

MANAGING KNOWLEDGE COMMONS IN COWORKING COMMUNITIES

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Abstract: In the digital economy, knowledge is produced within spontaneously emerging communities of peers around a shared domain of interest according to a commons-based mode of intellectual production. This significantly differentiates itself from the dominant mode, based on capital and commodity markets. The community constitutes a self-organized and informal social structure that supports sustainable knowledge production, distribution and consumption, and where knowledge becomes a subject of commonification. This article presents a case study of how knowledge commons are managed by coworking communities.

Keywords: knowledge commons, coworking community, sustainable development.

1. Introduction

The ongoing digitalization of our economies and societies has revolutionized the way how business operates. As a result, new flexible forms of work, such as contingent work, telework or coworking have emerged. According to a 2014 survey, contingent workers and freelancers now make up 34% (53 million people) of the labor force in the United States (Quatrz, 2015). The same changes in the workforce structure take place in the EU-28, where the number of independent professionals, or freelancers, rose by 24% from 7.7 million to 9.6 million between 2008 and 2015 (IPSE, 2016). The same statistics show that the freelance is the fastest growing labor market. The largest number of new freelancers are in Western Europe, specifically the UK, France and the Netherlands saw 1.2 million more people launch a solo business in the seven years to 2015.

In particular, rapid development and spreading of mobile technologies has an impact on flexibilization of work. With a laptop, smart phone and internet access you can work from virtually anywhere, especially when the most important asset is knowledge. Furthermore, mobile technologies significantly reduce the costs of business operations. Taking into account

the additional benefits, such as autonomy, independence and flexibility, self-employment is becoming more and more attractive to young generations of independent specialists.

The consequence of the above trends is the emergence of new organizational structures taking the form of temporary collaborative networks. Their members are mobile knowledge professionals hired to perform specific tasks. Unlike traditional employees, who work in a pre-defined work environment, their biggest problem is to secure resources needed and to establish a supportive network that is not only important for building economic links or social and psychological needs, but first of all, to access or create knowledge.

In this context, many scholars and practitioners find ‘coworking’ particularly interesting (Schürmann, 2013; Spinuzzi, 2012). Coworking is a sustainable work environment that addresses the needs of freelancers and independent professionals. It provides them with the shared material and intellectual resources necessary to carry out their work. What is more important, however, coworking supports social interactions. The coworking community is a social structure that not only constitutes the basis for shared understanding and identity, but also delivers mechanisms for governing the reproduction and management of the shared intellectual resources, which is an essential condition for cooperation, knowledge creation and distribution in the digital economy.

This article describes how knowledge commons is managed by coworking communities. The first part of the article presents the idea and nature of coworking. The second part describes the nature of knowledge as a commons in the digital economy. Finally, the third and the last part of the article is a case study. It shows how knowledge commons is managed by a coworking community.

2. What is Coworking?

Coworking refers to a new individual or group work style utilized mostly by mobile knowledge professionals who are self-employed or working for different employers, typically so as to share equipment, ideas, and knowledge. Although it is still a relatively new concept, it has rapidly become popular among young professionals residing in big cities all over the world. According to *Deskmag*, a German online magazine about coworking, in 2016, there were 13,800 coworking spaces with 1,2 million coworkers worldwide (Global Coworking Survey, 2016).

The idea of coworking originated in California back in 2005. Coworking was intended to be an alternative (*unoffice*) to a traditional work environment (*office*) that breaks organizational hierarchy, eliminates competition between workers and supports collaboration of independent individuals (*equals*), who work on their own projects (The Start of Coworking, 2017).

Compared to a traditional office, coworking offers freedom, independence and flexible work arrangements. Furthermore, it is more affordable, supports remote work and helps to balance work and private life. Compared to working from home, coworking provides independent contractors with necessary infrastructure and helps to separate work and personal life. And what is more important for mobile professionals, it enables social interactions and supports professional exchange and shared learning (Betancourt, 2019).

The concept of coworking consists of two main elements: coworking space and coworking community. *Coworking space* provides independent professionals with infrastructure needed to perform their individual projects. It involves fully equipped offices (serviced offices) including hot, fixed or dedicated desks, wireless and wired internet, printing and copying services, snacks and beverages, 24/7 building access, access control, fully-equipped bookable conference rooms, shared kitchen and lounge areas, and many others. Some coworking spaces offer dedicated services such as: a virtual address or accounting services. *Coworking community* is a social structure that enables intellectual work among peers, which manifests itself in shared culture, communication, information and knowledge.

One of the main problems faced by mobile professionals representing creative industries is the ability to solve emerging problems quickly and effectively. They need access to knowledge flows to reduce uncertainty of the turbulent economic environment (What Is Coworking And Its Cultural Background?). Because the coworking community encourages unstructured interactions, coworkers are able to locate, acquire and use necessary knowledge immediately.

The individual coworking spaces differ in terms of size, strategy and range of services offered. Their character also often depends on the vision of their founder or current owner. However, at the heart of each of them are the following basic values (Everts, 2017):

- collaboration,
- community,
- sustainability,
- openness,
- accessibility.

Collaboration is the essence of the coworking. It may concern both help in solving a specific problem and establishing long-lasting business relationships. Specialists and freelancers are interested in dealing with representatives of other professions because they often encounter similar problems that can be dealt with together more easily than separately. As a result of collaboration, knowledge is created that allows solving a specific problem. Increased cooperation leads to a high level of trust in mutual relations.

The people who occupy a coworking space socialize with each other during on- and off-site social events. They form a tight-knit community over time through shared experiences. Belonging to a community goes beyond building one's own identity as an independent and autonomous individual. Because coworkers treat each other as equals, the community constitutes a non-competitive context of knowledge exchange and cooperation.

Sustainability refers to community members supporting, nourishing and lifting each other to even greater levels of success. By giving, contributing and helping others, individual members sustain the community they share with other members. Coworking operates on an economy of exchange. An individual offers his/her skills and access to private networks to others in exchange for their help. Exchanges are not necessarily for the same services, they do not need to be 'paid' back immediately, nor is the value fixed.

Coworking spaces are open. This means that coworkers are open-minded when it comes to other members of the community, making it easy for everyone to feel like they fit in. One of the foundational pillars of coworking is accessibility. You can cowork as long as you have the freedom to work from wherever you want to. You can cowork with others in your own dining room or someone else's office. The key factor when it comes to accessibility is that you get to choose where you work for yourself.

To sum up, coworking is a creative work environment that maximizes the effects of individual actions based on shared goals and values and a high level of trust in mutual relationships. Coworkers cooperate without competitive pressure and increase their individual economic, social and cultural capital in a more effective and efficient way than if they did it in a traditional office environment or at home.

3. Understanding Knowledge as a Commons in the Digital Economy

The study of traditional commons has its roots in the study of shared natural resources, such as water resources, forests, fisheries etc. 'Commons' is a general term that refers to a resource shared by a group of people (Hess, and Ostrom, 2007).

Two key concepts in commons theory are subtractability (or rivalrousness) and excludability. Subtractability refers to the degree to which one person's use of a resource diminishes others' use. Excludability refers to whether or not a user can be efficiently excluded from using a resource. When resources are neither excludable nor rival in consumption they are classified as public goods (Samuelson, 1954). When commons are non-excludable but subtractable they are classified as common pool resources (Ostrom, and Ostrom, 1977) (see Table 1). Both public and common-pool resources are difficult to exclude, and thus are subject to the free-rider problem. Unlike public goods, however, common-pool resources exhibit rivalry in consumption. This gives rise to a problem of overharvesting (Hardin, 1968), which can be solved by managing access to rivalrous goods through institutional norms that guide sustainable consumption (Hess, and Ostrom, 2007).

In the traditional economic literature, knowledge has been used as a classic example of a pure public good in the strict economic sense (Samuelson, 1954). It has been argued that, first of all, knowledge is nonexcludable and non-rivalrous in the sense that its consumption does not

reduce the amount of the good available to others (Benkler, 2006). What is more, knowledge has a cumulative capacity (Ostrom, and Hess, 2007), and enjoys almost zero marginal costs of sharing (Broumas, 2017; Benkler, 2006).

Table 1.
Types of goods

Exclusion	Subtractability		
		<i>Low</i>	<i>High</i>
	<i>Difficult</i>	Public goods	Common-pool resources
	<i>Easy</i>	Toll or club goods	Private goods

Adapted from: "Public Goods and Public Choices" by V. Ostrom and E. Ostrom. 1977. In E.S. Savas (Ed.), *Alternatives for Delivering Public Services: Toward Improved Performance*. Boulder, CO: Westview Press, pp. 7-49.

However, the nature of knowledge as a resource has fundamentally changed since the introduction of new technologies and with advent of peer production and open innovation. This is especially so, upon recognizing that in a global networked economy, knowledge is considered to be the main element of sustainable competitive advantage (Barney, 1991; Prahalad, and Hamel, 1990). This is the reason why problems with regard to free-riding, knowledge leakage and capture have become crucial for the most technology-oriented companies.

Beyond the aforementioned, many scholars indicate that digitalization of knowledge significantly reduces the costs of knowledge reproduction and distribution (Benkler, 2006). Consequently, knowledge creators have no motivation (apart from internal incentives) to produce new knowledge which can be then easily copied and distributed (e.g. see music business). The social dilemma at the heart of digital commons is, therefore, less about managing sustainable utilization and more about the curation of an appropriate institutional logic to encourage their sustainable creation and renewal (Lessig, 2002). In this light, it is not a question about legal protection of intellectual property but more about how to motivate individuals to create new knowledge.

The modern IC technology has radically changed the way how knowledge is produced, distributed and consumed. This is because knowledge production (creation) has always had a very close relation with communication and collaboration (Broumas, 2017). Furthermore, information and communication technology allows to overcome the limitations related to time and space. It has decreased costs to forge relationships and has made it more attractive for creators to establish communities of knowledge. In the digital economy, knowledge is created within spontaneously emerging communities of peers around common domains of interest. Such a situation, on the one hand, is a challenge (a problem to be solved) for community members, and, on the other hand, determines their relationships and mutual cooperation. They form self-organized and informal 'islands of knowledge' which define independently the rules of interactions between participants, as well as principles of knowledge production, distribution and consumption, with special regard for its equitable access and use, which,

in turn, determines engagement of community members in knowledge production practices. In this light, communities can be understood as social structures that pool knowledge in common, and knowledge is a subject of commonification.

Table 2.

Characteristics and forces of commonification and commodification

Characteristics of pooling resources in common (common-based peer production)	Forces of commonification	Interrelation (subject/object dialectics)	Forces of commodification	Characteristics of commodification
Nonexcludability	Open access	Commonification vs. commodification	Monetized access	Enclose
Nonrivalry/zero marginal costs of sharing	Sharing	Pooling of common resources vs. private accumulation of resources	Market allocation	Fixity
Cumulative capacity, nonmonetary incentives, voluntary participation	Collaboration	Commons-oriented relations of production vs. market competition and oligopolies	Antagonism	Monetary incentives
Self-allocation of productive activity and consensus-based coordination	Self- and collective actualization	Self-management of the productive process vs. hierarchical management of the productive process	Alienation	Command
Communal value system	Circular reciprocity	Work in collaboration vs. waged labor	Labor as commodity or exploitation	Market value system
Communal ownership	Self-governance	Consensus-based decision making vs. hierarchical decision making	Domination	Private/state ownership

Adapted from: "The Ontology of the Intellectual Commons" by A. Broumas. *International Journal of Communication*, 2017.

In communities of peers, knowledge is produced according to a commons-based mode of intellectual production, distribution and consumption, which significantly differentiates itself from the dominant mode, based on capital and commodity markets (De Angelis, 2007; Broumas, 2017).

Common-based peer production is attributed by the following characteristics (Broumas, 2017):

- non-excludability, nonrivalry and zero marginal costs of sharing so that everybody can access knowledge and that knowledge sharing is ensured,
- nonmonetary incentives and voluntary participation to encourage collaboration,
- self allocation of productive activity and consensus based coordination to enable self-management of production processes,

- communal value system to enable work collaboration and peer support,
- command ownership to ensure self governance (consensus based decision-making).

The main characteristics and forces of commonification are presented in Table 2.

4. Pooling knowledge in common in a coworking community – a case study¹

This section presents a case study of the coworking # Krzywa 12 located in Katowice, Poland. This explanatory study took place from October 2017 to January 2018. It covered 66% of all residents. Its goal was to answer the following questions:

- (1) What is coworking?
- (2) Who coworks?
- (3) Why do people cowork?
- (4) What are the benefits of coworking?

The data collection includes: documents, websites, social media posts, participant observation, and semi-structured interviews. The data was stored and then analyzed using the NVivo 10 program (<http://www.qsrinternational.com/nvivo/nvivo-products>). Interviews with coworkers were coded in two stages. At the first stage, the entire interviews were encoded in their natural course, so as to learn the general approach of individual respondents to the phenomenon of coworking, coworker's identity, as well as the motivation and benefits associated with coworking. At the second stage, the code was reviewed from the point of view of its consistency. All coded responses were controlled once again, and appropriate corrections were made.

Coworking #Krzywa12 in Katowice was established in December 2015 on the initiative of a group of programmers (who were fed up with the atmosphere of a large coworking space they previously utilized), and two startup entrepreneurs who wanted to build, as they said, 'coworking intended for startup entrepreneurs'. The first residents of Coworking #Krzywa12 were startups: SOS App (personal security), Perspekto (organization of events), Brix.io (websites), RealDeal (e-commerce) and Critical Point (marketing and business consulting). Another startups soon joined them. Today, several startups representing creative industries are residing in Coworking #Krzywa12 (<http://coworking.krzywa12.pl>).

¹ Partly based on a previously published results in Bendkowski, J. (2018). Coworking – środowisko pracy wspierające mobilnych pracowników wiedzy. *Zeszyty Naukowe Politechniki Śląskiej, Organizacja i Zarządzanie*, 118. Wydawnictwo Politechniki Śląskiej: Gliwice, pp. 55-67.

Coworking #Krzywa12 is, moreover, a place of work of independent professionals and freelancers: programmers, web designers, copywriters, internet marketing experts, and business advisors. Traditional professionals (accountants, lawyers, IT managers, and insurance clerks) are also found.

The coworking is located in an Art Nouveau tenement house build 1899 in a quiet, historical district in the city center. It offers 22 desks, a conference room and a fully equipped kitchenette. Coworkers have access to the internet, printers and a copying machine. The programmers work in a dedicated room. The office is open every day from 6.00 am to 10.00 pm. But actually, coworkers have access to the office twenty-four hours a day seven days a week. The premises differ from the standard office seen in corporations. According to one of the proprietors, the interior design is intended to encourage work. Hence, traditional office furniture has been replaced with modern desks and chairs, the decor of the rooms is vivid and colorful, and the walls are decorated with pictures. Some desks have been put next to each other in order to facilitate work and communication for larger groups of coworkers. A chill out area was arranged in the rear part of the main office space.

There are no official rules of behavior in the coworking. However, the usual forms of behavior apply, such as, for example, not to litter, and to wash, dry and put away used dishes. In matters important to the community, coworkers make joint decisions in consultation with the proprietors. Less-important matters are regulated by means of the yellow notes that can be found all over the place.

Mutual contacts are characterized by directness, ease and lack of haste. Coworkers often take tea or coffee breaks during which they talk about the work they do, share impressions from business trips and exchange views on the usefulness of the work tools they used. Talking over a cup of coffee, they make plans for the future or discuss possible cooperation and implementation of joint projects. Sometimes they discuss their personal problems. The relaxed atmosphere of coworking is emphasized by the informal clothing and slippers worn by the coworkers, as well as by bikes standing by the wall (some of the coworkers cycle to work).

The aim of Coworking # Krzywa 12, as the proprietors declare, is to support the startup community and to enable integration and exchange of experiences (one of the proprietors: 'We do not need to make money off of it'). According to the proprietors, coworking is a place where young, independent companies in need of support, develop. Desks are rented for a period of at least twelve months. It is also deemed important to attract people with a well thought-out idea, and who are determined, bold and desire to build a stable business, and not people interested only in having found a cheap place to work. In such company, cooperation with other members of the coworking community helps to refine business models, source financing and become established.

The social structure of Coworking# Krzywa12 supports the implementation of this goal. Apart from a few exceptions (accountants, insurance clerks), coworkers represent complementary knowledge domains (websites, webdesign, internet advertising, e-commerce),

which enables not only vertical but also horizontal learning and interaction. As a consequence, coworkers can not only deepen their knowledge, but also combine knowledge from various subject areas. This facilitates the emergence of new ideas, on the one hand, and cooperation on the other.

Moreover, the proprietors undertake activities to integrate the coworking community. From time to time, they organize integration meetings during which coworkers can get to know each other more and better. These get-togethers allow opportunity to talk not only about business issues or to find out and assess the expertise of other community members, but first of all, offer the chance to discover shared interests, goals and values. This leads to the creation of a sense of identity and a belonging to a coworking community (Lave and Wenger, 1991). On a daily basis, such gathering together takes place in the kitchen, where residents share coffee, meals, news and information.

The strong bonds linking together the members of the co-working community facilitate a formal and informal transfer of knowledge. This is one of the key processes involving knowledge, because it allows individuals to acquire and develop knowledge. Indeed, various initiatives are taken to intensify the transfer of knowledge. An example of this type of activity is an event called 'After hours', during which coworkers pitch their business ideas. The received feedback, often very critical, allows them to verify the original idea in economic and legal terms, as well as to find persons interested in mutual cooperation and work on the project.

An analysis of the interviews shows that for most residents, coworking is primarily a creative workplace that enables cooperation. Coworking is also understood as a community, a place where freelancers meet, a place that ensures their autonomy and freedom of action. However, some coworkers did not notice anything special about coworking. In their opinion, it is simply a workplace, an office space that enables telework or distant work.

The most important factors that motivate to work in a coworking space are the sparking of creativity and the prevailing work climate. Rated to be of lesser importance are autonomy, social interactions and learning. Furthermore, some coworkers said that they decided to choose coworking because they wanted to separate their private lives from their professional lives in order to focus on work.

In the interviews, the respondents mentioned many specific examples of support received from the coworking community. In their opinion, the most valuable in relation to project implementation was information and instrumental support. The respondents indicated that due to the high degree of networking, they had wide access to resources located in other networks. This positively affects their creativity and productivity. Regarding instrumental support, the respondents highlighted the importance of strong community bonds for the transfer of tacit knowledge, notably, feedback in relation to development and implementation of ideas.

5. Conclusion

The nature of knowledge as a resource has fundamentally changed in the digital economy. This has come about because modern IC technology has radically transformed the way how knowledge is produced, distributed and consumed.

In the digital economy, knowledge is created within spontaneously emerging communities of peers around common domains of interest. This, on the one hand, is a challenge for community members, and, on the other hand, determines the nature of their relationships and mutual cooperation. They form self-organized and informal ‘islands of knowledge’ that define independently the rules of interactions between participants, as well as principles of knowledge production, distribution and consumption, with special regard for equitable access and use, which in turn determines the degree of engagement of community members in knowledge production practices.

An example of such social structure is a coworking community. Such communities enable intellectual work among peers, which provides them with shared intellectual resources, i.e. intellectual commons, that are not only the basis for shared understanding and identity, cooperation and knowledge production and distribution, but also for governing the reproduction and management of the shared resources.

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