TERRITORIALITY 领土性

by Juaniko Moreno, 2020

The internet is deeply and absolutely physical. It becomes evident in the gargantuan amounts of energy and minerals that it requires to compose materially and feed its operation. Despite the marketing strategy to associate itself with the ethereal aspect of the "cloud", and the convenience that this immaterial representation poses for tech companies; it is by paying attention to its physical configuration, the ways in which it concatenates with resources, economic demands and political structures, that we can elucidate its living and contingent aspects.

The information of the web circulates and is hosted in data centers, which are intertwined with the material resources of their respective regions due to the massive demand for electricity and refrigeration. The Chinese artist Liu Chuang[1] tracks the travel of container bins hosing bitcoin mines across the Chinese geography: to the south in the rainy spring and the spike in hydroelectric power, to the steppes in autumn and its abundant wind electricity, and to the north in winter with the coal extraction season. In analogous ways, Google locate its servers in remote and inconspicuous buildings that channel the freezing Finnish winds[2], Microsoft takes advantage of the stability and refrigeration provided by the Scottish seafloor[3], and clouds are condensed by thermal shocks in Facebooks' data centers[4]. Water, fire, earth, metal and air are transformed and mobilized as part of the environmental components that archive, activate and transfer data over the web[5].

---

[1] *Bitcoin Mining and Field Recordings of Ethnic Minorities* (2019). https://www.artsy.net/show/protocinema-liu-chuang-bitcoin-mining-and-field-recordings-of-ethnic-minorities

[2] https://www.google.com/about/datacenters/locations/

[3] Natick project, in which Microsoft tested the effectivity of a nitrogen sealed data center, submerged in the cold water of Scottish seashores. It achieved a failure rate 8 times lower than in its on-land datacenters. https://news.microsoft.com/innovation-stories/project-natick-underwater-datacenter/

[4] Incident that occurred in a Facebook Datacenter in Prineville, Oregon. Given the implementation of a refrigeration system (chiller-less) that takes outside air, and thus breaks with the traditional hermetism of previous data centers, in 2011 a accidental feedback loop between the hot and low humidity air coming from the rows of computational exhaust, that collided with a refrigeration system based on water vapor. The resulting hot and humid air was condensed in the cold rows of the data center, thus "forming a cloud that rained inside the cloud". Everest Pipkin, *It was raining in the datacenter.* (2018). https://medium.com/s/story/it-was-raining-in-the-data-center-9e1525c37cc3

[5] Taken from Everest Pipkin, *It was raining in the datacenter.* (2018). https://medium.com/s/story/it-was-raining-in-the-data-center-9e1525c37cc3

The internet does not only activate the territory and is reliant upon it in terms of energy production, but its very materiality is dependent on it. The mineral extraction and distribution located across several latitudes connects the history that each of the geological layers tells through media. Computers are a series of minerals complexly ordered that re-territorialize the geophysical strata of earth, that narrate and map out the history of compression and modification of the earth's crust that make possible any type of media in the first place[6]. The information that is consigned in hard drives depends on the magnetic properties of silicon, quartz, germanium, and other components that store bits as magnetic polarities. The internet is "matter that calculates the rest of the matter"[7]. It may seem weird to some to consider inert matter as a decisive part of intermedia, for that we may be obliged to recede our privileged position at the center of technological discourse as the masterminds, and acknowledge this "passive" co-author as one that imprints meaning. We may consider as well, that our contemporary sense of awareness of the imbalance that human-centered technological activity has brought is a direct consequence of a planet alchemized as technology that becomes aware of such state of things. Are precisely those layers of material that is removed and reconfigured as technology that allows us to see, quantify and dimension the levels of erosion and degradation that the development of the technosphere itself has caused[8], a planet that can feel and measure itself just as that sensing layer is a product of its own cannibalization.

If, as in *systems representing themselves,* we are willing to abolish the division that we have erected between nature and culture, and we acknowledge the human being as a biotic layer that mediates new levels of planetary complexity in the shape of technology, we are then faced with a scenario in which the territory ceases to be a mere passive surface upon which us humans impose our desires. Having into account the territory, as well as the networks of living species upon it (whom are extensions of the territory itself), we can read the internet as layers upon layers of territorial history sedimentation. The ecological carrying capacity limit and model population concentration; mineral deposits, the vegetation that relates with it, and the subsequent biosphere that therein emerges, all

---

[6] Jussi Parika argues that the "medianess" of media start before it is transformed into media devices, it starts in the capacity of their composing materials to mediate energy, pulsations and magnetisms between each other.

[7] Nicholas Gane and Stephen Sale, "Interview with Friedrich Kittler and Mark Hansen," Theory, Culture, and Society 24 (2007): 323–329.

[8] Several authors argue that some of the proofs of a planetarity, or the notion of earth as a living entity or *Gaia,* is manifested in the global resonances in the ionosphere cavity (Blikoh, Nikolaenko, Filipov), or the high concentration of unlikely molecular assemblages due to the universal tendency to entropy – or disorder – (Lovelock).

have an articulating vein. Resource exploitation and economic demands configure networks for commerce and communication. The traces left by telegraph infrastructure, later redrawn by telephone lines[9], and lastly by optic fiber cables, juxtapose to the history of colonization and development. Collective illusions such as quarter profit gains, and the Apple keynote product launch resonates in accelerated coltan mining in Venezuela[10]. Datacenters locate in an optimal distribution of square meter price, energy infrastructure, Netflix streaming speeds and League of Legends latency. An air stream propels the electric grid, turning someone into a fleeting bitcoin millionaire. The comparison of these dissimilar elements does not imply a collapse of all categories into the same, and that in front of the internet no taxonomy matters anymore. Rather, is meant to illustrate that with this network of networks, territories cease to work as neighborhoods, nations or tectonic plaques: the illusion of division disappears and we are faced with territories that interact in disparate locations and manners, not only through optic fiber but also through extraction paces and Amazon orders. This network reveals the multilevel explosion of the territory and its accelerated reconfiguration, how it finds itself everywhere and nowhere at once.

Humans, nevertheless, have direct interference in the configuration of networks and territories by means of categories of their own making. Despite an informatic network that is geographically distributed and simultaneously interacting, its instances as physical location relates it with legal frameworks and national sovereignties that apply to the nation-states it finds itself within.

It may seem natural nowadays to be a citizen of a state, to be attached to one of these contemporary "tribes" that controls certain territory, despite the fact that this condition was not homogenous across history. Its beginning may be traced back to the Peace of Westfalia in 1648[11], where originates

---

[9] The telegraph was the first infrastructure Project that laid cables around the world. Posterior communication technologies, such as the telephone and the internet, followed similar routes. Likewise, historically wealthier nations have beenconsequentially better connected. https://reconnectingasia.csis.org/analysis/entries/telegraph-dramatically-reshaped-20th-century/ https://images.computerhistory.org/revonline/images/500004765-03-01.jpg?w=600 https://www.submarinecablemap.com/

[10] *Coltan, la piste sud-américaine,* Pascale Mariani et Juan Orozco – ARTE GEIE / Woow Your Life – France 2013. https://vimeo.com/76402779

[11] Peace of Westphalia is the collective name for two peace treaties signed in October 1648 in the Westphalian cities of Osnabrück and Münster. They ended the Thirty Years' War and brought peace to the Holy Roman Empire, closing a calamitous

the sovereignty principle that a nation state has upon its territory, encircled by a border, and the right it has to the non-interference of foreign states within that space[12]. It is from there that a commonly accepted fiction articulates, in which a governmental entity has control over the physical and liquid materiality contained by that invisible border. Given the consolidation, and later popularization of the nation-state as the dominant form of social and political organization, the effects of a sovereignty originally linked with the surface of the territory promptly expanded to the volume that is to be found in the commercial airspace, electromagnetic waves, geological strata and underground mineral reserves. Nevertheless, this spatial management model becomes fuzzy at the time to map the sovereignty of the web. Are both the bauxite and the connection protocol subject to sovereignty claims? The server, the cable, as well as the pulse of light it carries? The electromagnetic spectrum as well as the frequency it oscillates in? What type of territory is to be claimed?[13] Traditionally accepted borders were seen by citizens as necessary for the safety and identity of the nation[14], yet now are been overwhelmed by a gray area that the digital realm implies. Or, on the contrary, the national border expands and consolidates both in the physical infrastructure (hardware), as well as in the virtual information that is accessible or not[15].

How does this conflict manifests, or how does these gray areas between information and territory express in China and Colombia? To what degree can our cosmologies and their conception regarding the citizen affect the sovereignty on the web, and thus the information are we able to access?

Chinese revolution on the territory and data-sovereignty model

---

period of European history that killed approximately eight million people. Clodfelter, Michael (2017). *Warfare and Armed Conflicts: A Statistical Encyclopedia of Casualty and Other Figures, 1492–2015.* McFarland. p. 40

[12] W.Brown, *Walled states waning sovereignty,* Zone Books, New York, 2010.

[13] B.H. Bratton, *The Stack: On Software Sovereignty,* MIT Press, 2015. p.49

[14] "Historically, citizens accepted borders as a security-enhancing necessity against external uncertainties undermining internally accepted rules of interaction. Without such limits, the collective sense of belonging is more easily undermined, as are the rules of civil behavior." Demchak, C. C., & Dombrowski, P. (2011). Rise of a Cybered Westphalian Age. *Strategic Studies Quarterly*, p.42.

[15] "The slow development of a Westphalian-style accord parsing cybered sovereignty has every chance to proceed and eventually succeed. There are few natural dampeners to a neo-Westphalian process in the digital era. A cybered national border is technologically possible, psychologically comfortable, and systemically and politically manageable" Demchak, C. C., & Dombrowski, P. (2011). Rise of a Cybered Westphalian Age. *Strategic Studies Quarterly,* p.42.

Is popularly known the fact that the Chinese internet is highly regulated, yet is crucial to reconstruct the aspects that lead this nation to exert such an astringent authority upon its digital border. The westphalian correlation between state and physical territory was introduced to China with the Kuomintang republican movement in the 1920's, and deepened with the Communist Party take over in 1949[16]. Before this, in the imperial system that functioned for most dynastic history – and that was brought to an end in the Qing dynasty in 1912 – the emperor's sovereignty applied to the commercial and human activity contained within the territory, yet it could not fit in their cosmology that this sovereignty applied to the territory itself. Instead, tribute and vassalage relationships were established with the several clans and small nations that made up the empire, and taxation collected from economic output as product of material refinement instead of intensive exploitation[17] [18]. In said model, the emperor may even be subject to pay tribute to certain zones in exchange of economic control or strategic access[19], and there may also exist zones where sovereign control was exerted by two empires simultaneously[20], allowing said region to enjoy the benefit of having access

[16] P.Duara, *The Legacy of Empires and Nations in East Asia,* in P.Nyiri, J. Breidenbach, *China Inside Out: Contemporary Chinese Nationalism and Transnationalism,* C.E.U Press, 2005. P. 44 & 84 https://books.openedition.org/ceup/1227?lang=en

[17] Traditional chinese industries such as paper, silk, or porcelain; were comercial activities predicated in the transformation of renewable and abundant raw materials, as well as promoted by the emperor. "Rather than forcing submission of either subjects or the land, the emperor was presented as fostering and cultivating natural inclinations". A" J. Tersch, *Cosmic Terrains (of the Sun King, Son of Heaven, and Sovereign of the Seas),* En (Guinard et al., 2020).

[18] This doesn't imply an absolute absene of ecological degradation. Deforestation was a common consequence of state pressure to achieve military supremacy against surrounding kingdoms. M. Elvin, *Three thousand years of unsustainable development, China's environment from archaic to present,* 1993. Likewise, China has some of the most ancient mines of Jade, Copper and Gold. Nevertheless, mining techniques were primarily manual, and gold extraction particularly was limited due to their acquisition by means of commerce with western economies. Zhang, Pian, Santosh, & Zhang, *The history and economics of gold mining in China,* 2015

[19] "This allowed the little principalities in what we now call Xinjiang affect independence right into the mid-19th century, despite becoming actively colonized by the Chinese in the 18th century. In some cases, they did not send tribute to the Chinese emperor but asked the emperor to send tribute to them. This kind of situation depended very much on both the power politics of the moment and on the idea of mutual encompassment". P.Duara, *The Legacy of Empires and Nations in East Asia,* in P.Nyiri, J. Breidenbach, *China Inside Out: Contemporary Chinese Nationalism and Transnationalism,* C.E.U Press, 2005, p.24

[20] "One of the most interesting examples of the tribute system is the Ryūkyū Islands, today's Okinawa. They were very interested in giving tribute. Tribute is, after all, exchange, it is another form of encompassment. You get rights, when you pay tribute, to have certain trade. Okinawa was a very important point in the Pacific trade of exchange of goods from Japan, Southeast Asia, and the Chinese mainland. By the early 19th century, the most important political authority for the Liuqiu Islands (that's the Chinese spelling) was Japan. That's where they paid most of their tribute, and that's where it was

to both markets. Despite the fact that imperial China undertook transformations of the territory and its resources on a large scale (such as the Grand Canal[21]), these may be understood more in a sense of advantageous alteration or strategic repurposement[22], the fostering and redirection of natural tendencies rather than dominion or control upon it. Human artifice and natural inclinations of earth and water become almost imperceptible. The difference between human artifice and natural inclinations of land and water are almost imperceptible [23].

Nowadays the situation is starkly different, and China may as well represent the most salient example of westphalian state, exemplified in the so-called Sino-Google war of 2009[24]. It consisted on the prohibition of Google's operation in China, given concerns of national security by Chinese account, and on Google's behalf, its reticence to share corporate and user data. This conflict between two superpowers exemplifies two different logics of territorial control. On one hand, the understanding of the internet and the web as an extension of the body of the state, as well as subject to its sovereignty; and on the other, the understanding of those networks as autonomous and independent from state entities (although private and subject to monetization), belonging to a transnational corporate group that begin to take on the roles of the nation state by itself. This self-investment of state faculties is not an exaggeration, and is reaffirmed by the behavior of all major

---

determined who would be their rulers. Nonetheless, they continued to pay tribute to China for a long time. They acknowledged two masters in order to gain economic advantage". Idem, p.32

[21] China's Grand Canal is a system of waterways that connects the 5 major wáter basins in the country. Its primary stretch was built in 700 D.C, and by the 13th century it already had 2000 km of artificial waterways. Is still being used to this day.

[22] Here we refer to the term *Shi* (势) explored by François Jullien. This word refers to "the kind of potential that originates not in human initiative but instead results from the very disposition of things:'· · Shi is the style, energy, propensity, trajectory, or elan inherent to a specific arrangement of things. Originally a word used in military strategy, shi emerged in the description of a good general who must be able to read and then ride the shi of a configuration of moods. winds, historical trends, and armaments: shi names the dynamic force emanating from a spatio-temporal configuration rather than from any particular element within it". With this concept in mind, we may be able to think of the transformation and building of waterways as taking advantage of a territorial *shi*. Quotes from F. Jullien, *The Propensity of Things: Toward a History of Efficacy in China*, Zone Books, 1995., and J.Bennet, *Vibrant Matter: A Political Ecology of Things*, Duke University Press, 2010.

[23] J. Tresch, *Cosmic Terrains (of the Sun King, Son of Heaven, and the Sovereign of the Seas)*, en B. Latour et al., *You and I don´t live in the same planet*, e-flux, 2020.

[24] B.H. Bratton, *The Stack: On Software Sovereignty,* MIT Press, 2015. p. 176.

tech platforms, such as the validation of IDs or currency issuance[25]. It is under this frame of reference that several territorial entities – such as the European Union, the United States, Turkey, Egypt, or Turkmenistan – begin to stablish legal frameworks that limit said expansion, and consolidate regulation or a de facto control over the content of the web. It is also in this context that Google contemplates the creation of data centers hosted in cargo ships, floating in international waters, thus effectively operating outside any national legislative regime[26].

The solidification of a model with such a degree of state involvement in the cyberspace is hard to narrow down to specific factors. On one hand, it may be traced back to the fact that the deployment of the internet's physical infrastructure being developed and owned by the state[27], and the fact that all the main telecom companies are state owned[28] to this day. In that sense, even though services and applications may be developed by private companies such as Tencent or Alibaba, the cables and antennas through which their information is transmitted is mostly national property. On the other hand, since ancient China the state has played a central role in the production, preservation and spread of knowledge, that may repercuss in the notion of the citizen (and information) as an extension of state sovereignty. Since Song (宋) Dynasty times (906–1279), the imperial examination system[29] for public servants served the function of standardization of disciplines of knowledge, and

---

[25] In this case we refer to the apprehension with which Apple grants Access to its service "ecosystem", and the recent audiences faced by Facebook in front of the US congress regarding the emission of *Libra,* a cryptocurrency issued and backed by a consortium of companies, yet created by Facebook itself, and backed by liquid reserves of several global currencies. The project was cancelled due to governmental pressure and lack of support by third parties. https://decrypt.co/25892/facebook-libra-was-always-destined-to-fail

[26] Metahaven, *Captives of the Cloud, Part III: All tomorrow's clouds*, inT *The Internet Doesn't Exist*, e-flux journal, Stenberg Press, 2015.

[27] The first developments of a data transfer network that connected China with the outside world were spearheaded by universities (state owned) and financed by different governmental agents. From *History of the Development of Internet in China* (中国互联网发展史), Chinese Internet Society, https://www.isc.org.cn/ihf/info.php?cid=218

[28] China Mobile (中国移动), China Unicom (中国联通) and China Telecom (中国电信) are the main telecom providers, all state owned (fully or partially).

[29] This examination system (ke ju 科举) was used since the the 11th century until 1910 to select candidates to serve as state bureaucrats. Given the exam difficulty (around 99% failed it, and around 2 to 3 million people took it every year) it required intense study in the disciplines that gave certain cohesion to such a vast territory, such as classics in philosophy and literature, calligraphy, mathematics or archery. Given the benefits that public servants enjoyed, many people devoted their lives to be selected. On one hand, the exams provided a possibility for social mobility based on meritocracy, but on the other, the exam ended up being an end on itself, fostering the memorization of traditional knowledge that hindered change. It also

ensured the participation of people from all regions in imperial positions. These exams were strongly based in *Confucian* classics, which emphasized on moral behavior (*de* 德) and care towards rites (*li* 礼) as means to achieve being a noble person (*jun zi* 君子), and thus earn and maintain the *mandate of heaven* (*tian ming* 天命). The *mandate of heaven* is the divine will[30] in nature and social structure, and unlike the west where the mandate fell upon the king and his descendants, this mandate was not automatically given, and it was supposed to be earned by emperor and his servants by proper conduct[31]. This triple relationship between cosmos, public service and knowledge of the classics may cement a pre-digital link between state, information and citizens, all validated by the cosmos.

In the contemporary stage, China has created a legal framework and structure that clearly manifests its intentions in the cyberspace. One of the aspects that renders it more explicit is the cybersecurity law of 2016, where governance, security, standardization and sovereignty over the digital space is promoted[32]. In said law, one of the most telling articles is the one forcing any company that operates in China to store any sensible information within national borders. This model is meant to stack all territorial and informatic layers one atop another, with the territory as a base and the state as a blanket.

Another of the tools used to such ends, and adopted since 1998, is the well-known "Chinese Great Firewall", or the filter that restricts the access to non-authorized content by the Communist Party.

---

resulted in an overabundance of bureaucrats (1 licensed servant per each 1000 people). From *The civil examination System in Late Imperial China, 1400-1900,* Benjamin A. Elman, in *Frontiers of History in China,* 2013, Volume 8.

[30] Heaven had the faculty to entrust a representative on earth with its *mandate*. Fulfilling the rites was crucial to retain this mandate, and thus for preserving harmony between heaven, the human realm, and earth. Leaders who desecrated the rites ended up losing the mandate, and being replaced by a new leader. The mandate may also be understood in terms of *natural development of things*. This is reflected in the Confucian teaching regarding speech as unnecessary: What does Heaven ever say? Yet the four seasons go round and find their impetus there, and the myriad creatures are born from it.". E. Slingerland, *Confucian Analects,* Hackett Publishing Company, 2003, p. xviii-xxi.

[31] Although rites are plentiful and complex, the most important one is "one filial duties toward one's parents". Filial piety (xiao 孝) is a core concept in Confucianism, and this respect towards one's parents was understood to be extended towards one's administrative superiors, all the way to the emperor. Some may trace back to this concept the conservatism and obedience characteristic of classical Chinese thought.

[32] Four fundamental rights compose digital sovereignty: "Independence, equality, self-defense, and jurisdiction" (独立权，平等权，自卫权，管辖权). In https://www.chinaz.com/news/2011/1115/220294.shtml

This firewall is in practice a series of blocking and re-routing strategies[33] that are applied at the gateways of Chinese internet (as in any border checkpoint), as well as a series of laws regarding the content that is not allowed in national servers. Its implementation does not mean an unassailable fence, as it is very common to "jump the wall" (fan qiang 翻墙) to access information and western social media through the use of VPNs[34]. The effectivity of these tools fluctuates according to different times of the year[35], and they work with the non-entirely-explicit consent on behalf of the same party that enforces it. In practice, the firewall works as a "convenience belt", making slightly more uncomfortable the use of certain foreign platforms (as in longer loading times or discontinuous service), thus favoring the locally authored and operated platforms. As mentioned in *digital societies,* the preference for local software on behalf of the users, and the configuration of a technological island, is not merely by state coercion, but rather is due to the fact that the local network has adapted and specialized its design based on local needs, responding to characteristics in terms of language and ideology.

Fang BingXing, one of the architects of the firewall, argues that the neutrality or internationalism of Google is no more than relative, naturalized by our adoption of it. In practice, this dependency may represent a big affront to the national economy and security in case of an interruption or an attack[36]. We live under the appearance of independence, even as the DNS (Domain Name System) is controlled (in)directly by the United States. In his opinion, these types of systems should operate under organizations such as the United Nations, thus ensuring a truly fair and global network, in which each country's networks are equal, and guaranteeing that they do not pose a threat for each other[37]. BingXing also proposes one of the most symbolically telling encounters between territory

---

[33] The techniques are: DNS Poisoning (changing the IP associated with the queried page when contacting DNS servers), IP blocking, URL filtering, data packet inspection and filtering, connection reset, and VPN blocking. https://www.howtogeek.com/162092/htg-explains-how-the-great-firewall-of-china-works/

[34] VPN or Virtual Private Network is a service that allows to connect to the web through a proxy IP address. Is the equivalent of renting a computer that browses instead of you, and then requesting the results from that computer.

[35] There may be flaws with VPN services during important events, such as the annual Communist Party Conference, or during local political events. There are also partnerships between companies and the government that allow for VPN use with greater ease, of connections that directly bypass the firewall.

[36] As shown by the 2-hour blackout of Google Services on December 14 of 2020, in which Google calendars, meet, Gmail, YouTube, and even the doors of Smart homes ceased to work. https://www.theguardian.com/technology/2020/dec/14/google-suffers-worldwide-outage-with-gmail-youtube-and-other-services-down

[37] https://www.chinaz.com/news/2011/1115/220294_2.shtml

and information. In his opinion, the dependency on foreign entities for information exchange "It's like the relationship between riverbed and water. Water has no nationality, but riverbeds are sovereign territories, we cannot allow polluted water from other nation-states to enter our country"[38].

Colombia: Sovereignty, dominion and outsourcing

In the case of Colombia, the configuration of a nation centered around the westfalian notions of control and sovereignty are connatural to the project of establishing the country itself. As the Colombian nation was founded upon a colonial narrative, is central to the neogranadinian[39] cosmology the fixation and enforcement of borders. The Antioquia colonization, the project for *Reduction of Savages* proposed by Rafael Uribe Uribe[40], and the general expansion of urban cores across the country, occurred all thanks to the premise of a vast national territory described by lines drawn in maps, and which was mostly occupied by indigenous populations that did not "exploit" those lands, thus hindering the consolidation and growth of a "civilized" nation[41]. During this period, land was celebrated because of its dominion, instead of its productivity. Likewise, a big part of the economy of the young Colombian republic was a continuation of the neogranadinian one: mining as its backbone, and agricultural expansion as model for territorial organization.

The development of the internet's infrastructure was thus fostered by an analogous technological determinism, by considering it as a highway through which modern ideals would finally bring the development so long pursued since the republican period. The birth of those first national information exchange lines were spearheaded by universities (most of them private), institutions

---

[38] 我们知道国际上面有一个概念是河床与河水的概念，水是没有主权的概念了，物理社会中国家对河床拥有主权，尽管河水来自上游国家，但上游国家不能输出被污染的河水

[39] Neogranadinian refers to the period before Colombia achieved independence from Spain, as in that time it was called "New Granada"

[40] Proposal made by Rafael Uribe Uribe to the president in 1907, to "call to civilization" the indigenous population through means of teaching them Spanish and taking advantage of their workforce to turn into "productive" land the then 2/3 of a nation under their control (the plan was meant to be carried along with military intimidation). R. Uribe Uribe, Reducción de Salvajes, Bogotá: El Trabajo, 1907

[41] At the time, the geographer F.J. Vergara y Velasco commented: "if there is any necessary enterprise nowadays is, undoubtedly, the one of containing the *goagiro* indians and reducing the *motilones*, who deprive the civilized peoples of the wealthy lands they do not exploit". *Nueva Geografía de Colombia*, p.883, en R. Uribe Uribe, Reducción de Salvajes, Bogotá: El Trabajo, 1907

that had he knowledge and interest to implement them; and alongside governmental financial and technical support, which was guided by ideals of progress that an expanded communication and a shortening of physical distance would bring.[42]This project of national modernization would continue but at the expense of the sovereignty of the physical network, as it was also during the 90's decade that market liberalization progressively conceded private participation in the field of telecommunications. It was after the public sector invested and consolidated the first stage of market offer by expanding coverage through *Telecom*, that was then sold to foreign economic groups that expanded from that initial investment and dissipation of initial risk[43]. This first unprofitable expansion allowed for more families to buy their own computers, as they could connect online. This bonanza of added value was not created by market regulation, but rather because of the explicit interest of a nation-building project centered around connectivity. From that moment on, the tendency to license out the territory and magnetic spectrum is consolidated, as well as to delegate the building and implementation of the network to private companies[44]. Even if this trend may be justified under market competitivity and self-regulation, as well as the effectivity of the private sector to foster modernization, it does relegate the sovereignty of the state upon its physical and informatic infrastructure by limiting the aspects upon which it has direct agency.

This historic trajectory leaves as consequence a network that has a multiplicity of juxtaposed sovereignties. At the level of physical infrastructure, the first optical fiber cables became property of a Spanish conglomerate, and the ones being installed right now are owned and operated by a

---

[42] The first operative network was between the Andes University, EAFIT University and UniValle, named CETCOL, created in 1992. Coldapaq is the first internet *backbone*, created in 1993 by *Telecom*, the main state telephone company. Colombia connects to the internet in 1994 through the satellite network IMPSAT, operated by Uniandes. This adoption process is slow due to the low rate of adoption of personal computers at the time, just 3,4 per each 100 people at the end of the 90's decade, at a time when US rates were already around 50%. C. Tamayo et al., *Génesis del campo de Internet en Colombia: elaboración estatal de las relaciones informacionales*, Documentos de Investigación, 2008. p. 237-264.

[43] In April of 2006 Telefónica purchases 50% plus one of Telecom shares. C. Tamayo et al., *Génesis del campo de Internet en Colombia: elaboración estatal de las relaciones informacionales*, Documentos de Investigación, 2008. p.259

[44] Under the law No.152 of 2018, or regarding the "modernization of the IT sector", the electromagnetic spectrum are auctioned by regions, stablishing incentives so that the same telecom providers who invest in the deployment of the infrastructure. Nevertheless, as a consequence 34.9% of the territory does not present companies with a commercial breaking point, and thus does not participate in the infrastructure expansion. http://leyes.senado.gov.co/proyectos/images/documentos/Textos%20Radicados/proyectos%20de%20ley/2018%20-%202019/PL%20152-18%20Modernizaci%C3%B3n%20Sector%20TIC.pdf https://razonpublica.com/la-subasta-del-espectro-radioelectrico-medio-pais-sin-conexion/

Mexican one[45]. Likewise, the connectivity with the global network is only possible as the national network is connected with the American one, as is in that country that the first connection nodes were developed, and thus cemented itself as a central node in the global network. This is why from all 8 submarine cables that connect Colombia's internet to the world, 6 of them have as final nodes the states of Florida or California[46]. Due to this design, is likely that any communication originating from here has a mandatory stop at the U.S.. It is at the entry gates of the American internet that surveillance and anti-terrorism laws are enforced on said data[47]. Regarding the communication service providers (such as Google or Apple), the jurisdiction of corporate rules, as well as American law, is likewise applied to the data as it is located in their servers, as most of these services are US based. Besides *Amazon Web Services* and *Google,* there is no other tech giant that owns datacenters within Colombian national borders[48]. This implies that when using any online platform, from Spotify to Instagram, said information travels and is processed in American servers (passing by the border checkpoint, again), or is processed by servers located in freeports inside national territory. These servers find themselves in territorial anomalies of their own, as freeports offer the companies that operate there, as well as the information they host, a series of legal and tributary benefits that do not apply in the rest of the national territory[49]. By just hosting one of our documents in the cloud, it may be subject to be physically relocated to a different server, or processed by artificial intelligence, being subject to several legal regimes that apply to the physical layer, connection protocol, application, and their respective intellectual property rights.

---

[45] Telefónica and Claro respectively. The recently installed cable references AMX-1, finished in 2015, owned and operated by Claro.

[46] The only cables that do not connect with the USA are the SAC, between south american countries, and PAN-AM, between the British Islands, Panama and Chile. https://submarine-cable-map-2019.telegeography.com/

[47] Namely, the section 702 of FISA (Foreign Intelligence Surveillance Act), which authorizes the collection, use and disemination of information stored by american service providers (such as Google or Facebook), or that travels across national networks of telecom providers (AT&T o Verizon). https://cdt.org/wp-content/uploads/2017/02/Section-702.pdf

[48] Google does not have a data center as such in Colombian territory, but rather an *Edge Point of Presence,* "which bring data closer to high traffic areas" and "connect Google's network to the rest of the internet via peering". Sources: https://www.infrastructure.aws/ , https://parametric.press/issue-02/streaming/ , https://peering.google.com/#/infrastructure .

[49] Benefits such as 20% Income tax, and 0% VAT for foreign and national goods. https://zonafrancabogota.com/regimen-zonas-francas/

Even though there are certain regulations regarding management of personal data[50], the Colombian legal framework for information is limited in contemplating the multiple dimensions of ownership and sovereignty that add on top of it by just existing, and it has few tools to enforce its decisions. Although, this may seem little relevant at this point. We are not advocating here for full government oversight, or absolute liberalism. Is clear that Colombia is a mixed model, where digital citizenship is no longer circumscribed by national borders, but is one that inhabits multiple ideological and territorial exclaves. The Colombian internet, as well as that in other parts of the world, belongs to what has been called *cloud feudalism*, a model that concentrates in few companies the value generated by users that collaborate with their free-to-use platforms[51]. Is worth mentioning that this model is not inherently good or bad, but it is crucial to identify it as one of several possible coexisting models[52], that have arisen on a global scale after the revelations made by E. Snowden in 2013[53].

The importance of identifying which model do each of the networks that compose the internet is necessary as means to trace the ideologies regarding the territory and digital citizenship that each of them imply. These ideologies are, after all, those who guide and model the information that is visible in our screens. According to Julian Assange, there are three types of information: the technical-technologial knowledge, historic-intellectual registry, and the information that is kept out of sight[54]. There are systems in charge of financing, promoting and maintaining each type of information, the same type of systems that keep some information hidden. To exemplify the way in which this takes

---

[50] It legislates against the recollection, publication or use of personal information of users without consent, and the obligation to delete or modify the information according to the will of users. It also says to apply in foreign territories "according to international cooperation treaties". The question remains regarding the effectiveness of said law upon others, or if it can be skipped with a brief clause in the "terms of use" of any app.
https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=49981

[51] Term coined by Benjamin Bratton, that can be understood as "a particular distribution of power between central and commanding platform servers and quasi-autonomous, if relatively powerless, network clients as applied to human economic geography". B. Braton, *The Stack: On Software Sovereignty*, MIT Press, 2015.p.480

[52] Going no further, with the canges on Facebook privacy policies on February 2021, certain features stopped working when texting someone inside the European Union, such as replying a message on Instagram Messenger. This is due to stricter privacy laws in the UE.

[53] E. Snowden published the scope and depth to which the National Security Agency of the US conducted surveillance and massive data collection, inside the country and abroad.
https://www.theguardian.com/world/2013/dec/17/edward-snowden-letter-brazilian-people

[54] Hans Ulrich Obrist in conversation with Julian Assange, in *The Internet Doesn't Exist,* e-flux journal, Stenberg Press, 2015

place nowadays, Assange mentions the story of the great Soviet Encyclopedia, that in 1953 sent to all of their subscribers a full-page appendix on the Bering strait. This page was meant to be pasted atop the description of Lavrentiy Beria, Chief of the Stalin Secret Police. This was an attempt to rewrite history in a public document after a government change of heart on an individual. Such an implausible attempt to erase information in the times of printed media, occurs on a daily basis under our unsuspecting eyes, as full websites disappear, are rewritten, or un-indexed at will. Nevertheless, is no longer the state the only agent interfering in what type of information is kept out of sight: economic interests, powerful minorities with political interest, ideological groups, networks with different territorialities and cosmologies; are all entities vying to decide what is available, how is it supposed to be interacted with, and how users perceive those parts of the web that are remote to their own.