



Platform Regulation and Digital Sovereignty: The European Union and China Face the Hegemony of the US Model¹


Regulação de plataformas e soberania digital: a União Europeia e a China diante da hegemonia do modelo estadunidense

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ABSTRACT: This article analyses the political responses of the European Union (EU) and China to the hegemony of the United States of America (USA) over the infrastructures that support social communication systems, consolidated through digitization, the privatization of the internet, and the concentration of the global platform market, problematizing the relationship with digital sovereignty as a condition for adopting autonomous development policies, both culturally and technologically. From the discussion of the two cases, it seeks to draw useful lessons for the construction of sovereign policies in Brazil. Methodologically, this is a comparative analysis based on an extensive review of the theoretical literature and case studies relating to the case studies, as part of the research project “The Economic Governance of Digital Networks: Towards an Analysis of Internet Markets and Competition and their Impacts on Users’ Rights”. The conclusions indicate that the USA model has shaped the global architecture of the internet, establishing a regulatory framework that other countries have had to adapt or challenge. While the EU seeks to mitigate market concentration by stimulating digitalization and regulations with an emphasis on individual rights, without structurally altering its technological dependence, China has opted for a model of digital sovereignty, strengthening its infrastructures and national companies based on state definitions. The study highlights that the growing global concern with the platformization of the internet could bring new challenges to the USA paradigm. It argues that countries like Brazil should critically analyze these two models and consider their own strategies and regional coordination, to ensure greater technological autonomy in the 21st century.

Keywords: digital Sovereignty, digital platforms, regulation, digital economy, informational hegemony.

RESUMO: Este artigo analisa as respostas políticas da União Europeia (UE) e da China diante da hegemonia dos Estados Unidos da América (EUA) sobre as infraestruturas que sustentam os sistemas de comunicação social, consolidadas por meio da digitalização, da privatização da internet e da concentração do mercado global de plataformas, problematizando a relação com a soberania digital como condição para a adoção de políticas de desenvolvimento autônomo, no plano tanto cultural quanto tecnológico. A partir da discussão dos dois casos, busca extrair lições úteis para a construção de políticas soberanas no Brasil. Metodologicamente, trata-se de uma análise comparativa baseada em uma extensa revisão bibliográfica teórica e da casuística referente aos casos de estudo, inserindo-se no projeto de pesquisa “A governança econômica das redes digitais: para uma análise dos mercados e da concorrência da internet e seus impactos sobre os direitos dos usuários”. As conclusões indicam que o modelo estadunidense moldou a arquitetura global da internet, estabelecendo um marco normativo ao qual os outros países tiveram de adaptar ou desafiar. Enquanto a UE busca mitigar a concentração do mercado por meio do estímulo à digitalização e das regulações com ênfase nos direitos individuais, sem alterar estruturalmente sua dependência tecnológica, a China optou por um modelo de soberania digital, fortalecendo infraestruturas próprias e empresas nacionais a partir de definições do Estado. O estudo destaca que a crescente preocupação global com a plataformação da internet pode trazer novos desafios ao paradigma estadunidense. Argumenta-se que países como o Brasil devem analisar criticamente esses dois modelos e considerar estratégias próprias e de articulação regional, com vistas a garantir maior autonomia tecnológica no século XXI.

Palavras-chave: soberania digital, plataformas digitais, regulação, economia digital, hegemonia informacional.

INTRODUCTION

This article analyzes the political responses of the European Union and China to the United States' hegemony over the infrastructures that support social communication systems, consolidated through digitalization, internet privatization, and the concentration of the global platform market, problematizing the relationship with digital sovereignty. Based on a theoretical and historical framework grounded in the Political Economy of Communication, Information, and Culture, from its Latin American perspective, the article examines how the United States consolidated its hegemony over the structures that support social communication systems, establishing a model based on digitalization, internet privatization, the formation of digital platforms, and the concentration of power around large technology corporations.

In this sense, it is argued that the current structure of the digital economy is the result of a transformation that began in the 1990s, when the United States imposed a market model that favored the expansion of its companies and consolidated its dominance over the global cultural industry, further expanding into a wide range of sectors, such as commerce and transportation, to which most other countries remained subordinate. This process resulted in the transformation of the global cultural system, a concept that refers to the organization of the structures that support the social communication systems that form, to use the terminology of the French school of regulation (Boyer, 1986), a constitutive structural invariant of the different modes of regulation. Within each mode, especially in the monopolistic phase of capitalism, this system ensures mediation between political and economic powers, on the one hand, and the masses of citizens and consumers, on the other hand, fulfilling functions of propaganda, publicity, and symbolic reproduction of the lifeworld, serving to legitimize hegemony (Bolaño, 2000).

Below, we present two case studies that illustrate contrasting policy responses to this digital hegemony: the European Union (EU) and China. These cases were chosen because they represent influential paradigms. The global impact of EU regulations, the so-called "Brussels effect" (Bradford, 2020), is well-known. It influenced, for example, the development of the General Data Protection Law in Brazil and continues to inspire debates on platform regulation and artificial intelligence (Rendas & Hartmann 2024). China, the main challenger to US hegemony, also leads the BRICS bloc, of which Brazil is a member and has been discussing a public policy agenda related to information and communication technologies.²

It is important to note that these countries or regions have developed a multitude of policies regarding the sector. Here, we seek to grasp their main thrust, which is why we chose to analyze documents that present the most general political perspective. The analysis of the European Union focuses on its digital transition plan, highlighting a belated and conservative policy that seeks to expand Europe's presence in the digital economy and mitigate the effects of market concentration through regulations, without radically challenging its structure. In the case of China, we examine how the state has

² During Brazil's presidency of the BRICS in 2024, discussions on information and communication technologies were opened, addressing significant connectivity, spatial sustainability, environmental sustainability, and the digital ecosystem, resulting in the creation of an ICT Working Group. Artificial intelligence is also being discussed within the bloc. See more on the topic: <https://brics.br/pt-br/noticias/brasil-lidera-articulacao-final-do-brics-sobre-conectividade-e-sustentabilidade-espacial-e-ambiental>.

managed to develop sovereign responses through the creation of its own technological infrastructures and the strengthening of national companies that offer alternatives to large US corporations, configuring a model of digital autonomy highly centralized by the state. We argue that these differences respond not only to distinct visions of digital governance but also to broader geopolitical interests that influence the architecture of the global information infrastructure.

This article offers reflections on the implications of these models for Brazil, highlighting key lessons for developing strategies that promote digital autonomy. It discusses the need for regulation that goes beyond merely mitigating the effects of US platform dominance and explores alternative paths to strengthening digital sovereignty, including the promotion of proprietary infrastructures and regional cooperation around technology platforms that are linked to the potential for solving urgent social problems while simultaneously promoting alternatives in terms of development—understood, in the words of Furtado (1967), as a creative process based on tradition that opens horizons, in accordance with the goals proposed by the community and periodically renewed.

It is important to emphasize that the notion of development used here, unlike those that promote a linear vision and impose standards from the so-called global North as a universal model, ignoring local cultural, social, and environmental contexts, appeals to cultural autonomy. In this sense, it can be mobilized "as an emancipatory ideal for democratic struggles," as pointed out by Aborleda (2023, p. 23), an author who rediscovers the link between the concept of development and the experiences of popular struggles to free themselves from imperialist and oligarchic forms of domination. Given the importance of information and communication technologies in organizing the world today and in the competition between countries, they should be considered central elements of this development process.

It is therefore necessary to link the idea of autonomous development with the concept of digital sovereignty. We posit that digital sovereignty refers to the condition for the creation and adoption of autonomous development policies, both culturally and technologically. The emphasis on digital is based on the recognition of its centrality in the technological trajectory of contemporary capitalism as a support for information and a vector of transformation (Valente, 2019), but the connection with culture and politics must dispel any notion limited to the technical dimension. In this sense, the concept of digital sovereignty must go beyond control over infrastructure, technologies, and digital data, which is what defines sovereignty, in the terms of Couture and Toupin (2019).

We thus demand the possibility of control by states and populations, unlike Floridi's (2020) view, for whom the idea of national sovereignty as the power of control exercised by the state over territory, its resources, and people is a modern idea that does not fit into what he conceptualizes as the "postmodern" or "digital age." This view, besides treating the digital world in an apologetic manner, disconnected from social relations, in practice renders technologies incomprehensible to nation states, contributing to legitimizing the absence of their own definitions, including through regulation. However, networks are organized based on a series of definitions of infrastructure, protocols, and rules that guide how they operate.

It is true that this does not negate the scenario of intense international coordination between countries, nor the cross-border functioning of the networks supported by digital technologies, factors that can weaken national sovereignty. However, nation states maintain their role in articulating the more general and more specific dynamics. In recent decades, these states have been mobilized, in the wake of neoliberalism, to guarantee the conditions for the expansion of transnational capital, favoring corporations that control, in this case, technologies, such as large North American technology companies. A reversal of this situation requires a reconfiguration of this policy, which leads to the necessary articulation between development and digital sovereignty from the perspective presented here.

THE TRANSFORMATION OF THE GLOBAL CULTURAL SYSTEM AND THE HEGEMONY OF THE AMERICAN STANDARD

Throughout the period from the end of the Great War to the structural crisis of the 1970s, the global cultural system consisted of two interconnected parts: (1) a telecommunications infrastructure, organized as a public monopoly—or, in the case of the United States, a regulated private monopoly—adopting, in international relations, the concept of national sovereignty in the distribution of frequencies and call pricing. In general, this infrastructure was divided into two networks: telephone and broadcasting. The latter formed the basis of the second part of the global cultural system (2), the core of what became known as the Cultural Industry.

Since the 1950s, mass television has been the dynamic center of this system, yet it constituted, globally, the cultural form (Williams, 2016) of late capitalism (Mandel, 1972), a fundamental part of North American hegemony in the cultural sphere, which was expressed in the United States' dominance in content production, especially in film and music. There was also a complex logistics system for the mass distribution of physical cultural and informational products, such as newspapers and magazines.

The transformation of this system began as a result of the adoption of certain technological innovations as a consequence of capital's responses to the crisis of the 1970s, facilitated by the microelectronics revolution. The most impactful element regarding the transformation of capitalism's material culture during this period was the emergence of (3) a third component of the global cultural system (mass computing) and the establishment of the technological paradigm of digitalization, which will have widespread impacts on a wide range of industrial and service sectors, consumption patterns, and social relations as a whole.

In the sector that concerns us most closely now, a dispute is emerging between the two organizational logics of the technical apparatus that underpins the global cultural system: information technology and telecommunications. This dispute overshadows another, between the digital and analog models of development of the cultural industries and communications. In the 1990s, the United States emerged victorious, with implications that go far beyond the battles in the field of industrial organization or the organization of communication systems, becoming part of the broader struggle for socioeconomic, geopolitical, and cultural hegemony. The audiovisual-telecommunications-information technology convergence is at the heart of this transition to the new global cultural system,

a result of the capitalist restructuring that marked the Third Industrial Revolution (Bolaño, 2000) and the establishment of the financially dominant regulatory model (Chesnais, 1996).

With the privatization of the internet in 1995 and the centralization of capital following the dot-com crisis of 2000—which resulted in the establishment of the current oligopoly of digital platform-owning companies—the new global cultural system, despite its unitary, globalized character, consistent with the current financial logic of capitalism, will present itself as tripartite. This tripartite division is generally defined in terms of value chains, divided into layers: infrastructure, applications, and content. The first follows the well-known technological trajectories of the telecommunications sector and is organized globally as an oligopoly in which large incumbent companies emerging from the privatization processes participate, alongside a series of capitals of varying sizes that have expanded with the reorganization of the system since then. In the applications layer, we find US technology companies, owners of the large platforms, seconded by some Chinese monopolies. The third involves a multiplicity of actors, not just business actors, creating a complex environment of entities dependent on both infrastructure and companies that, in the second layer, end up becoming gatekeepers for access to the system.

Regarding state regulation, reforms were implemented in each national space in favor of the sectors benefiting from the neoliberal project: national monopolies in telecommunications were broken; telematics allowed the emergence of new entrants and expanded the number of capitals operating within the global cultural system; the power of North American companies in the three converging sectors increased; the concept of national sovereignty was outdated, both in telecommunications and broadcasting, with an essentially mercantile approach to regulation prevailing worldwide. Thus, the number of competing capitals increased, expanding capital's control over these sectors—hence, the concentration of capital, in the Marxist definition—while large monopoly capital advanced, promoting a brutal centralization in favor of North American companies in the three sectors. These sectors did not disappear; that is, there was no merger that would lead to the dissolution of the boundaries between them, as Miège (1999), among others, correctly indicated at the beginning of the process.

This organization is being remodeled, based on a general dynamic of the system as a whole, well represented by José van Dijck's (2022) tree metaphor. Digital platforms are divided into two types: trunk and dependent. In the case of trunk platforms, they undergo what Van Dijck defines as infrastructuralization, controlling everything from the intermediary platforms at the trunk to the roots, such as cables, satellites, and data processing centers. Part of this movement is a tendency for digital platforms—the big winners so far in this process, which have assumed the status of digital monopolies (Valente, 2019)—to invest in the acquisition of telecommunications infrastructure (Martins, 2025). At the application layer, although there are numerous applications, their distribution essentially depends on Google and Apple stores. Content producers can also be defined as platform-dependent companies, due to their control over circulation. Thus, the third layer, which is no longer limited to the Cultural Industry of the 20th century (Bolaño, Martins and Valente 2022), presents itself as the most competitive, fragmented, through which the new digital paradigm is disseminated and spread, but is essentially dependent on the main platforms.

The emergence of digital platform companies and their elevation to their current status as global monopolies is also a result of major global trends in media policy, particularly the widespread push for communications deregulation, whose origins also date back to the United States in the 1980s (Flew, Martin, and Suzor, 2019, p. 38). One prevailing perspective at the time suggested that the internet should be considered distinct from “old media” such as print publishing and broadcasting. Eli Noam (2009, p. 273) observed that “even as the internet was commercialized, it was often argued that the bit economy operated on fundamentally different principles from the atom economy.”

Beginning in the 1990s, the United States government adopted a hands-off approach to internet regulation, allowing the private sector to consolidate its position as the primary agent in managing digital infrastructure. A decisive milestone in this process was the passage of the Telecommunications Act of 1996, whose Section 230 granted digital platforms legal immunity from content published by their users, solidifying their role as intermediaries without editorial responsibility (Mueller, 2015, p. 39). This regulatory framework was essential for the expansion of large digital platforms, as it allowed them to operate without the restrictions imposed on traditional media outlets. The internet developed under a logic of freedom and lack of regulation, which led to the belief in its “ungovernability” (Lessig, 1998).

As Cofreces (2024) notes, the primacy of the market over state regulation has been a central principle of US digital policy, allowing technology companies to operate with broad freedom in exploiting data and shaping digital markets (Couldry and Mejias 2019). The idea that market competition would be sufficient to regulate the digital economy largely justified the state's inertia in the face of allegations of monopoly and abuse of dominant positions (Flew, 2021). Deregulation, legal protection for digital platforms, and the absence of policies for the development of local platforms facilitated the consolidation of technology giants such as Google, Facebook, Amazon, and Microsoft (Schaae 2024; Srnicek 2018).

EUROPEAN UNION

Faced with the set of changes that shaped the digital economy, Europe ended up in a subordinate position, unlike in the previous period, when European countries were gaining competition in cutting-edge industrial sectors, such as the automotive industry. It is true that there were attempts to consolidate a specific standard in information and communication technologies. For example, in the 1970s, the European Informatics Network (EIN) was formed, but the initiative was hampered by the lack of technical standardization (Nieminen, Padovani, and Sousa 2023). Beginning in the 1980s, these technologies began to occupy a central place in the development of programs at the European level (Juhász, 2008) – as seen in the creation, by the Council of Ministers of the Common Market, of a pilot program in 1978, which in France generated the Minitel system in 1982, which connected telephone subscribers to a videotext service network³, but which lost ground due to the victory of the standard associated with telematics. The consolidation of the restructuring project under the United States is illustrated by the fact, explained by Husson (1999), that both Philips and Siemens

³ For more information on this important experience, see: <https://www.bbc.com/news/magazine-18610692> . Accessed: May 20, 2024.

abandoned chip production in favor of the North American company IBM. His conclusion is that the globalization of competition was faster than the integration of the European Union itself. The European Union, for Carchedi (2018), emerged in this context more as a "union of states," a space where they seek to negotiate and implement their interests, than with the pretense of effective unification.

Despite these contradictions, technologies were presented as central to the "European relaunch". The 1994 Delors Commission White Paper⁴, which outlined the idea of the "information society," proposed the creation of information superhighways (broadband networks) and the development of associated services and applications, based on partnerships between the public and private sectors. The establishment of these networks would require, it argued, the elimination of regulatory and financial "obstacles," the mobilization of private investors, and the identification of transportation and energy projects. In exchange for investment and knowledge between countries, markets would open and "flexible" jobs would be created.

The plans were updated and summarized in the 2000 Lisbon Strategy, which set goals to make the EU the "most dynamic and competitive knowledge-based economy in the world, capable of ensuring sustainable economic growth, with more and better jobs, and greater social cohesion"⁵. The proposals clearly link to the process of capitalist restructuring. Among others, they include: liberalization of markets and the creation of a single European market; promotion of structural reform to remove worker protections and "make the market more flexible"; expansion of financialization, with the elimination of barriers to investment in pension funds and the opening of the insurance intermediation market; and implementation of a technological plan with greater private participation, whose innovations would be protected by strengthening rules on patents and intellectual property.⁶

Despite promises of a renewed growth, in recent decades, both the EU's profit rate and industrial production index have been falling, albeit with fluctuations (Alves, 2020). The Gross Domestic Product (GDP) growth rate, according to Pordata, also fell, from 1.8% in 1996 to 0.4% in 2023⁷. Productivity grew slowly between 1995 and 2023, but with differences between the bloc's countries⁸. The European Commission acknowledges that, "since the mid-1990s, average productivity growth in the EU has been lower than that of other major economies, leading to a growing gap in productivity levels."⁹

⁴ The book outlined commitments made by European countries on "Growth, Competitiveness, Employment: The Challenges and Pathways to Entering the 21st Century," the document's original title. Available at: <https://op.europa.eu/pt/publication-detail/-/publication/0d563bc1-f17e-48ab-bb2a-9dd9a31d5004>

⁵ Available at: <https://www.europarl.europa.eu/highlights/pt/1001.html> . Accessed on: May 10, 2024.

⁶ Available at: <https://www.europarl.europa.eu/highlights/pt/1001.html> . Accessed on: May 10, 2024.

⁷ Pordata is the statistical portal of the Francisco Manuel dos Santos Foundation. Its data sources include Eurostat, the National Institutes of Statistics, and the Annual National Accounts. Available at: <https://www.pordata.pt/db/europa/ambiente+de+consulta/tabela> . Accessed on: June 5, 2024.

⁸ Among the most productive countries are Ireland, Luxembourg, Denmark, Sweden, the Netherlands, Germany, Austria, Finland, and France. Among the least productive are Bulgaria, Poland, Romania, and Lithuania.

⁹ Available at: <https://eur-lex.europa.eu/legal-content/PT/TXT/HTML/?uri=CELEX%3A52023DC0168#footnoteref4> . Accessed on: July 6, 2024.

Regarding digital platforms, according to the Commission¹⁰, less than 4% of the main ones in 2021 were European; local microcircuits represented less than 10% of the European market; and 90% of EU data was managed by US companies. In general, significant European corporations operate at the application layer, such as Spotify and Booking. It is also worth mentioning Nokia and Siemens, the former a major player in telecommunications infrastructure and 5G network technologies, the latter even more diversified, with growing relevance in industrial¹¹ software. These are, however, isolated cases and date back to an earlier period of technological development..

Despite these results and the European Commission's recognition of the delay in relation to cutting-edge technologies, such as AI,¹² the European institutions continue to point to the now-called "digital transition" as central to a possible relaunch, being presented as "the integration of digital technologies into the operations of companies and public services, as well as the impact of technologies on society", with the potential to "help optimize production, reduce emissions and waste, increase the competitive advantages of companies and bring new services and products to consumers"¹³.

An initial repositioning strategy was the 2015 Digital Single Market, considered by Nieminen, Padovani, and Sousa (2023, p. 13) as "the EU's most ambitious attempt to respond to the challenge posed by the United States and Japan, as well as China's ascendant digitalization." Official expectations¹⁴ were that the single market would inject €415 billion annually into the economy. A key element of this would be the expansion of online trade between countries. The Commission also expected that removing obstacles to data localization would lead to an €8 billion annual increase in EU GDP. The strategy was "followed by the emergence of a more geopolitical and protectionist European agenda at the end of the last decade" (Bonnamy, Perarnaud, 2024, p. 13). Measures such as the end of roaming charges; data protection regulations; cross-border portability of online content; and the unlocking of e-commerce were implemented over the following two years.

The term of Ursula von der Leyen, of the Christian Democratic Union of Germany, as President of the European Commission from 2019 to 2024, consolidated this perspective, with the support of the European Parliament¹⁵. The 2020 document "Digital Strategy: Shaping Europe's Digital Future"¹⁶ lists three main objectives to position Europe and make it a trendsetter in the global debate. The first, entitled "Technology that works for people," focuses on the strategic capabilities needed to develop digital solutions at scale, such as expanding connectivity, ensuring interoperability, open flow of data

¹⁰ Available at: <https://eur-lex.europa.eu/legal-content/PT/TXT/HTML/?uri=CELEX:52021DC0118#footnote10> . Accessed on: May 15, 2024.

¹¹ In 2023, it recorded a record free cash flow, totaling 10 billion euros. Available at: <https://press.siemens.com/pt/pt/comunicadodeimprensa/final-poderoso-para-ano-fiscal-recorde> . Accessed on: June 18, 2024.

¹² Available at: <https://eur-lex.europa.eu/legal-content/PT/TXT/HTML/?uri=CELEX%3A52023DC0168#footnoteref4> . Accessed on: July 6, 2024.

¹³ Available at: <https://www.europarl.europa.eu/topics/pt/article/20210414STO02010/transformacao-digital-importancia-beneficios-e-politica-da-ue> . Accessed on: September 17, 2024.

¹⁴ Information presented on the European Digital Single Market Strategy page, available at: <https://www.consilium.europa.eu/pt/policies/digital-single-market/> . Accessed on: 9 May 2024.

¹⁵ Available at: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024_pt . Accessed on: 18 June 2024.

¹⁶ Available at: https://commission.europa.eu/document/download/84c05739-547a-4b86-9564-76e834dc7a49_en?filename=communication-shaping-europes-digital-future-feb2020_en.pdf&prefLang=pt . Accessed on: 15 May 2024.

and services, reforms, and investments, suggesting that public funding be used to leverage private investment. The second, "A fair and competitive economy," proposes maintaining a "frictionless single market" where companies of all sizes and in any sector can compete on a level playing field, something that is related to access to data by various actors. The creation of its own rules also appears necessary for the EU to be a strong digital player, reducing dependence and influencing digital solutions on a global scale. The third axis, "An open, democratic, and sustainable society," addresses issues such as risks to democracy due to cyberattacks and the dissemination of illegal content. The application of rules to digital services is recommended to clarify and modernize the roles and responsibilities of online platforms. These proposals were translated into the regulations on digital services and digital markets (Digital Service Act and Digital Market Act), presented in 2020 and approved in 2022.

This movement expresses recognition of the need for autonomy vis-à-vis other countries, such as the United States. On the other hand, highlighting the inequality between countries and the persistence of a colonialist stance, the Commission points to one way for Europe to influence the African continent, which would occur, among other initiatives, through a "task force" on the digital economy between the EU and Africa. Actions on technology standardization (such as 5G), the creation of a Global Cooperation Strategy, and advocacy in multilateral spaces are among the main actions. As Perarnaud (2024, p. 4) analyzes, "although it is difficult to characterize the EU's approach to digital sovereignty, it is generally described as an attempt by the EU to regain control over the digital realm and develop international leadership capacity," which implies investing in its own initiatives in terms of infrastructure, applications, and protocols. These, however, are always further away than the plans outlined in the documents, as stated in the study "The Future of European Competitiveness¹⁷," commissioned by the EU, which became known as the Draghi report. This report proposes that, in addition to large investments, which it compares to the Marshall Plan of decades ago, there should be a concentration of companies, specifically in the telecommunications sector, which could mean a new wave of privatizations and mergers and, consequently, an increase in the concentration and centralization of capital, a situation that is quite revealing of the general context.

CHINA

An in-depth analysis of the Chinese case would involve addressing two temporalities: one multi-secular, long-term, whose most recent milestone is the communist revolution of 1949; and, within the process that began then, another established with the reforms of the 1970s under the leadership of Deng Xiaoping. This reform underwent a shift from 2005 onward, "in an attempt to bridge the gap between Beijing's official discourse, which emphasized 'socialism with Chinese characteristics,' and the reality of unregulated capitalism in which party authorities are voracious partners" (Arrighi,

¹⁷ Available at: https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en . Accessed on: September 23, 2024.

2008, p. 33). From this process, the figure of Xi Jinping emerges as the leader who will lead China's consolidation as the great challenger to US hegemony in the first half of the 21st century, also with regard to the topics we are addressing here.

The temporality of Arrighi's text cited is situated on the long-term plane, which we recall here to point out the fact, highlighted by Dussel (2004, p. 202):

[...] that other cultures, hitherto depreciated and undervalued, are emerging from a "beyond" the horizon of European Modernity is not a mere miracle of emergence from nothing, but the return of actors who had already been actors in this history in recent times. Even if Western culture globalizes—at a certain technical, economic, political, and military level—it does not exhaust other moments of enormous creativity that affirm, from their Exteriority, other living, resilient, and growing cultures. This is the case of China.

It also serves to shed light on the particularities of technological development that characterize the two extremes of the Eurasian continent: one concerned with maintaining high employment levels for a large workforce, the result of civilizational success itself, and thereby ensuring the stability of the social system; the other, which, at a certain point, will be urged to develop capital-intensive technologies. Sugihara's position on this matter, cited by Arrighi (2007, pp. 84-85), is interesting:

Sugihara's thesis on the lasting importance of East Asia's Industrious Revolution does not question the competitive advantages of large-scale production based on wage labor, typical of the European path. However, he argues, first, that development along this path has its own limits and, second, that, once those limits are reached, the path of East Asia's Industrious Revolution holds the greatest promise for continued economic development.

It is not appropriate to delve into this debate here, but this assessment highlights a blend of elements of creativity and planning, simultaneously ensuring flexibility and control of the economic process. This allows for the incorporation of Western technology, adapted to the demands of stable social and governmental structures, in accordance with the ethical and political foundations of an enlightened state bureaucracy rooted in the deepest intellectual tradition (Weber, 2021). However, if China's resurgence today as a global economic power thus finds a general explanation, on a rational and abstract level, given its long-term historical trajectory, it is appropriate to frame our specific object, at a more concrete level of analysis, within the dynamics of national development.

Regarding the development of productive forces, considering the most recent period, the Chinese challenge, as Hiratuka and Diegues (2025, p. 2) summarize aptly, was to ensure a catch-up strategy, a process of reducing the technological and economic gap with more advanced countries or companies, through innovation systems comprising "business and non-business actors and institutions that contribute to learning and the accumulation of capabilities," which becomes more complex as "the possibilities for assimilating, imitating, and adapting technologies from leading countries are completed. The next step involves the development of new capabilities to go beyond mere imitation." This concern with the effective mastery of innovative capabilities, also understood as central to

escaping the "middle-income trap," is "explicitly at the heart of the Innovation-Driven National Development Strategy, announced in 2016 by the Central Committee of the Chinese Communist Party (CCP) and the State Council" (Hiratuka, Diegues 2025, p. 2).

The authors summarize the development of the science, technology, and innovation sector in China since the organization of the Chinese Academy of Sciences (CAS) and the first National Science and Technology Plan of 1956, in line with the revolution's concerns about implementing major projects that would guarantee development and national sovereignty, up to the most recent projects, initiated with Deng Xiaoping's four modernizations, which followed, in the 1990s, with specific actions in the science and technology sector:

If in the 1980s Township and Village Enterprises (TVE) played an extremely important role in generating value added and industrial employment, changes in the 1990s gave rise to a more diversified business landscape, with state-owned enterprises remaining in strategic sectors such as infrastructure and capital-intensive heavy industry, while a cross-border group of private companies assumed a more prominent role (...). Foreign direct investment gained momentum, and China was embraced in the productive fragmentation and outsourcing of manufacturing within global value chains, consolidating its position as a major producer and exporter of manufactured goods. The policy of negotiating access to the local market in exchange for technology transfer, initiated in the 1980s, gained new momentum in the 1990s (Hiratuka, Diegues 2025, p. 4).

Despite these efforts, technological dependence remained. Following a broad debate on this topic, the Medium and Long-Term Plan for the Development of Science and Technology (MLP) was launched in 2006, emphasizing the importance of endogenous innovation and the integration of science and technology development strategies with industrial policies. According to the authors, the 2008 global financial crisis helped accelerate this integration, with the launch of the Strategic Emerging Industries (SIC) in 2010. With Xi Jinping in power, the Made in China 2025 plan was launched in 2015, encompassing ten key sectors for development in the immediate future, as well as the document "Guiding Opinions of the State Council for Vigorously Advancing Internet Plus Actions." In 2016, the Chinese Communist Party Central Committee and the State Council launched the National Innovation-Driven Development Strategy, and in 2017, the National New Generation Artificial Intelligence Development Plan (AIDP).

Regarding digital platforms, the National Innovation-Driven Development Strategy argues that the country should "build a set of infrastructures and platforms that support high-level innovation" and "form a cluster of superior companies with recognized exceptional brands, robust service platforms, and first-class quality" (Brancher, Polita 2023, p. 60). The 2015 document on Internet Plus states that

[...] the Internet should be used as a platform for sharing factors of production and life, resource allocation should be optimized to the maximum, and the formation of a new economic and social model based on openness and co-participation should be accelerated" (Brancher, Polita 2023, p. 60)

A protectionist policy toward national platforms and the construction of firewalls is therefore essential, including for reasons of national sovereignty. According to the same authors, large Chinese

national technology companies and the state work together to implement major development projects, such as the paradigmatic case of rural revitalization and poverty reduction policies in Taobao villages. Since 2009, the Alibaba platform has established itself as critical infrastructure, offering "payment methods and digital tools with simplified interfaces to stimulate entrepreneurship among small farmers," which has resulted in higher income levels (Brancher, Polita 2023, p. 61).

Jia and Nieborg (2022, p. 3) point out that large Chinese platforms emerged as internet companies focused on one or a few key segments of the internet industry, acquiring a leadership position from which they undertake diversification strategies "expanding and integrating with 'sectoral platforms' that include transportation, health and education", which makes it "increasingly difficult to untangle their reach", a challenge added by their "interplatformization" process:

The PBG [platform business group] model emerged in China's environment of fierce competition, weak intellectual property rights, remarkable growth in mobile internet use, and weak infrastructure. This environment has encouraged fierce oligopolistic interfirm competition in which the two Chinese platform giants compete directly across many different sectors. This differs from the platform competition on the US West Coast, where in most segments, one firm (or two) gains dominant market share, leaving little room for new competitors to enter (Jia, Nieborg, 2022, p. 3).

Even though such dynamics imply the same processes of general platformization of the economy and infrastructuralization of large trunk platforms in van Dijck's (2022) classification, the striking fact is the strong coincidence between the objectives of the State's Science and Technology policy and the interests of the Chinese platforms, which will thus end up becoming the great challenger to the US companies that dominate the sector, leaving all other potential competitors far behind.

Thus, as McKnight, Kenney and Breznitz (2023, p. 9) state, "the government's enthusiasm for the platformization of China's economy has also materialized in a growing number of references to the 'sharing economy'", with the State Council, in 2016, even stating that this sharing economy would capture the "essence of Chinese-style socialism". An example of this supposed communion of interests between the State and platforms is given by Brancher and Polita (2023) when they refer, citing Wang and Lobato, to the following:

[...] [...] institutionally, state control over media platforms is realized by the fact that all Internet television content providers must collaborate with at least one of the seven online public television stations to obtain a license to operate [...]. In this context, while the algorithmic personalization of political content on American social media generates 'growing concern about the propensity for cultural fragmentation,' in China this problem is nonexistent.

This constitutes a fundamental strategic element for building a public sphere capable of forming consensus around the project. Nevertheless, the advancement of platforms over the financial system, as in the case of subsidiaries Alipay and WeChat Pay, threatened the centrality of the state-owned banking system, leading to government intervention (Brancher, Polita, 2023, p. 10). According to the authors, on the other hand,

While this period saw the exceptional growth of a number of domestic internet companies that became platform giants, the Chinese government's discomfort with its ability to monitor content on the platforms grew. This relates to the government's long-standing concern about two main dangers posed by the internet: first, the potential for grievances about corruption, social injustices, and abuse of power by government officials to be shared on the platforms; second, the platforms serving as sites for collective action outside of state control [...]. The response was to tighten controls on the flow of information, including blocking several foreign news sites and banning several Western platforms. The State Council Information Office noted that it would not tolerate the "transmission of information harmful to social and institutional stability" (Brancher, Polita, 2023, p. 10).

This was how things stood in late 2012 and early 2013, when Xi Jinping came to power, promoting a more proactive policy of competition regulation, seeking to avoid not only concentrations of market power but also the potential destabilization of national development policies, especially in relation to the state-owned financial system. For example, in March 2021, President Xi Jinping declared that "all financial activities involving platform companies 'should be placed under financial supervision'" (Jia, Kenney 2022, p. 14, citing Zhang, 2021). For a more extensive explanation of the movements between 2015 and 2021 that led to this new state stance regarding the advancement of platforms over the financial sector, see McKnight, Kenney, and Breznitz (2023). In summary, the authors show:

In 2019–2020, the Chinese government adopted what we call a “regulatory approach,” characterized by three elements. First, the government restricted financial services provided by platforms. Second, the government strengthened its antitrust agency and opened antitrust investigations into all major platform companies for anticompetitive behavior. Third, the government increased its oversight of platforms’ control over data (McKnight, Kenney, and Breznitz 2023, p. 14).

As a result of these strategic actions, China is competing for the direction of technological development, which is seen in platforms and particularly in the case of AI.

CONCLUSÃO

The new global cultural system resulting from the capitalist transformations that developed following the structural crisis of the 1970s is associated with the project of digitizing social relations and communication initially developed by the United States as part of its attempt to strengthen its hegemony in technological, economical, cultural, and even military aspects. In addition to stimulating the commodification of the internet under corporate control, the logic developed throughout the 1990s allowed for the concentration and centralization of capital, as well as the reorganization of social production in general. This led to the expansion of the power of a few corporations, which consolidated themselves as digital platforms from the 2000s onward. These developed new forms of integration and social control, such as through interaction subordinated to the dynamics they construct (Bolaño apud Martins, Valente, 2020, p. 100). With the intensification of competition between countries, particularly between the United States and China, the dispute began to take place in this arena as well.

The US model, based on deregulation and the consolidation of private monopolies, has therefore shaped the global architecture of the internet and imposed a mercantile paradigm of digital governance. The European Union, despite seeking to mitigate the effects of market concentration and preserve competition, maintains a structural dependence on US infrastructure and technologies, resorting to regulatory mechanisms to attempt to reposition its companies in the digital market, especially within the EU itself. In contrast, China has opted for a model of active digital sovereignty, combining the protection of its national infrastructure, the strengthening of local companies, and an endogenous innovation strategy aimed at technological autonomy and geopolitical projection, also enabled by the state's direct involvement in science and technology policies, which have been considered strategic in recent times.

In the case of Brazil, we know that the neoliberal period led to a reduction in the state's capacity to develop its own policies, instead shifting its focus to meeting the demands of large transnational capital. Regarding the sectors analyzed here, this resulted in the privatization of telecommunications and the development of the internet under the control of private groups, with virtually no notion of public service present. It is interesting to note that, precisely at the time when information and communication technologies began to play a strategic role in the organization of the system, the debate on development and technology, long-standing in the region, lost ground (Arboleda, 2023).

The study of different cases shows, first, that the perception of the issue as strategic is central. Both the United States and China developed this vision through different channels, unlike the European Union, a bloc that brings together countries with very different technological capabilities, as detailed by Husson (1999). The EU belatedly pursued a "digital transition" project, but did so by stimulating digitalization from the private sector, which is explained by the reduction in the political and financial capabilities of states following the formation of the economic bloc and as a result of neoliberal austerity policies. However, even the established goals are not achieved, which distances it from the development of cutting-edge technologies and highlights the fragility of this path. The bloc has been left, above all, with the path of regulation as a way to reduce power asymmetries relative to US platforms. This path promotes less structural changes, limited to the reproduction of the digitalization model, commodification, and also the cultural form associated with it (which, incidentally, also does not escape Chinese platforms, although these also have a relationship with local needs).

As for Brazil, given its peripheral position in the digital economy, the lack of a coordinated strategy has reinforced its structural dependence on large US platforms, limiting its ability to formulate effective public policies. Brazil must seek its own paths of development in the field of digital technologies, a crucial element for development in the 21st century, given the fragility of the private sector amid the globalization of capital and its historical lack of commitment to any notion of national development.

Furthermore, the profound inequality that plagues the country and the complexity of its territory demand that the State be a protagonist in this process, stimulating the population's capacity to forge an autonomous path in relation to culture, politics, and technology. Without this, there is a risk of

Brazil remaining a consumer of technologies or a minor participant in the digital economy (internalizing, for example, its less complex and more damaging stages, such as the reception of data centers¹⁸, a project that has been championed by the federal government). The case of China reveals that, even with the development of information and communication technologies lagging behind the United States, it is possible to launch a project of its own by coordinating efforts in different fields.

As part of these efforts, it is essential that the country advance in formulating its own regulatory model, one that goes beyond mitigating the effects of market concentration, but also actively promotes the development of sovereign digital alternatives. Given the magnitude of capital and expertise required to secure a sovereign position in this field, it is urgent that countries seeking their own path coordinate to create large digital backbone platforms, possibly in partnership with other Latin American countries or even the BRICS, with their development financing mechanisms available to the Global South and a long-term strategic vision. Without this, Brazil will remain in a subordinate position in the global digital economy, restricting its capacity for economic, political, cultural, and technological self-determination.

¹⁸ See more on this topic: <https://outraspalavras.net/crise-brasileira/data-centers-o-brasil-se-submetera-as-big-techs/>

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