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Polanyi, Callon, and Amazon: Institutionalist, ANT, and DRAN Approaches to Platform Economies

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Abstract

Drawing on a detailed analysis of Grabher and König's study of platformization (Grabher & König, 2020), this essay develops a revision of Actor-Network Theory by proposing how a Device, Representation, Actor and Network or a DRAN Approach can be more helpful in making sense of platform economic processes. First, it locates the ways in which Grabher & König's article approach platforms from an updated Polanyian perspective. Second, it elaborates on how the aforementioned article critiques static Polanyian perspectives while at the same time building a double tension by a) not being clear whether we observe "the platform economy" as an *object* or platform economization as a *process*, and b) not paying sufficient attention to how platforms that draw on intangible materialities move beyond being mere marketization relations. Third, it presents how to address these tensions by drawing on novel theoretical advances of DRAN Approaches and fresh empirical research concerning platform economies, located at the intersection between computer science and social sciences. Proposing a possibility to integrate historical and contemporary studies of economic processes, the essay ends by elaborating on how Grabher & König's article has a potential to enable a multi-perspective dynamic research strategy in making sense of not only the contemporary working of platforms, but their historical and socio-technical condition of possibility.

Keywords: Platform; Marketization; Economization; ANT; Polanyi.

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Platforms have caught societies and social scientists off-guard. Once perceived as shining new developments, platforms such as Amazon and Google are now considered as dark forces that undermine economies, polities, and communities. This is because, their critiques argue, they build mega oligopolies in economies, polarize politics, and disrupt social ties, digitally. In trying to figure out this new world, the social sciences are challenged, too. They approach platforms as infrastructures, technologies, ecosystems, markets, devices, or spaces, at a time when popular representations are dominated by much rupture talk, a style of thought that likes to locate any new development in terms of a decisive break from the past.[1] Some say platformization is a revolution, while others find nothing new under the sun. Some progressives see an opportunity in it, whereas critics perceive it as Goliath.

Grabher & König's (2020) inspiring article "Disruption, Embedded. A Polanyian Framing of the Platform Economy" has come at a time when we seem to be unsure from where platforms have emerged, how and whether they work, and what consequences they entail. Presenting a timely intervention into platform debates from the vantage point of Polanyi, they invite us to rethink Polanyi's potential contribution to our understanding of new economies. Their choice is an excellent one. At a juncture when Marxism had been silent on the nature and origins of markets, while a neo-classical global chorus had been rather loud in describing markets as natural, Polanyi had shown us that markets were designed and maintained with particular interests in mind. Still representing the most powerful and convincing macro history of the origins of modern markets, *The Great Transformation* (1957) continues to be a source of inspiration as we feel dazed and confused.

1 Old Book, New Inspirations

What is to be done with this inspiration? There exist two broad ways of addressing this question: The first, more analytical, static and orthodox path follows Polanyi to show the social nature of everything economic, and then stops there. Prices? Social. Markets? Social. Platforms? Also social... Implicitly criticizing such an anti-Polanyian spirit in claiming Polanyi's heritage, Grabher & König (2020) present us with a second, fresh and dynamic Polanyian approach. Drawing on a new conceptualization of platformization, their path also presents a *new* interpretation of and opening in Polanyian perspectives. The result is exciting.

They avoid two economic sociological temptations, or what they call "misapprehensions": First, they do not focus on showing the "social" nature of things, but they start from there to explain the emergence, working, and maintenance of economic processes *per se*. For them, embeddedness is not a final call, but a starting point. Second, "rather than forcing Polanyi's historically grounded framework onto a novel reality," they take a fresh look at Polanyi's vantage point as they analyze platformization (p. 109). They begin with (re)-interpreting the Polanyian approach through the lens of *marketization*, a term that Polanyi used not even once in *The Great Transformation*. Describing the *The Great Transformation* itself as marketization, Grabher and König explain the emergence of digital platforms in reference to technology, science, and state.[2]

1. For other examples of rupture talk and a more detailed definition, see Hecht, 2002.

2. Drawing in part on Polanyi and beginning our work with an epigraph from him, Michel Callon and I have proposed a research program on marketization and economization, arguing that markets and economies can best be studied as processes, and not as things. For a detailed discussion of this proposal see (Caliskan & Callon, 2009; 2010).

Such an elaboration has two advantages. First, it pushes back against the rupture talk around the notion of platforms, which announces a revolution in everything and (if one is to believe TED talks) every other week. On the contrary, Grabher and König's perspective locates platformization as one instance in the *longue durée* of a great economic transformation. Second, their approach calls for a new empirical attendance to the processes that make and maintain a new form of marketization — that is, marketization on platforms. As a result, they help us imagine new avenues of market reform by way of potential regulation, in rapport with questions concerning social justice.

2 Platform Works

Grabher & König's (2020) argument draws on a literature review that shows how social scientists have approached the elephant in society's room — that is, economic platforms — in the following ways: (1) as *infrastructures* from a socio-technical view point; (2) as *multi-sided markets* from an exchange angle; and (3) as *ecosystems* that make up social scaffolds enframing actors. Instead of critiquing these approaches, some of which are in contradiction to Polanyi,[3] Grabher and König synthesize them by seeing platforms "as *programmable digital infrastructures* controlled by platform operators who, as non-neutral intermediaries, curate the interactions of interdependent complementors and users" (p. 104). The multiplication of these platforms, together with the enhanced and renewed participation of technology, science, and the state has given birth to what they call "the platform economy." Like Andreessen (2007), they put the stress on the programmability of digital infrastructures: "If you can program it, then it's a platform. If you can't, then it's not" (quoted in Bogost & Monfort, 2009, p. 4). "The platform economy" they refer to is by definition "the programmable digital infrastructure economy." Their reinterpretation of Polanyi serves as a lens to make visible and analyze such a new big change, or what they call the "Great Transformation 2." (Grabher & König, 2020, p. 105)

One may ponder whether they are merely dragging Polanyi's explanation of the origin of markets into a twenty-first-century context: Polanyi explained the rise of the market economy in reference to technology, science and politics; so let's find out what's new in those domains and put together an explanation of, in this case, the platform economy...

It is at this point that Grabher & König's (2020) innovative intervention comes into clearer view. Instead of parroting Polanyi's theoretical approach, they readjust his perspective to see new developments in *new* ways. Such a distinctive exercise also calls for a new interpretation of Polanyi's oeuvre. For them, there have been three simultaneous emergences that have given birth to 'the platform economy': (1) Technology in digital infrastructures and data systems has commodified data and made data a new fictitious commodity (p. 105). They base their observation on the production of economic relations that seek more fictional things. They illustrate not only fictionality, but also the relations of fictionality production. Such a perspective opens up an area for new investigations into historically specific practices and actor-network clusters that carry out such a difficult yet successful operation. 'Fictitious' does not mean unreal for them; it means realized on the ground. (2) Scientific practice, such as network sciences and analysis, contribute to the making of economies, thanks to their performativity (p. 106). Taking

3. As an example of one such approach, Rochet & Tirole (2003) drag platforms into the purview of a neoclassical perspective that treats them as mere markets with multiple sites. Such a neoclassical rendering of platforms in late modernity has entailed the definition of platforms as a variety of self-contained markets that can be studied without the need to consider their sociological universe. For a critique of such approaches, see Caliskan, 2020b.

their inspiration from Callon and MacKenzie, and in part drawing on their own previous work, they not only theoretically discuss such a performativity at work, but they also measure, test, and empirically demonstrate the performative effects of new network sciences on platformization processes (Grabher & König, 2017). Finally, drawing on a Foucaultian understanding of power,[4] they locate "managerial governmentality" — with the state at the center of this distributed political agency — as a process that injects market logics into economies (Grabher & König, 2020, p. 110).

3 A Thing or a Process?

In addition to such novelty and original thinking, their perspective incorporates two tensions. The first is internal and theoretical (the thing or the process?), while the second is consequential and external (new empirical developments out of sight).

First, the argument oscillates between defining an *object* called "the platform economy," on the one hand, and analyzing an emergent and open *process* of economic platformization, on the other. Used 26 times within 15 pages, the term "the platform economy" assumes, very much like economists' approach, the existence of a self-contained system of economic interactions, then proceeds to claim an embeddedness in another object called "the society." However, such an objectifying hegemonic thread was later corrected by a small yet potent intervention. In their paper's conclusion, Grabher & König (2020) argue that what needs to be studied is, in reality, "*various* institutional configurations and *regimes* of *a* platform economy *in the making*" (p. 110). This antinomy between an object analysis of claimed completeness and that of an incomplete process of unfolding informs the second tension.

Second, their analysis at times accepts static notions of platformization and aims at building a dynamic theoretical conclusion on such notions, while not theoretically including threads of platformization that have thrown new light on these new economization processes, such as (1) platforms' variegating of economization processes that go beyond marketization, and (2) new data materialities.

The first development, which holds the potential to convince us to think of platforms in an empirically new way, comes from new economic worlds emerging around us, associated with economic services such as those of Amazon, Facebook and Google. A quick look at their operations clearly elucidates how they move beyond marketization relations. Amazon draws on supplying people with spaces and tools of marketization — hence, a space of production. Their material infrastructure now competes with seemingly non-platform companies such as Walmart. Producing from simple socks to advanced computer chips, Amazon is now one of the largest manufacturers on the planet. Owning a whole fleet of cargo planes and trucks, it is expected to "surpass UPS and FedEx in total package volume by 2022" (Mitchell, 2020). To say the least, this is not a "multi-sided market," nor an "ecosystem." Facebook draws on barter economization: It gives users a chance to share the picture of a puppy and therefore grabs another users' attention. It financializes this barter network to sell advertisement space. Facebook cannot be understood based on an economistic reasoning about markets; it is something more (Grabher & van Tuijl, 2020).

Examples can be multiplied to show that we are facing the emergence of a new economization process. This process operates on multiple interactive layers, with an ancillary relationship

4. Foucault's insistence and demonstration that modern sciences make the relations which they study has been among the origins of the performativity argument (Foucault, 1980; 1986).

in delivering an empirically observable range of economic functions. In an article on cryptocurrency exchange platforms published in this issue (Caliskan, 2020b), I argue that we can describe platform works as "*stack economization*", referring to mutually supporting and enabling platform-based exchange, production, barter, and representation practices that their makers and observers qualify as economic.

The second theoretical novelty concerning new empirical phenomena has to do with the nature of data realities. Data play a central role in platformization. It is essential to accurately interpret what data and algorithms are, before we can discuss what they do and how actors and algorithms use each other. The literature on platformization tends to bypass an empirical examination of the digital universes of data and algorithms, and straightaway discusses how they are used for capitalist objectives, for illiberal motivations, or for building new regimes of exploitation and governance — all of which may, in fact, be true. However, there arguably has been an inclination to essentialize algorithms and data as if they did this or that by themselves, or as if they could be used by actors as mere tools (Neyland, 2016). Drawing on and bringing together an impressive computer science and social research literature, Paul Dourish (2016) has offered an alternative: Algorithms, data, data structures, and programs are categorically separate entities with varying degrees and types of limits and openings. Thus, a relational and differential socio-technical analysis of these entities *should* accompany the ways in which their consequences are analyzed. Such an approach would equip social science research not only with more accurate descriptions of how actors do things on the ground, but also help to imagine alternatives and interventions in rapport with various justice considerations.

Perhaps more importantly, again drawing on a wide spectrum of literatures, but especially to that of Donald MacKenzie, Dourish has joined other scientists in demonstrating the *materiality* of/in digital practices, instruments, and informational entities such as data. These materialities not only refer to computers, their cables, or tangible things that human actors can touch, but they also encompass the material orders that representational systems build and operate (Dourish, 2017). Such a perspective opens a space for new social research that examines "the material forms in which digital data are represented and how these forms influence interpretations and lines of action" (Dourish, 2017, p. 4). The platformization of economic relations entails historically specific rematerializations that need to be studied, and not factored out or essentialized as non-material things, data, algorithms, or simply as "digital."[5]

4 Towards DRAN Approaches?

Regardless of methodological, epistemological, and disciplinary concerns, the social sciences pursue three objectives when they approach phenomenon X: (1) analyze the emergence and social conditions of the possibility of X, (2) describe the consequences of X, and (3) explain how X works. Condition of possibility and social consequence approaches share an important commonality: In order to sustain their macro sociological and historical perspective, they tend to assume that they know how X works and then move on to discuss its emergence and consequences. This is why the brilliance of *The Great Transformation* rests on irony. It does not (and does not have to) explain empirically how even a simple market works on the ground. It

5. To give an example, an analysis of intangible and tangible materialities used in cryptocurrency exchange platforms is necessary to make sense of how these platforms are made and maintained on the ground. For an empirical demonstration of this point, see (Caliskan, 2020a).

describes markets' historical emergence and the social universe in which they are embedded. The *X* remains an *X*, embedded now in *Y*.

Actor-Network Theories (ANT), a term first proposed by Callon (1986) and developed in association with Law (1992) and Latour (1996), have aimed at filling that gap. *The Laws of the Markets* was the parting shot, showing the historical relevance of Polanyi and moving beyond it so as to explore the empirical specificity of economization processes, the *X* itself (Callon, 1998). A whole new generation of scholars followed this path, inspired by it, broadening, and developing it; and in time, they brought together an explanation program that added two more considerations, D (Devices) and R (Representations), to A (Actors) and N (Networks).

ANT's contribution to the universe of actors has been to open up social theory to a multiplicity of agencies. As I write this essay during the COVID-19 pandemic, it is a telling irony that we can no longer discuss economies without considering non-humans such as viruses. Be they collective or individual, human or non-human, such a proliferation of actor types has contributed to the emergence of a more nuanced study of economies.

Networks and their study had been around before ANT ever emerged. Yet, their explanatory power was either exaggerated by strands of research such as structuralism or downplayed by a variety of methodological individualist accounts such as micro-economics. ANT's contribution was to build a theoretical caution against *a priori* takes on either actors or networks. Explaining action in reference to distributed agency, ANT's intervention helped researchers imagine a more nuanced approach to X. Now it is rather commonplace to build an argument that draws on the interaction of infrastructures and agents in explaining economic action, without assuming that first come networks and then actors do things in and with them, or vice versa (Blok et al., 2020).

A and N, however, are not enough to build a rules of thumb list of main dynamics in explaining *X*. With the increasing digitalization of exchange relations, a burgeoning literature has shown the effect of representations (R) on social action in terms of their performativity. Returning to Foucault's historical exposition of how modern sciences contributed to the making of modern subjectivities and power, scholars loosely or tightly associated with ANT have presented empirically robust and analytically strong demonstrations of how certain representations not only represent, but also contribute to the making of realities on the ground via their performativity. (Finch et al., 2015; Glass & Rose-Redwood, 2014; Grabher & König, 2017; Lépinay, 2007; MacKenzie, 2004; Olofsson & Zinn, 2019).

Finally, devices (D) have been shown to contribute to how actors, networks and representations interact to give birth to processes of actions. From the supermarket cart to the computer, from the mouse to the gun, it is now empirically demonstrated that the presence and absence of devices configure the spectrum of action for agents (Barrey et al., 2000; Callon et al., 2007; Hawkins, 2012; Mason et al., 2015; McFall, 2009; Roscoe, 2015). When guns are not regulated and can be found all too easily, as in the sad case of the US, we see a high homicide rate. Guns and actors kill, together.[6]

How can approaches that draw on an analysis of Devices, Representations, Actors, and Networks — in short, DRAN — contribute to an analysis of platforms? What advantage would such an approach offer? What would be its limits? Its main advantage lies in it not being a 'theory' and instead working as a strategy of research or approach. Rather than contributing

6. One may argue that a device is a mere actor. It is not. Devices are the necessary bridges between actors and networks. Without them, we cannot understand socio-technical universes of distributed action. For a discussion of devices such as guns and how they are not mere actors see (Latour, 1999).

to the objectification of its foci of study, DRAN approaches can be deployed without locating a definitive 'the' in social, economic, cultural, technological, and political *processes*.

Second, it provides researchers with the possibility to avoid prioritizing networks (a platform is an infrastructure, structure, architecture, system), actors (users, platform owners, engineers), devices (computers, cables, programs), and representations (formulas, data) when analyzing platforms. Furthermore, it puts the emphasis on socio-technical processes, and not the places of their operation when explaining economic practices. This helps us to avoid confusing the place of action with the action itself — for instance, by arguing that a platform is a place where buyers and sellers meet.

What are the limits of DRAN? The first is the embedded tendency to pay insufficient analytical attention to the relations of power that take place in instituted processes populated by states, corporations, and international organizations. Second, and perhaps resulting from the first, it has less power for delineating historical conditions of possibility and, thus, the social consequences of the processes it studies. Deliberately focusing on describing micro- or meso-scale processes, DRAN approaches are potent as long as the boundaries of their explanation remain limited. Yet, they risk running out of steam when it comes to discussing the historical and/or macro-sociological context of their explanandum.

The potential I see in Grabher & König's (2020) article consists of a framework that enables a simultaneous operation of three research motivations examining the condition of possibility, consequences, and working of *X*. Their vivid exercise of connecting the *explanandum* with the *explanans*, weaving an argument between historical explanation and contemporary analysis, without giving up the consideration of social consequences, produces a bright theoretical light made up of three beams.

The first beam of theoretical light renders visible the fact that historical institutionalist and DRAN approaches can be simultaneously deployed in studying even the most contemporary economic phenomena, such as platforms. This exercise has demonstrated that, theoretically speaking, a dynamic Polanyian perspective with a DRAN approach to the role of performativities can indeed work coherently. Second, such an integrated theoretical design makes it possible to imagine a space for critique and historical explanation in contemporary analyses that tend to revolve around various rupture talks. And finally, and perhaps most importantly, at a juncture when we are running out of time in terms of global warming, Grabher and König's perspective provides us with analytical tools and a theoretical framework to weave critique, historical expose, and thick description together without prioritizing one over the other. They provide us with an innovative framework within which we can conceive new organizational interventions, political demands, and socio-technical devices to pursue novel ways of seeking justice, as well as ways of elucidating new geographies of injustice.

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