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Descolonizar a computação

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Interview (<http://digilabour.com.br>)

Interview conducted by Rafael Gröhmman, a researcher at University of São Paulo, about my research in decolonial computing and algorithmic racism. Interview published (in Spanish) on 18 April 2019 on DigiLabour a newsletter/blog on technology and the world of work / digital labour.

NB – This is a DRAFT version of the interview which differs from the published version in length and insofar as it contains references to published works.

1. What does it mean to decolonize computing? And what are your latest findings on this issue?

In offering an answer to this question, I should like to begin by distinguishing my own approach from that of others including those who participated in a workshop that convened in 2016 in the Department of Media, Culture, and Communication at New York University featuring scholars Simone Browne, Anita Say Chan, Lilly Irani, Lawrence Liang, and Jack Qiu (Chakravartty and Mills 2018). Decolonizing computing tends to be framed by such scholars in terms of exploring the kind of computing being done in the periphery / at the margins (or borders) of the modern/colonial world system informed by a praxis-based commitment to radical decentring. In this connection, Chan (2018) maintains that “decolonialists posed the significance of how cultivating a politics of decentralization – and a decentring of the self as expert and knowledge practitioner – might offer an affront to modernity’s domination and its politics of self-replication through the occupation of other epistemologies.” (p.2), referring to various Latin American interdisciplinary network cultures characterized by “a de-centring politic, less concerned with a replication of its own ‘centres’” (p.3). However, I remain somewhat undecided about the need to commit to decentring *per se*, being more concerned with decentring Eurocentrism *cum* West-centrism *cum* core-centrism; on my reading of ‘pluriversality’ as an alternative to Eurocentric universality, for example, it might be that a post-Eurocentric world might assume ‘poly-centric’ form, although I understand the latter somewhat differently to the way it is understood by Third-World Marxist theorist Samir Amin.

Inspired by currents within Heideggerian phenomenology, critical race theory and decolonial thought, my own work in ‘decolonial computing’ (Ali 2014, 2016a) is informed by an attempt to “decolonially question concerning computing” asking *whether* computing needs to be decolonized, and if so, *how* such decolonization should be effected. At the outset, it might appear somewhat of a stretch to describe computing as ‘colonial’ given that colonialism as a phenomenon tied up with imperial structures of domination and settlement is a thing of the past. In short, how *can* computing be colonial if the “age of empires” is over and we live in a postcolonial world? In my earlier attempts at articulating what I mean by ‘decolonial computing’, I argued that insofar as computing is a modern phenomenon, and modernity is founded upon and remains entangled with colonialism and its facilitating structural logics – what decolonial theorists refer to as ‘coloniality’ – then it might be that computing continues to bear the ‘legacy systemic’ traces of colonialism; in short, computing is a modern/colonial phenomenon. This applies to specific kinds of computing such as pervasive and ubiquitous computing – including more recent networked developments such as the Internet of Things (IoT) – which have been said to be driven by a “colonial impulse” (Dourish and Mainwaring 2012), as well as computing more generally.

If this line of argument is sound, one is led to inquire along similar lines to that pursued by Chakravartty and Mills (2018), viz. “If computing technology is the embodiment of

rational calculation and a driver of twenty-first century capitalism, can it indeed be ‘decolonized’ – overhauled or appropriated for other ends?” (p.2) While I think it is possible that computing can be dis-articulated (de-linked, decoupled etc.) from capitalism – or rather, *racial* capitalism since capitalism cannot be understood as separate from race/racism/racialization in the context of the modern/colonial world system – and the initiatives explored by those scholars mentioned at the start of my answer provide concrete evidence of this, I am inclined to think that focusing on such peripheral/marginal/border developments, as important as they are, detracts from the necessity of “taking the war to the core”, by which I mean effecting the decolonization of computing at its point of origin, hegemonic articulation and centrifugal neo-colonial manifestation. For this reason, and as someone currently geopolitically located in the core, yet body-politically – and as a Muslim, *theo-cum-ego-politically* – marked as peripheral / ‘other’, I tend to focus my ‘disruptive’ efforts at interrogating mainstream computing in terms of its ongoing expansive operation as a phenomenon informed and inflected by colonial logics with a view to thinking about the implications of such developments for, and from the vantage point of, those located at the margins (borders, periphery). In this connection, I have previously suggested that practitioners and researchers adopting a decolonial computing perspective are required, at a minimum, to do the following: Firstly, consider their geopolitical and body-political orientation when designing, building, researching, or theorizing about computing phenomena. Secondly, embrace the “decolonial option” as an ethic, attempting to think through what it might mean to design and build computing systems with and for those situated at the peripheries of the world system, informed by the ways of thinking and knowing (epistemologies) located at such sites, with a view to undermining the asymmetry of local- global power relationships, and effecting the decentring of Eurocentric/ Western-centric universals. However, to return to the original question, viz. “what does it mean to decolonize computing?”, I think there is also a need to think about the desirability or otherwise of centring computing *per se*, irrespective of whether in its (racial) capitalist, postcolonial or decolonial forms; in my opinion there has been insufficient decolonial scrutiny, let alone decolonial interrogation, of the embrace of computerization – latterly digitalisation and/or ‘datafication’ – something which I have begun to address in more recent work.

In this connection, and building on earlier work sketching out the terrain of engagement with mainstream/core computing phenomena wherein I pointed to the scope of decolonial computing as extending beyond the critique of the IoT, pervasive and ubiquitous computing to include various other computing phenomena such as AI and robotics, I have attempted some preliminary decolonial computing interrogations of Internet governance and Big Data / datafication. In both contexts, my concern has been to unpack how the phenomena are discursively constructed vis-à-vis geopolitical, body-political and other issues.

With regards to Internet governance (Ali 2018a), I have drawn attention to three matters that I suggest are ‘entangled’ with the issue of ‘alignment’ which I maintain constitutes a preeminent site for the operation of racialized coloniality: (1) how Internet governance is discursively-framed, by whom and for what purposes. My concern is to explicate, through close, decolonial reading, the tacit, yet possibly unintentional, operation of colonial logics in certain views about Internet governance articulated by mainstream and dominant voices geopolitically located in the Global North and body-politically marked as white; (2) the relation of prior, extant *long durée* network formations – social, political, economic, technological, cultural etc. – to emerging socio-technical networks such as the Internet,

web and social media vis-à-vis reproduction of world systemic power-relations; and (3) the persistent yet masked illiberalism of Western conceptions of liberal political and economic order under colonial modernity. Underlying this project is a concern to disclose what might be described as the operation of a tacit 'racialized colonial governmentality' within hegemonic Internet governance *discourse* with a view to preparing the ground for the decolonization of Internet governance *per se*; in addition, there is a normative (political, ethical) commitment to the forging of an Internet governance *of, by and for* the Global South rather than one framed in terms of the possibilities of 'inclusion' into an extant, incursive, hegemonically 'Northern' (that is, 'Western', West-centric etc.) system 'masked', intentionally or otherwise, through advocacy of multi-stakeholder approaches.

With regards to datafication (Ali 2018b), I have attempted what might be described as a decolonial 'meta-discursive' critique of critical data studies discourse. In this connection, my concern has been to show how the concrete historical-geographical phenomenon of European colonization of the non-European periphery (margins, borders) of the modern/colonial world system has been appropriated as a metaphor in the context of ostensibly 'critical' discourses associated with the rise of Big Data and what some commentators refer to as 'surveillance capitalism'. On my reading, such discursive moves should be seen as enacting (neo-)colonial violence insofar as they are appropriative and Eurocentric/West-centric/core-centric in tending to re-centre Global North concerns while framing them in terms of the violence historically meted out, and perpetuated, by the Global North (colonizer) on Global South (colonized) populations.

2. How to question artificial intelligence in terms of a geopolitics of knowledge?

This question is particularly interesting since I am shortly to deliver an invited lecture entitled "The Decolonial Question Concerning Artificial Intelligence" at a conference jointly organized by Cambridge Muslim College and the John Templeton Foundation in Cambridge, England (UK).

I am inclined to think that there are two 'entangled' issues to consider here: Firstly, what is meant by artificial intelligence (AI); and secondly, whether the latter phenomenon is best approached through geopolitics of knowledge.

As to the first issue, and given contemporary developments, it is useful to briefly clarify the relationship between AI and related phenomena such as machine learning (ML). One way of understanding AI is as referring to technological phenomena held to be capable of displaying intelligent traits within a circumscribed domain; ML, by contrast, refers to the use of algorithms to process and analyse data in order to learn from it and generate predictions about something in the world. In terms of the relationship between AI and ML, the latter – and more recently, Deep Learning (DL) – should be understood as a sub-field of the former. There is also a need to clarify some of the different paradigms within AI including its original symbolic and rule-based incarnations, often referred to as Good Old-Fashioned AI (GOFAI), and later connectionist approaches based on artificial neural networks as well as other biologically-inspired approaches such as situated and reactive robotics, genetic algorithms etc. I should also mention the difference between AI and what has come to be referred to as 'AGI' (artificial general intelligence), where the latter refers to technological phenomena that have achieved human-level intelligence and/or beyond. Of course, underpinning all the above, and lurking like an elephant or gorilla in the room, is the thorny issue of the meaning of intelligence and the question concerning its possible and actual range of instantiation, not to mention who gets to

determine the latter. In this sense, AI (if not ML and/or DL) should be understood as fundamentally entangled with anthropological concerns, turning on questions of – and *decisions* about – anthropocentrism, anthropomorphism etc. (Foerst 1999) (Gunkel and Cripe 2014).

With regards to the second issue, in my view it is not merely a question of the geopolitics of knowledge, but also the body-politics and the *theo-cum-ego-politics* of knowledge. Furthermore, beyond epistemological concerns, there are ontological issues to consider, as well as the entanglement of both epistemology (knowledge) and ontology (being) with power. I am inclined to think that there is a rather persistent and widespread tendency to think about intelligence as necessarily cognitive (that is, mentalistic in some sense), notwithstanding ostensible incorporation of insights pertaining to the importance of situatedness/embeddedness and embodiment within AI and related disciplines such as cognitive science. One of the implications of this cognitivist bias is that ‘race matters’ are obscured, cognition assumed to be an un-raced/race-less phenomenon whereas the historical entanglement of cognition with race/racism/racialization can be demonstrated (Mahendran 2011). In earlier work, I have suggested that even when embodiment and situatedness are taken into consideration – for example, within reactive robotics – the body tends to be framed and its embedding/situating context are framed in de-raced terms (Ali 2014, 2016a).

That said, and returning to the original question, I think that a useful way of approaching the issue of AI from a decolonial perspective is in terms of how its development and deployment within the core of the modern/colonial world system can – and *should* – be understood in relation to maintaining, expanding and refining (or adapting) hegemony under contestation, with the latter being attempted by those located in/at the periphery (margins, borders). In short, I suggest the need to ask what role can – and does – AI play in maintaining the functional operation of coloniality and/or the “colonial matrix of power” including its legacy systemic manifestation as global white supremacy; crucially, I think this question needs to be asked irrespective of whether one is considering AGI of the kind envisaged by proponents of Trans-/Posthumanism, or what might be described as ‘IA’ (intelligence augmentation/amplification) – that is, the deployment of ML and DL technologies in specific contexts including those entangled with other technologies such as the IoT etc. (Ali 2019)

3. *Speaking of decolonizing became fashionable in the Global North, with English authors, for example, speaking on this notion. How can we, on the margins, struggle against this?*

While I share concerns about decolonization being reduced to a fashionable discourse within Global North contexts and support efforts to resist any such reduction which I see as a process of colonial co-option insofar as it can re-centres the ‘core’ against the ‘periphery’ (margins, borders) of the world system vis-à-vis site of articulation, I’m inclined to think the situation on the ground is a little more complex. Firstly, I don’t think the reduction of decolonization to a fashionable discourse within Global North contexts is inevitable nor that it has been enacted within this context without encountering resistance from within (not to mention from without). Secondly, and perhaps more importantly, insofar as the structural logics underpinning the modern/colonial world system operate both locally and globally, I think we need to think about decolonizing the core (Global North) as much as decolonizing the periphery (Global South) given their

power-relational entanglement. (In this connection, I should like to refer the reader back to my answer to the first question.)

What is crucial, perhaps, is the adoption in *both* contexts – that is, core *and* periphery/margins – of a commitment to what decolonial scholars refer to as ‘the decolonial option’ which I frame as an ethical-political preferential option for those located at the margins (borders, periphery) of the modern/colonial world system with a view to effecting reparations (material and otherwise) to the Global South and decentering the hegemonic centrism of ‘the West’ / the Global North. If Global North decolonization discourse does not explicitly align itself with this orientation in thought, speech and action then I think it needs to be called out for what it is, viz. fashionable colonial co-option, by both Global North and Global South voices committed to the decolonization project where the latter is understood as a project of world re-formation / re-construction.

In short, I don’t think the problem is solely about who is generating decolonial discourse and from where, but also about why they are they doing this – that is, for what purpose. If voices in the Global North don’t take their lead from the Global South and its concerns, then at a minimum they are vacuous from a decolonial perspective, and possibly – *probably* – neo-colonial. While I am not entirely sure it is useful or appropriate for someone located in the core, albeit at its margins, body-politically speaking, to advise those geopolitically located at the periphery (margins, borders) how to struggle against co-option of the decolonial project, perhaps I might venture to suggest the importance of reiterating the necessity of embracing the decolonial option and advising decolonial actors in the Global North to think about what they might think, say and do in the core to further the decolonization project.

4. What are the characteristics of algorithmic racism and how to fight it?

In my work, I differentiate two senses of algorithmic racism, viz. one that is ‘ontic’ and another which is ontological, based on a distinction due to the philosopher Martin Heidegger. Understood ontically, algorithmic racism refers to the manifestation of racial bias in technologies incorporating algorithms. Although some commentators have argued that the generative source of such bias can be traced to human biases embedded within algorithms at the point of their design, implementation or use (Sandvig et al. 2016), others have argued that it is not so much the algorithms themselves but rather historical biases in the datasets used to train such algorithms and the classifications generated by them that are the source of the problem (Chander 2017). There is an already large and expanding literature on the subject of algorithmic racism and associated discourses such as FAT-ML (Fairness, Accountability and Transparency in ML), and it is an important phenomenon to engage with from a decolonial computing perspective; however, I tend to think that the most constructive way to do this is by situating this ontic understanding of algorithmic racism within an ontological understanding of the phenomenon, one that I have been developing in my own work (Ali 2016b, 2017a, 2017b, 2019, Forthcoming).

Understood ontologically, algorithmic racism refers to a way of conceptualizing the relationship between processes of racial formation (or racialization) within Western historical experience in relation to its (various) ‘other(s)’. Algorithmic racism, in this sense, mobilizes the figure of the algorithm as a metaphor for thinking coherently about the relationship between different discursive formations – religious, philosophical, scientific, cultural, informational (Ali 2013), algorithmic (in the ontic sense) etc. – as race

is *paradigmatically* articulated at different periods within the history of colonial modernity. Algorithmic racism is concerned with disclosing continuity through change in the *long durée* historical entanglement of 'race' and 'religion' associated with the establishment, maintenance, expansion, and refinement of the modern/colonial world system by thinking about discursive *transformations* as re-articulations or 're-iterations' of the difference between the European (white, Western) and the non-European (nonwhite, non- Western) along a programmatic trajectory of domination which decolonial scholars frame with reference to the "line of the human".

Drawing on such scholarship, in my work I refer to the origins of 'the human' – or 'Man' – as a Eurocentric religious-racial category forged through a process of hierarchical negative dialectics on the basis of an antagonistic relation with the non-European 'other' as the subhuman during the *long durée* of the 16th century, if not earlier. In addition to exploring transformations in the articulations of race, I think about algorithmic racism in terms of the shift *from* the distinction between subhuman (non-European, nonwhite) and human (European, white) *to* that between human (non-European, nonwhite) and transhuman (European, white), such shift being understood as intended to *maintain* the relational and hierarchical binary between the European and non-European, and prompted, at least in part, by certain kinds of critical and decolonial 'post-humanist' contestation of Eurocentric conceptions of the human. In this connection, and in the context of my decolonial interrogation of Transhumanism, I point to the 'algorithmic' transformation of humanism into technological posthumanism via Transhumanism as an iterative shift within the historically sedimented onto-logic of Eurocentric racialization; in short, humanism, Transhumanism, and posthumanism should be understood as iterations within the structural – that is, *relational* – logic of algorithmic racism (Ali 2019, Forthcoming).

In terms of how to fight algorithmic racism, I think a useful place to start might be to appreciate that this phenomenon can – and *should* – be understood in the above two senses – that is, both ontically and ontologically – and that any decolonial opposition to algorithmic racism needs to engage with both of them. I think this requires decolonial computing scholars, activists and scholar-activists to equip themselves with socio-technical 'tools' for understanding algorithmics, race/racism/racialization and their entanglement in and as algorithmic racism.

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