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# Constructing Digital Sovereignty in Russian and Chinese Media: Big Data Analysis

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**Abstract.** This study explores the formation of the concept of digital sovereignty in non-liberal democratic countries through a comparative analysis of media discourses in Russia and China. Against the backdrop of intensifying global competition and technological transformations associated with the Fourth Industrial Revolution, comparing how different actors in non-democratic states construct digital sovereignty becomes crucial for understanding the divergences between the two countries. The research methodology is based on big data analysis of media publications, employing automated text analysis methods (PolyAnalyst). The sample includes over 2,800 materials from Russian and Chinese media outlets covering the period from 2011 to 2021. The analysis was conducted across several dimensions: economic and political content, national and international levels, and the technologies incorporated into the concept of digital sovereignty. The study adopts a constructivist approach, viewing digital sovereignty as a phenomenon discursively constructed by various actors. Particular attention was given to mapping actor networks and identifying dominant thematic clusters. The scientific novelty of the research lies in its comparative approach to studying digital sovereignty in non-liberal democracy countries. The study demonstrates that digital sovereignty is not a monolithic concept: its understanding in Russia and China differs significantly. In Russia, narratives of national security, state control, and protectionism prevail, whereas in China, the emphasis is placed on technological development, economic leadership, and global competitiveness. Furthermore, the study reveals the different roles played by economic actors and technological imaginaries in shaping the concepts of digital sovereignty. The findings show that Russia and China employ distinct strategies and narratives to legitimize digital sovereignty. This work contributes to the understanding of the role of media in shaping sovereignty concepts and opens up new avenues for further research in the fields of digital governance and international relations.

**Key words:** non-liberal democratic countries, technological development, national security, global competition, technological sovereignty, media analysis, comparative study, PolyAnalyst, cluster analysis

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# Конструирование цифрового суверенитета в медиа России и Китая: анализ больших данных

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Аннотация. Исследование посвящено изучению формирования концепции цифрового суверенитета в условиях нелиберальных режимов на примере изучения медиа России и Китая. В условиях обостряющейся глобальной конкуренции и технологических преобразований, связанных с Четвертой промышленной революцией, сравнение процессов конструирования цифрового суверенитета разными акторами в нелиберальных государствах становится важным для понимания различий между двумя странами. Методология исследования основана на анализе больших данных медиапубликаций с применением автоматизированных методов анализа неструктурированных текстов (PolyAnalyst). В выборку вошло более 2800 материалов российских и китайских СМИ за 2011-2021 гг. Анализ проводился по ряду измерений: экономическое и политическое содержание, национальный и международный уровни, а также технологии, включаемые в концепт цифрового суверенитета. Исследование опирается на конструктивистский подход, позволяющий рассматривать цифровой суверенитет как феномен, дискурсивно конструируемый различными акторами. Особое внимание уделено картированию акторских сетей и выявлению доминирующих тематических кластеров. Научная новизна исследования заключается в сравнительном подходе к изучению цифрового суверенитета в нелиберальных режимах. Показано, что цифровой суверенитет не является единым понятием: его понимание в России и Китае существенно различается. В России доминируют нарративы национальной безопасности, государственного контроля и протекционизма, тогда как в Китае акцент сделан на технологическом развитии, экономическом лидерстве и глобальной конкурентоспособности. Кроме того, выявлены различные роли экономических акторов и технологических представлений в оформлении концепций цифрового суверенитета. Результаты исследования показывают, что Россия и Китай используют разные стратегии и нарративы для легитимации цифрового суверенитета. Работа вносит вклад в понимание роли медиа в формировании концептов суверенитета и открывает перспективы для дальнейших исследований в области цифрового управления и международных отношений.

**Ключевые слова:** нелиберальные страны, медиаанализ, технологическое развитие, национальная безопасность, глобальная конкуренция, технологический суверенитет, сравнительные исследования, PolyAnalyst, кластерный анализ

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**Примечание.** Мнения, высказанные в статье, принадлежат авторам и могут не совпадать с позицией редколлегии журнала.

**Вклад авторов.** Попова Е.В.: концепция и дизайн исследования, анализ полученных данных. Устюжанцева О.В.: обработка материалов, написание текста статьи. Гао Хаоюэ: сбор и обработка данных по кейсу Китая. Все авторы ознакомлены с окончательной версией статьи и одобрили ее.

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# Introduction

principle of sovereign equality, established in the Charter, as UN fundamental norm of contemporary international relations, covering all spheres. Its principles and spirit also extend to science and technological development. The latter has its place in the discourse of digital (and, more broadly, technological) sovereignty, models of which the leaders of the technological race are striving to build. At the heart of these actions are discursive practices to adapt internal perceptions of the state in the context of new and emerging technologies. Different states understand these technologies and their possible impact on the state, the economy and the lives of individuals and groups in different ways. This difference turns out to be essential for the formation of science, technology and innovation policies aimed at the strategic goals of states.

academic literature The on digital sovereignty (hereafter referred to as DS) still lacks a common and widely accepted definition of the term. Digital sovereignty itself is often used as a synonym for cyber sovereignty, technological sovereignty, data sovereignty, Internet sovereignty. Such confusion arises, by and large, from the widespread and unreflective use of these interchangeably in the media and political discourse. Couture & Toupin (2020)demonstrate that the conceptualization of digital sovereignty is mainly outside the academic community, without the involvement of political scientists or digital experts.

The oldest academic conceptualization of digital sovereignty (DS) can be found in Timothy Wu's work (Wu, 1997), which defines state capabilities in cyberspace: content and activity regulation (Wu, 1997, pp. 649–650). Existing publications can be divided into the

following major groups: one, reflecting on the conceptual boundaries and meaning of DS (e.g., (Efremov, 2017; Rebro et al., 2021; Couture & Toupin, 2020; Pohle & Thiel, 2020; Musiani, 2022)); researchers support the importance of understanding two components of the DS — in its value-based terms of content technologies (Degterey, 2022); and another, focused on the empirical cases of exercising DS in various regions and countries (see, e.g., (Dementiev, 2022; Glaze et al., 2024; Leontieva et al., 2021; Zinovieva & Bulva, 2021; Floridi, 2020; Zeng, Stevens & Chen, 2017)). These cases demonstrate the scholar's efforts to elaborate the DS 'models.'

DS models follow two approaches to governance. The "bottom-up" approach, rooted in multistakeholderism, marginalizes state roles, allowing stakeholders to govern economic and technological interests (Strickling & Hill, 2017; ten Oever, 2021). The "Chinese" model represents the "top-down" governance typical of authoritarian regimes (Jiang, 2010; Budnitsky & Jia, 2018; Stadnik, 2019). DS is framed through oppositions: national security vs. open trade, civil rights vs. state control, and propaganda VS. information flow.

This framing highlights the discursive nature of DS but risks oversimplification, especially in non-liberal democratic regimes, where national security and state control often overshadow technological development and civil freedoms (Hellmeier, 2016). The question arises as to whether it is appropriate to consider non-liberal democratic countries as a unified DS

<sup>&</sup>lt;sup>1</sup> Due to the ambiguity of the term of 'authoritarian regime,' which encompasses a wide variety of political regimes not described by the term 'liberal democracy' adopted in Western political science, we will use the term 'non-liberal democratic countries' in reference to the political regimes of Russia and China throughout the text.

model. The purpose of this paper is to provide an answer to this question.

According to Pohle & Thiel (2020), the DS is a governments' exercise of sovereign control over digital content and digital infrastructure to serve their national interests as the states understand them. The common perception of autocratic state interests as the sole interests of the ruling body is valid for non-liberal democratic countries and mostly "traditional" industries. However, for new and emerging technologies, the development of only correct representations is a challenging task. Therefore, it is interesting to understand how these representations are formed, whether they consistent whether there are or contradictions in the discourse about the DS. Beside state, there are economic agents (companies, private and state ones) that are included in world economy. Their economic success is also part of state success and therefore, the national interest can vary here. This article investigates how the DS concept is constructed in the non-liberal democracy countries — Russia and China. Currently, studies are beginning to appear that seek to empirically outline the similarities differences in the DS governance models emerging in China and Russia (Khasanova & Tai, 2023). These must be different models that need to be studied. The following sections of the paper will analyze the differences in the digital sovereignty discourse of the two states.

# **Methodology and Data**

Biersteker & Weber (1996) describe sovereignty as a social idea linking territory, society, and authority, shaped by powerful agents' actions within a state. These actions can provoke resistance from agents located "at the margins of power" (Biersteker & Weber, 1996, p. 3). This concept applies to DS, where power agents generate dominant agendas and policies. 'Digitality' adds technology to the mix of territory, society, and authority. This framework constitutes the basis of the present analysis.

In non-liberal democratic countries, while the state is the primary stakeholder, economic agents also represent national and international economic interests. This leads to the following assumptions:

- 1. DS discourse involves multiple actors, not just the government, including companies and IT developers.
- 2. The discourse shapes narratives about DS in both political and economic domains, nationally and internationally.
- 3. Technologies are crucial for DS, securing strategic autonomy and enhancing economic, political, and military influence. It is evident that they play a pivotal role in both global competition and national economic development.<sup>2</sup>

On the one hand, technology can provide the state with more sophisticated and powerful instruments for people control (MacKinnon, 2011; Topal, 2022). On the other hand, many authors show that for authoritarian states technologies can also disrupt the ability of the state to control the citizens (Price, 2002; Goldsmith & Wu, 2006; Owen, 2015). This makes the value content of the DS concept relevant to all states.

Digital technologies are often considered within two technological regimes: the 3rd Industrial Revolution (3IR) and the 4th Industrial Revolution (4IR). Following the academic literature, by the 4IR technologies we mean Internet of Things, big data, cloud, fog, and edge computing, artificial intelligence, and machine learning (Ajayi, Bagula & Maluleke, 2023).

These arguments allow us building the matrices of domains in which the discourse on DS can exist. At the analytical level, these matrices can be deconstructed to the scales:

economic — political/international — national,

Madiega T. Digital Sovereignty for Europe // European Parliamentary Research Service Briefing. 2020. No. PE 651.992. See also: (Ajayi, Bagula & Maluleke, 2023).

— 3IR technologies — 4IR technologies/international — domestic.

The mass media plays a crucial role in shaping DS as a media and political concept. Media activities create a picture of reality by disseminating and sometimes transforming various facts and opinions (Luhmann, 2000). As McLuhan (2001) theorized, media messages are social facts, providing a fertile ground for researchers to investigate their formation and development. The analysis of media content facilitates the reconstruction of the frames used by actors in the DS discourse. The research is interdisciplinary and applies the following scholarly approaches: systems analysis, historical analysis, media studies, and innovation studies.

To understand how DS is constructed, a quantitative text analysis of publications from Russian and Chinese mass media was conducted. For Russia, we used the *Integrum* database, which archives media texts from the early 1990s. We identified keywords like 'digital sovereignty' and 'cyber sovereignty,' forming a sample of about 2,500 texts for analysis, ultimately refining it to 1,864 lines from the moment of the first use of the phrase DS in the Russian media from 2011 to June 2021.

For China, we manually searched Baidu.com, resulting in 1,033 articles from the moment of the first use of the phrase DS in the Chinese media from 2012 to 2021. Unlike the comprehensive Russian database, the Chinese sample was manually curated to avoid reprints. Using Megaputer PolyAnalyst, we identified thematic clusters, organizations, companies, persons, and locations mentioned in the texts, along with keywords and their connections. This analysis revealed the discursive positions of national media, highlighting similarities and differences in how DS is constructed by Chinese and Russian media. As a result of the data analysis, we present the concept of 'digital sovereignty' constructed by the Chinese and Russian media.

#### Case of Russia

In the Russian media, DS is most frequently linked to legislators and parliament, rather than the government. The main government bodies mentioned include the Ministry of Telecom and Mass Communications and the Federal Service for Supervision of Communications, Information Technology, and Mass Communications. The nonprofit sector is barely mentioned.

The private sector features prominently with American tech giants such as Google, Microsoft, Facebook,<sup>3</sup> and Apple. Russian digital companies and state-owned businesses follow, with Yandex and Kaspersky Lab leading, and InfoWatch Group, Rostelecom, and Sberbank also mentioned. These companies are closely tied to the government be considered and can near-state entities. Industries associated with DS in the Russian media include information telecommunications, technology, media, software development, computers and electronic equipment, banking, energy, and mining.

# Scales "Economic — Political / International — Domestic"

The cluster analysis of Russian media demonstrates an equal distribution between the 'economic — political' and 'international domestic' scales, with 'domestic - political' being the most popular quadrant. This quadrant blocking social networks, messengers, and websites, and organizing the Russian segment of the Internet (Runet) in response to external threats. Laws proposed by Russian legislators to block specific internet resources are part of this DS discourse, emphasizing state protection in the information space and restricting the free information.

<sup>&</sup>lt;sup>3</sup> Activities of *Facebook* social media, the *Meta Platforms Inc.* project, are prohibited in Russia.

## International

#12: Eurasian, union, ecosystem, platform, project, transformation, economic, agenda, market, process

#15: collective farm, build, close, prime minister, gather, innovation, potential, open, guarantee

#2: object, attack, international, infrastructure, critical, sphere, cybersecurity, protection, space, doctrine

#5: European, American, military, Chinese, war, technological, political, world, attitude, cyberspace #13: bitcoin, money, cryptocurrency, currency, war, US, bank, blockchain, needed, dollar

#### **Economic Political**

#3: domestic, software, import substitution, developer, registry, product, manufacturer, market #4: council, economy, region, area, meeting, electronic, democracy, institution, program, digitalization #10: product, customer, domestic, director, import

substitution, developer, code, development, enterprise, market

#1: blocking, social network, right, censorship, account, legislation, block, freedom, material, law #6: messenger, law, website, user, child, court, ban, blocking, person

#8: bill, network, traffic, disconnection, operator, Runet, disconnect, server, threat, communication #11: personal, league, citizen, information, secret service, server, vice-speaker, secure, personal, deputy

### **Domestic**

Figure 1. Matrix of the clusters for Russian media, scale 'economic — political'/ 'international — domestic': clusters are numbered according to the level of significance of the keyword cluster calculated by PolyAnalyst. A total of 15 clusters were identified for the Russian case. Source: compiled by E.V. Popova based on cluster analysis of keywords using the PolyAnalyst software.

Issues of data protection, personal data, and data sovereignty appeared in the DS discourse in early 2021, probably due to the protective nature of the concept. The media often mention protecting individuals, citizens, and children from harmful information. The primary cluster discusses norms restricting free information flow, with terms like 'censorship,' 'rights,' and 'freedoms' appearing. The Russian political context allowed the media outlets to express

'international — political' 'domestic — economic' quadrants are also significant. Domestic economic issues related to DS focus on import substitution, especially software, and the digitalization of the economy and the state. Discussions have included 'electronic democracy' and regional economic development through digital technologies, but not at the national level.

different positions on proposed bills (Figure 1).

The 'international — political' quadrant connects external threats with terms like 'war,' 'attack,' 'cybersecurity,' and 'protection,' linked to Russia's foreign policy doctrine. This includes financial sector confrontations, with new technologies challenging the US dollar's dominance. The main adversaries mentioned are the United States, Europe, and China.

International economic relations are less discussed, with clusters on the Eurasian Union's platformization program (EAEU) and innovation development. The statement by the Chairman of the Council of Ministers, Dmitry Medvedev against creating a "digital collective farm" was echoed by stakeholders in the discussions on digital development.

<sup>&</sup>lt;sup>3</sup> Meaning Soviet type of farm — collective economy (kolkhoz). See: Medvedev Promised Not to Build a "Digital Collective Farm" in Russia // RBC. October 17, 2017. (In Russian). URL: https://amp.rbc.ru/rbcnews/

# Scale '3IR Technologies — 4IR Technologies / International — Domestic'

More than 600 keywords of the Russian mass media operating with the DS concept are technology. However, related to of them are not in the top 100 of keywords and are vague in nature, including 'technology,' 'technical,' 'computer,' 'digital,' 'digitalization,' etc. By placing technologies on the scale of 'national vs. international,' the national field prevails among the technological narratives (Figure 2). The media speak of "domestic 3IR technologies" with the keywords 'domestic software,' 'domestic servers.' 'Russian operating system,' 'national domain,' domestic items general. in publications highlight the necessity developing Russian software that must be competitive on the world markets and discuss the significance of open source, free software. Keywords not associated with stable clusters are significant when considering the technologies to which the concept of DS refers. Among these keywords there are 'data,' 'data protection,' and security problems play a key role.

4IR technologies are situated in the quadrant 'international', as cryptocurrency and blockchain trans-border technologies. 3IR technologies can only be attributed international issues in the context of creating narratives related to threats from external forces that impede the exercise of national sovereignty.

With the exception of one cluster, new technologies are always associated with the state rather than with individuals or citizens (see Figure 2). When individuals and technology appear together, they are often linked to security and regulation by the state. Most technology clusters focus on national issues and third industrial revolution (3IR) technologies, emphasizing state protection and 'national

traditions,' which don't require the latest technologies.

There is a clear division of technologies between economic and political domains. 3IR technologies are linked to political issues, while fourth industrial revolution (4IR) technologies relate to economic matters (Figure 3). The economic issues include collaboration within the Eurasian Union and the fintech regulation, particularly cryptocurrency.<sup>4</sup>

Russian media and key stakeholders largely neglect technologies outside of software and computer hardware. Among the top technology-related terms, only 'bitcoin,' 'blockchain,' 'video-hosting,' 'encryption,' and 'automation ofcurrent businesses' recognized as related to Fourth Industrial Revolution (4IR) technologies, which are mainly covered by non-state media. State media in Russia do not feature prominent tech-related keywords such as 'databases,' 'data storage,' 'big data,' 'cloud technologies,' or 'virtual reality.'

# Case of China

In the Chinese media, non-governmental companies and organizations are the primary stakeholders mentioned most frequently. Among the 225 organizations discussed, 104 are from the education and science sectors, predominantly universities and research centers. Only a few governmental bodies are rarely mentioned, with just three associated with the US agencies and two linked to China, while the rest are related to education and science.

Among the 213 companies mentioned, the companies from the United States lead with 60 mentions, followed by China with 42. Japan (19), Germany (14), and France (13) also appear frequently, while other countries are mentioned fewer than 10 times, with the United Kingdom, India, South Korea, and Singapore among the top.

rbcfreenews/59e60ae19a7947ba497a86ff (accessed: 12.10.2024).

<sup>&</sup>lt;sup>4</sup> A bill has been submitted to the State Duma in 2022 and is under approval yet.

# International # 12: Eurasian, union, ecosystem, platform, project, transformation, economic, agenda, #8: bill, network, traffic, disconnection, operator, market, process Runet, server, threat, communication #13: bitcoin, money, cryptocurrency, currency, war, US, bank, blockchain, needed, dollar **Technologies 3 IR Technologies 4 IR** #1: blocking, social network, right, censorship, #9: person, device, blockchain, user, bank, mobile, account, legislation, block, freedom, material, law app, card, think, smartphone #3: domestic, software, import substitution, developer, registry, product, manufacturer, market #6: messenger, law, website, user, child, court, ban, blocking, person #11: personal, league, citizen, information, secret service, server, vice-speaker, secure, personal, deputy **Domestic**

Figure 2. Matrix for Clusters Related to Technologies and International and National Domains Source: compiled by E.V. Popova based on the keyword cluster analysis conducted using the *PolyAnalyst* software.

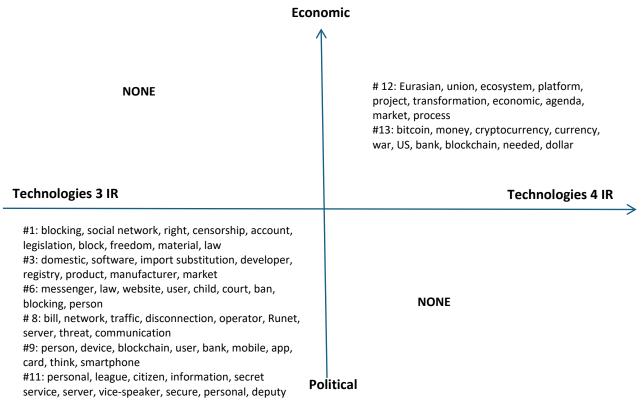


Figure 3. Matrix for Clusters Related to Technologies and Political and Economic Domains in Russian Media

Source: compiled by E.V. Popova based on the keyword cluster analysis conducted using the PolyAnalyst software.

US companies are notably prominent, along with Southeast Asian and European counterparts, with industries like software and technical services, vehicle manufacturing, and banking receiving the most coverage.

In terms of specific companies, the top three mentioned for digital services and development in computer the USA are Facebook,<sup>5</sup> Microsoft Corporation, and Amazon. In China, Baidu, Alibaba, and Jingdong dominate the narrative. Overall, US companies are mentioned more frequently than Chinese companies, with only four Chinese companies making the top-14.

Organizations show greater diversity, with represented by three Chinese universities: Tsinghua University, Renmin University of China, and Fudan University. Notably, the highest-ranking Chinese university ranks second overall. International organizations like the World Bank, the International Monetary Fund, and the International Telecommunication Union also feature prominently, while Harvard University, Stanford University, and US intelligence agencies are among the top non-Chinese organizations shaping the debate on digital services.

The concept of sovereignty in Chinese media narratives primarily revolves around individuals, albeit mentioned relatively infrequently. Xi Jinping leads with 75 articles over a decade, followed by Angela Merkel, Ursula von der Leyen, and Donald Trump, the latter mentioned only 10 times.

In conclusion, the discourse on digital services in the Chinese media is less personalized, focusing more on countries like China and the United States due to the long-term technological and economic confrontation between China and the United States, with Southeast Asian states gaining attention due to China's regional leadership ambitions, including in technological domains.

# Scales "Economic — Political / International — Domestic"

Cluster analysis of the Chinese media showed averagely equal distribution of clusters among the scales 'economic — political,' but more popular is the discourse of the 'international' in comparison with national issues on the scale 'international — domestic' (Figure 4).

International issues frequently intersect international trade and partnerships, with nine overlaps. noted five out of discussions generally lack explicit mentions of threats from the countries involved. They often coincide with talks about new technologies. International trade and partnerships are components of seven clusters, while economics and finance are discussed in an equal number. Discussions on openness feature in six clusters, commonly alongside new technologies.

In political spheres, there's a significant focus on anti-colonial discourse, both globally particularly and domestically, critiquing Western approaches and ideologies (cluster 15). This includes tensions around the global expansion and dominance of American tech giants. National concerns revolve around countering industry monopolization, fostering cross-border cooperation, and shaping innovation policies in specific economic sectors.

Among the top 20 keywords and phrases, few directly relate to these themes. Most terms are economic, such as consumer, economy, supplier, and production. Only competitiveness, international organizations — primarily the UN — and security fall into the political category. The prominence of 'globalization' underscores the international dimension, alongside technology-related terms like 'artificial 'digitalization,' 'Internet,' intelligence' (the top-3 terms representing digital services), 'computer,' and 'informatization.'

<sup>&</sup>lt;sup>5</sup> Activities of *Facebook* social media, the *Meta Platforms Inc.* project, are prohibited in Russia.

#### International

#7: currency, central bank, bank, payment, yuan, issue #10: industry, Germany, France, block, energy, German #12: trade, rules, governance, cross-border, one belt, one road, space, agreement, commerce

#16: tax, large, levied, France, shock, tariff, epidemic, levy,

#21: property rights, network, knowledge, autonomy, server, patent, distribution, import, Russia, my country

#2: Giants, regulation, bills, monopoly, privacy, Google, anti, protection, private

#13: Biden, user, America, Atlantic, Europe, Hacker, Ally, Trump

#15: cold war, globalization, ism, western, politics, trade, epidemic, America, protectionism, architectonics

#17: Russia, Biden, Obama, President

Economic Political

#14: finance, customer, innovation, electricity, drive, business, transformative, traditional #23: law, jurisdiction, enforcement, judicial, long arm, law, anti, act, monopoly

#20: cross-border, flow, personal, protection, federal, legal, framework, legislation, law

#### **Domestic**

Figure 4. Matrix of the Clusters for Chinese Media, Scale 'Economic — Political' / 'International — Domestic' Media: clusters are numbered according to the significance level of the keyword clusters, as calculated by the *PolyAnalyst* software. A total of 23 clusters were identified for the Chinese case, which is more than in the Russian media sample, indicating a more unified agenda *Source*: compiled by E.V. Popova based on the keyword cluster analysis conducted using the *PolyAnalyst* software.

# Scale '3IR Technologies — 4IR Technologies / International — Domestic'

To visualize how technologies are related to the central scale 'economic — political,' we placed the corresponding clusters in the figure. It turned out that technological issues are primarily related to issues of economic development, not politics (Figure 5). Here, technologies of both the 3rd and 4th IRs are equally significant.

In discussions of DS, technological issues are largely intertwined with international relations. Within the context of 'international — domestic' dynamics, 3IR technologies like energy, the activities of internet giants, and telecommunications are focal points (Figure 6). Issues related to development and future technology play a secondary role compared to

global competition and trade disputes, which often emphasize China's national sovereignty. 4IR technologies are included in discussions of global challenges necessitating cooperation and advancements in science.

The latter prompted us to single out a separate scale that does not appear in the Russian media in connection with the discussion of the DS concept. This is the 'global issues — local issues' scale (Figure 7).

Global problems that require joint efforts still occupy a relatively small proportion of discursive descriptions (only two clusters), but these are far from the last clusters in terms of significance and number of mentions, while they relate to both external and internal issues. Local issues are mainly related to regulation and rules for external technology companies and for the development of the Chinese economy, as well as issues of cross-border cooperation.

# **Economic** #4: Huawei, India, Europe, China, Equipment, #3: currency, blockchain, bitcoin, asset, coin, finance, credit, Telecommunications, UK, Both, Partners issue, encryption #10: industry, Germany, France, block, energy, German #6: Microsoft, cloud, software, open source, quantum, #14: finance, customer, innovation, electricity, drive, Germany, computing, computer, source business, transformative, traditional #9: semiconductor, processor, chip, disk, material, manufacturing, performance, computing, car **Technologies 3 IR Technologies 4 IR** NONE NONE **Political**

Figure 5. Matrix for Clusters Related to Technologies and Political and Economic Domains in Chinese Media

Source: compiled by E.V. Popova based on the keyword cluster analysis conducted using the *PolyAnalyst* software.

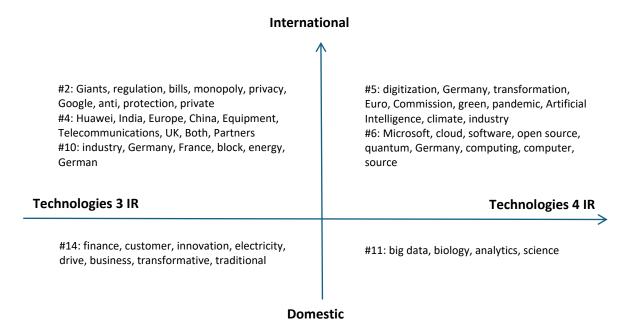


Figure 6. Matrix for Clusters Related to Technologies and International and National Domains in Chinese Media

Source: compiled by E.V. Popova based on the keyword cluster analysis conducted using the *PolyAnalyst* software.

# 5: digitisation, Germany, transformation, Euro, Commission, green, pandemic, Artificial Intelligence, climate, industry # 18: Huawei, ecology, epidemic, cobuilding, infrastructure, intelligence, acceleration, life

- # 2: Giants, regulation, bills, monopoly, privacy, Google, anti, protection, private Cluster 3: Currency, blockchain, bitcoin, asset, coin, finance, credit, issue, encryption, move Cluster 7: currency, central bank, bank, payment, yuan, issue
- # 12: trade, rules, governance, cross-border, one belt, one road, space, agreement, commerce
- # 20: cross-border, flow, personal, protection, federal, legal, framework, legislation, law
- # 21: property rights, network, knowledge, autonomy, server, patent, distribution, import, Russia, my country

Global issues Local issues

Figure 7. Distribution of Clusters on 'Global Issues — Local Issues' in the Chinese Media Source: compiled by E.V. Popova based on the keyword cluster analysis conducted using the PolyAnalyst software.

# Comparative Analysis of the Discourse of Digital Sovereignty in Russia and China

In this work we have analyzed how and by which actors the concept of DS is formed in the public space of the media in Russia and China. Any term used by social actors to describe the reality that exists for them can be the subject of research, since it has the property of performativity, and both form the categories of the subject's thinking and make reality. Following this approach, we examined the DS formation policy in the illiberal states' public discourse. We analyzed who argues about the DS, for what purposes and on the basis of what assumptions.

To present our main findings, it should be emphasized, first, that the DS concept in the studied media at the national level of two states is most often used when considering the issue of state control over technologies. However, non-state actors, primarily economic agents, also use it to their advantage. The present study found no evidence that, in the case of China and Russia, the state-centric idea of sovereignty can compete with the concept of the individual, who can become the core of ideas about sovereignty, as some authors studying the changing DS concept in modern Europe argue (see, e.g., (Pohle & Thiel, 2020)). Public DS perceptions in both countries converge on distrust in the

ability of users and society to develop mechanisms for protecting personal data and information. It is assumed that they cannot defend themselves from the influence of transnational corporations and other states. Paternalistic protection by state bodies (and in the case of China, also on the part of national companies) turns out to be the guarantor of the security of the state's citizens. But for the Russian media, the issue of human rights connected with data existed in the period 2014–2017. In the Chinese media, there are no other political and economic actors, but only the society in whose interests the state acts.

Secondly, it was determined that in the concepts of technological sovereignty discursively formed in the Russian and Chinese media, there are two approaches to the perception of control and autonomy of different entities within the state. In the first approach, these concepts represent the ability of states and independently companies to develop innovatively and participate in the development of technologies. Moreover, the Chinese media argue that it is necessary to create conditions for the further development of their own national technologies. It is argued that this is a form of expression of economic nationalism and an to conquer global economic opportunity markets. In the Russian media, the main emphasis protection against the

technologies purchased in other countries (import substitution). Very little is said in Russia about the country's own developments that can compete on the global market. There is also a tiny proportion of publications arguing the need for the distribution of free software and autonomous infrastructure in Russian mass media. The second approach, found only in the Russian media, asserts the need to protect the confidential data of individuals, government agencies and enterprises of various types of ownership.

Thirdly, DS represents different levels of involvement of various actors. The academic literature distinguishes between sovereignty and strong sovereignty. In the first case, it refers to "the attempts of private companies to provide data protection with special attention to the protection of digital rights" (Polatin-Reuben & Wright, 2014, p. 1). The second term means "state policy measures aimed at protecting national security" (Polatin-Reuben & Wright, 2014, p. 1). Looking at the policies of the "core" BRICS countries (Brazil, Russia, India, China, and South Africa) from this point of view, some authors show that Brazil, India and South Africa act following the policy of weak data sovereignty. At the same time, China and Russia are more inclined towards strong data sovereignty (Couture & Toupin, 2020; Budnitsky & Jia, 2018).

However, our data demonstrate that Russia and China have different, least, representations of the policies pursued. China brings companies and economic issues to the fore in the national media coverage of DS. Russia really prioritizes the discourse of state actions in the area of DS provision. In the Chinese case, the discursive external representation of the policies of other states and China's positions in the international system looks relatively peaceful. China intends and implements a global expansion in technology markets. In the Russian case, we see many rhetorical references to the concept of war, attacks, security, and other militaristic rhetoric. But in both cases, the protective functions of the state are necessary to ensure DS. However, in real politics, it was China until recently that showed the most stringent measures in the digital control of citizens, which directly contradicts the idea of an unlimited and free Internet (Topal, 2022). In Russia, attempts to introduce 'digital censorship' began in the mid-2010s (Ermoshina, Loveluck & Musiani, 2021). However, as the work of the mentioned authors shows, this activity of the state often ran into resistance from the providers. Our research shows that, at least until the beginning of 2021, these legislative acts were discussed in the public field, primarily by economic agents. Political agents no longer dared to speak out in favor of a softer view of the DS. One of the explanations may be the desire for economic globalism, as in China, in the absence of such goals in the national strategy of the Russian Federation.

Fourth, DS as a concept has the property of performativity. Performativity is the assertion that realities (including objects and subjects) and representations of those realities are enacted or performed simultaneously. To understand what this means, following J. Law (2008), you need to replace the verb "do" with "make" or "make reality" — this will be performativity. Since the real is relatively realized in discourses and practices, if these latter were to change, the real would also be done differently. From here, it becomes possible to intervene and distort reality through discursive practices to generate more or less dominant alternatives. Hence, it can be said that different actors politically distort different versions of the real, reinforcing desired realities that would otherwise be weak. especially in vague technological matters. In the cases studied, we see that the term DS is used in the public space as opposed to manifestations of hegemonism. But in the case of China, it is economic hegemony, while in the Russian media it is political power, and the leading role of the United States come to the fore. In both cases, dominance, their position in the Internet governance system, the power of private corporations, and the power of the intelligence

services of other states,<sup>6</sup> which is based on digital technologies, are problematized.

Fifth, those who talk about DS and those who are talked about in connection with DS are different. The focus is on economic actors, especially technology companies. They need to be promoted and protected for the economic development of both countries. Moreover, they are significant both as those who speak and those are spoken about. Without the position expert of technical community representatives, even politicians or officials find it difficult to manage. If we talk about foreign companies, then in both cases the top includes Microsoft and Facebook. The next two are different. companies Amazon and International Business Machines Corporation are popular in the Chinese media, while Google and Twitter<sup>8</sup> are popular in the Russian media.

other With regard to stakeholders. the Chinese and Russian cases also differ. The Russian media more often feature representatives of state bodies, among whom there are more deputies and senators of the Federal Assembly than officials. The former discuss external threats, foreign intelligence services and unscrupulous digital corporations, while the latter talk about protecting against foreign companies. In the case of the Chinese media, politicians hardly talk about DS. The discourse mentions the government's national strategies and, very infrequently, the general secretary of the CPC. It is assumed that this is due to the non-personalized nature of state power. The Chinese media often discuss universities and research centres in connection with DS. In the Russian media, it is almost impossible to meet their mention. In contrast to the Chinese case, representatives scientific community are also poorly In the case of Chinese media, the most popular topics in connection with DS are the United States and countries in Southeast Asia. Meanwhile, for Russia, it is the United States, China, and European countries.

DS includes technology Sixth, the characteristics only in some aspects. This is unexpected, given that the epithet 'digital' refers to technology. This is a very important observation in light of the performative nature of emerging discursive practices. The term DS is often updated not to discuss technologies but to legitimize the concept of sovereignty familiar to national states in the traditional sense. This concept gives different players, having their own strategic goals, additional opportunities in competitive situations. For example, large Russian companies can form a picture of external technical threats (without an actual description of specific technologies) to obtain economic preferences and form a group of politicians promoting protectionism.

complex connections between politics and economics, both external and internal, lead to a different set of technologies discussed in connection with DS. The Russian case shows a lot of either vague statements about technologies (lack of specific technical artefacts), or a vast number of technologies embedded in the DS concept related to 3IR. Technology is a more important feature of the emerging DS discourse in China. In addition, 4IR technologies are more important for the Chinese case. This is due to the question of economic hegemony in technology markets and the presence of a significant number of technological giants, which the nation-state must protect in global markets.

Another important finding of this study is the connection of DS with global issues such as the environment, the pandemic and climate change. We could not find this discourse in Russian publications about DS.

represented among those who talk about DS in the Russian national media.

<sup>&</sup>lt;sup>6</sup> The Russian case is discussed in more detail in: (Ustyuzhantseva & Popova, 2025).

<sup>&</sup>lt;sup>7</sup> Activities of *Facebook* social media, the *Meta Platforms Inc.* project, are prohibited in Russia.

<sup>&</sup>lt;sup>8</sup> The social network *Twitter* (now *X*) was blocked by Roskomnadzor of the Russian Federation in 2022 (*Editor's note*).

## Conclusion

The differences identified in the evolving perceptions of DS in the media of Russia and China underscore the importance of studying models and emerging DS conceptualizations in non-liberal democracy countries. This aims to transcend dualistic approaches and explore more configurations of constructed discourses. In research methodology, it is crucial to move beyond dual models such as 'economic political' and 'domestic — international.' To achieve this. we have introduced descriptions in a matrix format that intersect traditional dual perspectives, highlighting differences not only between liberal democratic and non-liberal countries. While existing literature often suggests that China's and Russia's DS models are similar, this study challenges that notion. It emphasizes necessity for comparative studies and theorization of emerging DS models in nonliberal democratic contexts.

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