

How did we end up trapped? – that is: how did we come to believe that ‘there is no alternative’, that there is only one way to live, to produce and distribute wealth, to organise social relations? This is the question, certainly a topical one, posed in an ambitious and successful book published four years ago by anthropologist David Graeber and archaeologist David Wengrow, attempting to reconstruct «a new history of humanity»¹. Their thesis can be summarised by the provocative title they initially chose: *We have never been stupid*. Contrary to the idea – still prevalent in common sense but also in much of historical, philosophical and political thought – of a linear and necessary development from small, free and egalitarian communities of nomadic gatherers and hunters to our rich but unequal societies, centred around private property and the state, to which there would be no alternative unless we wanted to return to a primitive condition, the authors claim that institutional plasticity has been a feature of human beings since the dawn of time. In other terms, since the beginning of their history, human beings have consciously experimented with a wide variety of economic and political structures and bonds, both within and between groups. These structures were not deterministically imposed by the environment, technological level, or other external factors, but were generated by a dialectic, composed of conflict and compensation, between freedom and domination. Indeed, between three types of freedom – i.e. the freedom to leave, to migrate to other places and mix with other communities; the freedom to question unwanted orders; the freedom to practise new social relations – and three types of domination – *sovereign* domination, which implies a monopoly on violence in a territory; *bureaucratic* domination, which has to do with the administration, production and control of knowledge; and *charismatic* domination, which seeks to mobilise followers to inaugurate a new historical sequence or build symbolic legitimacy. The combination of these three types of domination, which has become increasingly consolidated in Europe in recent centuries, has generated the type of society and state that has drastically reduced our freedom to move, to refuse, to practise an alternative².

Regardless of what one thinks of Graeber and Wengrow’s considerable text – whose objective is explicit, namely to remind us that ‘savage’ populations were not inferior or ignorant, but were in fact more open than our societies, which are no longer capable of imagining any horizon other than that of the state and capital, or at most its general collapse – their suggestion is extremely

¹ D. Graeber, D. Wengrow, *The Dawn of Everything: A New History of Humanity*, London, Penguin Books, 2021.

² This particular interpretation of the classic theme of bureaucracy, which interests us here because it has a lot to do with big corporations, had already been presented, from a different angle, by Graeber in *The Utopia of Rules: On Technology, Stupidity, and the Secret Joys of Bureaucracy*, New York, Melville House, 2015. In this text, Graeber describes the contemporary world as «the era of total bureaucratisation»: the various public and private bureaucratic centres have become so intertwined that they are now virtually indistinguishable, operating on a daily basis in the service of both violent police control and the accumulation of profits, but also determining the lack of political imagination. On a similar line, see also Mark Fisher’s concept of «market Stalinism» in his famous *Capitalist Realism*, Winchester, Zer0 Books, 2009.

interesting. It allows us to reflect on how, throughout history, violence to appropriate goods or resources, both from one's own human group and from other groups, has always gone hand in hand (which does not necessarily mean at the same pace) with a *war on knowledge*, that is, with the dual effort, within the group, to collect and 'confiscate' information, centralise it, and build a superior source of knowledge, and, outside the group, to neutralise the producers of 'other' or competing knowledge through physical elimination, co-optation, and the obligation to surrender information and adhere to the dominant system of knowledge (and beliefs). In other words, in order to assert dominance, it has always been necessary to act on the mind of the dominated playing down their knowledge, what they can imagine and what they can legitimately expect from the historical and social dimensions. Historical examples of this abound, and it is certainly to the credit of anti-colonial thinking that it has raised the awareness of these issues to a level that is not only ethical but also scientific. However, these issues cannot be confined to the past, as if the unification of the world through globalisation over the last thirty years had finally created a smooth, horizontal space in which violent appropriation and resistance to it were replaced by bargaining, and the circulation of goods and knowledge was regulated by the market. This view, which spread not only in the media but also in academia during the 1990s and up to the great crisis of 2008, is now increasingly being challenged by the objective increase in conflict, both inside capitalist societies and between them.

In fact, recent years seem to have seen greater social polarisation, primarily as the result of the appropriation by the upper classes of wealth produced by the lower classes, followed by various political effects, not least a generalised tendency towards war on the part of the great powers to secure a privileged supply of raw materials or control of production chains, trade or financial circuits, with significant investments in the military sector aimed at restarting the accumulation of capital through the destruction of movable and immovable property³. Within this framework, in a manner that was not only complementary but sometimes preventive, another type of 'war' also developed, which saw some major private players redesign the ways in which knowledge was produced, appropriating collective knowledge to serve their own interests, while at the same time preventing their competitors or enemies from acquiring new knowledge. This war took many different forms.

Internally, a strong bond between private actors, political sectors and state apparatus has led, not only in the US, which has been at the forefront of this process since the 1960s, to a set of ideological and material phenomena: a drive towards competition and merit, a focus on disciplines more closely linked to technology and profit at the expense of those linked to understanding and critical theories, reforms in the world of academia and research aimed at connecting/subjugating the production of knowledge to the interests of the 'market',

³ See C. Cozza, *La distruzione (di capitale) è ricostruzione. A note on the material motivations behind the latest wars*, in «Progetto Me-ti», 5 January 2026, available at <<https://www.progettometi.org/analisi/qual-e-la-posta-in-gioco-della-guerra-la-distruzione-di-capitale-e-ricostruzione>>.

standardisation of the parameters for measuring scientific production according to mostly quantitative methodologies, funding lines aimed at making certain sectors thrive and others die out, concentration of legitimate knowledge in a few large publishing or academic centres, proliferation of hybrid foundations and *think tanks* to determine public policy, a *revolving door* system whereby members of public education and research move to the boards of large companies and vice versa, tightening of governance in universities and research centres, the progressive marginalisation of those who refuse to submit to these processes, to the point of outright closure of departments and institutes disguised as ‘rationalisation’, leading, in the last three years, which have seen the university community take action on major global issues, to a real restriction of freedom of speech, with dismissals and arrests of academics and students...

Externally, on the other hand, the war on knowledge has been waged through sanctions against enemy countries and academics, the massive reintroduction of ‘secrecy’ against the logic of ‘open science’, and, in the context of war, the targeted killing of scientists and the destruction of universities, infrastructure and cultural centres.

If these trends have become established worldwide, it is because they do not depend on the will of a specific political group or a single state, but on the rapid growth of productive forces, their increasing socialisation, and at the same time on the contradiction between this growth and property relations, the most decisive private actor – which on the one hand is the most mature product of these trends⁴, and on the other hand reproduces them on a qualitatively higher level – is undoubtedly the complex that has taken the name of Big Tech. This is a union of large corporations, active in the ICT and digital sector, which in recent years, also through political and economic exchanges with the US administration led by Trump’s radical right, has come to concentrate enormous power – not only in terms of data collection, centralisation and distribution of knowledge, perfecting *bureaucratic* domination, but also determining the very tools through which knowledge and forms of thinking are produced. This is something unprecedented in terms of size and power, which has fused not only two among the principles discussed by Graeber and Wengrow, namely sovereignty and bureaucracy, into a model of «privatised sovereignty» based on a self-reinforcing loop: «ideology fuels venture capital → capital captures the state → the state feeds the same private systems that built it»⁵, but also the third, that of *charisma*, given the claim of the major personalities of this «au-

⁴ As demonstrated by M. Mazzucato, *The Entrepreneurial State*, Penguin, London 2018, particularly in the chapter entitled *The US entrepreneurial state*, where she demonstrates how it was not the market that produced the United States’ capacity for innovation, but rather the state, which was a «major player», above all thanks to the «role that military engagement has had for economic growth and development».

⁵ A visual reconstruction of this relationship has been carried out by the research project *The Authoritarian Stack. How Tech Billionaires Are Building a Post-Democratic America*, led by Francesca Bria, with the support of European institutions such as the Rosa Luxemburg Stiftung and Friedrich-Ebert-Stiftung, available here: <<https://www.authoritarian-stack.info>>.

thoritarian stack» to polarise, inspire visions, and construct comprehensive and trans-historical horizons of meaning.

The purpose of this paper is therefore to provide an analytical starting point for building a collective research effort – which is increasingly necessary – not only on what Big Tech is, how it is structured, how it operates internationally⁶, but also on how, by merging these three powers, it is waging a devastating war against knowledge that is ‘enemy’ to it, and more generally against the inherited form of knowledge itself. And how this takes on particular significance in the European context, which certainly generated the religious, cultural and scientific vectors that underpin Big Tech’s enterprise centuries ago, but which today could offer an element of resistance (and which, not surprisingly, is perceived as such by some promoters of this war, who often appear unconsciously eager to «kill the father»). In short, it is our belief that, in order to understand the transformations of the last thirty years mentioned above, we must look at Big Tech as the highest point of contradiction between the socialised production of knowledge and its privatisation, because, according to Marx’s famous expression, «the anatomy of man is a key to the anatomy of the ape»⁷, and only by having a clear understanding of all the previous developments can we attempt to anticipate some future scenarios.

Therefore, in the first paragraph, we will present an interpretation of Big Tech based on the most recent research, linking it closely – and this is an innovative element – to studies on imperialism, and emphasising how US-based Big Tech companies are influencing the decisions of the US government, especially fuelling its military power, showing how research and knowledge undertaken by Big Tech is key to governments’ decisions on war. In short, it is not a question of showing, as many critical studies do, how private enterprise has ‘got out of hand’ politically and become a ‘bad’ monopoly, but how the establishment of this monopoly is intrinsically linked to the mode of production, its specific stage, and the political superstructures with which it has a relationship of ‘mutual dependence’.

In the second section, we will present examples of the transmission channels of this economic power of US-based Big Tech in Europe and Italy, through research programmes and partnerships. This mapping and census work is essential to show how Big Tech is ‘colonising’ the space of European

⁶ Many studies, including critical ones, have been written on this subject. See for example S. Zuboff, *The Age of Surveillance Capitalism: The Fight for the Future at the New Frontier of Power*, Profile books, London 2018; K. Crawford, *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*, Yale University Press, 2022; M. Paquinelli, *The Eye of the Master. A Social History of Artificial Intelligence*, Verso, London 2023; C. Durand, *Techno-féodalisme: Critique de l’économie numérique*, La Découverte, Paris 2023; Mhalla Asma, *Technopolitique: Comment la technologie fait de nous des soldats*, Seuil, Paris 2024; Y. Varoufakis, *Technofeudalism: What Killed Capitalism*, Vintage, New York 2024; C. Doctorow, *Enshittification: Why Everything Suddenly Got Worse and What to Do About It*, Verso, London 2025.

⁷ K. Marx, *A Contribution to the Critique of Political Economy [Grundrisse]*, Lawrence & Wishart, London 1971, «The method of political economy».

knowledge production and can take control of the fundamental levers of sovereignty and bureaucracy.

In the third section, we will attempt to identify some paths of investigation that could be pursued collectively to understand what the alternative to this particular type of Big Tech dominance might be, at least in Europe. Some of these analyses are already underway, but they should be framed within a more comprehensive theory of social development, while others are still in their early stages.

1. Big Tech, power and war, from the US to the world

The economic power of large corporations is something plain for all to see. It can be summarised in two main aspects: on the one side, Big Tech are powerful as they produce commodities (either products or services) that are perceived as useful, if not as essential, for all consumers in the world; on the other side, as they rise a technical issue of excessive ‘market power’, to be managed by antitrust authorities. Even if very recent events have shown that previously announced antitrust actions have not taken place. Just to give a couple of examples: the US Antitrust Authority has no longer obliged Google to sell a set of its activities (namely, the Chrome browser), as it had announced; the G7 backtracked on the global minimum tax for Big Tech. Both examples, like others, confirm the idea of the enormous economic and political power of Big Tech.

These aspects, however, reflect an idea of ‘economic power’ that is rooted in mainstream economics: being powerful simply means being able to sell commodities at a higher price than in the ‘perfect competition’ case (this is the ‘monopoly power’ in mainstream economics) or being able to circumvent anti-trust controls. As already mentioned, in this paper, we refer to economic power from a different perspective and a broader sense. That is, the ability of Big Tech firms to control and direct the economic and political decisions of other actors (smaller competitors, clients, suppliers, governments, and, most of all, the global labour force) that should be independent of Big Tech firms’ borders. Indeed, Big Tech companies have surpassed the GDP of some of the world’s leading economies and control a significant share of research and development (R&D) investment and patents in advanced technologies such as artificial intelligence (AI). This concentration of economic and technological power has profound implications for income distribution, access to knowledge, job insecurity and geopolitical tensions. On the one hand, Big Tech companies are involved in the ‘internal struggle’ for global capital: their dominance in production, consumption, communication, logistics and even public services at a global level has been highlighted, to the detriment of smaller capital. On the other hand, Big Tech is advancing the ‘external struggle’ against labour and governments worldwide. Focusing on the relationship between Big Tech and labour, recent empirical evidence has highlighted: economic insecurity and increased job vulnerability; an increase in temporary jobs; negative impact on wages; techno-economic dependence.

To perform such a comprehensive analysis of Big Tech power, we will draw on ideas from early studies on imperialism⁸ and to the Monopoly Capital literature⁹, as recalled in recent works¹⁰. Following this stream of literature, we assume that current analyses on the economic power of Big Tech miss three main issues:

- the monopoly power of Big Tech represents a specific, and higher, stage in the historical development of capital;
- there exists a (theoretically) unresolved relationship between governments and large capital;
- Big Tech has an impact on the production and transmission of human knowledge.

In this paper, we will focus on the third point, and particularly on the connection between knowledge and the military sector. In fact, recent works have shown that Big Tech is increasingly involved in military activities, giving rise to a ‘digital-military complex’ that goes beyond the ‘military-industrial complex’ addressed by President Eisenhower in 1961¹¹. In other words, there is a growing role for Big Tech in military activities and geopolitical tensions, due to its control over knowledge, infrastructure, and ‘dual-use’ technologies that are essential to both the civil and military spheres. Such a ‘military-digital complex’ closely links digital platforms to military and intelligence apparatus, and Big Tech companies are key players in it. They provide dual-use technologies (usable in both civilian and military contexts), such as cloud computing, AI, and satellite systems, which are essential for surveillance, defence, and military operations. Their collaboration with governments manifests itself through billion-pound contracts for the development of military infrastructure and technologies, such as tactical cloud computing, AI systems for drones and augmented reality headsets. In addition, digital platforms influence political consensus and public debate, consolidating their power.

⁸ See J. Hobson, *Imperialism: A Study*. James Pott and Company, New York 1902; V. Lenin, *Imperialism, the Highest Stage of Capitalism*, Progress Publisher, Moscow (1917) 1963.

⁹ P. A. Baran, P. M. Sweezy, *Monopoly Capital. An Essay on the American Economic and Social Order*, Monthly Review Press, New York 1966; K. Cowling, *Monopoly Capitalism*, Macmillan, London and Basingstoke 1982; K. Cowling, R. Sugden, *Transnational Monopoly Capitalism*, Wheatsheaf Books, Brighton 1987; K. Cowling, R. Sugden, *The essence of the modern corporation: markets, strategic decision-making and the theory of the firm*, in «The Manchester School», n. 66(1), 1998, pp. 59-86.

¹⁰ A. Coveri, C. Cozza, D. Guarascio, *Monopoly Capital in the time of digital platforms: a radical approach to the Amazon case*, in «Cambridge Journal of Economics», n. 46(6), 2022, pp. 1341-1367.

¹¹ A. Coveri, C. Cozza, D. Guarascio, *Monopoly Capital in the time of digital platforms: a radical approach to the Amazon case*, cit.; A. Coveri, C. Cozza, D. Guarascio, *Blurring Boundaries: An Analysis of the Digital Platforms-Military Nexus*, in «Review of Political Economy», n. 37(4), 2024, pp. 1632-1663; D. Guarascio, M. Pianta, *Digital technologies: civilian vs. military trajectories*, in «LEM Working Paper Series», 2025.

To analyse these aspects from a theoretical point of view, we briefly recall theories of imperialism and monopoly capitalism, which offer a key to understanding the power of Big Tech. In early studies of imperialism, governments are not interested in the public good but they rather make political decisions – including war declarations – for the economic interests of a few large capitals, that is, to counteract the slowdown in capital accumulation. The leading exponents of this school of thought identified large oligopolistic enterprises as the preferred unit of analysis for understanding the transformations that took place from the end of the 19th century onwards, when capital exports and financial speculation became the driving force behind accumulation and ‘cartels’ divided up the world economy. According to this perspective, these transformations were a response to the first major global crisis of 1873-1895 and marked the beginning of the imperialist phase of capitalism¹². After the Second World War, Baran and Sweezy updated the theory of Monopoly Capital, showing how large multinational corporations, at that time almost exclusively Western, influenced the global economy in additional ways: the prices they set conditioned the activities of smaller economic actors; consumers’ behaviour was influenced by huge investments in marketing and advertising¹³.

By updating these theories, we can see how Big Tech companies not only dominate markets through economies of scale and network effects, but also control critical infrastructure and information, transforming themselves into strategic decision-making centres that influence the entire economic system. Their capacity for accumulation is reinforced by the government’s dependence on their technologies and infrastructure, creating a relationship of ‘mutual dependence’. This link makes it difficult for governments to impose regulations that limit their power. The key notion in this regard is that of ‘control,’ which transcends geographical and group-of-companies boundaries, as already highlighted by Cowling and Sugden in their discussion of large transnational companies at the end of the 20th century¹⁴.

This approach is particularly fruitful when defining the channels of ‘mutual dependence’ between the US Government and Big Tech in the military sector. A linkage that is today more complex than the one determined by large corporations in the 20th century. It is possible to identify five channels that help explain Big Tech’s involvement in US Government war decisions¹⁵.

- 1) *An ‘originary linkage’*: Big Tech firms owe much of their development to US military research programmes that, after World War II, led to the creation of the Internet and all the most important digital technologies.

¹² See V. Lenin, *Imperialism, the Highest Stage of Capitalism*, cit.

¹³ P. A. Baran, P. M. Sweezy, *Monopoly Capital. An Essay on the American Economic and Social Order*, cit.

¹⁴ K. Cowling, R. Sugden, *Transnational Monopoly Capitalism*, cit.; K. Cowling, R. Sugden, *The essence of the modern corporation: markets, strategic decision-making and the theory of the firm*, cit.

¹⁵ A. Coveri, C. Cozza, D. Guarascio, *Blurring Boundaries: An Analysis of the Digital Platforms-Military Nexus*, cit.

Therefore, their economic power originates from the appropriation of knowledge and technologies developed in the public sphere and transferred ‘at no cost’ by the same government agencies that contributed to their development. Silicon Valley is the key case, acting as a central hub in the technology transfer process between the US Agency DARPA (Defense Advanced Research Projects Agency), private technology companies and leading universities. Once the technology transfer has taken place, Big Tech companies have become the driving force behind innovation, and the US Government has increased its dependence on them, especially for military and intelligence objectives.

- 2) An ‘infrastructural dependence’: main US (but also Chinese) platforms control more than 80% of AI-related patents¹⁶. A similar concentration of power applies to cloud infrastructure and services, as well as to the submarine cables through which all information circulating on the network passes (about 30% of these cables belong to the main US-based Big Tech). From intelligence activities to the use of remote-controlled digital weapons and defence against cyberattacks, governments cannot do without the data, technologies and infrastructure controlled by these platforms. In addition, the idiosyncratic and cumulative nature of relevant knowledge in frontier areas such as Big Data, AI or Quantum Computing gives platforms significant bargaining power, linked to their almost exclusive ability to attract and develop the skills needed to preserve their innovative capacity.
- 3) Control of innovation ecosystems: by governing knowledge co-creation processes and exploiting the modular structure of digital ecosystems, platforms benefit from the decentralised nature of digital innovation while maintaining their economic and technological primacy over other companies within the ecosystem. Similar dynamics apply to military-related supply chains. To digitise processes and products (including weapons), traditional defence contractors (e.g., Lockheed Martin, Raytheon, and Halliburton) cannot operate without the technologies, components, and related services (often under monopoly conditions) provided by Big Tech. They also show some important differences from traditional contractors, which depend heavily on public demand and whose innovative activity is closely linked to the needs of the military sector. In contrast, Big Tech derives a large share of its profits from the civilian sphere, and most of the technologies it transfers to the military are adaptations of applications initially designed for commercial purposes. This gives these companies greater bargaining power vis-à-vis public customers, reducing the risk that their economic dominance could be significantly challenged by hostile regulations.

¹⁶ C. Rikap, B.-Å Lundvall, *The Digital Innovation Race: Conceptualizing the Emerging New World Order*, Palgrave Macmillan, 2021.

- 4) Conditioning of public opinion: control by Big Tech companies takes place through networks where political opinions and preferences can be shaped (e.g. social media); there is then a direct link with millions of users who are dependent on the services of the platforms, representing an implicit ‘consensus base’ that can be mobilised in the event of actions such as those threatened, and often aborted, by the US antitrust authorities; finally, there exists a use of substantial financial resources for lobbying activities aimed at countering hostile legislative measures, particularly those aimed at limiting the platforms’ access to personal data.
- 5) Access to data and regulation: as in the past, platforms’ expansion strategies – such as plans to penetrate a large foreign market – may encounter political obstacles that only diplomatic action can overcome. Regulations restricting access to personal data, hostile actions by antitrust or tax authorities, foreign governments imposing restrictions on their investments, or trade unions fighting for better working conditions might limit Big Tech companies’ economic power. Thus, the economic value of Big Tech is strongly correlated with the size of its network and the amount of information it controls, so legal and institutional barriers to expansion can seriously threaten its ability to accumulate wealth. In such cases, it is Big Tech that ‘depends’ on a strategic alliance with governments.

All these channels have been explored with particular attention to the US case, for historical reasons and for the global dominance of US-based Big Tech today. We have also mentioned how some of these problems can be found in the Chinese case. However, one might ask oneself whether different channels exist when Big Tech deals with governments of other global macro-regions, for instance, Europe. This is the attempt we make in the following section.

2. Big Tech, military research and knowledge in the European Union

Given the US-based focus of the previous section, the current section will go beyond this limitation by addressing another research question: is the economic power of Big Tech also influencing the decisions of the European Union? Is this US ‘military-digital complex’ dominating EU decision-making and influencing the so-called ReArm Europe Plan? Which are the channels through which Big Tech make war to (public) knowledge in Italy and in Europe?

The absence of Big Tech companies in Europe is well known and is often cited as a factor in Europe’s technological backwardness. European policy-makers themselves fear this aspect in terms of possible danger for European strategic autonomy; as stated in the so-called *Draghi Report*, «the productivity gap between the EU and the US is largely explained by the tech sector. The EU is weak in the emerging technologies that will drive future growth. Only

four of the world's top 50 tech companies are European»¹⁷. European companies might therefore be increasingly dependent on Big Tech products and services, especially those based in the United States. While this is true across all sectors of the economy (we might recall the use of US-based digital platforms for communication during the pandemic), a special mention should be made of the military sector.

In the military field, Europe has some of the world's leaders in the more traditional aspects of production: components and final production of aircraft, ships, tanks, munitions and small arms. Some of these companies are at the top of the global rankings for the military industry but in terms of R&D investment they are very small as compared to US Big Tech (see Table 1 comparing defence revenues of these firms, according to the *The Defense News annual ranking of the largest global defense companies*, with their global R&D investments, according to the ranking produced annually by the European Commission)¹⁸.

Table 1 – Defence revenues and R&D investment of top EU firms in the military sector

Name	Country	Rank in Defense News 2025 in global top 100	Rank in R&D Scoreboard 2024 in global top 2000	Total defense revenue (\$ million) in 2024	2024 Revenue from Defense	R&D Investment (€ million) in 2023
Thales	France	10	208	15.900,8	72%	1.127,9
Leonardo	Italy	13	370	13.822,9	72%	579,0
Airbus	Netherlands/France	14	60	12.705,1	17%	3.634,0
Rheinmetall AG	Germany	18	671	8.245,6	78%	289,0
Saab AB	Sweden	26	967	5.542,3	92%	184,7
					Total	5.814,6
					ALPHABET	39.804,2
					META	33.229,2
					APPLE	27.242,5
					MICROSOFT	26.873,7
					Total	127.149,6

What is less evident in these statistics is the dependence that even these giants of the global military sector, and EU countries in general, have on US Big Tech, especially with regard to R&D. Therefore, on an experimental basis, in this section we will present the two main channels through which Big Tech firms exert their economic power over military research, over the defence/security of European countries and their main companies, or, more generally, over administrative operating systems and knowledge production systems¹⁹.

¹⁷ See *The Draghi report on EU competitiveness*, 9 September 2024, available at <https://commission.europa.eu/topics/competitiveness/draghi-report_en>.

¹⁸ Available at <<https://people.defensenews.com/top-100>>.

¹⁹ From this point of view, see two comprehensive studies, rich in references, on the relationship between Big Tech and Europe: A. Gerbrandy, S. Mendonça, D. Archibugi, L. Tspouri, *Futures of Big Tech in Europe: Scenarios and policy implications: foresight*, European Commission, 2024, available at <<https://research-portal.uu.nl/en/publications/futures-of-big-tech-in-europe-scenarios-and-policy-implications-f/fingerprints>>; C. Saura García, *Digital expansionism and big tech companies: consequences in democracies of the European Union*, in «Humanities and Social Sciences Communications», n. 11, 448, 2024.

a) *Direct contracts from European governments to Big Tech*

As shown in section 1 regarding the US, EU Governments have also awarded and continue to award *strategic contracts* to US Big Tech companies. The debate on the Italian government's contract with Starlink²⁰, which began in January 2025, is, from this point of view, a pioneering experiment. In fact, the Meloni government is the European government that has come closest to the Trump administration and its aggressive foreign policy. In doing so, it has undermined the already fragile unity of Europe, seeking to act as a 'mediator' between the US administration's needs and those of European countries on numerous issues. Within this relationship, between the end of 2024 and the early months of 2025, the idea arose to entrust Elon Musk's Starlink, at the time an important figure in the US administration, with certain encrypted communication services for government and military equipment. Journalistic revelations, public pressure, the concerns of European partners and the opposition of some major Italian suppliers – as well as well-founded concerns about handing over data transiting on Starlink systems to Musk and potentially to the US administration – have caused the agreement to fall through for the time being. However, demonstrating how structural the problem is, there are other possibilities, such as the Italian government not entering into agreements directly with SpaceX, but with Italian companies, such as Telespazio (67% owned by the Italian company Leonardo), which in 2024 announced a partnership with SpaceX for the distribution of Starlink services. In any case, a joint statement by the Trump/Meloni government on 17 April emphasises cooperation on security matters, including the strengthening of «a deep and extensive transatlantic supply chain» in the military and information technology sectors²¹.

While Italy represents, partly for historical reasons, the most extreme case of this submission to the US digital-military complex, other worrying examples have come from other countries historically very close to the US. In Germany, for example, Rheinmetall and Anduril have expanded their joint venture to deploy autonomous drone swarms for NATO. In Great Britain, the National Health Service has signed a £330 million deal and started using data platforms produced by another US Big Tech company, Palantir. In short, every single European state, both inside and outside the EU, is negotiating government and military services with American Big Tech companies. Many of these agreements have not yet come to light and should be investigated, as they represent the main vehicle through which Big Tech is taking bureaucratic control of European society.

²⁰ See *Italy Plans \$1.6 Billion SpaceX Telecom Security Deal*, «Bloomberg», 5 January 2025, available at: <<https://www.bloomberg.com/news/articles/2025-01-05/italy-plans-1-5-billion-spacex-telecom-security-services-deal>> and *Italy Is Getting Cold Feet Over Deal to Use Musk's Starlink*, 5 March, 2025, available at: <<https://www.bloomberg.com/news/articles/2025-03-05/italy-is-getting-cold-feet-over-deal-to-use-musk-s-starlink>>.

²¹ See *United States – Italy Joint Leaders' Statement*, available at: <https://www.governo.it/sites/governo.it/files/United_States_Italy_Joint_Leaders_Statement_20250417.pdf>.

Another very important channel is *technological dominance* over European companies. This applies not only to smaller companies, which now have to rely heavily on Big Tech for their digitalisation, but also to larger ones. For example, the large companies identified in Table 1 are either collaborating with or competing against Big Tech. Reading the 2024 annual report of Leonardo, in the section named *Risk factors – risks for the Group*, it is explicitly stated that

the level of expenditure of national governments and public institutions may affect business performance [...]. In addition, big-tech and emerging tech companies, from overseas and beyond, scale barriers to entry in domestic AD&S [Aerospace, Defence and Security] and may come to create competitive pressures on a European defence industry that is still fragmented in terms of technologies and funds. Such companies, with considerable financial capabilities and operational flexibility, could better meet the growing expectations of defence customers, including in terms of performance and cost efficiency of artificial intelligence applications.

b) *Collaborations with Public Research Organisations, Universities and European research programmes*

A second channel, which is not entirely new, lies in the increase in *external funding for public research*. State underfunding of research in some countries, such as Italy, is offset by increased collaboration with private entities. The result is that research topics are increasingly geared towards private interests and, when cutting-edge technology is needed, Big Tech companies are an inevitable partner, steering public research even more clearly.

One of the best-known examples in Italy – more significant in advertising terms than in economic terms – is the Apple Academy in Naples, which developed thanks to political agreements and in a context of broad consensus among the academic body of the University of Naples Federico II. However, the charisma exerted by the ‘mythical’ figure of Steve Jobs, the impression of participating in one of the world’s leading companies producing widely used and highly desirable technologies, and above all the hope of gaining access to a stimulating and well-paid job in the future, meant that even students did not ask themselves many questions about Apple’s interests and aims.

In reality, Big Tech’s involvement in research and development projects, initiatives, or collaborations in Europe is much broader. Meta has AI research centres in Europe, the most famous of which is FAIR in Paris, founded in 2015²², while in Zurich, collaboration with the Swiss Federal Institute of Technology (ETH Zurich), where Google and Disney also operate, has created a global hub²³. Amazon Web Services has been involved in technical work and

²² A presentation of the centre is available at <<https://ai.meta.com/research/fair-paris>>.

²³ See *Zurich becomes a global hub for the metaverse*, 11 May 2022, available at <<https://houseofswitzerland.org/swissstories/science-education/zurich-becomes-global-hub-metaverse>>.

European data infrastructure groups since 2020, as seen in the GAIA-X project²⁴.

Although to a limited extent and often without receiving funding, Big Tech also participates in European research programmes (Horizon in particular) and thus influences their content. This also happens with tenders from individual DGs of the European Commission, which are more difficult to monitor. In any case, it is not common to find these large corporations as direct beneficiaries in Horizon projects. The most frequent forms of involvement are the provision of technology used by projects or an external industrial partnership. However, the likely opening up of the next Horizon programme to the military industry and dual-use applications could radically change the scenario²⁵.

In short, what emerges from this initial overview is that Big Tech is clearly penetrating the European system more and more, but this penetration is not taking place in the same way as in the United States, where there are strong links not only with the administration and the military apparatus but also with the entire world of research, where Big Tech companies are direct funders of projects or are represented on the boards of leading universities. Big Tech's penetration into Europe is more like an external force appropriating data and sectors that were once 'sovereign'. Europe is mostly seen by US Big Tech as a space to be 'colonised' to extract value, controlled to prevent the emergence of potential competitors, and used to co-opt any intelligence, patents, and personalities it might generate. A satellite political space, rather than an ally, still rich economically and culturally, which must mostly buy goods and services and, above all, cannot afford to tax Big Tech. The typical methods of the 'war on knowledge' that have run through the history of human societies are thus perfectly deployed, albeit in new forms²⁶.

3. *In conclusion: a proposal for collective research*

In the previous pages, we have tried to show how the perception, widespread in capitalist societies, that there is no alternative, derives from a historical development that has resulted in the construction of a mode of wealth production, political sovereignty, and a form of knowledge centred on private appropriation. The Big Tech complex must be analysed within this horizon, as the

²⁴ See the post from Amazon itself, *What's next for Europe's data revolution? AWS joins the GAIA-X initiative*, 19 November 2020, available at <<https://aws.amazon.com/it/blogs/publicsector/what-next-europes-data-revolution-aws-joins-gaia-x-initiative>>.

²⁵ *Parliament backs measures to boost EU support for defence investment*, 16 December 2025, available at <<https://www.europarl.europa.eu/news/es/press-room/20251211IPR32157/parliament-backs-measures-to-boost-eu-support-for-defence-investment>>.

²⁶ One of these forms is systematic lobbying. Big Tech, as important research has shown, is the sector that spends the most on lobbying, not only in the US but also in the European Union and South American countries. A transnational team of investigative journalists has compiled a database of 2,977 lobbying actions across 11 countries and the European Union from 2019 to 2025. See *The influence of Big Tech*, available at <<https://big-tech-data.elclip.org>>.

extreme point of this development, which, with its performativity, validates and reinforces the initial premises. To understand it, therefore, we should not use the tools of mainstream economic theory, which sees it as a ‘deviation’ from correct premises, but rather theories that analyse monopoly capitalism and imperialism, which analyse it as a necessary evolution once a competitive mode of production based on commodification, economies of scale and capital concentration is established everywhere. Such analysis does not concern only the strictly economic sphere, but must also extend to the study of how knowledge is produced and circulated, because production and circulation are increasingly aligned with imperialist logic. In particular, this analysis must address how production and circulation of knowledge in Europe are being controlled, at the central links of its chain, by US-led Big Tech.

From this point of view, we have tried to show some examples of this penetration, but much remains to be done. Many forms of control escape scrutiny from above and would require contributions from the academic and scientific community, which has detailed knowledge of project supply chains, external partners, and service providers. This community also often identifies possible alternatives that can be implemented immediately.

For this reason, our short paper can only conclude with a proposal for collective research. Such a research should be structured around three main axes:

- Survey all types and forms of Big Tech penetration, not only in military or dual-use scientific research, or in the communications sector broadly, but also in the appropriation and management of cultural, humanistic and social science heritage. At the same time, to monitor Big Tech’s lobbying activities towards politics, but also towards academic, research and cultural administrations and institutions.
- Urgently understand how to prevent the European public structure from handing over data and public services to Big Tech, including through the ‘simple’ use of software or external supplies. Analyse which alternatives already exist, including at the level of individual states; which infrastructures are operational and how they can be enhanced²⁷.
- Develop the alternative. This could be developed along two complementary lines. On the one hand we need greater public investment, different regulations for digital platforms, the nationalisation of certain key sectors (cloud, AI software, etc.), and control from below to prevent this nationalisation from becoming a gift to the smaller and often inefficient European capitalism. A kind of capitalism that in Italy, for example, already feeds on continuous exchanges with political sectors and that may not solve the problem., as the example of Telespazio (partly owned by Leonardo but potentially integrated with Starlink) shows. Al-

²⁷ See on this subject the last part of M. Schaake, *The Tech Coup: How to Save Democracy from Silicon Valley*, Princeton University Press, 2024.

so for this reason, it would be interesting to pursue a second line of research, namely the possibilities of state support, or the activation through public demand, of open source solutions and, in general, of the whole class of objects that has been identified under the label of ‘digital commons’²⁸.

As can be seen, the purpose of this type of analysis is not to enable the European Union to develop its own Big Tech capitalism competing with the US or China, in a logic of ‘blocs’ at war with each other. In some ways, the very delay accumulated by the European Union makes this attempt impossible – and perhaps allows us to take a shortcut to another future. Europe can indeed play a role if it questions this logic of competition/submission and proposes a sustainable alternative to this type of situation. If sovereignty, bureaucracy and charisma have formed an «iron cage» around us, it is precisely by mapping and intervening in the areas of density of this combination, seeing how it influences the field, occupying it in order to redesign it, that it is possible to establish knowledge that is useful to our species. Knowledge that has nothing to do with servitude and performance, but with the freedoms that Graber and Wengrow spoke of, the only ones that can prevent us from being stupid: the freedom to *migrate*, to *refuse*, to *invent*.

²⁸ See L. Lessig, *The Future of Ideas: The Fate of the Commons in a Connected World*, Knopf Doubleday Publishing Group, New York 2022; C. Doctorow, *The Internet Con: How to Seize the Means of Computation*, Verso, London 2023; E. Bender, A. Hanna, *The AI Con. How to Fight Big Tech's Hype and Create the Future We Want*, Harpers Collins, 2025; T. Bonini, E. Trerè, *Algoritmi per resistere. La lotta quotidiana contro il potere delle piattaforme*, Mondadori 2025; F. Oliveri, *Machina mundi. Per una regolazione democratica dei poteri digitali*, Mucchi, Modena 2025.



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– *The War of Big Tech: Production and Appropriation of Human Knowledge*

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ABSTRACT

The perception, widespread in our societies, that 'there is no alternative' stems from a historical development that has ended up constructing a mode of wealth production, political sovereignty and a form of knowledge centred around private appropriation. The Big Tech complex must be analysed within this context, as the extreme point of this development and of a 'war on knowledge' that complements appropriation. This paper, therefore, seeks to analyse Big Tech in the light of theories of monopoly capital and imperialism, showing, first of all, how large information, communication, and digital corporations are increasingly integrated into the American administration and the military sector. Secondly, the paper presents some examples of their penetration into the European space, which risks leading to Big Tech's control of data and knowledge. Finally, the paper questions what alternatives there might be to this situation, which can only come from a process of collective research and experimentation.

KEYWORDS

Big Tech; Research; War; Knowledge; Military-digital complex

SOMMARIO

La guerra di Big Tech. Produzione e appropriazione della conoscenza umana. La percezione, molto diffusa nelle nostre società, che "non c'è alternativa" deriva da uno sviluppo storico che ha finito per costruire un modo di produzione della ricchezza, una sovranità politica e una forma di conoscenza imperniata sull'appropriazione privata. Il complesso di Big Tech va analizzato in questo orizzonte, come punto estremo di questo sviluppo e di una "guerra alla conoscenza" complementare all'appropriazione. In questo paper si cerca dunque di analizzare Big Tech alla luce delle teorie del capitale monopolistico e dell'imperialismo, mostrando innanzitutto come le grandi corporation dell'informazione, della comunicazione e del digitale siano sempre più integrate nell'amministrazione americana e nel settore militare. In secondo luogo, il paper presenta alcuni esempi della loro penetrazione nello spazio europeo, che rischia di determinare un controllo da parte di Big Tech sui dati e sulle conoscenze. E infine il paper si interroga su quali possano essere le alternative a questa situazione, che possono venire solo da un percorso di ricerca e sperimentazione collettiva.

PAROLE CHIAVE

Big Tech; Ricerca; Guerra; Conoscenza; Complesso militare-digitale