

Radboud University



More than an urban hype?

Coworking in non-core areas

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March 2017, final version

Submitted to the Radboud University of Nijmegen, School of Management, department of
Geography, Planning & Environment, in partial fulfilment of the requirements for the degree of
Master of Science in Human Geography

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More than an urban hype? Coworking in non-core areas

A master thesis on the functioning of coworking spaces located outside urban centres

Word count +/- 39.500 (All chapters combined: 34:000)

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Submitted to

University Radboud University of Nijmegen – Nijmegen, the Netherlands
Faculty School of Management
 Department of Geography, Planning and Environment
Program Master of Science in Human Geography
Specialization Europe: Borders, Identity and Governance

Partially written during a research internship at

Organization Leibniz Institute for Research on Society and Space (IRS), research department 1:
 'Dynamics of Economic Spaces' – Erkner, Germany

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Previous versions

Date 1st version 4 November 2016
Date 2nd version 5 December 2016
Date Final version 6 March 2017

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Acknowledgement

To Prof. Dr. Huib Ernste, for the long time he took during our meetings in the earlier stages of my research. During our conversations, he not only provided valuable input for picking a research topic, he also helped me to prepare for an internship abroad. The freedom given to me to pursue a research topic of my own interest, even if it did not fully relate to the specialisation of my Master, was highly appreciated. Feedback given during the final phases of my thesis was really helpful and enabled me to fine-tune my research.

To Prof. Dr. Suntje Schmidt, who guided me during my stay at the IRS, and by whom I could always knock on the door for a conversation or to discuss issues I faced. Due to her vast knowledge on coworking and similar phenomena, I received valuable help in formulating the direction of my research and design my methodology. Even after my internship was finished, her comments on later versions of my thesis were truly helpful.

To the IRS, and in particular my colleagues of research department one, who not only made me feel immediately at home in a foreign environment, but also gave me a lot of help through their easy accessibility and the feedback given through two of my presentations. Although, during my stay, I mostly worked on my thesis, involving me in the daily conduct such as meetings, seminars, and workshops has been a valuable experience for myself and for my later working life.

To all the respondent who participated in this research. Thank you for your time and openness.

Abstract

Last years have witnessed the birth and rapid expansion of a new, communal and collaborative way of working called coworking. While originally emerging in large urban centres, nowadays, coworking spaces are developing in smaller cities as well. The purpose of this thesis is twofold; to discover how coworking is performed in non-core areas and why they emerge here. Based on a qualitative research design, two coworking spaces in smaller cities were visited and a total of 10 interviews were held.

Two different coworking configurations were found. First, an economic coworking model, top-down established by owners that seek to pursue the economic rationale of coworking by developing the space as a middleground for creatives and established businesses. Coworking here relies on the knowledge exchange between coworkers and external parties. The second configuration is a small working community model, bottom-up established by seven coworkers, who each practiced home-office and used the coworking space as a means to improve their labour situation. Instead of professional interaction, coworking here relies on the social proximity among the coworkers. The first model is best found in areas where core processes are present, whereas the second model is more universally applicable, because it is less reliant on contextual conditions and only needs a small number of coworkers to operate successfully.

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1. Introduction

More than a decade ago, no one has heard of it. Nowadays, coworking spaces are found in almost every large city across the globe. The coworking phenomenon refers to a relatively new, distinct, and rapidly expanding way of working in which individuals from different backgrounds work alongside each other in the same space. Commonly conceived to be born in 2005 in San Francisco, coworking has spread worldwide at an impressive pace, more than doubling in number each year. Estimates by the well-reputed online coworking magazine *Deskmag* suggest 10.000 open spaces by the end of 2016, accommodating over half a million ‘coworkers’ (Foertsch, 2016). Within these so called coworking spaces, individual workers rent a desk (varying from daily up to monthly contracts) in a space where the facilities (e.g. kitchen, coffee machine, printer, meeting room, whiteboard) are at least to some degree shared among its users. These flexible work spaces are particularly attractive for creative workers, mostly freelancers, for whom a laptop and a wireless internet connection are sufficient to perform their work tasks (Gandini, 2015; Spinuzzi, 2012; Waters-Lynch & Potts, 2016)

Apart from providing flexible rentable work spaces in an office-like setting, coworking spaces are, even more so, notorious for its “focus on community and its knowledge sharing dynamics” (Capdevila, 2015, p. 2). Joining a coworking space is said to be akin to joining a community’ (Butcher, 2016; Gandini, 2015; Waters-Lynch & Potts, 2016). For some, the communal way of working provides a social aspect to their work by engaging in casual conversations with their professional peers (Brinks, 2012; Parrino, 2015; Spinuzzi, 2012). For others, the interactive atmosphere and the heterogeneity of its members is attractive for opportunities of knowledge exchange and knowledge creation (Brinks & Schmidt, 2015; Capdevila, 2015; Parrino, 2015; Waters-Lynch & Potts, 2016). For this reason, coworking is best seen as a *way of working*, with the “key aspects of coworking as a service are provided by those who buy that service” – the coworkers (Spinuzzi, 2012, p. 432); and coworking spaces as being those places that facilitate these coworking practices.

Coworking in non-core areas: scientific relevance

Looking at the places where coworking spaces are situated, they appear to be mainly located in large urban centers. By using data from online coworking databases, Moriset (2014) found that coworking spaces cluster in large, ‘textbook examples’ of creative cities. Similarly, the academic literature dedicated to this subject have been exclusively focused on investigating coworking spaces located in large urban centres, such as Austin, Barcelona, Berlin, London, Melbourne, and Milan (Capdevila, 2015; Merkel, 2015; Parrino, 2015; Spinuzzi, 2012; Waters-Lynch & Potts, 2016). Observing this trend in coworking research, Moriset (2014, p. 12) suggests that “the abundance of coworking spaces in a given city has obviously something to do with the kind of urban liveness and vibrancy that makes a place fashionable and attractive for artists, ‘bohemians’, and entrepreneurs in cultural content industries”.

Not surprisingly, as coworking spaces seem to be particularly attractive for members from the creative class (Brinks, 2012; Capdevila, 2015; Parrino, 2015; Spinuzzi, 2012), and it is well known that urban centres are attractive places for creative individuals. The nature of creative work and its reliance on social and professional networks makes the concentration of economic activity in cities particularly suited for creative workers to seek work, projects and contracts (Vinodrai, 2012, p. 3). Moreover, creative workers prefer to live in lively and vibrant neighbourhoods, both for inspiration and access to networks (*ibid.*).

But although the existence of coworking spaces in urban areas seems intuitive, we can at the same time see that coworking spaces are also emerging in sparser populated areas. For

example, online maps of coworking spaces show the presence of coworking spaces in small cities (www.coworkingmap.org and www.coworking.de, accessed on 31 October 2016). Moreover, the online coworking magazine *Deskmag*, has written about ‘coworking in big towns vs small towns’ (Foertsch, 2011a) and ‘the rural way of coworking’ (Foertsch, 2011c), in which they report on coworking space located in cities with less than 100.000 inhabitants.

Despite the very existence of coworking spaces outside large urban centres, these spaces remain unexplored in academic literature. The notion of ‘non-core’ is used to refer to areas which are neither exactly core nor peripheral. This term was coined by Lagendijk and Lorentzen (2007, p. 459) and refers to regions that “while not facing acute problems of decline or marginality, are outside principal metropolitan areas”. Non-core regions are marked by a lack of economic core processes, overall holding a “competitive disadvantage, having fewer overlapping social and economic networks and a small labour market” (Jayne, Gibson, Waitt, & Bell, 2010, p. 1409). Although non-core regions appear to be particularly unattractive for members of the creative scene – and likewise for the typical coworker – creative work exists in peripheral located areas. Even more so, urban scholars writing on the creative economy in small cities have drawn attention to that creative labour in smaller cities may be fundamentally different than in large cities (Bell & Jayne, 2009; Gibson, 2012a; Jayne et al., 2010). For this reason, observing the organisation of coworking in non-core cities is highly relevant as it may also reveal fundamentally different processes.

Societal relevance of coworking in non-core areas

In addition to the scientific contribution aimed for in this research, the societal relevance of the coworking phenomenon has been linked to more far-reaching economic and social processes.

Viewed from a macro perspective, a large group of scholars attribute a certain kind of economic rationale to coworking. They assert that the physical and social co-location of individuals from various backgrounds could be a valuable resource for novel forms of knowledge, which subsequently has the potential to contribute to regional development (Brinks & Schmidt, 2015; Capdevila, 2015; Olma, 2011; Parrino, 2015; Waters-Lynch & Potts, 2016). Waters-Lynch and Potts (2016) find that many creatives seek coworking spaces for ‘serendipity encounters’, i.e. they are anticipating to meet other workers to exchange knowledge or collaborate professionally, suggesting that these spaces have the potential to become a new urban space where the individuals from the creative scene meet and collaborate. Capdevila (2015) argues how coworking spaces operates within the local innovative milieu as a ‘middleground’ (Cohendet, Grandadam, & Simon, 2010; Grandadam, Cohendet, & Simon, 2013), performing a crucial role within cities to link up creative individuals from ‘underground’ with established firms situated in the ‘upperground’.

In addition, other authors relate coworking to issues of urban hierarchy. They highlight how the rise of coworking spaces is rooted in the changing nature of the labour market (Butcher, 2016; Gandini, 2015; Merkel, 2015; Spinuzzi, 2012). With the expansion of information and communication technologies, workers and their labour have become more flexible and mobile (Coe & Jordhus-Lier, 2010; Gill & Pratt, 2008; Harris, 2015; Kalleberg, 2009; Pijper, 2009). Nowadays, an increasing share of workers is working outside traditional office environments (Liegl, 2014) and the number of freelances workers is growing (Gandini, 2016; Spinuzzi, 2012). But with being able to work ‘anywhere and anytime’, some places are better suited for work than others (Liegl, 2014). Other alternative work places such as at home or in a coffee shop are often found to be distractive, demotivating and/or potentially isolating (Liegl, 2014; Spinuzzi, 2012). For many workers, coworking seem to be the best fit alternative as it provides workers with a professional work environment and access to converse or collaborate with professional peers (Brinks, 2012; Liegl, 2014; Pohler, 2012; Spinuzzi, 2012).

Peripheral areas are often referred to as being backward, lack of access to knowledge networks, weakly innovative, static economic environments and so on (Baumgartner, Pütz, & Seidl, 2013; Kühn, 2015). These contextual features seem to be particularly disadvantageous for knowledge workers due to their reliance on face-to-face interaction and agglomeration effects to perform their work (Florida, 2002; Rutten, 2016; Vinodrai, 2012; Watson, 2008). From this perspective, coworking may prove to be helpful for non-core areas by providing these knowledge workers with a better work environment. In this vein, coworking may be interpreted as a Marxists phenomenon, where the coworking protagonist emerged out of locally situated, but globally linked, grassroots movements seeking to organize their own labour situation (Butcher, 2016, p. 94; Gandini, 2015, p. 196; Merkel, 2015, p. 124), as a strategy to create own geographies to coop with an increasingly precarious labour market (Coe & Jordhus-Lier, 2010; Cumbers, Helms, & Swanson, 2010; Katz, 2004).

Research objective

Following the scientific and societal relevance of researching coworking in non-core areas, the objective of this research is twofold. First, considering that the current conception coworking is built upon reports from observations made in large urban centres, this research adds to create a more comprehensive understanding of coworking by including accounts from non-core areas. Second, by looking at the circumstances that led to the establishment of non-core coworking space, the value of coworking for these areas is examined. To achieve this, the main-question central to this research is formulated as follows

How do coworking spaces in non-core areas function and why do they become established?

To answer the main-question, it is further divided into the following research questions:

1. *What are the features of a coworking space?*
2. *How is coworking inside coworking spaces performed?*
3. *Why do coworking spaces become established*
4. *What are non-core areas?*

The first question is focused on examine the tangible features of coworking spaces, such as the available equipment or interior design, in order to explain what distinguishes coworking spaces and what separates them from other open office spaces such as business centres or serviced offices. Since coworking, i.e. the act of working inside coworking spaces, can performed in multiple ways, the second question deals with what exactly constitutes coworking. With the third question, the value of coworking is explained by looking at what developments lead to the establishment of coworking spaces. This question seeks to explain the rise of coworking by examining more fundamental changes in our society in the last decade to find out what problem coworking is addressing. Lastly, features of non-core areas are examined to understand the context in which non-core coworking spaces are situated in, and what differences exist between core and non-core coworking spaces. The four research questions provide input for the empirical section, in which coworking spaces from non-core areas are visited and reported on. Altogether, these four questions in combination with the fieldwork provide an answer the main question.

Conceptual model and thesis structure

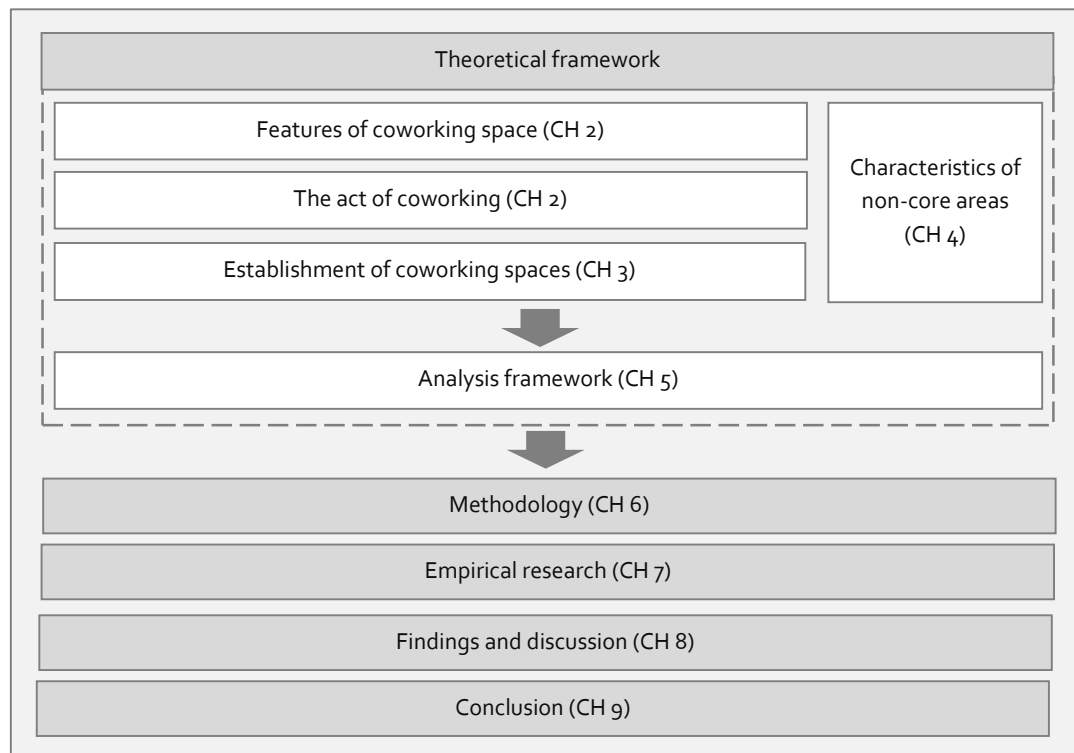


Figure 1: Conceptual model illustrating the content of this thesis and their relationships (Author)

The sub-questions and their relationship are visually expressed in a conceptual model shown in Figure 1. The model can be interpreted as follows. First, in Chapter 2, coworking is defined by looking what a coworking space is and what is happening inside a coworking space. As coworking has transformed into ‘buzzword’, with many meanings, interpretations, claims and ascribed promises (Capdevila, 2015; Gandini, 2015; Moriset, 2014), the coworking concept is examined extensively. Attention is paid here to the physical features of a coworking space, the coworkers and their motivations as well as the rather elusive theme of ‘communities’ inside coworking spaces. Second, the background of the coworking notion is examined in Chapter 3 by explaining why coworking spaces become established and why people are coworking. This is done by viewing from a macro perspective, respectively by viewing how coworking came into existence against the background of a fundamental change in the labour market, followed by how coworking spaces occupy an important role in local innovation dynamics. The 4th chapter deals with the question what exactly is meant with the notion of non-core. This concept is further explained by using the concepts of peripheralisation and centralisation (Kühn, 2015; Lagendijk & Lorentzen, 2007). The findings of the theoretical framework are summarized in Chapter 5 called the analysis framework.

After having set out theoretical framework in the previous chapters, the next chapters continue with the empirical part of this thesis. A case study approach is chosen for this research, which is further explained together with the case selection procedure, data collection process and data analysis method in the methodological chapter found in Chapter 6. Chapter 7 reports on the field work conducted in two coworking spaces in non-core areas, after which both spaces are compared and analysed in light of the theory in Chapter 8. The research is concluded in Chapter 9.

2. Defining coworking

Coworking has become the standard term in popular and academic literature to refer to a new and quickly proliferating form of working. It is written without the hyphen to distinguish itself from the word ‘co-working’, a more general term that can refer to any form of work that is performed alongside other professionals (Gandini, 2015, p. 195). Coworking has been described as a way of working (Merkel, 2015, p. 122; Waters-Lynch & Potts, 2016, p. 1) that is purchased as a service by coworkers (Spinuzzi, 2012, p. 431) and performed within particular coworkers spaces, i.e. places with a particular design and atmosphere that enables such coworking practices.

The origin of coworking

If we are to pinpoint a moment in time when coworking was invented, many scholars refer to software engineer Brad Neuberg, when he launched the first coworking spaces in San Francisco in 2005 (Capdevila, 2015, p. 5; Parrino, 2015, p. 265; Waters-Lynch & Potts, 2016, p. 6). Neuberg, then working as a freelancer, was looking for a solution for the lack of social company related to working from business centres and the inefficiencies and distractions related to working at home. Dissatisfied with his current work situation, in his words, *“I decided to create a new kind of space to support the community and structure that I hungered for and gave it a new name: coworking”* (Neuberg, 2014). He then went on to create the first coworking space, inviting other independent workers to work alongside him.

While his first attempt got limited success and was closed within a few months, the coworking idea was picked-up and advanced by others (Neuberg, 2014; Waters-Lynch & Potts, 2016, p. 6). It has spread all over the world, while remaining fairly concentrated in large cities (Moriset, 2014). Figure 2 shows that by 2011, the total number of spaces has crossed the 1.000 mark (Waters-Lynch, Potts, Butcher, Dodson, & Hurley, 2015). Further estimates suggest over 10.000 spaces open by the end of 2016, accommodating around half a million coworkers (Foertsch, 2016).

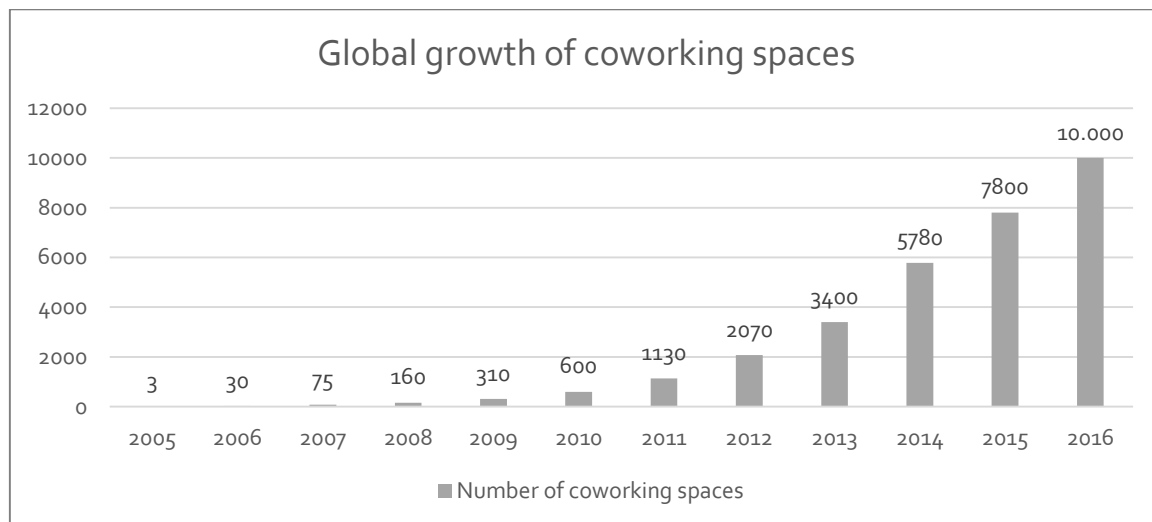


Figure 2: Global growth of coworking spaces, based on Foertsch (2016); Waters-Lynch et al. (2015)

The recent proliferation of coworking spaces has multiple causes. First of all, developments in information and communication technologies have enabled workers to become more flexible and mobile (Harris, 2015; Spinuzzi, 2012). Many jobs nowadays, especially in the knowledge economy, require only a laptop and an internet connection to perform. Agile working, i.e. technology-based mobile work practices, are becoming increasingly more common (Harris, 2015; Liegl, 2014). The

result is that a growing number of workers are working outside traditional office spaces. On top of that, shifting managerial orientations towards sub-contracting, outsourcing, zero-hour contracting, and other forms of project-based work, have caused a rising demand from employers for a flexible work force (Harris, 2015; Kalleberg, 2009). In short, changes in organizational orientations, work practices and workstyles has led to being jobs more mobile and flexible (Harris, 2015). A consequence of this development can be observed in the fast growing numbers of freelance workers (Gandini, 2016; Spinuzzi, 2012). Another effect is that “working at home and working at the office is increasingly complemented with working elsewhere” (Liegl, 2014, p. 164). However, “while ICT enables freelancers to work ‘anytime anywhere’, it becomes apparent that not all places seem to be equally suitable for their work” (Liegl, 2014, p. 163).

Coworking spaces seem to best fit alternative to address these drawbacks. For the contemporary workers, and especially those active in the creative sector, their mobile work practices performed in a volatile economic environment are met by the flexibility and cost-efficiency of a coworking space. In addition, having access to an office-like environment helps to set boundaries between home and work. The shared space enables them to socialize with their colleges and acquire potential collaboration partners, valuable features for knowledge and network intensive work practices – overall increasing the productivity of the workers.

Finding a definition

But what is coworking? While there is a general agreement among scholars that something called coworking exists, it is still far from clearly defined. Especially in popular literature, coworking is showing signs of a buzzword (Capdevila, 2015, p. 2), with different meaning and interpretations circulating. Authors comment that it is generally being depicted as an exclusive positive phenomenon, accompanied with little critical connotations and based on little empirical evidence (Gandini, 2015, p. 194; Merkel, 2015, p. 122; Moriset, 2014). A careful approach to this topic is therefore required. While there is no general definition of coworking within academic circles, an approximation of the term is acquired by examining how coworking so far has been described in scholarly literature. Among the contribution that have described coworking most extensively, it has been specified as follows:

"Coworking refers to the practice of working alongside one another in flexible, shared work settings where desks can be rented on a daily, weekly or monthly basis. [...] As flexibly rentable, cost-effective and community-oriented workplaces, coworking spaces facilitate encounters, interaction and a fruitful exchange between diverse work, practice, and epistemic communities and cultures." (Merkel, 2015, p. 122)

"Coworking spaces are shared workplaces utilized by different sorts of knowledge professionals, mostly freelancers, working in various degrees of specialization in the vast domain of the knowledge industry. Practically conceived as office-renting facilities where workers hire a desk and a Wi-Fi-connection, these are, more importantly, places where independent professionals live their daily routines side-by-side with professional peers, largely working in the same sector. (Gandini, 2015, 194,195).

"(1) The co-localisation of various coworkers within the same work environment; (2) the presence of workers heterogeneous by occupation and/or sector in which they operate and/or organizational status or affiliation (freelancers in the strict sense, microbusiness, employees or self-employed workers); (3) the presence (or not) of activities and tools designed to stimulate the emergence of relationships and collaboration among coworkers." (Parrino, 2015, p. 265)

"Open-plan office environments in which they work alongside other unaffiliated professionals for a fee. [...] Coworking is not a concrete product, like a building, but a service – in fact, a service that proprietors provide indirectly, by providing a space where coworkers can network their other activities by engaging in peer-to-peer interaction" (Spinuzzi, 2012, p. 339, p. 431)

“‘co-working’ in shared member-spaces [...] enable peer-to-peer interactions that engender camaraderie and a collective sense of achievement that enhances individual sociality and productivity as a form of socially and economically sustainable work” (Butcher, 2016, p. 94)

First of all, the authors refer to a particular space with features designed to facilitate coworking practices. These spaces are characterized by an open workspace set-up in which its users rent desk space and to some degree share the facilities that are available (Gandini, 2015; Merkel, 2015; Spinuzzi, 2012). In this way, there is a strong feeling of the co-presence of the other within these space. Such flexible work spaces are primarily, but not exclusively, attractive for knowledge workers, and particular, freelancers (Gandini, 2015; Parrino, 2015). Within these spaces, a social composition is found of individuals coming from many different professional backgrounds (Gandini, 2015; Parrino, 2015; Spinuzzi, 2012).

Secondly, other than simply providing a place to work, all descriptions highlight that coworking is simultaneously recognized for the communal relationships among its members and the potential professional collaboration opportunities arising there. Spinuzzi (2012) highlights that one of the main reasons for coworkers to join a coworking space is, in fact, the presence of other coworkers in the coworking space. Butcher (2016, p. 94) adds that coworkers look for “individual sociality and productivity”. As such, coworking often adopt strategies to encourage the development of relationships among coworkers (Merkel, 2015; Parrino, 2015). In this way, enrolling in a coworking space is said to be akin to joining a ‘community’ (Butcher, 2016; Capdevila, 2015; Gandini, 2015; Waters-Lynch et al., 2015).

Although some general features of coworking becomes clear, it remains a vague concept. For example, which features to these spaces have and what separates them from other office concepts or ‘third spaces’? what kind of community do we actually speak of? And to what extent is economic value actually generated within these spaces? The following section tries to clarify these aspects by drawing on the handful of empirical observations on coworking spaces. First, coworking spaces are compared with similar, but slightly different, open workspace phenomena, to clarify the context of these spaces as well as to differentiate it. Second, features particular to coworking are elaborated, in particular the notion of ‘community’, the management of coworking spaces and space aesthetics. which until now has remained rather elusive. Then other recurring themes in coworking writings is elaborated on, such as aesthetics and hosts.

The coworking space and its features

Coworking spaces are found in many shapes and forms, differing in management model, purpose, atmosphere, amenities, user composition and more (Brinks, 2012, p. 142; Butcher, 2016; Capdevila, 2015; Fuzi, 2015; Waters-Lynch & Potts, 2016). In this way, it is more accurate to see a coworking space as a *denominator referring to a range of spaces* (Parrino, 2015, p. 265). Some may be centred around certain themes such as start-up communities, software development or artistic professions, with some spaces open to all users and others more closed. Some may only provide basic infrastructure such desk space and Wi-Fi connection, where others offer a variety of equipment (whiteboards, meeting rooms or even physical production facilities such as laser cutters and 3D-printers) and lay-out styles (basic office space or a specific aesthetic style for different work atmospheres), or invest in community management (through internal social media, organized lunches or after-work parties) and/or professional performance (work-shops, accelerator programs or networking sessions) – all depending on the specific orientation of the coworking space. Each space offers a variety of amenities to its users and hold different value propositions.

To further describe coworking it is helpful to compare it to and distinguish in from similar phenomena. One way to make sense of coworking spaces is to see them as offering a unique value

proposition on the office rental market. Coworking spaces offer a particular combination of services, location, atmosphere, community, lay-out and so on, a value proposition that appeals to a certain group of workers. However, they are not to be confused with traditional office-space rental services such as business centres or serviced offices (Kojo & Nenonen, 2014; Moriset, 2014; Waters-Lynch et al., 2015; Weijs-Perrée, Appel-Meulenbroek, Vries, & Romme, 2016). These spaces primarily provide office infrastructure and a variety of front-office services to their tenants. The main difference with coworking spaces is that business centres typically have a formal atmosphere with no particular focus on creating relationships among its users (*ibid.*)

Another way to look at coworking spaces is to regard them as a type of ‘third place’ (Fuzi, 2015; Moriset, 2014; Waters-Lynch et al., 2015). This notion was first raised by sociologist Oldenburg in 1989 to describe places besides home (‘first place’) and work (‘second place’), such as coffee shops, cafés, bars or community centres. According to him, these third places operate as a nexus of urban live where people gather, socialize and interact in an informal manner that foster productivity and civic engagement (Oldenburg, 1989). Waters-Lynch et al. (2015, p. 4) identified a number of these third places that combine “formal productive activity alongside informal social interactions, often in combination with explicit learning programs or undirected ‘tinkering’”, including coworking spaces. They name them *Work-Learn-Play Third* spaces, with each holding different orientations towards individual work, learning or discovery. Figure 3 shows a number of these spaces, each with their particular angle and their emergence through time.

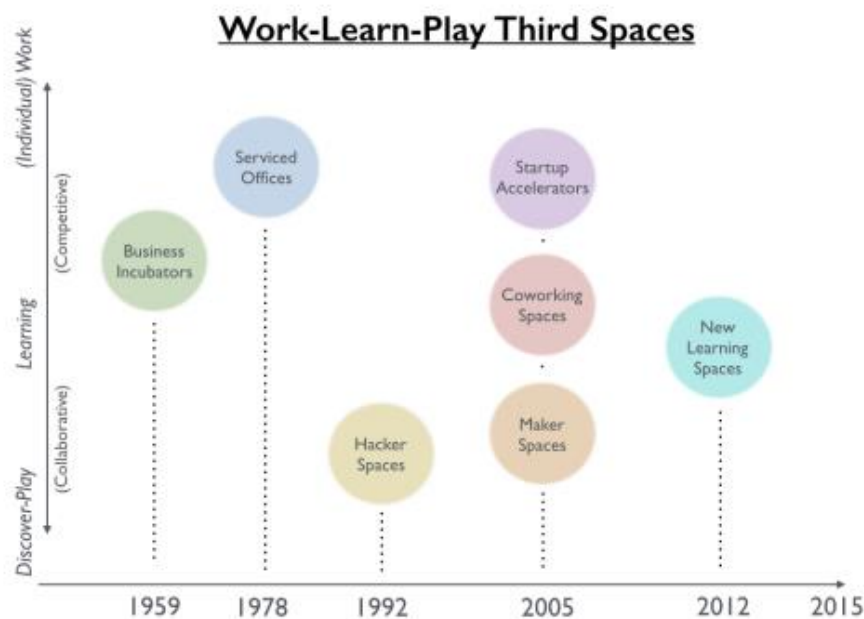


Figure 3: Coworking spaces and similar open work space concepts, defined as ‘Work-learn-play’ third spaces by Waters-Lynch et al. (2015, p. 4)

Another approach to interpret coworking is offered by Brinks and Schmidt (2015) and Schmidt, Brinks, and Brinkhoff (2014). They see coworking spaces as part of an emerging trend of open work spaces what they call ‘innovation and creativity labs’. More like laboratories, these are places of experimentation, in which entrepreneurs and enthusiast from different backgrounds (mainly focused on digital, technology based and knowledge intensive work practices) come together, share knowledge, test and develop new ideas, products or economic ventures. These spaces are characterized by three features, (1) their easy accessibility and openness to new members, (2) the colocation of professionals from different backgrounds inside these spaces, (3) and its orientation on collaboration and community. In this way, these places are a breeding ground for generating new knowledge and innovation. They identify between experimentation labs, labs driven by firms

or research institutions, and investor-driven labs (Brinks & Schmidt, 2015). Experimentation labs are further divided into grassroots labs and coworking labs, where the former are often non-profit models focused on hobbyist or enthusiast, and the latter hold an economic orientation, suited for freelancers or microbusinesses in need for office infrastructure to carry out their profession.

	Business centre, serviced office	Coworking space	Incubator & accelerator	Makerspace, Fablabs, hackerspace
Objective	Offer office space and front-office services to tenants	Offer desk space in a social and collaborative atmosphere,	Economic development, start-up creation	Sharing manufacturing equipment to communities and the public
Users	Freelancers, SME	Freelancers, SME, external employed active in the digital, knowledge, creative and entrepreneurial economy	Entrepreneurs, start-up enterprises	Enthusiast communities, grass-roots movements, hobbyist
Management	For-profit	Non/For-profit	For-profit, investor driven	Non-profit
Space	Separate units	Open-plan spaces	Separate units, open-plan	Open-plan
Equipment	Office infrastructure and services	Office infrastructure and services, socializing set-up	Office infrastructure, mentoring, work-shops	High-end production facilities
Atmosphere	Formal	Informal	Formal/informal	Informal

Table 1: Different open workspace concepts (based on Fuzi, 2015; Guthrie, 2014; Kojo & Nenonen, 2014; Moriset, 2014; Schmidt et al., 2014; Waters-Lynch et al., 2015; Weijs-Perrée et al., 2016)

The most common open workplace concepts are shown in Table 1. While some general distinguishing characterizes may be observed, in reality, these categories are best seen as ideal-types as boundaries are blurred and many hybrid configurations exist. After observing business centres, coworking spaces and incubators/accelerators Weijs-Perrée et al. (2016) found that especially with respect to physical amenities such as available equipment and spaces lay-out hardly any differences can be found. Waters-Lynch and Potts (2016, p. 7) raise the example of serviced office businesses such as *Regus* are increasingly adopting the coworking notion to promote their services, while *WeWork*, the largest worldwide active chain of coworking spaces, is offering standardized concepts to coworking. Moriset (2014, 6ff) explains that the shifting demand for flexible community based workplaces in addition to merely business services has leads managers of serviced offices and business centres adopt ideas of coworking.

Moreover, many established firms adopt coworking concepts as a part of their open innovation strategy (Brinks & Schmidt, 2015; Moriset, 2014). Nowadays, firms are being increasingly reliant on opening up the innovation process and seek knowledge generated outside the perimeters of the firm to remain competitive. Large high-tech companies are investing in coworking spaces hoping to tap into the local entrepreneurial milieu. As Moriset (2014, p. 16) explains, “the funding of [coworking spaces] is one way to have foot in a fuzzy, fluid entrepreneurial milieu, to feel the market pulse, to keep an eye on creative initiatives and start-up, and perhaps, to find the ‘gold nugget’”.

Coworking spaces, a confusing concept

Despite a general recognition of the existence of these places, providing a more precise definition of coworking is problematic. While coworking spaces distinguish themselves from other work oriented concepts through its work-oriented setting in combination with an informal, communal and collaborative atmosphere, in reality, the boundaries are often unclear. As such, spaces may identify

themselves as coworking spaces, but might hold different features than one expects. On the other hand, coworking spaces may be found that offer similar services as other open workplace concepts. For example, the Berlin based coworking space *Betahaus* offers, next to the typical coworking space, physical production tools in the spirit of maker spaces as well as mentoring systems and pitch sessions, more often seen in incubator or accelerator spaces (www.betahaus.com). The different forms and shapes in which coworking spaces may exist are shown in Figure 4. A ‘cookie-cutter’ coworking space may exist that has a communal work environment suited for desktop based work, other coworking spaces exist that share features with one or more other open work environments. What denotes a coworking space is therefore highly contingent.

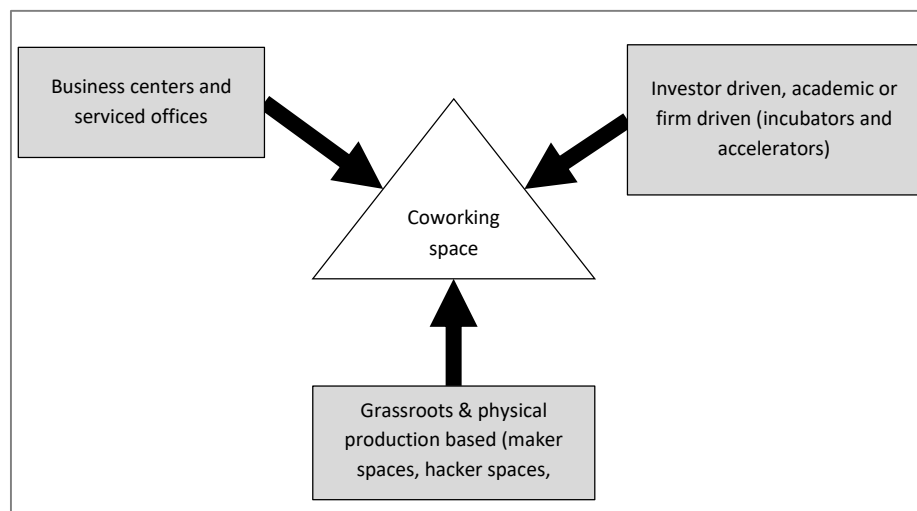


Figure 4: The coworking space and features of other open office space concepts they may hold (Author)

Coworking: the internal dynamics of coworking spaces

The act of coworking refers to a way of working that is performed inside coworking spaces. In the previous section the plurality of coworking spaces was emphasized. With coworking spaces holding different orientations and value propositions, they attract different user demographics and have different kind of communities existing within these spaces. Butcher (2016, p. 100) notes that coworking is “both structural and agent-driven”, being an amalgamation between global coworking images and practices of the users within these spaces. Similarly, Merkel (2015, p. 125) sees coworking as a ‘social practice’, signifying that coworkers “obtain a practical knowledge and shared understanding of this particular activity, and consequently sustain, reproduce and also change it over time”.

Coworking is performed in different ways, depending on an interplay between the hosts and coworkers, changing and renegotiating meaning. Coworking communities change and rules are rewritten when new members join and old members go (Butcher, 2016; Merkel, 2015). Even within coworking spaces, coworking may be practiced differently. Spinuzzi (2012) describes coworking as having ‘so many contradictions’, referring to that coworking is defined and practiced differently for each user and host. Hosts may have intentions of the space communicated through social media, space design, events and so on, there remain aspect of coworking over which the operator has little control. In particular, the way how users interact, build trust relationships and/or collaborate with each other is highly dependent on the actions of the members. In short, coworking is formed by intentions of coworkers and the managers. In the following section, a closer look at the dynamics of coworking is by looking why users are coworking and how coworking spaces are managed.

User background and motivation

Empirical evidence focused on coworkers show that by far most coworkers are active in the culture and creative economy such as marketing, fashion, graphic design, architecture, journalism, music producers, software developers and so on (Parrino, 2015; Spinuzzi, 2012). Most of them have a technology component in their work (Spinuzzi, 2012). In terms of employment type, the lion's share of coworkers are freelancers, but microbusinesses, externally employed workers or self-employed people may be found in coworking spaces as well (Parrino, 2015).

A combination of various factors exists that push workers from their previous workplace and/or pull them into coworking spaces. A common theme across the existing literature is that many workers found themselves in particular labour situations that required them to work from home or to a lesser extent, cafés. Working at these places was generally described as inefficient, stressful, boring, distracting, motivation problems and potentially isolating from social contact with colleagues and professional networks (Brinks, 2012; Liegl, 2014; Spinuzzi, 2012). Some miss the casual talks you have on the work floor, or simply being 'among the people'. Others felt being isolated from professional networks. It means not being able to catch up with the latest trends in your field of expertise, miss collaboration opportunities or meet potential customers. Especially within the creative industries, a large part of being a productive worker is dependent on 'who you know' (Gandini, 2016; Gill & Pratt, 2008; Reimer, 2009), making a general disconnection with professional peers problematic.

In this respect, coworking spaces enables you to work in the co-presence of other professionals. Some coworkers look for others to develop casual relationships. The occasional small talk or coffee-talk is enough for them, like 'good neighbours' (Spinuzzi, 2012), to 'bring the social back into work'. Others coworkers reported that although they look for others that are present, at the same time they want to be left alone (Liegl, 2014; Spinuzzi, 2012). Liegl (2014, p. 175) found out that many nomadic workers seek open work places and "not necessarily aim to contact with other people, it is enough for them to be there, do their thing, make noise, see and be seen". Simply the 'noise' of others is enough for coworkers to feel motivated and be productive (Brinks, 2012).

Another recurrent theme is that coworkers deliberately seek to engage professionally with their peers. Brinks (2012) calls coworking spaces 'market places' for networking, idea & knowledge sharing. This can go from knowledge sharing through, learning, feedback and referrals to collective projects and partnerships (Brinks, 2012; Capdevila, 2015; Parrino, 2015; Spinuzzi, 2012). As 'good partners' rather than merely 'good neighbours' (Spinuzzi, 2012), coworkers may also seek exploitation and exploration (Capdevila, 2015, p. 9). In this vein, the notion of 'serendipity encounters' or 'serendipity accelerators' is widely used with respect to coworking (Olma, 2011; Waters-Lynch & Potts, 2016). Serendipity, i.e. "the occurrence and development of events in a happy or beneficial way" (Waters-Lynch & Potts, 2016, p. 10), implies that coworkers anticipate having positive work related 'surprise' encounters with fellow workers. When Waters-Lynch and Potts (2016, p. 12) asked coworkers 'why did you join the coworking spaces', they find out that the motivation of many workers is "finding and connecting with others whom hold complementary knowledge or skills and are willing to cooperate on shared endeavours is a major source of value identified by coworkers". Being able to meet professional peers and engage in work-related interaction is a common reason for coworkers to cowork.

On top of that, many are attracted by the low entree costs and the flexibility that coworkers offers (Brinks, 2012; Capdevila, 2015; Parrino, 2015). Desks are usually flexible rentable, varying from hourly contracts to week. It enables an 'you come when you feel like it' attitude, for instance in situations when working at home becomes too unproductive. It is not uncommon that coworkers only work part-time out coworking spaces, and the rest of the time from home (Brinks, 2012). The result is that, especially in larger coworking spaces, the social composition is changing from a day to day basis. Being able to meet new persons everyday keeps the space dynamic and unpredictable,

a feature that adds to the coworking experience (Waters-Lynch & Potts, 2016). Lastly, for some coworkers it could also be the case that simply the road to their current workplace is too long. Reducing the travel distance may be the main reason for some users by working to work in a coworking space that is nearby (Spinuzzi, 2012).

As such, there is a myriad of reason why people might seek coworking spaces. With many workers nowadays working outside conventional offices, not every place is appropriate as an alternative workplace. The flexibility, sociality, and professional collaboration opportunities is what attract workers to coworking spaces. While close to all the existing studies on coworking spaces have identified the variety in motives by coworkers, it is very likely that spaces with particular orientations seems more likely to attract particular users. Those who wish to seek a vibrant community or wish to find business partners may choose a space where close relationships exist among the users. Those who are fine with working alongside others may prefer other coworking spaces. Coworking thus refers to working in a communal and collaborative atmosphere, but the form of the community is dependent on both the intentions of the users (are they looking for professional peers, workers to converse with, others co-presence or simply a place to work?).

Coworking hosts and space design/ aesthetics

Within the coworking spaces, a distinct role is awarded to the operators, or sometimes referred to as 'hosts', 'managers', or 'proprietors' – those who are in control of the management of the coworking space (Butcher, 2016; Fuzi, 2015; Merkel, 2015; Parrino, 2015). Merkel (2015) specifically focused on the role that operators play inside coworking spaces. She finds that they hold a central role in building relations among users and create meaning inside the coworking spaces. Coworking spaces are not simply open work places, they are highly managed. She describes hosts as 'curators', taking on the role as 'catalyst' or 'enabler' to create the communal coworking experience for its users (Merkel, 2015, p. 131). They hold a set of social strategies (e.g. events or internal social media) and physical strategies (e.g. space lay out or desk set-up) to achieve this. The vital role assigned to coworking hosts have been confirmed by others. Both Parrino (2015) and Fuzi (2015) have established that without active efforts of the hosts to connect the coworkers with each other, little social or professional relationships are developing among the coworkers.

Some spaces may be structurally organized where others are much more loosely managed with less-hierarchical and more trust-based relations between the operator and users (Butcher). Responsibilities are placed on the users as well, e.g. some coworking spaces offer the possibility to purchase 24/7 access to the space and grant the user with a key to gain access to the facility, without the operator necessarily being present. Rules exist implicit such as using the printer and the coffee machine according to the 'fair-use' principle, cleaning up to kitchen after you have used it or avoiding excessive noise when talking on the phone or with coworkers (Butcher, 2016; Merkel, 2015, p. 129).

Some authors note that a coworking space often comes along particular aesthetic design (Waters-Lynch & Potts, 2016, p. 8). The design is used as a strategy to encourage activity and worker interaction inside a space (Liegl, 2014; Merkel, 2015). Liegl (2014) points out that part 'being creative', depends on the worker's affection with its environment. Spatial aspects such as style, design and atmosphere have a certain 'look and feel' that may trigger internal responses and increase one's productivity. This not only includes physical appearance, but also includes how flows of movement of other people are regulated to stimulate the feeling of co-presence of others, even when not directly interacting with them (Spinuzzi, 2012). Spatial-atmospheric strategies are actively pursued by the hosts of coworking spaces. Merkel (2015, p. 130) notes that "hosts believe that particular wall colours or strategically placed plants affect the interaction potential of a space, thus turning coworking spaces into highly symbolically structured or curated spaces". For instance, an open set up of desks for users to perceive one another, dedicated social areas such as a kitchen,

coffee room or sofa area, inspirational text or whiteboards with information on the wall, colour choice, furniture style, decoration – these are all tools to enable sociality and broadcast meaning to its users (Merkel, 2015; Waters-Lynch & Potts, 2016).

The community in coworking spaces

A recurring theme in writings about coworking spaces remains the notion of community. Coworker is said to be akin to joining a community (Gandini, 2015; Waters-Lynch & Potts, 2016). But until now, it has remained rather elusive notion. This segment tries to clarify this by elaborating what kind of communities may be found inside coworking spaces.

Emergence coworking from grassroots communities and a global coworking image

To understand the ‘coworking community’, we first have to look at how and where coworking comes from. The protagonist of coworking developed and spread this concept not for business-oriented reasons, but rather, it was based upon more fundamental ideological motivations of how to organize work and the workplace (Butcher, 2016; Gandini, 2015; Merkel, 2015; Rus & Orel, 2015). The first coworking spaces were typically established by bottom-up initiatives looking for solutions to the problems caused by structural changes in the labour market. Its pioneers were looking for a place where community and work collides, where one could ‘work alone together’ (Spinuzzi, 2012). Merkel (2015, p. 124) notes, “as collective, community-based approach to the organization of cultural and creative work, it might be able to provide an alternative space for the free exchange of ideas, while enabling support networks and promoting the negotiation of shared spaces, resources and values amongst coworkers”.

Through online platforms, shared coworking values are created and spread as guidelines, with coworking taking the form as a ‘movement’ or ‘ideology’ (Gandini, 2015, p. 196). Its pioneers settled on five core values to describe this new way of working: *sustainability*, *accessibility*, *openness*, *community* and *collaboration* (www.coworking.com). Through these five values, coworking was spread rapidly and nested itself all over the world. The early coworking communities were typically described in words like sharing and caring, being there for each other when required, solidarity, an open-source mentality, collective-driven, non-hierarchical, home-made and hand-like feel and so on (Butcher, 2016; Gandini, 2015; Merkel, 2015) – a way of working that shows many similarities with the principles of the sharing economy (Richardson, 2015). Inside these spaces, as Butcher (2016, p. 97) notes, “community is not easily defined, and yet we know, or rather feel, it when we see it”. The global image of coworking finds local adaptations depending on the wishes and actions of the coworkers.

Rus and Orel (2015, p. 1022) point out that the co-workers’ view on community is slightly different than its dominant interpretation in sociology, where community is seen as something “functional, structural, cultural and territorial”. They sustain that: “community in coworking spaces does exhibit the features such as sharing, belonging, reciprocity and trust. But it also embraces openness to new people, new ideas, innovation, and to other communities” (Rus & Orel, 2015, p. 1023). It praises heterogeneity and diversity of its members, instead of producing sameness or setting boundaries to outsiders.

But predominantly a community of work

According to Rus and Orel (2015, p. 1024) it is more accurate to see coworking as a *community of work*, “aiming to establish global collaborative network with the goal of unrestricted information and collaboration”. In this respect, it may be the case that values of community such as emotional support, ‘solidarity, commitment, mutuality and trust’ are instrumentalized to ensure a ‘culture of sharing’ and a free exchange of ideas (*ibid.*). A similar statement is made by Butcher (2016). Drawing on his experience in coworking spaces from London and Sydney, he concludes: “communal

in feel, the dominant dispositions within co-working spaces are entrepreneurial. The symbols of community are thus adapted for entrepreneurial identity work, and commodified for ambitions towards the capitalist ideal of ‘progress’” (Butcher, 2016, p. 101).

Butcher further found that the commodification of community is especially prevalent when coworking spaces become larger. When coworking spaces grow, its members become more diverse making it difficult for them to keep track of each other. Member come and go, the community becomes changed or sustained, the definition of coworking that is true in that particular space becomes renegotiated. The space increasingly requires regulation and management by hosts to keep the interactive atmosphere and community feeling intact, “with scale and diversity came complexity and the need to organize” (Butcher, 2016, p. 100). Host start to play a pivotal role as ‘community catalyst’ who provide the necessary ‘community glue’. There is a shift from community to organization, where “community is merely a symbolic means to an end, and it becomes a commodity” (Butcher, 2016, p. 100). For workers, community becomes a practical solution to increase one’s productivity. The lack of a community developing is solved by the endeavours of the hosts.

From bottom-up communities to commodified communities

Now with coworking entering the mainstream, we can see a disconnection from its roots. Increasingly, entrepreneurs look for profit by offering standardized coworking spaces with commodified and created communities (Butcher, 2016; Rus & Orel, 2015; Waters-Lynch & Potts, 2016). At the same time, some coworking spaces are being heavily sponsored by large companies, investors, or academic institutions in attempts to catch the creativity of urban entrepreneurial scene (Moriset, 2014; Schmidt et al., 2014).

Alongside these curated spaces, small scale and self-sustaining coworking spaces remain to exists that rely on the norms and values established by its work-community. Within these spaces, the shift from community to organization has not (yet?) set in. And at the perimeter, we may find spaces with activist roots. Merkel (2015, p. 134) writes that spaces may “coordinate social and political action by gathering different interest groups”, or “serve as interfaces with the local community and the surrounding neighbourhoods”, often blending it with other existing communal organizations. However, so far no precise academics have reported from these spaces, nor on the effects of the coworking movement towards a more sustainable way of work.

Conclusion: what is coworking?

Inside coworking spaces, coworking is practiced by working in a communal and collaborative atmosphere. The particular way in which coworking is performed depends on both the intentions of the users (are they looking for professional peers, workers to converse with, the co-presence of others or simply a place to work?), the goals of the hosts and the services they offer to the coworkers. The collaborative atmosphere refers to the intended and unintended forms of knowledge exchange and knowledge creation that is happening between the coworkers. The community inside these spaces is best describes as a ‘community of work’. For most coworkers, the sociality is seen as a facilitator for their work practices. The community rules are established by existing users and hosts and often exist implicit. The atmosphere becomes renegotiated over time as the space grows and new users come and go. It is characterized by openness rather than closed communities, as users are free to join. It depends on the wishes of these new coworker whether they see themselves fit in the particular atmosphere. However, this is changing as hosts increasingly seek to develop particular communities through selection criteria (Moriset, 2014).

For small scale spaces, communities are typically bottom-up established. Rules are set out by all users and little management is required for the space to operate. The small scale allows user to keep track of each other and relationships can develop naturally. When spaces become larger,

there comes a need to organize. Large scale spaces require top-down community management to maintain a communal atmosphere. Such spaces are characterized by extensive community management by the hosts, where the host play a decisive role in developing relationships among coworkers. Hence, coworking is performed in many different ways. It typically includes working in a shared office space in which a particular degree of social and professional relationships exists among the users. But in the details, every space and every user holds their own interpretation of coworking.

3. Establishment and emergence of coworking spaces

In the previous chapter, multiple reasons for hosts to establishment coworking spaces have passed. On the one hand, we have seen that the roots of coworking is found from grassroots communities composed of workers that sought to establish their own workplace (Butcher, 2016). On the other, entrepreneurs and existing companies are creating coworking spaces as profitable business models (Moriset, 2014; Waters-Lynch & Potts, 2016). Simultaneously, companies are establishing coworking ventures and use them as incubator or accelerator spaces, in order to attempt to benefit from the knowledge created inside these spaces (Moriset, 2014, p. 16; Schmidt et al., 2014). In order to get a deeper understanding of this development and to assess the way in which coworking spaces can be beneficial for our society, this chapter examines why workers are establishing coworking spaces and why coworking is attractive to invest in by external parties. The rise of coworking is explained here by examining more fundamental changes in our society in the last decade to find out what 'problem' coworking is addressing. First, the emergence of this phenomenon is explained against the background of a changing structure of the labour market, after which a Marxists perspective is taken to argue that coworking spaces support precarious labour. Secondly, the economic rationale of coworking spaces is assessed by describing its unique internal knowledge creation dynamics as well as its role into local innovative milieu.

Coworking in a changing labour market

Developments in information and communication technologies, processes of globalization, neoliberal policies and shifting economic and social circumstances have contributed to a fundamental change in the structure of the labour market. There are numerous of influential works published describing this change and its effect on the nature of work and the worker (Castells, 1996; Coe & Jordhus-Lier, 2010; Gill & Pratt, 2008; Kalleberg, 2009; Reimer, 2009; Sennett, 1998; Standing, 1997; Thornley, Jefferys, & Appay, 2010). Some of these developments listed in these works are: a fragmented and individualized labour market; growth in temporal, project-based and non-standard work arrangements; demand by employers for an increasing flexible workforce; a decreasing power of labour unions; decreasing attachment of employees to employers; shifted risks from employers to employees; reduction of the welfare state

The main consequence is that labour has become highly mobile, fragmented, contingent and flexible. For the worker this means that his status as an employee has become increasingly unpredictable, uncertain and insecure. The key word used by many to illustrate this labour situation is the Marxists inspired notion of *precarity*. What has made this notion so significant for academics is that, apart from describing a flexible and insecure nature of work, precarity also has a profound effect on the well-being, everyday life and identity of workers (Kalleberg, 2009; Sennett, 1998) and generates new forms of solidarity and activism (Coe & Jordhus-Lier, 2010; Gill & Pratt, 2008).

Precarity and creative work

In particular, working in the fields of the culture and creative economy (also known as knowledge and service economy) is notorious for its precarity (Gill & Pratt, 2008; Morgen, Wood, & Nelligan, 2013; Vinodrai, 2012; Vivant, 2013). Gill and Pratt (2008) characterize the conditions of working in this sector as: many temporary and precarious jobs; long hours; home and office is often intermixed;

low pay-checks; high mobility; passionate affections with work and the identity of being a creative worker; informal work settings; particular forms of sociality; serious experience of doubt and insecurity about finding work, earning enough money and remaining up-to-date in a fast moving and volatile economic sector. The general disposition is that working under these conditions facilitates enduring instability and insecurity through the prevalence self-employment and flexible work contracts. Not exclusively, as for some the volatile conditions of being a creative worker may be liberating and therefore appealing (Morgen et al., 2013). The emergence of coworking in this context may be read as a form of labour agency surfacing in the wake of economic restructuring and deregulation and the growing number of precarious workers.

Recently, scholars writing on labour geography have emphasized the need to regard labour agency not as exclusively capitalism or state led, but also consider agency by workers and communities in rewriting social reality (Castree, 2007; Coe & Jordhus-Lier, 2010; Cumbers et al., 2010). The increased exploitation of certain groups of workers has caused workers to organize themselves in communities as new source of mobilization (Coe & Jordhus-Lier, 2010). In this respect, following Coe and Jordhus-Lier (2010) and Cumbers et al. (2010), the Marxists inspired work of Katz (2004) is used here to provide a framework to assess different impact levels of labour strategies: 'resilience', 'reworking' and 'resistance'. *Resilience* covers the small actions done by individuals to deal with the everyday struggles. Creative solutions are found as ways of simple 'getting by', without the change of existing social relations. *Reworking* goes on step further. It involves a deeper feeling of frustration that leads to the creation of new spaces. Power relations are redistributed and resources are allocated to improve one's situation, but hegemonic systems are left intact (e.g. community gardens). *Resistance* includes 'game changing' acts that directly confronts the existing capitalistic system. It is marked by well-organized forms of political activism with a clear goal of societal change. Whereas resilience is more a coping strategy, reworking and resistance are much more concerned with shifting society in advantage of the workers. Both resilience and reworking strategies are more common to find than resistance.

Despite the difficulties in measuring and categorizing worker agency, (e.g. do we look at workers' intention or the actual accomplishments? (Coe & Jordhus-Lier, 2010)), Katz (2004) work is useful here as an analytical framework to examine the impact of coworking spaces on precarity among creative workers. The questions that arises then is: can coworking be regarded as a development within the Marxists tradition of worker agency, and if so, to what extent?

Coworking: a solution to precarity?

The emergence of coworking spaces can be understood as labour agency taken form of a reworking strategy. Where capitalism and neoliberalism (among others) provided many workers with highly flexible, mobile and precarious jobs, a fitting workplace remained absent. As bottom-up initiatives, the first coworking spaces were established by creatives from neglected urban spaces looking for a better place to work. Early coworking protagonist oppose the typical capitalist exploitation, formality and the impersonality on corporate work floors and endorse a more communal, humanistic, solidary way of working, where working might as well be combined with living.

Quickly these new spaces "acquired some degree of formal organization and continuity" (Cumbers et al., 2010, p. 64). Inside, there were communities, often informal in tone, reliant on the dedication of its users and operating on principles of the sharing economy. The idea of working in a community was positioned against traditional ways of working in neoliberal and corporate offices. As the coworking movement gained momentum, the coworking narrative of community, accessibility, openness, sustainability and collaboration spread worldwide, taking shape as a self-proclaimed movement.

But there is little evidence to suggest that the coworking movement takes form of resistance. Rather than being a source of action towards societal change, coworking is more built up from “sense of belonging to a social movement towards change” (Butcher, 2016, p. 94). The prevailing disposition inside coworking spaces is entrepreneurial, and best described as community of work (Butcher, 2016; Rus & Orel, 2015). The existence of some spaces driven by political or activism are reported (Merkel, 2015), however their standpoints, extent or impact remains undocumented.

Even more so, when coworking increased in popularity and entered the mainstream, it slowly drifted to fit into the capitalistic market. We find entrepreneurs using coworking spaces as marketable ventures through the commodification of communities, or coworking spaces led by established firms or investor groups, for whom spaces are used as to gain an entrée in the urban creative and entrepreneurial scene (Brinks & Schmidt, 2015; Moriset, 2014; Waters-Lynch & Potts, 2016). It is likely that not every coworker is actively committed to the ideological basis of coworking. For many users, coworking came as a solution – at least with respect to the work place. Acts of resilience may be read when cowork get along with each other in the same space, as good neighbours, good partners (Spinuzzi, 2012), or in other ways. Some of them help to organize events within the space, but a lot of them are glad to have a workplace and help others with small acts of ‘getting by’.

At the same time, Marxists political activism among creative workers is a difficult issue. (Gandini, 2015, 202f) describes that creative coworkers are “double-sided economic subjects”, composed of precarious workers and entrepreneurs, “contradictorily coexisting with different attitudes in the same relational milieu”. Neo-Marxists activism among the precarious workers are appealing narrative, but in Gandini’s eyes, “fail to comprehend not only the ethos of freelance workers, which is closer to the pre-modern bourgeoisie, than to the modern industrial working class – rather, more so in fact, the powerful ‘biopolitical’ strength of a system that leverages upon ‘passion’ and ‘coolness’ for social recognition, in a context made of limited unionization and politicization, and very little self-reflexivity” (Gandini, 2015, p. 203). The intention of the coworking place was to ‘rework the workplace’, but it has drifted within the capitalist system. Gandini hints that coworking, in fact, could mean ‘the survival of the neoliberal age’. This critique is similar to the Marxists critiques on the sharing economy (Richardson, 2015).

The economic geography of coworking spaces

The geographic co-location of workers from different backgrounds and the interactive atmosphere inside coworking spaces has drawn interest from economic geographers to write on the potential of coworking spaces to generate innovation and contribute to economic development. Apart from empowering the work life individual workers, coworking spaces have been theorized to hold a certain economic rationale of creating economic activity. This is based on the assumption that a mix of diversity (creative workers from different backgrounds) and proximity (same place, interactive atmosphere and organizational efforts by coworking hosts) makes coworking spaces special places for ‘out of the box’ thinking and novel forms of knowledge to emerge. In this respect, the theorization of as an institutional environment that encourages interdisciplinary (Müller, Brinks, Ibert, & Schmidt, 2015) or as a ‘middleground’ (Capdevila, 2015), will be considered.

Innovation dynamics within coworking spaces

Coworking spaces is a space that brings workers into geographical proximity of each other. It is common currency within economic geography that physical colocation and face-to-face play a crucial role in knowledge exchange and creation (Bathelt, Malmberg, & Maskell, 2004; Howells, 2012; Rutten, 2016). It is particularly suited to transfer tacit forms of knowledge, i.e. knowledge that is difficult to encode in artefacts and transfer over distance, often includes a social and cultural

component, and requires trust relationships among actors (Gertler, 2003). This phenomenon is known as *local buzz*, understood as “accidental knowledge creation between individuals who happen to share a physical space” (Rutten, 2016, p. 8). Hence there is a widespread body of literature available on the effects of agglomeration and spatial concentration on creating economic value (Bathelt et al., 2004; Rutten, 2016).

Moreover, it is also known that geographical proximity is not an exclusive prerequisite for knowledge exchange, but, rather, is a facilitator in the process next to other forms of proximity (Boschma, 2005; Rutten, 2016). One of the most well-known works in this regard is the work of Boschma (2005), who identified five forms of proximity: social, cognitive, organizational, institutional and geographical proximity. Social proximity refers to friendship relations; cognitive proximity concerns the overlap in knowledge; organizational proximity is the affiliation of actors through organizations; institutional proximity means the shared norms, rules and values on a macro-scale; and geographical proximity involves the spatial colocation of actors (Boschma, 2005; Rutten, 2016, p. 9). These proximity are important in the process of creating knowledge to “reduce uncertainty and resolve the problem of coordination, and thus facilitate interactive learning and innovation” (Boschma, 2005, p. 62). Looked at it from another way, proximities facilitate the emergence of communities of practice or actor-networks, i.e. social spaces comprised of social capital, trust, institutions, habits and/or routines that allow the circulation and cultivation of knowledge (Amin & Roberts, 2008; Müller & Ibert, 2015). Such social spaces of knowledge creation do not require geographical proximity and may as well extend over large geographical distances or even exists in virtual space (Grabher & Ibert, 2013).

Proximity and distance in coworking spaces

Next to geographic colocation, coworking spaces often provide its users with organizational proximity through events or other managed infrastructure that is geared towards creating relationships among its users. Coworking spaces in which organizational platform remains absent, it has been observed that relationships among the members are not developing (Fuzi, 2015; Parrino, 2015). It was further found that social proximity between users existing before or outside the coworking space facilitates collaboration (Parrino, 2015). At the same time, others have drawn attention to the importance of distanced relations in processes of knowledge generation (Ibert & Müller, 2015). When members of a group are coming from different backgrounds, they have access to a diversity of resources. Within the same community, these different backgrounds can lead to a valuable recombination of resources (*ibid.*).

The interdisciplinary of the workers inside the proximity of each other inserts a share of diversity into the innovation process that may be vital for generating knowledge. Different perspectives, experiences and routines brought to the table by users from different background offers a unique mix to look at matters from various angles that allows to break the tunnel vision of individuals, specialty communities, or firm routines. A prevailing atmosphere of interaction and the organization efforts by the hosts are present to bridge the social and cognitive gap and connect the coworkers.

Coworking spaces as global community

Apart from the micro knowledge milieu inside coworking spaces, these spaces are part of trans local knowledge communities (Brinks & Schmidt, 2015). Through online forums, media outlets and international conferences coworking values, norms, ideas and experiences are shared among coworkers and coworking hosts. Coworking enterprises such as Impact Hub and Betahaus operate sites in multiple countries and have infrastructure in place to support communication channels between their spaces. Many coworking spaces are enrolled into the ‘Coworking Visa’ program, an initiative that enables coworkers to work a day for free in any coworking space that takes part in

this network upon showcasing their existing membership of any space (Ng, 2013). Over 450 spaces are enrolled to this program (www.wiki.coworking.org, accessed on 18 November 2016)

Coworking within localized innovation dynamics

The economic value of coworking spaces should not only be considered on a micro scale. They could also fulfil a role purpose in regional economic cities. While it is widely acknowledged (and debated) that the presence of members from the creative class is valuable for the success of cities (Flew & Cunningham, 2010; Vinodrai, 2012), there is still little known about the actual creativity processes *within* cities that contribute to new economic activity (Capdevila, 2015, p. 4; Cohendet et al., 2010, p. 92). To fill this gap, Cohendet et al. (2010) attempt to identify the ‘anatomy of the creative city’, describing the city as made up of different layers – *underground*, *middleground* and *upperground* – with each their own characteristics, but together, make up the local knowledge ecology of cities.

Underground, upperground and middleground

The *underground* consists of skilled individuals, enthusiast groups, informal communities such as artists, hackers or musicians that are engaged in activities outside formal organizations, often driven by personal interests, identity and lifestyle, and driven by exploration. *Upperground* includes formal organizations such as established firms or research institutions who seek to exploit knowledge and look for knowledge sources. The *middleground* is what for us is the most interesting here as it refers to the intermediary level where the upperground and underground collide. It refers to the spaces where creative communities can enhance their explorations, while established organizations may tap into and exploit their creativity (Cohendet et al., 2010; Grandadam et al., 2013). The middleground explicitly refer to physical places, “which favour the creation of a common identity among their members (even rivals) enabling them to limit risks related to novelty and, therefore, to secure the foundations on which each one of them can express his/her creative skills. They also allow their members to avoid lock-in by ensuring connections between the different actors, firms and specialty areas, thus making experimentation a more viable and worthy venture” (Rutten, 2016, p. 7).

The encounters taking place in the middleground are facilitated by *places* (physical co-location) and *spaces* (cognitive overlap), which are created through *events* (opportunities to exchange knowledge) and *projects* (professional collaboration) (Grandadam et al., 2013). In this way, the middleground is described as a platform where proximities are created among heterogeneous actors. It adds to our understanding of coworking spaces as it describes who are meeting inside these spaces.

Coworking as a middleground

In particular Capdevila (2015) has spread the idea of coworking spaces as a middleground. Based on his field study in Barcelona, he provides evidence of how the intermediary role of coworking spaces becomes articulated as places, spaces, events and projects. Coworking spaces are one of these physical places, in which overlapping (but also separate) cognitive space exists. On the one hand, being a permanent location, it is a continuous event where buzz can emerge through serendipitous encounters, exchange ideas and even collaborate on specific projects. On the other, more incidental or regular events open to public or internally organized, to specifically connect coworkers with each other, other communities, or firms (Capdevila, 2015).

Conclusion: the establishment of coworking spaces

Coworking spaces may be established by a group of workers, entrepreneurs, or external organizations. For workers, they may find themselves in a situation in which they don’t have a

suitable workplace and create one themselves. Entrepreneurs may identify in coworking spaces a market gap and seek to convert this phenomenon in a profitable business model. External organizations such as tech enterprises, academic institutions or investor groups may regard coworking spaces as fertile soil for knowledge creation activities and seek to establish these spaces to benefit from the innovation generated here. Although this list should not be seen as exhaustive as the heterogeneity of coworking spaces makes each space established by a wide variety of reasons, these motivations cover the broad range of recurring themes found in existing academic literature.

Nevertheless, the aim of this chapter was and more profound. The main goal here was to explain the emergence of coworking spaces in the wake of fundamental changes to our society. First, developments in ICT has changed the nature of work, yielding many workers working outside traditional office environments. A growing number of precarious workers find themselves without a suitable workplace. In this view, the emergence of coworking can be read as a strategy from labour agency to create their own geographies. From this Marxists perspective, coworking addresses a situation in the labour market that is experienced as negative by a group of workers (mostly creatives), a gap that is not resolved through the capitalist logic. This highlights two key issues at stake here. First, coworking may be an important platform for the empowerment of creative labour, signalling a significance for politics. Second, the coworking concept should be treated with suspicion. With coworking entering the mainstream, it has itself become a subject of capitalist exploitation. Similarly, to the sharing economy, coworking performs the narrative of “genuinely collaborative and communal, yet at the same time hotly competitive and profit driven” (Richardson, 2015, p. 128).

Second, the economic rationale of coworking has been examined from both a micro and macro perspective. From the micro-perspective, it was argued that coworking spaces are unique environments of knowledge creation due to the unique mix of proximity and distance existing within these spaces, making them specifically suited for buzz to emerge. Proximity is created through geographic colocation, close social relationships and an organizational platform, whereas distance exists by the presence of unrelated and heterogeneous workers, as well as the existence of a global coworking community. From the macro perspective, coworking was conceptualized as performing a pivotal role in a cities knowledge economy as a ‘middleground’, i.e. a platform that connects creative individuals from the ‘underground’ with established companies from the ‘upperground’. The economic rationale highlights the value of coworking, not only for existing companies that are increasingly reliant on external sources of knowledge, but also as a strategy for urban or regional development.

4. Non-core areas

After having fleshed out the coworking concept in Chapter 2, followed by Chapter 3 in which the place that coworking occupies in our society is explained, this chapter dives into the context in which this research is situated.

Coworking spaces outside urban centres

So far, coworking has been primarily researched in large creative cities such as Berlin (Schmidt et al., 2014), Berlin, London and New York (Merkel, 2015), Austin (Spinuzzi, 2012), Barcelona (Capdevila, 2015) and Milan and Barcelona (Parrino, 2015). Other case studies include Ljubljana (Rus & Orel, 2015), South-Wales area (Fuzi, 2015) and two undefined (Brinks, 2012; Gerdenitsch, Scheel, Andorfer, & Korunka, 2016), but no attention to context is paid here. Moriset (2014) found that coworking spaces seem to cluster in textbook examples of creative cities, such as San Francisco, Berlin, London, Paris and Barcelona. He suggests that “the abundance of coworking spaces in a given city has obviously something to do with the kind of urban liveness and vibrancy that makes a place fashionable and attractive for artists, ‘bohemians’, and entrepreneurs in cultural content industries” (Moriset, 2014, p. 12).

An exception may be the research of Anita Fuzi (2015) and her study on two coworking spaces in the peripheral located South Wales. However, her understanding of the ‘periphery’ and its relation to coworking remains unelaborated. The case studies were not analysed in relation to their peripheral context. This becomes problematic, because one coworking space used in her empirical work was located within the agglomeration of a large urban centre, which makes a periphery-core distinction blurry. Moreover, the main focus of her research is on the coworking space itself, which left the users and their motivations out of the picture. In this thesis, a clearer conception of what denotes ‘outside principal urban areas’ is used together with a stronger orientation on the users and their situation.

While remaining unexplored in academic literature, evidence exists in popular literature for the presence of coworking spaces outside large urban areas. For example, the coworking wiki has a page dedicated to non-urban called ‘rural coworking’, a directory of articles that covers coworking spaces in smaller cities (<http://wiki.coworking.org/w/page/42355006/Rural%20Coworking>). A further look at online coworking maps such as www.coworkingmap.org or the Germany oriented www.coworking.de shows that many space are found outside large cities. Deskmag, a well reputed online magazine dedicated to coworking and a useful source of information due to their annually held global coworking survey, included a ‘coworking in big towns vs small towns’ section into their 2011 survey. They found that in small towns (defined as less than 100.000 inhabitants), the coworkers are usually older, have a higher income, favour smaller spaces, spend less of their daily time in the space, and mostly seek other coworkers for exploitation rather than exploration in comparison to their urban counterparts (Foertsch, 2011a). Coworking spaces outside cities has been the topic in popular literature, but remains unexplored in academic literature.

Not surprisingly, as for creative workers, it is well known that urban centres are attractive places for them work in (Florida, 2002; Rutten, 2016; Vinodrai, 2012; Vivant, 2013). The nature of creative work and the reliance on social and professional networks makes the concentration of economic activity in cities particularly suited for creative workers to seek work, projects and contracts (Vinodrai, 2012, p. 3). Moreover, creative workers like to live in lively neighbourhoods, which provide both inspiration and access to networks (*ibid.*).

Creative workers in peripheral in turn areas may suffer from scarcity of professional resources, professional isolation and limited access to supervision and professional development (Brownlee, Graham, Doucette, Hotson, & Halverson, 2010). The disconnection from professional

networks is problematic, as it is widely suggested that “access to social networks determines entry into and advancement within creative sectors” (Reimer, 2009, p. 68). On top of that, “remoteness ‘means limited types of creative making; wariness of newcomers and new ideas; the loss of young people; limited access to business expertise, production services and training; lack of cultural stimulation; and high transport costs” (Gibson, 2012b, p. 4). The smallness and the lack of social and cultural amenities makes it unattractive for creatives to life and work (Rutten, 2016, p. 8). This sentiment is further perpetuated through the ‘image problems’ of being unattractive places with little career chances (Gibson, 2012b, p. 4). In short, regions with peripheral characteristics are particularly unappealing for creative workers to work.

Analysing non-urban: creative work in the periphery

How is the ‘periphery’ or the conception ‘outside principal metropolitan areas’ understood in this thesis? The periphery is traditionally understood as “outskirts, determined by their distance to a centre – the greater the distance to the centre, the more peripheral the location” (Kühn, 2015, p. 368). In this views, peripheral means a fixed pre-given space, most commonly related to low populated rural regions, fringes, or border regions. Peripheral regions are often considered to be weakly innovative, marked by small market size, lower levels of human capital, limited access to production factors, lack of economic diversification, weak entrepreneurship culture and little risk taking, less qualified workers, and often involve denser social networks (Baumgartner et al., 2013). They often said to hold a “competitive disadvantage, having fewer overlapping social and economic networks and a small labour market” (Jayne et al., 2010, p. 1409).

Recently, a more relational approach has emerged to theorize about space and the periphery. Rather than thinking in core and periphery as structural characteristics of pre-given spaces, it is more accurate to approach this topic as considering regions to be under the influence of particular processes of *peripheralisation* (or centralization for that matter) (Kühn, 2015, 2016). Peripheralisation refers to how regions are made or unmade through various processes related to their peripheral characteristics. These processes may occur along three dimensions, summarized in Table 2.

	Centralization	Peripheralisation
Economic	Innovation dynamics: high qualified work; growth of employment	Lack of innovation: low-qualified work; decline of employment (deindustrialization)
Social	Wealth: in-migration, hegemony	Poverty: out-migration; stigmatization
Political	Power: decision-making and control; inclusion in networks	Powerlessness: dependency; exclusion of networks

Table 2: Dimensions of peripheralisation and centralization processes. Source: Kühn (2015, p. 375)

The periphery should be interpreted as continuously being shaped and reshaped by a combination of interconnected processes. Thus the location in space does not dictate the periphery, rather, the periphery is marked by a set of economic, social and political processes typical to these regions. Regions typified as peripheral or central may be placed in a continuum, with the largest metropolitan centres likely being on the one side, and the powerless, poor and weak innovative regions on the other (Kühn, 2015).

The notion of ‘non-core areas’ is preferred above ‘peripheral areas’ in this research to take this continuum into account. The term non-core was coined by Lagendijk and Lorentzen (2007, p. 459) and refers to regions that “while not facing acute problems of decline or marginality, are outside principal metropolitan areas”. Baumgartner et al. (2013, p. 1098) add by calling these regions “outside metropolitan areas including their agglomeration”. While extensive conceptual

analysis of this notion is absent, it is also not necessary here, as it is primarily used to denote areas that are neither exactly core nor peripheral. Non-core as terminology is used to leave more room for the presence core processes outside large urban centres. This is relevant considering the advancements made by urban scholars writing on the notion of ‘small cities’.

Small cities to escape core-periphery dichotomy

The term ‘small cities’ is brought forward by a group of urban scholars to draw attention to domination of large, global cities in urban theory and the neglect of small cities (Bell & Jayne, 2009; Jayne et al., 2010). Especially with respect to the creative scene, small cities are often left out of the picture because “they are not expected to provide the necessary preconditions and environment attractive to ‘creatives’” (Jayne et al., 2010, p. 1410). There is often the tendency to exaggerate the dependence of the creative scene on clustering and agglomeration effects (Gibson & Kong, 2005). In particular, a bias to the presence of cultural amenities and the importance of face-to-face contact as perquisites for creative industries is problematic (Gibson, 2012b; Jayne et al., 2010). As a reaction, there have been an increasing body of literature describing the creativity and knowledge created in small cities and remote places (Gibson, 2012a; Hautala, 2015).

Jayne et al. (2010, p. 1413) sustain that small cities may “indeed have economically, politically and culturally vibrant cultural economies, - an obvious point, but one that needs stating to counter the continued neglect of small cities in creative industries research and policy”. To emphasize their argument, Jayne et al. (2010) use Florida’s well-known work on ‘the rise of the creative city’ as an example, arguing that Florida’s idea was widely conceived as ‘saviour for all cities’, while in reality, his idea is poorly applicable as a policy instrument for smaller-sized cities. Research on small cities, they conclude, must include an acknowledgement of the uniqueness, diversity and vibrancy of the creative scene of small cities. They stress that the context conditions of small cities, not only size, density, growth and location, but also reach and influence (Bell & Jayne, 2009), needs to be included into small city research. Smallness in this case means simultaneously in terms of discursive image as well as the material reality (Jayne et al., 2010).

The main point of the small city scholars is to draw attention to the presence of creative processes in cities outside large urban centres, followed by stressing the particularity of how these processes operate. Hence small cities relate to non-core regions by including the possibility of the presence of a vibrant creative scene and related core processes.

Conclusion on coworking in non-core areas

Non-core areas should not be seen as a fixed state of space, but rather, it denotes regions that are marked by certain processes related to being distanced from highly metropolitan or core areas. These processes may be economic, social, or power related. The term non-core is used in this thesis as it avoids the core-periphery dichotomy since any space may have peripheralisation or centralization processes. Overall, the difference between core and non-core areas is understood here as a difference in centralisation and peripheralisation processes, with non-core generally having more peripheralisation processes and less core processes. This approach avoids presupposing spaces as being peripheral or core, as any space (urban and rural) may include processes of centralization and peripheralisation. Scholars writing on small cities have confirmed the presence of core processes outside large urban centres. They further stress the particularity of how creative work is organized here, which may be fundamentally different from core areas. Hence, coworking observed in large metropolitan areas may be performed differently according to different rationales compared to coworking in non-core areas.

5. Analysis framework

In the previous chapters, it is argued that coworking is a pluralistic rather than a monolithic concept. Coworking and coworking spaces hold different dynamics and rationales. Now what is left is to combine the findings, show their relationships, and explain how they contribute to answering the main question of this thesis. In this chapter, the lessons drawn from the theory are summarized in an analytical framework, which will form the basis for the design of the empirical inquiry.

Understanding the coworking space

With many coworking spaces existing, an examination of its features is necessary to identify how coworking spaces operate. Coworking spaces are highly contingent, with some holding features of basic desk rental services (such as serviced offices and business centres), where others are actively encouraging entrepreneurship (such as incubators and accelerators), or are focused on particular professions or communities. Each space holds different facilities to encourage community and collaboration. These different orientations are achieved through the amenities provided by the coworking space. In this vein, the coworking space needs to be understood through its features such as the location of the space, its design, the services that are offered, available equipment and events that are held there.

Understanding coworking

The physical features only partially show how coworking spaces operate. The act of coworking is determined by its users and how they behave inside the coworking space. While hosts may facilitate flows of movement inside the space, the individual and collective actions of coworkers determine how coworking is performed. Hence, coworking may be performed differently in each space, even when the facilities appear similar. Different communities exist in different spaces. Therefore, the interactions between the coworkers needs to be identified, whether it is social or professional interaction, in order to get a picture of the community existing inside the coworking space.

Understanding the value of coworking: process and context

The features of the coworking space and the internal dynamics gives an understanding of how the coworking space operates. But to understand its value, two more factors are included here: the temporal dimension and its context. Observing the coworking space through time should be taken into account. Considering that the dominant image of coworking in popular media perpetuates the image of an exclusive phenomenon, the reality between host's intentions and actual experiences may be different. Spaces may be in continuous development, with hosts figuring out how to adapt the global notion of coworking to local needs. Tracing the operations of the coworking space through time means identifying the reasons of its establishment, current experiences, and future perspective of the space.

The context of non-core coworking spaces relates to its peripheral location. Peripheral locations typically hold contextual conditions that are different than core areas. These are often describing as reduced access to knowledge networks and the lack of agglomeration effect, factors that seem to be particularly disadvantageous for the average coworkers. 'Small cities' literature (Bell & Jayne, 2009; Jayne et al., 2010) shows that this may not play a role at all, stressing the need to look at the local context when making sense of phenomena like coworking spaces. Nevertheless, observing the context can explain the emergence of the space in this location and its position in the local environment. This may relate to the presence of a upperground and

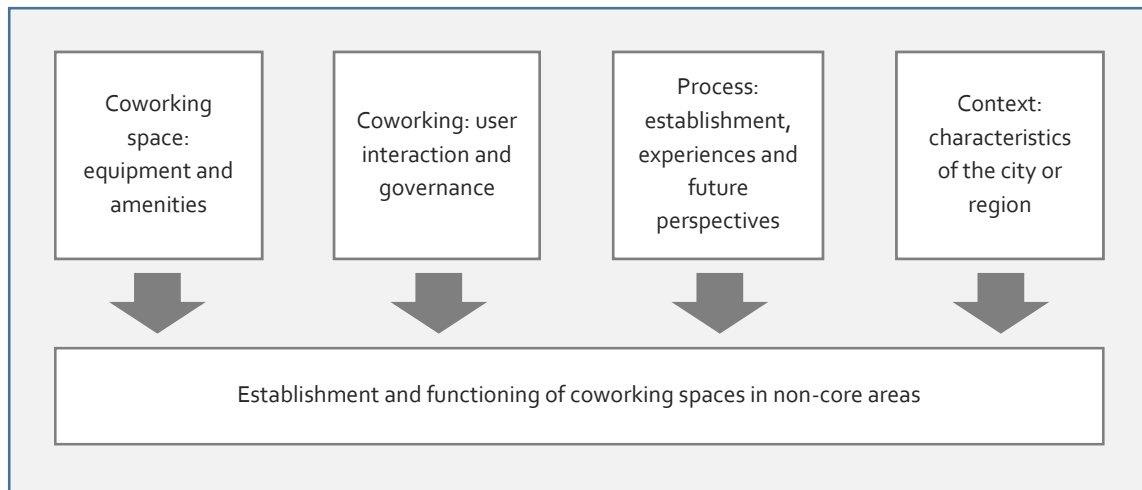


Figure 5: Analysis framework of this research, showing the four dimensions along which the coworking spaces operate

underground, or the extent to which coworker are facing precarious labour situation, or perhaps lead other explanation. Each of the dynamics of coworking are shown in Figure 5. As will be explained in the next chapter, the analysis framework presented here forms the basis for the interview guide and the coding scheme used for the data analysis phase.

6. Methodology

In the theoretical framework, a basis is created for the empirical inquiry. This chapter covers the methodology of this research. The research design is shown in Figure 6. In the remainder of the chapter, the research approach, case selection procedure, data collection process and data analysis method are described. The methodology is treated as circular process (Clifford, French, & Valentine, 2013b; Hay, 2005), meaning that results are used to fine-tune earlier stages of the research process.

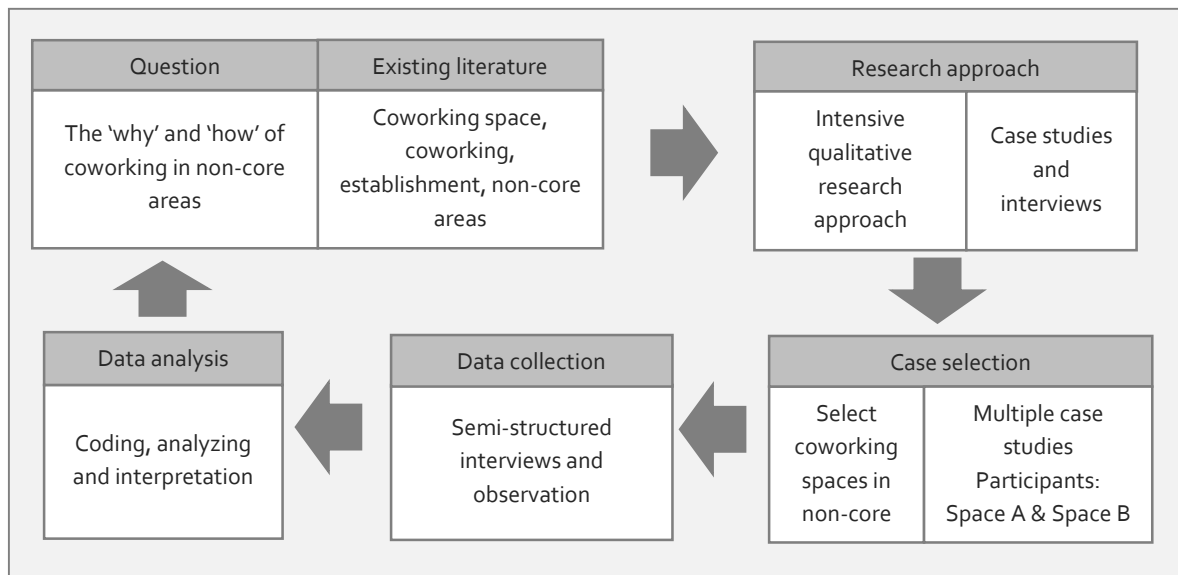


Figure 6: Conceptual research design of this thesis, based on Hay (2005)

Research approach

Coworking is a relatively new phenomenon that is difficult to grasp. Despite that earlier research revealed some of its fundamentals, it remains slippery topic due to high variety of coworking spaces existing, the many different reasons why users are coworking, and the many different understandings of what coworking actually constitutes. This leads us to the situation that the dynamics within each space are highly contingent. In addition, given that this research is focused on analysing coworking spaces in small cities – a context that has so far been unexplored – a detailed and comprehensive method is required to capture this complexity. As such, the methodology used in this research draws on qualitative methods, “a set of techniques that are used to explore subjective meanings, values and emotions such as interviewing, participant observation and visual imagery” (Clifford et al., 2013b, p. 3), in combination with intensive research design, “where the emphasis is on describing a single case study, or a small number of case studies, with the maximum amount of detail” (Clifford et al., 2013b, p. 3).

Case study research

A case study approach is used to investigate each space intensively. Yin (2014, p. 14) writes that research based on case-studies is most suited if “a ‘how’ or ‘why’ question is being asked about a contemporary set of events over which a researcher has little or no control. Since this research deals with both the ‘how’ and ‘why’ question of coworking spaces, a case study research is particularly suited. In order to capture the heterogeneity among coworking spaces, a holistic multiple case-

study (Yin, 2014, 46ff) research is chosen above a single case-study. Two cases make comparing possible and reinforces generalization, while leaving enough room to explore each case in great detail.

A well-known issue of case studies is related to the situation that usually only a few samples out of a large population are selected, weakening the ability to generalize (Rice, 2013; Yin, 2014). However, this does not mean that case studies cannot be valuable sources of knowledge. On the contrary, the detailed information gathered from case studies can reveal patterns that are difficult to obtain otherwise, because, compared to quantitative research, case studies allow researchers to ask “fundamentally different questions in a fundamentally different way” (Rice, 2013, p. 232). The ability to allow in-depth exploration makes case studies particularly suited to flesh out concepts in their context to reveal the mechanisms behind these concepts (Rice, 2013; Yin, 2014). Especially with respect to pluralist nature of coworking spaces, a detailed examination provided by case study research is particularly helpful here. Therefore, to still maintain a rigorous research, first, a detailed exploration of coworking is made in the theoretical framework to reveal the issues at stake, and to provide a basis on which the data collection rests. Second, a careful selection of cases was made. This issue is elaborated further down in the section on case selection.

Semi-structured interviews

Interviewing is used here as the data collection method of choice. Interviewing enables to explore subjective meanings and reveal relationships in areas that are not thoroughly researched (Clifford, French, & Valentine, 2013a). It helps the researcher to discover what are relevant or irrelevant questions, and reveals connections that were not identified in the literature (Dunn, 2005). In particular, semi-structured interviews are chosen above structured and unstructured interviews. This interview style leaves flexibility for the participants explore topics they consider important, while offering a structure that enables to compare across cases (Longhurst, 2013). In order to generalize about the population of coworking in small cities, while taking into account the complexity of coworking spaces, this approach most suited here.

Interview guides were developed based on recommendations from Dunn (2005) and Longhurst (2013). Developing the interview guide was regarded here not as a linear process, rather, the questions and phrasing evolved based on past experiences. A total of three interview guides were developed, respectively for the hosts, the users, and users that were at the same time the hosts. Each interview guide is found Attachment 1. The questions were structured along various themes that came forward in the theoretical framework, guided with an introduction and conclusion. To ensure a conversational tone, the questions were determined by the dialogue rather than the interview guide. Respondents were given the opportunity to talk freely, and interview questions were linked to the current topic of the conversation. At the end it was made sure that every question was covered.

Participant Observation

Next to interviewing, more information is gathered through participant observation. According to Laurier (2013, p. 116) “participant observation involves spending time being, living and working with people or communities in order to understand them”. It is about noticing things that otherwise escape attention and that you observe *carefully and patiently*” (Laurier, 2013, p. 117, emphasis in original). Laurier further (2013, p. 118) stresses that “the best participant observation is generally done by those who have been involved in and tried to do/and be a part of the things they were observing”. Participant observation seems particularly suited for coworking spaces, as a long-term stay in a coworking space allows to get a feeling for the ‘act of coworking’.

Unfortunately, this was not possible for the researcher due to the remote locations of the case studies and the costs that would be involved. When requesting to conduct the interviews, the owners were also asked if it was possible to work out of the coworking space during my stay in the city. The reply was positive, and two days were spent in space A and one day in space B. Moreover, participant observation was not only applied in the field work. When I was still working on the theoretical framework, I was able to work out of a coworking space myself to get a feeling of what is happening inside a coworking space and how people are working there.

During the observations, most information was gathered on the visual aspect of the coworking space, such as the set-up of the desks and the design of the space. Insofar it was possible, attention was paid to the manner in which the coworkers interact in order to get a feeling of the atmosphere and the community existing within the coworking space. Moreover, the observations were used as input or reference point during the interviews. The observations were written down while I was in the coworking space. Some examples from the field-notes:

"The room was quite dark. On the one side rooms to the shopping street and on the other glass doors looking out on the inside area of a small shopping gallery. There was not a lot of furniture, just what would be necessary to work on your laptop (no plants or posters on the wall). The walls were white, just like the desks."

"C talked to A for quite a long time (business related), while D and B were talking as well, but briefly something was explained here. Another coworker was on the phone. It became quite loud in the room"

Case selection

Selecting the right cases is vital for the credibility of the research (Rice, 2013; Yin, 2014). For an intensive research design, the selection criteria are less established than for statistical theory guided extensive samples (Rice, 2013). To remain rigorous, a careful selection procedure was constructed. First, an inventory was made of potential candidates through desk research. For travel costs reasons, the search this was limited to the three provinces in proximity of where the research was based. A list was established with all cities above 10.000 inhabitants within the area of interest. Five cities that were clearly identifiable as large urban centers due to their size, location and function in the region were excluded. All of them hosted a number of coworking spaces, with the lowest city having around 200.000 inhabitants. A sixth city was excluded due to being located in the agglomeration of a major city. No city was identified as being 'on the boundary' of functioning as a core city in terms of population size and function in the region (e.g. capital city)

Then with X cities found, each city name was put into Google in combination with the term "co(-)work", "co(-)working" or "co(-)working space". The underlying assumption was that if the coworking space wishes to attract new users, they would actively present themselves as a coworking space. In order to capture neglected spaces, spaces in even smaller towns, or coworking spaces that did not identify themselves as a coworking space, a snowballing method was used on the websites and social media accounts of found spaces, and by scanning popular coworking portals such as the coworking wiki and www.coworking.de. A total X spaces were found through the search engine, with one space being added through the second method.

Next, a closer examination of each space was made to make sure that each space was indeed still existing and satisfying the definition set out in the theoretical framework. Not only websites and social media accounts such as Twitter and Facebook, also (local) news sites or blogs were used here. This turned out to be an important step, as many ventures promoted themselves as 'coworking spaces', but, in fact, did not comply its definition. These spaces were assessed in terms of offered services and amenities, the presence of communal or professional atmosphere and activities, and the general tone and spirit of messages and imagery. A loosely interpretation of coworking was

used here to make sure that local improvisations were included. As it turned out, many spaces were not coworking spaces. One was clearly a business centres with only office facility services, another was simply a workplace for students at a university and three spaces were shut down (of which was unclear whether they were coworking spaces or not). Another space satisfied the definition, but profiled itself as an ‘workation retreat’. Being located in the middle of the nature one hour away from a large city with over three million inhabitants, it was evident that the target group was urban coworkers who would like to escape the city and work in the nature.

Four suitable case studies were left over. Through judgmental sampling (Rice, 2013, p. 240), two spaces were selected as case studies, for two reasons. First, during the desktop research, these spaces seemed to be the most active spaces, and thus best satisfied the criteria of interactive spaces. Second, both spaces formed a contrast to each another. Where one appeared to be bottom-up created by the coworkers, the other was top-down established by an external organization. In this way, the variety observed during this phase is captured in the case studies.

Data collection and interview procedure

The data was collected from May until June 2016. The hosts of both spaces were contacted through email for an interview in-person with both the host and users. Whereas the hosts interviews with the hosts were set in advance, it was difficult to come in contact with the coworkers through the hosts. Apart from one, the coworkers were asked for an interview on site. Space A was visited for two days and space B in one day, which has yielded a total of 9 interviews. Each interview was recorded, except for the interviews with the coworkers in space #1. As it was a normal workday for them, the interviews were conducted quickly and without recording material to speed up the process. Where these interviews lasted between 10 and 30 minutes, the recorded interviews took between one and two hours. During my stay I was also able to work among the coworkers and get a feel of the atmosphere. A 10th interview was conducted on the phone with the operator of the 3rd space for more context. The respondents and their role are shown in Table 3.

Each interview was transcribed immediately to ensure a minimal loss of data. Additional questions were asked by email or through phone for clarification or to fill gaps that were left. For the unrecorded interviews, key-words were written down during the interview and were put together in a short report immediately after. A total of 5 hours was recorded, yielding 35 pages of transcriptions. Moreover, 4 pages of unrecorded interviews were written down.

Space	Code	Role	Occupation
A	A1	Host	CW Project manager
	A2	Host	CEO company
	A3	Host/User	Student
	A4	User	Journalist
	A5	User	Web developer
	A6	User	Web developer
	A7	User	Web developer, graphic designer
B	B1	Host / User	Academic researcher
	B2	User	Ph.D. student
C ¹	C1	Host	CW Project manager (interview by phone)

¹ Although this research only covers two case studies, an attempt was made to include a third case study. While the language and imaginary presented on their website signaled another suitable case for this research, the interview with the host revealed that the space only had recently opened with so far only one coworker was working there. Nevertheless, the case is worth mentioning, since future plans of the host organization reveal a third configuration of coworking, next to the two observed in this research. These plans involve developing the

Table 3: Overview of the interviewees per space, their referral code, role and occupation

Data analysis

The qualitative data obtained during this research involves subjective interpretations that is highly specific to the person who produces it. In order to make sense of the data, coding was used as the data analyses method of choice. Coding is one of the most common qualitative data analysis method (Cope, 2013). It concerns “the assigning of interpretive tags to text (or other material) based on categories or themes that are relevant to the research” (Cope, 2013, p. 440). According to Saldana (2009, p. 8) “qualitative codes are essence-capturing and essential elements of the research story that, when clustered together according to similarity and regularity – a pattern – they actively facilitate the development of categories and thus analysis of their connections”. Coding helps condensing or summarizing data, however, it does not reduce the data. It facilitates the data analysis process through the patterns that appear. The following coding strategies are used in this research.

Coding

The codes for this research were established as follows. To start off, a list of Provisional Codes (Saldana, 2009, p. 120ff) was created. These codes were developed prior to the fieldwork and based upon the literature. The four themes of this research set out in the analysis framework in Chapter five (coworking space, coworking, process and context) were used to develop the provisional codes. Passages of the interview transcripts that were identified by the researcher to belong to a certain theme were assigned a code. Note that coding a certain passage did not mean to reduce its content to the code. Rather, coding here is a way to categorize the data to facilitate the interpretation of the data.

During the whole process, a Simultaneous Coding strategy (Saldana, 2009, pp. 62-65) was applied, meaning that more than one codes could be assigned to the same passages. This was particularly necessary, since the features of the coworking are all intertwined and need to be analysed in relation to each other. For example, in the first part of the transcript shown in Figure 8 shows how the coworking notion influenced the establishment process. This shows how they adapted the coworking concept to fit to local needs. The passage further shows that ‘new users’ is mentioned in co-occurrence with ‘other organizations’, meaning that other organizations are regarded as their future customers. Moreover, the tag O_RESULTS shows that they already have experience with attracting these customers. This passage gives an example of the operator of this space looking for additional sources of resources beyond the coworking space. Hence, applying different codes to the same quotation enables one to understand the different relationships between the four main themes of this research. Due to the extensive literature review, the codes developed prior to the interviews did well in covering the content of the transcriptions. Nevertheless, additional codes were required to highlight particular themes trough Descriptive Coding (Saldana, 2009, pp.70-73)

space as an incubator space, a project that is implemented in collaboration with a local university of applied science.

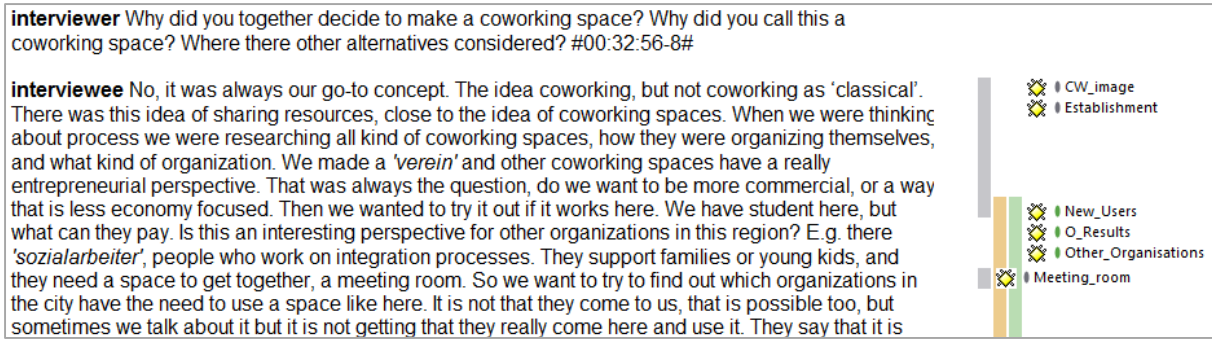


Figure 7: Excerpt of a coded passage of an interview transcript from this research

After first coding cycle, in the second coding cycle, the codes were adjusted and reorganized to fit the data. For example, it turned out that a lot of activity in both coworking spaces was happening in the meeting room rather than the area in which the coworkers are working. Hence, it becomes valuable to make a distinction between the coworking area and the meeting room. Assigning the code MEETING_ROOM for situations in which the meeting room was used enables to categorize the data to identify who is using it and why. An example of this code is found in Figure 8. Additionally, other codes required to be merged. For instance, during the literature review a clear distinction was made between social and professional forms of interaction within coworking spaces.

While both are often interrelated (a social atmosphere facilitates professional exchange), a differentiation can be made when knowledge exchange is a common occurrence or not. And if so, further subdivision may be useful to identify the economic stakes involved (e.g. between know-what, know-why, know-who and know-how; as was done by Parrino, 2015). However, such a division was not helpful here, as little professional interaction was observed here. Those instances in which professional interaction was mentioned, it was more a signal of the social atmosphere than indicating the existence of a professional atmosphere. Therefore, the interaction between coworkers was captured under the code U_U_INTERACTION. The four main themes established in the theory remained useful to categorize the codes. The final list of codes is shown in Table 4. The definitions for each codes are found in Attachment 2.

Category	Codes	Category	Code
Coworking space	<ul style="list-style-type: none"> ▪ EVENTS ▪ DESIGN ▪ EQUIPMENT_SERVICES ▪ SPACE_LOCATION ▪ MEETING_ROOM 	Process	<ul style="list-style-type: none"> ▪ ESTABLISHMENT ▪ GOAL ▪ O_RESULTS ▪ O_UNEXPECTEDEXP ▪ FUTURE ▪ CW_IMAGE ▪ NEW_USERS ▪ FINANCE_SPACE
Coworking	<ul style="list-style-type: none"> ▪ SPACE_MANAGEMENT ▪ U_U_RELATION ▪ O_U_RELATION ▪ USERS <ul style="list-style-type: none"> ○ U_BIO ○ U_MOTIVATION_CW ○ U_BENEFITS_CW ○ U_TASKS_IN_CW ▪ OPERATOR <ul style="list-style-type: none"> ○ O_BIO ○ O_MOTIVATION ○ O_TASKS 	Context	<ul style="list-style-type: none"> ▪ CITY ▪ OTHER_ORGANISATION ▪ OTHER_CW

Table 4: Codes used during the data analysis of this research

Analysis of coded data

Carefully assigned codes and categorizations enables the researcher to formulate themes and concepts, which in the end leads to theory. But reaching theory is a messy and complex process (Saldana, 2009, p. 11). The researcher applies “classification reasoning plus [...] tacit and intuitive senses to determine which data ‘look alike’ and ‘feel alike’ when grouping them together” (Saldana, 2009, p. 9). Coding is only a tool, the analysis remains reliant on the interpretation of the researcher.

To facilitate the coding process, the computer-aided qualitative data analysis software ATLAS.ti is used in this research. ATLAS.ti, like other qualitative data analysis software, “does not actually analyse data; it is simply a tool for supporting the process of qualitative data analysis” (Frieze, 2012, p. 1). ATLAS.ti helps to order the data through interfaces, queries and memos (Frieze, 2012; Saldana, 2009). For this research, the transcripts of each interview were loaded into ATLAS.ti and coded. The program enables to easily select particular codes. With search queries, it is possible filter the quotations belonging the space A or space B, or belonging the operators or coworkers. For example, listing all the passages tagged with the code ESTABLISHMENT enables the researcher to identify the reasons behind the establishment of a particular space. Having identified this for space A and B individually, a comparison between both spaces is possible. While this process may also be possible without software, using ATLAS.ti significantly speeds up process and helps to keep an overview of the data.

ATLAS.ti offers two quantitative analysis tools: the primary documents table and the co-occurrence table. The primary documents table is shown in Table 5. For demonstration purposes, a table is used where the codes are organized along four categories. Frequencies of codes only gives an indication. They tell you where to look, but don’t tell you about the content. Still, various ideas can be borrowed from this table. One example is that the spaces appear to follow a similar distribution of codes, signifying some degree of similarity among both spaces. Moreover, many quotes refer to the process of the space, indicating that many remarks are made on the establishment and future of the space. In the next chapter it will turn out that the development of the space was an important topic for both spaces. Again, the frequency distribution could be an effect of the nature of the questions asked, or hold a lot of similar information. Looking at the content of the codes matters here. Looking at the frequency of single codes likewise yielded some insight. For instance, the tag FUTURE occurred 39 times, signifying that looking at the future was an important factor for the operations of both spaces. However, frequencies were also deceiving. There were only two codes assigned to the design of the space, indicating little relevance of this topic. However, when looking at the content, it turned out that the design of the space was an important factor during the establishment of space B.

Code	Space A		Space B		Total
	Operator	User	Op./User	User	
Coworking space	19	2	16	3	43
Coworking	32	24	27	21	111
Process	55	6	42	5	124
Context	34	4	20	7	77
Total	140	36	115	36	355

Table 5: Primary document table showing all the codes assigned per theme

The co-occurrence table enables you to quickly search and select passages that have more than two different tags assigned. For instance, during the interviews it became clear that many external

organizations were making use of the meeting room. Using ATLAS.ti, each passage tagged MEETING_ROOM and OTHER_ORGANISATION can be requested. One of results is shown Figure 8. This passage shows that letting the meeting room to external organizations is a strategy used by the host of a coworking space to attract new users for additional sources of income. Co-occurrence tables also include c-coefficient number between 0 and 1. But as this research deals with pure qualitative data, it has little use here (Frieze, 2012, p.175,176). Both analysis tools should be regarded as facilitators of the data interpretation process. The researcher has to look at the content of the codes to make sense of the frequency or co-occurrence table (Frieze, 2012; Saladana, 2009).

After the coding and categorization of the data, the next step is to finalize the analysis phase. This phase is what Saldana (2009, p. 185ff) calls the 'post-coding and pre-writing phase'. Saldana provides certain strategies to further make sense of your data, with their suitability dependent on your coding strategy. A strategy used here is start writing about each space in a descriptive manner, a strategy what Saldana (2009, p. 189) calls 'one thing at the time'. Writing about the data in logical and chronological sentences helped to make sense of the data. The extensive literature already provided a system upon the data analysis could be structured. For each space, written was how the coworking space looks like, how coworking is performed there, how the spaces becomes established and so on. Essence capturing headlines and subtitles were used here (Saldana, 2009, p.190,191). For this reason, the next chapter, Chapter seven, is mostly descriptive. The details of each space are listed here. Chapter eight covers the analysis of the data. Here similarities and differences between both spaces are identified, and compared to existing literature.

Ethics

Following the ethical considerations suggested by Hay (2013), I report that no major ethical questions, moral dilemmas or sensitive, illegal or harmful issues were part of this research. Confidentiality and anonymity was ensured to every host and coworker who participated. Beforehand, every participant was informed about what they are participating in, what their rights were and whether they would give consent to record the interview. An issue worth mentioning here is the language barrier that was part of this research. This was resolved without any problems. All participants were willing to converse in English with occasional shifts in their native language. When difficulties arose from either side, often a further explanation was given or a shift was made into the participant's native language, all of which happened in a natural and intuitive fashion.

7. Case study results

Although the coworking spaces seemed similar on the surface, two highly different coworking configurations were found in the field. The spaces were built on different rationales, which resulted in different ways of coworking. In this chapter, a detailed description of both coworking spaces is given. The interpretation of the data is supported with quotes from the interviews. An analysis of the data is provided in the next chapter. Each case study is described along the four themes set out in the analysis framework: the coworking space, coworking, the process and context.

Coworking Space A

The coworking space: offered services, equipment and aesthetics

The coworking space is centrally located along the main shopping street of the inner city. It is situated on the second floor inside a small shopping gallery next to a dozen other small shops and businesses. With two rooms and 80m², the coworking space itself is relatively small scale. One of the rooms operate as the working area. It is equipped with 10 desks, set up in clusters of two and three tables. With a sink and an open closet as furnishing, the lay-out can be described as basic and functional. The second room is about the same size as the first and functions as the meeting room or event room. It has a large table with multiple chairs that can be moved into any direction, depending on the purpose of the room. When there is nothing going on, this room operates as the reception. Space A offers desk space, a wireless internet connection and access to the meeting room. Some of the regular users hold keys to the space and are able to enter or exit the space at their own convenience. Other types of equipment often seen in coworking spaces such as lockers, coffee machine, a phone booth or whiteboard are not available. Recently a small kitchen block with a sink was added into the space upon request of the users (A1). A wide variety of tickets are offered, from day-tickets (€15) to monthly tickets (€200), half-day tickets (€5) and 10-time ticket (€120). Reduction is offered for students or those that arrive early in the morning.

There is no specific design in furniture or decoration found in the space. The appearance is basic and functional, but yet the minimal equipment and slight usage of colours does not make it feel like an office. The openness and small-scale of the space gives the users a strong feeling of each other's co-presence. It is possible to see all the users from any other point in the room. Its location directly on the main shopping street in town makes the busy street life to be seen and heard from inside the space. There is a glass wall separating the meeting room and working space with the small shopping gallery in which space A is located, making the coworkers aware of the inner-city location. A picture of the coworking area and the meeting room is shown in Figure 9.

Interviews were conducted with two operators (A1 and A2), one operator who mostly uses the space to cowork (A3) and four users (A4, A5, A6 and A7). Overall, the space consists of less than 10 regular users, of whom more than half are part of the microbusiness led by A5. Moreover, the owner reported that a photographer comes once or two times a month to the space, just to be among people (A1). The interviews were conducted with the following hosts and coworkers.

- A1 is project manager of the space and employed by the external host organisation. Half of the time she is occupied with the coworking space, and the rest of the time with another project. She became responsible for the coworking space in 2014 when the previous manager left. Since then, she has been occupied with the further development of the coworking space.
- A2 is the CEO of the host organisation and involved with the concept development of the coworking space. Similar to A1, he has not been part of the coworking space since its establishment but became involved at a later point in time.

- A3 is a student in business economics at the university in the city. She is employed by the host organisation to take care of the space when the project manager is not present. Her tasks consist of offering front-office services and managing social media. Although she is formally employed, it is a convenient solution for both parties because it provides her a place to work on her various projects. A coworking space is her preferred workplace above the library or at home because of the combination between a professional and informal atmosphere. She is also on the board of an entrepreneurship network that makes use of the meeting room of space A.
- A4 is a web developer and graphic designer, and externally employed for a company active in the tourism industry. The main motivation for him to work in space A is that with a two-hour drive, the distance to his work was conceived as too long. Working at home was not an option for him as it was too distracting.
- A5 is a web developer and CEO of a small microbusiness based in the coworking space. He has been working from space A since the beginning in 2012 and was partially involved in the establishment of the space. The main reason for him to choose space A is the low-costs in combination with the opportunity to grow his business. In the last years, he hired multiple employees who are working from space A as well.
- A6 is a freelance journalist. She occasionally works for A4 and for this reason, comes around 2 times a month to space A to discuss topics in person. Normally she works from home as that is her workplace of preference
- A7 is a web-developer working for A4 and working out of the coworking space since its beginning. He has had experience with home-office but found it distracting and not motivating.

Coworking: professional atmosphere for individual work

Inside the space, there is a friendly and professional working environment. The users come here primarily to work alone, but do so with taking notice of each other. Sometimes they bring along coffee for each other (A5) or go out lunch together and greet each other upon arrival and departure. It is also okay if you work the whole day and do not converse with anyone (A3). Everyone is respecting each other needs. There are no rules about talking, but everyone knows that occasional conversations are okay and longer meetings or phone calls are excessive (A1). In this way, it is typically a community of work where each user is aware of the others' presence. The users work for their own, but interact with other coworkers to get through their working day. Collegial friendships develop within the space, but do not continue outside the space (A3)

The users currently working in the space report little to none professional collaboration. All regular users are there for practical reasons: it is a better place to work than from home and it provides a flexible and cheap environment to grow your business. These features may as well be found in traditional business centres. There is a weak communal atmosphere that does not extend past being a typical community of work, where each performs their work individually, is aware of the presence of others, values this for their co-presence and occasional small-talk, and behaves according to common rules of decency. Professional interaction did rarely take place. Despite that social talks are often in some way work related (A4, A5), the users do not report regular knowledge exchange (A4, A5, A7). A3 raised the example of how she once asked help from one of the web developers for her website, however, these are incidents that confirm the social atmosphere, rather than the norm. None sought space A deliberately for business opportunities or exchange of knowledge.

Establishment of space A

Establishment and initial goals

Space A is established and operated by a large publicly owned local business centre. Apart from offering office space and front-office services, they provide support and consultation services, mainly for small and medium enterprises. They own a large office rental facility on the edge of the city in which over fifty micro businesses are based (<http://www.technologiezentrum.de/>). The local township is majority shareholder of this company. Through the business centres, the government wishes to support the entrepreneurship in the regional economy (A2). The main focus of this company has been on industry and technology based enterprises, two already strong sectors in the region. With space A, they are looking for an instrument to likewise support creative and ICT-based businesses. A coworking space was the means to reach their goal.

"The idea was to focus on the creative scene and support them. Small businesses and freelancers – they are fragmented and have difficulties to promote themselves. The coworking space should be a place where they can work together on bigger projects [...] The idea was to stronger and support the creative industry here in the city, that was the initial idea [...] We thought that these freelancers are fragmented that it could be good to have a platform or community for them. We looked what kind of instruments where suitable for this. Then came the idea of coworking" - A1

Experiences and results so far

From the outset, coworking features from their urban counterparts were applied here. A centrally located space was established with flexible rentable desk space, facilitated with the organisation of regular and often free accessible networking events and workshops. With 10 desks, a wireless internet connection and a meeting room, a basic but standard and relatively small-scale set-up was provided. A dedicated project manager was appointed by company A to create the coworking experience, interact with the users, organize events and establish a community. Although the owners note that the space was well received among creative individuals and local businesses, too few users actually made use of the space, meaning that it did not finance itself. As such, in 2014, space A reached a critical moment when the question came whether or not to continue the coworking space. The time-frame of the coworking project was ending and an organisational changing within the company made A1 an A2 the new managers over space A. Despite the financial losses, decided was to extend the project. As A1 explains:

"We thought that this kind of place is needed here. It would be a pity if we would close it, because it was used, and there were so many interesting people who wanted to use this place but they were not ready, or didn't have money to pay for our events. We tried to develop new models and new ideas. I was convinced it could be developed. That is why we are keeping this place." – A1

A2 talks about how they see the current success of the space:

"The question is how one defines success. Financially it is difficult, because it is too small. When you like to attract young or creative people, we have a lot of them here, we notice that this is too limited. We have a firm with seven persons here, but when they would like to have a meeting it becomes too much. It is too small. You cannot talk with each other in private. We had to reject applications because these companies would like to call a lot. That is too loud and too restless, people do not want to be disturbed" – A2

A1 and A2 found that the space in its current set-up did not meet the demands of potential users. While they initially copied features of urban coworking spaces, they found that the small-scale prevented them into creating a dynamic atmosphere and community. Many inquiries were received from workers or microbusinesses to work in the space, however, they could not provide the services that were asked for, such as an area to conduct phone calls, a working space with more privacy and that is lockable so that you could leave your desktop or office material. A small spaces makes it unable to create multiple rooms with different atmospheres. Therefore, the next step in developing a coworking space is to expand the scale. A2 elaborates on the next step:

This here is 80 square meter, and the idea is that we probably need 200, 300, 400 square meter. With more spaces: a meeting room, conference room where you have privacy, a community place and also a social place where you can drink a coffee. This is a little bit too small. For success also counts that there is demand for it. Here, with the university, there is a lot of potential for start-ups in the creative and IT sector. This place brings people together. A meeting place, an event space. We do that now with the students and that is a great story. We are now searching. – A2

Further developing the space

At this point in time, most of the events and community organisation provided under the previous project manager has stalled. In this way, the space has not developed into the direction where the owners are looking for: coworkers collaborating with each other, create economic value and, ultimately, create businesses that can rent facilities in the business centre. But while the coworking space did not fully develop into the expected direction, unexpected success has been accomplished with the meeting room. A1 notes, “we did not have enough of this typical users but many inquiries about events”. There seemed to be a demand not necessarily for the working places, but from parties that wished to use the meeting room as a place to ‘get together’. Regularly events are held in the meeting room of space A. Both recurring and incidental events are taking place, with almost one each week (A1). The dominant theme of all these events is entrepreneurship. These events are:

- The event space is regularly used by a student initiative that is concerned with supporting and consulting start-ups and aspiring entrepreneurs. They use the space for workshops such as pitching or marketing or presentation session by successful entrepreneurs. A3 is involved in the management of this organisation. She highlighted that they find the coworking space suited because its location outside the university provides a different atmosphere and is more attractive for entrepreneurs (non-students).
- A network of freelance web developers that use the space two times a month as an informal meeting place to discuss developments in their professional fields (A1)
- Another business-oriented student initiative from the faculty of economics uses the space for meetings or occasional events (A1).
- One-time events such as a meeting for a creative entrepreneurship competition organized by the province and in which company TC holds a board position, or an event organized by a civil society organisation.

While there are events held regularly, the coworkers reported that they rarely participated in them. Almost all events are organized by external parties and not tailored for the needs of the coworkers. On top of that, many events are closed for outsiders. While the coworkers are primarily here to perform their own work, they do not seek to network or engage in learning activities. On the one hand, there had been few users that became a regular member of the coworking space, on the other hand, there have been many events taking place. According to A1 and A2, these events show signs of the potential of space A becoming a coworking space where knowledge exchange happens and collaboration is emerging. They see professional networks and individuals colliding with each other. However, to what this leads is yet still unclear. As A2 explains:

You cannot really register these things. Where does something emerge, who is meeting who? The people are not new or strange to each other, but the conversations are accidental, that leads to exchange. What happens we cannot really follow. [...] We have for example a company in the technology centre that we brought here in the evening with snacks and beer. There were entrepreneurs here and we introduced them to one another. The first step. From that things emerge, which we cannot follow. We only give an impulse. You are not involved in what is happening next.” – A2

This quote emphasizes that they feel the meeting room may become a place where ‘local buzz’ is emerging through the individuals that come here. However, it remains a fuzzy concept as concrete results of economic value creation so far remain absent. At this point the external relations of space

A become clear. Before describing the role of space A in the city, let's first look at the regional context of space.

Coworking space in relation with its context

The region in which space A is located is marked by its strong population decline and ageing population (Kühntopf, Tivig, & Stelter, 2011). An estimate from 2010 suggests a population decrease from 1.642.000 in 2010 to 1.476.000 inhabitants by 2030 (Statistisches Amt Mecklenburg-Vorpommern, 2013). With 57.00 inhabitants, the city is the fifth largest city in the province. Its population has remained relatively stable over the last decades, with a small population increase of 1.1% been observed over 2015 (Statistisches Amt Mecklenburg-Vorpommern, 2016). The city houses one of the two universities present in the region. For that reason, there are around 11.000 students, with one fourth of the population between 18 and 30 years old. Moreover, the city has a University clinic and four scientific research institutes who are specialized in the biotechnology. With around 10% percent of the working population, a fair share of workers is active in the creative sector and scientific or technical services (Statistikstelle der Universitäts- und Hansestadt Greifswald, 2016). In this respect, despite its small population size, the city has a large share of workers active in knowledge intensive industries.

Role of the coworking space in the city

The role of space A as a potential node within the cities creative economy is further supported by how the owners observe their environment. During the interview, it was mentioned that the city itself had a lot of start-up potential in the creative scene. This image is confirmed by two users, A3 and A5, who sustain that, despite its status of being remote, the city holds a vibrant economy. They report that the capacity for growth is there, and that every tool required to create a successful start-up in the creative sector is available here. In particular, the qualities of city are put in contrast with a large metropolitan centre that is relatively close by and known as a coworking hotspot. A5 who already established a successful start-up, notes that the large city may look like the Mecca of start-up, however it is not always working as in first instance seems. It is too artificial, while all the resources in this city are available here as well. A3 says that in the large city, there is a lot of social pressure of not fitting in, everything moves fast, failure is looked down upon and so on. In this city, it is much more a family atmosphere where people are willing to help each other. The resources to be an entrepreneur and create a start-up are maybe more difficult to find, they are available.

While it is out of the scope of these thesis to assess the differences in accessibility and capacity of creating a business between the small and large city, what becomes clear is that A1, A2, A3 and A5 see that there are enough resources (i.e. funds as well as knowledge networks such as marketeers, designers and ICT professionals) available in town A to pursue entrepreneurship in the creative sector. In terms of access to knowledge networks and resources, the city is not conceived as suffering from a weak economic status often related to the notion of being 'peripheral'. In this perspective, space A may contribute as a place that adds the share of buzz to the creative process, as A2 explains:

For success also counts that there is demand for it. Here, with the university, there is a lot of potential for start-ups in the creative and IT sector. This place brings people together. A meeting place, an event space. We do that now with [student society of A3] and that is a great story. We are now searching. – A2

Moreover, they hint at the role that space A could fulfil for established companies:

"[Other companies] do want to communicate. That is a first thing. They want to have this flexibility: temporary office spaces and working places." – A1

"Some of them may have real interest, you know. For training or ICT subcontracts or something like that. We don't know yet, and I think we know better after the research project, because that is one question. What is their interest and how can we fulfil their demand? One thought is that they might be interested in access to also maybe potential, how to say, collaboration partners, but also workers or skilled employees." – A2

After the initial experiences with the coworking space, the owners seek to develop the concept further. A larger space would accelerate the yet undetermined knowledge creation and interaction already performed there – and present in the city.

First, we can make events. Stimulate communication. Kind of a wedding councillor. Contact partner organizer. We know them. This guy has money and might be interesting this, and this guy has a problem and he might have the answer. That is one way. The second part is, what we cannot really influence, is when they meet by accident. The third one is, we do that on a very small scale, we try to incubate. [...] Like an accelerator. You and you might fit together, and you need them and them, and let's do a course, maybe. We need a moderator, or a trainer or business consultant and set up an idea. Three possibilities. The evening events, the communication by accident and the third one is to do coaching. This we have not really done now, but we are going to do it hopefully from the first of January, together with the support from the university and the [government party] – A2

In this way, it becomes evident that space A seeks to perform a particular role within the knowledge economy. Such as conception of coworking have we encountered before in the second part of Chapter 3. Here, coworking spaces were depicted as a 'middleground'.

Establishment rationale: space A as a 'middleground' in the city's economy

There is an evident economic rationale behind space A. More than simply being an office rental service geared towards workers from the creative sector, there is an underlying goal of using the space to create economic value. Through the internal dynamics of the space in relation to its external environment, space A occupies a particular role within the local innovation dynamics. To further analyse the ways in which space A operates in its local milieu, the conception of coworking spaces as a 'middleground' by Capdevila (2015) is explored here.

Capdevila (2015) regards coworking spaces as a platform in the local knowledge milieu, in which creative individuals or communities from the underground interact with established firms situated in the 'upperground' (Cohendet et al., 2010; Grandadam et al., 2013). The underground has the capacity to experiment, while the upperground has the tools to exploit. The middleground facilitates their interaction through particular spaces, places, events and projects. The role of space A as a middleground is considered here. Capdevila (2015) sustains that coworking spaces operate as a middleground in three ways: the lay-out of the coworking spaces itself, the internal dynamics, and the relations to external actors. The coworking space provides the *place*, physical infrastructure for actors to meet, the coworking facilitates a common cognitive *space*, and the coworkers may include both actors from the upperground and underground, just as *events* may attract both layers as well. Projects may emerge at any time when actors meet.

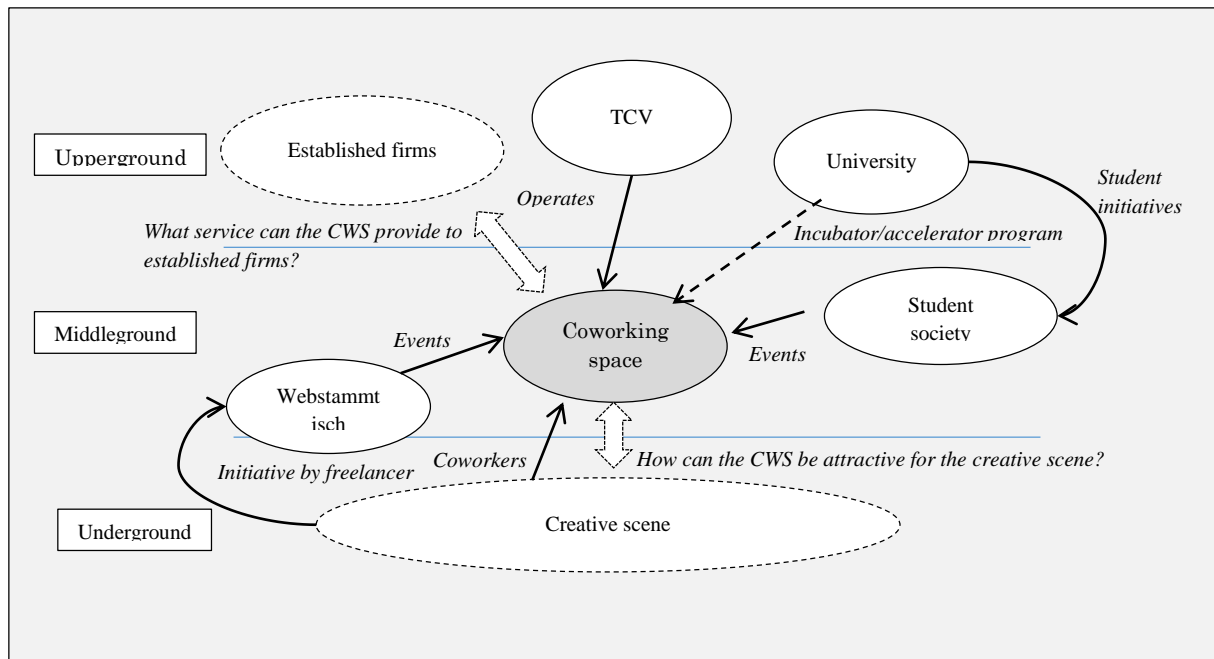


Figure 8: External relations coming together in space A through regular events

Space A holds the basic spatial infrastructure of a typical coworking space, albeit is relatively small in scale. A shared cognitive space is absent, since little professional interaction is taking place among the coworkers. The owners report knowledge exchange within the space among the external actors, but concrete examples remain absent. Additionally, it is mentioned by the owners that in terms of affective atmosphere, external actors seem to favour the coworking space. Most notably events through which external actors are drawn to the space are by the owners recognized as important. Figure 10 shows the external organizations that come to the space, divided along the layers of the creative city.

We can see here existing relation between the upperground through the companies based in the business centre of the hosts organization, the university, and established companies. Companies located in the business centre use the space for meetings and are aware of its existence. Plans exists to create an incubator or accelerator program in corporation with the university. The operators currently communicate with established companies in order to explore the opportunities of how space A could provide services to them (unfortunately no concrete results can be observed here). A student society uses the space to organize workshops and talks on entrepreneurship. Moreover, next to the coworkers, there is a regular informal gathering of ICT freelancers happening inside the space. Non-regular incidental events are left out here, but include but profit and non-profit organizations.

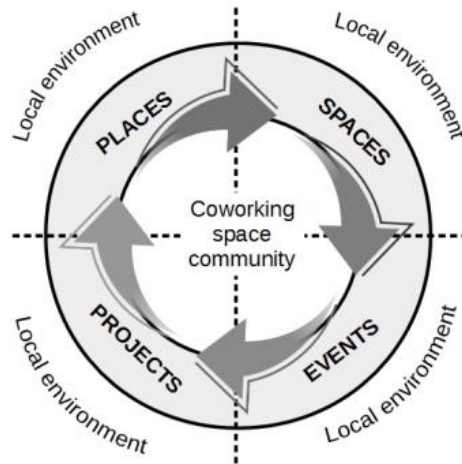


Figure 9: Example of different innovation dynamics in coworking spaces (Capdevila, 2015. p. 9)

The place and events are there, but the different layers do not interact with each other. There is little overlapping cognitive space, making it difficult for projects to develop. It is still difficult to determine to position of space A into the local innovation milieu as a middleground. Rather, the development of a middleground should be seen as a process (Capdevila, 2015; Grandadam et al., 2013). Through a sequence of events, places, spaces and projects the middleground emerges. An example of a sequence is show in Figure 11.

For space A, the following sequence could be identified. First, its founders established a centrally located and small-scale open-plan office space equipped with facilitates to support desktop based work practices (place). Various organisations (non-profit, business centre, companies from the business campus, a network of developers and student initiatives) have found space A particularly suited to organize closed or open events (events). Currently, there is no atmosphere of knowledge exchange and collaboration among coworkers or between coworkers and external parties. A cognitive space or projects are yet to emerge. For the near future, a larger place is planned with more rooms (place), together with incubator and accelerator-like programmes (events), in order to make interaction between creative workers more common, create an atmosphere of knowledge exchange (space) and see coworkers and external agents collaborate with each other (projects). In this way, coworkers are able to make themselves visible and collaborate, share knowledge, gain support or training from external parties. Then, external parties in turn are able to search for talent within the coworking space. This is a cyclic and interrelated process. For instance, when creatives notice that the coworking spaces becomes the 'place-to-be' to tap into the local buzz and engage in projects, i.e. the utility they could gain surpasses the costs they make, more users would come to this place. But as space A is continually being developed and has yet to be fully established, its role within the local innovative milieu remains still difficult to grasp.

Coworking Space B

The coworking space: basic amenities, small scale and community based

Space B is located in the centre of the city, situated on the ground floor of a side street. The space itself has two main rooms, a working area and a meeting room, with a kitchen located in between them. A terrace is found at the back side of the space. Eight working spaces are found inside. Wireless internet connection, lockers for storage, a printer, a kitchen, terrace and a meeting room are available for the users. The space has a basic lay-out that is typically suited for desktop based work practices. Much care has been spent to the design and decoration of the space. B1 notes that

an appealing and cosy interior design was one important to have finished before the founders would work in the space. It is supposed to be different from the traditional office environment and a place in which the users could feel comfortable and at home. The furniture is handmade, designed in such a way that it is possible to move them around easily. For example, the shelves are made of individual parts and can be deconstructed and reassembled. The lockers have wheels under them and a cushion on top and can also function as seats. In this way, the founders prepared the space to fulfil multiple purposes. The furniture has been made in the months prior to the opening of the space. Family and friends helped here, confirming the community basis on which the space is built. An image of the space is shown in Figure 12. Overall, it emits a cosy, hand-made and home-like feel, the opposite from a traditional office space.

Coworking in space B: communal working

The seven founders consist of two freelance translators, two researchers who are part-time employed at the local university of applied science, and three freelance consultants. Since its opening, two other regular users has joined, an entrepreneur/app developer and B2, the Ph.D. student. Two interviews were conducted here, one with the founder, operator and user of the space, (B1) and one with a user (B2).

- B1 is one of the seven woman that manage the space and work from out the space. She moved to the city three years ago and since a year is employed as a researcher at the university of applied sciences located in the town – but mainly working from home. Her main motivation to create the coworking space was born out of her wish to escape the home office, combined with the believe to create a space that may help others as well. She works part-time out of the space, often synchronizing her presence with the presence of other coworkers inside the space. Apart from her work, she uses the space for other personal projects she is involved in.
- B2 is a Ph.D. student and uses space B to work on her research report. Seeking a different place to work than form home was her prime motivation to join space B. Since X she is working from the space. For B2, her main reason to join the coworking space was that she was looking for a different place to work than home. Moreover, she was appealed by the philosophy behind the space as an initiative that she would like to support: seven women that sought to improve their work life without looking to profit from it.

Given that the coworkers knew each other before the establishment, high levels of social proximity exist among the founders. Often conversations happen with each other, inside and outside the space with high levels of solidarity and an atmosphere of sharing and caring. Certainly there are no organisational efforts or events required to boost the relationships among the users. The coworkers seek to adept their time to each other so that they are at the same time in the same space. B2, although she joined the group later, she reports about the communal atmosphere she experiences

Usually, sometime a conversation with one of them starts, which is really nice. Then you have a gap of half an hour where you talk about, I don't know, gentrification. We had a long conversation about women stuff, like economic viability of being a mother for example, stuff like this. – B2

There has been no recurring knowledge exchange or collaboration occurring in the space, simply because their occupations are too diverse. But the increase in productivity that the coworkers experience goes beyond merely a productive place to work in. B1 reports how she benefits from the coworking space by using an example.

My job benefits the Kolabor as well as the Kolabor benefits my job. Because of the interdependencies, it goes in both directions. I profit for example from the workshop with all the women that were participating, it needed to get in contact with them for my job, there were a lot of cool woman that needed to network and get together, to create perspectives to stay in the region against the feeling that

they are alone here, the perspectives are too hard, and a need to leave this region. Coming into a network, I noticed that there were people with similar feelings. There was an atmosphere of, 'Hey let's get together and support each other'. This is something I could use in my job; my job perspectives I can install here in the Kolabor. – B1

For B2, this is not a theme because she works alone and is not directly looking to establish professional networks.

Establishment of space B

Space B was opened in January 2016 by seven women. Each of the founders were in an employment situation in which they did not have a traditional workplace and were required to work from home. Being dissatisfied with the inefficiencies and distractions related to home-office, the women were looking for an alternative office space. B1 explains:

I met a lot of other cool young women. They were working like me mostly at home [...]. Everyone was working at home with the kids. There was always a conflict of doing dishes, laundry. There was not a distinctive space for working. So we came together and the idea was why don't we get together and create something like a coworking space. The main idea was to have a room for us without kids and laundry and everything, to do our work stuff. Sharing the furniture, the room, internet, everything. That was the main idea – B1

A space was pictured that should be “kind of like a living room but then to work” (B1), in a shared space in which a professional working atmosphere comes together with a communal and attractive appearance. From the start, it was clear that they wanted to pursue the coworking concept, but adjusted in the way they felt suited, as B1 explains:

It was always our go-to concept. The idea coworking, but not coworking as 'classical'. There was this idea of sharing resources, close to the idea of coworking spaces. When we were thinking about process we were researching all kind of coworking spaces, how they were organizing themselves, and what kind of organization. We made a non-profit association, where other coworking spaces have a really entrepreneurial perspective. [...] Then we wanted to try it out if it works here – B1

The founders do not seek to make profit from the space, hence they formally established the space as a non-profit organisation. If the space carries itself financially, the owners are satisfied. They do not seek to make profit or expand their size. Other than providing a space for themselves, there were secondary factors involved that facilitated the establishment. These are related to the context of the city, about which later a more detailed section will follow. The founders expressed a wish to provide a space that might help others as well. For them, they wish the coworking space may contribute to the dynamic and the liveability of the city and in this way, attempt to prevent further outflow of people from the city. Moreover, the coworking project won a prize in a local competition of promising initiatives of creatives to provide new impulses to the region. The founders received a substantial amount of money that enabled them to kick-start the project. Lastly, due to the high vacancy rate in the city, the landlord was willing to provide the founders with a low rent in their starting phase.

Experiences so far and future directions

At the time when the fieldwork was conducted, space A existed for half a year. But while the number of new coworkers were disappointing, they experienced a demand for external parties to make use of the space

It is not that easy as we thought to find regular users. The people don't know if they really use this space for one month, perhaps one day. What we did not expect is that corporations or other initiatives want to use the whole space or only [the meeting room] for getting together, for meetings. We try to earn the

fixed costs in different ways. Rent this room and the working spaces, but we are still finding out which way actually gets us the perspective to offer the owner a higher rent. – B1

The space seems to be attractive for all kinds of parties, profit and for-profit, to rent for their meetings. While this provides the founders an opportunity to capture alternative revenue sources, it at the same time enables them to link themselves to these professional networks with the goal to benefit from it. As establishing an alternative workplace was the primary goal of the founders, now their goal is to find ways to benefit professionally from the space. As B1 explains, this is a difficult issue.

How can we attach this to another, more professional perspective? [...] To wide it up, not just like a professional working in your own box - how can we open one perspective up, and how can we involve ourselves in this thing. Then, I think, the network thing happens. But if you just stay in team-meeting here, team meeting there, the interdependences don't take place. We need to find a way to connect different styles that already meet here. I think it is worth to think about those processes. It is not like, this is a good idea and we do this, but it is always every time, how do we do it. – B1

The coworking space is a geographically situated space that attracts individuals and organisations from different backgrounds. B1 realizes that it is a difficult issue and that it requires thought. Another development that surprised the founders is the attention that the space received outside the region. Two situations presented itself in which two workers from Berlin and one from Detroit, came to the coworking space and wished to work there for a day. It confirms that when establishing a coworking space, one becomes part of the global coworking network and new relationships will become established because of this.

Although the absence of new users as well as the inability to provide the landlord rent conform the market prices, the financial situation is not conceived to be a challenge. But due to the flexibility of the landlord and the interest from external parties to rent the space, the finances are not conceived to be a major challenge for the future. In fact, about the financial situation, B1 says:

[The financial situation] does not make me nervous. I think there will always be a solution for this thing. If that would be a pressure thing, I would not do this. Because what we do here is not something that you can calculate per month in grow rates. Lucky when we can stay here and reach a certain level, and keep this level. It is not the perspective of growing.

Although the space is open for half a year, since then, the owners have attained many benefits from the coworking space e.g. the positive attention from other parties and improvements felt with respect to their work life and social life. Ultimately, managing the coworking space is something the users have to do in their free time, beside their work, which increases their workload. The operators are the coworkers themselves. This situation is different when you have a dedicated operator. On top of that, B1 reported that managing the space with so many different individuals bring challenges as well. Each founders holds different perspectives with respect to the orientation and pace of the developments. For example, some would like to develop the space quickly (e.g. create a website, approach new customers), where others prefer a slower pace and believe that the space develops itself over time. Keeping a unified direction and social harmony among the founders is conceived by B1 more important than the financial feasibility of the space, which further highlights the importance of the communal basis on which the space is built.

The following quotation exemplifies the issues and doubts the founders are facing when dealing with the complicated concept of coworking.

When you see that coworking spaces are one answer to the flexibility of work, I ask myself, what is the answer that coworking spaces gives to rural areas. Is it the same? What is the difference? [...] There was another person who was interviewing us about coworking spaces in cities and he talked about innovation and that was really nice etcetera, but [other coworker] said, that this space, it was actually organizing

work for ourselves. We really have limited time resources and we get involved in things that you can't leave anymore. [...] You have to get your resources here in this room and the organization and everything. I think the image of coworking space is flexibility, free space, sharing things, something that eases circumstances. I have the feeling there is another side to it. It fixes resources. What is actually the innovation part? Maybe in big cities there are many creative people in coworking spaces, they really earn money with it. They can have resources to do another project. But here, it's another logic I think. What is it? What is the new thing? We have not innovated a new concept; we took a concept from urban spaces and replace it to small cities. The development is totally different. What is the function? What is it good for? I'm curious in reading about it. Maybe when I read your result it turns that this is bad, and maybe you think 'why on earth are they doing this?' [Laughter]. Sometimes it feels like, why do we do this? [laughter][...] When I think about the koLABOR, I think, what is the problem that we try to react to? And what is the solution we offer, and what else is happening? So that we stick to it. – B1

For the founders, there is a lot of struggle and uncertainty involved in making the coworking space work. The owners have no precedent to rely on. The founders find themselves in uncharted territory and have to develop the space into a new direction. It takes up a lot of resources from the owners, but, as B tells here, although occupies a lot of time they see that space B heading into a certain direction that is positive yet difficult to grasp, hence 'you can't leave it anymore'. B1 expresses the operations of space B 'is a new logic', and 'the development is totally different from urban spaces'. The coworkers find a different dynamic of coworking within the space. A dynamic that is different than the popular image of coworking presented here by B1, in which joining a working space is akin to entering a motivating work atmosphere in which one is able to develop his professional network, and in this way, improves his working life. Instead, what is happening in space A is a dynamic marked by the regular users, working individually but with high levels of social proximity, and external parties that seek to rent the meeting room. But finding different dynamics of coworking does not mean the project has failed. It rather confirms the plurality of the coworking concept and the many interpretations that exists.

The image of coworking explained by B1 show the biased usage of coworking in popular literature of an exclusive positive image. The reasons for the establishment of the coworking space was 'organizing work for ourselves', i.e. the desire to get away from working at home to work in a proper working environment. In fact, this is the basis upon which the coworking concept is built by its pioneers. From there on, the act of coworking can develop in many different ways, based on different degrees of social and professional relationships among the users that work in the same space. The last sentences of the above quotation highlight that the founders recognize that the stakes involved with space B are higher than simply creating a workplace for their own productivity. The feeling of contributing to the city is still vague but keeps them going. Yet capturing what exactly is happening, is difficult to grasp.

Context: shrinking city and social culture of self-organisation

It is important to interpret these findings in the context of the city. The city itself is infamous for its rapid population decline and high vacancy rates. In 1980, the city had over 81.000 inhabitants, which has decreased to 61.000 in 2000 and 54.000 in 2014 (Statistisches Landesamt Sachsen, 2014). The number of inhabitants has slightly risen to around 56.000 in 2016, however, this population growth is caused by the inflow of immigrant population and should be interpreted in the recent influx of refugees to Germany. Moreover, the population decline in the last decade has left behind a city with a high vacancy rate of 18,9 percent in 2011 (Statistisches Landesamt Sachsen, 2014).

"I think there is a relatively large group of people that like doing things [...] It happens a lot because there is not a lot on offer anyway. Lots of people do various things. [...] It is a classic question: Don't ask what the city can do for you, ask what you can do for the city. [...] The social culture of organize yourself, do stuff with each other. Because there are no offers for people between 20 or 40 years old. This is the result

of this culture as well. One embodiment of this culture. All places like these are connected to each other
-B2

B2 reports here that she notices a normative culture existing among the inhabitants of self-organisation. The city itself is facing decline. There are little resources available from the government so the people start to create their own spaces. In the previous section it was shown that the coworking space emerged out of the idea to provide not only something for the founders, but the idea that the coworking space could help others. There may be other workers that are unsatisfied with working from home. The coworking space could be a solution to develop perspectives for these workers that prevents them from leaving the city.

There is a relatively amount of people active in the creative sector here. And for some reason they don't come here. I don't know why. They are working from home.

B2 highlights there are many more creatives working in the city, but why there are not coworking is unclear. Hence there may be other opportunities available for the founders to draw more coworkers to this place. Putting those contextual factors together, it is difficult to tell to what extent the establishment of the coworking space is a result of this culture. It likely facilitated, but the question is would space B also have existed when the city is not facing decline and the social culture of self-organisation is absent. Moreover, the same counts for the high vacancy rate which enabled the founders to negotiate a low rent and reduce their start-up costs. However, precarious workers are found everywhere, whether rural or urban. Small scale community based coworking spaces are found in large cities where workers come together and share their resources to create an office space. The condition of a shrinking city certainly facilitated the emergence of space. The founders report how unknown the application of the coworking spaces was for them, hence this uncertainty may withhold workers in other small cities to establish such a space.

Conclusion: how space A and B operate

Having described both coworking spaces, we can identify two different coworking configurations: one based on the economic rationale of coworking, whereas the others is a small working community. The key features of both spaces are shown in Table 6. Note that the four themes of coworking, coworking spaces, process and context are intrinsically intertwined, and that require to be observed in relation to each other when trying to capture the operations of a coworkers

	Space A	Space B
Governance	Top-down	Bottom-up, non-profit organisation
Owners	Business centre, partly publicly owned	Seven founders/coworkers
Coworking space	Small scale, basic amenities	Small scale, basic amenities, appealing design
Coworking	<ul style="list-style-type: none"> Weak social ties among coworkers No knowledge exchange (yet) No community management (yet) events organized in the meeting room by external agents, but with little connections to coworkers 	<ul style="list-style-type: none"> Strong social ties among coworkers, No knowledge exchange, No community management events organized in the meeting room by external agents, but with little connections to coworkers
Coworkers	Workers belonging to micro business, Externally employed web developer and graphic designer	Founders: 2 freelance translators, 2 researchers (part-time employed and freelancer), 3 freelance consultants. Other regular users: entrepreneur/app developer and PhD student.
Purpose	Create economic activity by supporting the creative scene	Empower working life of individual workers

Logic	'Local buzz', Middleground, serendipity	Labour agency generated, strategy of 'reworking' strategy, third place, civic engagement
Urban context	Dynamic city: active creative scene, student city	Shrinking city (population decline high vacancy rates), social culture of self-organization
Target users	Creative scene and established companies	Home-office workers, students, freelancers, desktop workers, ...
Configuration	Economic model	Small-community based model

Table 6: Overview of space A and B

Both coworking spaces were relative small sized and equipped with basic office amenities. Mostly desktop-based creative workers were found here, with varying occupational status. Although similar in appearance, the spaces had different rationales. Space A is top-down established by a publicly owned business centre that seeks to pursue the economic rationale of coworking for regional development. Coworking is performed by users who focus on their own work. Social interaction comes as a by-product of working in the same space. Little to none knowledge exchange takes place, nor are the coworkers looking for that. The owners noticed they are unable to reach their goals in its current set-up. For the future, they seek to expand the size, develop more functions for the space and in this way position space A as a middleground in the local economy. Space A is located in a – for its size – rather dynamic city with an active creative scene.

Whereas space A requires organizational effort by host to create the coworking experience, space B relies on the high levels of social proximity and solidarity among the coworkers. Collaboration is not a theme here, instead, cost efficiency and sharing of resources of the coworking notion was used as a strategy to combat the ineffectiveness and isolation related to working at home. The coworking space is established in a city that is suffering from processes of peripheralisation such as population decline and high vacancy rates.

8. Findings and discussion

In the previous chapter both coworking spaces have been described extensively. We can find two configurations: a top-down economy oriented model, and a bottom-up working community model. The results are analysed in this chapter. The coworking spaces are compared to each other and interpreted with the existing literature.

The coworking space: basic equipment and small in scale

The amenities of the observed coworking spaces – the features that enables the coworking practice – were similar between the spaces. Both spaces were centrally located and equipped with basic facilities to support mobile desktop-based work practices. Hybrid coworking configurations such as incubator or accelerator programs, presence of physical production tools, or a focus on a specific niche market were not observed. A notable difference between the average coworking space is that with around eight workspaces each, the coworking spaces were both of small scale. While there is little data available on the average size of coworking spaces in academic literature, *Deskmag* reports the average size to be 76 members, a rise of 50% compared to 2014 (Foertsch, 2016). The number of desks available is often much lower, as many members only come occasionally. A small sized coworking space could be an obstacle since coworking spaces often have a low profitability. In 2011, the Second Global Coworking survey held by *Deskmag* reported that the majority of coworking spaces (60%) do not make profit (Foertsch, 2011b; Moriset, 2014, p. 7). Size seemed to be an issue here, as it was further found that 70% of the spaces of over 50 members (back then, above average) were profitable. Especially the coworkers that join spaces for serendipity encounters (Waters-Lynch & Potts, 2016) could find a small size discouraging as it decreases the chance to meet other people. Some authors have therefore suggested that many low profitable spaces must find other revenue sources such as subsidies, space rental services or work together with other organizations (Fuzi, 2015; Moriset, 2014, p. 17).

Coworking: two different configurations

A coworking space facilitates, but not determines the coworking practice and experience. Coworking is further determined by the management by the coworking hosts as well as how the users interact in the space (Merkel, 2015; Spinuzzi, 2012). Both spaces show different ways in which coworking was practiced.

Space A: top down orchestrated economic model of coworking

For space A, coworking was intended to be a work environment in which new economic ventures could emerge. Despite the organizational efforts made by hosts, the space has not yet developed in this direction. Where previous research has established that little user interaction will take place when this is not stimulated by hosts (Fuzi, 2015; Parrino, 2015), space A shows that even with events taking place, user interaction is not granted. The events held were mostly hosted organized by external parties, for external individuals, and thus found little appeal by the coworkers. Coworking in space A is primarily about working individually in each other's co-presence. The coworkers that were present had no other option than to work at home, as it was for them too unproductive. The casual small talk or the co-presence of others assisted their choice for a coworking space, but was not said to be the main reason for them to work here. Social interaction happened sporadically and was primarily based on rules of common decency. Relations did not

extend outside the coworking space. Collaboration or exchange between the users was not observed, nor were coworkers deliberately looking for it.

The small size plays a role here in two ways. First, the users that primarily look to work alone and decide to work in coworking spaces for their facilities such as location, cost-efficiency, front-office professionalism, occasional social interaction, co-presence, aesthetics and so on, find themselves unsatisfied with the limited offers. The owners reported that some desktop workers were interested in coworking, but did not want join the venue due to various reasons related to the physical features of the space, such as the ability to leave your desktop safely, access to different style of workspaces, or the presence of a postal address. Increasing the size means providing different aesthetic and affective work spaces, a highly valued factor for the productivity of nomadic workers (Liegl, 2014). Secondly, the small size discourages the arrival of those coworkers that contribute to the creation of economic value: the workers looking to professionally interact with other coworkers. Not being an “entrepreneurial constructed focal point of tacit coordination between niche actors who anticipate finding each other at these locations in order to cooperate on joint projects”, deter those looking for such a place (Waters-Lynch & Potts, 2016, p. 13). The owners have acknowledged the issue of size and seek to expand the size of the working space in the future.

Currently, they are looking for another space in the city centre that is three or four-times as big as their current one. Moreover, they plan to expand their current operations by creating an incubator space in corporations with the local university. As such, coworking in space A is marked by weak social ties and little professional collaboration, different than what the hosts envisage. A larger coworking space planned for the future should help space A into a direction where coworking is marked by local buzz, serendipity encounters and professional collaboration.

Space B: bottom-up established communal way of working

Space B on the other hand, emerged out of a friendship between the seven founders that was based on a common shared issue that they wanted to address. Coworking was perceived by the seven founders as a solution for the inefficiencies related to working at home. Cost sharing made coworking an inexpensive solution, while the opportunity to interact with others, particular aesthetics of the spaces and the chance to meet others was the way how they wished to work. For the founders, coworking also involved the regular discussions with each other. Coworking is practiced through working individually, but in an atmosphere of a strong feeling of sharing and caring. Coworking in space B is about working, social exchange with other people and a way to develop personally, whereas space A was primarily centred on working itself. The social proximity of coworking in space B was stronger than observed in space A. Coworking was not only about performing their work, it was used by the founders for personal projects or leisure activities. In this way, it becomes a ‘third place’ as an anchor of urban communities.

Coworking here did not involve the efforts of the hosts to provide the ‘community glue’ (Butcher, 2016), rather, the community was created through the relationships developed by the founders that pre-existing before the space. The space is bottom-up established and expresses a “homelike, homemade, post-industrial, relatively long-established, worn-in aesthetic and habitus” (Butcher, 2016, p. 98). The founders “carved out their space to make it feel home” and had “unwritten rules to maintain a certain harmony and commitment to their shared *beruf* of entrepreneurial citizenship” (Butcher, 2016, 97f). New users are free to decide how they wished to use the space and become part of the communal atmosphere. Local buzz is not happening, but for the future, the founders seek for ways to benefit professionally from the coworking space. Scale is not an issue as the owners do not seek to expand the space. The cost-issue plays a minor role. Having additional monthly expenses makes the situation of the founders even more precarious, but the low rent and solidarity of the landlord enabled low start-up costs. The financial situation of the space is not perceived as a major issue or obstacle for the future.

The coworking space is not only about coworking

Apart from coworking, another occurrence was observed in both spaces. While coworking was practiced in the working area, another dynamic was observed with relation to the meeting room. Both spaces reported that they were struggling to find new users, but are still working on strategies to attract them. Similarly, it was found that both spaces were looking for additional sources of revenue as space rental services. Unexpectedly, both spaces received inquiries from external parties of all kinds, non-profit and for-profit, to rent the coworking space for their events.

While this shows that there is an interest of external parties to use a space for events, and that coworking spaces seem particularly suited for this, it appears that these events do not intertwine with the coworking practice. Coworkers, if the events are interesting for them, only reported incidentally knowledge exchange through events these, but no professional collaboration. Surprised by this development, the hosts of both spaces seek to exploit this situation by finding ways in which the coworkers can connect to these external parties and benefit professionally. Boschma (2005), among others, told that geographical proximity is only one aspect that facilitates knowledge exchange. Other factors such as cognitive and social proximity are particularly relevant for the coworking space as well. The geographical proximity triggered the hosts to seek opportunities, but the question for the future for both spaces will attempt to bridge the cognitive and social gap. Coworking spaces facilitate these events, but these events seem to not facilitate coworking. For the future, the host of both spaces like to see to the coworkers extract work-related utility from the external organizations and individuals coming to events held in the coworking space. And in this way, create a situation in which the coworkers can benefit from the local buzz emerging through the colocation inside the coworking space. As new coworkers seem to be more difficult to attract than expected, both spaces try to find other ways to ensure profitability of the space. But the interest for the meeting room appears with little efforts from the hosts. For space A, the popularity of the meeting room helps in their positioning as a middle ground. For space B, it operates develops itself as a third space. This shows that the spaces are still under heavy development, and go into the direction of being multifunctional spaces

Establishment

The spaces emerged against two different backgrounds. Space A, is top-down established with the goal to support the creative and ICT sector in order to create economic value. For space B, the owners sought to empower their working life by creating a more productive working place.

Space A: a middleground in the city's knowledge economy

Most literature on the economic rationale of coworking describes the knowledge exchange between coworkers (Parrino, 2015). In particular, the notion of serendipity encounters seems to capture this (Waters-Lynch & Potts, 2016). For space A, no knowledge exchange nor collaboration among the coworkers has been observed. Instead, the owners perceived a yet somewhat vaguely defined economic value of space in relation to its external environment. In order to analyses the economic rationale behind space A, its role as a 'middleground' (Capdevila, 2015) was considered in the previous chapter. Through places, spaces, events and projects, the middleground becomes articulated in coworking spaces (Capdevila, 2015).

The coworking space is a *place*, but the facilities are not sufficient to attract enough individuals from the underground. While many *events* are taking place, they are mainly intended for outsiders and do not operate as fostering relations between the underground and upperground.

Therefore, a proper *space* does not exist yet as little collaboration takes place among coworkers, nor are there ties between the coworkers and external agents. Collaborative *projects* stemming from the space has also not been observed. While the space exists, coworkers are working here and events are held, the owners see potential in further developing the space towards a middleground. Therefore, space A should be best viewed as being in a process of becoming a middleground. Based on past experiences and communication with potential customers from the upperground and underground, they envisage that space A in the future will show more characteristics as a middleground.

Space B: reworking strategy in a precarious labour market

Whereas space A is based on the economic rationale of coworking, space B has been established for rather different reasons. The emergence of space B is interpreted as the “self-valorisation projects that allow people to create independent spaces, free of commodification and subordination to capitalist social relations” (Cumbers et al., 2010, p. 60). The forces of capitalism did not provide the founders with a fitting workplace. This triggered a form of labour agency. Rather than small resilience strategies of ‘getting by’ within the capitalist system, the founders’ actions went further. New social relations were created through establishing a physical space that “acquire[d] some degree of formal organization and continuity” (Cumbers et al., 2010, p. 64). The founders created a coworking space to improve their own working condition. The isolation and inefficiency of having to work from home triggered the founders to take matters into their own hand and create a more suitable working space for them. A common desire and ambition shared among the founders yielded space B. Pursuing the coworking concepts enables them to share the costs of a workplace, come into contact with new people, provide a space that may help other users and make the city more liveable for creative workers.

Different coworking configurations

The two different logics on which both spaces are built confirm the pluralistic image of coworking. The coworking concepts should not be seen as a blueprint which one could apply easily. While the coworking spaces appear rather similar, the internal dynamics and the reasons for establishment are strikingly different. Different aspects of coworking invited the hosts to create a coworking space. Coworking spaces become established based upon different rationales, some for economic gain, such as space A, other for the improvement of the personal labour situation, such as space B. The coworking concept developed based on local needs. The obscure nature of the coworking concept required improvisation by the hosts. Both spaces were constantly in development, attempting to find a stable mode of operations within their environment. Applying the pluralistic notion of coworking requires local improvisation, yielding spaces that are constantly in development, and most strikingly, hosts engaging with external parties in the search for additional sources of revenue, transforming the space in a multifunctional space.

Role of context and being ‘non-core’

While this research covers too few cases to determine a causal relationship between context and coworking space, we can see that, by looking at the context of both spaces, that the environment facilitates the emergence of a particular coworking model. For space A, the dynamic and vibrant economic environment contributed to owners to envisage potential for space A, expressed in the presence of the university and its students, a fair share of knowledge workers and presence of successful start-ups in the city.

The emergence of space B in this city should also be interpreted in its context. First, the strong population decline and the high vacancy rate in the city enabled the founders to find a space at low costs. The landlord, aware of the cities' population decline and its effect on his businesses, is signalling support to the founders by offering generous contract conditions. In bi-monthly intervals, the landlord discusses the financial situation of the space with the founders and assess how much rent they are able to pay, while maintaining start-up potential for the coworking space, in a relationship of mutual understanding and solidarity. Second, the interviewees indicated a social culture of self-organization in the city, indicating that the creation of the space follows a normative behaviour. Both may be related, as the population decline prompts a response from citizens to put extra effort in keeping the city liveable. In this vein, workers with grim job opportunities were triggered into worker agency and create work spaces. But to the extent to which these context conditions related to peripheral processes were decisive for the creation of space B is difficult to tell, as the social proximity between the coworkers is another crucial aspect, which is unrelated to core of peripheral processes.

Is there a difference between non-core coworking versus core coworking?

A logical question that emerges from this research is how different non-core coworking spaces are compared to urban coworking spaces. In both cases, there are different contextual factors at play, factors related to being core and factors related to the periphery. For coworking spaces, the agglomeration effects of urban areas are relevant here. Coworking spaces find more potential members, because it is well known that their customers, creative workers, are likely to be found in cities due to the easier access to knowledge networks and the variety of cultural amenities. Non-core areas have generally less population and less creatives, which is further perpetuated through the lack of agglomeration economies. A definite answer to this question is difficult since both spaces are relatively new and still under development. Also, a comparative research between urban and peripheral coworking would be more suited, so for now we have to rely on comparing both cases with the accounts in current academic literature. Nevertheless, based on the experiences in both spaces, some remarks are possible.

Space A and its status of being 'non-core'

Both spaces hold a different relationship with respect to their context. Space A is built on the economic rationale of coworking, meaning it relies on the presence of sufficient actors in the upperground and middleground to operate. These actors are required to create a dynamic situation in which local buzz can emerge from the coworking space. In the literature, it was found that spaces build upon its economic rationale are more likely emerges in large centres, where many actors from the underground (mostly creatives) and upperground (established businesses) are present. Core processes, such as an abundance of economic activity and large professional networks are synonymous for these large urban centres. Space A is based on this economic rationale of coworking. Being situated in a dynamic environment with a substantial amount of knowledge intensive businesses, primarily in the ICT, the owners recognize a value for the coworking space as a middleground within the local innovative environment. Hence, space A operates according to the same core processes found in larger cities.

However, this observation needs to be taken up with care, since the 'local buzz' and knowledge exchange among coworkers has yet to be observed here, as no coworkers are actively seeking encounters with other coworkers. This may still happen, when the space starts to profile itself as a 'shelling point' (Waters-Lynch & Potts, 2016), i.e. the place-to-be for creatives to meet other creatives. Based on their previous experiences, the hosts of space A predict this for their space, but have yet to prove it. Nevertheless, in the bigger picture, the operations of this space are based upon the core processes found within the city of space A.

Space B and its status of being 'non-core'

Despite that the city of space B has a similar population size of city, its context conditions are different. Instead of the dynamic economic environment found in the city of space A, the city of space B has fewer knowledge workers, no university and deals with shrinkage, such as outflow of young population, ageing population and a high vacancy rate. Rather than core processes observed in the city of space A, space B is dealing with peripheralisation processes.

At the same time, the small working community found in space B does not rely on its environment so much as space A does. It does not require the presence of other economic actors, rather, it requires around 10 workers to split the start-up risk and can maintain itself with relatively small number of users. These workers gain utility out of coworking by escaping home-office, sharing of resources, and working in a communal atmosphere. There is not necessarily the motivation here to grow the space. As long as it increases the work life of the workers without much additional monthly expenses, their goal is achieved.

The emergence of space B has little to do with core processes and more related to peripheral processes. Core processes were mostly absent here. Rather, although having a similar population size as the city of space A, the city was in a state of decline, marked by a population decline, outflow of young people, ageing population and high vacancy rate. For the owners of space B, the sentiment of living in a declining city and doing something about it, together with the availability of cheap place contributed to the establishment of the space. But to which extent the peripheral processes were decisive in explaining the emergence of space B is difficult to tell, as the social proximity between the coworkers is another crucial aspect, which is unrelated to core or peripheral processes. Because such spaces may appear anywhere where a group of key actors is present that long for a workspace and are willing to organize it themselves - regardless of population size. Such small-scale community-based coworking spaces were observed in large cities by Butcher (2016), in Sydney and London, and now in the city of space B. But at the same time, due to the absence of core processes, a coworking space like space A is unlikely to emerge in the city of space B.

Little distinction between core and non-core coworking

Thus, those looking for a distinct difference between coworking spaces inside and outside metropolitan areas may be disappointed. Even more so, both non-core coworking spaces are so different, that they show more similarities with their urban counterparts than with each other. From both cases observed in this research, urban counterparts have been found in existing literature. In other words, due to the plurality of coworking, coworking *within* non-core areas can be very different, and coworking *between* core and non-core areas can be quite similar.

Coworking spaces described as a nexus of knowledge creation like space A are, not surprisingly, common in urban coworking accounts, such as Waters-Lynch and Potts (2016) illustration of coworking spaces as a new place-to-be for members of the creative scene, or Capdevila (2015) argument of coworking spaces performing a distinct role in the urban innovative system. Small scale, grassroots working communities like space B show similarities with the narratives of the emergence of the first urban coworking spaces. Labour precarity, which was involved in the creation of space B, was also observed in highly urbanized areas, such as in micro-communities of urban fringes (Kühn, 2015).

For this reason, population size is a poor indicator for the type of coworking space, as contextual factors are more important here. Rather, for coworking spaces based on the economic rationale like space A, the presence or absence of core processes is a better predictor. And spaces like space B seem to be less related core or peripheral processes, but more with micro circumstances of organisational capacity of workers in relation with labour precarity.

Distinctiveness of coworking in non-core areas

Notwithstanding the differences between both coworking spaces, still something can be said on how coworking is performed in the periphery. Here it is useful to select the similarities between both spaces and match them to the image of coworking spaces observed in existing literature.

Looking at the moment on which the fieldwork for this research was held, non-core coworking spaces appears to be relatively small in size, with coworking more reliant on the social ties between the workers rather than on professional collaboration, and best suited for desktop workers who demanding little amenities other than a desk and Wi-Fi connection. But when space A becomes successfully developed, this will change. Space A will triple in size, offering more amenities, and cater knowledge exchange between coworkers and external parties. However, such spaces seem to be only likely when economic centralization processes are observed in terms of the presence of sufficient other economic actors. Else, the small sized working community looks to be the dominant model for non-core coworking spaces.

Another noteworthy similarity is that both coworking spaces are developing towards multifunctional spaces, not only out of necessity to secure additional sources of revenue, but there also appears to be an interest from external parties to rent the coworking spaces for their events. Again, both spaces are still searching for meaningful ways to interact with these external parties with respect to offering space-rental services and, more importantly, to benefit professionally through knowledge exchange and collaboration with the external parties that visit the space.

To summarize, non-core coworking is not necessarily different from coworking in large urban centres. This is explained by that in any type of space, either core or peripheral, centralisation and peripheralisation processes coexists. With that said, the absence of centralisation processes seems to favour the emergence of coworking spaces following the small scale working community model. But when centralisation processes are observed in non-core areas, spaces built on the economic rationale of coworking may appear. However, both configurations are found in both core and non-core spaces, making the idea of a 'distinct' peripheral coworking model invalid.

Exploring the value of coworking for non-core areas

Having said what coworking spaces are, how non-core coworking is performed, and why non-core coworking spaces become established, it is now time to explore the value of coworking for non-core areas. In the theoretical framework, the value of coworking was identified in two ways: as a source for the creation of economic value and as a strategy for workers to improve their labour situation. So far, there is no continuous flows of knowledge creation or knowledge exchange reported from both spaces. However, space A seeks to develop their space into a place where knowledge is created by enlarging their space and increasing their services offered. But again, future research must be conducted in space A to see whether this statements maintains true, as they are attempting to develop this space into this direction.

Nonetheless, individual workers in non-core areas are benefiting from coworking spaces. The coworkers interviewed in this research were all active as desk-top workers, most of them occupied in consultancy or ICT businesses. For each of them, home-office was not an option because it was too stressful, distractive and inefficient. Coworking was a solution that enabled them to separate the home and work sphere. In this way, coworking indirectly benefits the local economy when creative desktop workers are becoming more productive. But it mostly improves the working life of individual desktop-based workers active in creative industries.

But at the same time, there are many workers that have no issue with working at home, so the question remains to what extent the general population of creative workers may profit from coworking spaces. Because, with around 200 euro for a monthly membership, coworking spaces are a substantial financial investment for a place to work. And with little professional exchanges

observed among coworkers, a question is if they extract work-related benefit from coworking to justify the costs. There may be a large population of workers who find themselves without a suitable workplace and for whom the financial barrier is too high. In this respect, coworking spaces could be a solution for many workers that are required to work from home, either because their work is too far or they have no other workplace. For this reason, coworking has the potential to empower creative labour in the periphery and prevent the outflow of creative labour.

However, it should be emphasized that the ambiguity of the coworking concept makes coworking a dangerous concept to apply in a top-down fashion, for example by policy makers or office-rental companies. Simply providing the spatial infrastructure in terms of an open-plan office space with desks, internet connection, printers and a coffee machine does not make a space a coworking space. A crucial feature of coworking is the communal and collaborative atmosphere within these spaces. Hosts can facilitate this process through organizing events or a particular aesthetic design, but ultimately, the coworking experience is made by the actions of the users. A coworking space does not exist without coworkers, making top-down established spaces require intensive management to create an actual coworking space, as was seen with space A. Space B in contrast, emerged bottom-up through the self-organization of workers that held a high degree of social proximity to each other. Communal relations between the coworkers existed from the get-go and is one of the foundations upon which the space is built.

9. Conclusion

Coworking is a relatively new and quickly proliferating model of work. It refers to a collaborative and communal way of working, performed in open-plan office spaces in which the facilities are shared among its users. While most of the existing academic literature dedicated to coworking has exclusively focused on describing this phenomenon in large urban centres, this research is focused on coworking spaces located outside these areas, in this thesis referred to as non-core areas. The main question asked here is twofold: how do these spaces operate and why do they become established? The findings are summarized in this chapter, together with the limitations of the research and recommendations for further research.

After having introduced the topic and research objective in Chapter one, the next chapters are dedicated to the theoretical framework. Each of these chapters cover the four sub-questions of this research; what are coworking spaces and what is coworking (Chapter two), why do coworking spaces become established (Chapter three) and what are the features of non-core areas (Chapter four). The results have been summarized and interpreted in Chapter five, the analysis framework. Subsequently, Chapter six covers the methodology of this research, Chapter seven includes a description of the case studies, after which the results are interpreted and analysed in chapter eight. The conclusions drawn from the literature and empirical research are as follows.

Literature review

Coworking space and coworking

In the theoretical framework, an extensive overview of the coworking concept is given. It was found that many different types of coworking spaces exists, hence coworking should be understood as a pluralistic rather than a monolithic concept. While the cookie-cutter coworking space distinguishes itself as a desk-rental service in an open-plan office space, at the same time, many hybrid coworking configurations exists between other open workspace concepts such as business centres, incubators, accelerators and fablabs. Likewise, many ways of coworking exists. Coworking is understood here as the act of working inside the coworking space, typically characterize by the communal and collaborative relationships existing among the coworkers. Through the actions of users and hosts, the act of coworking is created, making each space holding a different definition of coworking. In many cases, hosts play a critical role as ‘curators’ in developing relationships among users. This may happen through social strategies such as events or internal social networks, or through physical strategies such as design and lay-out, in order to guide coworker mobility. Small coworking communities typically require little moderation, whereas large scale coworking enterprises often involve heavy community curation by the operators.

Establishment of coworking spaces

The establishment of coworking spaces is interpreted in two ways. First, a Marxists perspective is taken by looking at coworking as a strategy for precarious workers to deal with structural changes in the labour market. In this view, the sharing narrative of coworking may empower workers that suffer from social and professional isolation and who find themselves without a suitable workplace – a situation that is not resolved by the capitalist system. However, this view of coworking should be treated with care, as coworking simultaneously performs similar to the sharing economy, by being “genuinely collaborative and communal, yet at the same time hotly competitive and profit driven” (Richardson, 2015, p. 128), shown through profit oriented and globally active coworking enterprises. Secondly, the economic rationale of coworking was examined. From a micro perspective, it was posed that coworking spaces hold innovative potential due to a unique mix of

proximity and distance among coworkers. From a macro perspective, coworking spaces can contribute to the local innovative milieu as a 'middleground' by being a platform for established companies and creative communities to interact. In this way, the economic rationale shows how coworking spaces can be valuable sources of knowledge creation.

Non-core areas

In this research, the difference between core and non-core areas is described as the difference in core-related and periphery-related processes. These processes may occur along three dimensions, economic, social and political. In particular, economic processes, such as high innovation dynamics, the wide availability of high-qualified work and the presence of many other economic actors, are relevant for coworking spaces, since coworkers rely on access to social and professional networks to perform their work. Generally, non-core areas are marked by a shortage of core related processes relative to peripheral processes. However, peripheralisation and centralisation processes coexists, hence particular core processes may be found in non-core areas as well. Thus, in order to identify to what extent the spaces observed in non-core areas are different from core areas, the core and peripheral processes observed in the non-core areas are taken into account when describing the coworking spaces. Moreover, assessed is to what extent these conditions influence the operations of the coworking space

Thus, after having fleshed out the coworking concept in the theoretical framework, quantitative data was gathered from two coworking spaces. A total 10 semi-structured interviews were conducted with coworkers and coworking hosts. The interviews were transcribed and coded.

Key findings on coworking in non-core areas

Two different coworking configurations were found

Two coworking configurations are found in this research: an economic model and a small working community model. Both spaces operate along two different rationales, with coworking being performed in different ways. Space A is top-down established by a publicly owned business centre that sought to pursue the economic rationale of coworking in order to achieve economic value creation and regional development. Coworking here relies on the presence of sufficient actors in the upperground and middleground, so that a dynamic situation exists in which local buzz can emerge from the coworking space.

Space B is bottom-up established by seven coworkers, who previously worked from home and used the coworking space as a means to improve their labour situation. The coworking space is marked by its high social proximity and strong feelings of solidarity among coworkers – a situation that existed from the get-go and upon which the space is built. It does not rely on the presence of other economic actors to function, rather, it requires around 10 workers to split the start-up risk and can maintain itself with relatively small number of users. There is not necessarily the motivation here to grow the space. As long as it increases the work life of the workers without much additional monthly expenses, their goal is achieved.

The coworking concept can be adopted in multiple ways

The plurality of the coworking notion makes it tricky concept. Both cases show that coworking is not a blueprint one could implement easily in any situation. Applying coworking requires adaptation to local needs and circumstances. Different aspects of coworking triggered the hosts to create a coworking space. For space A, coworking spaces were seen as a place that could support creative professionals because it enables them to meet professional peers. For space B, the desire to escape home-office and the opportunity to come into contact with others motivated the founders to create their space. With different needs, different coworking spaces were created.

Moreover, in the course of their existence, both spaces are continuously in development, with the hosts looking identifying strategies that worked and did not work, in order to find ways to transform the space into a suitable business model. For example, the owners of space A found that in order to make a coworking space function according to the economic model, they require a larger space. The owners of space B noticed a demand from external parties to rent the space, and are now finding ways to transform the space to fit multiple functions beside coworking.

Hence, the contribution to coworking theory are first, that coworking is a pluralistic concept, with different ways of coworking existing, and second, that coworking spaces are under constant development, emphasizing the value of observing coworking spaces in a temporal perspective.

Coworking in non-core areas is not so different from coworking in core areas

It was further found that both coworking configurations found in this research, were observed in large urban areas as well. Therefore, a clear difference between non-core and core coworking was not found. In fact, both non-core coworking spaces are so different from each other, that each showed more similarities with a similar configuration found in core areas than with each other. In other words, due to its plurality, coworking *within* non-core areas can be very different, and coworking *between* core and non-core areas can be quite similar.

This is not surprising, since the core and peripheral processes that facilitated the establishment of both spaces can coexist in both large cities and in non-core areas. For example, economic core processes facilitating the emergence of the economic model of coworking spaces in large urban areas – high innovation dynamics, agglomeration economies, presence of many creatives and other economic actors – were observed in the city of space A. Space A is established in a dynamic economic context, marked by presence of a university, many high educated young individuals, and a fair share of workers active in the creative sector.

At the same time, the different context conditions observed in the cities of space A and B help to explain the different coworking configurations. Despite that with around 50.000 inhabitants, both cities have a similar population size, the context conditions are different. The city of space A has a rather dynamic economic environment, marked by the existence of substantial economic activity. This not only helps to attract potential coworkers; it also enables the hosts to perform the role of a mediator for existing businesses.

In contrast, the core processes observed in the city of space A are largely absent in the city of space B. Instead, the city is marked by peripheral processes such as the outflow of young people, an ageing population and high vacancy rates. But to which extent the peripheral processes were decisive in explaining the emergence of space B is difficult to tell, since the social proximity between the coworkers is another crucial aspect explaining the establishment of space B. This is not directly related to core or peripheral processes. Nonetheless, the absence of core processes makes a coworking space like space A unlikely to emerge in the city of space B.

The existence of two different coworking configurations further shows that population size is a poor indicator for the type of coworking space. Contextual factors are more important here. For coworking spaces based on the economic rationale like space A, the presence or absence of core processes is a better predictor. Spaces like space B seem to be less related to core or peripheral processes, but more with micro circumstances of organisational capacity of workers in relation to labour precarity.

Small working communities like space B seem more likely to develop in non-core areas, as well as the development of multifunctional spaces

Then how is coworking in non-core areas performed? Coworking spaces following the economic model only have potential in non-core areas when economic centralization processes are present

within the city. Having sufficient other economic actors, like potential coworkers and established businesses, is a requirement for this model to become successful. Small sized working communities on the other hand, are far less reliant on the presence of external economic actors. This model only requires a few number of coworkers who find themselves in a precarious labour situation and can muster up the resources and organisational capacity to create a coworking space.

Other than describing which coworking configuration is likely to appear in which situation, one remark can be made on an observation that is similar for both coworking spaces. Both spaces found success in providing space rental services to external parties, who used the coworking space to house their events. This is promising for both spaces, as they wish to exploit this situation by developing strategies to create knowledge exchange between the coworkers and the external actors visiting the space. To what extent the coworkers may benefit from external parties is yet unclear, but it shows that both spaces are developing towards multifunctional spaces.

Exploring the value of coworking for non-core areas

When assessing the value of coworking for non-core areas, the following should be considered. On the one hand, establishing coworking spaces following an economic rationale or using these spaces as a strategy for regional development should be thought of twice. First, because coworking spaces with a tight community and an atmosphere of knowledge creation are not easily created, especially in a top-down fashion. Second, non-core areas usually lack the core processes found in large cities for these coworking spaces to emerge with little effort. Although no knowledge exchange was found among the coworkers observed in this research, more investigation is required since the owners of space A seek to develop their space in the near future. The suitability for this coworking configuration is yet unclear for non-core areas, however, space A shows that they do hold potential due to the core processes found in non-core areas.

On the other hand, coworking helps individual creative workers by providing an alternative workplace for those that otherwise have to work from home. In this vein, policy makers are encouraged to look at both the need for creatives located in non-core areas for a better workplace, and the suitability of coworking to provide such a workspace. This not necessarily has to be a coworking space, but lessons can be drawn by the spatial set-up and the social set work atmosphere found in coworking spaces. Given that both spaces are developing towards multifunctional spaces, such workspaces are easily integrated with other functions or into existing facilities, for example with libraries or in vacant spaces. Then, the colocation of creative individuals may lead to new forms of knowledge to emerge.

To conclude, non-core coworking is not necessarily different from coworking in large urban centres. However, the absence of centralisation processes seems to favour the emergence of coworking spaces following the small scale working community model. But when centralisation processes are observed in non-core areas, spaces built on the economic rationale of coworking may appear. Nevertheless, both configurations are found in both core and non-core spaces, making the idea of a 'distinct' peripheral coworking model invalid.

Limitations and future research

The findings of this thesis should be interpreted in light of the following limitations. A main issue of this research is that both coworking space are still under development. The hosts of both spaces are continuously looking for financially feasible and sustainable business models. Therefore, it was challenging to give a definite description of the coworking spaces observed in this research. Although both spaces have not reached a stable form of operations, they already had experience with running their space, and identified certain strategies that work, do not work, or most likely will work in the future. Nevertheless, there are some issues that remain unresolved and require further investigation. This is best done when both spaces find a more stable mode of operations.

Moreover, more case studies will contribute to the robustness of the findings of this research. The small amount of case studies is particularly problematic here considering the plurality of the coworking concept, which suggests that many different ways of coworking in the periphery may exist. By selecting two very different case studies, the wide scope was attempted to be captured. However, more quantitative oriented research would be a valuable addition to make more generalizations. This could clarify if the configuration found in this research – small size spaces, mostly suited for desktop based workers, with social rather than professional relationships – is, in fact, more common, or that other coworking configurations may be found.

Another issue that needs to be highlighted here is the observation made through the Marxists perspective. From this view, workers that find themselves in a situation in which they have to work from home is considered a flaw in the capitalist system. A recurring narrative among coworkers in this research was their desire to escape home office. It is valuable to identify here to what extent precarity is experienced by creative workers in non-core areas, and if coworking can be a strategy to support them.

Lastly, existing literature on coworking spaces are primarily focused on the internal dynamics of coworking spaces, i.e. the acts of coworking within these spaces. This research shows that coworking spaces also perform a particular role within their environment; space A within the local knowledge ecology, and space B within networks of civic engagement and creative entrepreneurs. Capdevila (2015) already showed us how coworking spaces are embedded in economic networks. An addition here would be to investigate the role of coworking spaces in social networks of a city. Particularly interesting here is further research on space B, and identify to what extent the space might contribute to counter the outflow of creative workers from shrinking cities.

Executive summary

Coworking is a relatively new and quickly proliferating model of work. It refers to a communal and collaborative way of working that is performed in an open-plan shared office space, the coworking space, in which unaffiliated workers, mostly freelancers active in the creative industries, work ‘alone together’ in the same space. So far, coworking has been exclusively written about in relation to large urban centres, such as Berlin, Barcelona, Milan, London, New York and San Francisco. However, recent years have witnessed the birth of these spaces in smaller cities, in this thesis referred to as non-core areas. The goal of this research is twofold: to find out why coworking spaces in non-core areas emerge and how they are operating.

Coworking spaces and coworking

With coworking being a relatively new phenomenon, many ambiguities about the scope and reach of the coworking concept exists. Especially problematic are accounts of coworking in popular literature, perpetuating the image of coworking as an exclusive positive phenomenon. This even led to some scholars warning us for a ‘coworking bubble’ – hence, the statement of coworking as a hype in the title of this thesis. While the cookie-cutter coworking spaces distinguish itself as a desk-rental service in an open-plan office space where the facilities are at least to some degree shared among the users, in reality, many hybrid coworking configurations exists between other open-office concept such as business centres, serviced offices, accelerators, incubators, fablabs and hackerspaces.

Coworking is typically described as working in an informal, communal and collaborative atmosphere, but the degree of social and professional relationships is different within each coworking space. Through the actions of users and hosts, the act of coworking is created, with each space holding a different definition of coworking. Typically, hosts play a critical role as ‘curators’ in developing relationships among users. Therefore, coworking should be understood as a pluralistic rather than monolithic concept.

The establishment of coworking spaces

The emergence of coworking is examined in the wake of larger societal changes. Coworking is interpreted here in two ways. First, a Marxists perspective is taken by looking at coworking as a strategy for precarious workers to coop with structural changes in the labour market. In this view, the sharing narrative on which coworking is based may empower workers who find themselves without a suitable workplace and who are suffering from social and professional isolation– a situation that is according to Marxists caused by a flaw in capitalist system. However, this view should be treated with care, as coworking may be at the same time “genuinely collaborative and communal, yet at the same time hotly competitive and profit driven” (Richardson, 2015, p. 128), referring to the large for-profit coworking enterprises existing.

Secondly, the economic rationale behind coworking is examined. In this view, coworking spaces has innovative potential due to a unique mix of proximity and distance between coworkers inside the coworking space. In this way, coworking spaces can contribute to the local innovative milieu by providing a platform for established companies and creative communities to interact.

Non-core areas and methodology

In this research, the difference between core and non-core areas are understood as a variation in degrees of core and peripheral processes. For this reason, the coworking spaces observed here are interpreted in light of their context, meaning that the degree of centralisation and peripheralisation processes are taken into account when explaining the establishment and operations of coworking.

With a qualitative research design, two coworking spaces in smaller cities were visited. A total of 10 semi-structured interviews were conducted here. The data is analysed through coding.

Coworking spaces and coworking in non-core areas: two configurations

Both spaces function along two different coworking configurations – the economic model and the small working community model. Space A is top-down established by a publicly owned business centre that seeks to pursue the economic rationale of coworking for regional development. Space A relies on knowledge exchange among users and the emergence of local buzz inside the coworking space. In particular, they aim to develop space A as a middleground (Capdevila, 2015), i.e. a platform for agents from the upperground (established businesses) and underground (creative individuals) to collide.

Space B is bottom-up established by seven coworkers, who each previously worked at home and use coworking as a means to improve their labour situation and increase their professional productivity. Whereas space A requires organizational effort by host to create the coworking experience, space B relies on the high levels of social proximity and solidarity among the coworkers. It does not require the presence of other economic actors in its environment to operate, rather, it requires around 10 workers to split the start-up risk and can maintain itself with relatively small number of users. There is not necessarily the motivation here to grow the space. As long as it increases the work life of the workers without much additional monthly expenses, their goal is achieved.

Non-core coworking versus core coworking

It is found that both non-core coworking spaces are so different from each other, insofar that each space showed more similarities with a similar configuration found in core areas than with each other. In other words, due to the plurality of coworking, coworking *within* non-core areas can be very different, and coworking *between* core and non-core areas can be quite similar.

With both cities are similar in population size, contextual factors in terms of the absence of presence of core processes are a better predictor for explaining the different coworking models. Coworking spaces following the economic model like space A only have potential in non-core areas when economic centralization processes are present within the city. Small sized working communities like space B on the other hand, are less reliant on contextual conditions like the presence of external economic actors. This model requires a few number of coworkers who find themselves in a precarious labour situation and can muster up the resources and organisational capacity to create a coworking space.

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Attachment 1: interview guides

1. Interview Guide Operator

Core question: how did the coworking space become established, why, and what is going on here?

Introduction

1. Could you introduce yourself?
 - Occupation, other occupations & job description?
2. Could you describe or introduce the coworking place?

Establishment

3. Could you describe the process of how the coworking place came into existence?
 - Where did the idea come from? From who originated the idea?
 - How did the idea develop? ('landmark' achievements, setbacks, obstacles, adjustments?)
 - Why at this location?
4. Which parties were involved and what is their motivation to be involved?
 - Are they all both **financially** and organizationally involved?
5. Could you describe the purpose, objective and goals of the coworking space?
6. Has the coworking space so far fulfilled its expectations?
 - Disappointments? Surprises?
7. Who is making the decisions here?

The role of the operator

8. What do you understand as coworking?
 - When is the first time you heard about it?
 - Where do you get your knowledge or idea for managing the coworking space?
9. What are your motivations to operate a coworking space?
10. What are you doing inside to coworking space?
 - Could you give a description of your tasks?
11. What do you do for the users?
 - What services do you provide? What amenities?
 - Do you organize specific events or activities?

The users

12. Could you describe the users that come to this place?
13. Could you describe your relationship with the users?
14. What do you do to develop interaction between the users?
 - Aimed at social and or professional collaboration?
15. Do you believe you can speak of a community within this coworking space?
16. Is the physical lay-out designed with a specific purpose in mind?
17. How do you try to attract new users?

Coworking in the external environment

18. Is the coworking space involved in projects/collaborate with other organisations?
 - With whom, why and for what goals?
19. Is the space used for other purposes besides coworking?
20. Do you have contact with other coworking spaces?
21. In what way do you believe that such coworking spaces could be beneficial for the city or the region in general? What is the added value?
22. Do you see such spaces also emerging for other cities that are similar to Greifswald?

Conclusion

23. Do you have future wishes for the space? In what direction to you wish to see the space developing?
24. Are there things we didn't discuss but you feel are important to add?

2. Interview Guide Users

Core questions: why are you working here and what are you doing here?

Introduction

1. Could you introduce yourself? (job description / occupation / voluntary / other projects)
2. How long are you working here already?
3. How often do you come here?

Motivations – why are you here?

4. Could you describe how you ended up working here?
 - Where did you work before?
 - At what point did you decide to go coworking?
 - How did you come into contact with coworking? And this space specifically?
 - Were there alternatives or alternative workplaces you considered?
5. What would you say are your main motivations to come to this place?
 - Did other factors play a role? (Social environment? Professional environment? Cost efficient work place? Travel time?)
6. Do you feel there are differences between working here and somewhere else (home, coffee house, previous location)?
7. Do you think working here in this coworking space benefits your work? Example?
8. How long do you plan on working here?

Coworking itself

9. What do you understand as ‘coworking’?
 - What do you like about the idea behind coworking?
10. Could you describe your day in the coworking space? What are you doing?
 - What services provided by the coworking space do you use?
11. Are there activities or gatherings organized within the space? Do you attend them?
12. How do you see the role of the operator inside the space?
13. What is your opinion on the physical design of this place?
14. Are there things you like to see changed in the coworking space?

Coworking interaction

15. Could you describe the relations with your coworkers?
 - Do you often talk to your coworkers? About what?
16. Do you talk about your work with your coworkers?
 - Have they helped you in some with your work?
17. Do you work together with coworkers?
 - How did the collaboration start?
18. Do you know or meet coworkers or the operator outside the coworking place?

External environment

19. Do you like the location of this space?
20. Are you involved in other projects in the neighbourhood or in the city?
21. Would you consider or have you considered coworking in a larger city?
 - Where do you live and why?
 - What is the reason that you working here and not in a large city?
22. In what way do you believe that coworking can be beneficial for the city Do you feel there is a demand for such spaces in your profession or similar professions outside these large cities?

Conclusion

23. In what way does coworking benefits you?
24. Are there things we didn’t discuss but you feel are important to add?

3. Interview guide User/Operator

Core question: How did the coworking space become established, why, and what is going on here?

Introduction

1. Could you introduce yourself?

Establishment

2. Could you describe the process of how the coworking place came into existence?
3. Why at this specific location?
4. Which parties were involved and what is their motivation to be involved?
5. Could you describe the purpose, objective and goals of the coworking space?
6. Has the coworking space so far fulfilled its expectations?
7. Who is making the decisions here?
8. Why did you use the term 'coworking' as a label for space?

Motivations – why are you here?

9. Could you describe how you ended up working here?
10. What would you say are your main motivations to come to this place?
11. Do you feel there are differences between working here and working somewhere else (home, coffee house, previous location)?
12. Do you think working here in this coworking space benefits your work? Example?
13. How long do you plan on working here?

The role of the operator

14. How do you see the role of the operator inside this space?
15. How is the space managed? By whom? What do they do?

The users

16. Could you describe the users that come to this place?
17. Could you describe your relationship with the users?
18. Are there specific things organised to develop or increase the interaction between the users?
19. Do you believe you can speak of a community within this coworking space?
20. Is the physical lay-out designed with a specific purpose in mind?
21. How do you try to attract new users?

Coworking in the external environment

22. Do you like the location of this space?
23. Is the coworking space involved in projects/collaborate with other organisations?
24. Are you in contact with other coworking spaces?
25. Are you in contact with established companies? Have they shown interest to be in some way involved in the space? Or do you have wishes to be involved with them? (e.g. through events, to connect the creative scene to established companies through projects)
26. Do you receive support from public parties (local government, city government)? Are you in contact with them?
27. In what way do you believe that such coworking spaces could be beneficial for the city or the region in general? What is the added value?
28. Do you feel there is a demand for such spaces in your profession or similar professions (freelancers or other) in Gorlitz?
29. Do you also see such spaces emerging in other cities that are similar to Gorlitz?

Conclusion

30. Do you have future wishes for the space? In what direction do you wish to see the space developing?
31. Are there things we didn't discuss but you feel are important to add?

Attachment 2: codes and definitions

Coworking space

Code	Definition
EVENTS	Events held in the coworking space, or in which the space is involved. (Closed or open events, regular or incidental, now or in the past)
DESIGN	Comments on the interior design by users and operators. For example, thoughts of the operators behind the current lay out or affection by users
EQUIPMENT_SERVICES	Equipment and services provided by the coworking space
SPACE_LOCATION	Comments regarding the location of the space by hosts and operators
MEETING ROOM	Usage of the meeting room

Coworking

Code	Definition
SPACE_MANAGEMENT	How decisions are made about the space
U_O_RELATION	Relationship between users and operators
U_U_INTERACTION	All mentions of interaction among the users. Divided between social (such as small talks or co-presence) and professional interaction (knowledge exchange and collaboration)
USERS U_BIO U_MOTIVATION_CW U_BENEFITS_CW U_TASKS_IN_CW	Profile user (e.g. job, other work space, time in space); The reasons why coworkers are coworking. Particular benefits of working from a coworking space How the coworker behaves in the coworking space
OPERATOR O_BIO O_MOTIVATIONS O_TASKS	Profile operator (e.g. job, parent organization) Motivation regarding operating a coworking space Tasks of the operator within the coworking space. For example, actions to foster user interaction or other management strategies

Process: establishment, current operations, and future perspectives

Code	Definition
ESTABLISHMENT	The process and reasons why the space came into existence
GOAL	Descriptions of the purpose, objective and goals of the coworking space
O_RESULTS	Results and experiences so far with the coworking space. Comments on the achievement of goals, difficulties faced or changes made in the space since its establishment
O_UNEXPECTEDEXP	Unexpected experiences related to managing the coworking space so far
FUTURE	Future perspectives of the space, plans or wishes
NEW_USER	Comments on potential users, their target group, where they are, what their reaction is to the coworking space or why they are not there
CW_IMAGE	Descriptions and images by user or operators of the coworking concepts, for example, expectations they had of coworking
FINANCE_SPACE	Comments on the financial situation of the space

Context

Code	Definition
CITY	Descriptions, images or characterizations of the city or region in which the space is located by users or operators
OTHER_ORGANISATIONS	Any mentioning of other organizations, institutions, companies that are related to the coworking space
OTHER_CW	Descriptions of other coworking spaces