Digital Transformation: From Multicentric World to Binary Empire?

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Abstract: The research paradigm on the global societal implications of digitization has undergone significant changes, shifting from an initial celebration of Information and Communication Technology's (ICT) revolutionary potential to a more nuanced understanding of its role in reinforcing and reproducing social inequality. However, a comprehensive sociological understanding of how digitization, as a social transformation, is tied to established structures of domination and inequality, such as global sociocultures, has not yet been established. This paper adopts a critical approach, utilizing a kaleidoscopic dialectic to examine the relationship between digitization and the symbolic residues of the Enlightenment worldview, colonialism, developmentalism, and global capitalism. Drawing on a range of empirical examples and multidisciplinary sources, the paper establishes that digitization is a socially contingent process that is informed by and reproduces past social structures while simultaneously enabling new forms of global social control and the potential to determine order, meaning, and knowledgepower. As such, digitization transforms notions of sovereignty in the contemporary multicentric world, where social control is believed to be negotiated rather than forcefully imposed. Within the social transformation framework, digitization could lead to the emergence of a new global socioculture, raising essential questions about how we can responsibly and sustainably shape its future normative direction.

Introduction

The coronavirus pandemic perpetuated the global shift towards information societies, where people increasingly interact with each other and their environments through Information and Communication Technology (ICT), gradually connecting to a planetary network of smart objects and critical infrastructure. As crucial societal sectors depend on ICT to function today, the social sciences are increasingly concerned with this shift's normative direction. In the last decades, the research paradigm turned from a techno-determinist transformation to a contingent normalization hypothesis. The former believes in the liberating potential of ICT, while the latter asserts that it reproduces historical structures of inequality and domination. This discursive opposition solidifies the belief that digitization represents a significant global social transformation, albeit undetermined in scope and direction.

Rehbein (2020) argues that significant social transformations do not suddenly emerge but are variations of earlier inequality configurations or 'sociocultures.' Despite the notion of digitization causing radical social change, Rehbein (2020) claims that the recent major global transformation is actually the capitalist transformation, where class structures and ideology replace nation-state politics and international organizations in mediating order. As such, global capitalism incited a multicentric world structure in which it is no longer possible for one culture to impose its condi-

tions on other traditions, marking a departure from the previous two centuries of unilateral global Euro-US domination (Rehbein 2015).

However, since then, and as this paper will show in line with Rehbein's historically situated theory of social transformation, sociocultures, such as the remnants of Enlightenment and capitalist ideology, informed the development and legitimation of ICT. The global expansion of technology created a new capitalist logic where social interaction is measured and utilized to predict and direct human behavior for profit, resulting in a new kind of inequality and power imbalance, a shift from owning the 'means of production' to controlling the 'production of meaning' (Zuboff 2020). Today, the planetary ICT network attracts various stakeholders vying for a share in the digitization-enabled production of meaning, posing a threat to sovereignty and reigniting debates on geopolitics, domination, and inequality.

As old inequalities persist and new ones arise, the long-standing research question surrounding digitization's transformative effects remains. Further, the 'production of meaning' challenges the presumed inability to impose one civilizational model upon others. With this text, I probe whether and how digitization promotes a significant global social transformation within Rehbein's (2020) framework of transformation and sociocultures. Before assuming a global digital transformation for better or worse, we should critically scrutinize the relationship between digitization and social organization from a historical perspective. What are the sociocultures inherent to digitization? What are its contemporary characteristics? How does digitization fit into contemporary struggles over order, domination, and inequality?

To investigate digitization's naturalized self-evidence and analyze its potential to disrupt patterns of domination, I utilize Rehbein's (2015) Kaleidoscopic Dialectic. This research program critically bridges dichotomies and avoids Eurocentric self-affirmation by taking a Bourdieusian constructivist structuralist perspective and a historical lens without teleology of origin. To reconstruct the empirical field and identify historical and contemporary relations of the research object, the paper first examines historical transformations and their impact on global domination: the social scientific worldview, colonialism, developmentalism, and global capitalism. The following section explores the modern characteristics of digitization, binary language, computerization of information, and diffusion of computation and then focuses on transformations of inequality and order, hinting that the People's Republic of China (PRC) applies digitization for control through the Digital Silk Road initiative. Finally, the article theoretically discusses digitization's historical relations and normative direction, concluding that it significantly affects our contemporary understanding of global order and domination.

In acknowledging a relational approach's limitations, this paper does not attempt to provide one comprehensive answer but instead encourages critical thinking and further action. Expertise in social theory is highly beneficial to fully understanding this paper. Moreover, the existing state of the art on critical technology literature is undoubtedly US-centric, which likely affects the conclusions of this paper. All the more, I acknowledge my privileged social position as an educated white German woman from a Eurocentric research background and access to ICT from an early age, providing me with skills to understand and improve my position and agency in the digital age. Finally, the paper pays tribute to Prof. Dr. Boike Rehbein, whose theory greatly influenced my work and personal growth, incorporating unpublished content from his lectures in the MA Global Studies Programme 2021.

Society and Transformation

How humans perceive social reality is shaped by their exchange of symbols in communication with the world around them, creating different social worlds that share a symbolic universe (Berger and Luckmann 1966). These social worlds are externalized as social structures through collective processes based on behavioral patterns, norms, and symbols in a specific social context. Once established, humans evaluate different symbolic representations following their universe as true or false, real or unreal. Thus, for Rehbein and Souza (2014), society is composed of various relational structures, both current and historical, which are intricately layered to create a complex social fabric.

Social structures, culture, and practices are constantly transforming. New institutions and discourses emerge when new resources, crises, or governmental changes appear. However, sociocultures, "structures that developed in earlier historical times but partly persist in the present and partly shape present social structures," remain below since they stay embodied in social habitus and practice (Rehbein 2020, 11). Hence, worldwide and in each particular society, multiple orders from different historical times form a hierarchical web of meaning, determined by each sociocultures particular local historical origin and its distinct sociolect, a discursive scheme for social differentiation (Rehbein 2015, 2020). From this perspective, social inequality is a multidimensional consequence of heterogeneous social structures rooted in previous times, exerting symbolic domination through social distinction that only radical changes can genuinely change.

To Rehbein and Souza (2014), social structures and their hierarchy consist of tradition lines, reproducing themselves throughout the various social transformations. Unlike conventional class understandings, tradition lines inherit various types of capital, economic, cultural, social, and symbolic, and group-specific patterns of action, known as the habitus, in addition to specific symbolic universes for social differentiation, through social conditioning, forming various milieus. Like energy fields, the members of a specific milieu strive to achieve institutional conditions corresponding to their habitus, while institutions are inclined to choose people contrariwise. Thus, mutual classification creates seemingly unbridgeable boundaries between the various tradition lines, ultimately determining the behavioral possibilities and the division of social activity.

The most dominant groups in the social hierarchy typically occupy the most valued functions within the division of activities, determining the access criteria (Rehbein and Souza 2014). However, while so-called functional elites are visible in classifying social activity, the power elites behind them are obscured. Power elites can only maintain their position if they effectively control the functional elites by winning over representatives to lead the division of activities or obtaining a high position within the activity division themselves (Rehbein and Souza 2014). This complex system of mutual distinction between different sociocultures and their sociolects perpetuates the dividing lines between tradition lines and even societies. It is hard to circumvent and builds upon practices and ideas from preceding historical times.

Global Sociocultures

In a globalized world, local and so-called global sociocultures coexist (Rehbein 2020). Rehbein (2021b) identified three interconnected global layers in various empirical studies on different continents: colonialism, developmentalism, and global capitalism. Since historic structures persist and predetermine newer ones, these global sociocultures did not develop linearly but exhibit a

path dependency. The common root originates in European ideology, the principles of liberalism, and particularly the idea of conceptualizing society based on scientific principles (Rehbein 2021a).

The Social Scientific Worldview

European Enlightenment's symbolic representations and evaluation are common to all global sociocultures. During this era, science became a historic endeavor. Under the influence of Christian Francis Bacon (1857), humanity's creation and fall from heaven resulted in the unavailability of divine knowledge and a 'good life.' Thus, it was humanity's right to gain control over nature by enhancing their knowledge of cause and effect and intervening more effectively. The Book of Nature, a central metaphor in the scientific tradition of explanation, written in mathematics, incited the design of the liberal social sciences based on scientific principles (Rehbein 2015). It comprises three interacting worlds: abstract mathematics, external reality, and the human mind. Knowledge stems from translation: the mind encodes reality into abstract mathematics and then decodes the symbols to make predictions about nature (Glattfelder 2019).

Paradigmatically, Hobbes applied this understanding of nature to the social world, Newton manifested nature as a uniform system of identical atoms governed by universal laws, and Comte and Durkheim applied these ideas to society (Rehbein 2015, 21). The process pinnacles in today's traditional liberal social sciences and ideas of European modernity, which includes liberalism, a linear history towards the European nation-state ideal, sovereignty, democracy, rights, and equality. Here the social contract establishes reason and order within a Hegelian natural state, where individuals transfer their rights to sovereign authority. Esposito (2008, 25) clarifies that sovereignty has taken on various meanings and applications over time. However, it consistently involves a specific diagram that includes two entities: power and the totality of individuals, connected by a third element: the law. This arrangement leads to "a zero-sum relation: the more rights one has, the less power there is and vice versa."

As social scientists conceptualized society, the belief in God as a source of one divine truth and justification for establishing a good life by force, as espoused by Bacon, gradually waned. Nevertheless, the concept of sovereignty and the principles of modern science that emerged from it persisted. As a result, reality is no longer interpreted by theory. Rather theory is created to confirm pre-existing reality in a vicious cycle where only mathematical or logical propositions are seen as true (Rehbein 2015). Furthermore, this preference for objectivity, rationality, and technology has resulted in the devaluation of subjectivity. At the same time, modern European ideals are seen as superior to non-European societies, which are often perceived as primitive or ahistorical.

Colonialism

Eurocentric myths primarily stem from the European colonial era (Rehbein 2015). As a result, many established conceptualizations of the social world have been shaped by imperialistic ideologies that revolved around European dominance until the 20th century, when non-European societies were subjugated, thwarting their independence (Rehbein 2010). While colonialism varied in form and context from 1520 to 1960 across at least six periods of rule (Osterhammel 2005), Fanon (1963) posits that the colonial world generally had a bipolar structure that relied on the evaluation of race to differentiate between colonizers and the colonized. This distinction legitimized the unethical oppression of the colonized, who were considered non-human.

According to Fanon (1963), the colonized were only recognized if they submitted to foreign authority and adopted liberal ideals. Additionally, Spivak (2015) argues that the 'subalterns,' although heterogeneous, were systematically denied a language and thus political and intellectual agency, which she describes as symbolic violence. Hence, Osterhammel (2005) characterizes colonialism as a relationship of domination. Ultimately, the colonial world was perceived and agreed upon from the dominant perspective, adhering to the symbolic universe of the social scientific worldview, which sees the historic climax in European modernity.

Developmentalism

Many former colonies gained independence after World War II, yet colonial domination persisted through residual symbolic discourse in newly founded international organizations like the UN. Thus, Hardt and Negri's (2001, 9) Empire claims that the US-led creation of the UN aimed to re-establish global order post-independence and was, in fact, a "perfecting of imperialism." In the social contract framework, global constitutionalism precedes domestic law, as nation-states cede their sovereign rights to a supranational center. The social scientific paradigm and purported ethical consensus considered indigenous social principles of former colonies as inadequate, as international law and ethical principles aim to promote equality and peace among nation-states. This justified the imposition of order and institutional intervention in self-defined crises, such as protecting territorial integrity or political independence (Hardt and Negri, 2001).

The discourse of development creates a dichotomy between rich and developing nations that perpetuates colonial symbols. The first world is the normative ideal, while the third world is expected to conform to modernization theories to achieve economic growth, rationalization, and social differentiation. According to Escobar (1995, 5), this order of developmental discourse corresponds to a 'colonization of reality,' creating "permissible modes of being and thinking while [...] making others impossible." As highlighted by Said (2003), Orientalism also plays a role in this process by making non-permissible modes appear threatening and 'the other.' The social scientific worldview's book of nature paradigm and colonialism's residues have divided the world into "a realm of mere representations and a realm of the 'real'" (Mitchell 1989, 236). Ultimately, the 'Third World' becomes visible as an abstraction that fits into the dominant symbolic universe aligned with categories of a European ideal.

Ferguson (2002) argues that this discourse is ultimately conducted in practice. Hence, the will to spatial power expresses itself through economic, military, political, and cultural imperial intervention (Escobar 1995). However, global institutions' binding agreements, promoting neoliberal orthodoxy in exchange for aid, have resulted in contractual dependence and continuous economic exploitation of countries in the Global South. This has, for example, exacerbated problems like mass poverty, erosion of sovereignty, intra-state conflicts, and environmental destruction in African states (Ferguson 2006; Akokpari 2001). Ferguson (2002) identifies these unintended yet instrumental side effects as an 'unauthored constellation' serving an unspoken logic of power aligned with the European civilizational model and colonial structures of domination. Hence, the discourse of development economics, the most influential force shaping the development field (Escobar 1995), adds another layer to the constellation of global sociocultures. As such, Hardt and Negri (2001) argue that a totalitarian logic of capitalist sovereignty dominates the globalized world subsumed under the European concept, overdetermining the relationship between individuality and universality for capital growth.

The Capitalist Transformation

The post-Cold War era and the fall of the Soviet Union led to yet another global transformation, reinforcing the belief that economic growth is the sole criterion for progress in capitalist societies (Rehbein, 2015). Hence, most societies are undergoing or have completed a capitalist transformation (Rehbein and Souza 2014), characterized by a symbolic universe that institutionalizes competition for capital among formally equal citizens while preserving symbolic class hierarchies. Consequently, capitalism and liberal democracy are seen as the ultimate societal evolution, assuming equal opportunity in a break from social histories (Fukuyama 1998). However, the persisting milieu structure of tradition lines, now forming capitalist classes and institutionalizing inequality through symbolic legitimization and naturalization, remains unchanged.

Rehbein and Souza (2014) argue that symbolic liberalism, the capitalist symbolic universe based on Enlightenment ideas and liberal, meritocratic, and individualized discourse, legitimizes and conceals ongoing inequalities. Hence, capitalism is a symbolic practice, reinforcing social perceptions following the dominant social scientific paradigm. While individuals have formal equality in a democratic state, social positions are relatively fixed and concealed in capitalist normative discourse (Rehbein 2015). The distribution of inherited resources, such as capital and habitus, necessary to access privileged positions and activities determines the social class hierarchy. Thus, the structure of capital's division and its symbolic reproduction creates a system of domination, forming a capitalist dispositive, encompassing the distribution of institutions, discourses, practices, knowledge, laws, and power. However, although the dispositive is similar in all capitalist societies, social structures differ based on local sociocultural configurations (Rehbein 2015, 119; Rehbein and Souza 2014).

The capitalist symbolic universe shapes what can be expressed and thought but is not uniformly adopted. Those in esteemed or dominant social positions control the direction of social discourse, granting them the power to control access to a good life. Thus, the ruling class's symbolic universe is more powerful, prescribing dominant values yet not entirely controlling them (Rehbein 2015, 119; Rehbein and Souza 2014). Similarly, although globalization incited the formation of global symbolic universes and the spread of capitalism, the local interpretation of capitalist symbols varies due to different nation-states' unique histories and pre-capitalist structures (Rehbein 2015). Hence, Rehbein and Souza (2014) differentiate between global capitalism, national capitalism, and neoliberalism. Local institutions shape national capitalisms, whereas global capitalism refers to a network of transnational corporations and international institutions. On the other hand, neoliberalism is an ideology that portrays society as ruled by natural laws and removes the economy from social or statal control (Rehbein 2015).

Han Byung-Chul (2017) explains how industrial capitalism transformed into neoliberalism and financial capitalism, particularly from the 1990s onwards. Unlike Marx's prediction of technological development leading to a worker revolution, it brought about an immaterial mode of production, with profits derived from knowledge work and affective and cognitive activities. Moreover, the advent of the internet, mobile technology, and the Fourth Industrial Revolution further enhanced productivity and communication, accelerating capital production. Thus, neoliberalism also employs transparency as a dispositive to coerce individuals into externalizing themselves, enabling the flow of information for capital growth but resulting in a crisis of freedom and mental health issues (Han 2017).

Order in a Multicentric World

Since the 1990s, the flows of people, technology, capital, information, and ideology have accelerated due to globalization and deterritorialization, causing societies and the economy to become complex and interdependent systems (Appadurai 1990). This has resulted in a widely perceived crisis of nation-state sovereignty and much debate on the dichotomy between modern universalism and post-modern relativism. Thus, Rabie (2013, ix) states that "the order of the day has become one of disorder," which, in line with Hardt and Negri (2001), is the perfect condition for Empire to intervene. Hence, despite the claims about a decline of the nation-state framework, Sanches (2020) argues that modern institutions continue to influence global consciousness and link it to global capitalism, which exploits the postcolonial South.

Rehbein (2015) suggests that a multicentric world order was prevalent throughout history and is now re-emerging. It is characterized by heterogeneous centers in various areas such as industrialization, trade, finance, politics, education, and demography, reflecting each area's unique developmental logic and paradigms. The recent rise of new power centers such as the PRC, India, Sao Paulo, Johannesburg, Tehran, and Singapore, in particular, have reordered the imperial world, weakening the Euro-American dominance of the past two centuries. Therefore, Rehbein (2015, 1) argues that it is "no longer possible for one culture to impose conditions for being and thinking, borne of ignorance and arrogance, on other traditions" since control must be negotiated under conditions of global capitalism (Dirlik 1994). Order in a multicentric world accommodates the imagined communities and worlds produced by globalization and technological advancements and is sustained through symbolic negotiation among multiple centers and peripheries. From this perspective, the 'disorder' Rabie (2013) sees simply expresses the cognitive dissonance felt by a significant global transformation of dominant discourse and order.

Contemporary discussions concerning global order often revolve around the PRC's ascent and its burgeoning economic and political impact. Nevertheless, as popularly portrayed, the dichotomous contest for supreme power between the United States and China is unlikely to comprehensively depict the intricacies of a world comprising multiple centers (Hass, 2021). Rehbein (2015) posits that a multicentric world is characterized by poles and demarcated by central and peripheral entities, thus forming a hierarchical structure that still adheres to the nation-state paradigm. Accordingly, the Empire framework, which posits an international ethical agreement to facilitate the development of global capitalism, retains its analytical value. Ultimately, Rehbein and Souza (2014) claim that the world's symbolic universe comprises the domination of global media corporations, super-rich, international institutions, national elites, and transnational contexts (Rehbein and Souza 2014).

It follows that debates on global transformations, like digital transformation, must be contextualized within the current multicentric world and its historical configuration of domination shaped by colonialism, developmentalism, and global capitalism. Moreover, despite globalization, the Eurocentric tradition remains relevant as its symbolic universes spread into sociocultural systems worldwide. Finally, although most features of modernity are not, in fact, identically prevalent around the world, "one of the few possible exceptions is the world's attitude to science, or more specifically the belief in the producibility of the world" (Rehbein 2015, 21). The following section will demonstrate that this conviction lies at the core of the present-day digital transformation.

Digital Transformation

Manuel Castells (2017) argues that the ubiquity of digital communication and information networks is humanity's current, most fundamental transformation. Digital technologies enable communication between different sets of information and entities using a common language while allowing for faster, more complex processing, recombination, and exchange of information (Castells 2017). Thus, the advent of technologies, such as the internet, has transformed relevant social sectors in most societies more fundamentally and quickly than any other technology in the past: from its invention in the 1970s over its growing commercialization and politicization in the 1990s, the realization of a global information and communication network in the 2000s, to discussions over its governance and role for human sociality in the 2010s (Kettemann 2020). More recently, Floridi (2014) even suggests that humans have entered the era of 'hyperhistory,' where advanced information societies entirely depend on ICT to function.

The Covid-19 pandemic accelerated the global adoption of ICT, allowing big tech companies to provide technology-based solutions and increasing the online presence of critical social sectors, further transforming contemporary information societies (Feldmann et al. 2020; GWI 2020; Magalhães and Couldry 2021). Digitization translates fundamental societal elements into computer code, inherently reshaping cultural practices and institutions and restructuring symbolic arrangements of knowledge, power, and dominance. Simultaneously, persistent myths surrounding technology's rationality, neutrality, and superiority have legitimized the idea of ICT bringing about a revolutionary golden age of participation, freedom, and equality leading to expectations of social change, including equal access to knowledge and information within the advanced information society (Zuboff 2020). Nevertheless, in line with the theory of sociocultures, when new cultural frameworks for social inequality emerge on the surface, past cultures and hierarchies persist below.

This section establishes how the socially embedded digitization process and its relation to inequality and geopolitical order are broadly informed by and symbolically reproduce global sociocultures. It assembles three significant characteristics of digitization: the binary language, the computerization of information, and the global diffusion of computation. Combined, these characteristics have induced new social control mechanisms and, as such, a new kind of inequality. Taking the Chinese Digital Silk Road (DSR) initiative as an example, this section shows how humans could utilize the digital 'production of meaning' for geopolitical advantage in contestations over dominance in the multicentric world.

The Digitization Process

As the preceding section illustrates, the social scientific worldview and a corresponding desire to quantify, rationalize, binarily classify and order human behavior find expression in global sociocultures. However, historically human capacities to master nature were technologically and biologically limited. Nevertheless, consistent with the proliferation of an immaterial mode of production, technological information processing and storing capacities have increased exponentially. As such, digital information today reached a magnitude comparable to the totality of information in the biosphere (Hilbert 2012). The resultant theoretical paradigm shift emanates from the words of Glattfelder (2019, 22), who writes:

> "The metaphor of the Book of Nature was a misguided thought. It seems that at the core of reality we find a computational engine which needs to be fed with informa-

> tion. The 'Book of Nature' should be closer to a computational device in which the algorithms of reality are encoded."

The Oxford Dictionary of Media and Communications (Chandler and Munday 2020) defines digitization threefold: converting analogous to digital data, computerizing information, and diffusing its mechanisms. In computational contexts, data comprise "numbers, letters, or other symbols upon which a computer can perform operations" (Chandler and Munday 2020). Further, translating hitherto unthinkable aspects of the social world into data and information is known as datafication (Couldry and Mejias 2019), while the large sums of data collected are commonly referred to as Big Data. From this perspective, data analytics means "the use of algorithms to identify meaningful patterns or correlations within large bodies of data [...] and to predict future patterns" (Chandler and Munday 2020).

The demand for the complete conversion of the social world into data has its roots in the social scientific worldview. D'Ignazio and Klein (2020) note that the symbolic meaning of the word 'data' originated in the mid-seventeenth century, representing evidence or fact. However, unlike computational understanding, data are socially situated and collected, and their assumed objectivity can only be interpretive (Saalmann 2020). Han (2017) argues that datafication has become a fetish and ideology, leading to a 'second Enlightenment' or 'data totalitarianism.' Contrasting human and digital memory, Han (2017) suggests that Big Data only facilitates rudimentary knowledge lacking comprehension or spirit. Nonetheless, as the mechanisms of digitization continue to shape our world, it becomes increasingly imperative to subject it to further scrutiny.

The Binary Language

Digitization first refers to "the direct translation of analogue data into digital parts in the 1s and 0s sequence, the binary language" (Rad et al. 2020, 1). Glattfelder (2019) explains that advancements in computational information processing capacities in the latter half of the 20th century have extended the Book of Nature. Both Vol. I and Vol. II translate aspects of the physical world into formal abstractions to generate knowledge of the universe. Though each is written in the language of mathematics, both follow a distinct dialect (Glattfelder 2019).

While Vol. I, briefly introduced in the preceding section, operates on continuous mathematical differentiation in an equation-based dialect, Vol. II is written in a complex-algorithmic dialect that is intelligible to computers. Paradoxically, the outward complexity and ubiquity of computation and digital environments could only be established by reducing complexity using discrete mathematics simplicity, operating on integers[2], graphs[3], and logical statements[4]. Glattfelder (2019, 166) claims, "the duality of digital information, which [...] exist[s] in the dual states represented by 0 or 1—lies at the heart of discreteness."

Information Processing

Binary translation paves the way for information processing, allowing data to be quickly accessed, interpreted, and distributed through computer networks in prestructured formats that fit the algorithmic dialect's simple logic (Glattfelder 2019; Rad et al. 2020). Consequently, data processing contextualizes information based on the logic of algorithms[5] rather than human cognition, resulting in a gradual shift where non-human gatekeepers define culture by determining the visibility, prominence, and rewards of information (Flyverbom 2016; Hutchinson 2021). This creates a situation where technology seemingly controls human knowledge and reduces human agency. The design of search engine information processing, for example, is intentionally short and uniform to

facilitate efficient algorithmic processing (Ford and Graham 2016). Thus, ICT imposes conditions on sociality, limiting users' freedom to express themselves authentically (Bucher 2018).

At the same time, Kettemann (2020) argues that computer code and protocols are normative, human-made artifacts with politics that should be assessed as other norms. Similarly, Couldry and Hepp (2016, 26) assert that algorithms, software, and databases are constructed reality shaped by human-made products. The Amazon case study where a programmer changed one piece of code in the recommendation algorithm, causing thousands of books in the 'Adult' genre, including health, wellness, erotic, and LGBTQ+ content, to become non-visible to customers, highlights how significantly power dynamics shape 'algorithmic culture' (Hutchinson 2021, 9). In information societies, quantification means representation. However, datasets tend to be biased and unrepresentative of historically marginalized populations, and often essential data is never collected altogether (D'Ignazio and Klein 2020, 29).

As of early 2022, around 66% of the global population, approximately 5.3 billion people, had internet access (Statista 2023b). Nevertheless, online geography is marked by distortions between the number of netizens from a nation-state and its actual population size, with the African and South American continents, for example, disproportionately less represented than North America, Europe, and Asia (Graham and Sabbata 2015). In congruence, online information is disproportionately more available in dominant languages such as English, German, and Chinese than in less represented indigenous languages (Young 2014). Hence, it is essential to examine those power dynamics in digitization and ask 'who' questions to understand the implications of ICT for different groups (D'Ignazio and Klein 2020).

D'Ignazio and Klein (2020) argue that those with power in information processing are mainly elite, straight, white, non-disabled, cisgender men from the Global North. Since many dominant ICT companies stem from Global North countries, gatekeeping of online visibilities is often conducted by US 'Big Tech' monopolies such as Google, Facebook, and Amazon. Thus, content moderation frequently applies a Euro-US civilizational model, unsurprisingly causing value conflicts in the multicentric world order (van Dijck, Poell, and Waal 2018). Programming languages' use of 'master' and 'slave' to refer to the control process between two entities further allude to deeper meanings in the complex-algorithmic dialect (Oberhaus 2018). Hence, Tuzcu (2020) provocatively reformulates Spivak (2015), asking: Can the subaltern code? Moreover, Noble (2018) asserts that algorithms reflect the biases of their creators, demonstrated by racist search engine results like "HotBlackPussy.com" for "black girls" in 2012 and directions to the White House when searching "N **** House" during Barack Obama's presidency (Noble 2018, 3).

Therefore, although meaning goes astray in computerizing information according to uniform statements, digitization retains meaning as a human act of encoding the social world in line with the values of its programmers and decoding it, affecting its subjects' experience in and perception of reality. Moreover, what is often perceived as independent online and offline spheres is highly entangled and complex, captured in Floridi's (2014) term 'onlife.' Kennedy and Hill (2018, 845) further refer to a 'feeling of numbers', pointing out that "datafication is not constituted solely through data structures; rather, it is lived and experienced at the level of the everyday."

The Unicode standard, which aims to unify the digitization of different language systems globally to prevent incompatibility issues in computer code, suggests to which extent ICT dialectically interacts with practices in everyday life (Rennie and Law 2019). To create the Unicode,

programmers assign a specific code to characters for algorithmic sorting. Within this framework, Hossain (2021) recalls a power struggle in the early 2000s between the Unicode consortium, mainly comprised of software companies in the Global North (Unicode 2021), and the Bangla language community due to a missing Bangla letter in the 'universal' code. The case demonstrates how standard code-setting can lead to the epistemic violation of minority groups within digitization since the community was deprived of using their language fully in the everyday information society, again revealing the ties between computation and historical structures of knowledgepower.

The Diffusion of Computation

In the final instance, digitization refers to the diffusion of computation. As binary translation of the social world into digital bits advances ICT, such as the internet[6], new technologies continuously blur the boundaries between abstract and physical worlds. The Internet of Things (IoT), networked connections between physical and virtual objects such as smart devices or cities, epitomizes the entanglements of the social world and technology in the onlife. Hence, Glattfelder (2019, 284) asserts that "we are living at the threshold of a brave new world, materializing itself from pure knowledge." According to Bratton (2015), the interconnection of computation has led to the emergence of new planetary information territories, which he refers to as The Stack, a mathematical infrastructure of platforms, which are programmable software systems designed to collect and process user data (Poell, Nieborg, and van Dijck 2019).

Bratton (2015) proposes that cloud geography comprises six modular layers (Earth, Cloud, City, Address, Interface, and User) stacked vertically, incorporating both soft- and hardware components. The interface simplifies and symbolically translates all underlying operations to users. Thus, interfaces entirely provide and limit users' realm of action and experience online, having no control over layers below, and therefore obscure the planetary nature of The Stack, such as drawing energy from and disposing of material to the earth. Nevertheless, users activate all layers simultaneously when they engage with the interface. Then, based on standard protocols, such as Unicode, different users are sorted through the topology, ensuring access to virtual spaces and translation across the various layers. As a result, users' position within The Stack is numerically and ubiquitously traceable.

The vast amounts of data generated by users on The Stack are converted into meaningful personal information through mathematical correlation, which can be monetized for their value in predicting and intervening in human behavior (European Commission 2023; Wu and Taneja 2021). Despite this, data is often framed as a natural resource to be extracted and monetized (Ghosh and Kanter 2019; Yonego 2014), leading private businesses to increase their capacity for capturing data and personal information (van Dijck, Nieborg, and Poell 2019). As such, surveillance capitalism, an economic model that deliberately codes platforms to produce and quantify social interactions for behavioral manipulation and prediction, has emerged (Zuboff, 2019). Moreover, the effectiveness of an algorithm is evaluated based on its capacity to create value, make accurate predictions, and engage users (Bucher, 2018).

Zuboff (2020) posits that surveillance capitalists aim for complete data extraction to make better predictions, facilitated by mobile phones allowing total surveillance of private spaces. As monitoring advanced from prediction to actual behavioral intervention, algorithms steer behavior towards commercial objectives. Thus, sociality in The Stack informs algorithms to act upon it, creating a vicious cycle. For instance, in the mobile game Pokémon Go, advertisers paid for promised physical traffic, stirring users to visit their stores to buy while playing a game in their

leisure time (Zuboff 2020). Hence, Magalhães and Couldry (2021) argue that the intentional reconfiguration of the social world for maximum data extraction and economic value constitutes a new stage of colonialism called data colonialism. This phenomenon is exemplified by initiatives such as Facebook's Free Basics, which offers allegedly free internet access to users in Global South countries for implicit data collection and behavioral experimentation (Nothias 2020).

The Division of Learning and Epistemic Inequality

Zuboff (2020, 180) argues, "our digital century shifts society's coordinates from a division of labor to a division of learning, and it follows that the struggle for epistemic equality will shape the politics of this age." The new division of learning refers, on the one hand, to the advancement of the knowledge economy in an immaterial mode of production, excluding individuals unable to adapt to the digital transformation from work (Zuboff 2019). However, on the other hand, there has been a "focal shift from ownership of 'the means of production' to ownership of 'the production of meaning'" in the advancements of digitization to stir human behavior in specific directions, establishing "the basis for a new social order and its moral content" (Zuboff 2020, 175, 199).

According to Zuboff (2020), there are two texts: the public-facing text, which everyone can see and add content to through the interface layer, and the shadow text, which only surveillance capitalists can see. However, as the algorithms utilized in machine learning and Artificial Intelligence (AI) grow increasingly complex, even programmers cannot understand the entire functioning of The Stack anymore. Thus, algorithms are known as 'black boxes' (Gryz and Rojszczak 2021), extending the division of learning beyond the conceptual boundaries of surveillance capitalism. In a way, Zuboff (2020, 200) agrees by claiming that "the shadow text conceals more about us than we can know about ourselves." Consequently, digitization introduced a new type of inequality: epistemic inequality, an asymmetry marked by "unequal access to learning imposed by hidden mechanisms of information capture, production, analysis, and control" (Zuboff 2020, 175), threatening the agency of all users in The Stack and other information societal actors by who or what owns and controls the production of meaning.

Extending the necessity of asking 'who questions' to examine power in digitization, Zuboff (2020) postulates that epistemic justice is only possible by unpacking the dilemma between knowledge, authority, and power. That is, asking who has knowledge and how it is distributed, who holds the authority to determine who has knowledge, and who or what determines the authority's decision-making power. On top of that, Brouwer (2020) claims it is currently impossible to self-manage one's privacy online. This is because not only must a user's position within The Stack always be addressed to appear and be traceable, but it is also connected to and gives out information about the rest of the network. Therefore, privacy externalities, the inevitable provision of data on the entire network connected to one's address, impede self-determination and management of privacy, which existing literature has perceived "as a collateral damage, a neutral side-effect" (Brouwer 2020, 20).

Digital Inequality

From its onset in the 1970s, the internet has been characterized as a freedom technology, welcomed as a force of empowerment by liberating unilateral information flows from established institutions and distributing sovereignty directly to individuals (Zuboff 2020). Moreover, in a UN statement of 2011, La Rue (2011, 5) proclaimed that the internet enables people to exercise their right to freedom of expression and to seek and impart information and ideas of all kinds. As such, Ragnedda

(2018, 2368) finds that "exclusion from or limited access to the digital realm [...] means not having the toolkit 'necessary to participate and prosper in an information-based society.'"

Recent digital inequality research has moved beyond a material access perspective of the first digital divide to consider a second divide related to media literacy and skills and a third divide related to differential abilities to use ICT to improve life chances within the social structure (Ragnedda 2018; Calderón Gómez 2021). This transition not only reunited online and offline spheres but also led to a more multifaceted understanding of digital inequality, which is determined by national contexts, technological preconditions, and social categories, such as bandwidth, identity, age, capital, and motivation, leading to differential privileges of access to resources or capital (Hilbert 2016; van Deursen and van Dijk 2015).

Despite following a sequential circular process, the three digital divides did not eliminate the preceding ones. Even if globally all societies could access The Stack somehow, in line with van Deursen and van Dijk (2019), access divides retain relevancy. Napoli and Obar (2014) posit that economic disparities lead to an unequal distribution of technological devices with varying functionalities across different tasks, ultimately giving rise to a 'mobile internet underclass' that faces limited access to diverse opportunities, thereby impeding their capacity to enhance their quality of life. Additionally, people with disabilities may require expensive and technologically demanding assistive devices, further exacerbating access divides (Goggin, Hollier, and Hawkins 2017; Kennedy, Evans, and Thomas 2011). Hence, the various ways in which ICT is inaccessible to people or populations that deviate from the established norm naturally lead to their invisibility and exclusion from the planetary ICT infrastructure.

The entanglement of digital and social inequality becomes more evident when considering the concept of digital capital (DC). Ragnedda (2018) defines DC as the accumulation of digital competencies and technology, which can be converted into established forms of social, symbolic, cultural, and economic capital. It plays a crucial role in determining access to information societies and bridges online and offline opportunities. Ragnedda, Ruiu, and Addeo (2020) assert that advantaged socio-economic groups tend to possess higher levels of DC, supported by Leguina and Downey (2021), who highlight that DC primarily benefits privileged groups, perpetuating national disparities and stratification. Moreover, Calderón Gómez (2021) classifies digital capital into two types: embodied digital capital (EDC) and objectified digital capital (ODC). EDC represents the internalization of digital capital through skills, attitudes, and cultural dispositions, while ODC encompasses technological equipment. Calderón Gómez (2021) finds that economic capital is significant in determining social stratification within information societies since ODC, the initial gateway to technological resources, lays the groundwork for domestication.

As a result, scholars have moved away from a techno-determinist view of the relationship between ICT and society, embracing the idea that existing inequalities are reproduced and reinforced in digital environments. Thus, Castells (2017) argues that technology reflects historical and paralleled social relations and that 'technologies of freedom' are only as free as they are used for freedom. Moreover, the fundamental transformation of digitizing information, creating the basis for globally scaled digital surveillance, becomes a significant expression of power in contemporary societies. From this perspective, digitization manifests "as a non-linear, socially constructed and inherently political process" (Eyert, Irgmaier, and Ulbricht 2018, 49).

Nevertheless, legitimized by 'data fetishism,' contemporary developmental politics assume that Big Data provides cost-effective and bias-reduced decision-making, exemplified by EU digital

surveillance systems for migration which already apply social sorting based on categorical data classification (König 2016). However, the caveats of digitization, like algorithmic bias or the loss of agency and epistemic inequality, are exacerbated by persistent structural problems in the Global South, such as lacking technological infrastructure and human resources (Hilbert 2013). Big tech companies, who outwardly vow to utilize datafication for 'social good,' such as Facebook's Free Basics, have redefined 'social good' to promote digital solutionism as the only way, overriding different national definitions (Magalhães and Couldry 2021). Magalhães and Couldry (2021) observe that 'strong' and 'weak actors' form a global matrix of vulnerabilities in which some nation-states are more susceptible to data extraction due to weaker infrastructures. However, these vulnerabilities are not identical to neocolonial structures since global digital technology corporations emerge as new "central empirical sites to understand the relationship between datafication and social good" (Magalhães and Couldry, 2021, 346-354).

Digital Order

During the commercialization of the internet in the 1990s, states left platform companies to regulate themselves under the guise of globalization and cyber exceptionalism. Surveillance capitalists insisted on being free of governmental interference, claiming that traditional law was inadequate for regulating cyberspace (Zuboff 2020; Hofmann and Kniep 2019). This led to a largely privatized network structure designed in the private academic settings of Western countries (Kettemann 2020; van Dijck, Nieborg, and Poell 2019). Elite-led symbolic liberalism informed national digital policy worldwide, with varying degrees of regulation. However, despite national differences, North American and European technology conglomerates are held as reinvigorating colonial empire-like dependency relationships by establishing institutional data practices in poorer nations (Magalhães and Couldry 2021).

Platform companies have become quasi-sovereign actors with significant power, providing critical information infrastructure globally and affecting state and international affairs (Pohle and Thiel 2020). As a result, entire public sectors, governments, and NGOs depend on corporate systems to function (van Dijck, Nieborg, and Poell 2019). Hence, van Deursen, Jam, and van Dijck (2019, 11) proclaim an inversion of established hierarchies, where "a proprietary platform ecosystem [...] administers its data-and-algorithms-based rules upon societies." Zuboff (2020) extends this argument, claiming that unprecedentedly, the wealthiest private corporations now dispose of computation capable of globally and unilaterally collecting information on individuals and populations to mobilize behavioral knowledge and stir commercially desirable actions. Remarkably, this process is not exclusive to neocolonial relationships of domination but is present in both Global North and South countries (Magalhães and Couldry 2021).

Han (2017) expresses concern that digitization, datafication, and surveillance capitalism enable psychological influence on a pre-reflexive level, allowing for manipulation and control of entire populations by creating a 'psychogram.' Hence, Han (2017) advocates for a biopolitical turn to digital psychopolitics, which works subconsciously through positive stimuli rather than negatively disciplining individuals. In the digital age, power does not prevent action but enables people to act according to a specific scheme (Badouard, Mabi, and Sire 2016). Thus, individuals become auto-exploiting by carrying a digital panopticon, the smartphone, which surveils and acts upon life decisions (Han, 2017). Moreover, a sovereign or regime to blame is missing, and individuals condemn themselves, further strengthening the psychopolitical order.

Zuboff (2020, 187) similarly supposes that since radical indifference is inherent to computation, the unique instrumentarian power bestowed on private capital "has no principle to instruct, [...] no ideology against which to judge human action." Nevertheless, as this text demonstrated, computation is inherently value-driven and instructed by human actors. Moreover, surveillance capitalism extends beyond online advertisements. The prospects of profiting from technological control have attracted a variety of stakeholders, and internet governance takes place in a wide array of settings involving various actors (Flyverbom 2016). Bratton (2015) explains that The Stack is a multipolar context consisting of transnational bodies, international corporations, private companies, and others staking claims over its rule. Thus, as Zuboff (2020, 182) also realizes, "any actor with an interest in monetizing probabilistic information about behavior can pay to play in a range of human futures markets."

Digital Geopolitics

The Snowden Revelations and the Cambridge Analytica Data Scandal have demonstrated how information warfare extends beyond economic profit. Cambridge Analytica's Christopher Wylie admitted to making "Steve Bannon's psychological warfare tool" for the Leave Brexit and Donald Trump's US election campaign (Cadwalladr 2018). Simultaneously, intelligence services in the Global North were found to significantly influence ICT development and surveillance, leading to challenges for democratic societies in the digital age (GUARDINT n.a.). Thus, although initially driven by neoliberal ideals, private and state actors compete for epistemic supremacy, data, information, and ownership of the largest repository for producing social meaning (Zuboff 2020).

ICT's potential to determine social order by mediating knowledgepower has sparked a change in digital policy, calling into question the openness and borderlessness of digital spheres. Hence, digital sovereignty is a centrally valued concept in the policy discourse of authoritarian and democratic countries alike (Pohle and Thiel 2020). Digital sovereignty has matured beyond early notions of individual agency towards restoring the nation-state framework as a decoupled digital sphere to regulate ICT infrastructure globally (Pohle and Thiel 2020). Notwithstanding, The Stack inherently prevents decentralization since control centers are an inevitable technological precondition for operating internet infrastructure (Mathew 2016). The US remains central to key internet resource management, exerting geostrategic power within the digital sphere (Kettemann 2020). The Internet Corporation for Assigned Names and Numbers (ICANN), a non-profit organization under Californian law, for example, is singularly and globally responsible for addressing entities in The Stack and, thus, their visibility (Kettemann 2020).

Despite the transnational nature of the internet, the cloud still "gravitates toward the law of territory" (Irion 2015). National jurisdiction and the role of states in the social contract still play a significant part, such as determining the location and storage of data and manipulating ICT companies to serve geopolitical ends, depending on their level of extraterritorial authority and international economic activity (Cartwright, 2020). Cartwright (2020) sees US-based corporations playing a crucial role in global internet governance, giving the US government a geopolitical advantage. Thus, the European Commission (2021) attempts to exert "a safer and more open digital space, with European values at its center" through regulations like the General Data Protection Regulation and Digital Services and Markets Act.

Kettemann (2020) argues that a normative order of the internet, comprising standards and expectations which shape its use and development, has constitutionalized itself based on international law, such as the UN Charter and human rights. This order is not dependent on any

particular nation-state's legal system but legitimized by integration into existing legal systems. Hence, entities such as ICANN must adhere to a global 'common interest' defined by the international actors of the UN. In 2013, the Group of Governmental Experts on Developments in the Field of Information and Telecommunications (GGE) established the first official global consensus on ICT governance, which aims to protect the internet's integrity. The consensus provides monitoring, assistance, and intervention rights and duties to all states, supposedly ensuring state sovereignty reflecting the global common interest. Notwithstanding, nations like Russia and the PRC explicitly argued against UN Charter provisions, failing the GGE to reach a third consensus in 2017. Consequently, all attempts to develop a Cybersecurity Treaty or an 'Internet United Nations' have been unsuccessful (Kettemann, 2020).

Budnitsky (2020) notes that Russia has continuously advocated for essential global internet governing functions to move away from US-based NGOs and private corporations, like ICANN or US big tech firms, towards state-based international organizations like the UN, normatively advancing a multipolar world order. Cartwright (2020) explains that the PRC, on the other hand, seeks to counter US hegemony by strengthening its international market dominance and creating another 'geo-economic space,' internationalizing its technology corporations. As such, Seta (2021) sees a discursive 'bipolar tech war' between the PRC and the US and the need to extend Bratton's Stack topology to reduce its totalitarian description through an Anglo-American lens. Seta (2021, 2684) contends that different domes, segmented digital spheres, are now "jostling and occasionally intersecting at different layers," with the PRC emerging as a central actor.

The Project of Establishing Chinese Order

China comprised one-fourth of the global internet population in 2022, a share that is expected to increase due to policies aimed at reconciling asymmetrical domestic ICT penetration and access (Harwit 2004; Statista 2023a, 2023b). Threatened by the supposed liberating effects of ICT in the 1990s, the PRC was early to invest in content-blocking capabilities. As a result, the networked authoritarian state established what is known as the Great Firewall of China, a censorship invention that blocks various foreign websites from Chinese users, demarcating the boundaries of its dome (Roberts 2018). Because of its ability to centrally control, pre-filter, obscurely monitor, and shape domestic information consumption and ICT design, the Chinese Communist Party (CCP) can allow for a wide range of discourse within its bounds, including regime critique (MacKinnon 2011). Data volume and variety enable the CCP to exploit digitization to identify, target, and repress online activists without resorting to traditional, more violent modes of repression (Menne 2022).

Although the Chinese domestic ICT infrastructure comprises a sophisticated surveillance network, its capabilities are often exaggerated, as in the highly surveilled Xinjiang region, where the state still combines technological and in-person monitoring (Diresta et al. 2020; Leibold 2020). Nevertheless, the narratives on its technological successes allow China to drive innovation and export high-tech social control. China's Digital Silk Road (DSR) initiative, part of its Belt and Road Initiative (BRI), is expanding rapidly, supported by its domestic ICT industry and digital authoritarianism. The BRI is a global infrastructural development strategy to improve connectivity between Asia, Europe, and Africa. However, it is often criticized as another form of imperialism (Belt and Road Portal 2019: Kleven 2019).

The DSR connects various ICTs and networked technologies to ensure the best possible usage of AI, data analytics, and IoT and has exported Chinese Safe City solutions and other surveil-

lance and security technology platforms to at least 80 nations (Hemmings 2020; Khalil 2020). The initiative also offers training on cyberspace management and allegedly assists other governments in spying on political opponents (Parkinson, Bariyo, and Chin 2019). These allegations have led to skepticism and mistrust towards Chinese technology within countries of the Global North. However, the PRC's success in handling the coronavirus pandemic has helped ease some of these concerns (Blanchette and Hillman 2020). Eder, Arcesati, and Mardell (2019) extrapolate three primary goals that drive the DSR. First, supporting Chinese companies in becoming global leaders. Second, the government's ambitions to achieve high-tech leadership and, finally, "the explicit goal of spreading China's homegrown cyber norms and standards by leveraging the strength of its IT sector."

Accordingly, financial and geopolitical motives drive Chinese investments in the DSR. In addition to expanding Chinese market shares, the DSR could aid in expanding global soft power via the export of its ICT and norms, with the state exercising significant authority over its global technology firms. Hemmings (2020, 9) underscores this widespread 'fear' by claiming that DSR aims to strengthen the CCP's "ability to strategically harvest real-time data across a large portion of the world and to use that data for strategic effect." In other words, the PRC could use digitization, ICT, surveillance, and porous censorship logic to impose domination and order by controlling information within and potentially outside its dome(s). The DSR's intentions and its actual capabilities are widely contested. However, the discursive struggle surrounding the initiative and the idea of a bipolar tech war between the US and the PRC are a testament to digitization's unique affordances. Digitization hands governments a key to increased knowledgepower. Thus, directly contrasting Rehbein's (2015) assumption, nation-states can attempt to impose domestic values and ideas upon different cultures and societies.

Discussion

Rehbein (2020) asserts that social transformations are profound changes that produce a new social hierarchy while, simultaneously, historic structures of domination persist below and reproduce inequalities. Quite similarly, in the discursive framework of symbolic liberalism, digitization was declared an empowering force of transformation while reproducing historical relationships of domination and inequality. However, to what extent does digital transformation go beyond preceding structures of domination, and how does it fit into the global configuration of sociocultures within the digital age? This discussion aims to probe digitization as a social transformation and emerging global socioculture, locating it in the current multicentric world order and historically contextualizing it with the global configuration of domination shaped by the social scientific worldview, colonialism, developmentalism, and global capitalism.

Digital transformation dialectically engages with the world's symbolic universe through digitization, a global translation process that transforms analog data and meaningful symbols into the language of discrete mathematics. Discrete mathematics allows computer language to unite different symbol systems by establishing standardized protocols like Unicode. As such, digitization partially reduces the complexity of meaning in the contextualization of data according to prestructured formats. However, digitization does not erase meaning in objectivity, as some would assume, but retains it as a human practice of en- and decoding. From this perspective, digitization emerges as a historical, socio-technically contingent, and socio-economic process encompassing chunks of all the sociocultures it attempts to translate.

Symbolic liberalism and the social scientific worldview continue to guide the digitization process, which converts the social world into mathematical abstractions using complex-algorithmic mathematics. While Book of Nature Vol. I established an equation-based sociolect, Vol. II works with the sociolect of complex-algorithmic mathematics, which necessitates social classification through the semantics of discrete in- and output values, 0 and 1, yes and no or true and false, real and unreal. This approach necessitates social classification through discrete values, increasing nature's construction according to rationality, computation, and digitization. The informational epistemology naturalizes the entanglement of law and technology in mediating sovereignty negotiations between power and individuals. In the digital age, the dominant global symbolic universe corresponds to datafiable definitions of social good, disregarding differing definitions.

The IoT has increased the entanglement of the social world with normative politics and technology, enforcing socially defined norms through pre-programmed protocols and reducing complexities to fit algorithmic sorting. Technology and digital intermediation now determine human possibilities of existence through The Stack, visible in sociopolitical conflicts such as building ICT and National Identity in the Bangla community. Netizens are only visible if they accept ICT's assumed prerequisites, surrendering privacy and self-determination. Moreover, just as the colonial world had a bipolar structure, contemporary literature juxtaposes surveyed and surveyors in technological intermediation. While the colonized were only accepted once they agreed to foreign rules and values, surveyed today are only visible as netizens if they accept ICT's assumed prerequisites. Privacy externalities, font sizes, or the centrality of addressing systems are often assumed to be technologically superior and unquestionably rational or objective. This produces socially 'permissible modes of being and thinking' in the onlife, as netizens access only the public-facing text, closing off or opening up different possibilities for action.

Although global capitalism and neoliberal ideology informed the proliferation and uptake of digitization as a socio-economic process, contrary to Zuboff (2020) or Magalhães and Couldry (2021), who claim that surveillance capitalists or platform corporations can access the shadow text, surveyors, too, are subject to the caveats of digitization. Following Rehbein and Souza (2014), no single actor dominates the world through technology; instead, surveillance capitalism embodies ruling values in line with the social scientific worldview and the datafiable good. As such, technology inverts conventional hierarchies of the traditional sovereignty schema, where law and technology function as mediators of power and the possibility of determining one's and others' life, not as power in and of itself.

From this perspective, capitalist sovereignty in immaterial production turns the global Stack ecosystem into an 'anti-politics machine,' leading to unintended side effects such as privacy externalities and the transparency dispositive. This advances surveillance capitalism, resulting in a global 'crisis of freedom.' Nevertheless, humans still produce technology, requiring examining power in digitization by asking who questions. The planetary Stack ecosystem is authored by capital but also by those who impose data-and-algorithmic-based rules upon societies, entering into a relation with capitalist sovereignty. As such, digitization directly challenges the idea that capitalist transformation is the latest global makeover of domination and social stratification. In a multicentric capitalist world, various symbol systems must negotiate order and control, yet digitization also clearly tests the assumption that no nation-state can impose its societal model upon others.

In the digital age's multicentric world, as the technological tools for producing psychograms and meaning on a global scale develop, global power must still be formally negotiated. Thus,

national sovereignty, the 'will to spatial power' and other essential elements of liberalism and developmentalism have resurfaced to capture discourse on digital geopolitics, with the 'global common interest' aiming to enforce order in the normative multi-stakeholder disorder of competing domes. However, no comprehensive global framework for cybersecurity has yet emerged, indicating that an order is still forming. Thus, we are still searching for whoever is responsible for the caveats and unintended side-effects of digitization but our smartphone-carrying, auto-exploiting selves.

Zuboff (2020) argues that achieving epistemic justice involves disentangling knowledge, authority, and power. In this context, Rehbein and Souza's (2014) distinction between functional and invisible power elites helps us understand how symbolic domination is relationally constructed in the digital age. Surveillance capitalists can be seen as functional elites who are visible to the public and often viewed as the beneficiaries and determinants of the digital transformation's distribution of possibilities. However, quasi-sovereign corporations are still subject to national and international jurisdiction and operate within established institutional structures, as seen in the 'normative order of the internet' and the cloud's territorial gravitation. Thus, civil society and state- and international regulations currently negotiate who gets to have the authority to decide who knows.

Notwithstanding, this contestation depends on the overdetermining intangible power that gets to decide on authority. At this point, unintended but directional side effects serve the development of capital ever-advancing with the ubiquitous exponential growth of information. Likely for that reason, Zuboff (2020) proclaims the existence of a value-free instrumentarian power, and Han (2017) that of power without any addressable entity or disciplinary regime, yet once again disregarding that technology mirrors societal relations. However, as I write this text, humans are increasingly aware that people can use the planetary Stack to 'master nature' by predicting and acting upon human behavior and directing meaning.

The Cambridge Analytica Data Scandal and the Snowden Revelations prove that various stakeholders are not only aware but already utilize Book of Nature Vol. II to influence the global symbolic universe in line with specific interests, not necessarily related to economic capital but rather to establishing a favorable social position. Power maintains its position only if it effectively controls the functional elites by either winning over representatives to lead the division of activities or obtaining a high position within the activity division itself. The discourse on digital geopolitics and incompletion of a global consensus based on the refusal of less advantaged nations within US-Euro domination, such as Russia or China, demonstrate that winning over representatives or capturing interest within the already established UN proves more difficult today than obtaining a dominant position within The Stack.

The normatively coded distribution of possibility and activity, ownership, and design of ICT infrastructure also mediate sovereignty, significantly affecting our contemporary understanding of global domination. The larger the ownership of physical ICT infrastructure and the authority over private ICT corporations, the more significant the dome and stake in producing meaning globally and, thus, the potential influence on the order of global domination and inequality. The DSR exemplifies the disruptive potential of ICT to impose an order of meaning in attempting to progressively reshape global politics in line with Chinese norms, systems, and networks. Hence, the DSR, as a precedent case, points to the potential of digitization to displace capitalist sovereignty as the determinant of authority and knowledge in the contemporary symbolic constellation of meaning. The DSR, if applied as such, could determine actions, possibilities, and the good life in

line with an alternative trajectory to US-Euro hegemony. It follows that digitization can produce another global socioculture, depending on whether and who decides to use its potential for global domination.

Nevertheless, since ICT ownership and authority over private corporations are essential to apply digitization for control, capitalist transformation forms a prerequisite to digital transformation. ODC is necessary to accumulate EDC, start internet domestication processes, and subsequently reconvert DC into other forms of capital, effectively reinforcing inequalities. Moreover, digitization often directly reproduces social inequality on societal and individual levels since most people who determine ICT design stem from historically dominant groups. Thus, social differentiation progresses with persisting symbolic universes, capital, and habitus. Without sufficient ICT development, availability, access, interconnectedness, and scope, digitization for control would not function. Similarly, without neoliberal ideology, privatization, and self-regulation, surveillance capitalism and the tools capable of controlling meaning would not exist. Therefore, digital transformation or a potential digital socioculture would tie into the trajectory of the preceding three global sociocultures following global capitalism.

A link to the preceding global sociocultures also appears in the emerging vulnerabilities matrix mentioned by Magalhães and Couldry (2021). First, the divide between strong and weak data actors likely stems from the most immediate evaluations of a good life guiding the development of normative code and ICT, that of historically dominant groups in line with the Euro-US civilizational model. Moreover, the disadvantaged or 'less developed' countries within this matrix initiated their capitalist transformation and, as such, also their digital transformation later than others. As such, they tend to lack large ICT corporations with global influence and critical domestic ICT infrastructure. Accordingly, the global gap of epistemic inequality widens as digitally late-blooming countries are more vulnerable to data extraction and dependent on more sophisticated, pre-existing national domes, arguably particular value-driven spheres of meaning within The Stack.

Conclusion

The digitization process, characterized by the binary translation of analog to digital data, the computerization of information, and the diffusion of computation, has transformed the global social world to varying extents. This variation emerges as dependent on the pre-digital position of societies and individuals, which is determined by the historical configuration of global sociocultures, the social scientific worldview, colonialism, developmentalism, and global capitalism. Thus, recent literature suggests that digital transformation reproduces inequalities on an individual level, but it also has the potential to reconfigure hierarchies on a global scale through novel control mechanisms. The Digital Silk Road exemplifies this potential for imposing the values of one culture on another.

In the digital age, communication changes through unification in mathematical language and complex algorithms, changing relevant social sectors and inciting new discursive frameworks for inequality. Claims of ICT's ability to circumvent institutional intermediaries and produce freedom and equality wane in the face of the trajectory of the social scientific worldview alongside colonialism, developmentalism, and global capitalism. These forces, in line with the European civilizational model, define and construct the contemporary order of nature according to rationality, expressing the ancient book of nature paradigm in the abstract conversion and reconversion

of the social world into computation to 'master nature' by predicting and acting upon correlations.

In the powerful grip of capitalist sovereignty, the discovery of human life in the form of data as a socio-economic resource, and the absence of regulation aided by the dominance of neoliberal ideology, have created a new form of capitalism, in line with Zuboff (2019), called surveillance capitalism. Subsequently, quasi-sovereign global platform corporations, the main foundation of the planetary ICT network, here referred to as The Stack, have authorized digitization for control. In other words, the intentional production and quantification of sociality for behavioral prediction and stirring, to be sold or converted into capital. Therefore, epistemic inequality, a binary division of learning, emerges as a distinct threat to agency and the chances to establish a good life, hidden below formal proclamations of a digital revolution.

The inherent asymmetry in the unequal access to learning holds the potential to transform social order and the global division of activities. Whoever controls the most significant part of The Stack and is 'in the know' can also shape social order in information societies along with their normative ideals, given they are willing or able to utilize ICT to produce meaning and control and provided that they own sufficient ICT or have adequate power over capital and the authorities, who decide on knowledge production and distribution in the digital age, often global platform companies. As such, digitization reengages nation-state politics, directly opposing the direction of the capitalist transformation, which foresaw private capital and not actors, like the nation-state, determining social hierarchies in a multicentric world. Thus, digital transformation could likely create a unique global sociocultural path dependent upon the preceding global sociocultures.

Ultimately, the theoretical implications of this text apply only to capitalist societies with the necessary ICT infrastructure for domestication. Nevertheless, The Stack is expanding through an ever-growing IoT network, entangling more than half of the global population, including those currently excluded. Symbolic universes in a globalized world overlap and inform each other, resulting in a symbolic exchange between people with and without ICT access and connecting symbol systems influenced by The Stack's value-ridden ICT to establish knowledge distribution. The unregulated application of digitization for control poses significant challenges and creates a critical turning point. Digitization has already shaped symbolic universes worldwide, making it increasingly difficult to distinguish between true and false, past and present. As active participants, we are responsible for empirically investigating whether digitization can truly disrupt traditional hierarchies by promoting social mobility and a better life before indiscriminately digitizing the social world and accepting the caveats as familiar yet 'unintentional' side effects.

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Notes

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[2]Natural numbers, such as 1,2,3,4, without fractions.

[3]Establishes relations between objects.

[4]Boolean algebra, whereby variables can only take one of two values, such as true or false.

[5]Here, computers, automatically operating according to humanly pre-set discrete in- and output values.

[6]Here, a network of networks made up of nodes, facilitating communication through application of binary code.