Abstract:
The informational technology revolution is unsettling our social, political and economic orders and re-shaping them in ways that are in tension with democratic self-governance and the notion of free markets. Big Tech companies are surveilling and shaping the lives of billions around the globe without being held accountable to the people affected by them. In in this paper, I will call attention to emergent forms of digital sovereignty in the hands of private entities. The major focus of this paper will be monetary sovereignty, but I use this example to draw general implications for statehood in the digital age.
Introduction

For close to 400 years, the notion of statehood has been shaped by the Westphalian model. After the devastating Thirty Years’ War, the Westphalian Treaties of 1648 established a set of ground rules about territorial sovereignty, or so the story goes. In fact, our understanding of territorially rooted national sovereignty owes more to international law scholars of the nineteenth and twentieth century than to the texts of the treaties of Osnabrück and Münster (Osiander, 2001). Closer examination of the historical context suggests, that power relations in Europe remained multi-layered and complex in 1648 and that the principle of territorial bounded sovereignty emerged only over time. A multi-layered system in which a variety of power wielders asserted differential rights from which ultimately a new order emerges is a good starting point for rethinking statehood in the digital age. Here too can we observe the co-existence of different power wielders, public and state, legacy and digital, each seeking to assert dominance, and from which a new order might arise. Whether it will indeed arise and how it might look, we cannot say for sure. All we can do is to take the indicators that are already visible and extrapolate from them. This paper is an attempt to do just that. I hope I am wrong about the nature of this new order, but I am also convinced that without indicating the contours of this emergent order, we might miss an opportunity to counter its tendencies, and, as a result, might get locked into a system from which escape will be increasingly difficult.

Briefly stated, statehood in the digital age will be based on data, not territory; on complete surveillance of individual behavior and social relations both for monetary gain and political control. Controlling vast amounts of data extracted from the behavior of billions of people will empower power wielders to determine, whether and on what conditions someone may access public or private services and goods. The increasing dependence on digital platforms
for communication and the provisioning of even the most basic goods and services in combination with sensor-based surveillance of off-line behavior will diminish the space for accessing resources off-line. In this world, we may still vote for representatives in parliament or the directors of corporations. These familiar forms of governance are likely to continue to exist, but they will be increasingly repurposed for data governance. The large territorial footprint of data farms and their equally large demand for energy makes them dependent on territory and physical control. The only question is whether this dependence can be exploited for accountability, or whether this mutual dependence will create an alliance of legacy states and Big Tech with little scope for individuals to resist and claim individual freedom and employ the mechanisms of checks and balances to protect it.

To some this may sound dystopian. However, a growing number of books has already documented critical aspects of this new form of social ordering, which I will call digital statehood. Ed Snowden’s revelations in 2013 of the US government’s foray into data surveillance domestically and internationally together with his more recent auto-biography show how the logic of data governance paired with national security objectives is transforming governance in the oldest democracy (Poitras, 2014; Snowden, 2019). Nick Couldry and Ulises Mejías have compared the rise of digital governance with colonialism (Couldry & Mejías, 2019). Frank Pasquale (2015) and Shoshana Zuboff (2019) have unpacked the world of digital commerce and surveillance capitalism, and Julie Cohen has offered a comprehensive account of the many ways in which data governance is changing both public and private governance (Cohen, 2019). The goal of this paper is not to summarize these books. Instead, I hope to complement their stories about the rise of digital governance by focusing on the struggle over monetary sovereignty. Given the critical importance of global money and global payment
systems, the emergence of new forms of money and their governance structure will profoundly shape the statehood to come.

Monetary sovereignty is treated as a step child of state sovereignty in much of the literature (Zimmermann, 2013). Yet, the rise of nation states in the aftermath of the Westphalian treaties owes much to the ability of states to create and govern their own money and subordinate it private means of exchange, such as notes, bills of exchange, deposits and their likes (Desan, 2015; Samuel Knafo, 2008). State-issued money, or legal tender is the means of final settlement, including payment of obligations that are owed to the state, such as taxes. Critically, state money is also the only form of fiat money to date that will retain its nominal, though not necessarily, its real value (Ricks, 2016). Whereas in earlier times, states used gold or silver to back the fiat money that authorized banks could issue (S. Knafo, 2006), the US dollar broke the peg to gold in 1971. Since then, most major currencies are backed not by commodities, but by the states that issue them (Eichengreen, 2008). In effect, states commit to harness the future productivity of their economies to stand in for their fiat currencies. The credibility of this commitment hinges on at least two factors: The expected performance of the economy and the ability of the state to mobilize, if necessary, its coercive powers to extract taxes and other revenues to cover their expenses without creating excessive inflation and thereby endangering the real value of their currencies. In the last instance, the credibility of state money thus depends on the state’s control over the means of coercion; conversely, the monopolization of the means of coercion has helped secure states a monopoly over the issuance of legal tender (Kapadia, 2013).

The rise of digital governance offers an alternative to state money: digital money that is backed not by the powers of coercion, but by control over data. There is no blueprint for this yet, but there is a proposal on the table for a digital currency with global reach that is issued not by
states or their central banks, but by a private entity, which in turn counts one of the largest Big Tech companies as its founding member.

**The Libra**

In June 2019, Facebook, the company that hosts one of the biggest social media platforms, announced its plan to launch the Libra, a new digital currency with global reach. Originally, the end of 2020 was set as the launch date. Since then, massive push back by regulators and legislatures in the US, Europe and India as well as defections by some of the prospective founding members of the Libra Association have cast doubts on the feasibility of this deadline, perhaps even on the entire project.

Perhaps the Libra itself won’t ever be launched, but the specter of a private global digital currency is looming. Bitcoin led the way, but its allure has been fading. Ripple/XRP, a crypto-currency that was developed by a club of legacy financial intermediaries is trying to make a case as a viable peer-to-peer digital currency for the members of this consortium. More important than the currencies (Bitcoins, XRP or the Libra) will be controlling the global digital infrastructure that could be used for different currencies issued by public or private entities. Indeed, the “Libra Whitepaper” states that “[t]he world truly needs a reliable digital currency and infrastructure that together can deliver on the promise of “the internet of money”.” Facebook, the company behind the Libra, may therefore choose the sacrifice the Libra on the altar of the public backlash, and focus on the infrastructure instead. Building and controlling this

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4 For details, see [https://ripple.com/xrp/](https://ripple.com/xrp/)
infrastructure has close parallels to the early state building projects: the building of canals, roads, railroads, the telegraph, the telephone, and last but not least the fiberglass cables for the digital age. There is a reason that China’s Belt and Road Action plan of 2015, also labeled the “new silk road”, incorporates a vast digital infrastructure and why the spread of this ultra-fast 5G network is viewed as a threat in the US (Crawford, 2018).

Facebook is a private corporation and as such owes its existence to state law. Its relations with customers are wrapped in contract law and the company carefully guards its assets, most importantly among them, its users’ data, with the help of trade secrecy law and other forms of state help. Facebook’s reliance on state law, however, does not mean that it is as dependent on states and their laws as companies and capital assets that predate the digital age have been (Pistor, 2019). The reason is that the digital code affords companies that operate in this space alternative strategies for coding their relations with others and protecting their own interests. Facebook’s operations hardly rely on contracts and their enforceability, because the company can easily exclude users who do not accept its conditions and impose its own rules on its users without the help of state courts. As Lessig put it, “code is law” (Lessig, 2006).

More importantly, like other tech companies, Facebook is not just offering digital services to its customers; the company has turned their customers, or rather the data they constantly produce, into its most important income stream. Data has been termed “the new oil”, but this analogy falls short. Oil, after all, is finite and cannot be turned into a governance tool as easily as data can (Pistor, 2020; Yeung, 2017). Facebook at first promised to never monitor its users, which gave it a critical competitive advantage over its main rival, Myspace. Once it had gained a dominant position, the company reneged on its earlier promise. Facebook lives off the consumer data its harvests by granting others access to them for a fee. Facebook offers access to
its digital platform for free, yet in 2018 alone, it took in revenue in the amount of $55.8 billion, substantially from advertising by its clients. Facebook sells access to the data it has extracted from its own users to companies who wish to sell products and services to them by placing targeted ads, or, as in the case of Cambridge Analytica in the 2016, who wish to place targeted political ads. Access to Facebook data allowed Cambridge Analytica to analyze the behavior of 87 million individuals and to feed them and others with political ads that were designed to manipulate their beliefs and political actions. In the US, Facebook was eventually fined USD 5 billion for this data breach, but this was obviously too little too late: FB shareholders brushed off the fine by pushing up the value of Facebook’s shares – a stark reminder of how valuable user data, including their abuse, is.

Facebook currently has around 2.5 billion users around the globe who use the social platform to share all kinds of personal, social, professional, economic, and political information with one another. Access to this data has given Facebook not only an immensely valuable economic resource; it has given it a powerful governance tool which it uses without meaningful checks and balances from is customers/users, outside shareholders, clients or even state regulators. In contrast to legacy news and TV companies, as well as several social media companies, including Twitter, Facebook has resisted the call to fact-check political advertisement. The company has justified this position with a commitment to free speech as enshrined in the 1st Amendment to the US Constitution. Platform users should form their own

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7 See also United States v. Cambridge Analytica, Docket 9383, available at CA administrative complaint.
8 Jon Swartz, “Facebook’s Stock Hits Highest Price in Nearly a Year After Reports of 5 billion FTC Fine”, Market Watch, 14 July 2019.
opinions about facts and truth – even as the company employs algorithms that tend to amplify
messages that resonate with a targeted many, whether or not they are based on facts.¹⁰

Zuckerberg carefully chose the forum for his free speech assertion: A lecture hall at
Georgetown University in Washington DC that has regularly hosted statesmen from around the
globe. This is not the only indicator that Facebook’s CEO has begun to cloak himself in the garbs
of statehood. Not only did he suggest a year earlier that Facebook was more like a government
than a company,¹¹ he is moving to realize this goal with the Libra, named after a coin that
circulated in the Roman empire.

When Facebook announced its plans for the Libra, this “generated a lot of excitement”
around the globe, as David Marcus, the head of Calibra put it (Calibra is a subsidiary of
Facebook that designed technological and legal frameworks for the Libra), but perhaps more
than intended.¹² Within a month, Marcus was asked to testify in two Congressional Committees
and Mark Zuckerberg had to follow suit in October. I was asked to testify about the Libra project
in the House Financial Services Committee and in my testimony summarized the challenges that
Libra project poses as follows:¹³

• “Facebook’s Libra is designed to become a ‘new global currency’ that will
  complement existing fiat currencies. It is designed as a for-profit ‘currency of
  currencies’”.
• Libra holds the promise of creating a seamless, global, safe and inclusive payment
  system based on modern digital technologies. It is labeled a “stable coin” and as such
  aims at delivering low volatility and high liquidity to its customers, the holders of
  Libra coins, who shall be able to exchange their Libras against (local) fiat currency on
  demand without suffering major haircuts.

¹⁰ See Shira Ovide, “Facebook Doesn’t Understand How Dangerous its Megaphone Is”, Bloomberg, 18 October,
2019, available at [www.bloomberg.com](http://www.bloomberg.com)
¹¹ See Henry Farrell, Margaret Levi and Tim O’Reilly, “Mark Zuckerberg Runs a Nationstate and He is the King”,
¹² See also the press release announcing the foundation of the Libra Association of 15 October, 2019.
¹³ The full testimony is available at [https://financialservices.house.gov/uploadedfiles/hhrg-116-ba00-wstate-pistork-20190717.pdf](https://financialservices.house.gov/uploadedfiles/hhrg-116-ba00-wstate-pistork-20190717.pdf)
• To this end, it is backed by a reserve composed of “safe” assets. The safe assets of choice are bank deposits and the liquid debt of reputable sovereigns. These assets owe their safety to public backstopping mechanisms in the form of deposit insurance and the “full faith and credit” of the issuing sovereign. In effect, the sponsors of the Libra and its profit earning beneficiaries will be free riding on a public safety net for which they are not paying.

• The main governance architecture of the Libra resembles currency employed by some countries that use currency baskets to back their currencies, such as Singapore or Kuwait, with the important difference that the Libra shall deliver profits for its beneficiaries. All interests and dividends will be allocated to the members of the Libra Association and or investors in Libra Tokens; none to its customers, the holders of Libra coins.

• The central node of what will become an ecology of financial intermediaries is the Libra Association, based in Geneva, Switzerland. It will exercise control over the admission of future members, manage the Libra Reserve, determine asset eligibility for the Reserve, decide whether to amend the protocol on which the Libra runs, and determine if, when and how the Libra’s architecture will evolve from a club-like or permissioned, to a permission-less, system.

• This concentration of power is unmatched by any meaningful accountability to anyone. The choice of the legal structure means that the members of the Libra association will be insulated from liability and accountable only to themselves. It will not be accountable to holders of Libra coins or to the regulators, supervisors and citizens of countries that create the safe assets that will be used to backstop the Libra.

• Existing legal and regulatory frameworks in the US and elsewhere are highly incomplete and leave ample room for legal as well as digital arbitrage. They were not designed to govern digital currencies. In most countries, regulators have focused on banks and their advance into new technologies, not on Big Tech and its opposite move into financial intermediation.

• Libra’s global reach exacerbates these problems. Many of the activities associated with managing the Libra and its Reserve will be beyond the reach of regulators in the United States, or any other country for that matter. It is unlikely that the current level of transnational regulatory cooperation will match the versatility of a private actor, such as Facebook, to pick and choose from legal systems around the globe the laws and regulations that best suits its need.”

In short, the Libra was designed as a digital stable coin and to this end was backed by “safe assets”, such as sovereign debt and bank deposits from select countries. Selecting a basket of currencies rather than relying on, say, only dollar denominated assets alone, sent a clear message that the Libra was seeking not just safety and risk diversification, but also autonomy from any particular state, including the US. Only about 50 percent of the assets in the reserve are
denominated in US dollars, 18 percent in the Euro, 14 percent in Yen, 11 percent in Pound sterling, and 7 percent in Singapore dollar.\textsuperscript{14} The management of the reserve was to be carried out by “custodians” subject to the policy mandate of the Libra Association, which has the power to alter the composition of assets in the reserve by a two-third majority. While Facebook has been adamant that the Libra was only a payment system and did not require the Libra Association to mess with the states’ monetary policy, the management of reserves to back a currency with potentially billions of users can hardly be called by another name.

Neither does the Libra’s designation as a stable coin mean that it will indeed be stable. Quite a few countries have been forced to abandon a peg to another currency or a basket of currencies when circumstances changed, suggesting that safety is only a relative concept in the world of moneys (Boorman et al., 2000; Feige & Dean, 2002). A decline in the value of any of the “safe assets” in the reserve can destabilize the Libra unless these assets can be quickly substituted with safer ones. Critically, there is not an unlimited supply of safe assets in the world. “Dollar scarcity” was experienced not only in the midst of the recent global crisis, but repeatedly in the years since.\textsuperscript{15} This has been exacerbated by the fact that major financial and non-financial companies around the globe have accumulated huge cash reserves, also labeled “institutional cash pools” that are constantly in search of safe harbors (Pozsar, 2013).

The scarcity of truly safe assets might impose a binding constraint on the expansion of the Libra. Equally possible, the Libra Association will change its definition of asset “safety” to ensure that it can still issue Libra should shortage of the original assets impede its growth. After all, Libra is a for-profit coin and it is unlikely that the members of the Libra Association will

\textsuperscript{14} https://www.ccn.com/facebooks-replacing-us-dollar-libra/
\textsuperscript{15} Izabella Kaminska, “Dollar scarcity is on the rise”, \textit{FT Alphaville}, 18 June 2012.
place financial stability over profitability. Just as their hunger for safe assets drove the credit expansion in the run up to the 2008 crash (Levitin, 2013), the hunger by the Libra Association and its members for returns might drive the relaxation of safety standards for the assets that are meant to stabilize the Libra. In the alternative, the Libra Association might develop enough sway over governments to issue more safe assets, i.e. sovereign debt, to avert a crisis that the scarcity of safe assets might precipitate.16

In all of the above scenarios, the safety of the Libra is tied to the backstopping function of states and their ability to unilaterally impose obligations on their citizens. While the hands of these states might be forced by the sheer scale and scope of a global currency with billions of users, monetary sovereignty would still rest with them, not with the Libra or its main backer, i.e. with Facebook. There is, however, yet another option that could free the Libra from its dependence on state money. This is hinted at in an article about Libra in the Crypto Law Review: “Because Libraneers control information flows to billions of people – the most valuable processes of all – they have the power to define money on their own terms, including private fiat-type commodity-backed moneys. Ultimately, the Cartel can create demand for whatever type of money it wants to issue.” 17

Put differently, control over data produced by billions of Libra users might allow the Libra association to do the unthinkable and unpeg the Libra from “safe” state assets. It took the US government years to muster the courage to unpeg the dollar from gold in 1971. Until then, the US dollar was pegged to gold at a fixed rate of 35 dollars for one ounce of gold; the currencies of other countries that participated in the Bretton Woods system in turn were pegged

to the dollar. In theory, these countries could demand conversion of dollars into gold at the fixed exchange rate. However, the funding needs of the US government for its wars and overseas military bases combined with the rising exports from Europe to the US put strains on this system (Gray, 2007; Sylla, 2002). Short of reigning in its spending, the US government faced the option of negotiating a re-evaluation of the exchange rates, or breaking the peg, and it chose the latter.

When it the US abandoned the peg to gold, no other commodity replaced gold. Instead, the dollar became a fiat currency that is backed not by a commodity, but by the “full faith and credit” of the United States of America (Eichengreen, 2004). As noted earlier, in effect, the US government pledges the future productivity of the US economy in support of its currency. This pledge is credible, as long as the government commands the power to extract resources from its own people, if and when needed. Furthermore, the dollar’s continued preeminence in the world means that it is likely to find enough takers for its currency notwithstanding its ballooning fiscal deficit (Dooley, Folkerts-Landau, & Garber, 2004). None of this is guaranteed, of course. The US dollar can lose its preeminence for a number of reasons, including the rise of an alternative currency, or the erosion of the dollar’s credibility because of internal political struggles that might translate into a default on the country’s debt, for example.

For our purposes, however, the critical question is, whether private companies, such as Facebook or the Libra Association could do so as well. In principle, the answer to this question is no. Private companies cannot manipulate their own survival constraint (Minsky, 1986), because they cannot unilaterally impose obligations on others. This limits their ability to effectively backstop their own liabilities, including a currency of their own. States without monetary sovereignty are similarly constrained. In fact, states that have relinquished their currencies by adopting a foreign currency or joining a currency union, such as the Eurozone, as well as
countries that issue their sovereign debt in foreign currency or under foreign law, look more like private companies than sovereign states (Pistor, 2017).

The reverse is also true: companies that have the resources to back their own currencies begin to look more like states. Suppose, the Libra is successfully launched after all with most of Facebook’s 2.5 billion current users adopting the new coin and others to follow. If the Libra faced a shortage in safe assets or simply felt that it no longer needed their crutch, the Libra Association might follow the example of President Nixon and allow it to float. Nothing in the law or the statutes of the Libra Association would prevent it from doing so. For this to work, the Libra Association would require access to resources that it could tap into unilaterally at its own behest. It might not have the “full faith and credit” of a superpower, but at this stage it would have full access to data of billions of Libra users from around the globe. With monetary sovereignty by data harvesters on the horizon – if not by Facebook or the Libra Association, then by another Big Tech company or perhaps even states once they have normalized the monetization of citizen data – there is the specter of a digital statehood.18

To be sure, Libra’s path since the June announcement has been rocky. On 14 October, only 21 of the 28 entities that had originally announced their participation in the Libra, convened in Geneva to adopt the charter of the Association and elect the members of its governing bodies, the Council and the Board.19 Among the companies that withdrew under heavy pressure from Congress and regulatory threats were PayPal, Stripe, Visa, and Mastercard – companies that had reasons to fear a regulatory backlash in the US, because as financial service providers they

18 Some public entities have already begun to monetize the data of their subjects. The California Department of Moto Vehicles, for example, has made over 50 million dollars per year selling data. “DMV is Selling Your Personal Information”, The Daily Wire, 26 November 2019.
19 See press release, supra note 15.
belong to one of the most heavily regulated sectors in the economy. The 10 million dollar fee they had agreed to pay for becoming a founding member of the Libra association may at first have looked like a valuable option, but given the threatened regulatory backlash it was no longer worth it. Mark Zuckerberg had to endure his own grilling in Congress on 23 October; regulators on both sides of the Atlantic made it very clear that they intend to impose regulatory oversight.20 Finally, central banks in several countries have put “central bank digital currencies” or CBDCs on the fast track – although it remains to be seen whether “fast” in central bank terms is a match for “fast” in Big Tech terms.21 These are ominous signs for the Libra, in particular for its original time plan. However, even if the Libra is not launched before the end of 2020 and even if no global coin that bears this name is ever launched, the threat to monetary sovereignty of states as we know it has not subsided. Too much is at stake for both public and private digital power wielders.

**Statehood in the Digital Age**

The German jurist Georg Jellinek defined states as comprising of three elements: Power, territory, and people (Jellineck, 1900). A state is an entity that exercises power over a given territory that is occupied by people. Digital power needs people to produce the raw material on which its power rests, but is less dependent on territory. It is exercised not through physical coercion, but by shaping the behavior of individuals and groups indirectly, benefiting from massive information asymmetries between the data harvesters and their clients on one hand, and

the data producers who also serve as targeted customers, on the other. There are no territorial boundaries for digital power; its expanse is limited only by the scope of the digital platform, which is never fixed. Digital platforms then are the new territory, and the rules that govern platform access and use are the new law. The scale and scope of platforms reach beyond the size of any nation state today. Facebook has about 2.5 billion users, more than China and India’s citizens combined. The company is not just a service provider; it controls its digital platform virtually unconstrained by its customers, its clients, and even by states whose citizens are also Facebook’s customers. In Zuckerberg’s own words, “in a lot of ways Facebook is more like a government than a traditional company”.22

This is not the first time in history that private companies are assuming public power. Corporations have played governments before, most infamously the colonial companies that governed the North American colonies or controlled South Asia and Africa (Guinnane, Harris, Lamoreaux, & Rosenthal, 2007) (Jones & Ville, 1996); and multinationals have assumed critical governance functions in developing countries in more recent times (Lustig & Benvenisti, 2013). These “company-states” operated with considerable autonomy from and without much effective state monitoring (Stern, 2011). Nonetheless, they remained tied at the hip to the sovereign states that had chartered them, and which asserted their own sovereignty when company rule went astray and threatened to undermine their own interests. The English Crown, for example, replaced the English East Indian Company with its own rule over India in 1858 following the Indian uprising in the previous year. In the digital age, private companies are asserting powers of control and governance on a scale they have rarely exercised before (see, however (Arato, 2015; Ciepley, 2013).

22 Supra note 11.
Quo custos Ipsos Custodies?

To get a sense of how power is wielded in the digital age, it is worth taking a closer look at the governance structure that Big Tech companies have chosen for themselves. This may help reveal their underlying philosophy of governance – as bounded or absolute, pluralistic or authoritarian.

To date, Big Tech companies still rely on state law for their own organization. Most are incorporated in some jurisdiction and take advantage of the legal feature the corporate form affords them. Experiments with “digital autonomous organizations” that are run on block-chains are already under way, but so far, they have not been able to escape legal and regulatory state supervision (Mehar et al., 2017). Still, this would not be the first time in history that governance arrangements that belong to a previous era operate as handmaidens for a new one. After all, the Westphalian treaties reaffirmed the power relations of the Holy Roman empire and its most powerful neighbors, even as the seeds for the new nation states that would eventually replace it had already been sown.

Corporations are creatures of the law. Among business organizations they enjoy a special status as “legal persons”, that is, entities that have a status akin to humans in that they can own property and contracts, sue and be sued in their own name. The idea that a legal corpus can have legal rights independent of the individuals who run and operate them, is old and can be traced to Roman law (Barkan, 2013). The modern business corporation, however, dates back only to the 1600s and became the dominant form of business organization in the West only over the course
of the nineteenth century (Dari-Matiacci, Gelderblom, Jonker, & Perotti, 2016). Most countries allow corporations to be founded today by only a single shareholder who might be corporation itself. They must have a basic governance structure, such as a board of directors that is elected by the shareholder(s) that in turn appoints the executive management (Pistor, Keinan, Kleinheisterkamp, & West, 2002).

Some corporate law scholars have likened this governance structure to a representative democracy (Black & Kraakman, 1996). Shareholders do not run the company themselves, but delegate this task to their elected representatives on the board. How democratic the governance structure really is, however, depends on the ownership and voting structure of the company, and the founding shareholders have substantial discretion in designing this structure.

Most Big Tech companies have created structures that render the control of their founding shareholder(s) pretty much uncontestable. Facebook, for example, has issued three classes of shares, A shares and B shares, as well as preferred shares. There are 5 billion A class shares, 4.14 billion B class shares, and 100,000 preferred shares. Preferred shares have no voting rights; holders of A shares have one vote per share; holders of B shares have 10 votes for share. According to the latest proxy statement Facebook filed with the SEC, Mark Zuckerberg owned (directly or indirectly) 80.2% of all B shares, giving him effective voting control over 53 percent of all of Facebook’s shares.23 In addition, Zuckerberg has an irrevocable proxy to vote 4.7 percent of the class shares held by Dustin Moskovitz, a co-founder of Facebook. With close to 58 percent of the voting control, Mark Zuckerberg’s control over the company is absolute. He can’t be voted out of office, it is impossible to launch a successful hostile takeover of the company as any acquisition will require the consent of the controlling shareholder. In theory, Facebook’s

23 Facebook’s 2019 proxy statement
future might be challenged by its customers leaving in droves. In practice this would require a viable alternative to Facebook’s social platform and a concerted effort by its plus 2 billion members to switch.

Monetary Sovereignty in the Digital World

As the above analysis suggests, Facebook’s governance structure is authoritarian, not democratic. This casts a spell over Mark Zuckerberg’s claim in his Congressional testimony that Facebook’s plan for a global digital currency is meant to protect the US and the values it purportedly stands for from China:

“China is moving quickly to launch similar ideas in the coming months. Libra will be backed mostly by dollars and I believe it will extend America’s financial leadership as well as our democratic values and oversight around the world. If America doesn’t innovate, our financial leadership is not guaranteed.”

No doubt, China is moving rapidly and aspires for becoming a dominant player in digital currencies and artificial intelligence. But so are Big Tech companies, such as Facebook, and governments in the West. The main difference is that China’s leadership does not even have to pay lip service to principles of individual freedom in its pursuit of digital control. For a brief moment, the Chinese leadership even faced a challenge from social media apps, such as Weibo and WeChat, which were used to critique the government and mobilize social discontent. Both

24 Testimony of Mark Zuckerberg in the “Hearing before the US House of Representatives Committee on Financial Services”, October 23 2019 (emphasis added).
platforms continue to boast millions of users, but they have been effectively censored and are no longer used for exchanging opinions or information that might be deemed politically sensitive.

In fact, both platforms have been taken over by a new app that was launched in 2019 by the name of “Study (Xi) Strong Country”, a play on the president’s own name, which is Xi Jinping. The user numbers of this new app quickly exceeded those of WeChat – an indication that even sizeable apps are not immune to future change. A German cybersecurity firm recently dissected this new app and found that it leaves a digital backdoor “to run arbitrary commands with superuser privileges”. This allows the coders behind the app to have “system-wide administrative access” to the device and allows them to “download software, modify data or even install a keylogger to see what people were typing.”

China is also in the process of rolling out its own central bank digital currency (CBDC), taking advantage of the fact that Alipay and WeChat-Pay have already digitized most of China’s payment system. Unlike digital moneys in the west, in China they were linked to the country’s central bank, the People’s Bank of China. With the digital infrastructure in place, creating a new central bank issued token requires only a small additional step. Controlling the digital infrastructure is key, a point that has not been lost on Facebook and its leadership. As the Libra White Paper indicates, the Libra is only one of the two elements needed for a global payment system, the other is the digital infrastructure – and there is no indication yet that Facebook has turned away from it.

In short, the race for monetary sovereignty in the digital world is on. In China the state, or rather the Communist Party, has acquired dominance over digital technologies and is using them to cement its power both domestically and globally. In the West, it is still too early for making

25 Arjun Kharpal, “Chinese app pushing Xi’s ideology”, CNBC, October 14 2019,
the final call. Some states might follow the lead of China and use digital technology as a means for expanding their control over their citizens, as the NSA does in the US, for example. However, as the Libra challenge demonstrates, the US may be powerful on the surveillance front, but it is a laggard on the digital currency front. Only the open challenge of monetary sovereignty has put legislatures and regulators in the US on notice. Whether their actions will be forceful enough to stop Big Tech’s challenge of the state’s monetary sovereignty remains to be seen.

One might ask, why this matters. Is a global payment system not merely a technical infrastructure that should be provided by whomever can do so most efficiently? The answer to this question is that payment systems are deeply intertwined with the money systems, and money systems are inherently hierarchical and imbued with power (Mehring, 2012). Anybody can issue on “I owe You” (IoU), but not everybody will find a taker, as Minsky put it (Minsky, 1986). The likelihood of finding a taker correlates with the ability to back a currency and this, as discussed earlier, requires the ability to unilaterally commit future resources. Maintenance of a global payment system requires power with global reach; and controlling the currency at the top of the system is a source of power in its own right. The current dollar-dominated system reflects the power status the US still enjoys, largely because of the size and prosperity of its own economy and its ability to exert power to ensure that critical supplies that lie beyond its territory, such as oil, will reach its soil. Controlling not only the dollar but the payment system that supports dollar dominance also gives the US the power to impose sanctions on foes and allies, public and private entities alike. This system is far from ideal and ought to be reformed. Replacing it with self-anointed power wielders who themselves are accountable to no one, however, is hardly a good alternative.
Scaling Social Orders

The rise of nation states is inextricably linked to the use of formal law as a means for social ordering. Every social group is defined by shared values and a set of arrangements that ensure that they most will follow them most of the time. Formal law is an extension of informal ordering devices but with a twist: It too is based on shared norms, but the promulgation and enforcement of these norms is no longer in the hands of self-governing groups but is delegated to institutions that operate on a large scale (Hathaway & Shapiro, 2011). In fact, state law prohibits social groups from using force to implement their own norms even against members of the same groups. Suppressing feuds and other forms of coercive self-help internally was critical for the rise of states and of state law (Hodgson, 2009). As states centralized the powers of coercion, they also expanded the reach of their laws within their own territory, and even beyond (Weber, 1978).

Law is not only a social ordering device, it is a social scaling technology. Provided that that legal authority is deemed legitimate, law can be used to govern large, heterogeneous social groups (Berkowitz, Pistor, & Richard, 2003). Critically, legal governance occurs not only in a top down fashion by states over their subjects, but in constitutional systems, law can also be used in a bottom up fashion by citizens imposing legal constraints on the state and its agents (Weingast, 1997). Last but not least, law is also a powerful device for ordering the horizontal relations among individuals that belong to the same legal order or those that have chosen it for governing their affairs. Private law is the source code for horizontal legal ordering. It furnishes contract law, property rights and other legal devices that allow private parties to enter into legally binding arrangements resting assured that as long as they comply with the basic ground rules of
private law, these arrangements will be enforceable in a court of law (Pistor, 2019). Without enforceability, a claim is just a promise that someone at the other end of a chain of transactions may or may not live up to. The ability to invoke the state’s coercive powers to enforce a legal claim against a party one has never met and who operates outside one’s own personal networks gives legal arrangements scalability. Enforceability increases the probability that others will deliver on their promise. This probability can be further fortified with legal protections, such as collateral, third-party guarantees, and legal veils that separate asset pools to protect them from different claimants (Pistor, 2019).

Without states and their laws, large-scale markets could not exist. This is true even for global markets. Contrary to conventional wisdom, global markets do not exist outside states and their laws. Instead, parties rely on national legal systems when they transact transnationally. Sophisticated parties will choose a legal system that governs their contracts or they will make sure that a legal entity is incorporated in a jurisdiction that is amenable to their preferences. Even absent choice by the parties themselves, the “conflict-of-law” rules of most jurisdictions offer guidance as to which of the legal system should be applied to a set of facts when more than one is in play. With the help of these rules, domestic law can be extended in space to reach beyond the boundaries of a territorial nation state (Michaels & Jansen, 2006).

The digital code is a social scaling technology on equal footing with, if not more powerful, than national law. It differs from state law in important respects. The digital code is not the product of a collective undertaking as legislation is, or is supposed to be at least in democratically governed countries. Instead, technologists who work either on their own account or on account of corporate or state employers are the ones in charge. By entering a digital
platform, users agree to a code over which they do not have control. They face a take-it-or-leave-it option with only few possibilities to refine or tailor them.26

Once agreed to, the rules can change without additional consent, as most consent forms require consumers to pre-approve unilateral future change. Moreover, by entering digital platforms one does not just consent to a set of rules, but also the incessant surveillance of one’s own behavior by the platform provider, even by third parties. The free use of digital platforms thus comes with a Trojan Horse, which, as Homer’s Iliad has immortalized, is a gift with a catch. On occasion, courts call Big Tech companies out about this catch. The Hungarian Competition Authority, for example, fined Facebook $4 million, ruling that the representation of “free” amounted to deceptive practice, because data harvesting created a hidden charge.27 Still, this ruling remains an outlier and the amount of the fine will hardly be a deterrent for a company of Facebook’s size.

Data driven governance differs from legal governance in yet another dimension. Law is meant to encourage compliance rather than breach. By announcing the legal consequences of breach, it intends to influence behavior and deter transgression (Becker, 1968). Principles, such as “no punishment without crime” assure citizens that they cannot be punished for actions that were not clearly labeled as crimes before they committed them. Tech companies also influence behavior, but they do so in a more clandestine fashion. Even as customers agree to being surveilled and to become subjects of targeting advertisements, they do not know how their behavior will be judged and what consequences it might produce in the future. Moreover, they

26 According to the US Federal Trade Commission (FTC), Facebook hid opt-outs from access to their data by third party providers. See United States v. Facebook Inc., Case No. 19-cv-2184, US District Court for the District of Columbia, supra note 6, recitals 19 ff. (esp. 26).
have no way to influence or control the algorithms that are used for influencing them or others with whom they are affiliated.

In short, the revolution in information technology has brought about a new and highly scalable mode of social ordering that literally knows no borders. With sufficient computing power, digital codes can easily be expanded to global scale. Moreover, they can be designed to be largely self-enforcing, thus obviating the need for courts in many cases. More complex relations may be less amenable to self-execution. Technologists are increasingly catching up to the fact that an unknown and unknowable future require some flexibility at the coding stage (O’Hara, 2017). They therefore include “oracles” that require fresh input, corrections, or even dispute settlement. Who might benefit from this enhanced flexibility and who will be held to the rigid self-executing standards of ordinary smart contracts, is not difficult to predict. If the history of the legal code offers any guidance, contracting parties on the periphery of the system will face the full wrath of self-execution, whereas the ones at the apex of the system will benefit from greater flexibility. As I have argued elsewhere, power is the differential relation to law (Pistor, 2013). There is no reason to believe that this will be different with respect to the digital code.

Whether or not digital ordering will replace legal ordering any time soon or will do so entirely is not clear yet. The legal and the digital code may well coexist, even as the center of power shifts in favor of the digital code. Perhaps one day the legal code will be relegated to only a complementary role to the digital code, just as social norms have been in relation to formal law.

**Accountability of Digital Power Wielders**
In a paper published in 2005, Ruth Grant and Robert Keohane discussed the landscape of power wielders in an increasingly globalized world and the various means by which they can be held accountable (Grant & Keohane, 2005). They surveyed the bewildering range of “power wielders” in global relations that included not only states, but also multinational corporations, along with non-governmental and multilateral organizations. The authors argued that while many of these power wielders are not subject to the classic accountability mechanisms associated with democratic forms of governance, such as elections and division of powers, neither do they operate beyond anyone’s control. Rather, they respond to different accountability mechanisms and different constituencies or “accountability holders”. Some are part of a hierarchical organization or are fiscally constrained, others can be held liable in a court of law or have to endure regular supervision, and yet others are subject to a competitive market or peer pressure, or risk their reputation if they misbehave. As long as some effective accountability mechanisms exist, power wielders can be kept in check.

When applied to the new digital power wielders, one is struck by the absence of truly effective accountability mechanisms for these companies. As corporations with shareholders, one might assume that Big Tech companies should be subject to capital market pressure. Yet, as explained earlier, Big Tech companies have chosen capital structures that mute shareholder voice. A single or just a handful of founding shareholders exerts full control over the company. Neither do these companies have to return to capital markets to raise additional funds, because they can more easily monetize their control over consumer data.

There are two other “market” forces to consider: the market for the users or consumers of digital platforms on one hand, and the market for the clients that buy access to the user data the digital platforms harvest, organize and analyze. Closer inspection, however, reveals that neither
side of this “two-sided market”, as economists characterize these relations, is a market to speak of. (Rysman, 2009) A market is a place where buyers and sellers meet to exchange goods and services. Ideally, market transactions shall reveal the true value of the exchanged good or services as buyers and sellers use price signals to express their own valuation until a point is reached where no further transaction would make one party better off without making another worst off. This is called “Pareto Efficiency”.

Such perfect markets do not exist anywhere in the real world, but deep and liquid markets for shares, bonds, and commodities have been said to approximate this ideal (Fama, 1970). Yet, neither the relation between consumers and Big Tech, nor the latter’s relation with their clients comes even close. Consumers have only few choices for digital platforms and their choice set has been declining as platform providers have created powerful network structures and reduced competition by preemptively buying up potential challengers. Furthermore, consumers do not enter into a transaction in which their access to the platform would be priced, if not in money then in the value of the data the Big Tech companies expect to harvest from them. Neither leg of this two-legged transaction is priced. Instead, consumers are given free access in return for pretty much unconstrained access to their data. Without price discovery, these transactions benefit the party with better access to the true value of what is exchanged, namely the platform provider.

The relation between Big Tech and their clients also is a far cry from the ideal of a market transaction. The clients are buying access to the predictive power of the data the Big Tech companies have amassed. Importantly, each client’s needs and interests in the data differ so that there cannot be a truly competitive auction for, but only tailored access to data. And just as consumers, the clients of Big Tech companies suffer from information asymmetry, because they lack full information about the data or the algorithms that are used to organize and analyze them.
If digital power wielders are not subject to market forces, what other accountability mechanisms might keep them in check? As it turns out, none of the mechanisms that Grant and Keohane identified work for Big Tech companies. First, Big Tech companies do not face a binding budget constraint. The data they constantly harvest from billions of users is their revenue stream – a resource that is potentially infinite. As consumers grow increasingly dependent on these services and clients on the insights they generate, Big Tech’s future revenue streams are all but assured. They hardly fear peer pressure, because the handful of Big Tech companies have carved out spheres of interests for themselves that free them not only from competition, but also from peer pressure. Neither do they have to fear reputational harm as they control the dissemination of information about themselves, both negative and positive. They can create their own image and ensure that deviations from it will be suppressed.

This leaves supervisory and regulatory control by state institutions. Such control has not been absent entirely. Regulators in the US and the EU have launched investigations into anti-competitive conduct, tax evasion and illegal state aid schemes. As discussed, on occasion they have imposed substantial fines of these companies. However, these sanctions have not had any lasting effects. In response, some US politicians (including Senator Warren who is running for President) have called for the break-up of Big Tech companies. This is perhaps the greatest threat these companies have faced so far, but it is important to be not too optimistic about the lasting effects of such measures. Digital platforms exhibit powerful network effects, making true competition all but elusive. Moreover, unless these companies are constrained from future acquisition sprees that would allow them to rebuild their empires and thwart competition yet again, not much will be gained.
Where accountability mechanisms do not exist, they could nonetheless be created. One mechanism that has been widely discussed in the literature is to give consumers full property rights over their data (Determann, 2018) (Kerber, 2016). Another would be give human data the status of *ius communis*, that is of things that may not be appropriated (Epstein, 2016). The first solution is unlikely to have much effect on Big Tech’s business model. Consumers are already compelled to agree to all kinds of uses of their data; it does not take much to also compel them to sell what is theirs. Holding property rights in their data will also not give them much in terms of monetary gains, as the raw information about individuals is not worth much. Only the aggregation of similar information from millions, if not billions, of users produces the kind of predictive power that can be monetized. Private ownership over data might not even be effective to constrain legacy states from using them, because they do not need to appropriate them. At least in their raw form, data are non-rivalrous, that is, the use by one does not exclude use by another.

This leaves the idea of data as a common good for the management of which a public trust might be created (Napoli, 2019). Ideally, such a measure should have been implemented long ago. Unwinding the vast amounts of data that have already been created and the extensive surveillance apparatus private companies and state agencies have established over the last two decades seems almost an impossible task. Still, it is worth trying as it would diminish access to data in the future and thus cut the income stream of Big Tech companies back to size – provided the state with its power of coercion can be won over to implement these measures. This, however, is the Achilles heel of this scheme. States themselves, and not only in China, are among the greatest data aggregators (Snowden, 2019). They too have benefited from the legal grey zone that has surrounded data, arguing that collecting vast amounts of data, even from their
own citizens, is not subject to legal constraints, such as warrants that courts must issue for wire or phone tapping, because they allegedly do not target specific individuals (although they can be attributed to them with ease). Moreover, states have taken advantage of the data Big Tech companies have amassed and regularly collaborate with these companies in creating new surveilling techniques, separate platforms for state agencies (such as the CIA), and storage facilities for their data. In short, the only force that might establish accountability over Big Tech is not only complicit; it is conflicted. States might be competing with Big Tech over monetary sovereignty; but they have joined force in their quest to use unconstrained access to all of our data as a way to control or present, our past, and our future.

References:


