

Digital platformisation dependence-interdependence dynamics in BRICS: from challenges to opportunities in a multipolar world

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Abstract: In light of world-systems theory hierarchisation and the weaponisation of interdependence for geopolitical purposes, this article aims to provide a systematic assessment on BRICS' platformisation dynamics on a dependence-interdependence basis with the capitalistic digital core. As an inductive study, it works under the premise that deglobalisation and multipolarity are strategies deployed by the US-led Western collective and the BRICS bloc, respectively. It argues China and Russia are mostly independent from US digital infrastructure, but Brazil, India and South Africa (BIS) are fully dependent. It concludes that, amidst challenges and contradictions, there are ample digital opportunities for the bloc, or parts of it such as the BIS, should they pursue greater cooperation.

Key-words: BRICS. Platformisation. Dependence. Interdependence.

Dinâmicas de dependência-interdependência na plataformação digital nos BRICS: dos desafios às oportunidades em um mundo multipolar

Resumo: À luz da hierarquização da teoria dos sistemas-mundo e da instrumentalização da interdependência, este artigo oferece uma avaliação sistemática das dinâmicas de plataformação dos BRICS na relação dependência-interdependência com o núcleo capitalista. Como estudo indutivo, estabelece que a desglobalização e a multipolaridade são estratégias adotadas pelo coletivo ocidental liderado pelos Estados Unidos e pelos BRICS. Argumenta que China e Rússia são amplamente independentes da infraestrutura digital estadunidense, enquanto Brasil, Índia e África do Sul (BIS) são dependentes. Conclui que, apesar dos desafios e contradições, há amplas oportunidades digitais para o bloco ou parte dele (como o BIS) caso busquem maior cooperação.

Palavras-chave: BRICS. Plataformação. Dependência. Interdependência.

Dinámicas de dependencia-interdependencia en la plataformación digital en los BRICS: de los desafíos a las oportunidades en un mundo multipolar

Resumen: A la luz de la jerarquización de la teoría de los sistemas-mundo y la instrumentalización de la interdependencia, este artículo ofrece una evaluación sistemática de las dinámicas de plataformación de los BRICS en su relación de dependencia-interdependencia con el núcleo capitalista. Como estudio inductivo, establece que la desglobalización y la multipolaridad son estrategias desplegadas por el colectivo occidental liderado por Estados Unidos y por los BRICS. Argumenta que China y Rusia son mayormente independientes de la infraestructura digital estadounidense, mientras que Brasil, India y Sudáfrica (BIS) son dependientes. Concluye que, en medio de desafíos y contradicciones, hay amplias oportunidades digitales para el bloque o parte de él (como el BIS) si apuntan a una mayor cooperación.

Palabras clave: BRICS. Plataformación. Dependencia. Interdependencia.

Introduction

Although statements such as “data is the new oil”² or claims that its value has surpassed that of petroleum³ may be overly exaggerated or fetishised, there is no denying that digital information is a new type of commodity in the Digital Era that sprung from the

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² Phrase by Clive Humby as per Palmer (2006). Available at: <https://bit.ly/4kybaJa>. Accessed in 15/01/2024.

³ Editorial from The Economist (2007). Available at: <https://bit.ly/3PuF42Z>. Accessed in: 05/12/2023.

1970's decade forward. In its second period, accelerated from 2008⁴ onwards, we have had the digital platformisation phenomena disseminated within globalisation in international political economy with effects on geopolitics. Nowadays, however, what is commonly discussed or observed is a halt or regression, a movement towards deglobalisation in a new context of actual or transitional period to multipolarity.

This paper operates under the premise that deglobalisation and multipolarity are not merely static images or features of the international system. They are, in fact, strategies deployed by the US-led Western collective and by the BRICS bloc, respectively. Each of these strategies has a set of tactics at its disposal: the deglobalisation strategy is composed of sanctions, tariffs, decoupling and shoring mechanisms (reshoring, nearshoring, friendshoring). Meanwhile the multipolarity strategy is composed of south-south coalition building, mainly represented by the BRICS alliance and its expansion, reliance on multilateralism, self-growth as well as by the dedollarisation tactics. These are not simply reactive or ad hoc strategies but become more apparent in an international system where 'Asymmetric network structures create the potential "weaponised interdependency" in which some states are able to leverage interdependent relations to coerce others' (Farrell and Newman, 2019, p. 45).

In light of international system organisation provided by world-systems theory and the current interdependence weaponisation, the objective of this paper is to evaluate the dependence-interdependence dynamics between the capitalist core (with the United States being the main actor) and the periphery/semi-periphery (represented by the BRICS) when it comes to the digital territory. Through the platformisation tree by Djick (2020), we seek to map the digital structural dependence-interdependence dynamics and show how the BRICS bloc (for practical purposes, only the original five – Brazil, Russia, India, China and South Africa) can be divided into two groups. China and Russia, in that order, are mostly independent of the US international cyberspace platformisation digital ecosystem/structure and Brazil, India, and South Africa (BIS) as fully dependent on the core country's digital infrastructure. In that sense, being pools of data extraction to US platforms, over-reliant on their systems and susceptible to geopolitical coercion through weaponised interdependency.

As an inductive study drawing from International Relations (I.R.) academic literature as well as digital database, the article is divided into two sections. It starts by (i) elucidating the study's premise, highlighting and organising recent discussions in international political

⁴ For a historical assessment of the Digital Era, see Brancher & Polita (2023).

economy when it comes to deglobalisation and multipolarity. It also introduces the platformisation tree by Djick (2020) which will serve as the theoretical basis for the analysis. In the second section, through analysis by the platformisation tree metaphor coupled with indicators of BRICS' cyberspace, (ii) we evaluate the dependence-interdependence dynamics in each of the bloc's nations and organise them accordingly. This is done both by highlighting problems and challenges related to the world-systems core's platforms but also by bringing into light challenges between BRICS platforms intra-bloc, be it by looking at geopolitical tensions among China and India or institutional issues with specific platforms in relation to the law of each country in the bloc.

Deglobalisation & multipolarity as strategies in an interdependent world

This section introduces the recent political economy literature on interdependence in relation to deglobalisation (a strategy) and its mechanisms/tactics (the types of shoring, decoupling, tariffs) as instruments of US hegemony. Meanwhile, it evaluates BRICS as a historical bloc pushing towards multipolarity (a strategy) and their correspondent tactics to achieve it (dedollarisation, self-grown, multilateralism and south-south coalition building which the bloc represents). By the end of the section, we introduce the platformisation tree theoretical framework from Djick (2020) which will be used to both explain the importance of digital infrastructures and serve the main analysis on BRICS digital dependence.

Digital aspects in political-economic discussions on deglobalisation and multipolarity are largely neglected. Both themes in the political economy field are, however, intertwined with the interdependence and, mostly important, they grow in importance due to its current weaponisation. As Çevik (2024) describes, a “peace” period brought the world both economic interdependence as well as the globalisation phenomenon. For the scholar, the major events which pushed economics into a regression on both elements were, in chronological order, the 2008 financial crisis, US president Donal Trump's economic policies towards China, the COVID pandemic and, finally, the Russo-Ukrainian War. Treating these events as “shocks”, the author argues these dynamics pushed for a reorganisation of global supply chains into policymakers' evaluation.

With a focus on sanctions and war, Brancaccio & Califano (2023) also emphasise an emergent era of deglobalisation. They argue that the Russo-Ukrainian War works not as a mere event, but as a “symbolic conclusion” to the globalisation process, creating a new dynamic with two blocs of power, one led by the United States and another led by China. The authors evaluate that even if concepts such as “decoupling”, promoted by the US, are

heavily discussed in the past few years, it is a process that was already underway much earlier and that sanctions are a mean to accelerate it. Both Çevik (2024) and Brancaccio & Califano (2023) also offer insights about mechanisms used in recent globalisation/deglobalisation debates. Çevik (2024) highlights the types of shoring: from reshoring (nationalising back certain types of production), nearshoring (trying to bring these productions chains to states close by) and, the most common one discussed, friendshoring (bringing these supply chains and productions to perceived allied nations). Brancaccio & Califano (2023) emphasise that “Western friend-shoring can be seen as a defence against the risks of a Chinese-led centralization of capital, a strategy which has been applied since well before the term started to be openly used” (2023, p. 13).

If the discussion on deglobalisation and its tactics (decoupling, re-, near and friendshoring) are mostly a development of Western countries’ actions, multipolarity is here seen as strategy or goal by the BRICS bloc. As Schulze (2022) describes it, albeit not new, multipolarity as a concept to understand the world order has seen a rebirth at the beginning of the 21st century in Russia, China as well as in Europe but it never left debates in the US foreign/security discussions. After the fall of the URSS, Schulze (2022) argues Russian Prime Ministre Yevgeny Primakov had the concept in mind as a key pillar and sought to establish an alliance between his country, China and India to counter-balance US hegemony. That wasn’t possible, Schulze (2022) argues, because all actors involved were not strong enough politically and economically.

In 1993, Brazil most dominant political party post-military dictatorship, PT (Workers’ Party) laid the groundwork for the foreign policy strategy that would foment BRICS and multipolarity once the party got to presidential power. As the documental work from Quero (2014, p. 21) highlights, PT’s internal meeting resolutions declared *ipsis litteris* that Brazil should pursue a multilateral attitude together with “India, Russia, China and eventually South Africa” in order to counter US hegemony and create a better position for Brazil in the international system. The term “BRIC” would be invented years later but that was the order the bloc came to be: first came the BRIC, with South Africa joining later. Once PT came to power in January 2003, president Lula, on his very first day in office, vowed in public speech to “stimulate the incipient elements of *multipolarity* in the international system” (Lula, 2003, p. 11, emphasis added).

Almost two decades later both PT and Primakov’s efforts would bear fruit with the BRICS bloc and the stronger movement towards multipolarity. As Rapanyane (2020) evaluates, this movement is both a result of internal and external conflicts in the United

States – or the core of the world-systems as we take it – as well as a consequence of BRICS emergence. By looking at elements like Foreign Direct Investment (FDI), the author argues that “US hegemonic decline is centrally found in the BRICS countries having increased economic strength and leverage to communicate their desires and needs in the international arena” (2020, p. 1).

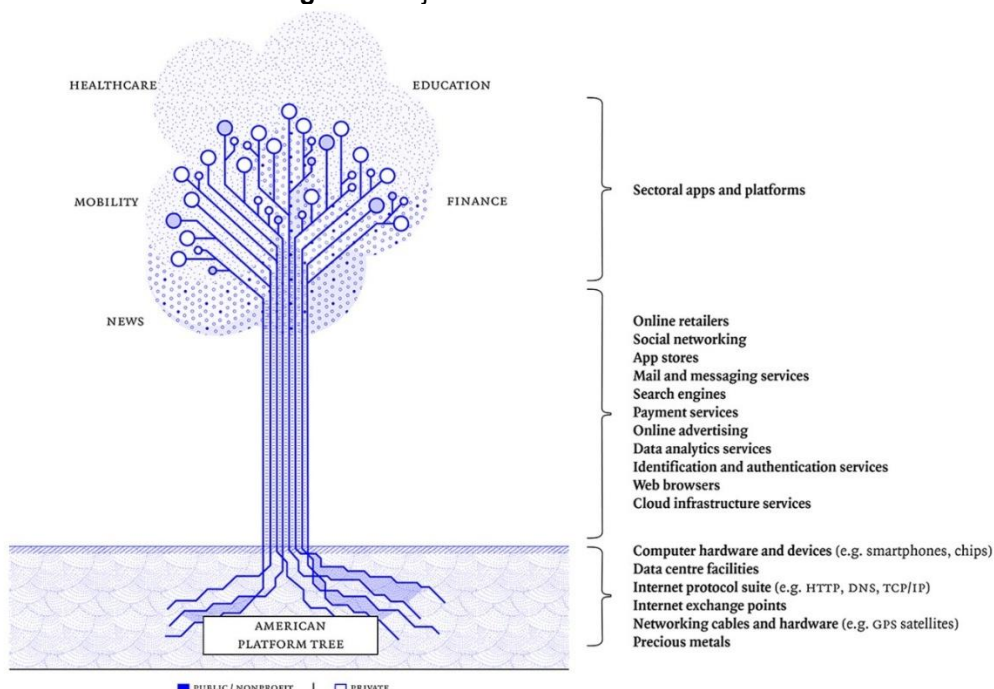
In sum, if deglobalisation is a strategy from US or from western centric countries as an answer for contemporary international issues, then decoupling, the types of shoring of global chains, as well as sanctions are their tactics. Conversely, dedollarisation is a tactic employed by BRICS, alongside a focus on their own national economic growth and south-south collation building in their multipolarity strategy. Rapanyane (2020) already hints at dedollarisation as a counter-hegemonic mechanism, but Khan (2023) develops the argument further. By looking at BRICS, the author argues this process is being accelerated by the bloc, a move intensified after the US-lead collective started deploying sanctions during the heightening of the Russo-Ukrainian War. Khan (2023) also argues the BRICS+ expansion further solidifies this tendency.

Be it deglobalisation or multipolarity, the interdependence/dependence dynamics are the force that propel these strategies. From Westerns in relation to China, we have the fear of global chains production dependence while, for BRICS, the dependence in having to resort to US dollar as the currency denominator for trade relations. In other words, these movements represent a turn on interdependence due to fears of weaponisation. As Farrell and Newman (2019) point out, the globalised world has made a weapon of war out of everything: information, trade, global supply chains etc. States deploy all sort of confrontational tactics short of actual military force. More importantly, the authors state how the International Relations has generally neglected digital aspects when it comes to understanding globalisation and power.

Thus, it is through platformisation that we evaluate BRICS digital dependence with the core of the world-systems, a risk in the current era of weaponised interdependence. We deploy José van Djick’s (2020) conceptual platformisation tree to establish the digital infrastructure parts. Her metaphor exposes platformisation governance by elucidating its power through abstractions of vertical integration, infrastructuralisation and cross-sectorisation. For Djick (2020, p. 2802) these international “information systems reigned by techno-corporate apparatuses now supersede the economic power of nations” emphasising platforms from closed systems to the platformisation phenomena as de facto structural.

As seen in Figure 1, the platformisation tree is based on the United States' digital ecosystem, a structure that allows for building power dynamics with users' data. The tree encompasses a down-upwards metaphor where the roots are the physical material base (internet cables, data centres). In the transition to the trunk, we have the platformisation enablers (from web browsers to operational systems and physical devices) while, in the middle, we have the software base (digital payment system, communication and social platforms, retail online shops, search engines). There we also find the mediators Djick (2020) identifies as "super-platforms" which govern the ecosystem and thus hold the power in the digital territory. Finally, we have the branches with the "sectoral applications" that function on the basis or connected to the digital platforms in the trunk.

Figure 1 - Djick's Platformisation Tree



Source: Djick (2020, p. 2806).

In the next section, we employ Djick's (2020) tree of platformisation metaphor but not seeing it merely as the US national structure. We see the platformisation tree as an international structure which exemplifies the digital mechanism of dependence-interdependence in the world-systems. The deeper the connections with the *American platform tree*, the higher the dependence on US digital infrastructure. Looking at specific tree parts in BRICS, we empirically identify digital dependence or autonomy levels of the bloc nations in their cyberspace at nuanced and clear segments.

On BRICS digital dependence-interdependence: an empirical evaluation

In this section we highlight digital platforms data usage in BRICS countries (the original five, not the expanded bloc announced at Johannesburg's XV BRICS Summit, in August 2023) and discuss their interdependence relations through empirical evaluation in relation to the platformisation tree theoretical model established by Djick (2020). These dynamics are filtered through the World-Systems Theory international hierarchisation, thus between the capitalism core in relation to periphery/semi-periphery. In other words, between the United States and BRICS respectively. We also seek to highlight political contradictions by and intra bloc when it comes to digital platforms, showing challenges and opportunities for BRICS countries in the digital territory.

In Table 1, we see the number of internet users per country - the general BRICS cyberspace population. Through the number of internet citizens in relation to the population size of each country, we can see a clear divide between the most connected nations (Brazil and Russia), the mostly connected ones (China and South Africa) and India with a little more than half the population with a direct cyberspace presence. It is also of note the growth potential based on sheer numbers that both China, and especially India, could add to their digital economy (roughly one and two "United States" as units worth of population each respectively). If data is the new oil/gold, then these are the available territories for "extraction" when it comes to the digital realm in the bloc.

Table 1 – Internet user population and digital engagement in BRICS countries

	Brazil	Russia	India	China	S. Africa
<i>Population</i>	217.0 mi	144.2 mi	1.44 bi	1.43 bi	60.69 mi
<i>Internet users</i>	187.9 mi	130.4 mi	751.50 mi	1.09 bi	45.34 mi
<i>Connected population</i>	86.6%	90.4%	52.4%	76.4%	74.7%
<i>Online hours per day</i>	09h13	08h21	06h45	5h33	09h24
<i>Via mobile phones</i>	98.5%	95.1%	96.6%	95.8%	96.0%

Source: Own elaboration with data derived from Kepios (2024a, 2024b, 2024c, 2024d, 2024e).

As per the platformisation tree conceptualised by Djick (2020), there are several types of platforms and platformisation enablers which both organise and structure the digital cyberspace and the platform monopolies ecosystem. According to the proposition by Brancher & Polita (2023), there is, however, a divide in cyberspace. There are two main platform ecosystems that organise the digital realm: the hegemonic United States' international cyberspace and China's national insulated one, permeated by a dominant

neoliberal and projectment ideologies in this order. This is not to say, as the authors argue, there are no contractions to be found in both cyberspaces, and we will illustrate some along this section.

In Table 2, we see the market share for web browsers in BRICS countries. Internet browsers were once the window into the internet by allowing an interface one could access websites and their information in a user-friendly manner. With the advent of Web 2.0 and its new standards, web browsers became a driving force for platformisation. The new technologies “extended the reach of websites, its functionalities and user-interaction possibilities” and thus ‘favored a “platformization” of the Web in a clear move towards interoperability between different components’ (Tabarés, 2021, p. 2). For Djick (2020), in the platformisation tree, web browsers are part of the trunk in the digital infrastructure acting as “proprietary software components”. More precisely, they are located in the changeover from the tree hard components between the roots (the physical infrastructure that allows for all the connections) to the trunk where we can see control struggles between the private and the political.

Table 2 - Internet browser market share by origin in BRICS

	Brazil	Russia	India	China	S. Africa
United States					
Alphabet's Chrome	75.0%	49.6%	87.1%	51.5%	72.5%
Apple's Safari	08.6%	11.5%	02.5%	12.8%	11.5%
Microsoft's Edge	04.7%	04.5%	01.5%	08.9%	01.9%
Mozilla's Firefox	02.7%	03.4%	01.1%	01.7%	01.2%
BRICS					
UC Browser (China)	-	-	02.5%	07.5%	00.5%
Yandex Browser (Russia)	-	22.0%	-	-	-
360 Safe Browser (China)	-	-	-	07.3%	-
QQ Browser (China)	-	-	-	07.0%	-
Other's					
Opera (Norway)	05.0%	07.4%	04.1%	-	03.8%
Samsung Internet (S. Korea)	02.1%	01.0%	00.9%	-	08.5%
Multiple (Other)	01.9%	00.7%	00.7%	03.4%	00.2%

Source: Own elaboration with data derived from Kepios (2024a, 2024b, 2024c, 2024d, 2024e).

By looking at the origin of these internet browsers in Table 2, we see the dominance of Alphabet's Chrome (Google) in all BRICS countries. We can see that even China, which has an historically insulated cyberspace, has Chrome as the dominant platformisation

enabler showing some dependence in this segment as Google's solution is the most used web browser by Chinese citizens. We can also see there are alternatives web browsers developed by BRICS countries, but the only one with a respectable degree of penetration is Yandex Browser in Russia, being the second most used in the nation but only there. Except for India and Russia, in all other BRICS, the second most used web browser platform is Apple's Safari, also created and managed in the world-systems core.

In Table 3, we see the market share of search engines divided by their origin nation in BRICS countries. If prior to platformisation internet browsers were an user-friendly interface for the common cyberspace citizen to explore the world wide web, search engines were their hosts, introducing and filtering the content according to users' interest and inputs. At first, the web had a more static nature, with black boxes blocs that didn't allow for search engines to "crawl the information hosted in these elements for developing services that [could] be monetised" (Tabarés, 2021, p. 3).

Table 3 - Search engines market share by origin in BRICS

	Brazil	Russia	India	China	S. Africa
United States					
Google (Alphabet)	95.30%	28.10%	98.20%	02.30%	95.80%
Bing (Microsoft)	03.30%	01.40%	01.10%	13.40%	03.50%
Yahoo! (Verizon)	01.10%	00.30%	00.40%	-	00.20%
DuckDuckGo	00.10%	00.10%	00.20%	-	00.10%
BRICS					
Yandex (Russia)	00.10%	69.80%	00.02%	02.70%	00.04%
Baidu (China)	00.07%	00.20%	00.03%	66.03%	00.02%
Haosou (China)	-	-	-	06.50%	-
Sogou (China)	-	-	-	05.10%	-
Shenma (China)	-	-	-	02.60%	-
Other's					
Ecosia (Germany)	00.02%	-	00.01%	-	00.02%
Multiple (Other)	00.01%	00.10%	00.01%	01.10%	00.30%

Source: Own elaboration with data derived from Kepios (2024a, 2024b, 2024c, 2024d, 2024e).

As new protocols and platformisation developed, the internet became more dynamic, working more towards private players' interests and allowing "the technological basis for digital business models based on data" which made possible for "digital platforms such as Google [to position] themselves as providers of several digital services (...) exerting a

considerable dominant position on the Internet industry” (Tabarés, 2021, p. 6). Search engines are located in the digital trunk of the platformisation tree conceptualised by Djick (2021, p. 2806) constituting “the core of platform power, as they mediate between infrastructures and individual users, as well as between infrastructures and societal sectors”.

As we can see in Table 3, Russia and China are the only BRICS countries not monopolised by the Google search engine. Each of these countries have their own national solution - Yandex and Baidu respectively - as the dominant cyberspace search platform in these nations, albeit with some penetration level by United States based companies that wouldn't configure a level of dependence. The Google solution is, however, the dominant player in Brazil, India and South Africa with a monopoly of no less than 95% of the market share, exhibiting control over information flows as well as on data collection for monetisation and influencing behaviour. The residual market share of other platforms in BIS is also captured entirely by the world-systems capitalist core with no presence of other BRICS solutions detected by the database surveyed.

This search engine monopoly has generated legal issues not only in the periphery/semi-periphery but also in parts of the core (depending on how one defines European countries' positions). In discussion with Surveillance Capitalism author Shoshana Zuboff, German businessman Mathias Döpfner (2019) discusses a German copyright law implementation. Due to the law, as a response, Google erased his company online presence resulting in an 85% search traffic fall for his company. In a similar regulatory attempt, French publishers also backed down after Google's delisting tactic. Per Döpfner (2019): “This clearly highlights our total dependence on Google, and Google's abuse of that. And what it also clearly shows is that Google is effectively able to overrule the rule of law, and with that the power of the market, in a country”.

In Brazil, the Executive Branch had to intervene against Google's abusive practice when the country's Congress sought to create new disinformation laws. Google used their main home page and advertising arm to push public opinion against the Congress/government law project. Their message alerted users that the “Fake News LP [Law Project] can raise the confusion about what is truth or lie in Brazil”. Brazil's Justice Minister moved to stop the practice, declaring that the government had found dozens of manipulation indicators and that “what we are avoiding [with the process against Google] is non declared, private and clandestine censorship” (Amato et al, 2023). Google was later ordered to stop their online campaign and was charged for market position abuse to sway public opinion (Brasil, 2023a). Contrary to the former discussed European example, the

Brazilian authorities did not need to “back down” in relation to the United States platform, but these cases highlight the problem that digital dependence brings.

When it comes to digital platforms that are mostly recognised for being so, we can see their dominance in BRICS countries and their origins in Table 4. As we go up in the tree by Djick (2020), we see a diverse platform penetration by and within BRICS although BIS dependence on the capitalistic core’s companies continue. In this part of the tree, however, we see the complete insulation of China’s cyberspace argued by Brancher & Polita (2023). The Asian country’s digital ecosystem is fully dominated by national solutions. This platformisation segment is crucial for control and digital power, being in a privileged position in the tree. As Djick (2020, p. 2807) highlights “these super-platforms are highly interdependent, governing the platform ecosystem through competition and coordination” thus also creating dependence with data extraction from the periphery/semi-periphery and most of the BRICS here analysed. More importantly, when it comes to the “American Platform Tree” or the international core digital infrastructure “there is hardly any nonmarket or state presence” (2020, p. 2807).

Table 4 - Digital platforms cyberspace market penetration by origin in BRICS

Brazil	%	Russia	%	India	%	China	%	S. Africa	%
WhatsApp	93%	WhatsApp	74%	WhatsApp	83%	Weixin	87%	WhatsApp	93%
Instagram	91%	Telegram	72%	Instagram	80%	Douyin	78%	Facebook	88%
Facebook	83%	VK	71%	Facebook	71%	QQ	59%	TikTok	73%
TikTok	65%	TikTok	41%	Telegram	58%	Tieba	58%	Instagram	71%
Messenger	60%	Odnoklassniki	40%	Snapchat	48%	Xiaohongshu	51%	Messenger	67%
Telegram	56%	Viber	30%	Messenger	45%	Kuaishou	47%	X (Twitter)	55%
Pinterest	46%	Instagram	22%	X (Twitter)	41%	Weibo	46%	LinkedIn	52%
Kuaishou	46%	Pinterest	14%	LinkedIn	34%	Qzone	28%	Pinterest	46%
X (Twitter)	44%	Skype	10%	Pinterest	28%	Huoshan	18%	Telegram	43%
LinkedIn	37%	Discord	7%	Sharechat	21%	Meipai	16%	Snapchat	31%



US



CN



RU



IN

Source: Own elaboration with data derived from Kepios (2024a, 2024b, 2024c, 2024d, 2024e).

As per Table 4, in Russia we can see WhatsApp (Meta) is the most used super-platform, but it is the only US originated one with a penetration above 22% and it has a

direct competition in Telegram⁵ as a close second place alternative. The remaining dominant platforms in Russia are national based and represent alternatives to US platforms, such as VK and Odnoklassniki (Russian “Facebook”). We can also see the presence of China’s TikTok while the rest of the digital platforms do not possess a high usage/penetration in the country. Although not as autonomous as China, Russia has become largely independent of the world-systems digital core in this tree segment.

Russia may be the greatest geopolitical made example of interdependence weaponisation, having been forcefully decoupled from the world-systems economic centre with the digital aspect being targeted as the country has been deplatformed since 2014. As an outcome of the Crimea crisis, the Eurasian country suffered heavy sanctions from the “collective West” which triggered a harder Russian push towards multipolarity (with increased trade with BRICS and the Global South in general). After being shut down from SWIFT (a digital platform)⁶, the country digital independence from the United States or the world-systems core and its collective (Europe) became a necessity and a policy goal.

This, however, paved the way for national and alternative solutions. For example, as Visa and Mastercard had issues to work in the country due to initial sanctions in 2014, space was open for China’s UnionPay⁷. The replacement process which started then made for a softer environment when the US platforms had to fully leave in 2022 in the context of Russia’s so-called “special military operation (SMO)” in Ukraine. In other words, the forced deplatformisation against Russia in 2014 helped pave the way to alternative solutions and the creation of a national payment system, such as Mir (Pertseva, 2023).

Per Table 4, India has the lesser diverse platform ecosystem close to fully dependent on US based companies, although India has a national platform between their most used as well as Telegram penetrating close to 60% of the digital population. The country is an interest case because relations with China also has spillovers on the digital realm, a fact elucidated by India’s ban on TikTok, WeChat, and 57 other Chinese platforms (BBC, 2020) which highlight contradictions intra-BRICS and integration challenges. Even though there is

⁵ We consider Telegram as Russian per origin (it was created by VK’s original creator). They say they are independent, being based in the United Arab Emirates (now BRICS+) but most of its developers are still, according to them, from Saint Petersburg. See <https://tinyurl.com/53x83v36>. Accessed in 08/02/2024.

⁶ The Society for Worldwide Interbank Financial Telecommunication is portrayed as an international banking system, but they now operate as more as a platform. “SWIFT has been driven to platformize, centralizing financial transaction management and big data analysis, to retain but also optimize CB [correspondent banking]”. (Robinson et al, 2022, p. 489).

⁷ Sanctions hit Russian banks as soon as the crisis started in 2014, when Crimea was annexed. UnionPay then became an alternative to Western options. As per a national Russian businessman, UnionPay “will be more reliable than Visa. At least the Americans won’t be able to grab it” (Venkataramakrishnan et al, 2022).

dependence on US digital infrastructural ecosystem, only 52% of India's population is connected to the internet, as seen in Table 1. This is an important figure which expresses the number of citizens not having developed digital habits with specific platforms, thus being more easily adaptable to different ones. Once a habit is established, the literature on “super-platforms” emphasis the winner-take-all success strategies and its platformisation network effect (Cennamo; Santaló, 2013; Bayer et al, 2022).

These factors contribute not only to explain India's position on TikTok but also the United States' strategy in relation to it as well. As Pecequilo & Junior (2022) note, platform companies control the digital infrastructure monitoring competitors and then, for example, eliminate them by purchasing them. Opposite to India, instead of simply banning TikTok in 2024, United States legislators passed a bill offering ByteDance (the owners) the option to sell the platform to a non-Chinese party, else TikTok would be ban nationally. This strategy by the US highlights that even though they wish to ban the Chinese platform (be it for the official reason of national security, interdependence weaponisation or for economic reasons due to lobby from their national platforms), they would prefer to absorb it. In this way, they recognise its value and the disruption a ban would ensue due to the high market penetration and the population developed habit. This is also noticeable because TikTok is not a platform on the same level Meta's or Alphabet's which constitute digital ecosystems with multiple functionalities and extensive network gains⁸.

Opposite to India (Table 1), Brazil has a high percentage of people connected to the internet - 86% of the population online of which 98% are connected through mobile devices, where data information collection by digital platforms thrives. As India, however, Brazil is another case of heavy dependence on the US platform ecosystem (Table 4). WhatsApp (Meta) being so prominently and inherent to Brazil's digital economy problems with it could even entail GDP repercussions. A survey and econometric study by Rafert & Mate (2017) show the digital platform in terms of consuming spending already could represent up to 0.88% on GDP then. The figure impresses even more when knowing the researchers worked on 2015 data, when WhatsApp had barely 49% penetration on Brazil's cyberspace (their numbers), not the 2024's 93% shown in Table 4. That said, the South American country has a high penetration of BRICS digital platforms such as TikTok and, to a lesser

⁸ Or as Brancher & Polita (2023, p. 39, our translation) analyse: “Google and Facebook qualify themselves and have penetration in scale superior to platforms with a more limited focus on entertainment, as Snapchat or TikTok. (...) the former ones are current digital infrastructures, unlike the latter ones.”

degree, of its Chinese competitor Kwai (Kuaishou). Telegram (Russia), as a WhatsApp (Meta) alternative, has also been accessed by little over half of Brazil's digital population.

Seeing the whole BRICS in Table 4, Brazil can be argued as a middle country for having more presence from digital platforms from the bloc. They employ alternatives to those from the core but are far from having a more independent national platform ecosystem like China or Russia. The South American country also exposes other challenges when it comes to BRICS. Brazil had issues with Google/Alphabet but with Telegram as well even though this platform is not a monopoly like the former conglomerate is in their digital territory. Brazil's Supreme Court acted against Telegram for its actions opposing the very same fake news law project mentioned previously (PL 2630/2020) but also in other stances during the election cycle, when the platform refused to delete content. As a result, the company was even temporarily blocked from the nation's cyberspace (Brasil, 2022; 2023b).

As the whole BIS, South Africa is also very much intertwined with the US digital platform ecosystem per Table 4. Like Brazil, the nation does not have a single national platform with any prominence in the national cyberspace, but it has the presence of two BRICS platforms with Telegram and TikTok. It is also of notice the high penetration of WhatsApp as a platform in all BRICS, except for China. Meta's platform enjoys not only being the most used platform in the bloc, but it does so in the essential communication sector. The US company also has multiple platforms with high penetration in BIS; for instance, Facebook is the second most used platform in South Africa and the third in both Brazil and India. Instagram and Messenger, also Meta platforms, have high penetration and contribute to the value of the megacorporation, expressing their monopoly. This highlights the qualitative differences with TikTok as an entertainment platform on its own. Meta, on the other hand, operates as an ecosystem with communication, business, entertainment and social platforms (Facebook, WhatsApp, Messenger, Instagram) in unison having superior extraction and data control, i.e. power, as a monopoly in international scale encapsulating most BRICS countries.

In sum, despite being the most independent BRICS member, China retains some minimal dependence on the world-systems core ecosystem. Based on the platformisation tree, we see China's dependence on the trunk of the digital infrastructure (web browsers), that is however an exception. Going up on the trunk, we see the Asian country as mostly independent when it comes to search engines and, going up further, a fully independent system of digital "super-platforms" which govern their ecosystem. Russia differs from the

other four BRICS in having a national web browser platform decently well positioned in the country but – as is the case in all BRICS – there is an overreliance on the core's main option. Going up on the conceptual trunk, the independence grows to look more like China in the search engine segment. Only in the higher part of the trunk, when it comes to the “super-platforms”, that Russia has a mix between core's platforms and national equivalents, but the country is mostly independent.

Evident dependence is only seen when it comes to BIS. These countries are in a fully dependent dynamic with the capitalist digital core in all parts of the ecosystem. US web browsers dominate BIS; Google has a monopoly in search engines with the minimum digital market share of 95%. When it comes to the “super-platforms” the core's dominance is evident, although there is presence of BRICS platforms in BIS. A shift towards greater BRICS integration or increased autonomy for individual nations would be beneficial for a more balanced relation to the core's international digital structure. Besides the users' habit change barrier, there are questions of geopolitics, like between India and China, and platform behaviour towards institutions (as in the Telegram case vis-à-vis Google and Meta issues in Brazil) that offer challenges to integration, although geopolitical growing tensions may create opportunities to smooth out differences as seen in the Russian case.

Conclusion: digital challenges and opportunities for BRICS

In the first section, we organised current debates in international political economy arguing as a premise that deglobalisation and multipolarity are geopolitical strategies rather than simple “organic” arrangements or static images of the international system. The first strategy is deployed by the United States and allies with tactics such as sanctions, tariffs, decoupling and shoring variations (reshoring, nearshoring, friend- or ally-shoring). While the second strategy has been historically articulated by the BRICS bloc. Besides the goal of national self-grown and development, it relies on tactics of alliance formation (the block itself), its expansion, multilateralism as well as the long goal of dedollarisation.

In the second section, we sought to evaluate BRICS digital infrastructural dependence-interdependence in light of world-systems theory, with the core being the United States' platform digital structure. We resorted to the platformisation tree metaphor by Djick (2020) for a throughout BRICS empirical digital analysis. We verified and argued that China and Russia are mostly independent from US digital infrastructure, but BIS (Brazil, India and South Africa) is dependent on the US international platform ecosystem. If multipolarity creates increasing tensions, as realist international relations scholars often

argue, these countries face significant challenges in an era of weaponised interdependence. Additional problems with platforms originated intra-BRICS, as the case of Telegram and TikTok, also offer challenges and contractions to BRICS integration.

That said, the number of internet citizens on the bloc offers tremendous opportunities if higher cooperation is achieved. A neutral framework and platform building between BIS or alongside BRICS+ expanded members could help towards a more diverse platform scenario, less dependent on the core's ecosystem. A focus on BIS would also bypass challenges that could rise due to contradictions between China and India. For future research, studies encompassing all BRICS+ members are encouraged. Research on the adaptations of the Russian economy and platform governance, considering the country forcefully deplatformisation, can also be of notice in case the same digital interdependence tactics are weaponised against other BIS members due to geopolitical tensions.

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