *Otras inapropiables: Feminismos desde las fronteras*. Traficantes de sueños.
- Scolari, C. A. (2015). From (new) media to (hyper) mediations. Recovering Jesús Martín-Barbero's mediation theory in the age of digital communication and cultural convergence. *Information, Communication & Society*, 18(9), 1092–1107.
- Seaver, N. (2017). Algorithms as culture: Some tactics for the ethnography of algorithmic systems. *Big Data & Society*, 4(2), 1–12.
- Segura, M. S., & Waisbord, S. (2019). Between data capitalism and data citizenship. *Television & New Media*, 20(4), 412–419.
- Siles, I. (2023). *Living with algorithms: Agency and user culture in Costa Rica*. MIT Press.
- Siles, I., Espinoza-Rojas, J., & Méndez, A. (2019). La investigación sobre tecnología de comunicación en América Latina: Un análisis crítico de la literatura (2005-2015). *Palabra Clave*, 22(1), 12–40.
- Siles, I., Espinoza-Rojas, J., Naranjo, A., & Tristán, M. F. (2019). The mutual domestication of users and algorithmic recommendations on Netflix. *Communication, Culture & Critique*, 12(4), 499–518.
- Siles, I., Segura-Castillo, A., Solís-Quesada, R., & Sancho, M. (2020). Folk theories of algorithmic recommendations on Spotify: Enacting data assemblages in the global south. *Big Data & Society*, 7(1), 1–15.
- Silva, G. C. (2019). North perspectives for a Better South? Big Data and the Global South in Big Data & Society. *Interações: Sociedade e as Novas Modernidades*, 37, 84–107.

- Silva, T. (Ed.). (2020). *Comunidades, algoritmos e ativismos digitais: Olhares afrodiaspóricos*. LiteraRua.
- Slack, J. D., & Hristova, S. (2020). Why we need the concept of algorithmic culture. In S. Hristova, S. Hong, & J. D. Slack (Eds.), *Algorithmic culture: How big data and artificial intelligence are transforming everyday life* (pp. 15–34). Lexington Books.
- Sued, G. E., Castillo-González, M. C., Pedraza, C., Flores-Márquez, D., Álamo, S., Ortiz, M., Lugo, N., & Arroyo, R. E. (2021). Vernacular visibility and algorithmic resistance in the public expression of Latin American feminism. *Media International Australia*.
- Thornham, H. (2019). Algorithmic vulnerabilities and the datalogical: Early motherhood and tracking-as-care regimes. *Convergence*, 25(2), 171–185.
- Tironi, M., & Valderrama, M. (2021). Descolonizando los sistemas algorítmicos: Diseño crítico para la problematización de algoritmos y datos digitales desde el Sur. *Palabra Clave*, 24(3), 2.
- van der Nagel, E. (2018). ‘Networks that work too well’: Intervening in algorithmic connections. *Media International Australia*, 168(1), 81–92.
- Velkova, J., & Kaun, A. (2021). Algorithmic resistance: Media practices and the politics of repair. *Information, Communication & Society*, 24(4), 523–540.
- Willson, M. (2017). Algorithms (and the) everyday. *Information, Communication & Society*, 20(1), 137–150.