What Polanyi Teaches Us about the Platform Economy and Structural Change

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ABSTRACT

The rise of the platform economy marks the latest phase in the ongoing digital revolution. Indeed, the platform is to this digital era what the factory was to the industrial era, both a symbol and an organizing mechanism. Gernot Grabher and Jonas König (2020) used Karl Polanyi's analysis of what he termed the "great transformation" to frame the rise of platform economy. The platform economy is remarkable as it confirms Polanyi's (and Marx's before him) insight that the reach of the market is based upon increased commodification as it has been able to reach into ever more parts of social life. We introduced the term "platform economy" in 2015 because we recognized that the digital platforms were changing the dynamics of capitalist accumulation – an analysis framed by regulationist school of political economy. The intuition was that the socio-technical innovation of digital online platforms was the critical fulcrum for an economic restructuring that would rewire the flows of data and ultimately money and power. The firms we have termed the mega-platforms, Apple, Amazon, Facebook, Google, and Microsoft, have become the most valuable and powerful firms in the world. Importantly, the reach of these platforms is global and yet local and personal. Moreover, platform power has been reinforced during the COVID-19 pandemic.

The rise of the platform economy marks the latest phase in the ongoing digital revolution. Indeed, the platform is to this digital era what the factory was to the industrial era, both a symbol and an organizing mechanism. Gernot Grabher and Jonas König (2020) have used Karl Polanyi's analysis of what he termed the "great transformation" to frame the rise of platform economy. In 2015, when we introduced the term "platform economy" in a Berkeley Roundtable on the International Economy working paper, our thinking was framed by regulationist school of political economy. Unbeknownst to us, almost simultaneously, Nick Srnicek (2017) was developing his formulation of platform capitalism.[1] We decided to use platform economy, rather than platform capitalism, in part due to our belief that the critical economic changes were not the establishment of firms that used online websites for "sharing" or creating "gig work." Such firms were and are, in fact, rather small and are not expressive of the key transformation, which was that platforms were becoming extremely powerful organizers of enormous swaths of economic activity – a point we return to later.[2]

The intuition that it was the socio-technical innovation of digital online platforms that was the critical fulcrum for an economic restructuring that would rewire the flows of data and ultimately money and power, is proving to be correct. The firms we have termed the mega-platforms, Apple, Amazon, Facebook, Google, and Microsoft, have become the most valuable and powerful firms in the world. Moreover, their power has been reinforced during the COVID-19 pandemic (for a reflection on this, see Kenney and Zysman, 2020b).

[1] In 2015, Evgeny Morozov mentioned the term "platform capitalism" in an editorial in the *Observer*.
[2] We fully agree with Van Dijck et al. (2018) that these platforms are also becoming critical organizers of sociality writ large. In fact, the current mania about how platforms are or are not responsible for the rumors or spurious information, sometimes, referred to as "fake news" suggests that their influence as media of communication is as profound in areas such as politics (Gillespie, 2010).

The platform economy is remarkable as it confirms Polanyi's (and Marx's before him) insight that the reach of the market is based upon increased commodification as it has been able to reach into ever more parts of social life. Similarly, these digital platform firms built upon the already existing communication networks – especially through the smartphone. They have been able to extend to approximately three billion people – all of whose actions are, in principle, open to commodification and monetization.[3] Thus, the reach of these platforms is global and yet local – a feature that we return to later.

These platforms control access to customers in the case of Amazon, Apple, and Facebook. In the case of Google, they control discoverability and thereby access to potential customers (Kenney and Zysman, 2020a). Consequently, they have become intermediaries that can tax transactions even at the local level, when a customer searches for a restaurant or any other service. Effectively, they become the market. For us, this is a significant structural change in the market society that Grabher and König (2020) capture well. In fact, going further platforms increasingly are the environment within which entrepreneurs both start new businesses and operate old businesses, something that we have termed platform-dependent entrepreneurship (Cutolo and Kenney, 2020).

One of the key points in Polanyi's transformation was, of course, the commodification of labor. One of the important insights of Grabher and König (2020), which builds upon earlier work such as Terranova (2000), is that data, much of which is produced by user's actions using the platform, has become another "fictitious" commodity underlying the value of all of the platform firms. We share their belief of the critical importance of data, of which software programs are the machines built to process this data. And yet, human labor, both the "free" labor

[3] For a prescient discussion of the development of the networks that underlie these platforms, see Castells (1996).

that is provided as we use websites such as Facebook, Google and many others and the labor at the platform firms and by those in the platform ecosystem. In a series of papers, Kenney and Zysman (2019) and Bearson et al. (2019), we created a schematic taxonomy of the types of work (perhaps better thought of as "value creation activities") undertaken in the platform economy.[4] As Polanyi observed, labor had to be transformed into a commodity, but Marx 100 years earlier suggested that, more important, was the ability to extract value from that labor. Our taxonomy considers the remarkable complexity of the ways that labor is organized and compensated for generating the value captured by the platform firms. It is through the lens of this work that we approach and reflect upon their contribution.

I. Polanyi's Great Transformation

As Grabher and König (2020) suggest, Karl Polanyi's (1944) analysis in *The Great Transformation* provides certain "rhymes" that can deepen our understanding of the platform economy.[5] Following on the commercialization of agriculture, the industrial revolution generated inexorable pressure for fundamental changes in the social rules regarding land, labor and money. More specifically, these changes led to the creation of the market economy, to use Polanyi's terms, or Market Society to draw on the language of Robert Heilbroner (1961). Before the "Great Transformation" markets were embedded in society, constrained by social rules, or operating on the periphery of the feudal economy. For example, the Hanseatic league of

[4] For another useful taxonomy, see Schor and Vallas (2020). Where our work differs with them is that we also consider employees and contractors working directly for the platform firm as part of the platform economy. It is particularly important to consider the platform's direct employees as they are a small but remarkably privileged part of the entire workforce (Kenney and Zysman, 2019; Bearson et al., 2019).

[5] Polanyi has often been an entry for interpreting the digital era, see, for example, Julie Cohen (2019), who used Karl Polanyi to frame her analysis of what she termed "informational capitalism." John Zysman and Abe Newman (2006) drew a distinction between structural change and Polanyi's fundamental Great Transformation.

independent trading cities is an instance of trading communities linking more traditional societies. To illustrate, Tallinn, in today's Estonia, was literally divided into two parts; the upper city containing the German Teutonic knights that owned vast rural estates, and the lower city that had a governing city council appointed from the guilds. One part of Tallinn was a free bourgeois city that operated according to bourgeois rules as part of the Hanseatic league, while the other part was the home of feudal lords whose income was derived from their rural estates. The bourgeois liberation, across societies, was predicated upon land and labor becoming commodities to be traded for money in the market. The capitalist market economy, a society organized around the market, is not an inherent feature of social life, but is, rather, a political creation. Hence, a Polanyian optic draws attention to the fact that the emergence of digital platforms forces consideration of the importance of fashioning new rules and rights as they reorganize activities.

The "Great Transformation" was, of course, not planned, and the creation and legal recognition of these fictitious commodities was the result of a sequence of political fights; from the enclosure movement making land itself a commodity through the Speenhamland, and poor laws more generally, transforming labor into a commodity bought and sold on a labor market. The series of poor laws broke the link for survival between individual and community, making the individual worker dependent on wages obtained in the labor market. At an extreme of the ideological foundations of the market economy is the Malthusian notion of starvation as a means of equilibrating labor supply and demand. The Great Transformation was, thus, part of a long struggle within which political power shifted from the landed classes to industrial bourgeoisie, though some in the traditional trading bourgeoisie made the transition to industrialists. The rules of property, of course, also evolved during each era of the market economy as they were

reshaped by the pressures generated by various changes as social groups, technologies, and methods of creating and capturing value to use the Marxian language came into contradiction with existing norms and laws. The previous coalitions and rules of behavior were changed by the political and economic power being amassed by new groups. This story is well told in many places, and recently by Pistor (2019). In essence, as Steve Vogel (2018) has shown markets can be crafted and recrafted to meet the needs of various social actors.

The platform economy should be seen as another phase in the continuing upheaval and change driven by capitalism and the market economy. While it is unnecessary to debate how profound the shift is underway – the scale in terms of people touched by the digital platforms and the ever increasing reach of these digital platforms into our lives confirms our belief that the platform economy is a new stage in development, perhaps, as important as the rise of Fordism as an organizing logic for the leading edge of capitalism at its time. As summarized below, the remarkable impact the platforms are having across wide swathes of the economy provides insight into their power. These platform firms are also influencing the geography of economic activity. Most evidently, for example, Amazon and other online sales platforms shift sales from retail store fronts and replace those with warehouses located in non-descript industrial parks on the city outskirts (see, Kenney and Zysman, 2020a for Amazon and for a larger geographical perspective, see Kitchin and Dodge, 2011).

As in previous eras, there are continuing struggles over intellectual property ownership.[6] As Larry Lessig (2009) has shown, the ability to separate the informational content from the physical media, i.e. render things into digital representations, means that the cost and ease of copying becomes trivial, thereby threatening property ownership. In the digital era rules for the

[6] See Jessop (2007) for a Polanyi-inspired consideration of knowledge as a fictitious economy.

collection and use of data dramatically increase in importance, because much of the value created is derived from data.

New technologies, when introduced, can overturn previous arrangements or, in the current business vernacular, "disrupt" them. Social scientists have shown that an organization or industry introducing a new product or service must develop legitimacy in the market. The history of the introduction of new products, services, technologies, or even entire social systems is replete with what in retrospect proved to be utopian visions. This can be seen by the belief by the French utopian socialists, Henri de Saint-Simon and Auguste Comte, that the industrial revolution would bring a liberation of human beings from the drudgery of work. Similarly, the initial developers of the personal computer believed that computation would liberate users by giving them calculative power at their fingertips (Freiberger and Swaine, 1984) – they would no longer have to wait in line for the mainframe to process their jobs. Finally, more recently, there was the belief that the internet-based digital technologies would lead to either a libertarian utopia (Raymond, 1999) or a society where open source software and other digital platforms would make possible a new society built upon sharing (Benkler, 2006). And yet, the commercial implementation of these technologies resulted in arguably the largest and most powerful firms in history – something that can be seen in their valuations and their ability to dramatically increase their power in one of the greatest epidemics and fall in GDP in the last 100 years (on the COVID-19 pandemic and platforms, see Kenney and Zysman, 2020b)

Perhaps, the finest example of such evolutions from wonderful intentions can be seen how in Google's early days, it adopted the slogan "do no evil". The phrase, of course, was later removed from their code. More recently, social scientists inspired by Yochai Benkler (2006) argued that that a "sharing" economy was emerging, which they defined as "consumers granting

each other access to under-utilized physical assets ('idle capacity'), possibly for money" (Frenken et al., 2015). While the greatest attention in the social science discussions has been given to firms such as Blablacar, DiDi, Lyft, and Uber in ride "sharing" or Airbnb in room "sharing", Fitzmaurice et al. (2018) extended the sharing concept to include Maker's Spaces and various other services. However, in the case of the venture capital-financed firms such as Uber or Airbnb what exactly was being "shared" versus being provided in exchange for money is uncertain. The term, nonetheless, was extremely useful when talking to government officials, even as public rules on public conveyances or zoning were being entirely ignored. The business models for these firm transferred risk from the firm to contractor/employee and often included off-loading the costs of capital. It was, in many respects, not the end of commodification, but rather an intensification of commodification (Kirchner and Schüßler, 2020). Despite the language and hopes of some, the notion of the sharing economy was, with a few exceptions, an effort by entrepreneurs to give a social facade to their, sometimes productive, innovations that upset existing market rules. While many have hailed the sharing economy, it is remarkable that most of these proponents do not explicitly consider the costs of regulatory arbitrage, i.e., neither an Uber automobile nor Airbnb has the same inspection regime as a taxi or hotel. Lack of regulation creates significant savings, but does not result in greater efficiency, but rather less regulation.

We introduced the concept of the platform economy to capture the far larger developments whereby digital platforms were becoming dominant economic and social intermediaries (Van Dijck et al., 2018). Polanyi, to play out his logic, argued that the reaction to the social disruptions of evolution of the market society was the development of the Western European social democratic welfare system. The welfare system was meant to reduce the

vulnerability of citizens to the market, thereby containing the consequences of the market economy and labor commodification. As an adaptation to the consequences of the market, the welfare system is an effort to cushion the effects of the market, not a change its underlying logic of commodification. From this perspective, the political debates about the rules to be applied to the operations of the platform economy are part of the "second movement," i.e., a reaction to the platform economy.

Already, various reactions have emerged regarding specific manifestation of the platform economy, such as whether in California Uber drivers should be treated as "employees" or "contractors". As Kathleen Thelen (2018) observed in her cross-national study of the regulation of Uber, different countries and, indeed in the US, different jurisdictions have reacted differently to the introduction of specific platform services. In fact, interestingly, as part of the response to the COVID-19 pandemic, some "gig" workers were qualified for federal unemployment benefits (Christensen, 2020). This may be a first step towards recognizing gig work as "normal."

The essay by Grabher and König suggests that platforms, through the "terms and conditions to which users must agree to for access, and the algorithmic operations of the software have become, in essence, private regulators. In part, they created private worlds where their regulations minimize the purview of the State whose very power was built-up during the Great Transformation and the ensuring societal reaction to the dominance of the market.[7] In terms of competition, powerful platforms can leverage their existing assets and the potential to build and extend their software to introduce new services or leverage them to enter adjacent businesses.

To illustrate their enormous expansionary potential of the dominant platforms, in Kenney et al. (2020a), we show how Amazon expanded in multiple directions. The most successful of

[7] The sources of this "regulatory" power are described in greater detail in Cutolo and Kenney (2020).

these platforms, such as Amazon, thus become multi-platform hydras that expand both in the expected horizontal and vertical directions, but sometimes expand in unexpected ways. For example, Amazon's decision to purchase Whole Foods was a surprising new vector of expansion or Google's proposed acquisition of Fitbit.

For the state to regulate such surprising and amoeba-like growth is difficult, as the acquisition does not immediately violate concerns about excessive concentration. In other cases, the new service appears basically unannounced and is only noticeable after the market has already tipped in the platform's favor. For example, Google introduced its Drive cloud storage as a standalone service similar to that offered by Box and Dropbox. However, it soon integrated Drive with Docs and created software to allow joint editing of Word documents in near real-time. To this it added Google Forms. The Google Drive case shows how new services can easily be added further expanding the firm's scope. This ease of expansion means that entry into both existing markets and creation of new services/markets can happen rapidly and the "competitive" phase can conclude prior to incumbent firms responding or governments fashioning, or even considering, regulation.

In contrast, to the industrial revolution where the capitalist moved production into the factory to develop greater control than was possible with the putting-out system, the platform extrudes the work and obligations outside the boundaries of the firm. Nonetheless, platforms retain control. As Grabher and König (2020) highlight the platform is able to use the terms and conditions that all users must agree to as part of joining the platform to *maintain* control over the complementors. Indeed, as Ghazawneh and Henfridsson (2013) and Eaton et al. (2015) show, an even more powerful form of control is the design of the platform that is "hard-coded" into the software. For example, the original Uber software did not have the option of provide a tip,

because Travis Kalancik believed tipping created "friction" and thus it was not possible to tip until 2018 when Uber relented and added a "box" on the smartphone bill allowing a tip (Bhuiyan, 2017). Together, the unilateral contract and the unilateral control of the platform's design result in a remarkably asymmetric relationship between all users and the platform owner (Cutolo and Kenney, 2020).

Polanyi and Platform Economy Redux

The preponderance of the literature on platforms accepts that they create networks and are based upon the mobilization of ecosystems of complementors (Cusumano et al., 2019; Parker et al., 2016). Grabher and König (2020) appear to accept these metaphors as descriptive of the of the relationships mediated through platforms. In actuality the relationship between the members of the ecosystem and the platform is hierarchical and based upon an extreme power asymmetry within which the ecosystem members are at the mercy of the platform which controls the nexus of relationships (Cutolo and Kenney, 2020). It can dictate the terms and structure of the relationship and, in fact, who can connect with whom. To illustrate, if a website cannot be found by Google, in practical terms, can it be said to exist? These are networks in that connections are made between actors, but the connection is through the platform. In this sense, platforms are more like a traditional switched network, or a switchboard, not like the multi-nodal fabric of the internet as conceived by Paul Baran (1964) in the early 1960s. So, within the internet with its web of interconnections are these platforms, each a central point of contact for a fiefdom.

II. Data as a Fictitious Commodity

The extension of Polanyi's fictitious commodities, land, labor and money by Grabher and König (2020) is an intriguing conceptual question. As they write, "Data, then, correspond with Polanyi's (1944, p. 75) construal of "fictitious commodities": they are brought to the market, but are "not produced for sale." Utilizing Google maps or hitting the "like"-button on Facebook, as might be assumed quite safely, are not motivated by the intention to produce data, but rather to get directions and to signal approval respectively" (Grabher and König, 2020, p. 105). Clearly, as we and other have argued data can be seen as the raw material that is processed by algorithms (Kenney and Zysman, 2016), whether on a platform or not. Data has unique characteristics in that it can be gathered through a conscious transformation of the analog ("real") data into digital and processable data, however, as Zuboff (1988) data is also a by-product of any interaction with digital devices. Being a by-product, does not make something a fictitious commodity. To illustrate, a by-product of wine-making was grape skins and seeds, however someone figured out that these waste materials could be fermented to produce grappa. These by-products neither before or after being commercialized were fictitious – they simply were not recognized as having value. They became commodities. In the digital world, these traces are sometimes termed "digital exhaust", as they are the traces left as we surf through websites (Huberty, 2015).

If we consider, the three Polanyian fictitious commodities, they have three critical social actors attached to them. Land, of course, had the "landlord"; labor which refers to those that sell their labor time to reproduce themselves; and capital/money, which is rewarded with interest.[8] Data, on the other hand, has no particular social actor associated with it – there are many firms that sell data ranging from FICO scores to stock prices and sports statistics. Data, of course, can

[8] As an interesting aside, in the contemporary period the two fictitious commodities – labor and capital – are being capitalized by finance. To illustrate, increasingly the ownership of land is being capitalized into real estate investment trusts, mortgage-backed securities, etc. For a fascinating discussion of this in regards to the rental housing market, see Fields (2019).

be seen as a raw material, but as Gitelman (2013) cautions us is never raw it is always aggregations with classifications. Data comes produced and thus as a product of human labor.

While Grabher and König (2020, p. 105) suggest that data is not produced "for sale", in fact, the key to the platform firm's business models is collecting, organizing, and analyzing data to extract value from it, i.e., to use it to provide a good or service in exchange for money. Is data a fictitious commodity? It is clear that it has different characteristics than a physical good, such as, an automobile. Also, its use is largely through software and is difficult to price as a single item as it is always used with more data. On the other hand, to have value it must be processed and "worked up" by machines created by human beings and ultimately humans must valorize it. At this granular level of analysis, it is uncertain how much greater analytic precision is gained by labeling it a fictitious commodity.

Whether it is valuable to consider data "fictitious" can be understood at another level. Mainly, Polanyi's fictitious commodities, land, labor, and money corresponded to larger socio-political blocks or, in Marx's terms, classes – landlords, workers, and capitalists (money being a store of value). They were also a set of social relationships to the means of production. Does data represent a class or a fundamental new set of social relationships? At first glance, we are prone to dismiss the ownership of data as fundamental. However, the Great Transformation did create another social actor, the modern State, which had many functions, but as Max Weber's work on bureaucracy so powerfully showed the state was a massive collector of data – censuses, tax records, social security, imports and exports. It was the largest repository of data. Today, the data held by governments is dwarfed by the platform firms. This, of course, links back to the observation that the platforms have become regulators in the spheres that they control. Perhaps, this justifies considering data as a new fictitious commodity. If this argument is valid, then, in

fact, this may be another great transformation with platform firms as a new category of organizations different from other firms.

III. The Pervasive Impact of Platforms

Today, billions of people get their news, communicate, transact, and recreate through a digital platform or through layers of digital platforms. For example, they use their smartphone to listen to Spotify or buy in the Amazon Marketplace, while searching Yelp for a highly rated restaurant that are pinpointed on Yelp's Google Maps plug-in. While in China, purchasers buy nearly everything through WeChat Pay or Alipay using their smartphone. The platform economy is restructuring all aspects of the contemporary society. As Plantin et al. (2018) observe, the most powerful of these platforms are becoming general societal infrastructure, while the sectoral platforms, such as, Airbnb, Booking.com, Didi, Etsy, Expedia, Match.com, Spotify, TikTok, Uber and others are restructuring their particular market segments.[9]

Of the earlier platform firms only Apple and Microsoft made the transition from the personal computer world to the platform economy. Globally, the other platform firms are less than thirty years old. The leading platform firms, Google and Facebook, have in excess of two billion users for some of their services. The major Chinese platforms have in excess of 750 million users, though they are large confined to their home market (Jia et al., 2018). As importantly, the larger firms now have developed multiple platforms and services that reinforce and feed each other.[10]

The case of Amazon is instructive, as it began as a website selling products, but in 2000 transitioned to a platform strategy, which it then leveraged to enter into yet other sectors

[9] For a similar process in the case of electricity, see Hughes (1993).
[10] For a graphical depiction of this expansion for the case of Amazon, see Kenney et al. (2020a).

expanding in multiple directions to include: first-party product sales, the Marketplace, logistics and warehousing, cloud services, internationalization/globalization, entertainment, physical stores, and physical devices (Aversa et al., 2020; Kenney et al., 2020a). Amazon used these expansions to become one of the most powerful and valuable firms in the world as it entered and transformed industry after industry. While these expansion paths are most remarked upon in the case of mega-platform firms such as Amazon and Google, sectoral platforms also expand across traditional sectoral boundaries. For example, Uber began in black limousines, but now has many different types of services, including UberEats, JUMP Electric Bike Share, UberCash, and Uber Health. Similarly, Airbnb, which expanded globally from accommodation to other services such as vacation rentals, and then added multi-family property owners and hosting teams, Experiences, and Neighborhoods.

Platforms critically change the character of markets that the enter. There has been much discussion of how the condition under which the fictitious commodity, labor, is organized and compensated (Bearson et al., 2019; Kenney and Zysman, 2019; Schor and Vallas, 2020). In a recent article, Cutolo and Kenney (2020) suggest that business activity and entrepreneurship is becoming dependent on and vulnerable to exploitation and even expropriation by the platforms intermediating their relationships with consumers. Even in sectors that we do not normally associate with digitization, such as agriculture, not only are they being digitized, but a variety of organizations are attempting to platformize and, thereby transform the industry (Kenney et al., 2020b).

The power of platforms toward social actors dependent upon them is profound. To illustrate, platforms can unilaterally change competitive or labor conditions on the platform entirely at their own discretion unilaterally and with no warning. As the panopticon they can

monitor or, in the words of Zuboff (2019) surveille activity and shape that activity in ways that are most advantageous to the platform.

In terms of geography, the birthplaces and current headquarters of these firms are remarkably concentrated in the West Coast of the US and China. As we mentioned earlier, their geographic reach particularly through the mobile phone touches the smallest village in the developing world. Moreover, in these locations platforms such as Google and Facebook appear remarkably local providing granular advice and reviews about local retailers and the most intimate local gossip. Google Maps through Streetview provides visual representations of the most local streets to the entire world, while platforms such Upwork open certain types of work to the global labor force (Wood et al., 2019). With the exception of China, borders have been of little importance for the platform firms, as adoption is as easy as a download, as can be seen by the rapid adoption of the Chinese short video app, TikTok, which, for the first time, is a Chinese cultural product that appeals to Western audiences. The pervasive nature and political, economic, and social power of platforms is now being appreciated and only recently being measured (see, for example, Kenney et al., 2020a). Increasing our understanding and measurement of the extent and depth of progress of the platform economy is a task that has only recently gotten underway in earnest.

IV. Concluding Thoughts

Polanyi's perspectives, as Grabher and König suggest, provide useful theoretical optics for understanding the platform economy. We agree with them that the sharing-economy trope, even if it applies to firms such as Uber, Airbnb, and others, is inaccurate. But, importantly, as we suggested in our original writing on the platform economy, Kenney and Zysman (2016) and then

even more emphatically in Kenney and Zysman (2019; 2020a) the sharing economy and, for that matter the gig economy, notions miss the impact of the far more transformative mega-platforms. We are also drawn to Grabher and König's ideas about data as another fictitious commodity – it certainly has unique properties as do Polanyi's other three fictitious commodities, but it has no unique social actors associated with it – and it is certainly bought and sold in the market like other commodities. Whether the increasing centrality of data as a commodity will lead to another great transformation is for the future to decide. What is certain is that the platform economy is a new phase in the market society and that platforms are increasing their penetration.

Polanyi, of course, theorized that there was a double movement. Both Grabher and König and ourselves have documented the "commodification" movement and the reorganization of society by the platforms. The dialectical response to this could be the reaffirmation of true sharing, which, of course, is possible across platforms whose *raison d'etre* is not profit, but rather the meeting of human needs and matching parties for social benefit. The Open Source Software movement was one of the inspirations for Benkler's wealth of networks, Fitzmaurice et al. (2018) based on interviews with "sharing" economy service providers find that, at least, some have goals beyond income, and, finally, Schor (2020) argues the sharing economy was hijacked and can be recovered. The question that Marx faced was whether the utopian socialists could ever transform society and, if so, short of revolution, how could this occur. Trebor Scholz (2016) has argued that cooperatives could provide an alternative to the current privately owned giants. Of course, the double movement that Polanyi observed came out of the crucible of two world wars and a great depression.

The parallels that Grabher and König draw with Polanyi's analysis of the Great Transformation are a significant contribution to thinking about the meaning and importance of

the emergence of an economy in which an increasing proportion of activity is mediated by platforms. Finally, can a global pandemic and threatening serious recession, within which, the platform giants are having their power reinforced and, in truth, becoming more powerful than ever (Kenney and Zysman, 2020b), spark the social energy and political will to allow the double movement of a socio-political response that creates a more humane and inclusive economy?

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