Chapter 11
Liquid Democracy and the Futures of Governance

[AU1] **José Ramos**

Introduction

[AU2] The governance of our societies and our world is in transition. Far from an endpoint or "End of History," as Fukuyama presumptuously argued (Fukuyama 1989), the systems (both cultural and structural) by which we govern ourselves and, by extension, the practices of democracy are changing. This transition is multifaceted, involving visions of transformative change, new disruptive technologies, emerging political cultures, and long-standing legacy systems.

There is a general global dissatisfaction with political governance that can be described as a "democratic deficit." A democratic deficit describes a situation where, as common people's expectations and needs for greater political involvement increase, common people's real power in relation to their political systems decreases. Recent years have seen the rapid emergence of political movements against oligarchic power: principally the World Social Forum Process, Los Indignados, the Arab Spring, and Occupy Wall Street, but others which are widespread in many countries (Ramos 2010). Alongside this, new Web technologies are creating opportunities for experiments and innovations in public and participatory involvement in governmental decision-making, which are changing popular expectations. However, we have seen the continuing trend in the centralization, consolidation, and capture of political power by economic and political elites.

We are at a crossroads. Will we live in a world of oligarchs, where a super-rich and powerful class of people governs our planet? Or will the aspirations for

J. Ramos (✉)
Grundversorgung 2.0 Project, Centre for Digital Cultures, Leuphana Universität,
Sülztorstraße 21, 21335 Lüneburg, Germany
e-mail: jose@actionforesight.net
URL: http://cdc.leuphana.com/

© Springer International Publishing Switzerland 2016

J.S. Winter, R. Ono (eds.), *The Future Internet*, Public Administration
and Information Technology 17, DOI 10.1007/978-3-319-22994-2_11

distributed participatory decision-making create a world of deep democracy, where citizens have real *lateral* power in deciding the nature of their worlds? This chapter is organized to thematically clarify the issues and challenges that confront us. In the first section, an overview is given of the critical factors in the add-mix of change, which include disruptive technologies, the legacy of representative democracy and visions for deep and dynamic political participation. In the second section, I introduce the concept of “political culture” and “political contract,” two key concepts that are used to articulate the transition from representative democracy to a new approach. In the third section, I use weak signal and emerging issues analysis to posit Liquid Democracy as indicative of a new wave in popular governance. In the last section, I develop several scenarios for the futures of governance and democracy, informed by a discussion concerning the evolving future Internet.

Methodology

This chapter uses three key methods to arrive at its findings. The first is called the “the futures triangle,” developed by Inayatullah (2008). The futures triangle is an analytic tool that uses three categories:

1. Push of the present—the critical drivers of change,
2. Weight of history—the persistent and structural dimensions of an issue, and
3. Pull of the future—the visions of change which compel.

The futures triangle provides the context for the dramatic changes occurring around the world in the area of governance.

The second method used in the third section is weak signal (Hiltunen 2008) and emerging issues analysis (Molitor 2010). Weak signal analysis proposes that there are three critical lines in the identification of a weak signal, the (1) signal, (2) interpretation, and (3) observable issue. Emerging issues analysis provides a trajectory for the development of an issue, from its early development phase called “framing,” to a popular debate and resolution phase called “advancing,” to its political resolution “resolving” phase. Both methods help position Liquid Democracy as a prefigurative indicator of future political culture and political contract.

The third method used in the last section is a particular type of scenario development approach developed by Inayatullah (2008) and also employed by Ramos (2010), which analyses and integrates cultural strands in the development of visions of the future. In the method the first scenario is developed as transformative and idealistic—which captures the essence or spirit of a group of people and their aspirations. The second scenario explores and develops what that transformative and idealistic vision disowns, usually the functional legacy that is operant in the non-idealistic system. The third scenario develops an integration of the first two, where the transformative/idealistic and disowned are interwoven and where their contradictions are resolved. The fourth and final scenario examines a dystopic disintegration where competing forces are not reconciled and synergies are not achieved.

Triangulating the Futures of Democracy

In this section, I employ the futures triangle method developed by Inayatullah (2008). The futures triangle is a mapping method that provides a scaffold by which to explicate critical elements for a particular issue, and is often a useful starting point. The three elements used are: (1) the push of the present, more commonly understood as drivers of change; (2) the weight of history, the legacy dimensions of an issue that persist or resist change; and, (3) the pull of the future, the visions of change various peoples and communities are advocating for.

Push of the Future and Drivers of Change

There exists a long-term trend in the emergence of participatory democracy. After the student revolts of 1968 and the counterculture movement of the 1960s and 1970s, widespread dissatisfaction with technocratic and authoritarian approaches to governance emerged (Wallerstein 2004). Student protests and citizen-based mobilizations reinforced the lateral power of popular movements in shaping society. More recently the demand for participatory democracy has culminated through the World Social Forum process, initiated in Porto Alegre and inspired by the participatory economic democracy experiments there (Ponniah 2006), as well as the more recent social movements: Los Indignados, the Arab Spring, and Occupy Wall Street. These four examples share the common feature of having a networked organization that subverts traditional identity politics (i.e., the seeds of new grand movements) and challenge the centralized or oligarchic control by elites.

Over the last several decades a number of experiments have begun to be implemented in the area of participatory democracy. Within social democratic societies, there is an emerging expectation that citizens should be more deeply involved in decision-making across various aspects of life. Within nations typified by autocracy and oligarchy, there are expectations for more open, transparent, and accountable governments.

Alongside these rapid advances in technology emerging from digital technology, the emergence of home-based computers, social media, and more recently mobile networking technology are allowing for:

- Distributed collaboration,
- Easy access to governmental records and open data,
- Online opportunities for feedback, citizen engagement, and decision-making,
- Citizen campaigns and movement organizing.

We are seeing maturity and the push to implement applications for e-democracy (online systems) that work across institutional and organizational contexts—parliaments, parties, organizations, networks, and less defined communities. Developments in digital technology are playing a foundational role in helping to create a future Internet that empowers new forms of popular democratic engagement and a reimagination of governance for the following reasons:

- The practice and habit of using social media platforms is norming modes of *tacit voting* (the Facebook "like"), norming openness to one's political beliefs and values, and norming engagement in issues-based advocacy (e.g., Avaaz, MoveOn, GetUp! Action for Australia).
- Cloud-based computing is enabling a wave of applications that allow for dynamic deliberation and decision-making for a variety of groups and organizations—which complements (rather than replaces) face-to-face decision-making.

A number of strands that combine online participation and governmental decision-making have recently converged, such as strong advocacy for e-governance.

The Weight of History

In the West and other social democracies (e.g., Japan and Korea), the legacy of Republicanism is strong. The US representative system, for example, was designed to blend governance between a select group of senators and more popular house membership. The US Constitution and governmental system was founded on the premise that landed European males were fit to govern and all else were to be governed. Widespread citizen participation was seen as mob rule rather than the basis for wise government (Keane 2009). It would take several centuries to change the popular perception of democracy as a mob to democracy as a force for positive change, but the legacy of Republicanism continues to exist in most representative democracies, to varying degrees.

The systems of representative democracy emerged in the context of seventeenth and eighteenth century technologies. With the establishment of nation-states that encompassed extensive territories, such as France, the early USA, and others, and with limited means by which to communicate, existing technologies were limited to travel by horse and communication by postal mail. In the context of these technological limitations, representative democracy was a considerable social innovation. There was little alternative but to let a single person represent thousands of other people for a set number of years. That person would have to travel between the locale of the represented group and the locale of the representatives. Therefore, not only was there a perception among existing political leaders that governance should be the preserve of an educated and fit elite, but also there was the impracticality of popular engagement in decision-making.

Another important systemic legacy is the now almost universal convention around voting practices. In order to preserve the autonomy and the ability for an individual voter to exercise their conscience without coercion, the secret paper ballot is among the most important elements of the representative system of democracy. This particular systemic legacy becomes important when attempting to apply electronic forms of democracy.

Representative democratic systems have faced many problems and challenges over their recent 230-year history. In addition to the separation of powers that was

foundational to the establishment of early representative democracy, more recent changes in the twentieth century entailed what Keane (2009) describes as *monitory* democracy. This entails an elaborate system of institutions and processes that are designed to maintain the basic integrity of the representative democratic system. One of the most important of these monitory systems is media laws. In the aftermath of the great wars, monitory systems were designed to ensure that popular media were not co-opted by one or two special interests that capture the popular imagination. The German experience with Nazi propaganda and use of media led to social democratic polices that aimed to create media diversity, combat media monopolies, and channel funds for the development of educational programs, programs with a critical viewpoint, designed to educate the public about popular issues which are not biased toward one party or point of view. One of the most exemplary forms of this is Germany's *Grundversorgung* (universal service) legislation.

In the Westminster system of the UK, similar media laws have been established to provide the public with a broad-ranging and critical debate. The contemporary consensus is that, despite the development of monitory democracy, in the West, the legacy and triumph of capitalism has created a form of corporate plutocracy (rule by wealth). In the USA, accelerating from the 1886 ruling (Santa Clara County v. Southern Pacific Railroad) that established the legality of corporate personhood, corporate and moneyed interests have consistently had a major influence on policy (Korten 1999). While corporate power was somewhat restrained after the New Deal, it is again ascendant. The Republicanist legacy (not to be confused with the party) of many modern democracies has complicated this, as centralized/elite forms of decision-making are more easily co-opted by moneyed interests.

In countries like China and Russia, deeper participation in the democratic process is a threat to the vested interests of ruling elites. In China this includes the party apparatus and princelings, and in Russia this includes the 13 or so oligarchs. With the media well and truly tamed at the hands of the ruling elites, a popular understanding of democratic potentials may be stifled for many years. In states such as India, Pakistan, and Bangladesh, democracy is often looked upon with widespread disillusionment, seen as dysfunctional and inferior to a benevolent and wise autocracy.

Pull of the Future and New Visions of Democracy

In sharp contrast to many of the "weights of history," emerging visions for democracy portend dramatic shifts in the way societies consider governance, decision-making, and power. Key visions include: economic democracy, localization, global governance, and governance of the commons.

Economic democracy includes both workplace democracy (Albert 2003), which is the idea that workers should have decision-making power, and a broader participatory inclusion of citizens in local, municipal, and state budgeting of resources (Sharp 2011). The vision for economic democracy expands the involvement of citizens into processes for economic decision-making, whether through their organiza-

tions or through government. This is also connected to the cooperatives movement, as well as socialist strains of theory and strategy (Sklair 2002).

A related theme is localization, which holds a vision for subsidiarity in political governance. The main idea in subsidiarity is the devolution of political power to the most local possible scale (Hines 2002; Cavanagh and Mander 2003). While these proponents argue that many issues will need to be governed across large scales, they argue that issues that can be devolved to local scales should be. In addition, localization challenges the idea of a state monopoly on adjudication of boundary issues. In cases where a locality does not want, for example, a Walmart or McDonalds setting up a business, localization advocates argue that a locality has an equal or greater right to the adjudication of boundary issues than a state. This is understood acutely in the context of the neoliberal co-optation of the state, where a state monopoly on adjudication of boundary issues most likely favors neoliberal and corporate interests.

Reciprocally, another major vision is for global governance, reflecting the need to both tame globalization and to address many of the planetary challenges we face in the twenty-first century. Advocates for global governance argue we need to create global governance institutions that can do what states are failing to do (Held 2005). Globalization has accelerated a litany of ills such as sex trafficking, money laundering, use of tax havens, illegal toxic waste disposal, and exploitative labor practices (Ramos 2010). In addition, states are failing to address many global challenges, from climate change to deforestation to the large-scale destruction of oceanic ecosystems. Global governance proponents argue new governance institutions are needed that can address the transnational scope of globalization issues, as well as address planetary challenges that states are failing to effectively address. Some argue such a network of global governance is already coming into being through what is described as, *cosmocracy* (Keane 2005).

Finally, over the past three decades, four categories of commons have each become critical areas of contestation, policy reformulation, and innovation in governance. These include governance of natural resources (precious metals, forestry products, etc.), governance of public goods (e.g., education, libraries, health services), governance of peer-produced resources (e.g., Wikipedia and Creative Commons), and governance of life support systems (atmosphere, ocean ecosystems, water, etc.). Commons are thematically diverse and differentiated, can work across multiple scales and themes, or can be localized. Therefore, the communities involved in governance are contextually specific. Governance of commons is not by a state or private entity, but rather by a community that has a particular interest and legacy relationship with the *commons* (Ostrom 1990; Bollier and Helfrich 2014).

Political Culture and Political Contract

The use of the futures triangle provided a context for the dramatic changes and factors for transformation to governance and democratic practice at a variety of scales and across themes. In this context, I argue in this section that we are experiencing a shift

from statist representative democracy, which is typified by anachronistic systems, an antiquated political culture, and oligarchic influences, toward a new mode of political practice and political culture, which can be understood through political innovations such as "Liquid Democracy."

Democracy, or popular self-governance, rests on particular *political cultures*. For a group of people to have the power and ability to exercise decision-making, particular values, attitudes, and ideas need to exist. The direct democracy of Athens required deep involvement. Indeed, in the Athens of antiquity, citizens were required to spend as much as 40 full days per year in civic dialogue, debate, and decision-making. Athenians even imbued democracy with religious sentiment: Democracy was an actual goddess that was widely worshiped (Keane 2009). In contemporary times democracy is also not just a practice; it is as well an ideology and vision of the future. There are many regions across the world that are democratizing and learning from their experiments, while at the same time in the birthplace of representative democracy—the USA—there exists a culture of political *infantilization*, the legacy of the spectacle of late neoliberal democracy, where apathy is more normal than engagement. One need only look at the voter turnout statistics.

Democracy is founded on political contracts, agreements between people and their institutions with regard to the exercise of power. A political contract is established when power is exercised by a particular group to formalize a new arrangement in governance that is more advantageous. Women's suffrage, for example, established a new political contract that enfranchised women in voting, making women regular and constant members of the voting public. The means was still via the representative system, a legacy of a previous contract, but those involved in voting changed, expressing a shift to the existing contract. The Magna Carta is perhaps the most famous example of the establishment of a new political contract. Strong political power, therefore, is the capacity to transform the political contract for a particular group of people, rather than the exercise of power from within the boundaries of an existing political contract. The Citizens United decision in the USA that opened the way for less transparent political donations and corporate influence is an adjustment to a political contract, a change in the rules by which power can be exercised within a political system, in this case favoring corporate and moneyed plutocracy (e.g., Citizens United v. Federal Election Commission).

The Crisis and Decline of Statist Representative Democracy

We are experiencing a crisis and decline of the statist representative democratic model based on two primary factors: First, representative democracy is anachronistic, a system designed for a previous era but hardly coping with the challenges presented today; secondly, power within the current representative democratic system is overly perverted by moneyed interests, mass media, and a restriction of party politics that cannot escape neoliberal policy making. As this crisis and decline deepens and accelerates, greater pressure will emerge to enact alternatives.

Crisis of Anachronism

Anachronistic elements in representative democracy include the context of transport and communication, the elitism of republicanism, the slow speed of decision-making, and a poor ability to deal with complexity and wicked problems.

It was developed at a time when travel was done by horse or boat, and where for a province or state to govern itself, representatives were needed to gather in a capital area. Today communication and collaboration happens at the speed of light, and distributed decision-making is a functional reality.

Representative democratic systems were designed based on the philosophy of republicanism, which held that popular democracy amounted to mob rule. Its systems are designed to be restrictive of popular decision-making. It was designed to maintain social order, rather than draw upon distributed intelligence. Today we are emerging into an era typified by the exercise of collective and distributed social (and machine) intelligences. Wikipedia has defied the critics, and we accept that self-appointed experts around the world will contribute their time and knowledge, which others will build on (or challenge), and the result will be trustworthy.

Representative democracy was created in the transition between agricultural and industrial economic systems, and the pace of change was slow if compared to the pace of change today. Social and technological change was far more gradual and decision-makers were afforded time to make decisions. Today the pace of change and innovation is fast, and requires not only fast and experimental policy development, but also anticipatory decision-making (Ramos 2014a).

Representative democracy, based on the Newtonian worldview of linear and knowable cause and effect, was designed to deal with low complexity and low interconnectivity. Today we find ourselves in contexts of high complexity, where issues are interrelated in dynamic and often difficult to understand ways. The era of the wicked problem is upon us. The outdated mental frameworks are incapable of adapting to a new reality.

Representative Democracy's Many Challenges

In addition to the problem of its many anachronisms, representative democracy also faces challenges on a variety of levels. First is the power of the mass media and its use by parties and corporations to influence public opinion and popular culture as a substitute for meaningful dialogue or debate (Herman and McChesney 1997). Second, we can see the influence of corporate and special interest money on politics and policy—the creation of the policy rich and policy poor (Ramos 2013). Third is the convergence (both left-right) into neoliberal forms of policy regardless of party. The triad of power among the political, corporate, and media/pop culture domains is currently involved in the practice of power maintenance, or *oligarchic capitalist reproduction*, rather than forging new pathways for a sustainable society or world (Robinson 2004).

Legacy of Monitory Democracy

Monitory democracy, a concept developed by Keane (2009), does provide context, boundaries, and integrity to the system of representative democracy that we have inherited. It can be, in some situations, a counterbalance to extreme oligarchic power. Monitory democracy is a complex system of processes, institutions and activities that developed after WWII, which redefined the very notion of democracy. Critical ideas in monitory democracy include the importance of basic education supporting a literate population, strict media laws that limit government or commercial propaganda, basic freedoms from hunger and depravation.

In some situations, such as postwar Germany, it is very effective at resisting and countering oligarchic influences. Media laws in Germany are among the strictest in the world, for example through their constitutionally embedded *Grundversorgung* laws. In other situations, such as in Australia or in the USA, oligarchic forces (e.g., Rupert Murdoch's 21st Century Fox/News Corp.) can significantly skew the field of debate and opinion and render representative democratic systems powerless.

Current representative democracies have complex and diverse monitory systems embedded within them. Because of the scale and legacy of the institutions of representative democracy and the monitory systems that surround them, we can expect them to remain in use for a very long period of time, even as they suffer crises in both legitimacy and effective functioning.

Liquid Democracy as Indicator of Change

The Liquid Democracy experiments are used in this chapter as an indicator for futures changes, an element prefigurative of possible future states, and a heuristic used to examine the potential futures of new political cultures and contracts. Charles Dodgson (also known as Lewis Carroll), the British author of *Alice in Wonderland*, first proposed the idea for transitive "liquid" voting in *The Principles of Parliamentary Representation* (1884). With the advent of digital technology, however, the technical necessities for creating such a complex and dynamic decision-making system became possible (Ramos 2014b).

Liquid Democracy applications were invented in Berlin, Germany, a product of both the hacker culture associated with Berlin (e.g., the Chaos Computer Club that also supported initiatives like WikiLeaks) and a grassroots political culture that was disillusioned with the left-right ideological dualisms and party system. It is based on cloud software systems that allow large numbers of people to propose, deliberate, and decide on the issues they face in their parties or organizations, for example a software platform called "Liquid Feedback" (Behrens et al. 2014). It was designed to make every user a potential politician, by combining direct and representative systems of decision-making. Any member can assign a proxy vote to any other member, thereby assigning a personal delegate, instead of voting for a representative.

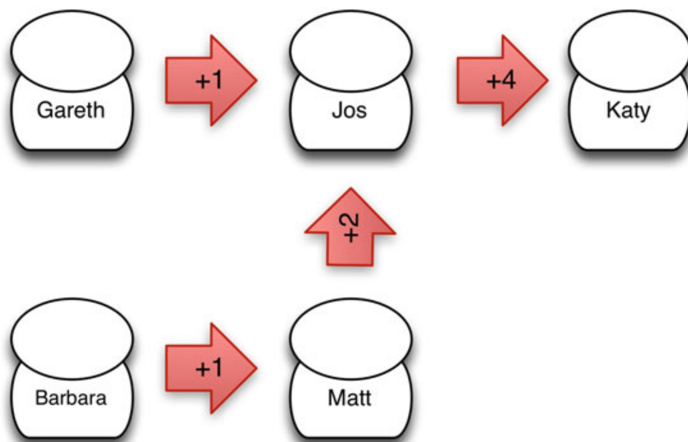

Fig. 11.1 Transitive voting system

A member can give their vote to another member for all issues, for a particular policy area, or for a particular decision for a limited length of time. That delegation can be rescinded at any time. Under this system, a person can become a delegate for multiple members within a polity very quickly (Fig. 11.1). [AU3]

Because anyone can propose an idea and users can both deliberate on an issue or delegate this authority to others, it functionally removes the "representative" or "politician" from the system. A user can gain power through delegations and lose them just as quickly, hence the idea of a *liquid* democracy.

Liquid Democracy is a harbinger of change, or in futures-speak it can be considered a "weak signal." According to Hiltunen (2008), there are three main aspects of a weak signal: the signal (inter-subjective media), the interpretation (our subjective understanding), and the observable issue (the objective dimension). Our collective interpretations of Liquid Democracy are still emerging. While our technical understanding of "it" has been established, its implications, legal and social issues are still emerging. The signal has a "bellwether" quality, which is to say that media coverage of it is limited to a few countries (such as Germany) and limited to a few media channels, but is largely unknown elsewhere. Finally, its observable dimensions are still few, with a handful of applications: use with the German Federal Parliamentary Commission on the Internet and Digital Society,[1] application within the German Pirate Party, and some uses by councils, civil and business organizations.[2]

[1] Enquete-Kommission Internet und digitale Gesellschaft des Deutschen Bundestages (Federal Parliamentary Commission on the Internet and Digital Society). See http://www.bundestag.de/internetenquete/Adhocracy/index.jsp for more details.

[2] For example, the application of Liquid Feedback software in Friesland (Liquid Friesland) and use by the German Slow Food movement, as well as the German company Synaxon AG.

Implications of Liquid Democracy

Liquid Democracy, by virtue of some very significant differences that put it at odds with representative democracy, requires a fundamental shift in the existing political culture and contract to something very new. Taken as an indicator, Liquid Democracy augurs a future Internet of dynamic decision-making, fluid representation, and governance by collective intelligence. Liquid Democracy in its extensive form indicates the following changes:

1. The right to the flexible (transitive) delegation of votes, differentiated on issues and also revocable—currently people vote for a representative that they must keep for 3–5 years.
2. The right to a differentiated delegation of votes, a person can break up their votes to multiple delegates by issue, theme or conduct a general delegation—currently a voter assigns a representative the right to represent them on *all* issues.
3. Voting is allowed to be transparent—currently voting is sanctioned by law as anonymous via the secret (usually paper) ballot.
4. A law proposed and enacted via an online system is able to be binding—currently online decision-making largely constitutes recommendations and is therefore a reference system only.

Liquid Democracy is spearheading an emerging political culture. In research conducted in Germany (Ramos 2014b) on users and developers of Liquid Democracy systems, the following features emerged. Liquid Democracy represents a new political culture where people are more deeply, flexibly and continuously engaged with decision-making. Being involved in idea proposition, deliberation, delegation, and decision-making takes a lot more work than what is required in the currently dominant representative systems. For those who wish to delegate their powers to other members, familiarity with people and issues is still required and still exceeds the engagement most have in the currently dominant representative system. Liquid Democracy users are willing to accept the transparency of their involvement, as other users and members are able to see many of their decisions—the option of anonymity is limited. Like politicians, members must stand for their decisions by their name. Finally, there is an emerging expectation that decisions made on such a platform will translate to binding decisions. Up until now, online and virtual activity has been seen as less real than our physical reality. This dualism is being challenged by the emerging wave of IT developments, such as mobile networking applications (Instagram, etc.), collaborative work platforms, and online political lobbying. Over time, expectations are being created where human agency is extended through online systems, seen as entwined with the physical and co-originating reality—challenging the idea of cyberspace as an autonomous and separate reality—enfolding online political decisions as legally binding ones.

Developmental Trajectory of Liquid Democracy

Liquid Democracy is emerging in the context of existing and dominant political culture and political contracts, namely statist representative democracy in some countries, autocracy and oligarchy in others. As such, it will not supersede this systemic legacy—Liquid Democracy will need to negotiate a path from within the existing legacy. Molitor (2010) argues that emerging issues move through three primary phases in their lifecycle. The first is the "framing" where ideas emerge, prototypes and first inventions and applications are conducted, and an emerging pattern emerges that begs for understanding, similar to Hiltunen's (2008) category of "interpretation." The second phase is "advancing," where the issue becomes a subject of debate within society or among specific parties. Here, advocates and agents of change become important voices, organizations adopt or champion the issue or take a stance with respect to the issue, and catalyst events generate media which can influence the public. We are arguably already in this phase, but as the asymmetry widens between aspirations for authentic democracy and the limitations and dysfunction with representative and autocratic/oligarchic, this debate will become more widespread globally. Finally, the third phase, "resolving" is where the issue is reconciled within existing political systems. Because Liquid Democracy represents the need for a new political contract that cannot simply be resolved within existing systems (representative, autocratic, or oligarchic), this resolving phase will arguably entail political and social mobilizations and struggles that force a shift in the core rules of the game, much like the *Magna Carta* in England altered the landscape of social expectations in the exercise of power.

Broader Implications

Liquid Democracy is a subset of a range of shifts in governance, technology, and social change and, for the purpose of considering possible futures, it is useful to consider wider and broader implications in the convergence of digital technology, social innovations in governance, and changing social values, expectations, and political culture. Some of these shifts include:

As a reaction to both alienation from technocracy and national scale systems of (infantilized) voting, people want to be more involved in decision-making that is directly related to people's lifeworlds. This is expressed through innovations in participatory budgeting, but differentiated across a variety of social functions and themes, some of which have novel scales and geographies; thus,

Governance is differentiating across geographic scale and new spatial categories (from bioregional to global), but it is also thematically differentiated. Governance of social and ecological functions is forking into new geographic as well as de-territorialized configurations, which include oceanic, atmospheric, ecologically serviced, symbolic (shared religious), and other themes that do not conform to nation-state

systems and boundaries. Emerging social and planetary challenges demand new approaches to managing shared commons that cut across statist lines; thus,

Governing our social and planetary commons is the critical challenge of the twenty-first century. Because the legacy systems of monitory representative democracy will continue to operate for many years, and have been co-opted by capital or oligarchic factors, social movements will be required to forge new political contracts that open up social and ecological commons to participatory governance. This implies a complexification of governance jurisdictions, which in many cases will lead to conflicting claims over control and management, but which may ultimately be resolved by the parties that forge new political contracts ensuring their rights to govern. Online democracy systems may play a major part in the victory of communities' rights to govern variegated commons, by virtue of their speeds and (distributed) scales.

New collaborative endeavors are at the forefront of facilitating social change and require new powerful systems of decision-making. Transnational political organizations will require systems with speed and deliberative robustness to develop. Innovation and application of online governance systems is both driven by a demand for better social organization to govern commons, while simultaneously being potentiated by rapid advances in computing and software.

Scenarios

Using the scenario approach outlined in the methodology section of this chapter, four scenarios are outlined here. The first scenario is called "Liquid Revolution" and depicts an idealized future where democracy has radically changed, online governance is strong and variegated, and Liquid Democracy features prominently. The second scenario represents what the first scenario disowns, and is named "Steady-state Oligarchy," where statist, representative, pseudo-representative, autocratic, and oligarchic governance maintains power in alignment with neoliberal moneyed interests. The third scenario attempts to integrate the first and second scenarios, and is called "Partner State," drawn from Cosma Orsi (2009) Michel Bauwens' (2012) foundational theoretical work. The final scenario depicts a world where statist and liquid governance are in conflict and fundamentally dissociated, called "War of the Worlds."

Liquid Revolution

Neoliberal policy continued to strangle the state of funds, to the point where basic functions could not be carried out by state systems. States were also not able to manage disruptive ecological changes and extreme events, and new political communities emerged to address the crises. Commons based transnational design and production networks became the dominant form of enterprise.

It is 2050, and political power has shifted dramatically toward localized communities, networks of collaborating organizations, transnational production associations, and global governance institutions. State power has significantly weakened, with many features of the state now defunct. In the vacuum left by weak states, new political contracts have emerged where a variety of networks, corporations, organizations, and geographies use fluid forms of decision-making to enact binding policies. Political culture for many evolves toward deep and continuous engagement. Dozens of communities govern oceanic territories, the most prominent being Sea Shepherd, which governs over 20 % of the world's oceans with its fleet of ships in constant and fluid coordination. In a world of sporadic scarcities, membership into consumer cooperatives is high. Rural communities have formed systems of bioregional governance, to better address wicked ecological challenges. New global governance institutions spring up regularly, with massive financial backing from distributed citizens and organizations, one of the most interesting being the Citizens' Space Agency, which launches and maintains a plethora of satellites that serve a variety of purposes, and which governs the Free-Earth-Space-Station, which has an evolving and modular structure that allows partners to add modules flexibly—it is the largest space station, with over 100 modules.

Because there are no functional authorities (states) to adjudicate across multiple parties, and in lieu of state-based due processes, conflicts are common, and disputes are often settled by might—cyberattacks, choking supply chains and, in extreme cases, violence. Large-scale networks, some justice-based and others netarchical, exert great influence and push the limits of lateral power. Impartial arbitration organizations feature prominently, as ways in which parties can resolve disputes. But the field is uneven and there is not an operational common law or natural law. A mix between legal traditions is the norm, with commons-based law overlapping with positivist and natural. Despite this relative incoherence, the speed and flexibility of informational flows and online governance systems provide a global feedback mechanism by which liquid systems of governance allow the liquid form to quickly address power imbalances, often to the detriment of traditional (representative) modes of power.

Steady-State Oligarchy

There was widespread failure to reinvent a new political culture which demanded a greater say in the everyday affairs of people, and the perpetuation of political infantilization continued. The power of capitalism in inculcating a culture of consumerism continued to provide the "bread and circuses" that distracted people from basic opportunities for self-empowerment. Military and paramilitary brutality against those that attempted to enact new political contracts (similar to the treatment of the Black Panthers by the FBI, and Russia's secret service against dissident journalists) created an atmosphere of repression that stifled innovation.

It is 2050, and political power remains in the grip of states, in conjunction with moneyed interests. Online systems have advanced considerably, but communities have not fought for and won new political contracts that make online community decision-making binding or powerful. The influence on politics of online systems is superficial, mobilizing online petitions, wikis, and fundraising, but not able to influence neoliberal and oligarchic state policies. There is still a plethora of activity to lobby and influence the state, through representatives and officials, but the playing field means that neoliberal and oligarchic state policy continues and deepens. The majority still live in a state of political infantilization, showing up every 3–4 years to cast a vote, more and more in a state of apathy and resignation. Neoliberal and oligarchic policy is to use new and flashy online systems to provide people a sense of inclusion and consultation in policy, but these are highly managed forms of consultation, used to legitimize the existing policy regimes, not challenge them.

The steady-state oligarchy's strength rests on long-established systems that provide a clear and widely accepted system of rules. Where state systems are monitored by a wide variety of parties (monitory democracy), national communities are able to hold onto social democratic benefits. In many other places with weak monitory systems, neoliberal and oligarchic policy prevails, impoverishing new classes and communities. Between states and among states there is jurisdictional clarity, and this can facilitate trade and stability. But the system does not challenge many of the negative trends: rising inequality, poor policy responses to climate change and ecological problems, the application and ethics of disruptive technologies. Power continues to accumulate into fewer and fewer hands. US elections bring out fewer than 25 % of the voting population, a process now considered more of a ritual function. In China a handful and princelings, entrepreneurs, and party leaders wield almost complete power. In Russia the oligarchy has shrunk from 13 in 2014 to only 7 in 2050. In the Eurozone power has become more vested in the EU bureaucracy. Attempts to create communities that govern various commons meet with little success. As such, governance systems have little or no precedent and legitimacy within the dominant state systems.

The Partner State

Citizen movements and mobilizations continued to learn and evolve toward more effective strategies at making political gains. The Occupy Wall Street and Arab Spring uprisings formed learning opportunities used by subsequent generations to carve out new political contracts. The economic logic of autonomous governance units pushed states to encourage and support them. It was far too difficult for states to suppress the speed and influence of these new networks anyway.

It is 2050 and around the world a new political contract has been won through hard fought struggles within existing state systems, which open up opportunities for a variety of communities to govern their own commons, using a variety of means at their disposal, many of which use online and fluid decision-making platforms.

The state, at the highest level, accepts and supports variegated community commons governance arrangements that scale from the local, national to the transnational and global. Recognition is achieved that new online technologies allow for dynamic and cross cutting communities—which require self-organization capabilities, but which also wish to enact change upon the world. The state becomes a supporter and facilitator of many types of communities which attempt governance of themselves and their overlapping commons. It offers resources, legal support and adjudication, education and regulatory institutions. Constitutional changes make oligarchic cooptation difficult in future—states are surrounded by monitory democracy systems that damper the influence of moneyed and special interest. Commons governing efforts have a strong foundation within state law and are increasingly synchronized or partitioned with legacy systems (social democratic and neoliberal).

Early in the twenty-first century states like Ecuador led the way with their FLOK project—which aimed to create a state-supported knowledge society. By the mid-twenty-first century, most states had been won over to various forms of state-supported autonomous governance. The most effective of these go far beyond sanctioning online and commons-based governance systems, but actually nurture and support them. The logic is clear: communities taking responsibility for governance of various commons takes pressure off the state, reduces costs, and empowers citizen participation and creativity. Where boundary issues arise, as is often the case with the variegated jurisdictional boundaries of self-generating communities, the state plays the important role of impartial adjudicator. In states like China, the state devolves its overall governance to new communities but maintains its tradition and systems of autocracy. In a radical move, communities straddling the Yellow river form a liquid governance system called the Yellow River Management Cooperative, prompting local officials to arrest instigators and initiating an epic media and court struggle. Under pressure from citizens to address corruption and the excesses of industrialization, the state ultimately sides with the cooperative and jails many of the corrupt local officials, labeling the cooperative initiators as "patriots," prompting a wave of other citizen actions.

War of the Worlds

Privileged elites remained unwilling to make compromises to the political contract. Poor strategy and a lack of determination on the part of social movements led to a failure to target the state as a key locale for power. A political culture that disowned state law and state power, and opted for "autonomous" communities emerged. This led to an emerging schizophrenia of power between autonomously governed communities and states.

It is 2050, and the world experiences an ongoing and protracted conflict known as the "*War of the Worlds*." The state and a variety of autonomous communities compete intensively for legitimacy, resources, and power in the governance of the world. While social movements drive dissent and pioneer new political contracts to

enfranchise new types of community governance, the state in association with moneyed interests closes ranks, unwilling to share legal powers or concede political privileges. Hundreds of autonomous and networked communities with sophisticated governance systems emerge to address a variety of social and ecological needs, but are never offered legitimacy and support, and are actually undermined by the state. Social movements did not learn from Occupy Wall Street. Instead of coherent demands by social movements to shift the political contract, issues and demands are fragmented, and there is a tendency to give up on changing the terms of the state system, and instead forge ahead with autonomous and networked efforts. This results in extensive conflict between states at the level of law and enforcement, where new communities with self-governing capabilities enact law and also enforce it within jurisdictions that overlap with existing state law and enforcement systems.

One of the most extreme cases involved the North-Eastern Bio-Regional Governance Collective (NEB for short), a group with tens of thousands of members across the US Great Lakes and New England areas. NEB is self-chartered to use bio-regional governance strategies to address socio-ecological challenges and issues, which both enact bio-regional management policy, and also enforce it through a network of dedicated and local volunteers. A number of states had attempted to restart gas fracking activity, opposed by most residents, but which had been re-legalized by virtue of the influence of the mining lobby. Neither states nor the NEB accepted the legitimacy of the others' policies, and as mining companies began to move into various regions to begin operations with the protection of state enforcement, violent clashes erupted between NEB and state law enforcement. Before the state could send in reenforcements, thousands of "freedom fighters" were pouring into the North-East to fight alongside NEB.

In this future, states attempt to use a divide and conquer strategy of allying with one self-governing community, but quarantining the more radical. Without a well-established system by which different communities can address boundary issues and disputes, conflict is common between emerging communities. Likewise, to counter the power of states, self-governing communities link together in vast networks, some geographic, others thematic, and others a mix, to leverage scale and capabilities. These complex mega-networks are emerging collectives that are able to exert power and claim some victories in the face of state intransigence.

Conclusion

The key conclusions from this research are summarized through the following points:

- We are witnessing a shift from the statist system of representative (republican) democracy that emerged from the enlightenment, toward new (post-republican) possibilities signified by the movements for participatory democracy and the emerging possibilities of the World Wide Web and network-enabled collaboration.

- Experiments with Liquid Democracy and transitive voting are indicative of this shift, through the experiments conducted through Liquid Feedback and Adhocracy software, and other systems.
- These experiments highlight the distinction between shallow political participation and deep democracy—and augur both new political cultures and political contracts where they can be enacted.
- The diversification and fragmentation of existing systems of governance provides the basis for a number of possible future scenarios—with implications for how the state is engaged with governance of shared commons and emerging transnational governance systems, to name a few.

The evolving possibilities of the Internet have empowered a new wave of participation and decision-making; understanding change more holistically, however, requires us to couple the inquiry on technology with an inquiry into cultural dynamics and the contemporary challenges we face. Indeed, the political power of the 1 % is on a collision course with both emerging technologies, the aspiration for genuine participation, the challenges and opportunities humanity faces, and the need for dynamic and global responsibility.

Given this admix of change, and the absence of a clear future outcome, the critical factor is our ability to organize ourselves for the future that we want, and develop a sensible program of change. The future of democracy and the Internet is in our hands, hearts, and minds.

References

Albert M (2003) Parecon: life after capitalism. Verso, London

Bauwens M (2012) Blueprint for a P2P society: the partner state & ethical economy. http://www.shareable.net/blog/blueprint-for-p2p-society-the-partner-state-ethical-economy

Behrens J, Kistner A, Nitsche A, Swierczek B (2014) The principles of LiquidFeedback. Interaktive Demokratie e. V, Berlin

Bollier D, Helfrich S (eds) (2014) The Wealth of the commons: a world beyond market and state. Levellers Press, Amherst, MA

Cavanagh J, Mander J (2003) Alternatives to economic globalisation. Berrett-Koehler, San Francisco, CA

Dodgson CL (1884) The principles of parliamentary representation. Harrison and Sons, London

Fukuyama F (1989) The end of history? The National Interest 1989:3–18

Held D (2005) At the global crossroads: the end of the Washington Consensus and the rise of global social democracy? Globalizations 2(1):95–113

Herman E, McChesney R (1997) The global media. Cassell, London

Hiltunen E (2008) The future sign and its three dimensions. Futures 40(3):247–260

Hines C (2002) Localization: a global manifesto. Earthscan, Oxfordshire

Inayatullah S (2008) Six pillars: futures thinking for transforming. Foresight 10(1):4–21

Keane J (2005) Cosmocracy and global civil society. In: Chandler D, Baker G (eds) Global civil society: contested futures. Routledge, New York, pp 149–170

Keane J (2009) The life and death of democracy. Simon & Schuster, New York

Korten DC (1999) The post-corporate world: life after Capitalism. Kumarian Press, West Hartford, CT

Molitor G (2010) Timeline 22-step model for tracking and forecasting public policy change. J Future Stud 14(3):1–12
Orsi C (2009) Knowledge-based society, peer production and the common good. Capital Class 33(1):31–51
Ostrom E (1990) Governing the commons. Cambridge University Press, New York
Ponniah T (2006) The World social forum vision: radical democracy vs. neoliberal globalisation. Doctoral dissertation, Clark University
Ramos J (2010) Alternative futures of globalisation: a socio-ecological study of the World Social Forum process. Department of Research and Commercialisation, Queensland University of Technology Brisbane, Brisbane
Ramos J (2013) The futures of power in the Network Era. J Future Stud 17(4):71–92
Ramos J (2014a) Anticipatory governance: traditions and trajectories for strategic design. J Future Stud 19(1):35–52
Ramos J (2014b) Liquid Democracy: the App that turns everyone into a politician. http://www.shareable.net/blog/liquid-democracy-the-app-that-turns-everyone-into-a-politician
Robinson W (2004) A theory of global capitalism. The Johns Hopkins University Press, Baltimore, MD
Sharp D (2011) City budgeting & Gov 2.0: a match made in heaven? http://www.shareable.net/blog/city-budgeting-gov-20-a-match-made-in-heaven
Sklair L (2002) Globalisation: capitalism and its alternatives, 3rd edn. Oxford University Press, Oxford
Wallerstein I (2004) New revolts against the system. In: Mertes T (ed) A movement of movements: is another world really possible? Verso, London, pp 262–274

Author Queries

Chapter No.: 11   0002584908

Queries	Details Required	Author's Response
AU1	Please check if the affiliation is presented correctly.	
AU2	Please check if the section headings are assigned to appropriate levels.	
AU3	Missing citation of Fig. 11.1 has been inserted here. Please check if appropriate.	