Virtues for a Protocol Society

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There is an apparently growing array of social movements that are turning to the concept of protocol as a way of reimagining the social order. These include digital rights activists, decolonial struggles, and environmental protection efforts. If protocol-centric visions are to take hold in the world, what kinds of virtues would prepare people for living in those visions? This paper is an attempt to lay groundwork for future discussions of political virtues for protocol societies, in light of emergent discourse among social movements. It first reviews foregoing mappings of political virtues to political orders, contextualizing what follows in earlier scholarship and political practice. It then surveys the manifestations of contemporary movements for a protocol society. This establishes the salience and political significance of protocol as the basis of political imaginaries. Through a thematic analysis of protocol movements' self-expressions, it identifies a preliminary catalog of virtues that advocates deem appropriate for living well in a protocol society, along with analysis of their relative significance. The paper then concludes with a reflection on those virtues in light of the pedagogies appropriate for inculcating them.

Keywords: blockchain, climate protocols, decolonial struggle, political virtues, protocols, protocol society

Introduction

There is an apparently growing array of social movements that are turning to the concept of protocol as a way of reimagining the social order. Digital rights activists have increasingly called for, and built, open technical protocols as an alternative to the concentrated power of corporate platforms. Decolonial movements speak of protocol both in terms of persistent Indigenous practices and of the membranes that separate those practices from colonizer regimes. Environmental activists have relied on protocol at the levels of diplomatic agreements around climate change and more radical strategies for re-envisioning the political order around ecological formations such as watersheds and landforms. Together, these movements represent a counterpoint (and accompaniment) to the simultaneous ascent of personalist, authoritarian politics in eroding liberal democracies. And in various, nonlinear ways—from land repatriations to cryptocurrency bull markets—these movements are gaining ground. If protocol-centric visions are to take hold in the world, what kinds of virtues would prepare people for living in those visions?

Political virtues are here understood as the habits of thought and practice among people that are widely regarded as necessary for the reigning political order to function. Political theory has implicitly or explicitly associated particular sets of virtues with particular political systems (Black, 2016), and regimes systematically implement forms of pedagogy capable of inculcating their preferred virtues—whether through schools, public propaganda, or popular culture. For instance, absolute monarchs might have been counseled to balance vigor and restraint with their power, while subjects are taught the wisdom of obedience. Democracies, meanwhile, teach the importance of participation and even protest among ordinary people, while honoring leaders who can be at once accountable and independent. In economic life, a good capitalist has different traits than a good communist. A denizen of protocols surely will aspire to a further set of virtues; these virtues, however, have not previously been articulated in the scholarly literature as such.

Protocols, for present purposes, are simply patterns of interaction among agents (Bennke & Schneider, 2025). The ones of particular concern are those that obtain sovereignty of their own, in the sense of being basic units of political life that evade capture by any one entity. Protocol-based governance stands in contrast to governance based on the exercise of personal or corporate authority. A protocol society, in turn, is a society governed more by the

interplay of diverse patterns than by a monopolistic pattern (such as a state or corporation) that invests authority in particular agents.

Protocols have gained significance through the rise of digital networks, which have at their foundations a thicket of protocols such as TCP/IP and HTTP. Following earlier heralds of an ascendant, generalized "network society" (Castells, 1996/2000), protocol enthusiasts have sought to challenge dominant manifestations of the networked economy with technologies designed to decentralize power. Through protocols such as standards and blockchains, they hope to reshape networks and society together. But protocols are ambivalent creatures, and there is an inescapably ethical dimension to their use (Bennke, 2026), particularly if they are to redirect the flows and structures of power.

This paper is an attempt to lay groundwork for future discussions of political virtues for protocol societies, in light of emergent discourse among social movements. It first reviews foregoing mappings of political virtues to political orders, contextualizing what follows in earlier scholarship and political practice. It then surveys the manifestations of contemporary movements for a protocol society. This establishes the salience and political significance of protocol as the basis of political imaginaries. Through a thematic analysis of protocol movements' self-expressions, it identifies a preliminary catalog of virtues that advocates deem appropriate for living well in a protocol society, along with analysis of their relative significance. The paper then concludes with a reflection on those virtues in light of the pedagogies appropriate for inculcating them.

Political virtues and political orders

This section serves as a reminder of what should be an uncontroversial contention: that different regimes of social and political ordering bring with them distinctive sets of political virtues. It also indicates that virtues relevant to protocols as such have been neglected in recent political theory. This survey is brief and cursory in relation to a vast historical discourse, but it should suffice to serve its purpose.

Efforts to identify and inculcate certain political virtues appear among the earliest political literatures. Since writing and publication began as a typ-

ically elite affair, early documents tended to focus on the virtues expected of rulers specifically. Perhaps the earliest such source, the *Instruction of Ptahhotep* of circa 2400 B.C.E., calls upon rulers to be unselfish, generous, and trustworthy; to hold the power of kingship, they should impose constraints on themselves (Black, 2016, p. 24). A millennium and a half later, the Hebrew Bible recounts, the Israelites' first king Saul lost favor with God because he showed mercy toward a defeated king in combat, contrary to a divine command (1 Samuel 15:10–35). In this theocratic mold, contrary to that of Ptahhotep, restraint was not a virtue but a vice.

In ancient China, the philosophical system of Confucius emphasized the reciprocal virtues of rulers and ruled, alongside those between elders and youth, and among friends—all guided by the performance of role-specific rites (Black, 2016, p. 89). Social roles were determined not by role-holders but by forces beyond their control. Meanwhile, the ancient Greek term for virtue, *arete*, referred to various expressions of courage, firmness, and excellence, all tied to the interrelation of the individual and the polity (124). In Aristotle's influential account, political virtue is in part natural—and more so among some peoples than others—individuals and societies must also intentionally cultivate its development (Annas, 1996).

Such a cursory litany might go on to consider the virtues of realpolitik described in the Sanskrit *Arthashastra* of Kautilya or Machiavelli's *Prince*, or the self-sacrificial politics of Jesus of Nazareth, declared "King of the Jews" at his execution (Black, 2016). Ibn Khaldun's *Muqaddimah* was especially attentive to how societies change over time in both their conditions and their modes of functioning—and thereby their necessary virtues (Pišev, 2019). Ibn Khaldun compared the differing cultural habits of sedentary and nomadic people, and particularly the political decline that can come when a society becomes too used to comfort and luxury. This account gestures toward the many less-literate societies that have not left written catalogues of their preferred virtues. The Standing Rock Sioux political theorist Vine Deloria, Jr., challenged the universality of political imaginaries that derive from "the power and arbitrary nature of the deity by peoples in the Near East" (Deloria, 1997, p. 107). He described a politics that need not derive from kingship and obedience but can emerge through "the process of growth and awareness that characterizes a group of people working toward and achieving maturity" (114). The relations are mutual more than lateral. A well-trained monarchist would be confounded in such an order, as were early European colonizers in

the Americas (Graeber & Wengrow, 2021). This and other forms of Indigenous relationality may involve not simply other living people but ancestors; to be a good political agent means not only to respect one's forebearers but to anticipate being an ancestor oneself (Táíwò, 2022; Vázquez, 2012).

Today, when political theorists working out of North Atlantic traditions speak of political virtues—a term often not defined or contextualized—they implicitly mean the virtues for living in a liberal-democratic, capitalist system (Galston, 1991; Moellendorf, 2006; Whitebrook, 2002). They assume a baseline of relevant infrastructure such as organized elections, legal protections for oppositional speech, and norms for respecting the decisions of representative bodies. They might assume secularized versions of religious habits of mind (Weber, 1930). They would be unlikely, however, to extol the virtue of "harmony," as do the official organs of the one-party Chinese government (Wang et al., 2016). A politician well-trained in Beijing's political culture would be unlikely to succeed in Ottawa, and vice versa.

Table 1: Incomplete and approximate list of virtues that are plausible to associate with certain forms of social and political ordering

Bureaucratic	expertise, neutrality, meritocracy
Capitalist	competitiveness, individualism, thrift
Democratic	accountability, argumentation, participation
Indigenous	ancestry, locality, mutuality
Monarchist	charisma, restraint, propriety
Nomadic	adaptability, austerity, mobility
Oligarchic	elitism, loyalty, nobility
Socialist	materialism, solidarity, unity
Theocratic	obedience, piety, tradition

Any regime seeking to inculcate certain virtues will need to identify forms of pedagogy appropriate to teaching them. Ancient Greeks had Socratic dialogue and Sophist methodologies; ancient Chinese emperors employed Confucian examinations to staff their bureaucracies; medieval Europe had Scholastic disputations; modern communist regimes have their public propaganda, while capitalists amplify certain messages in popular culture more than others; liberal democracies typically establish cost-free, compulsory schooling. The practice of pedagogy is interwoven with the abstract virtues they at-

tempt to cultivate.

A society ordered primarily through protocol systems might draw considerably from other kinds of regimes, just as an elected senator might have something to learn from a queen. A citizen of protocols might appreciate the democratic thought experiments of Rawls (1971/1999), the libertarian choices among regimes of Nozick (1974), and the emphasis on capabilities over outcomes in Nussbaum (2009). Nevertheless, none of these thinkers or their peers has understood themselves as articulating virtues for protocol societies explicitly. As with any other order, a protocol society cannot do with a virtue set made for something else. A theocracy would expect different forms of charismatic leadership than those of a monarch or democrat. It is thus reasonable to expect that the virtues for protocolized politics will be distinctive.

Movements for a protocol society

Amid the shortcomings of governance by nation-states and corporations, calls have been mounting to reorganize society more on the basis of protocols. These have arisen in pioneer communities (Hepp, 2016) that take part in collective practices of visioning and prefigurative practice. The usage of the term *protocol* in published books, for instance, has dramatically risen in recent decades, concurrent with the computer revolution (Rao et al., 2025). Protocol advocates do not necessarily see each other as part of a common project or share common goals; nevertheless, together they draw on and contribute back to a common discourse of protocol. This section introduces several protocol-centric movements, particularly in light of the challenges they face that might require the cultivation of virtues.

At the start of the 21st century, sociologist Manuel Castells pronounced the "rise of the network society"—a phenomenon in which digital networks were remaking social processes in the image of networks (Castells, 1996/2000). To the extent that the network society has taken hold, this global public has also given rise to counterpublics (Warner, 2002), which have come to include movements organized around digital protocols. These sociotechnical imaginaries (Jasanoff & Kim, 2015) take as their starting point a critique of contemporary networked life, with its monopolistic corporations and increasingly authoritarian states. Through the logic of protocol—a particular subset

of network practices—they find more attractive futures than those offered by large corporate platforms. Protocols offer the promise of decentralizing power through rules out of any one actor's control (Bennke & Schneider, 2025; Schneider, 2019). But they also come with risks, such as entrapping entire networks in unalterable systems of control (Asparouhova, 2025; Galloway, 2004).

Among digital rights activists, protocol has evolved from a technical substrate of the internet to a technique for social change. Early architects of the modern internet saw their protocols as strategies for openness and resistance to corporate or state capture (Berners-Lee, 1999; Flanagan, 2019; Russell, 2014). As their networks increasingly came under the power of centralized entities, activists turned to sharper conceptions of protocol as a remedy. They have called for using open standards to impose "adversarial interoperability" against corporate moats (Doctorow, 2024), and for "protocols, not platforms" to resist the hegemony of social media giants (Masnick, 2019). The rise of blockchain technology—in which protocols are not merely enablers but the core products—has enabled designs for protocols that purport to replace historical state functions: currency (Au, 2023), identity (Mühle et al., 2018), contract enforcement (Alston, 2022), corporate governance (Nabben, 2023), and dispute resolution (Aouidef et al., 2021). These projects have in turn developed into wholesale visions for forms of "network sovereignty" (Calzada, 2024; De Filippi, 2024a), which range from the startup-style "network state" proposal (Srinivasan, 2022) to the more communitarian "network nations" (De Filippi & Beer, 2025). The Ethereum Foundation has supported an ongoing project known as the Protocol Institute (formerly Summer of Protocols) that seeks to establish protocol as a "first-class concept" across diverse fields of study and practice (Rao, 2023; Rao et al., 2025).

Wielding digital protocols well is no straightforward task. Practitioners must balance, for instance, ideal technical designs with the pragmatism necessary for widespread adoption. They must decide what to protocolize as opposed to what powers should be left to users or commercial interests. Blockchain networks in particular have struggled to provide for "public goods" that don't provide direct private benefit (Buterin et al., 2018; Buterin, 2022), and similarly to develop governance mechanisms around conceptions of collective interest, not merely incentive alignment (Schneider, 2022a). Yet technologist communities can build on the past successes, and material impact, of cultivating cultures that prize openness and collaboration (Coleman, 2013).

Well before the ubiquity of digital networks, Indigenous communities have used cognates of *protocol* in reference to practices of sovereignty. It appears both in the context of internal community practices, such as rituals and social norms (Rubis & Theriault, 2020), and of mediating interactions with colonial states (Hernández, 2020). Sovereignty, here, is not invested in the monopolistic authority of territorial nation-states but in what Vine Deloria, Jr., has called "continued cultural integrity" (Deloria, 1997, p. 113). Protocol thus serves as a means of survival and resistance, outside state-based politics of recognition (Coulthard, 2014). Indigenous scholars, artists, and activists have more recently tied foregoing understandings of protocol with digital protocols (Christian et al., 2025; Cordes, 2025; Garwood-Houng, 2005; Hupfield, 2023; Lewis, 2020). The introduction to an essay collection featuring numerous Indigenous contributors regards protocols "both as insidious instruments of hegemony and as untapped opportunities for liberation" (Christian et al., 2025, p. 15).

Practitioners of decolonial protocol must hold difficult tensions. For instance, they find themselves upholding inherited traditions while also engaging in internal critique and modification when those traditions no longer serve them (Hupfield, 2023; Simpson, 2025). They must perform sovereignty in relationship to colonizer states, yet without overly yoking sovereignty to recognition by those states. They often struggle to maintain relationships with lands and ecosystems that are consistently subject to extraction and destruction (Caycedo & Limón Corrales, 2025). The practice of Indigenous protocols is not straightforward, particularly under the ongoing onslaught of colonization.

The need for protocols in the context of ecology, finally, begins from the recognition that environmental systems rarely fit squarely within the jurisdictions of states or private capital; effective governance requires other means of coordination. The most visible strategy for confronting climate change, for instance, has involved coalitions of governments, corporations, and NGOs acting under the diplomatic aegis of the United Nations to achieve scientific and political consensus (Bäckstrand et al., 2017; Edwards, 2013; Rinkema, 2003). This is protocological in the sense that it involves coordinated interactions among sovereign actors rather than power over them. Meanwhile, bodies such as the International Standards Organization have established voluntary standards around sustainability and climate impact measurement that serve as a further method of protocolized coordination. Some blockchain entrepreneurs have attempted to design digital protocols that align the dy-

namics of human economies toward environmental stewardship. These include tokenized carbon-credit markets and data-sharing techniques (Levinson, 2025; Mezquita et al., 2023). More speculative still are efforts to establish "ecological institutions"; these might combine blockchain protocols, artificial intelligence, and Indigenous protocols to enable ecosystems such as watersheds and mountains to represent and defend their interests in ways human economies will be forced to respect (Smith, 2025).

People engaged in the making of environmental protocols have tensions of their own to confront. Their protocols must work between worlds—capable of being adopted within the current global economy while also pointing the way toward a differently ordered future. Protocols must also be rigid enough to constrain powerful institutions while also flexible enough to adapt to changes in the ecosystems they are meant to protect. The protocols might also teach people to see ecosystems as inherently valuable rather than as merely resources to exploit or manage.

Among each of these diverse movements, advocates turn to protocols as an alternative framework for addressing global challenges that nation-states have thus fair failed to face. But their proposals also come with serious risks—such as veering into new forms of pernicious, centralized control or setting off sprees of violent instability.

The concern about new forms of centralization are well justified by foregoing experience with successful protocols. The internet itself, for instance, only functions because all users agree to adhere to certain basic technical protocols (Galloway, 2004). The ascendance of English as a global language, or the dollar as a benchmark currency, benefits certain people in the world far more than others. Universal protocols can be attractive in facilitating entry to a global market or commons, but they also erode local cultures to the advantage of those who set the standards.

It is helpful here to consider past critiques of so-called neoliberalism—the attempt to establish global uniformity around capitalist markets as the bedrock of economic life (Brown, 2015; Davies, 2014; Deneen, 2018). Scholars and activists have identified how the reliance on market protocols, while sometimes eliciting a sensation of liberation, over time hollows out skills related to other patterns of interaction. For instance, the practice of virtues related to democratic participation, and community life in general, become less widespread when people are trained instead to be the subjects of a competitive, accumu-

lative market.

The movements working toward a protocol society, however, do not seek a single protocolized monopoly like neoliberalism. They call for a patchwork ecology of overlapping, fit-for-purpose protocols, and patchworks come with their own risks. Past experience with decentralization of government functions, for instance, indicates that a weaker political monopoly can give rise to increased economic inequality, when no central authority can rebalance emergent differences across a population (Prud'homme, 1995). Worse, weakening national authority has been associated with the rise of governance by competing armed groups and a general increase in violence (Eaton, 2006). Certainly, the petty rivalries that flourish among the overlapping protocols of online life present an unappealing advertisement for extending that logic elsewhere.

Still, the rise of a protocol society is a prospect worth taking seriously. Some observers contend that the twentieth-century nation-state order is buckling (Sims, 2026). The short-term pecuniary interests of authoritarians have been aligning with elevating and normalizing cryptocurrency in the global economy (Rosales, 2025). The failures of nation-state-led climate stewardship is leading civil society to explore alternative paths (Smoke et al., 2025). And decolonial movements around the world are developing a growing sense of shared consciousness and practical solidarity (Carlson, 2023). Frustration with centralized tech platforms is widening demands for another, more protocolized path (Gehl, 2025). Given these simultaneous developments, it seems possible that the future of governance will involve trading agentic authority for protocols in at least some important domains. Living well in a protocol society will require not only well-designed protocols but participants prepared to act virtuously.

Toward protocol virtues

Since many visions for a protocol society remain aspirational, identifying relevant political virtues is not a trivial task. Further, the visions discussed above are heterogeneous; a set of virtues among blockchain enthusiasts might differ from those of climate activists, even if in some respects they overlap. In order to seed and spur further discussion, this paper introduces a preliminary virtue set through a thematic analysis of two recent edited volumes on the

topic of protocols. What follows is descriptive rather than normative in nature—an attempt to name and organize tendencies in emergent discourse.

A detailed account of the study methodology is beyond the scope of this paper, but it is available in an external repository (Schneider, 2026).

Identifying candidate virtues

In 2025, two books were published on the topic of protocols, as the outcomes of ongoing and distinct collective processes: *As for Protocols* (Christian et al., 2025) and *The Protocol Reader* (Rao et al., 2025). The first was part of the Summer of Protocols project, funded by the Ethereum Foundation and led primarily by the blogger and consultant Venkatesh Rao; while its contributors came from a range of professional backgrounds—from urban design and industrial safety to legal theory and philosophy—they generally shared a fluency with internet technology, and especially blockchain protocols. The second, in turn, followed a series of convenings organized by the Vera List Center for Art and Politics at the New School; participants included largely artists, many of whose practices engaged with experience with Black, Indigeneous, and other marginalized identities. While both texts hold space for ambivalence and critique around the concept of protocol, for the most part they employ protocol as a vehicle for positive contributions to social life.

These are in contrast, for instance, to another recent volume on protocols, *Das Protokoll* (Plener et al., 2023), which collects scholarly chapters on historical and bureaucratic protocols; while an important research contribution, this book does not bear the same prescriptive quality of seeking to establish protocols as a vehicle for social change. One could consider other works as well. But the two chosen volumes for this study are unique (and alike) in several ways:

- Employing protocol as an umbrella concept
- Seeking to advance programs of social change
- Presenting diverse voices, from diverse backgrounds, while establishing a cohesive discourse
- Addressing diverse topics, including technology, ecology, economy, and society

The thematic analysis began with manual review of both volumes, identify-

ing passages that seemed to state, imply, or evoke virtues relevant to living well among protocols. Of the 134 passages identified, 62 were from *As for Protocols* and 72 were from *The Protocol Reader*.

The subsequent coding process involved manually reviewing each passage and applying up to five one-to-two-word terms to it. An initial list of terms was developed by a locally deployed large-language model, which ingested the introductions to both books. Manual review continued at several stages, so as to manifest an ethic of care in the "cooking" of synthetic data (Rossi et al., 2024). A list of 71 terms was reviewed to remove duplicates and terms that would not plausibly qualify as virtues, resulting in a list of 56. Of those, 19 were not used in coding. During the coding process, 36 more terms were added as they seemed necessary to describe the passages.

While coding, terms were applied generously, based on the inferred sense of the text. A term did not have to be explicitly used in the text to be applied, although in some cases they were.

From this coding process, it was possible to derive a list of the terms that were most frequently applied to the passages from the books. By a significant margin, the most common term was "adaptability" (n=17) followed by "accessibility" and "tension management" (n=13, respectively). The distribution proceeded with a long tail of less frequent terms; for instance, while only 2 terms occurred 11 and 13 times (with none occurring 12 times), 11 terms occurred 3 times.

A multivariate analysis of the coding table revealed a few more dynamics. It reaffirmed the centrality of "adaptability" as a hub in the network of terms, with connections to more terms than any other. It also identified potential redundancy with the frequent pairing of "care" and "consent," among a few others. The passages from *As for Protocols* also exhibit a more diverse and tightly networked set of terms than those from *The Protocol Reader*.

Looking at the terms as a network surfaced the potential importance of several that did not appear at the top of the frequency list, such as "collectivity," "transgression," and "plurality." On the other side, "tension management," "accessibility," and "resistance" have higher frequency than centrality. Centrality indicates terms that appear alongside a wider range of other terms, suggesting that they bridge across otherwise heterogeneous clusters. Both frequency and centrality are meaningful measures of significance in the dataset.

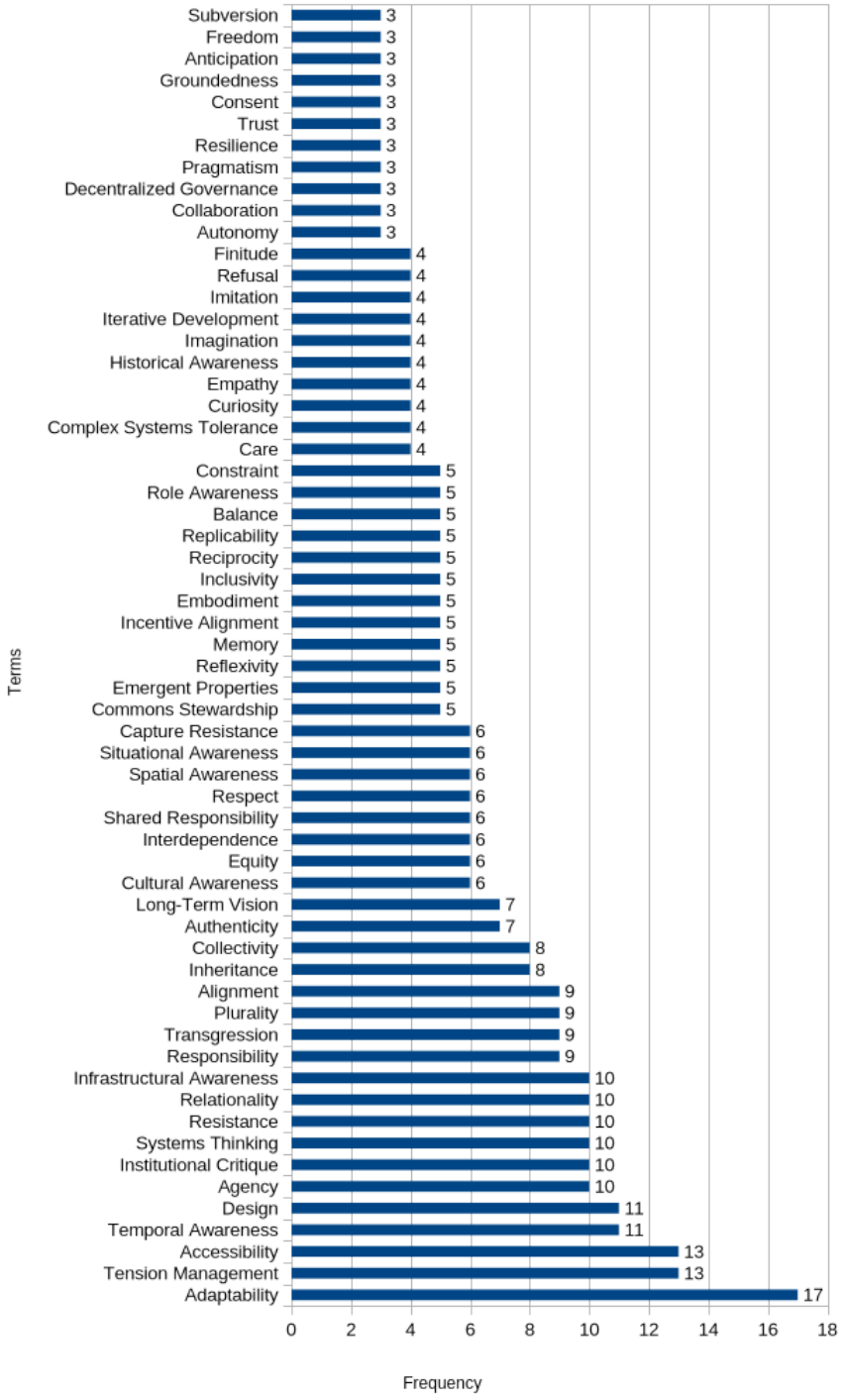


Figure 1: Plot of all terms with a frequency greater than 3.

A combined list of 13 terms can be derived by synthesizing the rank of the terms on both the frequency and centrality top-10 lists.

Table 2: Top 10 terms as measured by frequency of appearance and centrality in the network of coincident terms, and a combined list that synthesizes the two

Frequency	Centrality	Synthesis
Adaptability	Adaptability	Adaptability
Tension Management	Design	Design
Accessibility	Agency	Temporal Awareness
Temporal Awareness	Temporal Awareness	Agency
Design	Systems Thinking	Institutional Critique
Agency	Collectivity	Tension Management
Institutional Critique	Transgression	Accessibility
Systems Thinking	Institutional Critique	Systems Thinking
Resistance	Plurality	Transgression
Relationality	Relationality	Collectivity
		Relationality
		Resistance
		Plurality

Although this small study is based on a limited set of sources and terms, it provides a viable starting point for identifying the virtues that protocol enthusiasts believe will be necessary to life well in a protocol society. Particular protocols might depend on virtues that are not at the top of this list, or that don't appear in the study at all, and that should not discount their importance. Today's protocol insurgents might extol different virtues from future protocol conservatives. The results should be regarded as nothing more than a provisional and preliminary exercise to provoke discussion on political virtues for a protocol society.

Interpreting the virtues

With the above list of terms in hand, we can begin considering their meaning and significance. First, we can extend the list of terms with a set of definitions that clarify how they were understood in the coding process, in light of relevant passages from the source texts.

Table 3: Definitions of leading terms

Adaptability	The ability to adjust protocols and their use as conditions evolve
Design	Facility with crafting the structures of protocols amid necessary tradeoffs and tensions
Temporal Awareness	Recognition of protocols' relationship to past practice and possible future implications
Agency	Spirit of autonomy and intentionality among participants, despite the temptation to cede power to a protocol
Institutional Critique	Attentiveness to the dynamics of power in a system and to ways of addressing inequities
Tension Management	Acceptance of tension as an inevitable aspect of social life
Accessibility	Orientation toward making protocol designs as usable as possible to diverse participants
Systems Thinking	Ability to think in terms of multiple interacting systems rather than just within a single system
Transgression	Willingness to break protocol when necessary
Collectivity	Identification not only with individual interests but collective identities and outcomes
Relationality	Commitment to establishing and maintaining authentic relationships among participants
Resistance	Ability to develop protocols that can challenge and confront the dynamics of other protocols

Plurality	Embrace of diverse forms of identity, belonging, belief, and practice

It is apparent, even at first glance, that this set of political virtues does not map precisely to the virtues of any foregoing system considered above. Protocol virtues might share adaptability with nomadic cultures as well as the critical thinking inculcated in democratic cultures. Tension management may have something in common with bureaucratic practice, and perhaps even monarchist restraint, but transgression and resistance would not appear there. Design is not typically a political virtue, as most systems take for granted their inherited designs and expect subjects to act within them, not reimagine their structures. While there are points of overlap with other political orders, the virtue-set for protocols appears distinctive.

One can also begin to surmise what is distinctly relevant to protocols about the leading virtues. Adaptability, presumably, serves to counterbalance the potential that protocols hold for rigidity across dynamic conditions. Widespread tension management will be especially necessary when a regime does not rely on central, agentic authority to adjudicate conflict. Design serves to counterbalance the tendency people might have to perceive protocols as fixed rather than as mediums for agency and creativity.

These virtues take on clearer significance in light of the particular contexts of protocol advocacy discussed above: digital rights, decoloniality, and environmental protection.

Decolonial struggle, to begin, depends on the refusal to accept dominant structures of power as legitimate and to engage in resistance through remembering and continuing to practice ways of life that have been subject to erasure. Without the support of powerful institutions, survival depends on cultivating a habit of institutional critique and retaining a sense of collective identity through thick relationality (Glissant, 1990/1997). Indigenous communities, while varying widely in their context and idiom, often speak of protocols both in terms of internal practices and of rules of engagement with colonizer institutions. Maintaining both kinds requires an ability to adapt to changing conditions. Temporal awareness means developing patience for generations-long persistence. Further, decolonial struggles have often built solidarity together through a pluralistic orientation, such as that of the Za-

patistas in southern Mexico, who have called for "a world in which many worlds fit" (Escobar, 2018).

Movements for digital rights have cultivated similar virtues, even if through very different practices. Plurality, for instance, has emerged as a rallying cry in recent years, particularly in light of efforts to challenge the monopolistic power of the largest tech platforms and the accompanying monoculture (Weyl et al., 2024). This builds on earlier subcultures of transgressive hacking (Coleman, 2012; Galloway & Thacker, 2007). Protocol design is also a widespread practice for challenging corporate power, both in and out of major technical standards organizations. Activists practice institutional critique to understand the hidden dynamics of dominant platforms, and they exercise agency through alternative technology choices and self-governance (Schneider, 2022b). But those choices are only impactful if they are accessible. To achieve widespread adoption, protocol interventions must be easy to adopt for people who don't understand the underlying infrastructures.

Ecological stewardship similarly involves developing protocols around systems that are not readily apparent because of their long time-spans and distributed impact (Nixon, 2013). People who participate may want to feel a sense of agency that they are making a difference; they must also recognize that stewardship is a necessarily collective challenge. Protocols will be successful in protecting ecosystems only if they are accessible to prevailing institutions while also representing meaningful resistance against a destructive status quo. Environmental protocols among states and corporations will always involve tradeoffs, and managing the resulting tension is an inescapable task for protocol designers. But one way to make those tradeoffs more tolerable is to embrace a spirit of relationship, both among people and with the surrounding ecologies.

In ways such as these, it is possible to recognize the political virtues for protocols as distinct from those of other political orders and in some respects cohesive. At the same time, different domains of protocolized life will understand their virtues somewhat differently, or very much so. This is to be expected, just as different liberal-democratic countries develop their own interpretations and narratives around similar sets of political virtues. A protocol society will have many ways of being within it.

Protocol pedagogy

Political virtues do not take hold by default or magic; they must be learned. As discussed above, any political order devises and deploys pedagogical methods to inculcate preferred virtues among people. Plato taught the virtues of a philosophical oligarchy through friendship and dialogue; Paulo Freire centered a socialist education practice around the experience of the oppressed rather than elites; startup capitalists have formed for-profit incubators and coding schools to teach their sort of entrepreneurship. A protocol society will surely need not just virtues to teach but appropriate ways of teaching them. Today's protocol activists have begun developing pedagogies already.

The Protocol Institute community, for instance, cultivates a practice of "protocol watching," whereby people learn techniques for being attentive to the hidden protocols around them (Stinson-Schroff, 2025). The community has developed tools such as worksheets and apps to facilitate the practice, aiding practitioners in naming, classifying, and comparing protocols. In the process, they hope to gain a literacy that may be useful for designing, adapting to, and transgressing the protocols in their lives. Even while protocol watching is meant to be applied to a wide range of social and technical protocols, the Ethereum Foundation-funded community expects the insights from those diverse sources to be useful for the particular case of improving the design of blockchains.

The same community has additionally developed a practice of science-fiction writing, often with the assistance of large-language models, "as a way of noticing how rules, standards, and institutions shape experience, especially where those structures are normally taken for granted" (Sachin, 2025). Through fiction, one can explore not only the structure of a protocol—as one might through protocol watching—but the texture of experience within, around, and against it. This is a form of design that may be lower-cost and lower-stakes than creating a new protocol in the real world; it is also a means of exploring the tensions between the agency of people and the strictures of protocols.

A related practice takes protocol itself as a medium for art-making, which has been articulated by the artist and legal theorist Primavera Di Filippi as "protocolism" (De Filippi, 2024b). This kind of art does not merely operate within protocols such as genre and gallery economies but presents a protocol

as itself the medium of the work. Protocol art, in turn, generates new work anytime it is instantiated. Such experiments draw on earlier figures such as Sol LeWitt and Yoko Ono, who created artworks in the form of scripts for making new artworks (Bennke, 2026; Ono, 1964/2000). The authors of *As for Protocols*—many of them practicing artists—have also been working along these lines, and the book contains several original protocol scripts.

As with any form of education, these protocol pedagogies blend theory and practice—teaching concepts and idioms while also drawing people into certain forms of generative creating. In the process, whether consciously or not, these pedagogies seem oriented around teaching virtues for a politics inscribed in protocol.

Conclusion

This paper has engaged in an exercise of identifying political virtues relevant to domains in which protocols are the dominant forms of organizing. Various movements today envision protocols as basic political infrastructures, potentially eclipsing states and corporations. If the movements succeed, a functioning protocol society will expect the cultivation of certain virtues among its people. Past political orders have promoted distinctive sets of virtues, so it stands to reason that a protocol society would promulgate its own sets. To gain a sense of what these virtues might consist of, a simple thematic analysis identified and coded passages from two recent volumes of essays exploring protocols as means of social change. The study identified the most widely recurring themes that might translate into virtues. A further reflection mapped these virtues to the emerging movements and their experiments in pedagogy.

Such an exploration contributes to political theory and ethics by opening up a new domain for reflection on political virtues: the virtues relevant to protocol-centric regimes. Rather than taking liberal democracy for granted, as many scholars of political virtue have in recent decades, proposals for what is here called a protocol society invite us to reimagine political subjectivity under a very different kind of order. The virtue list identified here may be useful for future comparative studies of virtues across political orders. For protocol advocates, it might also be a useful foundation for normative work that further develops an understanding of protocol-appropriate polit-

ical virtues. The discussion of pedagogy might also spur development of additional pedagogical strategies.

This paper is necessarily preliminary and speculative for the simple reason that it attempts to articulate the virtues relevant to movements that are themselves counterpublics more than dominant social orders. Regardless of those movements' eventual success in achieving their goals, examining their emerging notions of political virtue is instructive in de-naturalizing the sets of virtues that presently reigning regimes promote.

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