SPECIAL SECTION

A Green-Digital Post-Bicentennial: Toward a Foreign Policy 3.0 for Brazil[1]

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Abstract: From the perspective of long-term diplomacy, foreign policy cannot be separated from its social and economic base. Based upon a century-old historical understanding, this article identifies three major phases for the Brazilian foreign policy: PEB 1.0, associated with Brazil's primary-export economy since 1822; PEB 2.0, roughly overlapping with national industrialization in the twentieth century; and PEB 3.0, still under construction, geared toward the green-digital future and aligned with contemporary sustainability and digitization requirements.

Keywords: Brazilian foreign policy; bicentennial; long-term diplomacy; green-digital economy.

1. The opinions expressed herein are the sole responsibility of the author.

This year's celebration of the independence bicentennial is an excellent opportunity to reflect on the relationship of long-term historical movements with Brazil's international standing. This article proposes to briefly review Brazil's foreign policy (PEB), focusing on its social and economic bases over periods approximately one hundred years to find what factors have influenced our foreign policy in the long term and draw some lessons from them. The purpose here is not to discuss how guidelines differed from government to government or look at political milestones chronologically, but rather find macro-structural trends using an analytical method that relies on deliberate detachment from the moment's context.

The first one hundred years after Brazil's independence in 1822 (PEB 1.0) can be seen as a nation-building phase: the nationalization of diplomacy, the defense of territorial unity, and the definition of borders. Baron Rio Branco, a man of the nineteenth century, completed this effort. Over most of this period, a slave-based and "essentially agricultural" economic system predominated in which territory, extractivism, agriculture, and rural life integrated into the social landscape.

The next one-hundred-year phase (PEB 2.0), from 1922 to 2022, encompasses almost the entire twentieth century and goes beyond. Our diplomacy then focused on classic economic development, notably Brazil's effort to use industrialization to drive increased growth. That was the keynote of the two Getúlio Vargas governments and the military regime (1964-1985). It is also in the multiple expressions of pragmatism in the search for autonomy, against the backdrop of a country transformed by industrialization and the expansion of the service sector in urban life. These traits remained in place until recently, but are not watertight. They have been acquiring new connotations indicative of a more unstable and uncertain phase.

Finally, the following one hundred years (PEB 3.0), post-bicentennial, encompass most of the twenty-first century and will be guided by global challenges associated in particular (but not only) with climate change and emerging technologies, and the dilemmas of sustainable development, of the knowledge economy and life in cyberspace. A foreign policy attuned to this coming scenario, dominated by technology and sustainability, must be able to respond to the urgent issues of our time and to adapt to a green-digital economy. The 2020s may be the time to accelerate this trans-

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formation, whose success will hinge on decisions made in the present, otherwise Brazil's transition to the vanguard of the digital age will be further delayed.

BEFORE THE BICENTENNIAL: THOUGHTS AND TEACHINGS

French historian Fernand Braudel (1992) coined the term *longue durée* in reference to phenomena that go beyond the merely factual study of specific historical circumstances. Different scholars give the concept different interpretations, including in the field of International Relations (Dark 1998). For the purposes of this article, let us say that a major foreign policy strategy should consider the type of nation one seeks to build, what its basic values and guiding principles are, as well as the interests at stake when projecting a certain action in future scenarios.

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Some aspects stand out when we look at social and economic phenomena through the prism of the long duration. Slavery, for example. For 350 years since the first group of African slaves arrived in Colonial Brazil in 1538 and until slavery was abolished in 1888, this inhuman system governed Brazil's economy and planted deep roots in our social fabric. In 1830, Brazil was the largest slave-based economy in the world. Sixty percent of slaves brought to the Americas from 1811 to 1870 had Brazil as their destination. It is not difficult to see that slavery influenced both the economic substratum of the nascent national consciousness and the country's international standing during the nineteenth century. During the Empire, some thought Brazil could not survive without slaves, that industrialization was too ambitious or unnecessary. According to the economic theory of comparative advantages, it would suffice for Brazil to import the desired goods and technologies.

Historically speaking, Brazil's economic development was out of step with the industrial revolutions taking place around the world. Before independence, during the times of colonial monopoly, Brazil did not even have access to the innovations the First Industrial Revolution brought about in the second half of the eighteenth century: the replacement of artisanal work with large-scale production using machines powered by steam and fossil fuels (mineral coal). This process did not reach Portuguese colonial possessions, given Portugal's subordination to Britain since at least the 1703 Treaty of Methuen. The oft-mentioned 1785 Royal Decree of Queen Maria I banning all factories and manufactures in Brazil proves the point. The Brazilian colony at the time exported gold, diamonds, sugar, tobacco, and brazilwood to the mother country and imported from Portugal the rudimentary manufactured goods it needed.

The 1820s were undoubtedly crucial to define our national identity not only because independence made Brazil a sovereign State, but because then began the formation of Brazil's foreign policy, albeit not immediately. In the "heroic" phase led by José Bonifácio, Brazil broke with the Lisbon constitutional convention and sought closer ties with the United States and with its own neighbors on the River Plate. Subsequently, the fact that Emperor Pedro I conducted diplomatic affairs gave a neo-Portuguese tinge to our foreign policy during the First Empire. Examples of this were Brazil's pro-Holy Alliance Europeanism, our subordination to Britain (commitments made under the 1810 treaties were renewed in 1827), the Cisplatine War, and the Empire's virtual isolation in the region, culminating in the failed Santo Amaro Mission of 1830 sent under the emperor's direct instructions to garner support in relation to the disputed succession to the Portuguese throne and South American politics. The 1831 abdication unsurprisingly brought the phase to an end, sometimes referred to in historiography as the "second independence," that saw the "nationalization of the throne" and a stronger affirmation of Brazil's national identity.[2]

Brazil's foreign policy over this decade reflected the lack of significant change to the underlying social and economic structure (primary sector supported by the slave system). Economic literature shows that despite pioneering efforts such as those of Baron Mauá, industrialization did not gain traction in imperial Brazil. Imperial diplomacy dealt with trade, financial, and immigration issues associated with the slave system. This diplomacy spanned years, such as the dispute with Britain over the transatlantic slave trade, a "diplomatic struggle of the most lamentable character," in the words of Joaquim Nabuco (Almeida 2001, 337). The fast-paced progress in transportation, communications, and in the chemical, steel, and electrical indus-

2. King João VI engaged in a foreign policy that was more Brazilian than Portuguese (americanization of the monarchy), while that of King Pedro I was more Portuguese than Brazilian by partially reverting to traditional Portuguese diplomacy (Garcia 2018, 55-88).

tries, among others, sparked during the Second Industrial Revolution in the second half of the nineteenth century took a long time to reach Brazil. Reconfirming once again Brazil's relative distance from the dynamic centers of growth, Brazil's commodities-based economy of imperial times entered the republican era in the twentieth century favoring the agro-export model.

Indeed, coffee was the economic pillar of the Old Republic and Brazil's economy remained "agriculture-centered" for decades. The 1920 economic census showed that, compared to manufacturing, the net value of agricultural output represented almost 80% of the economy's total physical output. Agriculture was based on export crops, which jointly accounted for almost 60% of agricultural output and covered 50% of planted area (Villela & Suzigan 1975, 141-142). Agro-exports peaked after the post-war crisis (1920-1923) and before the crash of 1929.[3] Because the agroexport sector was the driver of the economy, oligarchic diplomacy reflected its interests (Garcia 2006).

Brazil's industrialization began with World War I, when the reduced availability of manufactured goods from traditional suppliers gave an indirect stimulus to domestic production. Industrial output grew by 44% in Brazil from 1915 to 1920, mainly in non-durable consumer goods and in exports for the international market. The number of manufacturing establishments in Brazil ballooned from 6,946 in 1914 to 13,569 in 1919 (Magalhães 1979, 390). However, this process cannot be seen only as a boon to industrialization via substitution of imports. If, on the one hand, the diminished availability of goods from overseas due to the war caused opened a momentary window of opportunity for some industrial sectors in Brazil, on the other hand, the abrupt interruption in the imports of capital goods and certain essential raw materials disrupted Brazil's productive system and marred the development of other industries. Without the necessary machinery and fuels, industrial capacity as a whole was inevitably compromised. Better-structured State industrialization policies came to light only in the 1920s and 1930s but this is not the place to dwell on this issue, which has been examined in a significant body of economic literature.[4]

By the end of the first one-hundred-year phase in the 1920s, PEB 1.0 was transitioning into PEB 2.0 with the usual contradictions seen in this type of wide, complex and dialectical movement where the new has dawned but the old remains. Take the case of the 1922 Independence Centennial International Exhibition in Rio de Janeiro, the largest of its kind organized in Brazil to date. The Brazilian govern-

3. Based on those and other indicators, Villela & Suzigan (1975, 133-134) argued that the 1920s saw the peak of the agro-export segment, which grew much faster (9% per annum) than other agricultural sectors (4.5% per annum).

4. There was much controversy in the economic history literature regarding the effects of World War I on Brazil's industrialization (Versiani 1987; Cano 1977; Dean 1971).

ment invested in organizing a mega-event along the lines of the Universal Expositions typical of the Belle Époque, when belief in the unlimited powers of reason and science and in the infallible progress of the liberal-bourgeois civilization of the late nineteenth century prevailed. A reform campaign was initiated to give the federal capital a more "modern" appearance. The plan was to make Rio a kind of "tropical Paris;" a symbol of modernity and beauty south of the Equator. The Centennial Exhibition was meant to celebrate national reconciliation domestically and to show Brazil's progressive side internationally.

But, 1922 will be rather remembered for the nascent political opposition to the conservative immobility of the oligarchic republic and the increased social and cultural ebullience. The Exhibition was supposed to show the world that Brazil could match the culture and development of major Western nations and was ready to integrate the "civilized," cosmopolitan, wealthy and cultured world (Motta 1992). But, the illusory prosperity foisted on foreign visitors was in stark contrast with a society that at bottom was poor, malnourished and illiterate and with an economic infrastructure based on monoculture agro-exports.

A striking example of long-term historical change was the transition of power from Britain to the United States in the interwar period. Thanks to our Portuguese heritage, Britain enjoyed a strong position in Brazil at the time of our independence in 1822. By 1900, Britain still commanded a leading influence in Brazil's economy as the largest source of our imports and funding and as the largest foreign investor, by far. In the following years, Germany's growing influence challenged Britain's position in Brazil and, although mildly, so did the United States, whose economic expansion had not yet reached South America. During World War I, Britain and the United States joined forces against Germany and jointly succeeded in expelling German interests from Brazil. The United States became Brazil's largest trading partner in 1916, for the first time surpassing Britain as the main source of Brazil's imports. As the years passed, Germany's resolute recovery in the 1930s renewed the earlier challenge, and during World War II, British and American interests were once again united against Germany's. By 1945, however, Britain had lost its once dominant position and the United States indisputably was the hegemonic power in Brazil (Garcia 2006, chap. 4).

Britain's economic conditions and its loss of international competitiveness impeded any attempt to adapt to the changes in the Brazilian economy. The agro-export model to which British capital remained tied slumped after the 1929-1933 world depression. Brazil's industrialization found its stride both through the substitution of imports in traditional sectors (clothing) and through foreign direct investment in non-traditional segments (automobiles), to the detriment of Britain's

economic interests and productive capacity. Brazilian demand for British exports of textiles, coal, and railroad materials, the three pillars of Britain's trade since the nineteenth century, declined. The United States was better equipped to provide the goods and services Brazil required to join the industrial economy of the twentieth century: machinery, oil products, and automobiles (Rosenberg 1978, 151).

The character of that transition of power was above all economic. There was no political transition at all because, before 1914, Brazil's foreign policy was not geared toward Britain. There was an apparent mismatch between British economic presence and political influence, for Brazil did not see London as a focal point of its diplomacy. British political supremacy had evaporated long since, by the 1840s. Even during most of the Second Empire, in the second half of the nineteenth century, Britain's political influence over Brazil was negligible compared to its economic interests spread throughout the country. In contrast, since the proclamation of the Republic in 1889, Brazil's new regime had sought closer ties with Washington motivated by the spirit of pan-americanism, which translated inter alia into the americanization of Brazil's foreign relations.

One should not draw from this example hasty conclusions about other transitions of power that may (or may not) occur in the future – from the United States to China, for example. For its contemporaries, the anglo-american transition was more a possibility than a certainty. We now know that the United States managed to consolidate its hegemony in the interwar period, first displacing Great Britain (especially in the 1920s) and then supplanting Germany (in the 1930s). The post-1945 *Pax Americana* was very brief and certainly should not be overestimated, but the fact remains that the global transition profoundly affected Brazil's international relations.

That said, a short-term-centered approach can result in frustration. The first Vargas administration is usually associated with a successful bargaining policy in the midst of international polarization. The 1940 agreements with the United States that led to the birth of our steel industry in Volta Redonda-Rio de Janeiro are a case in point. With the privilege of hindsight, said "nationalistic bargaining" is best seen as a tactical tool used to obtain U.S. support for Brazil's development in the peculiar circumstance of global war. The atypical environment of World War II fed the illusion that such bargaining could also be possible under post-war U.S. hegemony, which we know did not occur (the "unrewarded alignment" to which historian Gerson Moura referred). Bargaining to take advantage of competition between major powers may bring some occasional benefit but cannot support a global international strategy, which ideally should not be based on exceptional circumstances over which we have no control.

We saw above that Brazil's industrialization gained traction in the 1920s-1930s, but did not translate into an immediate change in the long-established economic system. Coffee remained Brazil's main product until the 1960s. Primary products still represented 96% of the total value of exports in 1961. The traditional structure of Brazil's exports, dominated by primary goods, had not yet changed despite industrialization. Brazil became an exporter of manufactured goods only in the 1970s. Brazil's industrial exports represented 3% of total exports in 1960, 40% in 1974 and 56% in 1979. From 1920 to 1980, Brazil's Gross Domestic Product (GDP) grew on average by 6.19% per annum (industry grew by 7.64% in the same period). By 1980, coffee's dominance over Brazil's foreign trade had vanished: manufactured goods then accounted for 45% of Brazilian exports (Abreu 1992).

The 1970 census found the urban population (52 million) to have surpassed the rural population (41 million) for the first time, representing 56% of the country's people. This shows how recent this key demographic change in the population's spatial distribution is, from the countryside to the city. To that, we must add the very recent dimension of life in cyberspace, which will follow the analysis of the Third Industrial Revolution and its implications for PEB 3.0.

For the sake of brevity, we shall not review here the political, social and economic transformations of the last forty years, nor shall we discuss how redemocratization or economic globalization affect diplomacy, for example, through the idea of public diplomacy that integrates the national interest and society's collective and diffuse interests. Foreign policy is certainly more than a mere tool to foster industrialization. It is the result of an increasingly complex competitive environment. Paradigms at the macro level have been interconnected for some time, and at the turn of the century, PEB 2.0 already indicated some trends of the next phase in the field of human-nature symbiosis, digital communication, and dialog with society.

AFTER THE BICENTENNIAL: THE DIGITAL-GREEN FUTURE

Turning to contemporary politics, the war in Ukraine significantly changed world geopolitics but is likely to be seen by historians as a relatively short episode from a long-term point of view. The structural impact of such events is not comparable to macro trends such as the results of human activity on planetary life or technological advances that change how human beings interact with each other and nature. However, they do serve to dispel hasty conclusions such as the oft-repeated and erroneous belief that war between major powers is a thing of the past. Russia's invasion of Ukraine not only rekindled the prospect of major military confrontation in Europe. It also brought back the ghost of nuclear weapons and their potential use

to achieve political and military ends (ironically, a technology of the 1940s whose destabilizing effects will last until those weapons have been completely eliminated). In other words, some persistent threats that may include existential risks to humankind continue to haunt us and will bedevil our children and grandchildren if the current generation cannot solve those issues (Ord 2021).

In his address to the United Nations General Assembly, Secretary-General António Guterres (2018) mentioned the key challenges of our time: climate change and its indiscriminate planetary repercussions and technological risks ranging from mass economic unemployment to weaponized artificial intelligence. Those two challenges and their consequences on people's lives and the environment will guide the outcomes of other major world issues (economic growth, inequality, global health, geopolitical tensions, etc.). There are even those who see the Anthropocene and the progressive virtualization of society as two societal transformations that make up the "digital Anthropocene."[5]

Needless to say, a resolute effort to address global warming and promote sustainability requires abolishing archaic and predatory production methods that do not factor in their social and environmental effects. Humans used more energy in the twentieth century than they did in the 10,000 years between the agricultural revolution and the Industrial Revolution (Marks 2015, 203). The long-announced end of the oil era continues to take its toll. In a study on the world economy since the Paleolithic, Jeffrey Sachs (2020) places the Industrial Age between 1800-2000 and posits that the Digital Age in the twenty-first century will have to deal with the preceding era's nefarious legacy of environmental degradation and inequality.

Just as human existence cannot be separated from its natural environment, the biosphere, modern life cannot be properly understood without reference to our immersion in the digital world that includes the full range of humankind's technological production (Gorichanaz 2019). Luciano Floridi designates that world the "infosphere" in a reinterpretation of the older concept of "technosphere." Disconnecting from the internet and forswearing the digitization of the economy and of society gets more difficult by the day. Connectivity is a key element of the twenty-first-century world.[6]

Much of what is designated the "Fourth Industrial Revolution" actually refers to the extension and intensification of the Third Industrial Revolution, which came into being through the expansion of the service sector and of the electronics industry, the advent of the internet, of the information society and of technological

5. See The Digital Anthropocene Project: https://www.researchgate.net/project/The-Digital-Anthropocene.

6. Greater connectivity involves a conundrum: by bringing States, individuals and societies closer together and by making them increasingly integrated with each other, it can at the same time create more friction points and, therefore, more competition and conflict (Leonard 2021).

innovations in the second half of the twentieth century.[7] The almost ubiquitous digitization made possible in many countries by advances in computer engineering and in related industries drives industrial automation, 5G networks, the Internet of Things, integrated software and cyber-physical systems that are revolutionizing production lines in advanced economies. For Gen Z digital natives, cyberspace is part of everyday life. The traditional boundaries between the physical, biological, and digital worlds are increasingly blurred and Big Tech plans to invest heavily in augmented and virtual reality platforms, betting on the metaverse as the next chapter of the internet.

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Artificial intelligence (AI), a general-purpose technology that enables other technologies and multiplies factors, is the paradigm shift at the heart of this new economy. AI is more than just "the new electricity." Unlike electricity, AI can in association with massively abundant data and growing computational power create knowledge and perform cognitive tasks previously deemed exclusive to the human brain. It is not as yet possible to discern to what extent AI will fulfill its promises but some of its practical effects are visible now and its long-term implications are as formidable as they are astounding. We have just begun to see creative expressions of text, image and video produced by machine intelligence, for example, in foundation models such as GPT-3, BERT, DALL-E 2, and others that use deep learning neural networks to process gigantic amounts of data at scale (hundreds of billions of parameters) and that can create products in a fully autonomous manner. If AI systems can create knowledge that humans never conceived or imagined possible, then a Copernican revolution may ultimately occur with the potential to challenge intellectual anthropocentrism as we know it.

These thoughts on the ongoing technological revolution are not new. Like-

7. Current references to a "Fifth Industrial Revolution" make one think that the very concept of revolution may have been banalized and extended to the limit to accommodate self-promotional marketing actions.

wise, the importance of the environmental agenda and of promoting the energy transition toward a decarbonized economy is well established and technology and science surely can contribute by expanding the use of renewable resources and by combating deforestation, among other things (Almeida & Gaetani 2021). In this new scenario dominated by technology and sustainability, foreign policy must include digital elements as a vital and inseparable aspect of diplomacy in a hyperconnected world where technology's influence on interaction and coexistence far exceeds the scope of States.

Brazil's adherence to the knowledge economy has so far barely touched diplomacy. PEB 1.0 coexisted with the "essentially agricultural" economy that was one of Brazil's key traits long after its independence. PEB 2.0 corresponded to classic national industrialization in the twentieth century. PEB 3.0 will be associated with sustainability and digitization, with a green-digital economy that is environmentally balanced, adapted to the low-carbon market, that is technological and inclusive, free of the burdens and anachronisms of the past, and focused on building a nation with less inequality, greater distribution of wealth and development for the benefit of society as a whole.

The third one-hundred-year phase of Brazil's foreign policy must be aligned with Brazil's innovation ecosystem to provide productivity conditions that add vim to our industry through enhanced connections with market-changing innovations such as those introduced by impact startups and entrepreneurs. Brazil's deindustrialization has a direct adverse impact on our capacity to produce high-value-added goods, to train skilled labor, and develop capabilities to advance Industry 4.0. The manufacturing sector's share of Brazil's GDP peaked at 27.3% in 1986 and plummeted from then on to reach rock bottom in 2018 (11.3%), where it remains (Morceiro 2018). It is a tragic combination of late industrialization and early deindustrialization, aggravated by the lack of consistent investments. If Brazil does not develop its own skills in convergent and enabling technologies, Brazil will remain dependent on foreign suppliers and, worse, vulnerable to the gyrations of the global market and to political pressure from outside, such as those associated with the U.S.-China struggle for supremacy that some describe as "the new technological Cold War."

Varying degrees of digital exclusion which change with social class or region restrict the access of a large portion of Brazil's population to public and private services offered online. Those individuals cannot take advantage of resources in the areas of education, health, remote work, business, social interaction, and social rights. They are not equipped to actually exercise their rights and master the digital tools that are ever more important in everyone's daily life.

This can be changed. History shows that industrial revolutions at the world level reached Brazil with a delay of decades, as occurred in the transition from an agricultural to an industrial and services economy. That process of course is neither linear nor teleological: there are ups and downs, comings and goings, and setbacks may occur. As seen earlier and as is well known, industrialization gained traction in the 1920s and took root in the inter-war period but matured much later and is currently suffering worrying setbacks.

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We are still moving toward both the green economy and the knowledge economy and not at the desired speed (Kaufman 2021). If I may be pardoned for the neologism, it is premature to speak of "late smartization" in Brazil because that systemic change is underway in leading powers as well. If innovation is not given due importance in the public debate and in government plans, Brazil will find it difficult to adopt far-reaching and properly funded cross-sectional policies that can provide high-quality education and foster a digital data infrastructure, networks, and integrated AI systems.

The ethos needed to make PEB 3.0 viable should also include the mind maps we use to observe, judge and act. Several concepts are obsolete and must be updated consistently with life in the twenty-first century. In a world that is no longer Westphalian in the strict sense, international relations unfold at many levels and in different arenas: a structurally heterogeneous, polycentric, largely unpredictable system affected by fissures and asymmetries of every kind, with overlapping spheres of authority that compete with each other and that coexist with complex networks of transnational and subnational, public and private, government and non-government forces. Binary, analogical, and one-dimensional thinking motivated by deep-seated convictions is ineffective in apprehending an intrinsically fluid and multifaceted, often ambiguous, scenario, where uncertainty predominates. If those phenomena are not adequately understood, the ensuing policies will be disastrous in every sense.

Foreign policy discourse and practice must address the digital dimension. If leaders, legislators, and opinion makers do not integrate that dimension into their priorities, they will be unable to garner the funds and the political will necessary to do what needs to be done. During the election campaign this year, few candidates

explicitly mentioned the issue in debates or in their government programs. Deeper public diplomacy will reach more players, enhance civil society's involvement and unclog dialog channels, digital media included.

We live in a time of political divergence and the fragmentation of global governance efforts in various sectors. The construction of negotiation convergence requires the collective action of countries interested, above all, in fostering the use of technology as a tool for development. Active participation in international forums with well-defined purposes demands the inclusion of talking points on the agenda of bilateral meetings, the coordination of common policies at the regional level, taking multilateral normative leadership and engaging in dialog and in negotiations on global digital policy between States, the private sector and civil society (Garcia 2022).

The importance of technological diplomacy is growing. An informal group of diplomats based in San Francisco and the Silicon Valley (Tech Diplomacy Playground) meets monthly to discuss global digital issues, drawing on the experience of various countries represented in the Bay Area. The interest of States in a more direct dialog with major Silicon Valley businesses has increased since Denmark appointed the world's first Tech Ambassador, in 2017. Last September, the European Union opened an office in San Francisco to forge closer ties with those players.

Government will not modernize if good practices are not introduced into its daily activities. Even after the end of the pandemic, digital transformation is seen as something inevitable that should be included in a "hybrid diplomacy" within which physical and virtual interactions coexist, supplement and strengthen each other. Most Foreign Offices are in the process of adapting to new technologies. The next phase will be "digital adoption" (Bjola & Manor 2022[8]), a process far beyond social media. It involves making management efficiency gains akin to those seen in businesses and improving consular services and resources for decision-making, prediction, political analysis, and other typical diplomatic activities.

Potential uses include canvassing media in real-time to detect fake news, combat misinformation, and identify threats for early warning and risk prevention purposes. That said, the success stories from which to draw inspiration remain few. Information digitization for data collection purposes is an indispensable step in that direction. Natural language processing (NLP) models may already be a stepping stone for diplomats, who use written language daily (in telegrams and reports sent to and received from capitals and diplomatic offices overseas). More ambitious applications could include algorithms to predict the behavior of other countries during

8. See also Oxford Digital Diplomacy Research Group: https://www.qeh.ox.ac.uk/content/oxford-digital-diplomacy-research-group.

negotiations and/or to map voting patterns in multilateral organizations.

In this world of instant 24/7 information, big data and intelligent machines, agility is an antidote to obsolescence. The digital literacy of government employees must begin early, from the time they join government service, so that they can acquire the basic toolkit of the language of technologists, developers, computer engineers and scientists. Acquainting diplomats and foreign service staff with new technologies and training them to think innovatively will open a window that may bring fresh air to a rigid bureaucratic culture.

The creation of an in-house knowledge network at the Ministry of Foreign Affairs to monitor information and communication technology issues and associated digital diplomacy topics in September 2021 was a promising initiative. Under the generic designation of "Digital Governance," the network includes more than sixty diplomats at varied hierarchical levels, stationed in Brasília and abroad, with knowledge, interest, or experience in the area. It is a collaborative, flexible and informal platform to exchange ideas and information and is divided into four thematic subgroups: cybersecurity, artificial intelligence, internet, and e-government, the latter including new technological tools and strategic management at the Ministry. The network was designed as a pilot project and may, if successful, inspire similar initiatives to reach critical mass and stimulate participation as a means to gather useful knowledge in support of diplomatic action.

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But there is a paradox. As mentioned in this article, diplomatic action reflects the underlying national context and its social and economic substratum but a country's foreign policy goes beyond its circumstances. In international politics, a country's relative position varies as other States give it greater or lesser status and/or influence. The perception of other players is a source of political power and is reflected in the relevant country's diplomatic status. Because political power is composed not only of material elements (such as economic and military might) but also of varying elements that are difficult to measure, a country's international standing can exceed its actual circumstances. Were it not so, diplomacy would be fully governed by geography as posited by supporters of geopolitical determinism, a theoretical approach that is debatable, to say the least. A well-conducted foreign policy can alter perceptions and use favorable situations to optimize positive variables, including assets of intangible value.

All the better if PEB 3.0 lives up to the intangible legacy of Brazil's diplomacy in terms of agglutinative power, credibility as a party open to dialog with any country, and with legitimacy to build consensus around common agendas. Brazil is at the cutting edge in some aspects of consolidated digitization such as voting (electronic ballot boxes), banking, and e-government. A green-digital post-bicentennial effort that integrates technology with sustainable development within a broader process to regain Brazil's leadership in environmental, human rights, and other issues may help put a new shine to our international image.

CONCLUSION: THE CHALLENGE OF THE 2020S

A century after our independence centennial, will the current decade see the dawn of a structural shift similar to the one that made Brazil an industrial nation? Will Brazil develop a true green-digital economy based on emerging technologies and reconciled with the natural environment? Will the governments of post-bicentennial years act so that large-scale public policies reflect those demands and succeed in accelerating the transformations we are now glimpsing?

Tackling the challenges of PEB 3.0 will require the same commitment and determination our diplomacy used in the past to stabilize our territory and settle our border disputes. Structural change will be necessary to review priorities and establish robust and high-quality partnerships. It is not a matter of choosing to be a country "with no surplus of power" or "doomed to greatness." A good foreign policy will be one that knows how to navigate and overcome existing limitations and that maintains a vision that does not surrender to resignation.

By gauging long-term trends with an eye on their social and economic pillars,

Brazil will be able to adjust its foreign policy as necessary not to repeat past mistakes. Brazil should once again use its professional diplomatic service to encourage a more harmonious domestic and international coexistence seeking win-win results whenever possible. That will be Brazil's ticket to reconnect with the world and revamp its foreign policy.

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