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A Decolonial Approach to AI in Higher Education Teaching and Learning

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Point of departure

- Digital technologies, and algorithms in particular, have changed not only local and global society, but also what it means to be “human” and especially what counts as such (Noble, 2018; Benjamin, 2019)
- The racialization of artificial intelligence (AI) (Cave & Dihal, 2020)
- The colonial features in algorithmic decision-making (Mohamed, Png & Isaac, 2020)

Decolonization of higher education

- e.g. Jansen 2019; Mamdani 2019; Mbembe 2016; Stein 2022; Stein & Andreotti, 2017
- Universities reproduce ideals of Eurocentric epistemologies and function in neo-colonial ways
- Universities need to dismantle the mechanisms that perpetuate the racial and colonial formations of the past—from the systems of access and management in universities, the systems of authoritative control, standardization, classification, commodification, accountancy, and bureaucratization reflected in the organizational structures, the teaching methods and assessment mechanisms of students and faculty alike, the research practices and publishing norms, the curricular content and design of courses, to the digital technologies they use (Mbembe, 2016)

Algorithmic coloniality

- The use of online platforms that are rooted in Western-centric epistemologies, ontologies, and values (Adam 2019);
- The racializing forces of/in AI technologies that are integrated into many aspects of teaching and learning such as writing instruction and assessment (Dixon-Román, Nichols and Nyame-Mensah 2020);
- The use of global university rankings that are driven by algorithms which are embedded in a colonial, neoliberal and Western-centric imaginary of higher education (Shahjahan, Ramirez and Andreotti 2017)

Questions

- What does a decolonial approach to AI imply for higher education teaching and learning?
- How can educators, researchers and students interrogate the coloniality of AI in higher education?
- Which strategies can be useful for undoing the ethics of digital neocolonialism in higher education?

Coloniality and colonialism (Maldonado-Torres, 2007)

*Coloniality is different from colonialism. Colonialism denotes a political and economic relation in which the sovereignty of a nation or a people rests on the power of another nation, which makes such nation an empire. **Coloniality, instead, refers to long-standing patterns of power that emerged as a result of colonialism, but that define culture, labor, intersubjective relations, and knowledge production well beyond the strict limits of colonial administrations. Thus, coloniality survives colonialism. It is maintained alive in books, in the criteria for academic performance, in cultural patterns, in common sense, in the self-image of peoples, in aspirations of self, and so many other aspects of our modern experience. In a way, as modern subjects **we breathe coloniality all the time and every day.***** (p. 243)

The new “sites” of coloniality

- Algorithmic decision systems; the use of big data
- Digital territories that, like physical spaces, have the propensity to become sites of extraction and exploitation, and thus sites of digital-territorial coloniality (Mohamed et al., 2020)
- **For example:** predictive policing and algorithmic sentencing, facial recognition, the use of digital technologies for discriminatory resource allocation, surveillance technologies, and racialized hiring through software engineering practices.

Some terms

- **Digital neocolonialism:** *'the use of information technology and the internet by hegemonic powers as a means of indirect control or influence over a marginalized group or country'* (Adam 2019, 370)
- **Data colonialism** (Couldry and Mejias 2019, Milan and Treré, 2019, Ricaurte 2019): the appropriation of data as a material resource for economic profit
- **Algorithmic coloniality:** the ways in which algorithms are used to perpetuate coloniality; *'how coloniality features in algorithmic decision-making systems as they generate new labor markets, impact geopolitical power dynamics and influence ethics discourse'* (Mohamed et al., 2020, 666).

A decolonial framework of AI

[D]ecolonial computing attempts to engage with the phenomenon of computing from a perspective informed by (even if not situated at) the margins or periphery of the modern world system wherein issues of body politics and geopolitics are analytically foregrounded. Put differently, decolonial computing, as a critical project, is about interrogating who is doing computing, where they are doing it, and, thereby, what computing means both epistemologically (that is, in relation to knowing) and ontologically (that is, in relation to being).

(Ali, 2016, 20)

A decolonial ethics of AI

Advocate for diversity in technology and co-founder of "Black in AI", a community of Black researchers working in AI.



The claim of “AI for social good” is rooted in mythology and colonial legacies

A decolonial approach to AI for “social good”

- The power asymmetries underpinning “**AI for social good**” initiatives; the colonial ethics and rationality that has always been embedded in the measurement and classification systems of the empire in order to control colonial subjects (Madianou 2021, Mbembe 2017)
- The present model of biometrics that is used in AI was initially introduced in British colonies (Hantel 2018)

Examples

- Global university rankings are very much embedded and sustained within a broader colonial, neoliberal and Western-centric imaginary of higher education (Shahjahan, Ramirez and Andreotti 2017)
- The racializing forces of/in AI technologies are integrated into many aspects of teaching and learning such as writing instruction and assessment (Dixon-Román 2020)
- Synthetic governance: Human and machine governance in education (Gulson, Sellar and Webb 2022)
- **“Digital structural violence”** in AI technologies: the exclusion of marginalized learners in the design of learning systems (Winters, Eynon, Geniets, Robson and Kahn 2020)

An ethical framework for AI in education (*The Institute for Ethical AI in Education*)

- AI should be used to achieve well-defined educational goals based on strong societal, educational or scientific evidence that this is for the benefit of learner;
- AI systems should be used in ways that promote equity between different groups of learners and not in ways that discriminate against any group of learners;
- AI should be used to increase the level of control that learners have over their learning and development.

Strategies towards decolonial AI ethics in higher education teaching and learning

1. Historicizing AI and digital technologies as affective, material and political assemblages of coloniality and racism that highlight the need to re-design AI in terms of decolonial ethics;
2. Nurturing practices of ethical solidarity towards those who suffer the negative impacts of AI;
3. Creating renewed affective and political communities that cultivate decolonial ethics in the development and use of AI

Conclusion

To create spaces in which the coloniality of AI is not only critically questioned, but also alternative solutions are provided to the current ethical problems with how AI is developed and used in higher education.