

The AI – Development Connection

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As we deliberate the state of AI, all of us are fully cognizant of the fierce new world we confront,
But the glass is half full...

Voices of resistance to power are everywhere. Students and young people are taking to the street; women are infiltrating public discourse; and the unlikely activist is joining popular uprisings. Social movements are rejecting tokenism and ‘woke-washing’ from corporations; demanding that governments deal with the alarming state of the planet’s health; and making place for feminist sensibility, one struggle at a time.

The ingredients for a seismic shift are all here – well, almost.

There is still the half empty portion – and filling this, is singularly about the business of ideas. And this today is in more than a bit of crisis, besotted as we are with the heady toys of a data culture that seems to overpower us.

In 1962, marine biologist and author Rachel Carson catalyzed the modern environmental movement with her epoch-making book *Silent Spring* — a painstakingly crafted exposé of the pesticide industry. She highlighted the fragmentation, commodification, and the erasure of truth in an era when narrow silos blind specialists to the interconnected whole of the planet and its natural ecosystems, where market forces sacrifice truth at the altar of revenue.

Carson is relevant today not only because she called attention to the links between capitalism’s greed and the erasure of truth – but also for her caution that the pharmaceutical industry’s actions be assessed for “consequences remote in time and place”.

The data and AI debate may certainly have come far in acknowledging the place of ethics. But it has a longer way to go in addressing its whole-of-planet implications; about consequences remote in time and place, as Carson would say.

From the mainframes of the 1960s to the [54-qubit Sycamore processor that is celebrated for achieving “quantum supremacy”](#), we are at a point where AI is the master signifier of our times. In Lacanian thought,

a master signifier is an empty signifier – but one that lends traction to other signifiers. Marx's conception of "commodity fetishism" demonstrates how money becomes a master signifier of value. Money refers to value as such, and all other commodities are thought of in terms of how much money one can get for them. That is, money as a commodity becomes self-referential and all other commodities are worth (signify) money.

AI, as the master-signifier provides a "[quilting point](#)" an anchoring peg around which other signifiers can stabilize. In an economy that runs on data, the master signifier of AI creates ideal types – of precision, prediction, scale, score, winners, losers and such other signifiers, relative to which all of life's encounters are rated. [Airbnb's trait analyser AI](#), for instance, distinguishes suitable guests from unsuitable ones, categorising human beings for "conscientiousness and openness", "neuroticism and narcissism, Machiavellianism and psychopathy".

The AI community is increasingly seized of the social outcomes of such AI-determined typologies . But a larger, political task remains. This is to prise open AI as the master signifier of the fantasies of neo-liberal capitalism. The AI-led economy as we know it, is not an accident. From the relatively innocent Internet of the 90's through Snowden, and the rise and rise of the FAANG, to Cambridge Analytica, we have seen the unfolding of a data culture that is deeply intertwined with capitalism's impulse to move, expand and swallow.

Data accumulation in the current political economic order mimics capital accumulation:

- It is not for anything other than just accumulation. Data culture is an obsessive pursuit of data that acquires the mythical force of a revolution servicing capital.
- It is produced socially, but owned privately. Wealth creation in data culture is predicated on a seamless sociality that knows no boundaries – countless individuals and collectives provide data, but it is still owned privately.
- It thrives on differentiation. Data provides capitalism with the material engine – in the form of AI - to perfect the art of sorting, segmenting, eliminating, targetting, optimizing, and finally, simplifying capitalism's relentless endeavour to optimize difference for the reproduction of social hierarchies.
- It leaves a trail of exploitation. Neo-liberal data culture creates the material tools for an opportunism, a gold rush, that brings forth the worst forms of societal erosion. Cameras and chips

in far away places generate the real time data to extract labour surplus. And the algorithmic models that make this possible are valorised as the new age innovations that break through IPO glass ceilings.

- It works to consolidate control. In a world that is unequal, relentless data accumulation and incessant intelligence production emboldens capital to remain in tightly knit networks. Wealth concentration, we are told, is at an unprecedented high, with Big Tech overtaking oil, automobile and financial corporations in market capitalization, which exceeds [the GDP of most countries](#). The [26 richest people on earth](#) have the same net worth as the poorest half of the world's population, some 3.8 billion people. The labour share of global economic value added is in free fall, and this decline has coincided with the rise of the AI economy:-

In early January 2020, the Brookings Institution published a report prophesying that [the country that leads in AI in 2030 will go on to rule the planet until at least 2100](#). McKinsey has cautioned that late mover countries in AI may never be able to bridge the development gap with leading AI economies.

A sense of immediacy about seizing the AI opportunity has percolated to governments everywhere. In just the two years between 2016-18, over 20 countries established committees/ task forces for the creation of national level data and AI roadmaps.

The scramble for AI-led development demands that we pay closer attention to the ideas and ideal types that data culture generates - the discourses of development it entrenches. The raging protests across the world point to a collapse of the current system. This is as much about a "philosophical crisis" - a troubling loss of social autonomy in the AI-led world order - as it is about the failure of institutions. As Israeli historian, Yuval Harari, observes - maybe the most important fact about living in the 21st century is that we are now hackable animals.

But mainstream AI debates – especially on AI and ethics - seem to sidestep this critical connection.

Debates in AI and ethics

Current debates on AI governance tend to be preoccupied with the prevention of human bias in the design of algorithmic parameters and safeguarding the representational accuracy of input/training data sets. A recent mapping of over 32 sets of influential principles/guidelines on AI governance in existence today by the Principled Artificial Intelligence Project by the Berkman Klein Center suggests that fairness is a critical concern shared by all stakeholders involved in the development and deployment of AI technologies: governments, multilateral organisations, advocacy groups and technology companies.

Concerns around fairness have revolved around recidivism scoring and facial recognition systems that disproportionately penalise racial minorities and immigrant communities. Research has pointed to how predictive profiling techniques in welfare targeting discipline the poor. The real risk of gender and racialised discrimination in the algorithmised marketplace for credit, housing and services has been highlighted. Recent scholarship (by Annette Zimmerman, Elena Di Rosa and Hochan Kim) also throws light on the need to move beyond impartial decision rules or procedural fairness to asking, 'How does my algorithm interact with society at large?' - advocating thus, for substantive fairness as an antidote to structural inequalities.

Despite these crucial contributions, concerns on AI, fairness and ethics in the scholarship are still liberalist – grappling with techno-design aspects that imagine rights and freedoms as individualised. This discounts the social relationships that make up our complex institutional frames.

But AI is moving the world, with a veritably fraught politics of a fast emerging platform economy. AI is not only about AI-enabled hospitals or AI-assisted retail stores. AI must also be thought of as a system disruptor. The contestations in AI are not just endogenous to the techno-social parameters of a specific AI solution, but also exogenous – reconstituting the algorithmically mediated platform marketplace and the rules of the AI economy.

Distortions to competition in the algorithmically governed platform marketplace have been discussed across the world in recent times. Regulators in the US, Europe, South Africa and India are all examining new ways by which anti-competitive practices in platform-controlled markets can be checked.

Algorithms on dominant platforms orchestrate market relations, subjecting small actors (traders, small producers, coops) to highly unfair terms. Research by IT for Change in 2019 found that online travel aggregator platforms in the tourism sector are flexing their algorithmic power for client matching and hotel ranking. For small hoteliers, it is a Hobson's choice; becoming part of the platform ecosystem means succumbing to deep discounting schemes that simply don't work; but not joining the bandwagon means risking isolation. In the niche adventure tourism segment in the eco-sensitive Himalayas, previously independent hike operators find themselves reduced to a reserve workforce of small time contractors at the disposal of the platform. Taking away interdependencies in the local economy, the platform creates winners and losers through its remote management. There is a trust paradox here. Consumers in perpetual search of new experiences seek out platforms as the modern day trust infrastructure; whereas, relationships among local enterprises see a breakdown of trust. The AI that rates, ranks, visibilises, obscures, connects and

disconnects is clearly reconfiguring local tourism – with moral hazards that imperil the overall health of the economy, with negative consequences for a highly sensitive ecological system.

Despite rhetoric to the contrary, small producers, artisans and micro-entrepreneurs in most developing countries struggle to find their foothold in the platform marketplace. The platform regime's algorithmic base orders the production relations, leading to a highly uneven playing field.

The big platform relegates small actors to the fringes of the marketplace, eventually squelching them or swallowing them. Platform regulation that calls for transparency, explainability and public audit of algorithms may only go so far. They could perhaps check predatory pricing or deep discounting practices. But behemoths are first-movers; they own mammoth volumes of data and have the algorithmic prowess to harness value real time. As they say in my country, 'Nothing grows under a banyan tree'! The very presence of data-wealthy platforms eviscerates the right to market participation of small actors.

What would algorithmic justice look like in these contexts? How can AI rules for big ecommerce companies privilege small actors?

The structural consequences of AI in ecommerce point to impacts in the AI led economy that are remote in time and space. They defy feedback loops or corrections that are in-situ or endogenous to a platform's system design. They arise in the suprasystemic logic of platform infrastructures embedded in neo-liberal capitalism. That is, the modalities by which 'intelligence premium' is unabashedly reaped and locked up by aggrandizing social data and its value, with little or no accountability to local actors.

The data battleground

The multi-scalar AI force field needs to be grasped for its developmental realpolitik. Given the inordinate clout that the US and China wield in the emerging geo-economic order, experts predict a bi-polar global AI economy. The UNCTAD Digital Economy Report 2019 exemplifies this.

It has been estimated that this general-purpose technology (AI) has the potential to generate additional global economic output of around \$13 trillion by 2030, contributing an additional 1.2 per cent to annual GDP growth [...] China and the United States are set to reap the largest economic gains from AI, while Africa and Latin America are likely to see the lowest gains. [...] China and the United States account for 75 per cent of all patents related to blockchain technologies, 50 per cent of global spending on IoT, at least 75 per cent of the cloud computing market, and for 90 per cent of the market capitalization value of the world's 70 largest digital platform companies.

Under the circumstances, nation-states - rich and not-so-rich – are becoming anxious about missing the AI bullet train. In the developing world, countries are hurrying to build national AI capabilities before the window of opportunity is permanently lost. Chinese scholar, Kai Fu Lee, notes a rather tragic irony here: “The countries that are not in good shape are the countries that have perhaps a large population, but no AI, no technologies, no Google, no Tencent, no Baidu, no Alibaba, no Facebook, no Amazon,” Lee says. “These people will basically be data points to countries whose software is dominant in their country. If a country in Africa uses largely Facebook and Google, they will be providing their data to help Facebook and Google make more money, but their jobs will still be replaced nevertheless.”

To gain a modicum of control over the AI economy, the African bloc and countries like India have opened new battlefronts in the WTO. They have asserted the need to retain policy space for AI-led digital industrialization that can help them climb to the higher value parts of the digital economy. Slaving away in image annotation and data labeling is not really going to change the geo-politics of development.

But the rules of battle are skewed.

A new era of trade deals – including the CPTPP and RCEP – promote the status quo, with developed countries disallowing developing countries any right to access algorithms and source code. This means local governments in developing countries must cede any regulatory power to scrutinise Big Tech.

Neither can they demand access to AI, though agreements made through the TRIPS very much recognise developing countries’ right to technology transfer.

The AI paradigm seems to fail the fairness, test in the global development order – blatantly negating local oversight and wilfully denying any claim to equality .

This crisis of economic democracy has brought to the fore assertions of sovereignty. Developing countries have pushed back proposals by the US and its allies to maintain free cross border data flows in global digital trade. Efforts are afoot to regulate “data as a national resource akin to oil”. Laws to establish the state’s eminent domain over anonymised personal data and non-personal data sets are being enacted.

The modus operandi of developing country governments to gain AI capacity is however not very clear. There is of course the problem of poor legacy data sets and lack of domestic data management capacity among most firms, but equally, years of deindustrialisation – for instance in Africa – render the data dreams of

these countries a non-starter. When there is little local production capacity left, how can an intelligence economy be built? The aspirational road to competitive advantage for most developing countries seems to be paved with more questions than answers.

Pathways being adopted also reveal an uneasy contradiction – the desire to build local data infrastructures seems to go hand in hand with “AI partnerships” – a euphemism for handover of citizen or public data to multinational firms with no overarching institutional norms. Big Tech for instance has partnered with government health systems in developing countries for data-based targeting in services. While this may hopefully bring efficiencies to the public health system in these countries, it is certainly going to result in a data exodus – transferring citizen data, often with very little privacy safeguards, to corporate AI labs.

Calls to data nationalism thus seem to be accompanied by the legitimization of data extractivism. This is not surprising. The race for AI today is predicated on an extractivist capitalism, and data extractivism is its natural handmaiden.

However, no sense of urgency to contain the mindless speed machine of data extractivism is evident in the global geo-political horizon of the day. The AI dream is on a rabid path, like an autonomous driving application gone rogue.

The systematic commodification and rapacious colonization of new data frontiers shows a data wild west that is looming large. The biggest purchases of satellite data are Wall Street commodity brokers speculating in food futures [Source:UNEP presentation at AI for Good Summit]. The Earth Bank of Codes being set up by the World Economic Forum aims to create an open source database of the genetic codes of all living organisms on earth, in a bid to “unlock the potential of the planet’s biodiversity and [‘boost the global marketplace for bio-inspired chemicals, materials, processes and innovations’](#) by opening up [biological and biomimetic assets to 4IR technologies](#). Given global pharma’s ambitions, these self-laudatory initiatives do not ring the right bells.

Privacy International has found that data brokers are subverting the GDPR in Europe – breaking the law to collect, process and trade personal information. As the law tightens its hold in EU, adtech firms are looking to developing countries where privacy laws are less stringent, seeking new pastures for training data sets.

In the making of a new international political economy, one that is centred around AI, we are witness to deep contestations – states are locked in a global tussle; big tech is immune to territorial boundaries; global

finance is dismantling the knowledge commons and things of the biosphere outside of the market have been converted into commodity. All suggesting a neo-colonization of people and the planet.

But the glass is indeed half full.

. The human body is asserting itself more than as a performative spectacle on the streets – from Hong Kong to India, Catalonia, Lebanon, Chile and many more – the body is a signifier of bio-power and hope, defeating surveillance, courting arrest and deliberately seeking the system's panoptic gaze. The proliferation of protests suggests a tipping point – but systematic change is harder work. And in this regard, we know enough what the building blocks to dismantle and recreate social structures in their entirety may look like.

After all, democracy was born out of the churn that political and economic structures were put through in history .

The AI moment as we know it presents a frightening challenge – it is born of and continually feeds a global crisis of gross injustice of a deep state that is led on by a deeper corporation. Sonia Correa, Brazilian feminist scholar calls attention to the wider process of dedemocratisation that confronts us. The collusion of the neo-libs and the neo-cons is ravaging rights of the majority everywhere, constantly creating the undeserving other. The institutional ethics of the human rights consensus may well be valid today, but the post institutional, cyber-libertarian and tech-utopian parameters of this ecosystem exhort a back-to-the-building-blocks framework.

The 4th industrial revolution demands that the creaking institutions of 20th century democracy be dismantled. This is not a romantic call for revolution, but an assertion that is historically aware and grounded in the continuities of capitalism. We are compelled to look at time-space and scalar relationships afresh. We are forced to rearticulate institutional values and norms as if data is real; the data economy, the real economy. And we need to acknowledge that the virtual is institutional.

Incremental approaches will not work. In the long march of capitalism, this moment of discontinuity has produced hegemonic discourses of AI that serve neo-liberal capitalism. The bi-polar geoeconomic order in which US and China are carving up the rest of the world into their economic dominion requires to be countered by an 'ideas revolution' for data and AI. The planet's very sustenance is at stake.

The intelligent corporation with its virtualized production and distribution networks can no longer be contained by the rulebook for place-bound operations. Its ceaseless data accumulation needs a new institutional framework for economic rights in data.

The datafication and algorithmic management of citizenship cannot be mended by making technical choices. Citizenship rights need to be reimagined as nested, multi-scalar and essentially political.

The future of work built on the present of labour substitution and worker surveillance is but a new era of bondage. It epitomises capital's 'final freedom' from labour. Worker data rights need to be the cornerstone of a new social contract, not to be left to the benevolence of capital.

A virulent patriarchy is on the upsurge globally. The fourth industrial revolution is blatantly sexist and mainstream public spheres inherently misogynistic. Women need a different world order, and they need the power to vision and create it.

A new AI order as if people and planet matter

How can we re-signify AI to recover alternative discourses of value beyond incessant capital accumulation as an end in and of itself? How can AI be decoupled from market fundamentalism and re-cast as a master signifier of a fair, accountable and equal economic order? How can the evolution of AI technologies be guided by evaluative criteria that correspond to the crisis of dedemocratisation?

I propose 4 criteria as the meta parameters for spelling out specific metrics.

Sustainable datafication

Economic democracy

Multiple value imaginaries, and

Nested sovereignty

Criterion 1. Sustainable datafication

We hear a lot about the post-truth emergency. The subversion of the public sphere in the attention economy is but a symptom of a larger problem – that of a surveillance capitalism, for which nothing in human sociality is off limits. Privacy-by-design has emerged as a new criterion to govern data-based profiling and algorithmic targeting techniques. But the ad-tech paradigm itself is rarely questioned.

As per a 2018 study, door-to-door food delivery in China accounted for a nearly eightfold jump in packaging waste in just two years, from 0.2 million tonnes (2015) to 1.5 million tonnes (2017). This has coincided with the exponential growth of the sector in the country, where the number of customers using food-delivery platforms has gone up from zero in 2009 (when the first delivery app (Ele.me) appeared) to nearly half the

population of internet users (406 million), by the end of 2018. The ecological footprint of ecommerce is by and large invisible today.

The digital paradigm has fuelled a galloping hyper-consumption – where AI is in a self propelling and perennial search for data. The ecological destiny of a hyper-profiled planet clearly rests on the trajectory of the AI economy. The course we take will need to be political. The tech must follow. The AI-led economy needs to be evaluated for certain key questions:

What are the boundaries of data extraction and algorithmic profiling?

How is design and policy working to dismantle surveillance tech?

How is AI being reclaimed from self-propelling cycles of data accumulation for big capital?

How does AI in the marketplace promote sustainable consumption?

Criterion 2. Economic democracy

Sustainable value creation is possible only when there is room for disparate, relatively autonomous local spaces of capital accumulation. This not only pre-supposes free and fair market exchange and the absence of market consolidation and antitrust practices; it also demands consistent and continual attention to creating and maintaining a market mechanism for a vibrant and diverse economy that makes place for small actors, and allows the local to co-exist with the global.

Evaluating AI for economic democracy therefore means building the norms around many key aspects -

What norms guide the use of social or community data?

How is the digital knowledge heritage of mankind, its genetic and biodiversity resources being governed for the public good? What institutional frameworks exist to prevent the abuse and exploitation of such resources?

How are IP regimes addressing the enclosure of the intelligence premium?

What are the social boundaries / policy conditions to harness the intelligence commons for the local economy? For example, is the AI for city transport commonsified?

How are interests of small economic actors promoted in the algorithmified marketplace? – For instance, are there rules calling for preferential ranking of women's coops in product push and placement strategies in mainstream e-commerce platforms? Is there a dedicated publicly funded marketplace for local artisans, with zero commission rates?

Criterion 3. Multiple value imaginaries

In the capitalist imagination, the value that is accorded primacy is capital accumulation – and all social organization is subservient to the circuits of capital generation and commodity circulation. When AI is tied to neoliberal capitalism, data extractivism is an inevitability.

However, if other values – such as the common or public good or reclaiming the potential for an unalienated life – acquire centre stage, the AI economy would assume a different shape than what it is currently. It would become possible to pursue data and AI projects that may not always pursue profits, but have immense public value.

Radical options would also be in the realm of possibility. We could ensure that productivity gains from AI-induced labour substitution are shared equally and fairly, through worker cooperative ownership of robotic technologies. Workers will have more leisure time and also a share in profits; a dramatic change from the endless gig hustling of today.

Diversity in value imaginaries are based on various parameters:

What kinds of AI projects exist in open science, public health, sustainable farming, bio conservation and climate adaptation?

What alternatives are encouraged in the digital marketplace? For instance, are there publicly supported cloud, platform and AI infrastructures for small enterprises to flourish in the local economy?

What AI stewardship models exist for fair distribution of value to workers?

How is AI-enabled automation reducing drudgery of tasks performed by women and other marginal workers?

Criterion 4. Nested Sovereignty

In a liberalist AI paradigm, sovereignty tends to be pegged on to the individual user. This has meant a default regime in which data resources (the raw material of the AI economy) are enclosed and benefit only Big Tech monopolies. Proposals for user control in the data marketplace, including the right to monetise data and seek a data dividend are gaining traction. And, the market, it is assumed, will eventually find the tech-fix for individual privacy.

But, sovereignty may also be seen as the right of communities over their territories and resources. It also has a long history in the idea of national and sub-national jurisdictions.

Rights in data could hence mean the claim of a community, say, suffering a rare disease, to their collective health information. It could also mean the right of First Nations communities to a GIS database of their

natural resource commons. It could imply the right of a municipal body to its water use data. Sovereignty is also applicable to nations. Nations have a duty to their citizens for the progressive realisation of their development rights – and this includes the deployment of AI technologies for public interest.

Sovereignty thus is a claim to self-determination – individual and collective, and one that is overlapping and nested. In the context of AI, it refers to the right to share the gains of the intelligence commons.

The geo-economics of the AI paradigm determines how this right is experienced today across scale and location. Its geo-political antecedents corner value for some, while exploiting, excluding and even expelling others. The autonomy of individuals and communities in the current epoch hinges on a new political economy of AI – one that can only be forged through a new data constitutionalism – an international covenant of sorts on data rights – that recognises all three generations of human rights.

So, what should a global to local regime of economic rights in data and the intelligence commons look like? What models will take us beyond the tyranny of hierarchical multilateralism, a sweeping data nationalism and a coopted multistakeholderism?

What institutional ethics, norms, and architectures are needed to build overlapping, polycentric AI governance frameworks, with nested ideas of sovereignty?

The ethical turn in AI politics has generated some momentum to dislodge capitalist complacency. But that will not do. Capital's wheelings and dealings to assuage social unrest are legendary.

We need to build democratic foundations bottom-up for the AI paradigm. And this is a socio-political task.

Filling up the glass

Today, in many quarters, we hear of data colonialism. Colony and empire are interconnected in history not only because the colonised were enslaved by the empire's totalising hold ; the story of empire also carries an indelible imprint of the power struggles that break that hold, one blow at a time.

Whether AI will be an autonomous weapon of social injustice or a powerful agent of autonomous societies depends on the stories we choose to weave, the parameters we decide to make worthy.

Data as master signifier is firmly located in social subjectivities carefully crafted and tirelessly nurtured by neo-liberal capitalism. In dismantling the AI that fuels twenty first century capitalism, democracy must find new master signifiers that inspire new subjectivities.