

# Decolonising Computing in UK Higher Education

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## Decolonising Computing (?)

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# More Questions

- ***What* does** it mean to *decolonise* computing?
- ***Who* is** carrying out this activity?
- ***Where* is** this activity being carried out?
- ***How* is** this activity being carried out?
- ***Why* is** this activity being carried out?
- ***What* should** it mean to *decolonise* computing?
- ***Who* should** be carrying out this activity?
- ***Where* should** this activity be carried out?
- ***How* should** this activity be carried out?
- ***Why* should** this activity be carried out?

# Yet More Questions

- *Is* computing being decolonised? *Can* computing be decolonised? *Is* computing *colonial*?
- Isn't it somewhat of a stretch to describe computing as *colonial*, especially since colonialism as a phenomenon tied up with imperial structures of domination and settlement is a thing of the past?
- How can computing be colonial if the 'age of empires' is over, and we live in a *postcolonial* world?

# 'The World' of and Computing



- “We **normalized** the belief that **the world is irrelevant next to computing** precisely **through the structure of our curriculum.**”
- “We need to do better and be willing to inform both our work and our thinking, with the more nuanced, **historically grounded**, empirically supported thinking of the **social sciences.**”

Connolly, R. (2020) Why Computing Belongs Within the Social Sciences. *Communications of the ACM* 63(8): 54-59

# Computing and/as World-Making

- Computing contributes to world-making through the building of **infrastructure**
- Our students will go on to work as **practitioners**, shaping and deploying computing technologies within a range of contexts
  - Need to equip them with the ability to understand the need to make worlds *otherwise* (that is, differently)
  - Need to understand and explain to them what is meant by
    1. Computing
    2. ‘The World’
    3. The relationship between (1) and (2)

# Colonialism (as World-Making)

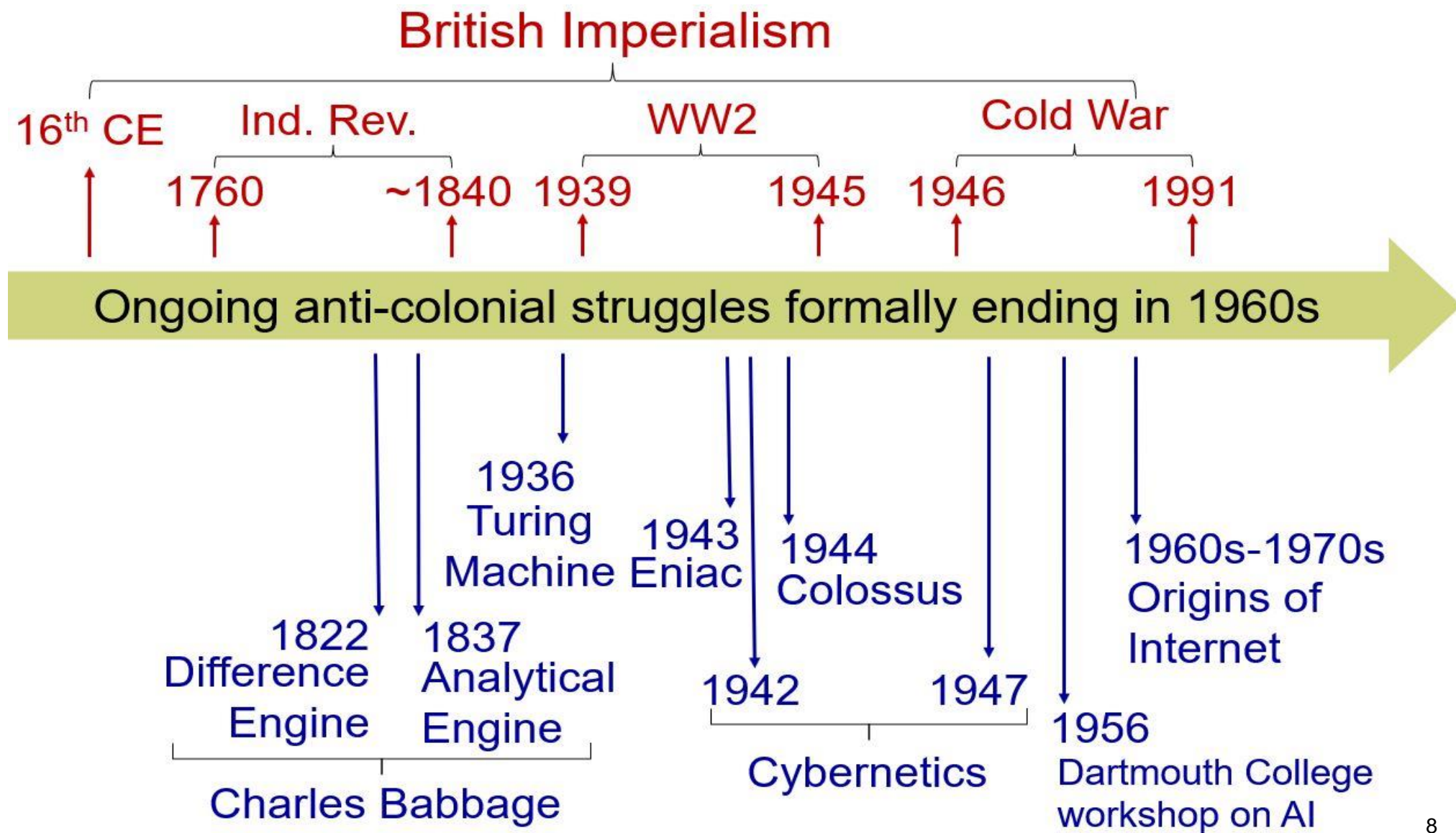
- Modernity as **a colonially-constituted system** emerging during *long durée* of 16<sup>th</sup> century through European colonial expansion commencing in 1492 CE
- Race/racialisation as **central organizing principle**



# Postcolonialism and Coloniality

- Colonialism as a project of European political domination formally ends with the national liberation and independence movements of the 1960s
- Ongoing legacy of colonialism in contemporary societies in the form of social discrimination that has outlived formal colonialism and became integrated in succeeding **postcolonial** social orders (core and periphery)
- Practices and legacies of European colonialism in social orders and forms of knowledge
  - i.e. persistent structuring logics of **coloniality**

# The Coloniality of Computing





# 'Colonial Impulse' of Computing

“... colonialism is a much more **pervasive** aspect of ubiquitous computing than we normally give it credit for. In fact, it is **entwined** with all sorts of aspects of how we think, how we talk, and how we work in ubiquitous computing.” (Dourish and Mainwaring 2012)



computing

world system

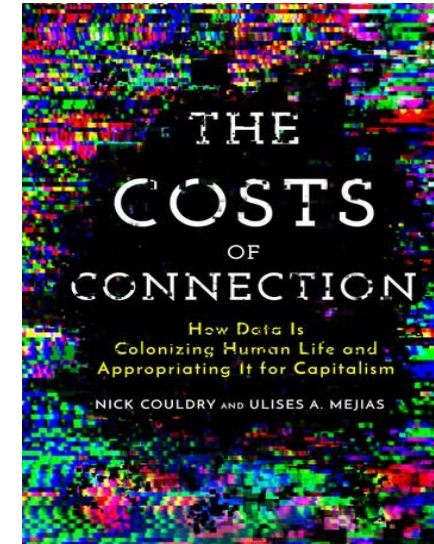
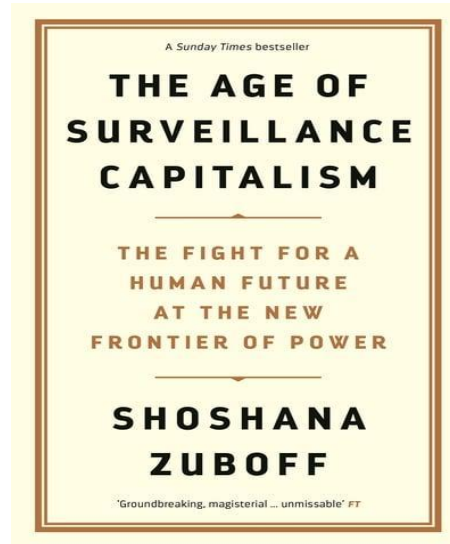


computing ↔ world system

# Digital/Data Colonialism

INDVSTRVS

ABOUT US TRIBES CULTURE CHOCK RUBEN GOLDBERG SHOP COMMUNITY



RUBEN GOLDBERG TECHNOLOGISTS

## Data is the New Colonialism

June 20, 2017



News ▾ AJ Impact Documentaries

## Digital colonialism and decentralisation

Published by Andres Guadamuz on December 30, 2017

OPINION / SCIENCE & TECHNOLOGY

## Digital colonialism is threatening the Global South

*It's time to talk about Silicon Valley as an imperial force and what has to be done to resist its power.*



by Michael Kwet

13 Mar 2019



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'Digital colonialism': why some countries want to take control of their people's data from Big Tech

September 26, 2019 1:10pm BST

# A Provocation

“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?”

(Chakravartty and Mills 2018, p.2)

Chakravartty, P. and Mills, M. (2018) Virtual Roundtable on ‘Decolonial Computing’. *Catalyst: Feminism, Theory, Technoscience* 4(2), 1-4. <http://www.catalystjournal.org> | ISSN: 2380-3312.

# Decolonial Computing

feature

## A Brief Introduction to Decolonial Computing

Does computing need to be decolonized, and if so, how should such decolonization be effected? This short essay introduces a recent proposal at the fringes of computing, which attempts to engage these and other related questions.

By Syed Mustafa Ali

DOI: /10.1145/2930886

Does computing need to be decolonized, and if so, how should such decolonization be effected? What these and other related questions point to is the possibility that computing is—or at least should be considered as—a colonial phenomenon. But what does it mean for something to be “colonial”? Critical positions such as feminism and disciplines such as science and technology studies afford insights into the social, economic, political, cultural, and other factors impinging on computing as an entangled outgrowth of various developments within fields such as logic, mathematics, science, and technology. Yet surely it is somewhat of a stretch to describe computing as “colonial” (whatever that might be taken to mean), especially since colonialism as

a phenomenon tied up with imperial structures of domination and settlement is a thing of the past? How can computing be colonial if the “age of empires” is over and we live in a post-colonial world?

In what follows, I begin by sketching a brief history of the modern world before presenting an argument as to why I think computing should be understood as colonial. I then go on to explore one recent response to this situation, namely “postcolonial computing,” and point to some perceived limitations with this approach. This leads to a discussion of ideas associated with “decolonial” thinking and my proposal of a “deco-

lonial computing.” Some of the ways in which decolonial ideas might be applied to computing phenomena are briefly discussed, and one way in which decolonial computing might be extended is outlined. I conclude by summarizing what I take to be the key insights of decolonial computing for theorists and practitioners.

In order to motivate engagement with the idea of computing as a colonial phenomenon, it is necessary to excavate the history—or rather, genealogy—of modernity, and one way of proceeding in this regard is to consider the formation of a contemporary world system in terms of its socio-political ontology (that is, its nature or being).

### UNPACKING FIVE CENTURIES OF COLONIALISM

According to seminal world system theorist Immanuel Wallerstein, the history of the modern world system has been in large part a history of the expansion of European states and peoples into the rest of the world, commencing with the so-called Columbian “voyages of discovery” in 1492 CE, which resulted in the emergence of a capitalist world-economy. In order to understand the nature of this expansionist project, two key terms require unpacking: colonization and colonialism.

Colonization (from the Latin *colere*, “to inhabit”) refers to an ongoing process of control by which a central

Image by Pexels/unsplash.com

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- Ali, S.M. (2018) Prolegomenon to the Decolonization of Internet Governance. In *Internet Governance in the Global South: History, Theory and Contemporary Debates*. Edited by Daniel Oppermann. São Paulo: International Relations Research Center, Núcleo de Pesquisa em Relações Internacionais (NUPRI), University of São Paulo, pp.109-183.
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- Ali, S.M. (2014) Towards a Decolonial Computing. In *Ambiguous Technologies: Philosophical issues, Practical Solutions, Human Nature: Proceedings of the Tenth International Conference on Computer Ethics – Philosophical Enquiry (CEPE 2013)*. Edited by Elizabeth A. Buchanan, Paul B. de Laat, Herman T. Tavani and Jenny Klucarich. Portugal: International Society of Ethics and Information Technology, pp.28-35.



# Computing as Sociotechnical

- The sociotechnical has three entangled aspects:
  1. Social (human)
  2. Technical (technological, artefactual)
  3. Organisational (configurational, ordering)
- CLAIM: **all** computing is sociotechnical in nature
- This means that those sub-domains within computing that appear **purely** abstract (formal, immaterial, disembodied, un-situated) and mathematical need to be understood as emerging from a (tacit) *a priori* 'bracketing' of the social from consideration, viz.

[socio-]technical

# (Neo-)Colonial Computing Circuits

“[We can trace the ] global life cycle of a typical laptop computer or cell phone **from** its material origins in rare earth element mines in Africa and South America, **to** its manufacture and assembly in the factory cities of China, **through** its transportation and distribution to retail stores and households across America, and finally **to** its eventual disposal in places like the slums of Agbogbloshie, Ghana...”

(Ensmenger 2013, p.80)

From the **core** (demand, design) to the **periphery** (supply, Sourcing, and construction) to the **core** (consumption) to the **periphery** (disposal)

Ensmenger, N. (2013) Computation, Materiality, and the Global Environment. *IEEE Annals of the History of Computing*. July 2013 <https://doi.org/10.1109/MAHC.2013.33>

# Computing and World-Systems

- It is only by adopting a ***world-systems*** perspective, wherein local-global entanglements and asymmetries of power and the flows of resources are considered that the possibility of developing a decolonised computing can arise.
- Need to think about computing in terms of
  - political **economy** (industrialised racial capitalism)
  - political **ecology** (energetic/metabolic configurations of power)
  - political **theology** (hegemonic/dominant exercise of sovereignty)
- EDI **necessary** yet **insufficient** for decolonising computing

# Decolonial Commitments

Two basic commitments:

- 1. epistemological** embrace of the ‘**decolonial turn**’ involving ‘de-linking’— that is, de-centring of Eurocentrism (West-centrism, North-centrism) as the pre-eminent site of knowledge production
- 2. ethical-political** embrace of the ‘**decolonial option**’ involving a preferential option toward those situated in the margins/periphery of the modern/colonial world system with a view to effecting reparations/ compensation and seeking redress for legacy systemic effects of colonialism



# Decolonial Computing Maxims

Practitioners and researchers adopting a decolonial computing perspective are required, *at a minimum*, to do the following: (Ali 2016)

1. Consider their **geo-political and body-political orientations** when designing, building, researching or theorizing about computing phenomena
2. Embrace the ‘decolonial option’ as a **compensatory ethics**, 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 epistemologies located at such sites, with a view to **undermining the asymmetry of local-global power relationships** and effecting the ‘decentering’ of Eurocentric / West-centric universals

# Concluding Provocations

- Decolonisation is **not** a metaphor (Tuck & Yang 2012)
  - it is **always** a **violent** phenomenon (Fanon 1961)
  - it involves material reparations/compensation and repatriation (of land) → reconfiguration of **power** and **resources**
- 1. Reparations
- 2. Anti-Capitalism
- 3. De-Growth
  - De-Computerisation
    - De-Digitalisation
      - De-Datafication etc.