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## 14.1 Introduction

Information and services produced by citizens could be the essence of a public administration that seeks to reinvigorate its capabilities lost during the neo-liberal period. In the current model, the citizen expects services in return for taxes paid. When the services do not meet expectations, the “participation” is often limited to a protest/voice or exit. In the now emerging new view of government, administration in its various forms reaches into the virtual space, capturing the motivation and talents of citizens, which have been so far neglected by the private and public sector, forming a “cognitive surplus”. This surplus of ideas and talents is now integrated into the processes of policy formulation and service delivery using modern social media tools and virtual platforms. This co-option—which in the digital world is often achieved with negligible transaction and marginal costs—can be used to solve collective problems at the community, state, national and international level: The ability to tap the cognitive surplus becomes part of a country’s political and economic competitive advantage and shows a way out of the dilemma of “post-democracy”, which describes the dependency of politics on the private sector. As the desire (or rather need) for utilising the cognitive surplus continues, we can expect the administration system to evolve into a kind of partner state that stimulates, directs and supports activities of its citizens by providing data,

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applications and interaction spaces as they compete and collaborate with the traditional economic and administrative sector by using various forms of the self-governing and self-organising peer-to-peer (P2P) approach that has been successfully implemented in the Open Software community. Therefore, services must not ultimately be delivered by state organisations, but rather, platforms must be provided to allow for the self-organised interaction of citizens to solve their pressing issues. In times of financial hardship, these models seem to make even more sense.

The argument developed here is, that new forms of collaborations between citizen producers could be useful or even at times better in delivering public services and also possibly cover needs not addressed today. The beleaguered and strained state could use these new forces and must open and remodel its institutions and policies to direct, encourage and stimulate the cognitive surplus to fulfil this role. This cooperation and co-option of the cognitive surplus will, however, adversely affect its potential political participatory capabilities, but P2P collaborations could add cohesion to the society, through shared experiences and collective practices on the community level.

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## 14.2 Forces of Disruptive Innovations

The transformations that are occurring in our societies have their root in the globalisation and technisation/digitisation of the economy (Fuhr, 2005). These changes lead to a different understanding of the roles of the state, the citizens, and the fabric and cohesion of society.

### 14.2.1 The Limited State

The efficient and effective organisation of public administration is restricted for two main reasons: the structural limitations of the classical hierarchical Max Weber model aggravated by neo-liberal conceptions of the role of the state, and the financial meltdown that occurred in 2008/2009.

Hierarchies do not seem to cope with the expectations of a complex world. Breaking down information and work into smaller bits and bytes leads to institutional performance that is lacking in its ability to act efficiently, responsively, flexibly and innovatively. Trying to put the small work packages together again, designing and governing complex programs through a command hierarchy is almost impossible in a complex environment.<sup>1</sup> Even worse: Hierarchies do not make good use of the capabilities of their workforce, let alone the talents and motivations of their customers/citizens. Hierarchies have a tendency to select and

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<sup>1</sup>For an early but still impressive critique, see: Marglin (1974). On the “limits” of organisation despite his positive views on hierarchy (“nature loves hierarchy”) see Arrow (1974).

use only certain aspects of the talents and motivations of individuals and neglect the rest.<sup>2</sup> With an awareness of these limitations, or specifically, of the often poor performance of government agencies, the neo-liberal model has argued for the cutting back the role of the state, and allowing market mechanics to take its place. However market processes cannot fully substitute public action and public goods. Thus, over the last 20 years the role of the state has been increasingly diminished, through the systematic cutting back of its capabilities for development and service delivery leading observers to describe the current situation of government as being “post-democratic”. This phenomenon describes a weak government that cannot act on behalf of the citizens but is left to the mercy of market forces, which exert influence and co-opt state activities to serve their interests (Crouch, 2004). The increasingly weakened capabilities of the state reveal themselves even in developed nations, as western governments suddenly appear incapable of effectively implementing complex programs (i.e., “Obamacare”, “Energy Transition” in Germany). The final blow for the state in the Western Hemisphere came with the financial crisis, which required the state to save the market, through the public take-over of market debts, restricting its future capabilities even further.<sup>3</sup>

#### 14.2.2 Peer-to-Peer Collaboration as a New Force of Production

Given that the talents and motivations of individuals (employees and citizens) have often been excluded by hierarchies, individuals can now use social media to do more for themselves, by themselves or with others (Benkler, 2006: 8). Using digital devices, the individual can act as a free producer, as a peer, to produce, enrich and redistribute information, thus creating a new social (and political) relationship coined “peer-to-peer” production. This P2P process of collaboration uses existing technologies and assets (smart phones, computers, technical infrastructure, cars, rooms. . .) and available time at negligible marginal costs to engage in production processes, creating “non-exclusive” goods, *commons*, that are available to anybody for free.<sup>4</sup> A new scheme of production is emerging, one that cannot be explained by

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<sup>2</sup>For this problematic selective inclusion process, which rejects “unwanted aspects” of the personality but always gets too little of the wanted traits (commitment, quality . . .), cf. Neuberger (2000: 500).

<sup>3</sup>For a summary of this discussion, cf. Al-Ani (2013).

<sup>4</sup>Nobel laureate Ostrom (1990) re-introduced the commons into the economic sphere. Writing before the internet era, she came short of describing that the commons in the information technology era are something rather different than the commons used to govern natural resources as described in her ground-breaking work. These new information commons are not affected by the “tragedy of the commons” (Hardin, 1968), for instance. The value of the information commons created through P2P processes is not diminished by use, but on the contrary enhanced by it: it is governed “(. . .) by a *Comedy of the Commons*, or using a similar metaphor, producing a *Cornucopia of the Commons*. This is so because of the network effect, which makes resources more valuable the more they are used.” (Bauwens, 2005). With the advancement of technology, Ostrom later noticed this as well: “(. . .) open access to information is a *horse of a much different*

the current logic of micro- and macroeconomics, as non-profit motivations and inclusive property rights are used. In addition, current systems of resource allocation are obsolete in this sphere. In a hierarchy, our superiors decide; in the market, prices decide; in a democracy, “we” decide. However, “(. . .) *where resources are abundant, as they are with immaterial knowledge, code, and design, which can be copied and shared at a marginal cost, they are truly unnecessary.*” (Bauwens, 2012). Clearly, these P2P relationships have a different collaboration and governance logic. Individuals select, by themselves, work packages they are truly interested in and work when and as much as they like/can. Of course, this is not a non-hierarchical world, but in contrast to traditional organisations, its hierarchies are fluid and tend to be used to ensure participation (rather than exclusion). Furthermore, with individuals governing themselves, less management overhead is necessary. In “*The old model for coordinating group action requires convincing people who care a little to care more.*” (Shirky, 2008: 181). In the P2P model, the experiences of Open Software organisations have been very instructive: The mechanisms of self-selection and self-governance avoid this problem in the sense that the work effort is an individual choice and the great number of participants balance the various levels of input “(. . .) *so that people who cared a little could participate a little, while being effective in aggregate.*” (ibid). There are many impressive examples of P2P production besides the well-known success stories (Linux, Mozilla and Wikipedia) and this mechanism has now entered into the public sphere, creating public goods.<sup>5</sup> Even more fascinating is that the state, along with private companies, are now scrambling to use these P2P processes: co-opting processes and peers in a myriad of shapes and variations.<sup>6</sup> In their former role, citizens only had the possibilities of revolting (voice), leaving (exit) or—as public goods are often delivered by a monopoly—accepting the unsatisfying level of services. Now a new strategy is available: “*To resist is to create!*” (Holloway, 2005: 25), or in other words: to utilise available P2P production processes, talents and resources of peers to create or enrich public services: A new way to produce is

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*color than open access to land or water (. . .). With distributed knowledge and information the resource is usually nonrivalous.*” (Hess & Ostrom, 2011: 13).

<sup>5</sup>Bollier (2004) notices “*Librarians, who are trying to protect free access and circulation of knowledge. Scientists, who are trying to preserve their foundational traditions of openness, collaboration and free inquiry. Creative artists in music, film and other fields who realize that culturally compelling creativity depends upon their ability to use prior works and collaborate with others. Media reformers, who are trying to reclaim the public airwaves for public benefit, whether through open spectrum commons or auctions. Indigenous peoples, who are trying to retain some measure of cultural sovereignty by preventing Big Pharma and other commercial predators from appropriating their traditional knowledge and art. Online user communities, who wish to protect their ability to communicate among themselves without the impediments of market transactions.*”

<sup>6</sup>For this co-option movement and resulting hybrids often labelled Netarchies, see Al-Ani (2013: 223) and Bauwens (2012). In Germany, almost 19 % of all companies cooperate with the “crowd” in one way or another, integrating peers into the value creation process of the firm (Al-Ani, Stumpp, & Schildhauer, 2014). From a total population perspective, 55 % of all males and 44 % of females are involved in political or economic participatory activities ranging from petitions, political networks, to product development and configuration (Send & Schildhauer, 2014).

emerging. “*By this I mean: a new way to produce anything and everything, whether it is software, food, or cities. What once required rigid organisations and a society defined by the mentality of hierarchies, we are discovering now (and in many cases re-discovering) how to do through free association of peers.*” (Bauwens, 2012).

### 14.2.3 The Peer and the Multitude

The vacuum of the retarding state is now filled to some extent by P2P collaborations and processes. The attractive innovative power and problem-solving and product-enrichment capabilities of P2P are the target of a co-option strategy by private and public organisations. This rise of the importance of the individual and corresponding new collaboration schemes also reflects a deeper transformation of the societal constitution. Conventional thinking of a societal fabric consisting of classes, ethnical groups, is being challenged by a more individualistic perception of the “multitude”. “*The multitude is composed of innumerable internal differences that can never be reduced to a unity or a single identity—different cultures, races, ethnicities, genders, and sexual orientations; different forms of labor; different ways of living; different views of the world; and different desires. The multitude is a multiplicity of all these singular differences.*” (Hardt & Negri, 2004: XIV). Unanswered for some time was the question of how this multitude of individuals unites and cooperates. With the understanding of P2P the picture becomes clearer: The individual can now use P2P to unite for a specific purpose, making use of the “general intellect” (Virno, 2008) or the cognitive surplus (Shirky, 2010): The multitude is a multitude of thinkers and producers that can use new relationships and technologies to collaborate. This collaboration however, is by no means comparable to former loyalties defined by ethnic or ideological adherence. It is transient, rather tied to a specific topic and timeline associated with the topic. Thus, examples of citizens’ use of platforms that address certain public issues in Germany show that these technologies allow for a selective and time-specific inclusion of citizens (Der Standard, 2012: 9). Once the specific task of the platform/collaboration is fulfilled, members exit to seek new tasks.<sup>7</sup>

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## 14.3 The New Role of Citizens

Social-media-enabled collaboration and available skills give citizens the option of participating in the production process of government tasks. The citizens in their role as free producers begin to be more interwoven into the process of service delivery. The community evolves into a community of contributors that create

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<sup>7</sup>“(...) individuals can do more in loose affiliation with others, rather than requiring stable, long-term relations (...)” (Benkler, 2006: 9). For the specific characteristics of political collaboration platforms (large, small, long-lived and short-lived), cf. Anheier and Nassauer (2012: 17).

commons of knowledge, software or design. Public policies can be influenced—at least to some extent—by citizens. Although this process of adding a discussion level to state services seems to have its limitations, on a local level, at least, the impact is more obvious.

### 14.3.1 Citizens as Producers of Public Services

With the increased usage of social media tools, citizens who formerly could not cooperate with one another, suddenly have the chance to reach out to likeminded peers in order to do more for themselves and for others. Perhaps for the first time in human history collaboration becomes “de-institutionalised”: Permission from institutions is no longer necessary to seek and establish working relationships with other citizens. The individual turns producer and into a networked “DIY citizen”: “*DIY means taking matters into your own hands, not leaving it for others to do it for you.*” (Ratto & Boler, 2014: 2). Enabled by technology this concept seems to take up pace. Gilding (2011: 251), who evaluated social services performed by peers, came to the conclusion: “*What these examples show is that people have stopped talking and started acting.*” This is due to the fact that the production model of P2P is clearly geared to directly tapping into the intrinsic motivation and talents of the citizens, in other words the cognitive surplus, in a very efficient way. Moreover, ubiquitous collaboration technology seems to compensate for a missing infrastructure in developing countries and might trigger a development process unseen.<sup>8</sup> Of course, the integration of peers into the process of delivering public services can have many shades and variations. We can observe, that some public institutions begin to use platforms to collect voluntary peer resources and to direct them to areas that have limited access to public services.<sup>9</sup> Another emerging pattern, seems to be that in return for market or product information provided, citizens contribute information to the service provider, who uses this to further enrich its services and learning content. A very impressive example is the use of Open Agriculture Solutions in Africa. Here (mainly private or NGO) producers of agricultural services provide information and learning content to the citizens/customers, who in turn send feedback adding further value to the services. Furthermore, using the virtual platform, peers interact not only with the provider but also with other peers. A typical mixture of peer-to-peer and company–customer relationships emerges. Other examples, such as the Ushahidi platform, resemble more a classical P2P relationship: an open source platform provided for free, as a

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<sup>8</sup>Smart phone coverage in Southern Africa is almost higher than in parts of Europe and these devices are used as computational tools (Fox, 2011).

<sup>9</sup>See the example of Chicago and its online platform [www.ChicagoShovels.org](http://www.ChicagoShovels.org), that directs voluntary services to elderly and disabled residents living in areas the municipal services do not reach easily after snowfalls (Mickoleit, 2014: 45). Other examples include the use of peers to reinvigorate public spaces and buildings in Italy ([www.comune.bologna.it](http://www.comune.bologna.it)) or the use of peers to provide social services in the UK (Clarence & Gabriel, 2014).

commons, which allows peers to collaborate to collect and analyse information about security issues (Anheier & Korreck, 2013: 106).

### 14.3.2 Peers and Policy Formulation

The most obvious impact of social media is its capacity to mobilise voices cheaply and quickly. This has been demonstrated by the use of social media for the purposes of political mobilisation and even political resistance (Shirky, 2011). With the use of smart phones and the like, virtually everybody can become a sender of information and has a propensity to influence opinion in one way or another. In Europe, the development of a new constitution in Iceland, which used the participation of the crowd, and in Germany the opening of some law-making processes to interested contributors, demonstrate limited but successful experiments.<sup>10</sup> These examples show how the traditional system of government has introduced parts of the P2P logic to increase its capacity to find solutions to issues and, ultimately, also enhance the legitimacy of these solutions via crowd participation. The German example demonstrates how the original system of law making has been amended by introducing a further—virtual—member of the law-making body, serving as an interface to the crowd (see Fig. 14.1).<sup>11</sup>

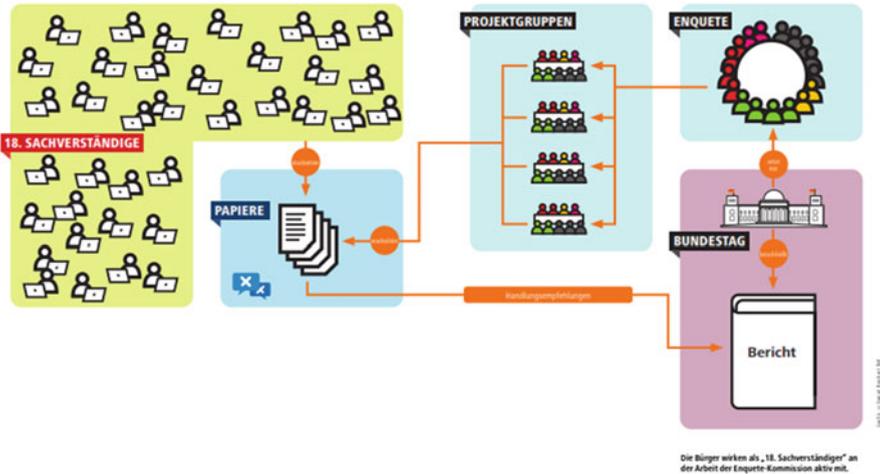
The early hopes however, that some kind of liquid democracy or electronic democracy would emerge and pave the way for a *deliberative democracy* (Habermas, 1998), or at least for a discussion layer guiding and reflecting capitalist mechanisms (Brown, 2010), have not yet materialised. There may be several reasons for this:

- The deliberative process is seen by many as not being effective enough to influence politics. The arena of deliberation, or the “political periphery” as described by Habermas, is too far away from the real decision making at the “political centre”: “*Deliberative democracy relegates the role of citizens to discussions only indirectly related to decision making and action. The reality of deliberation is that it is toothless.*” (Noveck, 2009: 37) In practice, as it often seems to turn out, civic talk is largely disconnected from power. “*It does not take account of the fact that in a web 2.0 world ordinary people can collaborate with one another to do extraordinary things.*” (ibid);
- Not only is the political influence of deliberation limited, it is often clear what needs to be done. Thus, action to change things is more pressing than discourse, as recent interviews from Occupy movement members revealed: “*One*

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<sup>10</sup>For a summary of German open policy formulation experienced mainly at the communal level, see, for instance, the platform provided by the Bertelsman Foundation (<http://www.beteiligungskompass.org/>). For the general slow adaptation of digital strategies by OECD governments using social media mainly as tools for communication see Mickoleit (2014).

<sup>11</sup>For the example of Iceland’s new constitutions and its final failure, see: The Guardian (2011) and Schwarz (2013). For the use of social media in US election campaigns, see Sifry (2004).



**Fig. 14.1** The crowd acting as a virtual 18th member of a law-making special committee of the German parliament (Bundestag). Source: Fischaleck (2012)

*interviewee states that it is almost too trivial to formulate global problems Occupy is concerned with, because they [are] the same topics [that have been] moving people [for] decades: environmental destruction, war, lacking possibilities of democratic participation, an unjust world order, putting profits before people, a disrespect of human rights, drastic cuts in education and social services, to name the most prominent ones. There is no need to come up with specific topics, since there are enough pressing issues as it is.” (Anheier & Nassauer, 2012: 26);*

- Peer-to-peer collaboration in itself is not democratic, but rather *meritocratic*: The status of its participants is tied to their output performance only. The outputs need not be produced in a democratic, organised manner, but rather by the right producers, as the peer-to-patent project revealed. Here, peers acting as experts were asked to evaluate patents. As it turned out, not masses of peers and talents were needed for that evaluation, but rather point skills: “*The excitement of modern collaborative environments (call it Web 2.0 or what you will) lies in the hope of bringing the masses on board to create something collectively. Hundreds of thousands, it is thought, can be not only consumers but producers. But more often than you’d think, what you need is not hundreds of thousands, but just five or ten people who know best.*” (Oram, 2007);
- There are few examples of the rule of the many. Even in democratic systems, we are more accustomed to the rule of delegates. Thus, the involvement of the multitude the Athenian way has few examples and seems difficult to achieve. Our political culture is ill equipped to deal with a broad understanding of citizen participation. Rather, “*(. . .) the devaluation of citizenship is an integral component of a ‘successful’ modern democracy; not a failure to be corrected by technical means.*” (Varoufakis, 2014) Effectively, “*(. . .) e’ democrats will be*

*facing the task not simply of involving more people in deliberations regarding policy making but, more ambitiously, of deploying new technology as a part of a broader political intervention whose purpose is to re-invent the political sphere.”* (ibid);

- We do not seem to have tools yet that allow for the deliberation of complex issues. Rather, we seem to use liquid democracy tools to ask ready-formulated questions, which is not stimulating enough. Furthermore, traditional political institutions are lacking the experience to generate attention and resonance for political topics.<sup>12</sup>

In summary, the effects and impact of P2P on political participation seem rather modest or mixed at this stage. This is most obvious at the level of nation state institutions (Mickoleit, 2014). Here the necessity for individuals and P2P to collaborate with existing political institutions (parliaments, parties) in order to obtain political legitimisation, clearly sets limits to the potential of enhanced participation. The complexity of aggregating social preferences and the consequent separation of decision making and deliberation—connecting citizens mainly to the latter—are obvious restrictions.<sup>13</sup> But if we shift our view from nation states to cities, things suddenly become possible that seemed impossible (P2P Foundation, 2014). Unlike nation states which are often engaged in competitive zero sum games, the prevailing relationships in cities are based on communication, trade, transportation, and culture. Cities are inherently pragmatic rather than ideological. Thus, the institutional frame of cities seems more suited for P2P, as Benjamin Barber argues: *“They collect garbage and collect art rather than collecting votes or collecting allies. They put up buildings and run buses rather than putting up flags and running political parties. They secure the flow of water rather than the flow of arms. They foster education and culture in place of national defense and patriotism. They promote collaboration, not exceptionalism.”* (ibid). It can then be argued, that collaboration by peers to produce public products and services even if mainly focused on the city or community level is by itself fostering new social and ultimately political relationships, giving a more specific meaning to the phrase “to resist is to create”.<sup>14</sup> This does not exclude the possibility for enhanced political

<sup>12</sup>See the examples of Swiss political parties and their restricted use of web tools to connect with the crowd in Kruse (2010).

<sup>13</sup>For the “impossibility” of aggregating social orders and its grave consequences for democracy see Arrow (2012): *“( . . . ) the only methods for passing from individual tastes to social preferences which will be satisfactory and which will be defined for a wide range of sets of individual orderings are either imposed or dictatorial.”* The consequences are clear limitations to political participation: *“Voting, from this point of view, is not a device whereby each individual expresses his personal interests, but rather where each individual gives his opinion of the general will.”* (ibid: 85).

<sup>14</sup>In this context, P2P is a more collective strategy than individual market action and its underlying values and practices are a political statement in itself: *“Peer to peer has indeed to be seen as an object oriented sociality, where person-fragments cooperate around the creation of common value. What connects individuals who participate in open and shared knowledge, software or*

participation in the traditional system. It rather sets a trajectory for a transitional process that could start with increased self-organisation of peers to deliver public goods and services, leading to more participatory and inclusive political institutions later on, once these collaborations consolidate and claim their share of political power.<sup>15</sup>

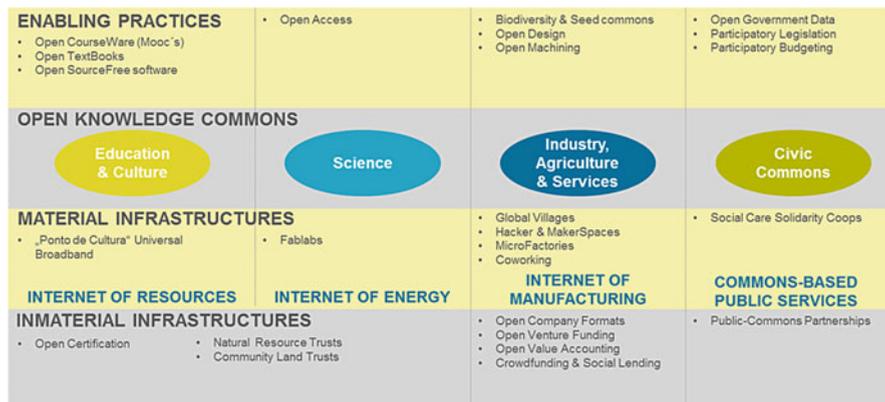
## 14.4 The Emerging Partner State

The aforementioned examples of collaboration may now lead to a new role of the state: a state that rather enables and empowers the social creation of value by its citizens. It protects the infrastructure of P2P cooperation and the creation of commons: The state evolves into a manager of a “marketplace”, stimulating, enabling and organising the assets of the country—the abilities and motivations of its citizens—in an efficient manner. The state will use modern devices and digital platforms to do this. By providing the prerequisites of peer production, the strategy of the state changes: Instead of providing the services all by itself, a strategy that encourages and enables peer production becomes relevant. *“Can we imagine a new compact between government and the public, in which government puts in place mechanisms for services that are delivered not by government, but by private citizens? In other words, can government become a platform?”* (O’Reilly, 2009: 65).

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*design projects is the ability to connect their own ends, with some transcendental collective goal (building a universal operating system, constructing a universal free encyclopedia, constructing an open source car, etc.). In peer projects, individuals aggregate a particular passionate pursuit into a collective project. This is important, because whereas in individualist market visions the invisible hand indirectly creates public benefit (at least in theory and ideology), in peer to peer the intentionality of the collective project is integrated in the effort itself. Contributors to Wikipedia or Linux do not see the end result as an indirect result of individual transactions, but as the result of a particular social design which harmonizes individual effort and the collective goal, with the integration of both seen as non-contradictory. This gives peer to peer relationality a strong collective aspect, which was absent in the previous individualist epoch.”* (Bauwens, 2010).

<sup>15</sup>This consolidation process may have already commenced according to some observers: *“Look closely and you will see a messy, uncoordinated, bottom-up movement struggling to assert itself. Just below the radar of mainstream media, a teeming constellation of constituencies—internet users, environmentalists, librarians, academics, media reformers, software programmers—is beginning to talk about the commons. This gathering movement is at once an activist phenomenon, a proto-political philosophy and a cultural outlook. It sees the commons as a means to create wealth while honoring social equity and ethical values, an achievement that continues to elude the neoliberal mainstream. (...) At the moment, the wildly disparate threads of this movement have not been woven together. That, in part, will be a primary mission of OntheCommons.org—to give these many voices a forum; to showcase noteworthy fronts of activism and analysis; to puzzle through problems; and to bring together a new community united by some core values, a new story, and exciting new initiatives.”* (Bollier, 2004). Of course, traditional political parties could also serve as possible “poles” for consolidating these new forces (Friedrichsen, 2015: 21). For the upcoming conflict between these new horizontal powers and the traditional power elite see Wallerstein (2013).



**Fig. 14.2** Open Knowledge Society Project Ecuador. Source: Flok Society (Free/Libre Open Knowledge Society) (<http://flocksociety.org/>)

We can already observe that some states and nations are embarking on, or rather, trying out, this kind of role. An interesting project to be cited in this context is the Flok project of Ecuador, which aims at elaborating ways towards an “open economy” (see Fig. 14.2). Clearly, in order to stimulate peer production, a set of enabling practices are needed.

The peer is a typical knowledge worker. This implies that access to learning content is crucial to peer productivity, allowing the knowledge worker to retrieve learning contents for free, on demand, preparing him/her for the next task. The impact of digitalisation on education is already impressive and will have a massive impact on society and the economy. Suddenly, the *Edupunk* way of learning becomes attractive and possible: a strategy of individuals who can have access to online education free of charge in order to create meaningful products in the net.<sup>16</sup> This strategy is already available to anybody who has access to the web and understands the language of the content.<sup>17</sup> Already, major universities—sometimes behaving as commoners—are spreading their content via digital outlets all over the world, as, for example, the edx.-platform of Harvard and MIT (edx.org). On a smaller scale, the above examples of agricultural solutions have demonstrated that peers can also learn from other peers (lateral learning) and will in turn produce learning content while acting as peers.<sup>18</sup> The role of the state should here embark

<sup>16</sup>The term was coined by Jim Groom in a blog in 2008, cf. Al-Ani (2014: 12).

<sup>17</sup>Even language problems are not the ultimate restriction, as the experiments of Mitra, Angwal, Chatterjee, Jha, and Kapur (2005) with slum children in India have clearly demonstrated. The concept also showed that digital learning needs to be complemented with some sort of moral support und coaching (which can be delivered by P2P online as well, as the example of British “grannies” supporting Indian students online showed: <http://grannycloud.wordpress.com/>).

<sup>18</sup>The important effects of lateral learning are described by Rifkin (2011: 244–248).

on a non-elitist learning strategy and open up learning content for anybody for free.<sup>19</sup>

Peers not only need personal skills. In order to produce or enrich products, access to designs—often protected by copyrights—is necessary.<sup>20</sup> Clearly, copyrights are the most visible battleground between the traditional economy and the P2P sphere.<sup>21</sup> Here, the state should propose the use of peer property rights that ensure that peer products remain free and accessible. In addition, the means for reproducing infrastructure (tools, hardware and software) must be given.<sup>22</sup> Here, for instance, relatively inexpensive 3D printers provided by the public will be helpful in reproducing parts of complex scientific tools (Open Source Lab): “*Working replicas of expensive scientific equipment could be made for a fraction of conventional costs using cheap 3D printers, possibly saving developing world labs thousands of pounds each time.*” (The Guardian, 2014). Peers already provide design plans for almost any agricultural tools (Open Ecology) to be reproduced using simple and available tools.<sup>23</sup> Eventually, the state could provide libraries for all kinds of relevant products to be downloaded by peers: “*This regime of open, shareable knowledge would move away from the idea of privatized knowledge accessible only to those with the money to pay for copyrighted and patented knowledge. The system could be adapted for education, science, medical research and civic life, among other areas.*” (Bollier, 2014). Of course, the data produced by the state must be opened up as well and be accessible to anybody, thereby increasing the availability of relevant data for market transactions, product design and delivery.

All these prerequisites and contents will be delivered through physical infrastructure (IT, Telecommunication), which needs to be open and accessible to the public at minimum possible cost. Also, the state could support and provide virtual platforms that people use to collaborate, as for instance demonstrated by the

<sup>19</sup>For the “Edupunk Guide to Education”, a manual supported by the Bill Gates foundation, see Kamenetz (2010) and (2011). For new strategies of universities: Al-Ani (2014). For Sub-Saharan Africa, see the results of the Tessa program of the Open University, which aimed at giving teachers access to teaching content using smart phones (<http://www.open.ac.uk/about/open-educational-resources/oer-projects/tessa>).

<sup>20</sup>See here, for example, the successful fight of Brazil and Civil society organisations for AIDS drug patents. The Brazilian Administration used P2P mechanisms to mobilise civil support for the cause (Fischer-Lescano & Teubner, 2004: 1027f.).

<sup>21</sup>See here the work of Lessig (2004).

<sup>22</sup>See here the example of reproducing hardware using the raspberrypi hardware assembling kit (<http://www.raspberrypi.org/>).

<sup>23</sup>Open Source Ecology provides “*Open Source Blueprints for Civilization. Build Yourself. We’re developing open source industrial machines that can be made for a fraction of commercial costs, and sharing our designs online for free. The goal of Open Source Ecology is to create an open source economy—an efficient economy which increases innovation by open collaboration.*” (<http://opensourceecology.org/>).

“meetup” platforms that enable citizens to communicate about relevant events and also to collaborate to solve issues of mutual interest.<sup>24</sup>

Finally, it must be clear that the peer also needs some kind of social and financial support. The peer production of common value requires civic wealth and strong civic institutions, something that is often overlooked. The partner state that is complementary to P2P production is not a minimal or retarding state concept. On the contrary, it is based on the best of the welfare state, i.e., solidarity mechanisms, education, open access to almost everything (Bauwens, 2012). Thus, if P2P is to be used as a producer of public services, a kind of transfer mechanisms or basic income programmes (like the Brazilian Bolsa Familia program) must be in place to enable this production.

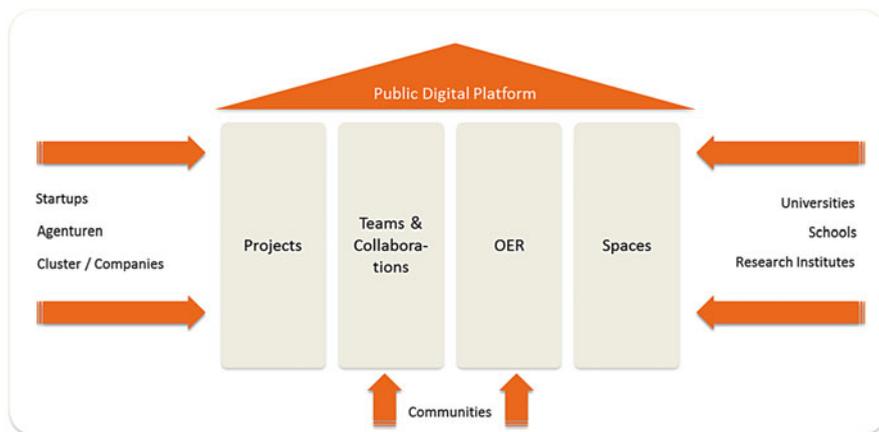
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## 14.5 Public Policy Platforms

This new role for the state as a provider of platforms, which allow for new kinds of collaboration between different actors addressing relevant community issues, can be highlighted by the economic policies developed by the German federal state of Thuringia. The state’s businesses are mostly small and medium-sized companies that have experienced difficulties adapting to the challenges of the digital economy: Skills, as well as funds, at the state and the company level appear to be quite limited, severely inhibiting transformation projects at the workshop floor. In this situation, the Minister of Economy, Education and Digital Society inaugurated a community of spearheading companies, set with the task of developing new economic policies

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<sup>24</sup>“Meetup is a platform for people to do whatever they want with. A lot of them are using it for citizen engagement: cleaning up parks, beaches, and roads; identifying and fixing local problems.” (O’Reilly, 2009: 65). In addition, a number of policies will frame the effective and efficient use of these platforms: “(1.) Issue your own open government directive. (2.). (...) create a simple, reliable and publicly accessible infrastructure that ‘exposes’ the underlying data” from your city, county, state, or agency. Before you can create a site like Data.gov, you must first adopt a data-driven, service-oriented architecture for all your applications (...). (3.) “Build your own websites and applications using the same open systems for accessing the underlying data as they make available to the public at large (4.) Share those open APIs with the public, using Data.gov for federal APIs and creating state and local equivalents. For example, cities such as San Francisco (DataSF.org) and Washington, D.C. (Data.DC.gov and Apps.DC.gov) include not only data catalogs but also repositories of apps that use that data, created by both city developers and the private sector. (5.) Share your work with other cities, counties, states, or agencies. This might mean providing your work as open source software, working with other governmental bodies to standardize web services for common functions, building a common cloud computing platform, or simply sharing best practices. (...). (6.) Don’t reinvent the wheel: support existing open standards and use open source software whenever possible. (...) Figure out who has problems similar to yours, and see if they’ve done some work that you can build on. (7.) Create a list of software applications that can be reused by your government employees without procurement. (8.) Create an “app store” that features applications created by the private sector as well as those created by your own government unit (see Apps.DC.gov). (9.) Create permissive social media guidelines that allow government employees to engage the public without having to get pre-approval from superiors. (10.) Sponsor meetups, code camps, and other activity sessions to actually put citizens to work on civic issues.” (O’Reilly, 2010).



**Fig. 14.3** Concept view of the digital transformation platform of the state of Thuringia, Germany. Source: own

and projects to stimulate and support successful transformation strategies. The approach chosen here was that a group of ten companies invited by the ministry, defined a number of areas of focus for these pilot projects (i.e., smart housing, refugee management). The main criteria for these projects was that they should stimulate the participation of a maximum number of companies and other actors, thereby increasing the spread of learning effects and the likelihood of implementation. The ministry—through the use of a specifically designed platform—thereby facilitates connection between different participants, attracting new interested parties and distributing and communicating results (see Fig. 14.3).

Thus, via this platform, collaboration of formerly isolated actors is encouraged and the results of this cooperation are distributed and learning effects stimulated. The change of role for the state is quite apparent: It does not create or even deliver the components of this strategy, but acts as a provider for collaboration.

## 14.6 Conclusion

As states struggle to finance/deliver meaningful services to their citizens, providing platforms and stimulating self-organisation of citizens as producers seems a prudent strategy. This cooperation strategy is by no means an easy process, as both entities (P2P and hierarchy) use very different governance mechanisms (i.e., self-governance versus top down orders). Furthermore, the danger for P2P is that it could be sooner or later disintegrated or strangled by traditional market and hierarchy mechanisms.<sup>25</sup> On the other hand, traditional hierarchies will also seek

<sup>25</sup>A process that is already observable with large corporations co-opting political NGOs (Dauvergne & Lebaron, 2014).

to incorporate P2P structures and mechanisms in order to capture the benefits of the cognitive surplus and will thus also transform themselves step by step into hybrids making better use of decentralised and self-governing work collaborations, while retaining central hierarchical functions. P2P could, in addition, benefit from this collaboration as the often self-centred motivations of peers are now being coupled with needs of communities. This enhanced customer orientation of P2P will further add to its relevance and political legitimisation.

It will, therefore, make much sense for public institutions to reform their institutions and tools to establish this opening towards P2P networks and to direct and enable them to work on relevant issues of the society. Acting as a platform, public entities could seek cooperation with P2P and encourage further self-organisation of citizens. Open government data, open education, the usage of Open Source systems with standardised interfaces towards the public are policies that are already taking shape and would in totality generate this platform function.

We can at this stage only speculate about the political effects of these new social collaboration schemes that will be interwoven into the public services delivery. As these collaborations reflect new egalitarian, collective and self-governing relationships, it is not altogether absurd to assume that these relationships will alter the political fabric and institutions, even if they initially focus on service delivery at the community level. For the state, two possible scenarios arise: The state could begin to support this transformation process and seek a corporation with P2P making use of these networks by directing and encouraging them to solve relevant tasks. Or else: if the state will not move, it will be moved by myriads of P2P collaborations who will not wait any longer for a cooperation and take the matter into their own hands:<sup>26</sup> *“Where governments fail to or are slow to use those platforms to improve and deliver public services, people and organisations step in and pressure for change. The impacts of ‘bottom-up’ processes tend to increase where social media are combined with online petitions, mobile applications, open (government) data analytics, crowd-funding initiatives, and collective ‘offline’ actions such as protests.”* (Mickoleit, 2014: 3). These collaborations could then unite and form political positions leading to larger structures competing with the traditional settings.

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<sup>26</sup>This situation has already been depicted by commentators observing the (possible) reaction of younger people to the ongoing crisis in the West *“The hope is that these young people will eventually leave the house when the economy perks up, and doubtless many will. Others, however, will choose to root themselves in their neighbourhoods and use social media to create relationships that sustain them as they craft alternatives to the rat race. Somewhere in the suburbs there is an unemployed 23-year-old who is plotting a cultural insurrection, one that will resonate with existing demographic, cultural and economic trends so powerfully that it will knock American society off its axis.”* (Salam, 2010).

## References

- Al-Ani, A. (2013). *Widerstand in Organisationen, Organisationen im Widerstand. Virtuelle Plattformen, Edupunks und der nachfolgende Staat*. Wiesbaden: Springer VS.
- Al-Ani, A. (2014). Edupunks und neue universitäre Strukturen. In F. Keuper & H. Arnold (Eds.), *Campus innovation—Education, qualification and digitalization* (pp. 111–129). Berlin: Logos.
- Al-Ani, A., Stumpp, S., & Schildhauer, T. (2014). *Crowd Studie 2014: Die Crowd als Partner der deutschen Wirtschaft* (HIIG Working paper 2/2014). Retrieved from [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2437007](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2437007)
- Anheier, H., & Korreck, S. (2013). *Governance innovations* (The Governance report 2013, pp. 83–116). Oxford: Oxford University Press.
- Anheier, H. K., & Nassauer, A. (2012). *The swarm intelligence. Mapping subterranean politics in Germany. Country report Germany* (Working Paper). Berlin.
- Arrow, K. (1974). *The limits of organization*. New York, NY: W.W. Norton & Company.
- Arrow, K. (2012). *Social choice and individual values*. Mansfield Centre: Martino Publishing.
- Bauwens, M. (2005, January 12). *The political economy of peer production*. In ctheory.net. Retrieved from <http://www.ctheory.net/articles.aspx?id=499>
- Bauwens, M. (2010). *Peer-to-peer relationality*. The City and Anonymity. Retrieved from <http://www.barcelonametropolis.cat/en/page.asp?id=23&ui=424>
- Bauwens, M. (2012). *Blueprint for P2P society: The partner state & ethical economy*. Retrieved from <http://www.shareable.net/blog/blueprint-for-p2p-society-the-partner-state-ethical-economy>
- Benkler, Y. (2006). *The wealth of networks. How social production transforms markets and freedom*. New Haven, CT: Yale University Press.
- Bollier, D. (2004, August 11). *The commons as a movement*. In Commons Magazine (onthecommons.org). Retrieved from <http://onthecommons.org/commons-movement>
- Bollier, D. (2014). *The flock society vision of a post-capitalist economy*. Retrieved from <http://bollier.org/blog/flok-society-vision-post-capitalist-economy>
- Brown, M. T. (2010). *Civilizing the economy. A new economics of provision*. Cambridge: Cambridge University Press.
- Clarence, E., & Gabriel, M. (2014). *People helping people. The future of public services*. Retrieved from [http://www.nesta.org.uk/sites/default/files/the\\_economic\\_value\\_of\\_social\\_action\\_in\\_and\\_alongside\\_public\\_services.pdf](http://www.nesta.org.uk/sites/default/files/the_economic_value_of_social_action_in_and_alongside_public_services.pdf)
- Crouch, C. (2004). *Post-democracy*. Oxford: Polity.
- Dauvergne, P., & Lebaron, G. (2014). *Protest Inc. The corporatization of activism*. Cambridge: Polity.
- Der Standard. (2012, November 6). *Die Bürger müssen eingebunden werden. Gisela Erler, in Baden-Württemberg Staatsrätin für Bürgerbeteiligungen, über die "Politik des Gehörtwerdens", intelligentes Beteiligen und Minderheiten als Sensoren*. p. 9.
- Fischaleck, F. (2012). Demokratie reloaded. *Politik und Kommunikation*, 2, 12–13.
- Fischer-Lescano, A., & Teubner, G. (2004, Summer). The vain search for legal unity in the fragmentation of global law. *The Michigan Journal of International Law*, 25, 1000–1046.
- Fox, K. (2011). *Africa's mobile economic revolution. Half of Africa's one billion population has a mobile phone—And not just for talking. The power of telephony is forging a new enterprise culture, from banking to agriculture to healthcare*. Retrieved from <http://www.theguardian.com/technology/2011/jul/24/mobile-phones-africa-microfinance-farming>
- Friedrichsen, M. (2015). Neue politische Kommunikation durch Medienwandel. In M. Friedrichsen & R. A. Kohn (Eds.), *Digitale Politikvermittlung* (pp. 9–24). Wiesbaden: Springer VS.
- Fuhr, H. (2005). Constructive pressures and incentives to reform: Globalization and its impact on public sector performance and governance in developing countries. In R. Hodges (Ed.), *Governance and the public sector* (pp. 525–549). Cheltenham: Edward Elgar.
- Gilding, P. (2011). *The great disruption*. New York, NY: Bloomsbury Press.

- Habermas, J. (1998). *Faktizität und Geltung. Beiträge zur Diskurstheorie des Rechts und des demokratischen Rechtsstaats*. Frankfurt/M: Suhrkamp.
- Hardin, G. (1968, December 13). The tragedy of the commons. *Science*, 162, 1234–1238.
- Hardt, M., & Negri, A. (2004). *Multitude. War and democracy in the age of empire*. New York, NY: Penguin.
- Hess, C., & Ostrom, E. (2011). Introduction: An overview of the knowledge commons. In C. Hess & E. Ostrom (Eds.), *Understanding knowledge as commons* (pp. 3–27). Cambridge, MA: MIT Press.
- Holloway, J. (2005). *Change the world without taking power. The meaning of revolution today*. London: Pluto Press.
- Kamenetz, A. (2010). *Edupunks, Edupreneur, and the coming transformation of higher education*. White River Junction: Chelsea Green Publishing.
- Kamenetz, A. (2011). *The Edupunk's guide to education. To a DIY credential*. Retrieved from <http://diyubook.com/wp-content/uploads/2011/07>
- Kruse, P. (2010). Rechts, Links, Mitte—Raus! Vom politischen Wagnis der Partizipation. Interview von Ulrike Reinhard. In H. Heuermann & U. Reinhard (Eds.), *Reboot\_D—Digitale Demokratie* (pp. 44–59). Oldenburg: Whoiss.
- Lessig, L. (2004). *Free culture—The nature and future of creativity*. London: Open Source Press.
- Marglin, S. (1974). What do bosses do? *The Review of Radical Political Economics*, 6(2), 60–112.
- Mickleit, A. (2014). *Social media use by governments: A policy primer to discuss trends, identify policy opportunities and guide decision makers* (OECD Working Papers on Public Governance, No 26). OECD Public Publishing. Retrieved from doi:10.1787/5jxrcmgmks0s-en.
- Mitra, S., Angwal, R., Chatterjee, S., Jha, R. S., & Kapur, R. (2005). Acquisition of computing literacy on shared public computers: Children and the “Hole in the Wall”. *Australasian Journal of Educational Technology*, 21(3), 407–426.
- Neuberger, O. (2000). Individualisierung und Organisation. Die Wechselseitige Erzeugung von Individuum und Organisation durch Verfahren. In G. Ortman, J. Sydow, & K. Türk (Eds.), *Theorien der organisation* (pp. 487–522). Wiesbaden: VS Verlag.
- Noveck, B. S. (2009). *Wiki government. How technology can make government better, democracy stronger, and citizens more powerful*. New York, NY: Brookings.
- O'Reilly, T. (2009). Government 2.0.: It's all about the platform. In H. Heuermann & U. Reinhard (Eds.), *Reboot\_D—Digitale Demokratie* (pp. 60–67). Oldenburg: Whoiss.
- O'Reilly, T. (2010). Government 2.0.: It's all about the platform. *Innovations*, 6, 13–40.
- Oram, A. (2007). *In search of micro-elites: How to get user-generated content*. Retrieved from <http://radar.oreilly.com/2007/11/in-search-of-microelites-how-t.html>
- Ostrom, E. (1990). *Governing the commons. The evolution of institutions for collective actions*. Cambridge: Cambridge University Press.
- P2P Foundation. (2014). *Benjamin Barber on city based global governance*. Retrieved from <http://blog.p2pfoundation.net/benjamin-barber-on-city-based-global-governance/2014/01/01>
- Ratto, M., & Boler, M. (Eds.). (2014). *DIY citizenship. Critical making and social media*. Cambridge: MIT Press.
- Rifkin, J. (2011). *The third industrial revolution. How lateral power is transforming energy, the economy, and the world*. New York, NY: Palgrave Macmillan.
- Salam, R. (2010, March 11). The dropout economy. *Time Magazin Special*. Retrieved from [http://www.time.com/time/specials/packages/article/0,28804,1971133\\_1971110\\_1971126,00.html#ixzz1kBWJK4vq](http://www.time.com/time/specials/packages/article/0,28804,1971133_1971110_1971126,00.html#ixzz1kBWJK4vq)
- Schwarz, T. (2013). Island: Die Crowdsourcing-Verfassung ist gescheitert. *Netzpiloten*. Retrieved from <http://www.netzpiloten.de/island-die-crowdsourcing-verfassung-ist-gescheitert/>
- Send, H., & Schildhauer, T. (2014). *Online Mitmachen und Entscheiden. Partizipationsstudie 2014*. Retrieved from [http://www.hiig.de/wp-content/uploads/2014/06/20140609\\_Studie\\_DIGITAL.pdf](http://www.hiig.de/wp-content/uploads/2014/06/20140609_Studie_DIGITAL.pdf)
- Shirky, C. (2008). *Here comes everybody. The power of organizing without organizations*. New York, NY: Penguin.

- Shirky, C. (2010). *Cognitive surplus, how technology makes consumers into collaborators*. London: Penguin.
- Shirky, C. (2011, January/February). The political power of social media. Communications technology will help promote freedom—But it might take a while. *Foreign Affairs*, 90(1), 28–41.
- Sifry, M. L. (2004). *The rise of open-source politics*. Retrieved from <http://www.thenation.com/article/rise-open-source-politics>
- The Guardian. (2011). *Mob rule: Iceland crowdsources its next constitution*. Retrieved from <http://www.guardian.co.uk/world/2011/jun/09/iceland-crowdsourcing-constitution-facebook>
- The Guardian. (2014). 3D printing could offer developing countries savings on replica lab kit. Retrieved from <https://www.theguardian.com/globaldevelopment/2014/feb/21/3d-printing-offer-developing-savings-replica-kit>
- Varoufakis, Y. (2014). *Can the internet democratise capitalism?* Retrieved from <http://yanisvaroufakis.eu/2014/02/21/can-the-internet-democratise-capitalism/>
- Virno, P. (2008). *Grammatik der Multitude*. Vienna: Turia & Kant.
- Wallerstein, A. (2013). Structural crisis. Or why capitalists may no longer find capitalism rewarding. In A. Wallerstein et al. (Eds.), *Does capitalism have a future?* (pp. 9–35). Oxford: Oxford University Press.