



Towards a Theory of Value as a Commons

RESEARCH ARTICLE

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ABSTRACT

This essay aspires to explore the contours of a theory of value based on the commons. Its starting point is an understanding of value as a means through which empirical economic phenomena are guided by an underlying structure. Value is understood as the way people's actions become meaningful to them within a broader social whole defined by the said structure. We approach the digital commons as such a social whole, articulated by distinct value practices, emerging within, yet at odds with, capitalism. We employ interpretivist analysis to identify elements of a theory of value in the digital commons, borrowing from diverse theoretical perspectives, and utilizing the results of original research conducted elsewhere. The conceptualization of value as a commons places value itself in the commons, as a collective agreement, being part of the shared rules and norms guiding collective action. Our aim is twofold. First, to reinvigorate discussions on value in the study of social and economic affairs. Second, to formulate a perception of value that could guide meaningful and sustainable transformations of future social and economic arrangements based on the commons.

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1 INTRODUCTION

Let us begin with the fictional story of Luca, a merchant in 14th-century Venice. As a responsible merchant, Luca starts his day by looking into his books. Trade is complex and drenched in uncertainty: Travel arrangements, identifying suppliers and customers, matching supply and demand, price negotiations; a series of critical decisions that must be made quickly, based on imperfect information. Two basic entries in his books – debts and credits – make his life easier. Luca is a successful merchant, unaware of how much his own simple and quantified reality, a key component of what would later be called capitalism, would influence the meaning of life for the generations to follow; yet not much more unaware than we are today.

Fast forwarding to the 21st century, Benkler (2002; 2006) documents a cluster of productive and organizational practices around digital commons, which fundamentally differ from 14th century merchants' calculated decisions. Digital commoning constitutes a distinct mode of production based on sharing and open participation that results in sophisticated innovations, spanning from free and open-source software (FOSS), and the free encyclopedia Wikipedia, to open design (and hardware). These innovations are not exchanged as commodities, but freely shared as commons, managed under the rules and norms of the community that co-produces them. This new form of commons and their economic impact effectuated a resurgence of the rich body of knowledge of the commons in domains hitherto largely unaware of it: from cooperative associations, to energy, food, healthcare, to infrastructure and software (Moor, 2015 in Berge and McKean, 2015).

The incisive diffusion of Information and Communication Technologies (ICT) leveraged patterns of digital commoning to enable a radical reconfiguration of the way people interact, communicate, and coordinate their social and professional affairs. Meanwhile, an intensifying social and ecological crisis, alongside the cumulative psycho-social impacts of daily work life in most parts of the world, have sparked enthusiasm for revived forms of collective action – and living – in which people find meaning (Bollier and Helfrich, 2019). New social imaginaries about a world beyond the cold confines of management, steel and concrete are developed around the potential of digital technologies for people to connect, collectively act, and make sense of their action (e.g., Castells, 2010; Rifkin, 2015).

Yet the promises of a fresh and abundant, digitally enabled world fall short on two main levels. First, the claimed abundance of the digital world massively exacerbates scarcity and exploitation elsewhere in the physical world (Lange et al., 2020; Sovacool et al., 2020). Second, the prominent digital commons practices paved the way to them becoming the new subject of exploitation

by the same managerial practices they supposedly disrupted (Pazaitis and Kostakis, 2021). Tech giants provide open platforms for people to interact and share content, while monetizing upon this interaction through opaque algorithms that distort and manipulate human sociality. Digital commoning allowed dispersed communities to self-organize and produce through collective action beyond markets or states. But the dominant economic system caught up to co-opt these collective practices to define new cycles of control, accumulation and profit, often at the expense of the weakest and most vulnerable (e.g., Wong, 2019; Knaus et al., 2019; Lima, 2021). Whether the digital commons enabled emancipatory forms of post-capitalist organization and production or merely provided new ways for capitalism to reinvent itself, is a convoluted inquiry.

Departing from the above problematic, we focus our attention to the concept of value. The commons are a distinct form of social organization and economic governance beyond markets and states. Contrastingly, value as a concept or measure is exclusively associated with, primarily, markets and, secondarily, the state. Likewise, theoretical or empirical explorations on value and the commons remain underexplored. Available methods assessing the value of the commons often rely on financialized estimates or applying monetary metrics on resources and relations located outside of the conventional economic domain (Petrescu et al., 2021; Morell et al., 2016). However, it would be a fallacy to ignore the contribution of the commons in value creation for either of markets or states. From basic life-support systems and natural resources, to culture, heritage and social systems, to our digital infrastructures. Hence, our main research question is how can we understand value from the perspective of the commons, and subsequently guide more sustainable forms of production and organization?

To address the above question, we propose a framework for value as a commons based on emerging practices of digital commoning. Our aim is to explore a political economy through which processes of organization, production, and meaning-making can be analyzed and potentially governed through the commons. Our starting point is an understanding of value as the means through which empirical economic phenomena are explained and guided by an underlying structure (Heilbroner, 1983). We attempt to decipher this function of value in capitalism and juxtapose it with (digital) commons-based practices. We conceptualize value as a collective agreement through which actions become meaningful and articulate a broader social whole (Graeber, 2001; De Angelis, 2007). As a collective agreement the definition of value is itself part of the commons. Perceptions of value work insofar people uphold the shared rules and norms through their actions and relations.

Our focus on the digital commons is due to the innovative solutions they feature, which enable commons creation with major economic impact in an emerging field. This provides the opportunity to observe value practices that challenge the dominance of capital, while retaining a dynamic relation with it. Among the many approaches available, we primarily adhere to Bollier's (2014) definition of the commons as shared resources, collectively managed based on rules and norms defined by the community maintaining and co-producing them. Further, we are guided by the concept of commoning, understood as the capacity of benefiting from- and contributing to the commons. The way the digital commons create and reclaim spaces for commoning in direct conflict with capital expansion, while developing alongside it, bears valuable lessons for the creation and reclaiming of spaces for commoning elsewhere, both online and offline. We intend to contribute to the broader commons literature by providing some primary theoretical tools to analyze value as a means of articulating a more meaningful and sustainable social order based on the commons.

Value is an abstract concept, while the emerging nature of the investigated phenomena of the digital economy are highly dynamic. To address this methodologically, we employ interpretivist analysis to explore abstract theoretical concepts, such as value, as they acquire concrete meaning by being used (Gadamer 1960), and specifically by being practically applied (Drechsler, 2019a). We iteratively borrow from diverse theoretical perspectives and utilize the results of action research, in which we were involved elsewhere. Section 2 presents our underpinnings concerning theory of value and potential conceptualizations through the digital commons. Section 3 discusses value as a commons and identifies the elements that inform a tentative theory. Section 4 returns to the story of Luca to briefly summarize our arguments and concluding remarks.

2 THEORETICAL FRAMEWORK

2.1 IS THEORY OF VALUE STILL RELEVANT?

Value is an abstract concept marked by ambivalence. The term value is easily used in daily life and business practice, indicating a common understanding. Yet there is no generally agreed definition for value nor a consistent one across different societies and times. Still, this does not prohibit confidence in the use of the term in vaguely articulated phrases like “value proposition”, “shareholder value” or “added value” by McKinsey executives or writers of *Fortune* and *The Economist*.

In scholarly discourse, questions around value seem antiquated. Relevant inquiries have been almost absent from recent economics works, even though they were once

a central aspect of classical political economy (Mazzucato, 2018). Heilbroner (1983: 253) asserts that “most economists today do not even see the need for a ‘theory of value’, as distinct from a theory of price, and would in fact be hard pressed to explain the difference between the two”. This almost two-decade old statement remains relevant today, where, in most settings, it is hard to begin a discussion about value without landing on a discussion about market prices, wages, or profits.

However, the task of a theory of value is a qualitatively different one. Heilbroner (1983 cf. in Pitts, 2020) defines the problem of value as the systematic effort to understand empirical economic phenomena, such as prices, wages, or profits, by connecting them to some underlying structure or order. Simultaneously, perceptions of value serve to guide the empirical world towards a certain configuration, informed by this underlying structure or order. The inquiry on value is an in-depth exploration of both the mechanics and the politics, both the hows and the whys, of the said configuration.

This function of value as mechanism and rationale can be discerned through various theories as they develop alongside the configuration that emerged since the industrial revolution. In this context, the first systematic treatise of value is the labor theory of value formulated by Smith (1976/1776). A key characteristic that Smith identifies in the industrial configuration was the division of labor. By concentrating their labor on producing a tiny fraction of the goods and services necessary for their subsistence, people in an industrial society must acquire the rest of them through the market. In doing so, Smith argues, they exchange the products of their labor with those of other people's labor. Hence, labor, for Smith is the key substance of value in commodities exchanged in markets, being “the first price [...] that was paid for all things” (1976/1776: 48). In turn, labor functions as an absolute measure of value that makes the products of different types of labor commensurable in exchange. Value in Smith's theory is a facilitator for market exchange, a means that guides an economic configuration based on industrial production of commodities and division of labor.

The labor theory of value has seemingly been abandoned in later inquiries on value. Pitts (2020) provides an overview of theories historically adopting different value measures, from objective ones, such as labor time or cost of production, to subjective ones, such as consumer preferences or the perceived utility of goods. Still, the above-described fundamental function articulated by the labor theory of value arguably holds. Regardless of the specific measure used, the task of value in the capitalist configuration remains the same: rationalizing commodity exchange and its structures. A careful look into Smith's formulation already evinces that the labor theory of value is essentially not about

labor per se, but about the quantity of labor someone is able to “purchase or command” (1976/1776: 47) with regards to commodity production. Labor is a particular characteristic of production that rationalizes commodity exchange; division of labor what necessitates this rationalization; and an emerging social order depriving people of other means to pursue their livelihood, following massive enclosures of the commons, is what drives the whole process.

2.2 FROM CONCRETE TO ABSTRACT LABOR – AND VALUE

Marx (1967/1876) already elaborates on the characteristic of labor rationalizing commodity exchange, marking a turning point on value inquiry in classical political economy (Pitts, 2020). A central concept of the Marxian theory of value is “abstract labor”, describing labor expended on objects solely produced to be exchanged for money (Heilbroner, 1983). For Marx, the labor of commodity production is not a concrete task, such as hammering or crafting, aiming to create objects for immediate enjoyment, but an abstract one, as its purpose is to become equalized with abstract monetary units. Through this process, qualitatively different forms of labor become commensurable. As Graeber (2014: 8) puts it: “The fact that one unit of money is exactly the same as any other means that one unit of work can be seen as the same as any other”.

Equalizing qualitatively different kinds of labor in markets is less an outcome of exact measurement and more one of transforming activities that were formerly beyond comparison. Their comparison and exact equalization only makes sense in a setting where the parties involved are seeking to maximize their gains out of a transaction under competitive terms (Heilbroner, 1983). Value is then not some intrinsic quality that objects of human labor possess. Instead, value is a characteristic bestowed on things by a social order influencing people’s behavior. In capitalism, people are rationalized into becoming “economic beings” (Heilbroner, 1983: 276). As such, they pursue the maximization of their self-interest having their livelihoods pitted against each other (De Angelis, 2007). From the Marxian perspective, (capitalist) value is a category that reveals “a set of antagonistic social relations and systemic structures that compel individuals to act in certain ways” (Pitts, 2020: 1).

A central tool facilitating the transformation of concrete to abstract labor has been the development of scientific bookkeeping. Historically born in the commercial centers of the Italian city states in the 14th century (Yamey, 1949) it is most famously associated with Pacioli’s work in Venice in 1494 (Pacioli, 1994/1494). Sombart (1987/1916) examines the birth and development of capitalism focusing on a shift from a needs-based economy to one primarily satisfying acquisition. In this process, Sombart identifies the role of

double-entry bookkeeping as key in instilling traditional artisans and craftspeople with the capitalist spirit and rendering objective the idea of wealth (Most, 1976). Double-entry objects represent a complex system of needs and motivations in simple calculations, thereby fostering a general economization, and thus fundamental change of social life (Drechsler, 2000).

Double-entry bookkeeping is at the heart of capitalist value by crystalizing capitalist mechanics and ethics. Capitalism has procured in double-entry bookkeeping a tool which activates its forces, while this tool proliferated capitalism out of capitalism’s own spirit (Eddie and Murphy, 1984). Double-entry follows a logic of acquisition and exchange which allowed an underlying economic order to expand, rendering land, things, actions, people, and their relations into the new objects of acquisition and exchange. Eventually, economics emerged as a discipline “pure” from moral and value judgment, and by doing so tacitly ascribed moral superiority to commercial success itself (Weber, 2013). Generations of economists have been trained in deprivation of analytical tools to examine value separate from the dynamics of prices (Mazzucato, 2018) – a type of “schooling” that has been exactly the outcome of the dominant perception of value (Pitts, 2020). Political questions of value and justice are examined as mere calculable implications of prices, wages, or profits.

The task of theory of value is further from finding practical standards for equalizing commodities. It is the theoretical understanding and explanation of this equalization process, along with its causal relations and practical implications (Rubin, 1973). The process of commodities being equalized in markets is closely connected to the way labor, and other factors of production, are acquired and exchanged. Likewise, it is connected to the enclosure of the commons, the grabbing of livelihoods outside the market order, and the collapse of ecosystems. The abandonment of inquiries on value from the classical political economy to the neoclassical theory is not indicative of a purported irrelevance of value but a direct outcome of how value is conceived and established in capitalism. The function of value as a means of imparting the capitalist principles and structures to economic life remains a persisting feature. In order to address the devastating impact of capitalism on people and ecosystems we need a perception of value that conveys different orderly configurations.

2.3 VALUE AS A COLLECTIVE AGREEMENT

To perceive value differently, we need to break away from the limitations of a theory of value, inquiring about a general substance or the essential nature of value to explain economic phenomena. Instead, we can reach two significant breakthroughs by understanding value as

a means or process that conveys certain principles and orderly configurations to economic phenomena. First, we can demystify the underlying mechanisms that drive this process in capitalism, such as accounting practices and market dynamics. Second, understanding value as a conveyor or specific orderly configurations can allow us to imagine different configurations being conveyed. To enunciate such an approach, we need to look further from political economy and into anthropology.

Graeber (2001) describes value as the way actions become meaningful to those who act by being incorporated within a larger social whole, real or imaginary. It is a definition in line with the task of a theory of value as described above: as a way people represent the importance of their actions to themselves, value becomes the mechanism that defines and reproduces orderly configurations guiding social phenomena. De Angelis (2007), building on McMurtry (2002), describes such orderly configurations as value systems, i.e., conceptual grids through which people see the world and classify good from bad and normal from abnormal. Most importantly, classify what they have to accept and what they can or should change. Value systems are articulated as value practices, defined as “actions, processes, and webs of relations, predicated on a value system while reproducing it” (De Angelis, 2007: 29). Value practices are expressed in individuals selecting between “goods” and “bads” within a value system and acting upon this selection, thus articulating a social whole constituting those selections anew. Value is then understood through the systematic patterns of individual actions articulating a coherent social system that defines how people live and co-produce their livelihoods.

A value system is the product of people reaching a collective agreement on how their way of living with others becomes meaningful and act upon this agreement. Prone as it may be to power and influence under capitalism, this type of agreement remains a collective consensus. The capitalist value system is based on appropriation, commodification, and exploitation. Yet, the system itself is inherently self-managed: it works insofar as people uphold the implicitly practiced rules and norms necessary for the system to function. Much like our collective memory, heritage, and traditions, the reproduction of a value system is maintained by collective action. In the capitalist value system, value is a means for extraction and capture to drive exchange. But value is itself a commons, albeit an enclosed one under capitalist value practices.

As a matter of collective agreement, value is also contested. Though the capitalist value system is what defines capitalism, it is not the only value system in capitalist society (Harvie and Millburn, 2010). People, being people, “may value many other actions: passing time with

one’s children and friends, lolling around in bed, praying to one god or another or celebrating a saint, treating fellow humans with respect and dignity, and so on and so on” (Harvie and Millburn, 2010: 635). The contest occurs when it is through a specific value system that people’s livelihoods and security are being reproduced. Therefore, the only way to recognize and possibly transcend a value system that pervades all aspects of our lives, is to step outside it (De Angelis, 2007). The broad disruption brought about by the capabilities and shared imaginaries around the digital commons arguably provides a window of opportunity for this step, as we explain below.

2.4 VALUE, INNOVATION, AND THE DIGITAL COMMONS

The broad diffusion of Information and Communication Technologies (ICT) enabled unseen capabilities for human communication, coordination, and information-sharing. Benkler (2002; 2004; 2006) documented the dynamics of information sharing and social signaling used to assign relevance to information and social content in forms of digital commoning, long before the platform economy as we know it today appeared. The success of FOSS projects and Wikipedia has demonstrated the potential of the digital commons vis-à-vis hierarchical command or price-incentivized coordination. Successful digital commons projects have heavily influenced the rationale driving the digital economy.

Soon, open hardware and open design practices extended digital commoning to the physical realm, materialized in open collaborative spaces like hackerspaces or makerspaces (Kostakis et al., 2014; Niaros et al., 2017). Hybrid practices, blending online and physical forms of sharing and co-production illustrated significant potential for learning, community-building, and innovation, which further diffused the commons-based expressions of the digital paradigm.

However, the influence of commons-based practices in the digital economy does not ordain their dominance. The early success of digital commons projects has, to a certain extent, situated their co-optation under capitalist valorization. Platform giants, such as Facebook, Google, and Amazon, exploit patterns of sharing and sociality exemplified in digital commons. Moreover, their infrastructures, including the software powering their web-servers, data centers, and even web-services, are largely based on digital commons. Today’s digital economy features commons-based and market-driven forms that co-exist and co-evolve across different layers in an ever-changing environment (Pazaitis and Kostakis, 2021). The underlying dynamic of both Wikipedia and Facebook is characterized by peer-to-peer social relations developed on participatory infrastructures. The difference is that in digital commons, these relations are freely guided through

social signaling and create shared outcomes. Contrastingly, for-profit platforms deploy an opaque back-end that manipulates social interaction to maximize control and relevance for commercial purposes (Bauwens et al., 2019).

But even in this ambivalent setting, the digital commons provide an opportunity to step away, even partially, from the capitalist value system, a glimpse on “the outside”, the ‘other than capital’” (De Angelis, 2007: 13). In digital commoning we can observe value practices that do not necessarily justify market exchange as the sole mechanism of living and livelihood creation. People contribute to a collective productive effort that does not result in commodities exchanged in markets. They produce digital commons in the form of knowledge, such as in Wikipedia; code, such as FOSS; and design, such as open hardware projects. It is commons rather than commodities that characterize the effort expended in production.

Digital commoners are driven by diverse motivations rather than the sole purpose of realizing market exchange. They, thus, develop value practices, i.e., actions, processes, and webs of relations, around the commons. In the most successful cases, to a certain extent and under certain conditions, they can co-produce their livelihoods through the commons (Pazaitis et al., 2017a; Pazaitis, 2020). Commons-based practices define the principles and structures shared among the participants and are, in turn, reproduced through digital commons projects. They create conditions of “counter-enclosures” (De Angelis, 2007), allowing the production of commons to survive within the capitalist value system as they transcend it.

Innovations fostered by digital commons projects played a key role in creating this alternative space. These were process and organizational innovations, such as the wiki platform powering Wikipedia or the forms of modular design and low-cost integration featured in FOSS projects (Benkler, 2002). Adding to that, a series of institutional innovations, such as the GNU General Public License or the Creative Commons license family, ensured the reproduction of the digital commons co-created by communities and facilitated the expansion of the ecosystem (Harhoff and Lakhani, 2016; Mateos-Garcia and Steinmueller, 2008). Even if they fostered new models for acquisition and exchange, the innovations of digital commons communities were not driven by acquisition and exchange. Simultaneously, they created the conditions for a different set of principles compared to the ones traditionally associated with innovation to come into place. As a result, there is a potential break in the dominant understanding of innovation as the spearhead of capitalism, which places the concept in a dialectical relation with the commons-based value practices.

The currently dominant view of innovation is indispensably connected with the capacity to exploit

technological change into the market (Pansera and Fressoli, 2021). This view is largely connected with Schumpeter’s work (1934; 1954), which is saturated with Sombart’s understanding of the capitalist spirit (Reinert and Reinert, 2006; Reinert, 2019). The latter is represented by economic rationality, summarized as the attitude of a systematic pursuit of profit, as Weber (2013) framed it (along with the ultimate, but later forgotten, goal of salvation). This view of innovation has its roots in the Renaissance, with the rational pursuit of profit as a virtue incorporated within exploration and the creation of new possibilities (Reinert and Reinert, 2011). Innovation embodies the transition from the medieval to the Renaissance perception of the human person. It signifies the act of creation in the image of God as inherently virtuous, a duty even, that was hitherto considered serious heresy (Reinert and Reinert, 2011; Reinert and Daastøl, 1997).

Today this quest of exploration and creation of new possibilities has been largely delegated to market selection processes. Indeed, the “heretical” activity that would need to be stifled by something like the Spanish Inquisition would be to conceive a form of innovation that challenges the market orthodoxy. The digital commons have managed to exhibit the fittest and strongest forms in several key domains of the digital economy without primarily relying on markets’ selection mechanism or the profit drive. Rather, they created structures that harness diverse motivations, backgrounds, and experiences of an “enormous pool of human creativity and willingness to engage in intellectual effort” (Benkler, 2002: 30). In this sense, the digital commons provide a snapshot of a tentative paradigm shift of innovation predicated on the commons.

This transcending dimension of the commons in innovation processes has been inferred by the “innovation commons” (Allen and Potts, 2016; Potts, 2017). Innovation commons relate to opportunities for discovery and experimentation that take place at the early stages of technological development where self-organized groups of people pool distributed knowledge and information resources based on shared rules. The innovation commons showcase the importance of the commons in innovation but restrain the scope of commoning practices to the early stages of innovative processes. Even more, commoning in these stages is largely justified on the degree of uncertainty deeming other forms of coordination too costly (Allen and Potts, 2016). Once the economic returns have been defined, innovation as we know it is validated solely by market success, or, very often, domination. But this outcome, as we analyzed earlier, is not so much a “natural” order of the markets or embedded in human nature. It is a type of order bestowed upon economic agents by the underlying value system and the relevant institutions serving it.

The digital commons build upon these functions of the innovation commons and extend them through commons-based arrangements. The creation of commons and relations around them articulate a value system that transcends our understanding of innovation altogether. Operating in a value system inherently at odds with their practices, digital commons innovations are primarily expressed as limits posed to the expansion of capital (De Angelis, 2007). Legal hacks such as copyleft or civil disobedience practices, like peer-to-peer sharing bypassing intellectual property rules, create spheres of de-commodification to reclaim freedom expressed through the commons. In this sense, digital commons institutional practices are similar in their underlying logic to struggles in non-digital settings, such as occupations of land or urban spaces, while digital commons often contribute to these struggles (Kioupiolis, 2021). These limits to capital are aligned with the post-growth/degrowth notion of limits as necessary condition for genuine human freedom (Kallis, 2019). They challenge the understanding of innovation as the continuous introduction of novelty in markets to drive growth with one related to social-emancipation and prosperity within planetary boundaries (Pansera and Fressoli, 2021).

Coriat (2015) uses the term “commons-based innovation” to describe the recurring cycles of open input, self-organization, and shared output evinced in digital commons projects. These characteristics are found in a broad spectrum of digital commons innovations expanding on many levels: from digital tools, knowledge, and information, to design and physical artifacts, to integrated technological systems. In FOSS cases, such as GNU/Linux, Apache, Mozilla Firefox and WordPress, self-organized communities share code and co-create software tools openly shared under commons-based licenses. Likewise, open hardware projects, like RepRap (Jones et al., 2011) and open design technologies like WikiHouse (Priavolou and Niaros, 2019) share technical designs and manufacturing guides that people can utilize locally in community-operated places, such as Fab Labs and Makerspaces. Finally, cases such as the Farm Hack and L’Atelier Paysan (Giotitsas, 2019) demonstrate how communities of farmers, engineers, researchers, and enthusiasts operate open technological systems around small-scale farming tools and the related services and commercial operations.

Digital commoning and commons-based innovation offer a dynamic framework of how value practices that are contested to capitalist ones articulate a broader social whole in the digital economy. We analyze the characteristics and causal relations of this process of articulation by the digital commons to identify elements of value that may rationalize and guide real economic phenomena towards a commons-based orderly configuration within and beyond the digital economy. Exemplary digital commons cases feature a series

of process, organizational, and institutional innovations that materialize these elements, and make them visible as they define commons-based orderly configurations in the emerging digital economy. With capitalism gradually crystalizing its institutions that define the conditions for accumulation and profitability in this emerging field, the digital commons become the epicenter of new forms of enclosures. Commons-based innovation demonstrates how alternative value practices can unfold within the capitalist value system that is fundamentally at odds with them. This dynamic framework of value informs our exploration of elements of value as a commons.

3 TOWARDS A THEORY OF VALUE AS A COMMONS

Inquiries on value are relevant and essential for economic thought. As Heilbroner (1983) argues, questions on value are not elementary, but elemental, in the sense that they “powerfully influence the constitution of economic thought by identifying different elements within the social process as strategic for our understanding of it” (253).

Digital commoning and commons-based innovation shed light on such elements essential in our understanding of a tentative social order based on the commons. They illustrate value perceptions conditioned on norms and prefigurative institutions that champion sharing and participation over acquisition; openness over control; and pre-distribution over redistribution (Pazaitis et al., 2017b; Bauwens et al., 2019). Digital commons cases illustrate much more than a form of optimizing human affairs over digital media. It is a unique mode of organization of human affairs, with a capacity to maintain “coherence in the face of vanishing transaction costs” (Benkler, 2017: 271). It is a primary form of “structured human living-together” (Drechsler, 2001: 105) that formulates a social whole within which “actions become meaningful to the actor” (Graeber, 2001: 254), i.e., a new definition of value for a new form of social organization.

3.1 CONCEPTUALIZING VALUE AS A COMMONS

A conceptualization of value as a commons is a normative and politically connotated task. Based on an understanding of value as a means of establishing a particular social order endowed by certain principles, a normative approach to value aims to define the principles to which the empirical elements conform (Heilbroner, 1983). Hence, there is no objectively or otherwise determined standard defining this order other than a set of political principles. The strength of a normative approach is the realization that “the order manifested by an economic structure should be that which its ruling elements [...] desires it to be” (Heilbroner, 1983:

258). Let us begin this section with summarizing which these ruling elements for value as a commons are.

By approaching value itself as a commons we adhere to the understanding of value as the importance of actions rather than things (Graeber, 2014). Value is an expression of a collective agreement, and action upon it, on what is important. It functions insofar people uphold the shared norms and rules that make the system work. Value as a commons defines the meaning of actions, processes, and relations amongst them as inherently collective and embedded in certain social and ecological conditions. All that is valued is predicated by collective action and is meant for collective associations between the agents concerned, human and non-human. With the commons seen as a distinct life form (Bollier and Helfrich, 2019), value as a commons is its special meaning of existence. Value as a commons is manifested in people’s capacities to arrange their life affairs and co-produce their livelihoods through sharing and participation in common doing. Value is created when these capacities are improved, and it is destroyed when they diminish.

Value as a commons is also regionally and chronologically pervasive. The capacities for sharing and common doing are directly related to a specific space and time but convey aspects of the past and the future in a synthesis that simultaneously takes place locally and globally. Especially in the digital economy, limitations of time and space become less relevant from a technical point of view and gain significance from a reflective one: They no longer define what we can do, rather show us what we can do differently. They portray the commons as what Helfrich (in Bollier, 2016a: 24) describes as “an important form of transpersonal rationality and coordination – a new category that describes the individual-in-relation-with-others” (Pazaitis and Bauwens, 2019; see also Gadamer, 1960).

The weakness of a normative approach is that the moral and political norms upon which it relies are arbitrary and, thus, prone to challenge from different points of view (Heilbroner, 1983). This limitation simultaneously recognizes

that economic matters define the means rather than the ends of value practices. The definition of what is important in life remains a political subject. As Graeber (2014: 11) puts it: “Ultimately, a free society can only be one in which everyone has an equal power to determine for themselves what they believe to be important. The only legitimate economic question [...] is what sort of system for the distribution of material goods will best put people in a position to do so”. An approach on value through the commons allows the possibility for various perceptions and interpretations of value to co-exist and co-evolve as long as they remain pertinent to community-defined rules. Local biophysical conditions and community-defined values may function as boundary objects, creating interfaces across different people, places, social systems, and times. Acknowledging the dangers of a totalitarian approach to value, a theory of value as a commons aims at value sovereignty (Bollier, 2016b; Bauwens et al., 2019), i.e., the ability for people to determine and act upon shared definitions of value.

3.2 ELEMENTS OF A THEORY OF VALUE AS A COMMONS

We identify elements of a theory of value as a commons based on the analysis of value practices in the digital commons. These elements shed light on the distinct aspects of digital commons that allow alternative value practices to become visible and acquire meaning. As valuation is necessarily a matter of comparison (Graeber, 2014), the starting point of this process has been the identification of points of tension between the capitalist value practices and the ones featured in digital commons. Table 1 summarizes a juxtaposition of these points of tension between elements of capitalist value practices and commons-based ones. At the same time, the successive sections provide further details based on empirical and theoretical findings concluded elsewhere. The construction of these categories has been guided by how value is rationalized (Section 3.2.1); structured (Section 3.2.2); administered (Section 3.2.3); established (Section 3.2.4); and morally justified for the broader political economy (Section 3.2.5).

CAPITALIST VALUE PRACTICES	COMMONS-BASED VALUE PRACTICES
Exchange: value is expressed in things in exchange	Commoning: value is a dynamic state of contributing to and caretaking of the commons
Abstract labor: human toil as the “first price to be paid” for commodities to be exchanged	Contribution: diverse forms of reciprocity-based participation in commoning
Maximization: value creation is validated by work productivity	Provisioning: value creation is validated by covering of societal needs
Growth: progress means more value registered	Post-growth: progress is reflected in human happiness
Cosmopolitanism: humanity has one single self-image	Cosmopolitanism: human imaginaries are embedded in universally effectuated local autonomy and genuine emancipation

Table 1 Contrasting elements of value in capitalism and value as a commons.

3.2.1 Rationality: Commoning

In the capitalist value system, rationalization stems from commodity exchange: value is a means of rationalizing the exchange of things for money. Value as a commons rationalizes commoning, defined by the act of contributing to and benefiting from the commons. Commoning enables capacities for the contributory activity observed in digital commons, while incorporating community-defined rules and norms and clearly defined boundaries into the socio-technical design.

We can observe these principles in the institutions prefigured by the various digital commons to enable and support their operation. The emerging ecosystem of value creation (Bauwens et al., 2019) comprises: (a) productive communities engaging in digital commoning; (b) commons-oriented enterprises that interface with markets to generate livelihood for the communities; and (c) for-benefit associations that facilitate cooperation and support the common infrastructures through democratic governance. The value perceptions in digital commons are diverse and operate outside the market exchange. Yet digital commons maintain interfaces with the market and the state to generate livelihood opportunities for the community and expand their influence.

Collectively developed and administered tools facilitate communities to cater for commoning. Legal tools, such as commons-based licenses, recognize the commons agency and protect them from predatory forces. Shared infrastructures, protocols, and administrative tools routinize the community norms. The commons are defined as a distinctive form of economic activity. They can provide the basis for other forms, such as market exchange or redistribution, to be operationalized under the logic of the commons.

New forms of commons-based innovation are fostered in these ecosystems, enabling the creation of commons catering for various needs validated directly by the communities, who also determine the design and production processes. Commons-based innovations convey the commons rationality for economic progress across the broader system. Nascent roles and configurations for the administration of life are designed based on democratic accountability and participation. An emerging form of the state, described as the “partner state” (Pazaitis and Bauwens, 2019; Pazaitis and Drechsler, 2020), may operate to establish and generalize the commons rationality across broader layers of economy and society.

3.2.2 Structure: Contribution

The most fundamental aspect of value, even today, in the capitalist value system remains labor, and specifically abstract labor, as defined earlier (Heilbroner, 1983). Despite the various nuances and contentions around the labor theory of value, the basic assumptions formulated in the

18th century by Smith (1976/1776) still hold. Labor employs toil and sacrifice, the first price paid for all things produced solely to be exchanged for money. Abstract labor is a social rather than individual activity, which is a fundamental duty and right for the members of a society that grants them access to the fruits of other people’s work.

In the digital economy, work, paid and unpaid, is under transformation. It has been described as abstract (Fuchs, 2010), immaterial and affective (Hardt and Negri, 2000; 2004; Arvidsson and Colleoni, 2012), or virtual (Huws, 2003). Our occupation online hovers “ambiguously between work and play” (Huws, 2014: 11), reflecting our offline activity. Yet the fundamental function of work, as proof of being worthy for a living, gains even more prominence in the ambiguities of the digital economy. It expands to all spheres of human activity and interaction: from how we approach our leisure time, to caring for our family, to our social relations. The quantitative measure of our earnings determines the degree and quality to which we are worthy of enjoying all aspects of life.

In digital commons the focus is on contribution, which serves as the new structure of value (Bauwens and Niaros, 2017). Digital commoners coordinate contributions stemming from diverse skills and motivations in open, transparent, and self-managed systems (Schweik and English, 2012; 2013). Participation in productive processes and its outcomes are validated by social relations, which define the requirements of each iteration. There is thus a distinctive form of organization that differs significantly from market-based entities or rigid hierarchical structures.

The wide diversity of contributions in digital commons define new perceptions of value, including community building, attainment of goals, social use value and reputation (Morell et al., 2016). Seed forms of commons-based accounting are developed to encapsulate the polycentricity, fluid coordination, and diversity of digital commoning, and help crystallize these new perceptions of value (Pazaitis et al., 2017b; Pazaitis, 2020). Being a digital commoner marks a form of participation and belonging based on reciprocity towards the commons. Contributions enable and support the value of commoning in the same way labor generates value in commodity exchange. It is a means that guides meaningful social participation. It potentially paves the way to include other aspects of economic and social life, hitherto invisible, including reproduction, care, cultural activity, and social development.

3.2.3 Social purpose: Provisioning

In capitalism, the endgame of every improvement, qualitative or quantitative, is always maximization. With all value-relevant social interactions expressed in transactions, maximization drives human activity towards continuously maximizing the returns from every transaction. For instance, technological progress and productivity are often referred

to have emancipatory elements, allowing for greater abundance with less sacrifice. But the spirit of maximization turns this emancipation into a mere opportunity to do more work, under the immense pressure of competition. However, technological progress, organizational change, and innovation have further significance outside the sphere of maximization. They can be forces enhancing human prosperity by creating new possibilities that emancipate people from the scarcity produced through their livelihoods pitted against each other.

Value as a commons allows for the emergence of a post-capitalist needs-based economy prioritizing social provisioning. Provisioning operates under the logic of sufficiency rather than operationalizing efficiency in a continuous pursuit of maximization mainly serving accumulation. Digital commons cases have been centered around communities reclaiming their living and co-production of livelihoods based on the commons in vital domains such as energy production (Latoufis et al., 2015; Robra et al., 2020; 2021), agriculture (Giotitsas, 2019) and housing (Priavolou and Niaros, 2019). Against the threat of the COVID-19 pandemic digital commoning was employed to develop solutions to address challenges in healthcare (Bowser et al., 2021). Commons-based identities and ethics emerge, building coherent social relations around the commons (Pazaitis et al., 2017a; Pazaitis, 2020). Hybrid organizational forms help improve sustainability by creating livelihood systems and strengthening diversity (O'Neil et al., 2021).

The prioritization of provisioning over accumulation in digital commons is premised on the qualities inherent in digital content, where enclosure and control, as with intellectual property, cost more than they deliver (Benkler, 2002). However, these properties are not native to the technological infrastructure. The current opaque structure of the platform economy, supported by regulation (e.g., Article 13 of the EU Copyright Directive: EC, 2019), can enforce property regimes on information content that allows optimization for commercial interests. Provisioning over profits is a form of creative resistance and political assertion of commoners for institutional change (Bauwens et al., 2019; Pazaitis and Drechsler, 2020).

3.2.4 Progress: Post-growth

Maximization extends to the idea of capitalist progress as unequivocally incarnated in growth. The quality of being larger, faster, and stronger classifies those who made it from those who have not, often ignoring the historical path dependencies on either side. By stepping away from the sphere of exchange and the underlying maximization logic, value as a commons is congruent with a post-growth vision, posited as a narrative transcending the imperative of growth. Post-growth approaches, such as Degrowth, aim to overcome artificial dualities like economic progress

versus regression as a question of economic means and ends (Pazaitis et al., 2020). Human happiness is prioritized over the attainment of any quantitative indicators and validates the purpose of economic activities.

The traditional commons are forms of collective action and togetherness conditioned to mutual and collective self-limitation, rather than perpetual expansion. The digital commons transpose pre-industrial elements of self-organization into the future and demonstrate an alternative trajectory of technology providing for real human needs. Technological advance is thus interwoven with human-centric aspects of appropriateness or conviviality (Illich, 1973; Priavolou and Niaros, 2019; Pantazis and Meyer, 2020). The globally expanding digital commons in conjunction with localized manufacturing capabilities (Kostakis et al., 2015; 2018) synthesize different forms of commoning that scale wide instead of upward (Giotitsas, 2019; Kostakis and Giotitsas, 2020; Robra et al., 2021) and that entail important and relevant non-Western, post-colonialist traditions as well (Drechsler, 2019a; 2019b).

Post-growth offers an instrumental counter-hegemonic narrative that attributes relevance to the commons as a political subject (D'Alisa, 2019; Kioupiolis, 2019). It presents a model of progress that can guide commoners to build counter-power in the economic and political fields (Bauwens et al., 2019). In turn, commoning offers alternative forms of production and organization for social movements to create enabling environments for individual emancipation (De Angelis, 2017). Commoning may become an essential practice to reconfigure the relation of the community with the institutions of society and synthesize political assertions against forms of oppression historically rooted in growth, particularly in the face of an intensifying climate crisis.

3.2.5 Morality: Cosmolocalism

Finally, value as a commons formulates a new moral justification for guiding human affairs globally; a new paradigm for the human person. The cosmopolitan view of capitalism asserts that all human beings belong to a single community based on a shared morality and future. Conversely, the shared morality of the commons is captured by the notion of "cosmopolitan localism" (Sachs, 1992) or "cosmolocalism" (Schismenos et al., 2020).

Cosmolocalism speaks for local communities globally linked through shared production and consumption (Manzini, 2015). It presents a new notion of universality based on a global network of co-existing local communities (Sachs, 1992). The cosmolocalism vision is manifested in the confluence of global digital commons of software, knowledge, and design with local manufacturing and utilization capacities. The digital commons unleash abundant possibilities that can be harnessed according to respective local bio-physical limitations.

Cosmolocalism is more than a design form for digital production and coordination. It is a reconfiguration of universality and locality that reinvents space, communality, and social belonging. It invigorates the existential, social, and political modes of being based on shared innovation, equipotentiality, and freedom (Schismenos et al., 2020). Cosmolocalism legitimizes the radical changes necessary to address the ecological crisis while conveying the means to reduce the pains of this process. From shared knowledge and technologies alleviating post-industrial back-breaking labor, to shared identities redefining meaning in the post-consumerism psycho-social void.

In contrast to the cosmopolitan vision of civilization, cosmolocalism rakes up elements from the past, putting human needs first, and acknowledging local bio-physical limitations. It thus transcends conventional distinctions such as high-tech versus low-tech, global versus local, and modern versus regressive (Pazaitis et al., 2020). Cosmolocalism employs all the above-mentioned elements of value to enable a broadly defined future beyond market globalization: embracing diversity and building global solidarity alongside sovereignty and autonomy.

4 SUMMARY AND CONCLUSIONS

This essay sought to formulate the foundations of a theory of value as a commons. We began this quest with the fictional story of Luca, a merchant in 14th-century Venice. It is a story that, surprisingly, even today resonates with daily life in capitalism. Whether it is Jeff Bezos, Tony Stark, or the average Jane Doe, our administration of life relies on making calculated decisions, not much different from Luca's. Calculated decisions dismiss all the different qualitative factors not registered in Luca's books, such as family and friendly relations, human care and affect, maintaining an adequate physical and mental state, and vital life-supporting systems of the planet. Even though we recognize that all these factors matter, they rarely influence the decisions that define how we make a living, compared to factors systematically cast outside of our control, such as prices, wages or profits.

Our starting point has been an understanding of value as a means through which our observable phenomena are explained and guided by an underlying structure. We argue that the reason we are compelled to behave like 14th century merchants is not some inherent human property. It is a perception of value influencing our behavior in ways that matters related to exchange are classified over others. This perception is predicated on an economic order centered around markets that systematically submits all non-

market forms of living to adjustment or elimination. The prominence of this perception testifies to the importance of theoretical inquiries on value, which have largely been absent from economics over the past two decades.

Value is how our actions become meaningful to us within a broader social whole. Though there are several dimensions defining what is important to us, it is one of them, the market economy, that determines our livelihood and living conditions. Therefore, it is through the stream of actions accounted in markets that our social whole is largely defined. To understand the power of this influence and potentially break away from it, we need to step outside of this social whole.

The emerging forms of digital commoning and their accompanying innovation and organization paradigms offer an opportunity for this step into the outside. We identified a list of primary elements, delineating the contours of an alternative perception of value: value as a commons. A complete and comprehensive theory of value as a commons would exceed the confines of this (or any single) paper. Aside from a few notions and methods employed from political philosophy, sociology and anthropology, the main analytical work is in the domain of political economy, with insights from technology and society studies. But the point of this paper is not to provide a fixed framework informed by economic aspects alone. Rather, it is to explore and identify transcending elements of the digital commons that may inform future perceptions of value conveying commons-based (digital and beyond) orderly configurations in further research and practice.

More empirical and participatory observations need to take place to understand and further develop the practices articulating a value system based on the commons. The creation and reclaiming of spaces for commoning are also essential to connect more practices related to our living conditions and the co-production of livelihoods to the commons. These practices will convey commons-based orderly configurations through which value as a commons can also be adapted and reproduced in new iterations.

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