

TECHNO-SOCIAL INNOVATION IN THE COLLABORATIVE ECONOMY

METHODOLOGICAL REPORT

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Introduction

The concept of innovation has most often been related to the work of Joseph Schumpeter (1934) who conceived of innovation as the motor of capitalism. Innovation is a dynamic process of “creative destruction” driven by technological change and competition among entrepreneurs and firms, leading into business cycles that help progress capitalism into the next evolutionary stage. Schumpeter (1934: 65) placed producers (entrepreneurs and firms) at the center of innovation enabled by intellectual property rights, centralized product design and technologies of mass production.

However, the last decades are witnessing a “paradigm shift” (Kuhn, 1962) in market economies driven mainly by three factors: (1) low-cost information and communication technologies (ICTs); (2) climate change; and (3) neo-liberalism. ICTs affordances such as cost reduction, decentralization, modularity and openness (Bauwens et al., 2019) coupled with sustainability transitions (Markard et al., 2012; Ostrom, 1990) and the rise of the prosumer (Toffler, 1980) have disrupted centralized capitalist production by introducing peer production as an alternative organizational model anchored on the decentralized collaboration of peers on the Internet and beyond.

Two models of innovation exist today in organization science: (1) the “private investment” model that assumes returns on investment in the production of private goods protected by intellectual property rights; and (2) the “collective action” model that assumes the collaboration of innovators to produce a public good in cases of market failure (Benkler, 2006; von Hippel and von Krogh, 2003). A number of authors (Bauwens et al., 2019; Benkler, 2006; Ostrom, 1990; von Hippel and von Krogh, 2003) have introduced a hybrid “private-collective innovation model” that combines elements of the private investment model and the collective action model.

The private-collective model brings to the fore peer production in disciplines as diverse as economics, law, political science, computer science, management and innovation studies. The literature (Bauwens et al., 2019; Fuster et al., 2017; Scholz, 2016; Troxler and Wolf, 2016; von Hippel and von Krogh, 2003) has documented thus far two main streams of peer production: (1) firm-hosted peer production (user-centric open innovation business models; platform capitalism; crowdsourcing); and (2) commons-based peer production (platform and open cooperatives; local and digital commons; cosmopolitanism; distributed ledgers).

Commons-based peer production merges peer production with the commons, which consist of distributed or common property resources/infrastructures (natural resources, technology, knowledge, capital, culture), self-managed by user communities in accordance with collectively

established rules or norms (Ostrom, 1990; Bollier and Helfrich, 2012). Thus, the commons comprise three elementary components: (1) a resource; (2) a community; and (3) a commoning activity (Bollier and Helfrich, 2015; De Angelis, 2017).

While firm-hosted peer production solely focuses on creating company value, maximizing profits from leveraged user knowledge and on enclosing it, commons-based peer production introduces new and radical forms of ownership, governance, entrepreneurship and financialization on a mission to promote sustainability and empower individuals and communities against the pervasive economic inequalities and power asymmetries (Bauwens et al., 2019; Benkler, 2006; Scholz, 2016). While firm-hosted peer production is hierarchical, extractive, closed and proprietary, commons-based peer production is heterarchical, generative, open and non-proprietary.

Commons-based peer production applies a normative model of political theory and economy that advances sustainability science, the democratic control of the means of production, the sharing of resources and the equitable redistribution of value.

The project aims to highlight the role of commons-based peer production in the creation of a collaborative economy. It explores commons-based organizations and cooperatives in Greece and abroad through a multiple case study approach that seeks to reveal cross-cutting limiting and success factors, the cross-examination of which would help raise public awareness over the commons and potentially contribute to the long-term sustainability of commons-based peer production.

Research questions

Research question:

- What is the role of the digital commons and open-source technologies in the creation of a collaborative economy?

Sub-questions:

- What is commons-based peer production?
- What are the digital commons?
- What is cosmocalism?
- What are platform cooperatives?
- Which are some potential success and failure factors of cosmocalism and platform cooperatives?

Main research question:

- To what degree the case studies correspond to the counter-hegemony of open cooperativism in terms of discourses/practices?

Research hypothesis

Commons-based peer production puts forward a simple yet radical idea: great improvements in production and management could be achieved by sharing resources (natural resources, capital, technology, knowledge and culture) and power. Sharing and self-management can result in a constantly improving collective repository of best ideas and practices; whence, the emergence of the digital commons during the last decades supported by the Internet and open source software (Bauwens et al. 2019; Benkler, 2006; Bollier and Helfrich, 2015; Ostrom, 1990).

Commons-based peer production has been considered to promote meaningful work, diffuse knowledge, reduce waste and transaction costs and increase flexibility and efficiency in markets, thereby resulting in higher levels of social innovation, inclusion and environmental sustainability.

Commons-based peer production encapsulates a grassroots mode of techno-social innovation that intermediates the state, the market and the civil society. The commons support novel models of production such as cosmlocalism and platform cooperatives that prefigure a more ecological, redistributive and inclusive economy to be integrated into a more democratic politics.

Research objectives

The project's core objective is to highlight the techno-social innovation of commons-based peer production in the introduction of novel technologies, organizational models, products, jobs and services. Through the lens of a multiple-case study approach, research aims to reveal cross-cutting limiting and success factors, the cross-examination of which would potentially contribute to the long-term sustainability of commons-based peer production.

The project seeks to engage in the discussion over the commons, which are poised to bootstrap novel organizational models such as platform and open cooperatives, cosmlocalism and distributed ledgers. Research builds on the normative and empirical conditions of the commons to advance the scientific understanding of commoning, all the while broadening the international network of commoning with the aim to further commons-based peer production.

Methodology

The project will conduct both theoretical and empirical research. The multifaceted normative and empirical conditions of commons-based peer production call for an interdisciplinary methodology that brings together work from a broad spectrum of disciplines: political theory, economics, sustainability science, human computer interaction (computer science), legal studies and social anthropology.

Theoretical research

Literature review helps document the state of the art as well as build up the theoretical framework upon the multi-case study approach is based. Analytical philosophy, hermeneutics, discourse theory and critical theory (Leopold & Stears 2008; Freeden 2008: 196-215; Freeden 1996; Howarth, Norval & Stavrakakis 2000; Freeden 2008: 196-215; McNay 2008: 85-105; Tully 2008) help clarify, interpret, deconstruct and reconstruct relevant normative ideas and concepts. Literature review aims to identify flaws, gaps and key issues in the state of the art and help create new conceptual schemes to contribute to the discussion as well as guide empirical research.

Discourse Theory will elaborate on theoretical essays and other textual material - manifestos, brochures, writings in the press (online and offline), the discourse of activists and communities. Discourse Theory has worked out concepts such as 'articulation', 'nodal point', 'antagonism', 'dislocation', 'logic of equivalence' and 'logic of difference' in order to investigate how social practices form the identities of subjects and objects by articulating together a series of contingent signifying elements. Social discourses and practices fix partially the meaning of action, technological artifacts and institutions by establishing specific relations between elements around 'nodal points', i.e. key reference points. Discourses and the identities produced are contingent, subject to contestation and change, and they are inherently political processes. They involve the drawing of frontiers between rival camps, exclusions and the exercise of power. 'Logics of equivalence' create 'equivalent' identities around common antagonisms and 'nodal points', whereas 'logics of difference' seek to dissolve such lines of equivalence and division, expanding actual systems of different identities and relations (see Laclau & Mouffe 1985; Howarth, Norval & Stavrakakis 2000; Howarth 2000).

Critical Theory elaborates an 'immanent', historically embedded critique by drawing its values and standpoints from actually existing norms and conceptions (of justice, freedom, democracy etc.) that inform real social practices but are only partially fulfilled. Critical Theory challenges

thus actual social arrangements insofar as they fail to live up to ideals of justice which are deeply anchored in the political culture of contemporary democracies. Its critical understanding is generated from a dialectical engagement between contending perspectives and disciplines, mainly between more empirically inclined sociologies and normative political philosophy, between the 'real' and the 'ideal' (McNay 2008: 85-105, Hoy & McCarthy 1994).

Both Discourse and Critical Theory reflect the normativity that frames individual and collective action (McNay 2008: 85-105; Hoy and McCarthy 1994; Foucault 1969; Laclau and Mouffe 1985; Howarth 2000). In other words, they critically engage in the examination of the power relations immanent in science, politics, economics and culture.

The project employs Discourse Theory to revolve around discourses such as "the digital commons", "commons-based peer production", "open cooperativism", "platform cooperativism" and "cosmolocalism". It makes use of Laclau and Mouffe's concept of hegemony to juxtapose the counter-hegemony of cosmolocalism and platform cooperatives against the current hegemony of platform capitalism (the so-called sharing and gig economy).

The project applies Critical Theory to explore norms, values and power relations that play out in novel organizational models such as cosmolocalism, platform cooperatives and distributed ledgers. Ultimately, Critical Theory touches upon the contradictions inherent in the attempt of commons-based peer production to sustain a counter-hegemonic block of open cooperativism aiming to transform capitalism into the postcapitalism of the commons.

Empirical research

An in-depth exploratory/explanatory multiple case study work is considered the most appropriate methodological approach in dealing with a group phenomenon such as the emergence of novel entrepreneurial projects, business models, Fablabs, makerspaces, etc. – which has not yet been thoroughly studied (Yin 2003; Creswell 2007). The in-depth multiple case study work will be based on elaborate conceptual and methodological guidelines, which rely on four main research methods for data collection: literature review, interviews (Fiss 2009; Biernacki et al. 1981), participant observation and online document reviews. For data analysis, the project will use thematic and comparative analysis.

Discourse Theory and Critical Theory provide the analytical framework necessary to bring to the fore discourses in communities and groups dense with complex power relations, institutional structures and diverse viewpoints and narratives. Discourses to be explored revolve around the manufacturing and use of technological artifacts, the distribution of power and resources in the

case studies that will be studied (horizontalism/verticalism, distributed networks), their governance model, economic model, legal policy, sustainability policy and particular business strategies, among others.

The case studies to be illustrated are the following:

Greece: P2PLab and Tzoumakers (cosmolocalism)

France: CoopCycle (platform cooperative)

UK: Open food network (platform cooperative)

Germany: Circles (distributed ledgers)

The criteria for choosing the above case studies are the following:

1. They fall under the design principles of commons-based peer production. They, thus, include altruistic activities as well as governance mechanisms enabling open knowledge sharing, peer production, equitable distribution of value and commons development.
2. They create multidimensional value in diverse sectors of the economy (agriculture, e-commerce, manufacturing, finance). They, thus, disclose a broad range of variation and differentiation.
3. They allow for a cross-national and cross-regional empirical analysis of techno-social innovation in commons-based peer production.
4. They help identify success and failure factors of a commons-based collaborative economy.

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