Tech Colonialism Today

Sareeta Amrute's keynote talk at EPIC2019

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On Sunday November 10, 2019, Data & Society Director of Research Sareeta Amrute presented the following keynote talk on tech colonialism at EPIC2019.

We are here today to consider whether we, as anthropologists and research practitioners, may be part of industries that are colonial. And if our industries are colonial enterprises, we will consider what we can do about it. "To make something well," Ursula Le Guin tells us, "is to give yourself to it, to seek wholeness, to follow spirit. To learn to make something well can take your whole life. It's worth it."

Let's see if we can make something well, together.

To begin my talk then, I would like to acknowledge that we are today on the territory of the Narragansett and Wampanoag peoples, on the island of Aquidnet or possibly Aquidneck, on the continent known as Turtle Island. I would also like to acknowledge the braided histories of slaves and freed slaves who settled these lands, and the intertwining of those histories with the stories of immigrants who work in the kitchens, the houses, and the fields on Aquidnet Island.

Why do we do a land acknowledgement? The land acknowledgement comes from the desire of many native people across the United States and Canada to enter into the stream of public discourse, not as noble memory long past or as a social problem, but as the progenitors of an ongoing relationship between people, land, and social and technical world. We do a land acknowledgement to bring those voices and that relationship into these rooms. I ask permission from the elders of those communities to proceed with our convening, because we stand on Turtle Island, on unceded territory.

What was, and is, colonialism?

At its simplest, colonialism is a practice of acquiring full or partial control over another country, territory, or people, occupying it, sometimes with settlers, sometimes indirectly, and exploiting it economically. This definition is however too narrow to capture the full range of effects that are part of the structure of colonial relationships. Colonialism is also a historical relationship by which Europe expanded its borders of control, fought wars by proxy, drained the wealth of other territories, established an often-violent system of rule to govern those territories' populations, instituted a global pattern of slavery and indentured servitude, and developed a rule of law that applied fully only to Europeans themselves, but was taken up by the rest of the world as a mandate for full human rights. Colonial rulers also deployed methods of scientific discovery that used the colonies as a laboratory and testing grounds for experimentation.

As Frantz Fanon argued in *The Wretched of the Earth*, "In concrete terms Europe has been bloated out of all proportions by the gold and raw materials from such colonial countries as Latin America, China, and Africa. … The riches which are choking it are those plundered from the underdeveloped peoples." Fanon also suggested that, "perhaps everything needs to be started over again: the soil, the subsoil, the rivers" and "why not the sun."

A colonial relationship is: hierarchical, extractive, and exploitative.

From the start, colonialism wove together private and government apparatuses. The East India Company, to take the colonial example I know best, began as a trading enterprise funded by imperial capital. It was given a contract to act on behalf of the British Crown until that contract was rescinded and the British government took direct control of India. This public-private partnership, beginning at the Battle of Plassey in 1757 and extending all the way to 1858, included funding military operations to expand territory. In other words, a private company had a private army and funded an entire knowledge apparatus to learn the country. The East India Company aimed to have comprehensive knowledge of the people, the territory, the flora and fauna, and the languages and the political systems of the country they aimed to rule. In the process of acquiring this knowledge, they enacted broad changes in all of these systems, taxonomizing and hierarchizing the knowledge they collected in new ways that would go on to shape the legal, political, social, and environmental systems of independent India. The anthropologist Bernard Cohn, who anticipated the interventions of Edward Said and Michel Foucault in his writings on culture, knowledge, and power in India, called these processes part of a dominant style of thought that prized certain, mostly textual knowledges to create a "picture of Indian society as being static, timeless, and spaceless," all images that served to bracket out colonial subjects as recipients of European largesse.

This very brief overview of the basic relationship between colonial power and colonial knowledge helps us distill some of the characteristics of a colonial relationship. We will use these characteristics to make a determination about the current age and its own centers of power. We will ask, is tech colonial?

Is Tech Colonial?

A colonial relationship is: hierarchical, extractive, and exploitative; it produces uneven consequences and malevolent paternalisms. Colonial relationships presume and create presumed superiority and inferiority — **hierarchies** — between colonizing and colonized peoples and places. Colonial relationships are also **extractive**. This extraction was initiated to reverse the flow of capital from Europe to Asia and Africa, and took the form of stealing lucre directly from the Americas, taxing or demanding tribute from the peoples of Asia and Africa, and establishing monocultural slave plantations as a main driver of public-private imperial relationships. Colonialism is **exploitative** through labor relations that take advantage of the state monopoly over violence, either directly, or indirectly, through pressure applied to putatively independent states. The **uneven consequences** of colonialism are felt across the entire system. In the realm of science and technology, risks are generally borne by colonial subjects while metropolitan elites assume the role of developers and innovators of new technologies. Finally, the **malevolent paternalism** of colonial relations means that solutions are always proffered in the name of and for the good of the colonized, yet the colonized themselves are not recognized as full and legitimate participants in producing those solutions.

Given this overview, we are now in a position to ask, *is tech colonial today?*

Here are some of the things we know about how data, new applications, and social media are developed across the globe. One, they are hierarchical: The companies that produce these technologies also produce an ideology of superiority that data journalist Meredith Broussard calls techno-chauvinism. Techno-chauvinism describes the belief of a small group of fairly homogenous people located primarily in Silicon Valley that they are the best people to deploy a small set of algorithmic applications to administer human life. A corollary of this belief is the ideology of meritocracy, a dogged conviction that despite all evidence about uneven social and economic conditions and histories, it is individual effort and cleverness that promotes some communities over others. As Ajantha Subramaniam demonstrates, the presumed hierarchies that are part of techno-chauvinism are also transnational, Indian engineers trained at the Indian Institutes of Technology also share this faith in each other as upper-caste men, and in the algorithms they create as superior.

Over-reliance on the issue of data colonialism obscures the complicated welter of colonial relationships.

Two, on extraction: The extractive nature of tech colonialism resides in the minerals that need to be mined to make the hardware for products, as well as the knowledge that comes through native pharmaceutical and technical traditions. In his work on the environmental history of computing, Nathan Ensmenger traces a periodic table of rare earth metals mined and incorporated into devices. Likewise, the anthropologist Cori Hayden's work explores how U.S. pharmaceutical companies extract biological and botanical knowledge from the people of Mexico in order to create new drugs.

The extractive nature of contemporary technologies also applies to the much more widely covered case of data extraction. According to the analyses provided by Shoshana Zuboff, Ulises Mejias, and Nick Couldry, this extraction mostly focuses on data gleaned from the streams of information given up as residents of all countries go online, register for state benefits, and connect with one another through applications whose terms of service demand they give up their personal and private information. This extraction of information is then treated as raw data to be processed by tech companies. This is certainly an important aspect of current relations of power the world over. Yet, over-reliance on the issue of *data* colonialism obscures the complicated welter of colonial relationships that cut across technological infrastructures and the imaginaries of person, place, and power that accompany them. In particular, the focus on data extraction misses the material extraction of minerals, and the specific place of ex-colonial countries and still-colonized populations within the relations of power that cut across tech worlds.

So, point three, is exploitation: Everyday forms of exploitation are part of labor relationships in outsourcing programming, in gig economy work, and in the multiple forms of labor that are hidden and ghosted in making technologies appear to function without human assistance. In a detailed account of microwork — the small jobs mediated through large online markets like Amazon's Mechanical Turk that people around the world do as a kind of piecework — Mary Gray and Siddharth Suri show that this kind of labor is both hidden and organized in such a way as to keep the labor from being collectivized or adequately remunerated, even while, as a percentage of global economies, microwork is increasing. Data & Society Senior Researcher Alex Rosenblat's account of Uber drivers details the techniques companies use to classify workers as customers even while managing their labor through incentives and penalties in the same way an employer would. Labor researchers Aiha Nguyen and Alexandra Mateescu point out that, rather than being replaced by robots, workers' quality of life will be affected by algorithmic systems that surveil their movements in the name of increased efficiency.

In a report recently published in *Industry Week* in which these two researchers are quoted, technologies that monitor worker safety also track every movement in the name of increasing productivity, which means demanding that workers work harder, take fewer breaks, and eliminate wasted movements. As the employers who purchase the technology have 'wide latitude' over how to use these body sensors, and because the workers do not have control over the data collected while they work, there is little way to prevent such systems from being punitive rather than being used to protect workers.

The question of labor and its relationship to exploitation also appears within white-collar programming jobs. As historian Mar Hicks has demonstrated, the whiteness and maleness of computing was constructed in the mid-twentieth-century by excluding women from coding jobs as those jobs gained in prestige in the workplace and by writing out the contributions of Black, Indigenous, and Asian mathematicians in the development of information technologies. In the contemporary period, there are no dearth of examples of the hidden labor of computing worlds. They can all be grouped in one way or another under the heading of 'outsourcing', which entails sending less lucrative, less interesting, and more dangerous jobs overseas or to peripheral communities.

In her science studies scholarship, Lilly Irani demonstrates that among user interface designers and designers of development projects in India, particularly situated individuals can claim to be innovators while others — mostly those who are determined to be using 'folk' or make-due, *jugaad*, technologies — are treated as inspiration for expert-led solutions. Echoing Irani's findings, Clapperton Mavhunga's introduction to the edited volume, *What Do Science, Technology and Innovation Mean from Africa?* argues that "a geophysical zoning . . . has been hammered into our brains: that technology is for academy-trained engineers, hence the emphasis on experts, and that technology can only come from the West and is 'transferred' to the technology-poor areas of the world."

Technological innovation's collateral damage means that the consequences of development are felt unevenly.

Finally, point four, on uneven consequences and malevolent paternalism: Technological innovation's collateral damage means that the consequences of development are felt unevenly, with harms accruing to black and brown communities in the United States, and Indigenous, poor, and oppressed communities in Latin America, South Asia, and Africa. These consequences take a variety of forms. As Ruha Benjamin points out, the prison-industrial complex has been extended to include sensors worn by incarcerated people. Computer scientists Timnit Gebru and Joy Buolamwini have discussed the design of facial recognition technologies that cannot recognize melanin. Predictive software has also been misused to discriminate against Black people in the United States. In this last example, software called Compas (correctional management profiling for alternative sanctions) was designed to predict rates of recidivism. However, the investigative journalists at *ProPublica* found that it does little better than a coin flip in predicting rates of reoffense. At the same time, it assigns Black defendants to high-risk categories more often than white ones, regardless of past differences in crimes committed.

Our theory of colonialism needs to be amended to account for the complicated territory brought into being in the current moment.

Given the evidence I've laid out, it seems clear that yes, the relationship between tech industries and those populations who are outside their ambit of power — women, populations in the Global South, including black, Indigenous and Latinx communities in North America, immigrants in Europe — is a

colonial one. As Jean and John Comaroff write in *Theory from the South*, in such colonial relationships, "the non-West is regarded as unprocessed data, not sources of refined knowledge but as reservoirs of raw fact from which testable theories and transcendental truths could be crafted."

At the same time, our theory of colonialism needs to be amended to account for the complicated territory brought into being in the current moment: First, the public-private partnerships that are part of the long history of colonialism have become intensified. Today, companies have a conflicted relationship to state surveillance: they pledge to protect data even while they capitalize on emerging markets where data can be bought and sold. State actors spin off products to sell to other state actors to track their citizens. All of these entanglements need to be followed and understood as complex imperial formations. As communications studies scholar Paula Chakravartty suggests in her studies of new media and racial capitalism, these are all interlocking formations, built on imperial rivalries and a tech worldview that imagines some figures — especially the migrant working classes of the Global South — as outside the world of tech itself.

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Second, the players across imperial spaces have changed. In addition to the United States and Europe, ex-colonial states with colonial ambitions, like India, and regional powers like China and Israel, develop technologies for export, including ones that can be used to control internal populations. These technologies, which anthropologist Darren Byler calls terror capitalism, demonstrate the link between state and corporate power. Third, as Comaroff and Comaroff argue in *Theory from the South*, the south is distributed throughout the north even while the experiments that took place in the Global South are now part of a larger apparatus of data extraction and labor reorganization that apply across the globe. Therefore, when we think about colonial relationships, we need to treat the South as both dispersed across the globe and as very particular sites that first developed new ways of coping, refusing, and revisioning these relationships.

What to do

At this point, readers may be feeling quite stuck, overwhelmed by the enormity of the relations I have been describing. But this last point I made — that it is precisely in the Global South that tools for decolonizing tech can be found — should fill us all with hope. To cite Fanon again, "the colonial system, in fact, was only interested in certain riches, certain natural resources, to be exact those that fueled its industries." Because of this singular focus, everything after colonialism, has to be rethought. It "requires undoing" what Fanon called "all the hammered-in channels" of commerce colonial relations entail, rethinking the soil and even, "why not, the sun?"

Some of the thinkers whose are doing this work of rethinking the sun are here at EPIC 2019. We should all attend the tutorial on how to think about ethics organized by Emanuel Moss and Friederike Schüür. We should join the salon on When Not to Design AI organized by Martha Bird and Abbas Jaffar. We should listen in at the panel on Agency and Innovation featuring Clapperton Mavhunga and Dawn Nafus. And we should make time to be present at the panel of Representation and Representativeness featuring Amber Green, Jordan Kraemer, Donna Lanclos, Ruchika Muchhala, and Autumn Sanders Foster, who ask, "how do we make visible those who are not in the room?" These meetings are places to practice moving

beyond the tight bind between whiteness, Euro-U.S. masculinity, and power that reinforce tech colonialism.

There will be many, many factors that will militate against practicing decolonial thinking in the spaces in which you work: time pressure, job description, high salaries and perks, extant hierarchies, the notion that if one person stops, a flood of others will take their place, and the ideology that tech is inherently more noble than other industries. Not least among these reasons are a workplace that reinforces the belief that the smartest receive the greatest rewards (and the smartest just happen to be European and American Anglo men) and the idea that tech companies are best positioned to solve the world's problems. Yet there are ways in which practitioners matter. If colonialism is a relationship, rather than a historical time period that is now over, or even a monolithic system of oppression, then those relationships can be shifted through collective action. Some of the ways that you can practice decolonial thinking in your workplace include:

- Radicalize and *politicize* your **ethics** — critique, reimagine, practice, repeat
- Join existing **movements**
- Practice **refusal**
- Practice **extension** to others
- Think at the **margins** of your tasks — what else is going on here?
- Use **material practices** as a guide
- Begin from **pleasure** and eros
- Rethink **agency** — not from without or even against constraint but as counter-conduct

Ethics should be reconsidered in a more robust way. It should be thought of as something more than a list of rules, something other than cover for, or expiation of, corporate misdeed. The stakes for ethical stances should be made clear and emerge from collective pressure. In recent work I have done on feminist techno-ethics, I frame the question of ethics as attunement, a tuning in to an atmosphere that gives rise to a critique. These attunements happen over time, in offices and in everyday life, as we move through the world with our bodies in tow, bodies that never quite fit the frames and narratives that are told about them. Out of this mismatch between our embodied selves and the narratives of power and prestige that surround us comes an ability to tune into a situation. From that tuning in, we can critique, imagine new ways to organize the world, and act on those imaginaries. Repetition is essential to keep our ethical practice tuned in to the question of who gets to decide, who gets to participate, and who gets to dissent, which is the essence of politics. Lather-rinse-repeat: critique-imagine-practice, and do it again!

Movements exist that try to break the bind between data and colonialism by using data to answer community generated questions and create digital platforms based on cooperative, democratic principles. Sassafras is a worker-owned tech cooperative in Detroit and Coopersystem is a tech cooperative in Brazil. They both have built on the long tradition of cooperative movements to share governance and profits more equitably among worker-owners, and to have greater control over their products and clients. Another movement located in the U.S. is Data for Black Lives, a group of data

scientists dedicated to using data to answer questions that are relevant and helpful for black lives, rather than using data in a punitive, necropolitical way. Finally, the Tech Workers Coalition movement, with chapters across the U.S. and in Bangalore, India, helps people working in tech firms support each other in fighting for better labor conditions, including by organizing white-collar workers to support strikes and other labor actions called for by service and other blue-collar workers.

Ruha Benjamin, building on the work of Audra Simpson and Sara Ahmed, calls for informed **refusal**, the act of not taking part in something that we know to be harmful**.** A politics of refusal includes making space for things that should not be known, that must remain hidden, along with refusing to be included in particular narratives of help, of loss, of diversity, and of erasure. Refusal can take many forms. It might look like the resistance within Google to Project Maven, a government contract to develop remote-killing by drone technology. This refusal spawned a walkout and a rollback on the proposed project. It might also look like a program of data sovereignty, like the Te Mana Raraunga project run by the Maori Data Sovereignty Network in New Zealand. This group works to elevate indigenous categories as part of governance structures so that the *taonga*, or treasure, of the knowledge contained in the data remains under tribal control.

Extension to others is another way of saying, "don't let others take the fall, and don't always just make something new." Some of this extension is a pedagogic practice that we often ignore when we chase the new. Rather than reinvention, sometimes the thing to do is to gather up what is known, and pass it on. The AI Now guide to interviewing at a tech company is an example of this kind of pedagogy. Sometimes, extension is a form of protection. Nasma Ahmed, who founded the Digital Justice Lab in Toronto, says that if we know a space is compromised, we counsel others not to enter the space, or we institute particular conditions or safeguards for their participation.

The margins are not out there, but everywhere around us, but they need us to practice paying attention.

Thinking at the **margins** of your practice relates to our first principle, that of radicalizing and politicizing ethics. It means noticing what else is happening in the fields in which we work, and attending to those things. In Lilly Irani's book, *Chasing Innovation*, she shadows designers who are tasked with building a new water filter in India. During their work, they unearth a new problem: excess fluoride in local water. Despite water quality being of upmost importance to the villagers the designers interviewed, they must continue to prioritize improving an already functioning water filter design, as addressing the fluoride levels was not a part of their original project. Paying attention to the margins and hiving these marginal knowledges off into new projects that deserve our attention is probably one of the most important things we can do in this moment. The margins are not out there, but everywhere around us, but they need us to practice paying attention. There might be many ways to begin paying attention to the everywhere margins, but one of the most interesting today is *The Tricontinental Institute*, which publishes regular newsletters chronicling people's movements, struggles, and solutions around the world. We can learn from these everywhere margins. We can direct our attention to solving problems we have never even conceptualized as problems.

One way to understand and intervene in colonial landscapes is to follow material that is often hidden. Tech worlds are often represented as purely cognitive, cloud-like apparati. However, in my research on Indian programmers who take short-term jobs in global coding economies, I found that they used the formal properties of code to reflect on the constraints on their ability to move across national boundaries. Pulling out the materiality of code, like I do in the section of script I analyze in the book,

showed me another kind of politics (an antiwork politics) that migrant coders produced from within the material conditions of their work. In a similar way, the guide to racial literacy written by sociologist Jessie Daniels and policy analyst Mutale Nkonde uses the kinds of materials usually developed in company inclusion and diversity handouts to advance a much more far-reaching agenda: to change the terms of debate through which diversity discussions take place.

How might we conduct things in a different way?

In my work, paying attention to the margins lead me to look at spaces and times outside of the office for different kinds of ideologies and ethics that lay beyond the governing workplace ideologies of hard work, meritocracy, and tech solutionism. I termed these alternate ideologies 'eros' for the way they were grounded in, and foregrounded, the multiple pleasures of life, from food to walks, to weekend conviviality. The short-term programmers I worked with, in other words, cultivated a life beyond hard work in the office, and these modes of living a good life, I argue, can ground alternatives to the organization of life under capitalism. As writer and technologist Latoya Peterson argues, starting from a place of eros means valuing relationships with others over the indifference that comes from treating one another as disposable, manageable objects.

Finally, 'agency and automation' is the theme of EPIC 2019. Agency is often conceptualized as opposition or, what comes after constraint. Instead, agency should be understood as that which comes from the way we pose our questions and frame our problems; our forms of conduct, and *how* we conduct our work. How might we conduct things in a different way? A counter-conduct — a term I borrow from Foucault — emerges alongside conduct itself. A note on the stakes in developing counter-conduct: Critique often begins (and mostly also ends) with the negative effects of computing technologies on minority communities. Such an approach: 1) diminishes the active role that global South actors and geographies have played in the development of computing technologies, and 2) holds onto the promise of computing as a future utopia once technologies are divorced from their problematic pasts.

Communication studies scholar Oscar Gandy, when describing journalism, demonstrates that writing in the vein of victimhood fails to increase empathy for victims. A similar truth seems to hold when only the negative effects of tech colonialism on non-hegemonic communities are described. It is important to focus on why some unfairly win, but it is equally crucial to understand that those left outside of the winner's circle may know the answers to many of the problems that plague us.

Ethnographers, both outside and even inside of the academy, are increasingly working within solution-driven worlds. That is, they are guided by the ethos that the focus should be on making something deemed useful, often as quickly as possible. This narrows their conceptual focus to a particular, solvable problem. The strategies I share with you today are designed to dilate this narrow passage.

To undo tech colonialisms, we must reframe the stories of tech inevitability and fixedness in our patterns of engagement with the world. While working in small ways, we should also ask, with Fanon, "why not the soil, the subsoil, and, why not the sun?" It may take a lifetime, but it is a craft worth pursuing.

Sareeta Amrute is the Director of Research at Data & Society. She unsettles tech research through decolonizing strategies, analyzes sensation and immigration, and reimagines cashless economies together with communities in the Global South. Her recent, award-winning book, Encoding Race, Encoding Class: Indian IT Workers in Berlin*, is an account of the relationship between cognitive labor and*

embodiment, told through the stories of programmers from India who move within migration regimes and short-term coding projects in corporate settings.

To explore this topic further, read the interview with Sareeta Amrute by Jennifer Collier Jennings.