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# Citizenship in the Era of Blockchain-Based Virtual Nations

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## Introduction

In the last decades, modern democracies have been witnessing a low rate of political participation and civic engagement with existing governmental institutions. Low voter turnout, especially with younger generations, is raising significant concerns for many representative democracies and trust in public institutions has dropped to a point that it has become difficult for people to engage in political activity.<sup>1</sup>

Civic participation is not dead, however, it is only shifting to a new space. With the advent of Internet and digital technologies, citizens of the world are coalescing into increasingly globalised social movements (Cohen 2004), paving the way for new forms of political engagement (Della Porta & Tarrow 2005). With the blockchain, these individuals could find new ways to spontaneously organise and coordinate themselves into transnational “cloud communities” and—as [Liav Orgad](#) suggests—even acquire their own self-sovereign identity that subsists independently of any nation-state. Those, I believe, are some of the most compelling developments of blockchain technology, which I have been following closely over the past few years.

But what makes blockchain technology a powerful tool for promoting disintermediation and decentralised coordination—i.e. a *trustless technology*—also constitute one of its greatest limitations, especially when it comes to political deliberation. While politics is about reaching a compromise between conflicting interests and values, blockchain technology operates via distributed consensus and an exit-based conflict resolution system. As underlined by [Rainer Bauböck](#), relying on voluntary cloud communities as a means to govern society could significantly increase inequalities, leading to an overall loss of democratic representation and wealth redistribution.

In a sense, I agree with both [Orgad](#) and [Bauböck](#). When brought to an extreme, blockchain technology could create—simultaneously—a utopian society characterised by greater individual freedom and autonomy, and a dystopian society driven by market-based incentives and self-dealing. But reality is neither black or white; it often has many different shades of gray. I see blockchain technology as neither the cure nor the curse of today’s political issues. Rather, I see it as a tool that could enable us to experiment with new governance structures and alternative political systems—in a world where there is very little room left for experimentation.

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<sup>1</sup> According to Pew Research, in 2016, only 19% of Americans said they trust their government, among the lowest levels in the past half-century. See <http://www.people-press.org/2015/11/23/beyond-distrust-how-americans-view-their-government/>. The same is true at the international level. A GCF survey found out that 85% of the respondents in eight countries believe that the UN needs to be reformed to better deal with global risks and 71% support the establishment of a new supranational organisation. See <https://api.globalchallenges.org/static/files/ComRes.pdf>

## Multiple shades of activism

Digital activism is not a recent phenomenon. Social movements increasingly leverage the power of digital technologies to coordinate themselves and communicate to a broader audience—as illustrated by the role played by social media during the Arab uprisings in 2011 (Howard & al. 2011). But the Internet also enabled the emergence of new communities of kinship, with a variety of online platforms (e.g. *Facebook, Twitter, Whatsapp*) gathering people around specific interests or values, regardless of their political views. Some of these communities operate as tight social groups, providing members with a newfound sense of belonging and a collective identity (Wellman & Gulia 1999). While they do not engage in what we usually regard as political activity, these online communities play a key role in shaping how people organise and coordinate themselves, in ways that significantly differ from those of existing political institutions (Norris 2002). Apart from the legal regime these communities operate with, they are governed by their own systems of rules and social norms—which members voluntarily abide by.

In her book, “Social Movements and Their Technologies: Wiring Social Change”, Stefania Milan illustrates the different approaches of social movements in materialising their ideas into the world (Milan 2013). *Insiders* adopt a cooperative attitude: they recognise existing institutions as a legitimate source of power and actively engage in their game, through advocacy and traditional decision-making procedures (Moe 2005). *Outsiders* adopt a more confrontational attitude: they reject the rules of these institutions and choose instead to exert pressure from the outside, through campaigns, protest or other form of political resistance (Maloney & al. 1994). Finally, what she refers to as *beyonders* are a wholly different bunch. *Beyonders* simply refuse to engage with existing institutions: they do not want to fight them nor do they want to change them, they simply regard them as a leftover from a past era—which they are trying to render obsolete by building new systems (Hintz & Milan 2011). Thus, relatively to the other two groups, *beyonders* operate in a way that is more autonomous or independent; they do not play for or against the established political system, they just decide to ignore it or bypass it.

Is it fair to conclude that *beyonders* do not play a political role in society? Clearly not. By creating an alternative to existing institutions, they exert an indirect pressure forcing them to adjust themselves to maintain their position. Perhaps more so than *insiders* and *outsiders*, who operate within a given political framework, *beyonders* are deeply concerned with social change. Their political action is the result of a constructive reaction to the current state of affairs. They are responding to their own needs using new schemes and methodologies, leveraging the power of communities to create new institutions that will help them fulfill their missions—through what essentially amounts to a new form of political organisation.

## Beyond the blockchain

Today, in the shadow corners of the Internet, a new group of *beyonders* is emerging, looking at blockchain technology as a means to replace many of our traditional institutions. While most of the attention was put, initially, on Bitcoin disrupting banks and other financial operators (De Filippi 2014), as people understood the full potential of blockchain technology, they saw it as a means to implement new governance structures that could potentially replace some of our existing systems of governance (Davidson & al. 2016).

At the extreme end of this spectrum are those who envision the creation of new blockchain-based virtual nations, with a view to ultimately replace the nation-state. This is the case, for instance, of *Bitnation*: an initiative aimed at creating a new sovereign jurisdiction that operates only and exclusively in cyberspace, independently of any geographical boundaries. Founded in 2014, *Bitnation* describes itself as a *decentralized borderless voluntary nation* that anyone can join or leave as they wish:<sup>2</sup> a transnational community of global citizens that spontaneously coordinate themselves, with no recourse to coercion.

To early Internet pioneers, this might sound familiar. Already in 1996, in the “Declaration of the Independence of Cyberspace”, John Perry Barlow described the digital world as an independent space that simply could not be regulated, because—he claimed—governments did not have the right nor the capacity to exert their sovereignty over it<sup>3</sup> (even though history has eventually taught us otherwise).

Barlow was essentially a *beyonder*—mocking the various governmental attempts at regulating the Internet landscape, in ways that he considered to be ineffective in this new digital era. Similarly, *Bitnation* is mostly the result of a *beyonders’* approach to governance, trying to create a new sovereign nation that ignores the rules and procedures of existing nation-states, regarded as obsolete in this new digital world. Because it operates on a transnational and decentralised peer-to-peer network (the *Ethereum* blockchain), *Bitnation* is not under the control of any one government. Indeed, by relying on blockchain technology, *Bitnation* is creating a system that not only tries to escape from the hegemony of nation-states—because it has no single point of failure, or control—but also tries to compete with existing institutions and governmental systems—by providing self-sovereign identities, notarisational services, property rights and company registration, dispute resolution systems, etc. which are usually associated with the functions of the public administration. The *Ethereum* blockchain is particularly useful in this context, because—as a public and transnational blockchain—it provides the necessary transparency, verifiability, incorruptibility and trust that one would expect from these governmental services.

“*Governance in the real world is so fucked. We have to start thinking about how to build it in the virtual world*” said Lawrence Lessig in an [interview](#), after he resigned from the 2016 presidential campaign. While Lessig was referring to the creation of a [massive multiplayer online game](#) inviting players to experiment with different forms of governances, it might be worth investigating whether initiatives such as *Bitnation*, and other attempts at creating blockchain-based virtual nations (such as *Cultu.re*) or even blockchain-based virtual worlds (such as *Decentraland*) could actually provide a new space of experimentation, allowing people to experiment with new political systems that operate outside of any defined territory. Indeed, these initiatives—which rely on decentralised blockchain-based systems—are not located in any given jurisdiction: they subsist in a transnational space, which has yet to be colonised by new governance structures and experimental political regimes.

## **Blockchain-based virtual nations**

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<sup>2</sup> According to the *Bitnation* website, *Bitnation* is fostering “a peer-to-peer voluntary governance system, rather than the current ‘top-down’, ‘one-size-fits-all’ model, restrained by the current geographical apartheid, where your quality of life is defined by where you were arbitrarily born.” See <https://bitnation.co/join-the-team/>

<sup>3</sup> “*Governments of the Industrial World, you weary giants of flesh and steel, I come from Cyberspace, the new home of Mind. On behalf of the future, I ask you of the past to leave us alone. You are not welcome among us. You have no sovereignty where we gather*” (Barlow, 1996).

Can these blockchain-based systems support the emergence of a new framework for *global citizenship* (as suggested by [Liav Orgad](#), amongst others<sup>4</sup>) where people pledge allegiance not to an existing government or nation-state, but to a global community that transcends national boundaries?<sup>5</sup> Can they support a new understanding of citizenship as *collective identity*, providing new opportunities for collective action and civic participation in a post-national world (Sassen 2002)? As with many things today, the answer is not a simple one. The concept of blockchain-based virtual nations is interesting because it is highly controversial. It is, in fact, supported by different groups, for very different purposes.

On the one hand, the concept of a virtual nation is appealing to many libertarians, who see it as an opportunity to reduce the room for governmental intervention, by creating new ad-hoc governmental structures aimed at creating a society governed by (unregulated) market forces, and nothing else. This is the vision brought forward most prominently by Peter Thiel, who envisions the creation of a new sovereign nation on an [offshore artificial island](#), built 200 miles off the Californian coast. This vision is also shared by a number of crypto-libertarians (May 1994), such as the team behind *Bitnation*, who believe that—since we have lost trust in our governments—we shall now rely on blockchain technology to create *trustless systems* (*i.e.* systems where trust is no longer needed) with a view to support and facilitate a series of atomic peer-to-peer interactions in a seemingly stateless environment (Atzori 2015).

On the other hand, there are people who see virtual nations as an opportunity to overcome the lack of trust in governmental institutions, through the creation of new trusted communities with a global scope. These communities can experiment with new institutional structures that operate independently from, or as a complement to existing institutions. They can support the emergence of grassroots initiatives designed to fill the gaps generated by the progressive shrinking of the welfare state (Feigenbaum & al. 1998)—*i.e.* the provision of public services and shared infrastructure, the pursuit of the common good, and the protection of individual and collective rights. Blockchain technologies could provide new mechanisms of social or political coordination, allowing for transnational communities and activist groups (such as human rights defenders, Internet freedoms advocates and climate change campaigners) to gather around a newfound sense of identity and organise themselves as a collective.

The idea is not to replace nation-states with new or competing forms of sovereignty, but rather to provide new means for global communities to mobilise and experiment with new ways of engaging in civic life. If political participation no longer finds its place in the context of traditional governmental structures, perhaps these virtual communities—or *cloud communities*, as [Orgad](#) calls them—might be able to bring civics back to life. Indeed, if citizenship refers not only to a legal status, but also to an individual's political activity (Dalton 2008) and collective identity (Eisenstadt & Giesen 1995), we might soon witness the emergence of new global citizens, who regard these new virtual nations as *polities* and self-identify as their members.

This is the vision supported by initiatives like *Democracy Earth* and *Aragon*, two blockchain-based platforms providing tools for small and large organisations to operate in a globalised post nation-state world, through their own governance rules and dispute resolution systems. Without trying to replace the role of the state as a political institution, these initiatives are exploring whether (and how) some of the

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<sup>4</sup> The notion of “world citizen” has been endorsed by a variety of scholars, activists and social movements. See, in particular, Ulrich Beck's notion of “cosmopolitanism” and discussions on the “post-Westphalian” international system (Beck, 2003; Beck & Sznaider, 2006).

<sup>5</sup> See also the work of Toloyan (1996), Grewal (2005) and Van Hear (2005) on diasporas as transnational entities.

functions undertaken by governmental authorities—e.g. the issuance of identity cards, recordation of vital records and maintenance of public registries, etc.—could be transposed into a blockchain-based system. People are thus ideally free to decide, on a case-by-case basis, whether they want to rely on traditional institutions and governmental frameworks, or whether they would rather adopt these new experimental systems, whose values they might feel more attuned with. As a general rule, citizens cannot easily revoke their allegiance to a particular nation-state, because—as highlighted by [Rainer Bauböck](#)—the *social contract* described by Hobbes and Rousseau is not a negotiable contractual agreement entered into by consent (*i.e.* citizenship as a legal status is generally something that one does not choose and that, once acquired, cannot be easily gotten rid of). Yet, to the extent possible, they could choose to acquire additional citizenships, becoming members of multiple communities based on affinity and consent. Insofar as they provide valuable services to their citizens, these virtual communities (or *virtual nations*) may be competing with one another—and potentially with nation-states—so as to expand their user-base. While this might sound speculative at best, we are already seeing glimmers of this world. For several years, the republic of Estonia has been trying to create a “digital nation for global citizens,”<sup>6</sup> as illustrated by its e-residency program, which provides a government-issued digital ID to all individuals requesting it. Inspired by the notion of *government as a platform* (O’Reilly 2011), e-Estonia is trying to become the hub for every governmental service, providing all of its electronic residents with a secure identification system, notarisation services, and even the ability to run a company or open a bank account, without ever putting foot into Estonia. With over 28,000 e-residents from all over the world, today, the state of Estonia increasingly operates on a digital layer, enabling people to interact with its governmental platform independently of their country of citizenship or residency.<sup>7</sup>

## Competing sovereignties

Competition between nation-states, trying to collect new members by providing more efficient or reliable governments services, has, therefore, already begun. If Estonia can collect e-residents on a global scale—in spite of its national boundaries—what would prevent virtual nations from doing the same, without a physical territory? Are we actually moving towards a world in which multiple nations are competing to attract more citizens, in the same way as companies are today competing to attract more customers?<sup>8</sup> Of course, things get murky when we move from purely administrative tasks—like identity, property and company recordation—to more political tasks, involving policy and decision-making. If people could choose to become citizens only of the communities with whom they agree, they would essentially engage in a generalised version of nation-shopping, constantly trying to find the jurisdictions that seem the most advantageous for them. When brought to an extreme, this would ultimately mean the end of politics. Politics is all about compromises, in order to accommodate different viewpoints without entering into a conflict. An *opt-in* or *exit-based* political system essentially eliminates the notion of politics, because it removes the need for compromise. People with different values or opinions would no longer need to argue and deliberate in order to reach consensus, because if they’re in disagreement, they can simply leave.

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<sup>6</sup> “E-Residency is a new digital nation for global citizens, powered by the Republic of Estonia.” See <https://e-resident.gov.ee/>

<sup>7</sup> According to Taavi Kotka, Chief Innovation Officer of Estonia since 2013: “Countries are like enterprises. They want to increase the wealth of their own people.” (Heller 2017)

<sup>8</sup> According to its website: “Bitnation is creating a new world where thousands or millions of nations actually compete for customers by providing better services, instead of using force. It’s a world where everyone can choose.” See <http://bitnation.co>

As [Bauböck](#) recognises, there are significant challenges in letting people choose which nation they want to pledge allegiance to. The state as a sovereign entity—Hobbes’ *Leviathan*—is not only responsible for preserving the public order, it is also in charge of promoting the general interests, producing common goods and creating a collective sense of redistribution and justice. All these functions could disappear as we move towards a more market-based approach to citizenship.

I am, however, more pessimistic than [Bauböck](#) when it comes to the way nation-states will adapt to these technological changes. Given the progressive disengagement of citizens in local politics, and the growing distrust in existing institutions—whose legitimacy is increasingly put into question—it might not be surprising to see a new wave of nationalism emerging all over the world, with nation-states drawing on nationalist and anti-immigration narratives to reinforce their hegemony over the territory, essentially redefining ongoing relationships between citizens and non-citizens (Mitchell 1997).

At the same time, due to the increasing trends towards globalisation, large Internet corporations, like Google or Facebook, are progressively taking on some of the functions that were once specific to the nation-state: from the task of supporting the discourses in the public sphere (Habermas, 1991) to the role of acting as identity providers. With several billions of users on their platforms, these corporations are slowly turning into *de facto* corporate nations, with their own system of rules that they unilaterally define and impose on their “citizens”. Traditional nation-states might, therefore, soon have to compete not only with virtual nations, but also with these new transnational corporate nations—similar to Neal Stephenson’s *franchulates* as science-fiction fans will certainly point out (Stephenson 1992).

### **New opportunities for experimentation**

It is in this convoluted (and daunting) context that I see the rise of blockchain-based virtual nations as a positive omen. Perhaps the reference to *virtual nations* is not the most accurate one, because the term has a strong political connotation and somewhat gives the impression that these communities are assuming the role of traditional nation-states. While some of them do intend to replace the figure of the nation-state (e.g. Bitnation), others are simply trying to experiment with new and allegedly *apolitical* governance systems (Atzori 2015), which nevertheless play a crucial political function.

Because they rely on voluntary association, virtual communities might well remove the need for compromises within a single community, yet they do not eliminate the need for compromise between multiple communities. Hence, politics are not gone, they are simply moving into a different layer. By aggregating people with similar values and opinions, these virtual communities could in fact strengthen the voice of certain minorities—usually stifled by the majority’s opinion—and create a more lively debate and political discourse at the outside (rather than on the inside) of these communities. As such, they could end up participating in conventional politics, along with other real-world interests groups.

To conclude, let me take the stance of a *beyonder* for a moment. As a member of *Creative Commons*,<sup>9</sup> I have always been fascinated by its solution. Instead of trying to reform copyright law from the inside or fight it from the outside, Creative Commons introduced an alternative legal regime for creative works that coexists with the existing regulatory framework (in fact, it is based on it) for authors to experiment with new business models that do not rely on the exclusivity and artificial scarcity of copyright law.

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<sup>9</sup> Creative Commons is an organisation devoted to expanding the range of artistic, academic, and other content available for people to share and build upon. See <http://creativecommons.org>

Today, with the advent of blockchain technologies, a new wave of innovation is underway in the realm of governance. This innovation is one that will benefit everyone: the *insiders*, i.e. governmental authorities like Estonia, relying on blockchain technology to increase the transparency and accountability of public administrations; the *outsiders*, like Peter Thiel, trying to create new self-sovereign nations with the intention to escape from the laws and control of existing nation-states; and, of course, the *beyonders*, like Bitnation et al., eager to use the technology to support the coordination of transnational communities of voluntary association that operate independently of traditional nation-states, but are capable of peacefully coexisting with them. It is the latter which I am the most excited about, and which I believe could contribute to developing new governance models that might help us build a real global democracy.

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