

BIG TECH AND THE CURRENT CHALLENGES FACING THE CLASS STRUGGLE



Dossier n° 46

Tricontinental: Institute for Social Research

November 2021

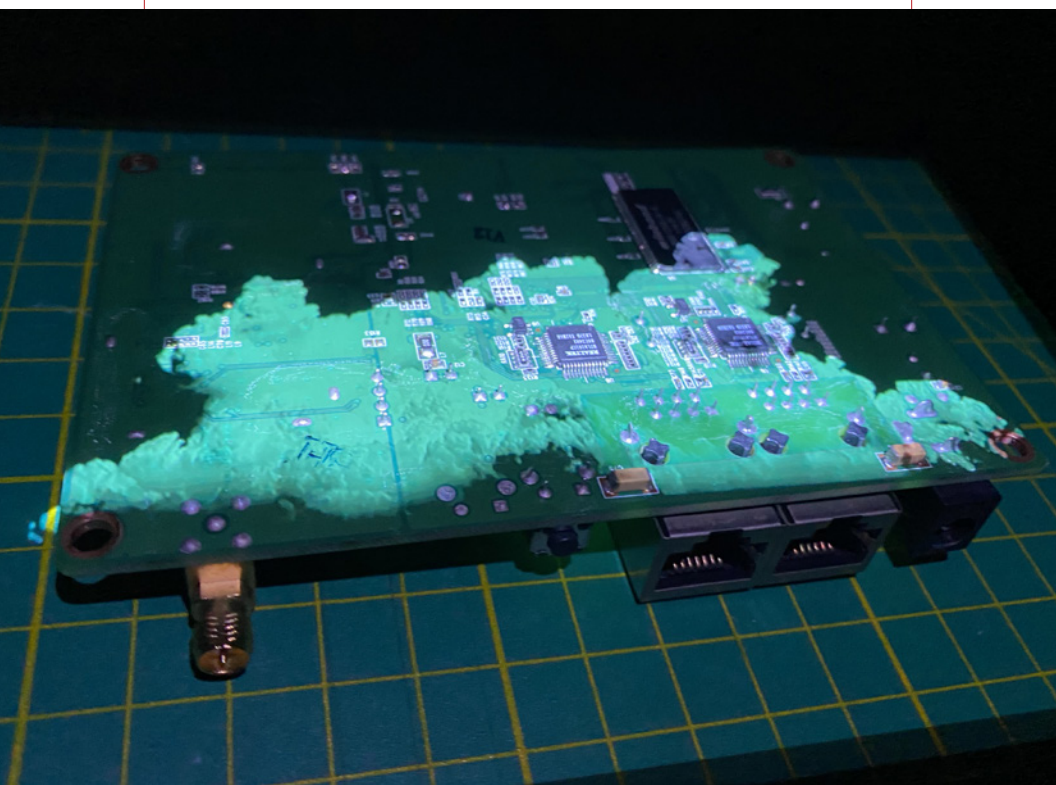
A data 'cloud' sounds like an ethereal, magical place. It is, in reality, anything but that. The images in this dossier aim to visualise the materiality of the digital world we live in. A cloud is projected onto a chipboard. A vegetable is represented by a genetically modified patent. A cryptocurrency is 'mined' not by digging into the earth's crust, but through energy-consuming computing processes. A GPS coordinate is mapped alongside the footsteps of soldiers. A piece of code is shown as a smoke screen of ones and zeroes. Together they remind us that technology is not neutral but serves the interests of those who wield control over it. Technology is, therefore, a part of class struggle.

Designed by the Art Department of Tricontinental: Institute for Social Research based on photographs by Ingrid Neves.

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Cloud Computing, 2021.

‘The challenge of modernity is to live without illusions and without becoming disillusioned’.

– Antonio Gramsci

CoronaShock is a term that refers to how a virus struck the world with such gripping force; it refers to the incapacity of the bourgeois state to prevent a health and social catastrophe while the social order in the socialist parts of the world appeared much more resilient.

The question of ‘new digital technologies’ presents itself as a challenge, one whose importance is growing in debates within popular movements. Not only is there unequal access to technology; there is also a permanent concern over the use of data for the purposes of repression, control, consumerism, and surveillance. Coupled with this is the fact that the largest corporations today are information technology firms, which makes the question of new digital technologies essential to understanding the dynamics of contemporary capitalism. The effort to understand these concerns can be seen in the proliferation of related terms and concepts: digital economy, digital capitalism, platform capitalism, techno-feudalism, data capitalism, and surveillance capitalism, among others. Though there is still no agreed upon understanding about these phenomena, the challenge for those who dare to change the world is to construct a

collective and objective analysis about the role of digital data and technology companies in contemporary capitalism.

With that in mind, our 46th dossier, *Big Tech and the Current Challenges Facing the Class Struggle*, is a product of the Seminar on Digital Technology and Class Struggle, a Landless Workers' Movement (MST) project that sought to analyse these transformations in contemporary capitalism and their implications for how to organise our struggles, seeking to dig deeper than questions of digital security or competing narratives on social media. This process of building knowledge mainly sought to initiate a debate and to study questions related to digital technology and class struggle for our movements. We sought to gather different perspectives on this issue and reflect on them in order to build a common understanding, starting not only from the analyses of researcher and expert, but also from the knowledge base of other organisations dedicated to studying digital technologies.

The following reflection is the result of this collective process of building provisional knowledge. The aim here is to understand technological transformations and their social consequences with an eye towards class struggle. It is beyond the scope of this study to provide an exhaustive discussion or conclusion on these themes. Rather, it is a first attempt at understanding issues we believe to be fundamental to social organisation today, drawing upon a broad range of works analysing how these technologies work as part of the dynamic of capital accumulation.



Technology and Capitalism

Within capitalist society, technology appears as an exceptional tool to transform the way we produce, distribute, and consume goods. Technology is not neutral, nor is it divorced from social structures; rather, it acts upon a world built by human labour which – in a capitalist society – is centred on the accumulation of profit by the propertied. The dominant ideology would have us believe that the development of technology and science occurs in a cumulative and inexorable fashion, that the advent of capitalism remains the pinnacle of this process, and that humanity has arrived at a system that produces everything in the best and most efficient way, making everything that came before it – and everything that still resists integration into it – irrelevant. This narrative obscures the fact that technologies are the products of labour, of social relations and dynamics in specific historical and cultural contexts.

The advance of technology is above all a process that emerges from the social organisation of labour. Great technological advances are not the products of exceptional individuals but of collective knowledge and interests that are linked to the ways that life is produced and reproduced and to the social relations that determine and are determined by these same forms of production and reproduction. As such, capitalist society often produces knowledge, techniques, and technologies that express its nature and contradictions. It appropriates what exists and seeks to mould reality in line with its needs. It creates its own industries and its own machines, ones that

are not necessarily the best for human development, but which are certainly the most efficient for the process of capital accumulation.

Since the organisation of capitalist production is based on the exploitation of labour in the pursuit of profit, it seeks to use its technologies to control the productive process, dictating the rhythms of human labour to be just another cog in its machine. At the same time, owners of capital seek to centralise, concentrate, and dominate productive capacity to gain an advantage in the permanent competition amongst each other in order to appropriate profit from other economic sectors. As a result, poverty and squalor grow in tandem with the increase in the number of products we could theoretically consume.

Technology, therefore, is not neutral, since it is produced out of a social context of class society that benefits the propertied class over others. Information and Communication Technologies (ICT) are the technical and technological expressions of a much broader process. The cyclical and structural crises that characterise the capitalist system generate opportune moments for the emergence of new technologies. With the Microelectronic Revolution (the production of ever-smaller and faster integrated circuits, such as microchips), human communication at a global level was profoundly impacted and transformed while also allowing for the unprecedented mobility of capital. Companies were able to demolish factories and simultaneously install them in a range of countries, coordinating productive processes and financial transactions in real time across the planet through informatisation and standardisation. New technologies allowed for the outsourcing of productive processes and

the circulation of commodities as well as for the fragmenting of the working class, now articulated on the basis of the flexibilisation of labour and the withdrawal of rights. This ability to relocate production gave capital even greater bargaining power over workers who had until then been concentrated and organised in huge industrial complexes located in one place.



The Origin of GPS, 2021.

Big Tech and the State

Information and Communication Technologies, developed on the basis of microelectronics and computation, were largely the product of military priorities, only later spreading into the civil sector for the expansion of capitalist accumulation. Aiming to enhance its military power, the US mobilised, coordinated, and supported collective efforts through governmental agencies, universities, and private enterprises. The space race fought during the Cold War also fostered technological development, which it continues to do today through continued space exploration.

The state is fundamental not only for developing technologies that create new markets, but also for advancing the technological frontier in order to hold onto or even compete for new market segments and support the expansion of external markets. High-tech companies are imbricated with their nation states and are structurally dependent on the systems of innovation driven by them – systems whose central objective is, at their origin, a military one. The ICT industry was established under the control of states and companies in the Global North; as a rule, transnational corporations continued to dominate the productive processes and high value-added goods associated with the control and development of the technological base, both to guarantee high profit margins and to make use of military and surveillance advances, thereby attempting to secure hegemony.

Therefore, to understand the ascent of the large technology corporations, known collectively as Big Tech (Google, Apple, Facebook, Amazon, Microsoft, etc.), we need to understand how they relate to the mechanisms of capital accumulation. As much as they present themselves as the ‘solution’ to current economic problems, these corporations are in fact symptoms of problems; that is, they express how capitalism in crisis tries to direct technology towards its own interests. Although these corporations are at the cutting edge of the technologies they deploy in terms of scale and sophistication, they represent a backwards step for civilisation through the flexibilisation of work and the withdrawal of rights, the overwhelming offensive against natural resources, the centralisation and concentration of capital, the power private corporations exercise over public spaces, and other processes that are characteristic of capitalist solutions for the crises it creates.

This is why the rise of Big Tech as an expression of contemporary capitalism is accompanied by a major ideological offensive rooted in individualism, the discourse of the entrepreneur, the negation of politics (the discourse of neutrality), and other social myths, which become ever more powerful as these same corporations take on the role of the media and privileged ideological agents in society. One of these foundational social myths is that of the ‘virtual world’ as a parallel reality, presented in various guises: cyberspace, global village, virtual world, world wide web, superhighway, metaverse, etc., all based on the illusion of a network defined by its horizontal nature in which all individuals are equal, provided they all have access to the same tools. They all have a voice and can both participate in and influence collective life. In this virtual world, networks

and technologies are neutral and aim only, as the Big Tech slogan has it, to ‘create solutions and connect people’. However, behind this apparent horizontality is the work of spin doctors who are experts in disseminating specific politics among the public as well as an increasing number of data analysts and scientists. They have to work hard to prevent us from registering the reality, for instance, of the digital divide and of the erosion of leisure time for the majority of the population.

The frequent use of the term ‘cloud’ corroborates this idea of an abstract place where data produced by users is permanently available and organised almost magically according to democratic and universal criteria. However, nothing could be further from the truth. The ‘cloud’ is in reality a gigantic, extremely concrete, multi-technology infrastructure. It consists of a set of highly centralised and monopolised servers located predominately in US installations, where deregulation and the arbitrariness of both political and profitability interests reign over and above any democratic or universalising pretentions regarding user data. Moreover, they consume exorbitant quantities of energy and natural resources. Similarly, ‘artificial intelligence’ is a term often used to refer to software that analyses and processes large amounts of data with various and complex computational mathematical operations. The term suggests a notion of neutrality: though it seems that there is an autonomous machine ‘thinking’ and making decisions, in reality, the software that allows it to run carries the bias of the entity developing the technology.

Another fundamental Big Tech myth is that of the entrepreneur, a new version of the old fable of the self-made man, which understands success only as the result of individual effort and skill. This myth projects an image of garage-based geniuses – generally brilliant young white men – who revolutionise the world on their own and are billionaires purely as a result of their own merit. People like Steve Jobs, Bill Gates, and Mark Zuckerberg attain the status of business gurus and inspiring coaches, as if their life-courses were accessible to anyone – provided they have a good idea and perseverance. What is missing from this story is that these individuals studied at elite centres of excellence such as Harvard, Stanford, Princeton, MIT, and Caltech. Although these centres are formally private, they rely on considerable public investment and major public policies as well as funding from civil and military government departments and policies that allow for brains and knowledge to be imported from other centres of excellence in peripheral countries.

Through the ideology of the ‘digital entrepreneur’, ICT’s links with financial and speculative capital – which invests millions in the creation and expansion of these companies – are also obscured. What is sold is the image of individuals who started ‘from nothing’, leaving out the fact that they already had access to million-dollar funds that are ultimately the result of the private appropriation of public knowledge and public technology, which in turn were publicly developed with the aid of vast public resources. The \$500,000 that Zuckerberg received to start Facebook was only possible due to his connections to elite financial and speculative capital.

It is also curious that many of these ventures, such as Spotify and Uber, are not profitable, nor do they necessarily have to be. Their market value has become more important than their profitability; just the promise of value that can be speculated upon is enough. This financialisation has a material base: the exploitation of labour. Technology makes workers more productive, and technologies are incorporated into machines and into tools (constant capital in Marx's terms), which transmit their embodied values to the newly created commodities. The more financialised an economy, the greater the pressure on the productive sector and the greater the exploitation of workers to be able to compensate for the sheer amounts speculated in the stock market.



Mining Cryptocurrency, 2021.

Financialisation

The meeting of finance capital and ICT does not only happen through the financing and ownership of these enterprises. The combination of the lack of financial regulation typical of neoliberalism and the access to connectivity via smartphones has allowed for the emergence of fintechs. These are companies that develop digital financial products and are principally focused on the creation of digital payment platforms, seeking to operationalise online buying and selling and inserting billions of ‘unbanked’ people into the financial system.

The World Bank estimates that 1.7 billion people around the world do not have bank accounts. This group is generally made up of rural populations. In Latin America, for example, 50%-70% of the population does not have access to banking. It is not for nothing that it was in this region that financial businesses tripled in size in recent years. Out of the 1.7 billion people without access to banking, 1.1 billion have mobile phones.¹ With fintechs, having a bank account or a fixed address is not necessary, nor is having a minimum income or paying various fees. All that is needed is a mobile phone and an internet connection, meaning that this inclusion will principally take place among the most vulnerable populations.

Chinese fintechs also compete in the banking markets of the global periphery. Huawei works with local operators in Africa to offer

secure services, loans, remittances, and even burial insurance in Kenya and Ethiopia. Similarly, the billionaire and founder of Beijing Kunlun Technology, Zhou Yahui, is an investor in a platform that offers loans via mobile phones in Kenya; the largest mobile phone retailer in Africa, Transsion, is headquartered in Shenzhen and has investments in another platform in Nigeria and in Ghana, while AliPay, part of the Alibaba group, developed a ‘super app’ for South Africa.² The commercial retail sector is another area in which ICT and finance capital act jointly. During the first SARS-CoV pandemic in the mid-2000s, there was an expansion of electronic commerce with the rise of companies like Alibaba and Tencent that are giant retailers today.

However, before the COVID-19 pandemic, Latin America was one of the regions that had least taken up internet commerce, whether due to the poverty rate or to a lack of access to banks and connectivity. For this reason, the US bank Goldman Sachs said that this pandemic could see a repeat of the Chinese electronic commerce phenomenon of the 2000s in Latin America. During the first outbreak of SARS (Sars-CoV1), there was an e-commerce boom in China and several online sales platforms emerged. Among them was Alibaba, which is today one of the largest retailers in the world in this sector. The Chinese population has increasingly made purchases online, a trend that Goldman Sachs predicts will develop e-commerce in Latin America. To this point, in her contribution to the seminar, researcher Larissa Packer highlighted a 50% increase in the number of transactions and in new online consumers in 2020

in Latin America, signifying a monthly revenue growth of 500% for online retailers connected to the food sector in the region – a jump from US\$19 million to US\$120 million. The Colombian company Rappi, for example, doubled in size in just six months.



Genetic Patent, 2021.

Big Tech against Nature

If, on the one hand, CoronaShock limited the movement of people and commodities and produced ruptures in global value chains due to problems in the import and export of commodities, on the other hand, it accelerated the demand for digitalisation. It also led to a deeper application of technology to the industrial base and to the mode of production and distribution, both in urban industries and in extractive and agricultural industries, and it deepened the non-separation of working and non-working time, productive and reproductive labour, and spaces of labour and leisure.

In agribusiness, there was a growth in mergers, acquisitions, and deals between agricultural giants, technology giants, and these fin-techs. This new infrastructure has resulted in a reorganisation of these actors, a movement which tends, over time, to lead to oligopoly. Such a reorganisation increases the need for massive data-capture in practically all the stages of the agribusiness chain. Moreover, it deepens the precarisation of public services by decreasing the availability of public information while increasing the supply of private platforms and Big Tech infrastructures for public services. This clearly interferes with the process of governments being able to make decisions in their countries.

The companies John Deere and Bosch are hegemonic in the area of tractors and machinery, while in logistics and sales, Cargill, Archer

Daniels, Louis Dreyfus, and Bunge dominate. Then there are the big retailers: Walmart, Alibaba, and Amazon, among others.

Technology giants tend to migrate to the agricultural sector with a sort of vertical integration taking place not among companies of the same sector, but along the value chain, which shows the capacity of these companies to absorb and reorganise the chain vertically from the field to the consumer. There are also tendencies towards the digitalisation of the planet in the realm of natural landscapes and resources as much as in the realm of genetic sequencing. For example, Microsoft is working in partnership with germplasm centres around the world to provide the infrastructure to digitalise these genetic banks. In 2018 at a World Economic Forum meeting at Davos, the Amazon Data Bank project was launched, aiming to catalogue and patent information relating to the genetic sequencing of seeds, seedlings, animals, and a variety of unicellular organisms on earth. This is merely the first step in the Earth Bank of Codes programme.³

An oligopolistic market with colonial characteristics is emerging: transnational corporations, mainly domiciled in the Global North, always grant themselves patents and intellectual property rights, which have long invested in science and technology at the cost of extracting low value-added raw materials in the countries of the Global South. Moreover, this technological leap also entails a greater demand for other mineral and energy raw materials (lithium, iron, copper, and rare earth metals, for example), driving towards a more aggressive organisation of the international division of labour to guarantee their supply. In Bolivia, for example, the 2019 coup was

directly related to the nationalisation of its lithium reserves, one of the largest in the world.⁴

A reorganisation of the rural infrastructure sector is also underway. Over the last five years, companies like Syngenta, Bayer, and BASF have developed agricultural software and digital platforms which are installed on mobile phones to provide producers with agricultural recommendations. Today there are tractors equipped with artificial intelligence (AI) that collect information on soil humidity, composition, and the best location and the best season of the year to plant, etc. Farmers can also input their own data through their mobile phones. The collection of this data itself is not the problem, since in another social system this data could be harnessed to assist farmers in their work. In a capitalist system, however, the data is controlled by corporations for the benefit of their own profit-making. These companies own only the software but not the hardware, which is owned by other giants like John Deere and Bosch, who are developing AI and robotisation. The result of this is visible in robotic tractors, sensors, drones, etc.

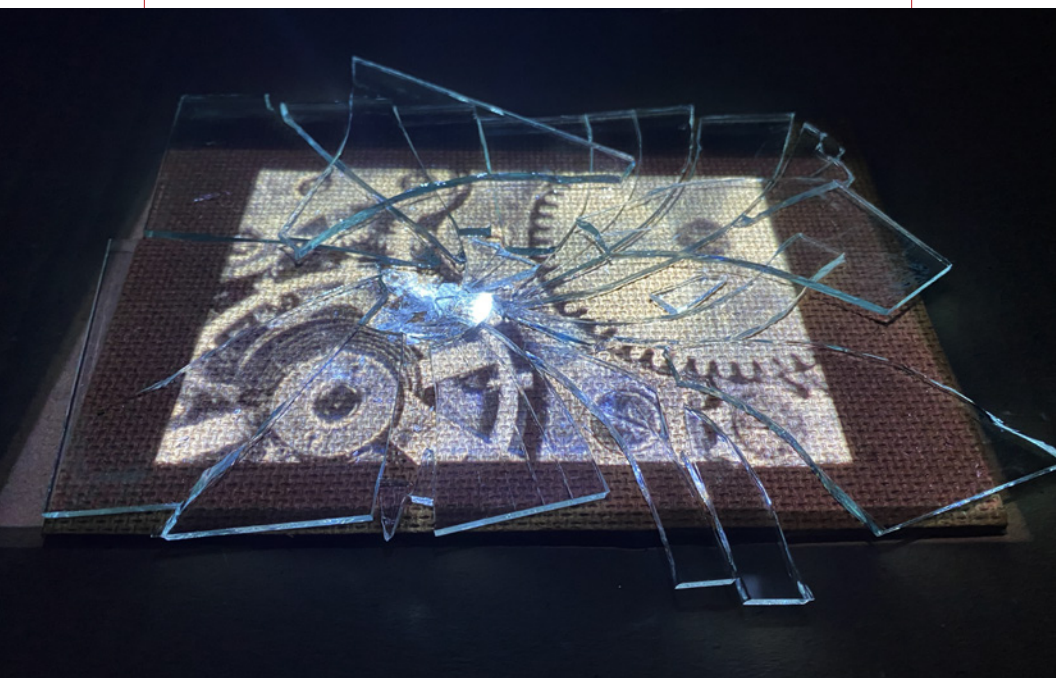
These patents and the information produced by agribusiness giants need to be stored on the digital infrastructure of Big Tech companies: Microsoft has its cloud, Azure. Apple developed an Apple Watch for precision agriculture and created the Resolution app for farmers. Amazon has a storage function on Amazon Web Services intended for rural areas. Facebook is creating a digital consultancy app for farmers. Google has an institutional version of its Google Earth created for the United Nations Food and Agriculture Organisation, and so on. The primary consumers of these services

are big agricultural producers in the commodity export market; meanwhile, 500 million peasant families do not have the means to access this new technology package. What they do have are their mobile phones, on which they can receive agronomic advice via SMS or WhatsApp based on information freely uploaded by other farmers. A large number of these applications are available ‘freely’ to small farmers in exchange for participating in a massive data-capture process.

This is where the issue of the integration of fintechs, Big Tech, and the agricultural giants emerges. In Kenya, Arifu – a company that belongs to the European telephony giant Vodaphone – offers agricultural consultancy via SMS and WhatsApp. Arifu has a partnership with Syngenta and DigFarm, enabling Syngenta to grow awareness of its seeds while DigFarm offers microcredit to Kenyan farmers. The structure of digital platforms makes this integration possible: they charge small fees, sell inputs, and allow for the use of digital currencies.⁵ But how can artificial intelligence and the algorithm ‘read’ small farmers’ lands with their diversity of native seeds, for example, to enable corporations to offer free advice? Alas, this type of technology is intended for large extensions of land and monocultures. The integration of small farmers will not happen by selling technology packages but through microcredit and the digital currencies that have accompanied these platforms made available by the fintechs. For this to happen, it will be necessary to reduce state regulation of the economy and of agriculture.

This dynamic was seen most recently in India, where one million farmers occupied New Delhi, India between January and February

2021 demanding the scrapping of three laws that would put an end to the state regulation of the agricultural goods market. According to the new laws, instead of the state paying a fair price for peasants' products, the market would be opened and deregulated, allowing big retail and technology corporations to take the place of and eliminate small retailers. In practice, this would mean that these large corporations would organise production and consumption in this sector.⁶



The Fragmentation of Work, 2021.

Technology and Work

The combination of the data economy and financialisation has also transformed the world of work. ‘Uberisation’, the ‘platformisation of work’, and the ‘gig economy’ are some of the terms used to describe precaritised work in the era of Big Tech, and studies on this topic have gained relevance due to the mobilisations of Uber and app delivery drivers. Despite what these terms might suggest, it is not the applications themselves causing this shift – there isn’t some sort of technological determinism at work – but rather processes that have already been underway for decades and that are increasingly transforming workers into service-providers in fragile and permanently unstable labour relations.

According to the sociologist Ludmila Abilio (2019), these transformations need to be considered from the perspective of the experience of the periphery. In this historically unequal place, the formalisation of work through the acquisition labour rights was never the norm. Instead, life is built on a permanent imbalance between formal and informal labour relations, freelance work, and activities that are not recognised as work. What does it mean to speak of precarisation or flexibilisation in this context?

What is called ‘uberisation’ can be understood as the globalisation of elements that characterise the ways of life in the periphery. These companies have come to transform other layers of society, reorganising the lives of the middle class and of white men and women and

finally making their way to the Global North. These are structural and structuring elements of capital's periphery, where this reality never the exception. However, today more than ever, the informality and flexibilisation of work have become the rule.

We are witnessing a deepening of the neoliberal process of globalisation that has decentralised production by means of subsidiaries and outsourcing with the aim of making the forms of control and management of labour less identifiable. Little by little, international oligopolistic companies have taken over informal work, organising, regulating, and defining what work is. In the world of the supposed neutrality of algorithmic management, there is no work-time, workplace, or work tools. All the risks and costs are displaced onto the workers, who use their own belongings, houses, vehicles, sewing machines, and soles of their shoes in 'subordinate self-management', controlled in a centralised fashion by mechanisms that are obscure but extremely effective in the rationalised management of informal workers.

However, this radical move towards near-complete automation cannot be realised without the contribution of digital labour; that is to say, hidden human labour (such as through mining, cleaning, and formatting) is needed to produce AI and even data. Thousands of people in the Global South work for the conglomerates of the North, teaching machines to carry out tasks while receiving poverty wages for their work.⁷

As Ludmila Abilio (2019) concludes, the just-in-time model has won out and we are living through its consolidation. Technological

developments now allow capitalists to manage labour that is constantly at their disposal, to be put to work only when needed. Perhaps the state of war experienced by workers in the distribution of goods can offer clues as to how to think through forms of resistance to the new configuration of exploitation, oppression, and domination in contemporary work.

Technology between Two Powers

In order to understand the rise of Big Tech, we must recognise that there is a global organisation of scientific and technological labour, and that this organisation concentrates the strategic stage of the production of technological knowledge in the core countries, while peripheral regions occupy the role of consumers of technology. This contrast between the core and peripheral countries is striking: in 2015, North America, the European Union, China, Japan, and South Korea accounted for 82% of both public and private global spending in research and development, and almost the entirety of the world's scientific and technological production is controlled by some 30 countries. The US alone spent US\$ 502 billion that year, accounting for 26% of global spending.⁸

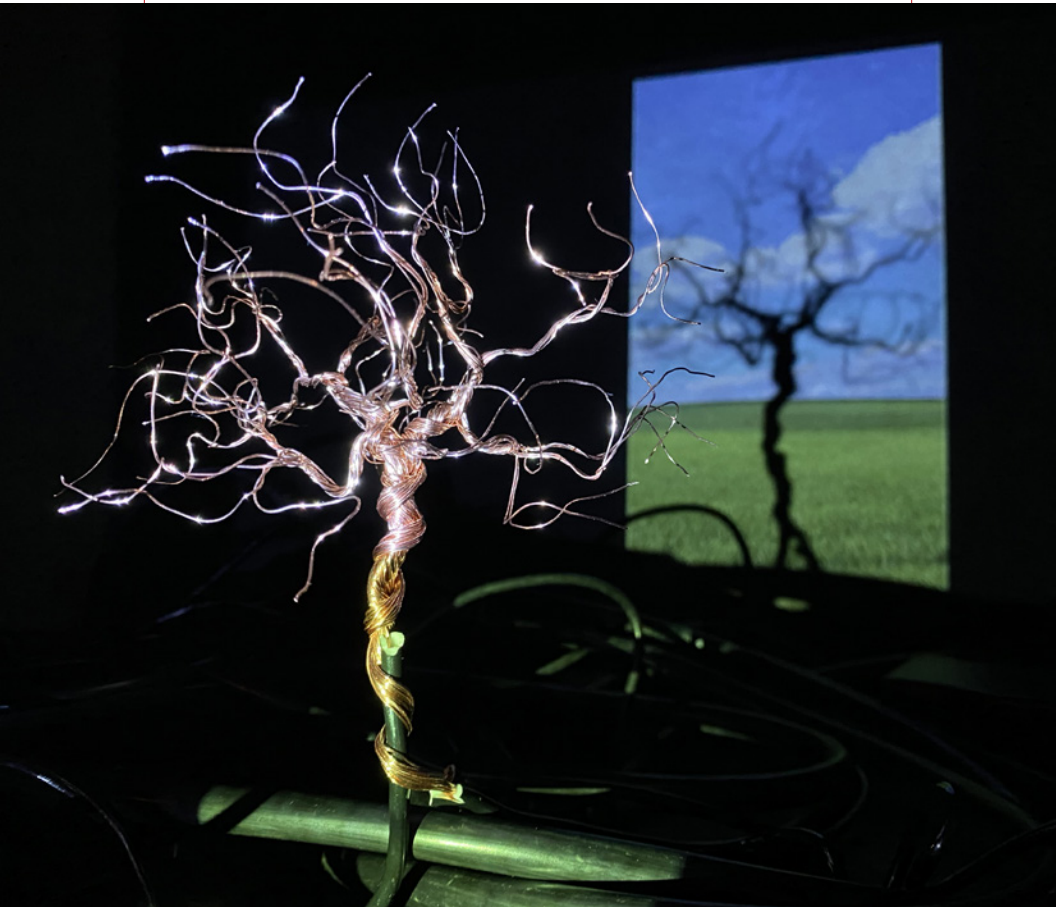
China has also undertaken significant advances in the area of information technology. Chinese expansion in building infrastructure, knowledge, and production in this field is part of the country's effort to consolidate itself as a global power. Moreover, China is also looking to safeguard its sovereignty and defence in relation to international systems of surveillance and control, preventing its domestic traffic from being routed through other countries. China's advances have triggered responses from the US and its allies, especially because the ICT industry is on the verge of undergoing a qualitative leap forward with the upgrading of global telecommunications infrastructure through the implementation of 5G.⁹ This new technology will allow larger quantities of data to be transmitted

and received some twenty times faster than through 4G. This volume and speed will impact areas that consume or need to store a lot of data, such as autonomous vehicles or even entertainment, making high quality films available on mobile phones in seconds. This upgrading opens up an opportunity for technology companies and national economies to reposition themselves in the industrial system as a whole.

Though China's state capacity has allowed it to be the first country to implement a commercial 5G network on a large scale, the country's direct and indirect dependence on US integrated circuit products and technologies serves as the main choke-point for the US to delay or even block China's progress. The US's centrality to the production of cutting-edge semiconductors and the machines that produce them, as well as to the progress of the technological frontier in these segments, gives the country the ability to intervene in the global production network and to activate channels to block China's development in ICT, given the latter's critical dependence on these core components.¹⁰ The complexity of the highly globalised ICT ecosystem and the centrality of the Chinese market inevitably fragments US capitalist interests by presenting a 'geometry of heterogenous and tangled competition and complementarity, provoking resistance to the US government's strategy of obstruction where complementarity predominates' in the words of economics professor Esther Majerowicz.¹¹ As Huawei is the only company offering large quantities of the necessary equipment to implement a 5G network on a large scale, banning the company – as the US has suggested – would put those countries that do not have the ability to build their own infrastructures and compete in the

telecommunications equipment market in a disadvantaged position in various other markets and set them back in the production of the specific masses of data needed for the development of artificial intelligence.¹²

As we can see, upgrading global telecommunications infrastructure creates an opening for the potential repositioning of nations in the industrial system as a whole. The spread of 5G to the capitalist periphery, which often does not have the capacity to build its own infrastructures, will lead to increased technological and financial dependence, as well as to the expansion of international surveillance systems.¹³ The provision of financial resources to implement 5G in the periphery is one area where competition between the great powers as well as developed economies is on display. Without a sovereign development project, peripheral countries are left to follow the development models designed in the interests of and aligned with the objectives of the great powers or developed countries.



Connected Cables, 2021.

Starting Point

The main challenge for popular movements, organisations, and collectives is to overcome the hegemonic ideological narratives about the data economy. The data economy must be analysed as a central component of a contemporary capitalism that is seeking to consolidate the basic conditions for its expansion. These conditions include:

A free market (for data): if, on the one hand, user data is collected and used freely, the inverse is not true when it comes to technology companies, given that the data, metrics, and algorithms that they use are proprietary and held under lock and key. User data, meanwhile, which are generated in an unprecedented volume, have become commodities and financial assets that, in order to guarantee corporate profits, must circulate without regulation or control and without taking into account the interests of users who generate the data.

Economic financialisation: data capitalism companies depend on the flux of speculative capital to grow and consolidate. These companies bear witness to capital flight, shifting capital away from productive sectors and towards those that are merely speculative. This puts increasing pressure on productive sectors to increase exploitation and precarisation.

The transformation of rights into commodities: the spread of technological ‘solutions’ proffered by Big Tech and its derivatives

has not spared public services, where governments have entered into multi-million-dollar contracts with Big Tech companies. Under the discourse of efficiency and sophistication, rights such as education, health, and transport are transformed into commodities. Part of public life has come to be mediated by algorithms and interests that are beyond the reach of the population at the same time as great sums of money are transferred to technology companies.

The reduction of public spaces: the reproduction of a view of society that is based only on individuals who are segmented into self-sufficient interest bubbles by means of ‘personalised content’ continues unimpeded. Public debate based on different opinions and objective data is militated against by the need for engagement, whose purpose is to provide feedback and reaffirm individual certainties at the expense of collective and common constructions.

The concentration of resources, productive chains, and infrastructure: the most profitable layers of the data economy require a high degree of centralisation. The concentration of resources, productive chains, and infrastructure in the hands of a few big corporations is a clear necessity of capitalism today – even when it operates through subsidiaries and a variety of enterprises, companies, and services. The great power concentrated in these corporations overrides any democratic and popular debate on political, economic, environmental, and ethical questions.

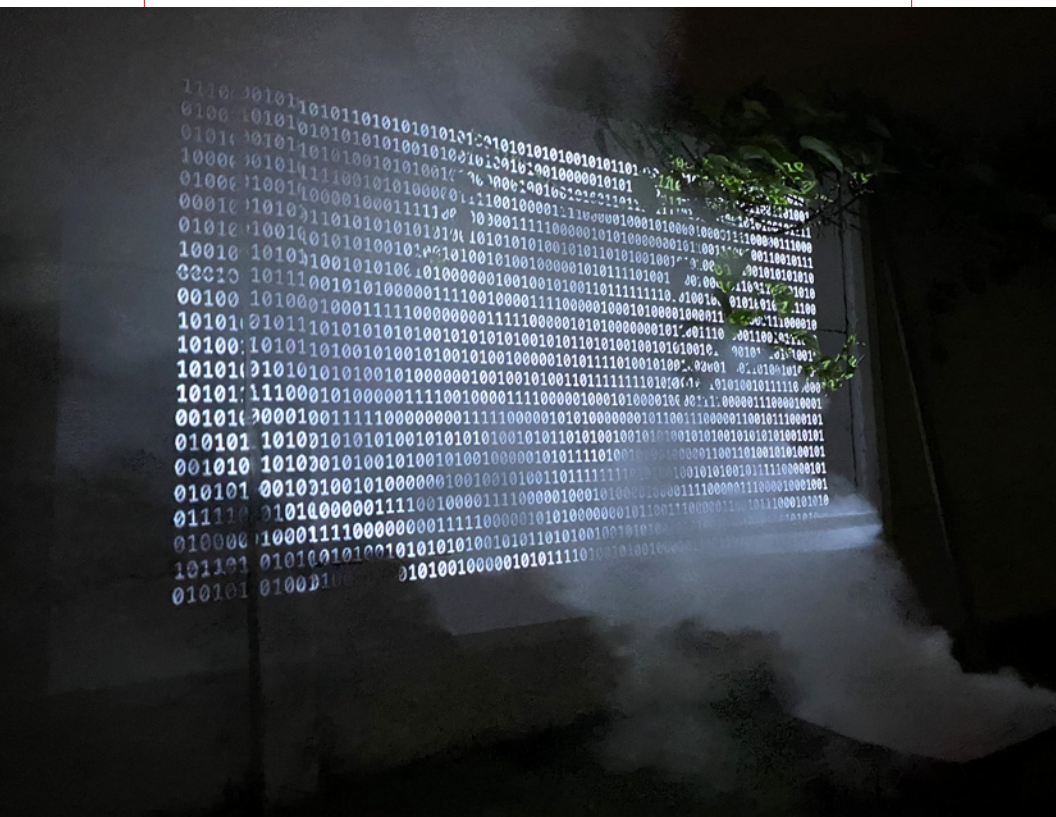
These characteristics are not unique to the so-called data economy; rather, they are integral to the broader capitalist system. Technological development does not happen autonomously from

the social organisation in which it is embedded. A key element to understanding this relationship is to remember a fundamental characteristic of capitalism: the private ownership of the means of production. If technology were a common good and not the property of the few used to further the interests of capital, it would allow us to guarantee adequate production to meet human needs while significantly reducing the working day, leaving us with free time to realise ourselves more fully as human beings.

Once we understand how the data economy seeks to reproduce and expand the dynamics of capitalism itself, a challenge arises within movements, organisations, and popular collectives seeking to build alternatives. It is important that we look at our own organisations and reflect on some of these challenges. Mere access to technological resources and information do not in themselves reduce inequality. In fact, they can even increase it. Not every action or policy based on ‘intelligent’ devices is an intelligent action or policy. We must always remember that technology is the bearer of contradictions, containing within it the potential for liberation and for alienation at the same time, and that there will always be disputed in a society shaped by class struggle. For workers’ use of technology to be truly effective, it must always be linked to a tactical and strategic class project. We also cannot confuse cause and consequence **neither in our analyses nor in practice**. Electronic surveillance (be it individual or mass), fake news, the spread of hate speech and antidemocratic discourse, and the precarisation of work imposed by applications are the expression of a deeper economic logic. This debate is essential to calibrate our energies as to *where* and *how* to act, be it in the immediate, medium, or long term.

We cannot give ourselves the luxury of being technophobic, of negating the importance of technologies and their potential in the struggle. At the same time, we cannot believe in the idea that technology in itself will result in advances for the organised working class. Technological development is not autonomous from the form of social organisation into which it is inserted; the element of class struggle is our beacon for the appropriation of scientific knowledge and for the construction of viable alternative technologies. The debate about digital technologies and capitalism cannot be a niche debate, advanced by individuals or small groups interested in the subject. Given the issue's impact on the economy, politics, geopolitics, education, culture, organisation, mobilisation, and struggle, it must be a debate carried out in all its dimensions, by all organisations. Only through a wider, collective, and participatory debate will we be able to redefine the terms of technological 'solutions' and 'efficiency' from a socialist perspective.





Smoke Screen, 2021.

Endnotes

- 1 Grain, 'Controle digital', 2021.
- 2 For more information, follow the weekly 'News on China' summary from the Dongsheng (Eastern Voices) Collective: <https://dongshengnews.org/en/>
- 3 Schmidlehne, 'Blockchain e contratos inteligentes', 2020.
- 4 Prashad, 'Bolivia's lithium', 2019.
- 5 Grain, 'Controle digital', 2021.
- 6 Tricontinental, *The Farmers' Revolt*, 2021.
- 7 DigiLabour, 'Uma Internet alternativa', 2019a; DigiLabour, 'A Invisibilidade do Trabalho de Dados', 2019b.
- 8 Moura, 'Ensayo sobre la ceguera', 2018.
- 9 Tricontinental, *Twilight*, 2021.
- 10 Majerowicz, 'A China e a Economia Política Internacional', 2020.
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