

# Expressing Experiences of Coworking Spaces: Insights from Social Media



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**Abstract** This study explores how people experience coworking spaces, one notable example of modern flexible workplaces. Coworking spaces that encourage interaction with diverse users and create innovation through collaboration have become ingrained in society. Many studies indicate how interactions and collaboration in these spaces are formed; however, few provide an understanding of how users perceive and (re)produce the spaces through daily usage. This study illuminates users' embodied experiences of them, relying on the extensive data from the Twitter posts of 915 users in Japan, where this phenomenon continues to spread. We find four key aspects of coworking spaces: (1) spaces for services; (2) spaces for individual work; (3) spaces for individual daily activities; and (4) spaces for interaction. Furthermore, the users tend to value the spaces for office services and individual work/daily activities over interaction with others. Insights from this study can support people involved in flexible workplaces beyond coworking spaces.

**Keywords** Flexible workplace · Coworking space · Twitter posts analysis · Japan

## Introduction

The purpose of this study is to explore users' embodied experiences of coworking spaces. Coworking environments have become a more common phenomenon in societies around the globe. According to one report, by the end of 2019, 2.2 million people are expected to be working in 22,000 spaces worldwide (deskmag 2019). The growth in this environment is generally based on the assumption that such spaces encourage interaction with diverse users and create innovation through collaboration as well as afford flexible work arrangements (Gandini 2015; Rus and Orel 2015; Spinuzzi 2012; Uda 2013).

Investigating this concept, the coworking literature has focused, in particular, on community building (e.g., Björklund et al. 2011; De Vaujany et al. 2019b; Garrett

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et al. 2017; Spinuzzi 2012) and the outcomes generated from this community such as collaboration and innovation (e.g., Cabral and van Winden 2016; Capdevila 2014; Cheah and Ho 2019).

However, few studies provide a comprehensive understanding of specific embodied user experiences of these spaces, despite the fact that such spaces are not only socially constructed but also bodily produced through everyday experiences by their users (De Vaujany et al. 2019a). Using this phenomenological approach enables us to illustrate how people perceive the spaces, what is visible/invisible for them, how they express their experiences, and what are the multiple aspects of the spaces (Merleau-Ponty 1962, 1968; Küpers 2015).

To this end, this study examines the embodied experiences of Japanese coworking space users who account for some part of the total users in the world (Uda and Abe 2017), based on extensive data obtained from Twitter, a prevalent social networking platform. Adopting this method for the data collection allows us to avoid methodological issues such as the obtrusive and reactive aspects inevitably involved in the process of direct observation and interview (Kimura 2018).

This empirical study, elaborately designed and conducted, contributes to the literature in the following ways: it provides insightful findings about the embodied experiences of coworking space users; it offers a clue to reconsider the concept of the spaces in a broader context; and its approach supports the exploration of alternatives to conventional qualitative research methods.

## Literature Review

### *Coworking Space as a Modern Flexible Workplace*

Over the past decade, coworking spaces have become more ingrained in our society. In line with this trend, conceptual or theoretical examinations about what coworking is have advanced. According to the literature, essential aspects of coworking spaces include: a shared workplace (Gandini 2015; Kojo and Nenonen 2016; Spinuzzi 2012; Uda 2013), interaction with (various) people (Gandini 2015; Kojo and Nenonen 2016; Merkel 2015; Moriset 2014; Spinuzzi 2012; Uda 2013), and a serviced space (Bouncken et al. 2016; De Peuter et al. 2017; Waters-Lynch and Potts 2017). While these aspects exist in other workspaces, such as corporate offices, shared offices, rental spaces, serviced offices, and business incubators, coworking spaces are notable in terms of the comprehensive conceptualization of those aspects.

The rise of coworking spaces, specifically as a prospective alternative for existing workspaces, has been socially driven by organizations and working individuals. Organizations have attempted to explore workspace flexibility, efficiency, and creativity to a higher degree (Gandini 2015), while working individuals have longed for or sought out a work environment that enables not only an independent style of work but also flexible interactions with others (Leclercq-Vandelannoitte and Isaac

2016; Spinuzzi 2012; Uda 2013). Further, advancements in information and communication technologies have accelerated these trends. Among them, mobile technologies, online tools for communication and product/service development, and wireless networks have contributed to the advancement of more flexible work practices than those in conventional offices (Davis 2016; Faraj et al. 2011; Jørgensen and Ulhøi 2010; Spinuzzi 2012; Townsend 2000; Wang and Loo 2017).

In addition, the formations of time and space have transformed (Di Marino and Lapintie 2017; Moriset 2014), and with this, collaborative spaces including not only coworking spaces but makerspaces, hackerspaces, and innovation labs (De Vaujany et al. 2019a, b; Fuzi 2015; Schmidt et al. 2014) have been spreading as alternatives to conventional workspaces with less openness and flexibility (Bouncken and Reuschl 2018; Brown and O'Hara 2003; Garrett et al. 2017; Spinuzzi 2012).

### *Experiences in Coworking Spaces*

As shown above, the coworking literature is rapidly expanding across regions and disciplines (Spinuzzi et al. 2019). In the social sciences, including organizational and managerial fields, the studies that stand out are those focusing on community building (Björklund et al. 2011; Bouncken and Reuschl 2018; Cabral and Van Winden 2016; Fabbri 2016; Garrett et al. 2017; Spinuzzi 2012) and the outcomes generated in these spaces such as collaboration and innovation (Cabral and van Winden 2016; Capdevila 2014; Cheah and Ho 2019; Leclercq-Vandelannoitte and Isaac 2016; Orel and Dvouléty 2020; Schmidt et al. 2014).

At the same time, we can find few but insightful previous studies attempting to grasp detailed experiences of the space users. These studies present the results of the categorization of user experiences.

For example, Spinuzzi (2012) provides insights regarding how users define coworking spaces and what they use them for, based on interviews with 17 individuals in three coworking spaces in Austin, Texas, along with some coworker-generated texts such as online word of mouth. According to the author, space users view them mainly as alternative office spaces, social hubs to interact with other users, spaces to collaborate, spaces consisting of heterogeneous or homogeneous populations. In addition, the study reveals that these users moved to these spaces from homes or coffee shops to avoid distractions and isolation. These users expect to get not only better facilities, time flexibility, and convenience of location from these spaces, but also interaction, feedback, trust, learning, and partnerships with other users.

Bilandzic and Foth (2013) collected data from ethnographic observations of more than 70 informal conversations and 30 in-depth interviews with users in a bookless library space dedicated to coworking in Brisbane, Australia. Their results reflect the following five personas embodying usage patterns: (1) "Doesn't-care Claire," who is not particularly interested in the environment as a coworking space, (2) "What-can-I-do-here Sophia," who has little understanding of what the space is and what it offers, (3) "Learning-Freak Fred," who favors the concept of the space

for interaction and collaboration with others, (4) “I-wanna-share-it Garrett,” who seeks to share his skills and experiences with other users, and (5) “Co-working Chris,” who views the space as a public place enabling him to get away from distractions at home and enjoy serendipitous encounters with others. On the basis of these personas, Bilandzic and Foth (2013) point out that these spaces are used in three main ways: (1) as not an affective but rather instrumental work environment (Claire); (2) as a third place for coworking (Chris); and (3) as an informal learning environment (Garrett).

Brown (2017) captures qualitative and quantitative data from 19 users in spaces in England to derive three categories regarding key motivations for coworking: (1) “Independence,” which means the spaces offer productive and flexible work environments unlike other settings such as home; (2) “Professional work environment,” which translates to a space suitable for professional use such as business meetings with the clients; and (3) “Peer/support networking,” which means the spaces provide opportunities to have social contact and garner peer support.

Waters-Lynch and Potts (2017) analyze why coworkers use these spaces, based on a small sample of ethnographic data collected in Melbourne, Australia. According to them, the users join these coworking spaces for “finding, connecting,” and cooperating with others who have complementary knowledge or skills.

Butcher (2018) presented the results regarding why users cowork and what they learn from coworking by analyzing observational data gathered in a space in Melbourne, Australia. The results show that the users sought to exchange knowledge, connect with others, gain mutual support, and have office alternatives. These users learned to become collaborative, intentional for everyday practices and events in the space, and to contest for orthodoxy such as institutions and norms.

Orel (2019) conducts loosely structured interviews with 21 remote workers who use one of five coworking spaces in Ljubljana (1), Leipzig (1), Berlin (2), and Prague (1). From the results, he found that the workers used the spaces to improve their social life and extend their networks, which could lead to sources of innovation, productivity, and well-being, through events and other activities. Furthermore, his study shows that interacting with other users brought about receiving emotional support, heightening the significance of work, and raising morale.

### *Embodied Experiences of Coworking Spaces*

The above studies introduce meaningful empirical findings, but do not adequately illuminate the embodied user experiences that can be identified through a phenomenological approach. While there are some theoretical streams that explain phenomena in the workplace (Taylor and Spicer 2007), the phenomenological perspective has got to be noticed in management/organizational fields (Dale 2005; Dale and Burrell 2008; Gärtner 2013), because it enables us to comprehend multiple aspects of the workplace (Küpers 2015). In other words, space is not only socially constructed but is also bodily produced through everyday user experiences (De Vaujany

et al. 2019a). This perspective contributes to capturing what users see (visibly or invisibly) in the spaces and how people embody and express the spaces (Merleau-Ponty 1962, 1968). Although research adopting this perspective is still scarce, the following studies clearly contribute to a better understanding of embodied experiences of coworking spaces.

De Vaujany et al. (2019a) explore how the authors themselves bodily experience the guided tours in the collaborative spaces, relying on ethnographic and auto-ethnographic data collected from 110 tours that took place in 13 different countries such as France, Spain, Germany, the United States, and Singapore. As a result, they identify four emotional registers that emerge during the tours: (1) “initiation,” which emerges from the visible open spaces and an invisible community and evokes emotions such as sharing and a sense of mutual help; (2) “commodification,” which emerges from the visible furniture and the invisible value of the services and evokes emotions such as desire and disappointment; (3) “selection,” which emerges mainly from the invisible excellence of a space and evokes emotions such as ambition and a sense of possession; and (4) “gamification,” which emerges from the visible materials cut by machines and invisible new skills and evokes emotions such as pleasure and co-construction. They emphasize that these tours are a means of producing and making visible the atmosphere of each space.

De Vaujany and Aroles (2019) focus on the silence in coworking spaces normally expected to be silent, and attempt to illuminate the relationship between silence and learning as embodied user experiences in these spaces, mainly based on observations and semi-structured interviews in a space in Paris. They provide four key events in a makerspace: (1) “Individual artistic project,” fragmentedly done in the creative areas and rooms; (2) “Floor collaboration,” ephemerally done in places such as corridors and stairs; (3) “Training sessions,” intensely done on the ground floor; and (4) “Lunch break,” intensely done in the kitchen or private apartments. They then connect each of these events with noise and silence and a form of learning. The results show that: (1) Individual artistic project, done in silence, enables co-created situated learning; (2) Floor collaboration, done in noisiness, promotes inter-personal learning; (3) Training sessions, done in noisiness, encourages technical learning; and (4) Lunch break, done in noisiness, leads to social-learning. Their study argues that while silence can be viewed as the state of “nothing happening,” it also can be a sign of “something happening,” and essential to embodied learning in collaborative spaces.

## ***Research Gap***

We can draw significant implications from these previous studies focusing on (embodied) user experiences in coworking spaces, but they have the following theoretical and methodological limitations.

Although each study attempts to explore specific promising theoretical themes, such as motivation, learning, atmosphere, and silence, overall, few studies indicate

users' "comprehensive" experiences of these spaces in conjunction with detailed data structure. Thus, we believe that the examination of the relationship between the concept of coworking spaces and user experiences has not made sufficient progress. As the concept itself remains relatively new (Bouncken and Reuschl 2018; Leclercq-Vandelannoitte and Isaac 2016) and the figures are varied (Spinuzzi et al. 2019), there is a need to improve our understanding of the concept by using better empirical data that offer a complete picture of the user experience. Namely, we need to not only cultivate the specific topics related to coworking spaces but also reflect and elaborate on the concept itself.

Moreover, most previous studies do not explore the embodied user experience. To illuminate not only how users experience coworking spaces but also how the spaces are produced and organized through lived everyday experiences, it will be meaningful to pursue a phenomenological perspective for empirical research on the topic (De Vaujany et al. 2019a).

As for methodological limitations, first, the studies referenced here do not rely on large and extensive data samples. Second, there is further need to draw the empirical findings from countries other than the Western world, in order to enrich the literature and to contribute to refining the concept of coworking spaces in a more persuasive and credible way. Third, most studies adopt well-established qualitative methods such as observation and interview. On the one hand, these methods are extremely suitable for unravelling and understanding complex and messy phenomena (Law 2004); on the other hand, it can be quite difficult to get rid of methodological issues such as obtrusive and reactive aspects inevitably involved in the process of observation and interview (Kimura 2018). These issues raise the question as to how properly scholars can collect data on lived experiences and provide them to us through prevalent qualitative methods. Therefore, we need to explore an alternative approach such as ethnography in cyberspace.

## Methods

### *Data Collection*

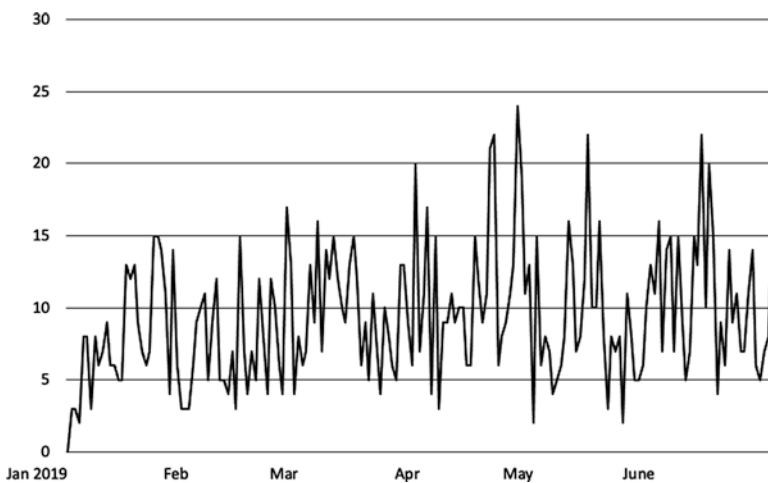
This study investigates the experiences of "Japanese" coworking space users, gathering information from a larger sample and applying a phenomenological perspective. Japan is an appropriate target for this research as it is one of the countries, other than those in the West, where coworking spaces have been spreading. In fact, nearly 7% of coworking spaces in the world are in Japan as of 2016, corresponding to an emergent phase of these spaces (Uda and Abe 2017). Thus, results derived from this research could enrich the literature on coworking and enable us to consider what we do know and do not know about this topic as well as where we should be headed.

The data for this study are obtained from Twitter (January 1, 2019 to June 30, 2019). First, all open tweets including the term "coworking" (in Japanese), which

were posted by Japanese people during the period, were searched. Second, tweets showing that each Twitter user directly experienced Japanese coworking spaces were extracted from the tweets gathered in the first step. The number of these tweets totaled 1692.

The reasons why this study focuses on social media and subsequently selected Twitter as the data source are as follows. Twitter is an influential social media site and those collected tweets offer significant evidence of users' current embodied experiences (as of 2020). The tweets allow us to grasp the bigger picture of how users perceive the spaces, what things they make visible (or not) and describe, and how they produce their experiences (Merleau-Ponty 1962, 1968). Moreover, we can collect large and various data in the online environment on social media. While there are various names for newly emerging (qualitative) methodology conducted in the online world, such as virtual ethnography (Hine 2000), online ethnography (Markham 2005), cyberethnography (Robinson and Schulz 2009), digital anthropology (Horst and Miller 2012), and digital ethnography (Pink et al. 2016), it is methodologically significant that digital fields enable us to collect social data without being affected by the restriction of time and place, in contrast to more traditional qualitative methods. Furthermore, researchers can collect large amounts of online data with a nonreactive or unobtrusive procedure (Kimura 2018); this method can avoid major sampling issues and generalization built into typical qualitative methods such as ethnographical interviews and participatory observation.

As a result of organizing 1692 tweets collected in this study, they were from 915 Japanese people who have experienced coworking spaces in Japan. Thus, on average, each user posted 1.85 tweets on the experiences of these spaces during the study period. Those tweets include various information such as date posted (Fig. 1),



**Fig. 1** Time trend of the number of tweets

**Table 1** Data characteristics

Gender	Male	425
	Female	232
	Unknown	258
Employment status	Freelance	152
	Entrepreneur	115
	Full-time	92
	Homemaker	7
	Student	5
	Unemployed	4
	Part-time	3
	Unknown	537
	Occupation	Web developer
Writer		59
Engineer		47
Designer		46
Blogger		44
Web designer		42
Consultant		39
Video producer		35
Editor		29
Affiliate marketer		28
Illustrator		25
Web engineer		22
Software developer		20
Event manager		17
Director		16
Programmer		14
Marketing		13
Manga artist		12
Photographer		12
Web writer		12
Developer		11
Graphic designer		10
Food service	10	
The others	210	
Unknown	284	

gender, employment status, and occupation (Table 1). In addition, there are 267 tweets with photos or movies.

Approximately half of the users were male; moreover freelancers, entrepreneurs, and full-time employees combined represented about half of the sample. Overall, individuals from a wide variety of occupations were represented in the sample such as web developer, writer, engineer, designer, blogger, web designer, consultant, and video producer. Although not all the users indicated where their tweets were posted from, of those indicating their locations, at least one-third (16 prefectures) of the



Japanese prefectures were represented. This shows that coworking spaces experienced by the users in this study are located not only in big cities, such as Tokyo and Osaka, but also in broader areas in Japan. Thus, the sample of this study included varied user experiences of coworking spaces.

### Data Analysis

This study extracted the online text data from Twitter and then conducted a content analysis. Specifically, 1692 tweets on user experiences of coworking spaces were analyzed using Nvivo software based on two types of coding: line-by-line and focused coding (Charmaz 1995, 2006). First, line-by-line coding was conducted by carefully reading and examining each line of data, in order to study meaning and assign codes. Second, first-order codes resulting from the line-by-line coding were sorted and synthesized into second-order themes. Focused coding involved more selective and conceptual examination. Accordingly, this study built a structure for the data that captured the users’ experiences in the spaces, as shown in Table 2.

**Table 2** Data structure

First-order codes	Second-order themes	Aggregate dimensions	
Facility	Services	Space	
Systems			
Environments			
Other users			
Location			
Support			
Provider			
Concept			
Implementing	Individual work		
Productivity			
Attitudes			
Modes			
Performance			
Descriptions			
Time			
Frequency			
Aim			Behaviors
Feelings			Individual daily activities
Activities			
Situations	Interaction		
Places			
People			
Impressions			
Contents			
Outcomes			
Purpose			

## Results

### *Themes Emerged from the User Experiences*

As a result of the analysis, the experiences of coworking space users in Japan were divided into two dimensions: space and behavior. The former consists of the theme of services, and the latter consists of the theme of individual work, individual daily activities, and interaction. Of the four themes, services accounted for the majority of the data. The remaining references were on individual work and daily activities, while interactions accounted for a relatively small proportion of the data. Each theme emerged from the user experiences is described in detail below.

### *Space for Services*

Coworking space users referred to space services such as facilities, systems, the environments, the other users, and locations. Experiences regarding support and the space providers were hardly expressed.

The category of the facilities consists of references about space exteriors and interiors, and almost all of them were assigned in the latter. Specifically, references about non-work-related facilities, equipment, and furniture were prominent in the latter category.

The majority of references to non-work-related facilities was about experiences with spas or saunas. The data shows that a so-called coworking spa/sauna is prevalent mainly in Tokyo. These spaces that provide users with this type of relaxation and pastime were highly rated. In addition, there were many references related to accommodation services, gyms, and fitness. With regard to equipment, most references were about Wi-Fi service, and most users were satisfied with its quality. Furthermore, many users expressed the expectation that the spaces would be places to charge their digital equipment and rent displays or monitors.

As for furniture, most users referred to the functionality and comfort of the desks and chairs. Overall, the users were satisfied with these, but some expressed dissatisfaction with the stiffness of the chairs.

The category of the service systems mostly consists of user experiences with usage fees, usage models, such as membership and drop-ins, and hours of operation. In addition, although only a few users referred to it, there were some expressions related to the rules of space usage such as bringing in food and beverages, having conversations and phone calls. On the whole, most users perceived space usage fees positively; many users praised the spaces that were provided free of charge as well as the cost–performance of the services. In terms of usage models, we found that many users were satisfied with the convenience of the drop-in service or entered into membership contracts. However, others posted that they had cancelled their membership contracts or were considering cancellation due to not using the space

as much as they had planned. As for hours of operation, most users expressed dissatisfaction with the short business hours and the arrangement of regular days off; in particular, the fact that the spaces were closed late night and on weekends.

The category of environment mostly consists of references regarding the crowds in the spaces, noise, atmosphere, and comfort. Some users mentioned the view, temperature, lightness of the spaces, and a handful of users expressed moisture and smell. With regard to congestion, most users preferred spaces that were empty, and there were quite many references about dissatisfaction with congestion in the spaces. As for noise, many users said that the spaces were quiet, leaving a good impression. In contrast, a few felt uncomfortable about background music, conversations between people, and noise in the spaces. As for atmosphere, although there were many positive references showing that users perceived calm and relaxing atmospheres, words such as energetic or pleasant were scarce in this category. Most users held positive perceptions of the degree of comfort in the spaces. However, a few stated that the spaces were too cold or dark for them to stay.

With regard to other users, most expressions were about their attributes such as appearance, employment status, occupation, and behavior. In particular, many users observed and referred to other users' work styles, conversations, meals, personal belongings, and frequency of use. They then posted tweets about what they had learned from watching the behavior of other users, or about the uncomfortable feelings caused by them.

As for location, there were many positive references on the accessibility of the spaces from their homes, offices, and the nearest stations, and on their surroundings such as commercial buildings or nature.

In addition, many users were satisfied with the food and beverages provided for free in the spaces, and expressed detailed information about these services such as the variety, volume, and price.

### *Space for Individual Work*

The expressions about individual work in the coworking spaces accounted for a significant part of the data, although this was less than those on the space services. This theme primarily consists of references about how users implemented their own tasks and how productive they were. In addition, there were some expressions on the objectives of their work and how long they worked, but this proportion of total references was low.

Overall, space users were positive about their individual task experience. Most users were devoted to their work, and stressed that they carried out their work in a concentrated manner and made significant progress. Some expressed how much they were able to accomplish by working long hours, while others mentioned scolding themselves or trying to motivate themselves if they had not finished their tasks or were just "chilling" at the spaces. Furthermore, expressions such as "komoru," "roujou," and "kanzume," which reflect work modes in the coworking spaces, were found

in the references. These are very local terms that mean shutting oneself in a space or room. In other words, these workers used words that translate to being immersed in their work to vividly express their experiences. Their expressions indicate that they were proud of working in this mode. There were also some references about another work mode, the “mokumoku meeting.” This is industry jargon that is especially familiar to programmers, writers, and bloggers. In this type of meeting, people get together but basically remain quiet; that is, they focus on their own work without communicating with each other. While it is possible for the members joining the meeting to expect to share knowledge if needed because they work in similar business fields, the main focus is to conduct their own work under mutual monitoring. The users found this work mode to be fun and effective. In contrast, there were almost none of the negative references reflecting sadness or loneliness in working alone.

### ***Space for Individual Daily Activities***

As with the case of individual work, the expressions on user experiences with individual daily activities in the coworking spaces accounted for a large portion of the data. This theme illuminates how users experienced these spaces even when not working; namely, what the users perceived and did in the spaces, without interacting with others.

Many users expressed that the spaces made them feel calm or excited, but some users felt tense from the atmosphere in the spaces. Similarly, there were some references to eating, drinking, reading, relaxing, listening to music, exercising, playing games, posting tweets/photos on social media, being inspired by the other users, observing what other users looked like or did, and learning norms. However, there were a wider variety of references in the category of activities including the following: sleeping; dancing; hesitating to speak to others; going to the rest room; being introspective; pretending to work; suppressing a laugh; catching a cold; crying while remembering an impressive event; seeing and pitying other users who seemed to be deceived; being upset by an error; imagining how other users felt about oneself; having a nosebleed.

### ***Space for Interaction with Others***

In contrast to the preceding themes, expressions on interactions with others in the coworking spaces accounted for a small part of the data. This theme consists of references about when, where, with whom, how, and why users interact. It also includes expressions about how they felt about the interactions.

Almost all expressions on the interactions were about casual conversations, events, meetings, seminars, and workshops. As mentioned previously, some users joined mokumoku meetings and focused on their own work in silence, but

sometimes interacted with others. However, a few users communicated with others over lunch or dinner. In addition, there were almost no references about interactions with the space providers such as the managers or staff members.

There were few references about how users felt about their interactions with other people inside or outside the spaces; however, users did mention feelings such as fun, pleasure, or delight, and almost all recognized their interactions positively. The few who provided negative expressions had not expected to interact with others in the spaces or were dissatisfied with the various interactions that hindered their concentration on their work.

References regarding what they gained from their interactions were also few, but those that did comment indicated that they were able to share the latest information or knowledge, and enriched their networks. However, almost none of the users mentioned cooperation with the other users such as accommodating business orders, or collaboration for developing new products/services.

In the categories regarding interaction with others, the term “community” was rarely found.

## Discussion

This study identified four themes about the experiences of Japanese coworking space users: spaces for services; spaces for individual work; spaces for individual daily activities; spaces for interactions with others. Among them, there were more users’ expressions regarding the first three themes with fewer expressions on the fourth, space for interaction. In particular, facility, systems, and environments, under the theme spaces for services, and implementing their own tasks, and productivity, under the theme spaces for individual work, stood out. In contrast, the references related to how they felt during or after interactions with other users or what they gained from those interactions, such as cooperation and collaboration, were scant. Notably, the word “community” rarely appeared in the data. However, most users felt positively about their coworking space experiences and spontaneously put their lived experiences into words in their posts.

Based on these findings, it can be said that the users in Japanese coworking spaces experience and express the four aspects of the spaces. Among them, spaces for services, spaces for individual work, and spaces for interaction with others are more or less mentioned in the coworking literature (Bilandzic and Foth 2013; Brown 2017; Spinuzzi 2012). However, the previous studies did not have enough empirical evidence regarding spaces for individual daily activities. Thus, our additional findings about how users felt about the spaces or behaved in them while not working are a significant contribution to and extension of the literature.

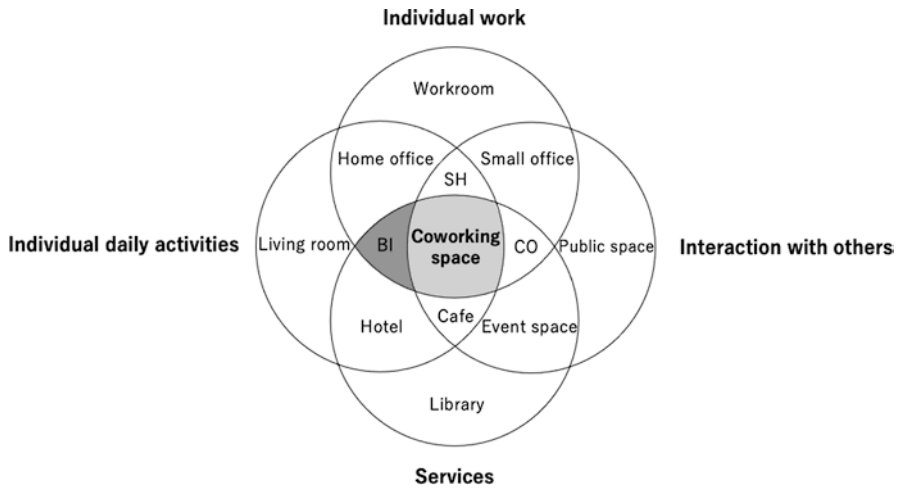
The important implication here is that for the users, these coworking spaces represent a consolidation of multiple aspects (Küpers 2015), which are perceived and experienced at various levels. Specifically, the users perceived and experienced the coworking spaces as spaces for services and individual activities, while they did not

tend to regard them as spaces for interaction with others. Similar findings have been indicated in previous studies, although there are few on the topic (Spinuzzi 2012; Bilandzic and Foth 2013; Weijs-Perrée et al. 2019). In addition, some studies have mentioned productivity in coworking spaces (Brown 2017; Orel 2019; Waters-Lynch and Potts 2017). However, many studies have emphasized either conceptually or empirically that the coworking space is a space for interaction and community building (Butcher 2018; De Vaujany et al. 2019b; Garrett et al. 2017; Merkel 2015; Moriset 2014; Spinuzzi et al. 2019). Therefore, among the users of Japanese coworking spaces, they are experiencing and (re)producing these spaces differently, at least, from conceptual assumptions and associated empirical results in previous studies. It is also noteworthy that the work modes expressed by local words found frequently among the Japanese space users, such as komoru, kanzume, and moku-moku, are at the other end of the spectrum from interaction with others. In addition, there are some references and photos showing comfort and convenience of private booths provided by coworking spaces. Some users prefer them and shut themselves out and concentrate on their own tasks.

The question then arises: why do users perceive and experience these spaces in different ways? Considering the characteristics of the users, especially their employment status, for example, as Spinuzzi (2012) points out, we can assume that freelance workers and small-scale entrepreneurs view the facilities as a highly attractive means to concentrate on their work. This explanation in previous studies may be somewhat reasonable, as this study also identifies a significant proportion of users with similar employment status. Moreover, in the Japanese local context, freelancers are embedded in the subcontracting system, and the ability-based grade system, which is based on seniority, encourages workers to avoid interactions with strangers in coworking spaces, and instead, focus on their industrially or organizationally fragmented work. As a result, they may view the spaces (especially with personal booths) as a comfortable, convenient, and valuable place for that.

In addition, we form the following hypothesis regarding the impact of social media on this topic. It is assumed that potential users, based on online information gathering and communication, preliminarily acquire perceptions on what coworking spaces are and what they can get through the usage of the spaces, before they actually experience them. Indeed, a number of tweets (with photos) stressed how wonderful or suitable the spaces were for individuals seeking a space enabling them to focus on their tasks, thereby recommending the spaces to their followers. Since coworking space is still a new form of workspace in Japan, off-line interactions as well as online information gathering and communication will have a preliminary impact on perceptions of new users, and may bias their behavior toward these existing sentiments.

Subsequently, based on these discussions, we mapped the experience of the users in Japanese coworking spaces in a broader context of spaces and places. As shown in Fig. 2, the four aspects of the coworking spaces experienced by the users in this study are also found in other spaces or places. As noted above, for the users, the coworking space is the consolidation of four aspects, and it is conceptually and empirically shown that these aspects overlap (Bilandzic and Foth 2013; Brown 2017; Spinuzzi 2012). It should be noted that the examples of spaces or places shown in each aspect in the figure



**Fig. 2** Mapping the experiences in the conceptual context of space and place. *SH* Shared House, *BI* Business Incubator, *CO* Corporate Office

are conceptual. Based on the results of this study, the main experiences of the users in Japanese coworking spaces are mapped, not in the central part, but in the left side of the figure, which is shown as the darker grey segment. Specifically, we show that the users mainly perceive and experience these spaces not for interactions with others but rather for the services provided and individual work or individual daily activities.

In addition, it can be noticed that trends adopting the essence of coworking spaces have been occurring in each area in the figure by not comparing the empirical results only with the concept of coworking spaces, but rather by reconsidering the results in a broader context. In other words, from the figure, we can easily draw some examples that add coworking spaces to existing spaces or places: corporate coworking as corporate offices plus coworking spaces; cafe coworking as cafes plus coworking spaces; and co-living as shared houses plus coworking spaces (Bouncken et al. 2018; De Peuter et al. 2017; Waters-Lynch et al. 2016). As a result, we can see trends moving toward the center of the figure in each field, and thus, the boundaries surrounding the field of coworking spaces have been melting.

Such discussions contribute to our understanding of not only the context of coworking spaces but the context of flexible workplaces at the macro level.

## Conclusion

This study attempts to explore how users experience coworking spaces, based on extensive data collected from tweets posted by 915 people all over Japan. As a result, four key aspects of coworking spaces are identified: (1) spaces for services;

(2) spaces for individual work; (3) spaces for individual daily activities; and (4) spaces for interaction. In particular, users perceive the value of the spaces in terms of services and individual work or individual daily activities, rather than in terms of interactions with others. That is, we find that their experiences diverge from the conceptual assumptions and some empirical results that emphasize the significance of community in these spaces. In addition, the results show that users positively recognize the spaces particularly as spaces for individual work.

We believe these findings may be caused not only by the employment status of most users, but also by the Japanese local work systems and preliminary acquisition of perceptions of coworking spaces on social media. Furthermore, we attempt to reconsider the concept of coworking spaces by positioning our results in a broader context of spaces and places.

This study provides new insights about the user experiences of coworking spaces, how to rethink the concept of the spaces, as well as an alternative to conventional qualitative methods. In this sense, we believe our study is theoretically and practically significant for academics (human resource management), experts, and policy-makers in not only the field of coworking space but that of the flexible workplace.

However, the study has the following future challenges. First, we looked at data over a short period of time, relying on current data collected in 2019. It would be helpful to better understand Japanese user experiences of coworking spaces over a longer period. The first Japanese “coworking” space may have been established in 2010. Thus, an examination based on longitudinal data collected from tweets posted from 2010 to post-COVID-19 could bring us additional insights about how users have been experiencing the spaces and what changes have occurred during this period.

Second, it would be meaningful to further explore the data in greater depth by focusing on a subset of the users carefully extracted from the dataset and examine the transitions in their embodied experiences of these spaces as expressed on social media such as Twitter. Such data could be collected in a nonreactive or unobtrusive manner same as in this study.

Moreover, it would be an effective research method to appropriately complement the online data with ethnographical data gathered through intensive interviews and observations that could illuminate overlooked aspects in this study.

Finally, an international comparative analysis of this theme would contribute to exploring how the local and cultural context may affect perceptions and experiences of users in coworking spaces.

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