# Coworking Spaces in Urban settings: Prospective Roles?

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## Abstract

Coworking spaces (CWS) are workplaces created to provide infrastructure and interaction opportunities for independent professionals and freelancers. They are a result of a trend toward flexible and project-based assignments, shared use of durable assets and exchange of services. Despite controversy, they are argued to compose the hardscape of innovative urban ecosystems and public policies have stimulated their creation. In São Paulo, since 2016, both city and state administrations conducted initiatives to start public CWS. Despite efforts, results have been mixed, and the problem is related, in part to lack of clarity regarding the roles CWS can play to users and in their cities. To address this issue, five CWS roles are proposed: infrastructure provider, community host, knowledge disseminator, local coupling point and global pipeline connector, and the more roles a CWS plays, the greater its impact on the city.

## Introduction

Coworking spaces (CWS) are a recent urban phenomenon; understood as workplaces created to provide infrastructure and interaction opportunities for independent professionals and freelancers. They reflect a trend in knowledge work towards flexible and project-based assignments, in which work can be performed autonomously and in different places: the office, libraries, coffee shops and communal spaces, or at home. CWS also echo another trend towards more sustainable practices, shared use of durable assets and the exchange of services, within what has been called the collaborative or sharing economy. They have both

enthusiasts and detractors: the first believe they foster a sustainable way of working and create economic opportunities, while the second understand them as supporting precarious labour relations and not necessarily contributing to innovation.

CWS have developed as places for self-employed professionals but they have also overlapped with incubators, which are also workspace providers that offer cost-effective business infrastructure for nascent companies and SMEs. As the concepts of CWS and incubators fused, a range of workspace providers was created, from the "core CWS", based on sharing-economy values, to large real-estate operators and business-oriented incubators and accelerators. CWS, incubators, accelerators, together with makerspaces and fablabs, are part of the urban middleground, and in addition to meetups, hackathons, lectures and training sessions, mixers, social media sites and conferences, CWS compose the hardscape of innovative urban ecosystems ( Cohendet et al., 2010; Fraiberg, 2017). As those ideas got publicity, several cities and regions started to stimulate the creation of CWS. Since 2016, the authors have followed both São Paulo city and state administration initiatives to turn public digital centers into CWS. Public digital centers were opened in the early 2000s to provide public access to computing capability and internet, particularly in peripheral zones, but have become underutilized, as IT became cheaper and almost ubiquitous. Thus, public managers wanted to revamp those locations by turning them into CWS, to encourage new businesses and innovation. However, despite their efforts, results have been mixed, and it became clear that, in spite of literature and practice, a simple issue still needs clarification: what roles can CWS play in the business ecosystem of cities? To answer this question, this paper reviews and discusses the literature on CWS, and finds that they can play five roles: infrastructure provider, community host, knowledge disseminator, local coupling point and global pipeline connector, and CWS expected impact are greater when more of those roles are performed.

## CWS: Positive and negative perspectives

The literature on CWS can be roughly divided into five main themes: (a) learning, collaboration and sharing, (b) typologies, (c) labour market and informality issues, (d) infrastructure management and (e) CWS outcomes to both individual learning and the urban environment. In the first theme, CWS have been related to the sharing (or collaborative) economy (Brown, 2017), and constitute work environments built upon concepts such as community, collaboration, openness, diversity and sustainability (Merkel, 2015). This view is related to the concept of the network society (Benkler, 2006), in which assets and knowledge are shared, increasing their utilisation and economic efficiency. This optimistic view is balanced by another that understands CWS as a result of rising unemployment, paired to the dominance of project-based work boosted by information technology, and autonomous professionals who had their formal work relations to companies severed. The literature on CWS and the labour market displays that tension: while some studies discussed their influence on work efficiency ( Jakonen et al., 2017; Bueno et al., 2018), others examined how they contribute to informality and precarious work relations (de Peuter et al., 2017; Aroles et al., 2019), and some argue that CWS are a result of more profound social changes that can lead to either a utopian or a dystopian future work scenario (Richardson, 2017).

There are two different approaches to analyse CWS: an inward-looking perspective, that emphasises its community component, and an outward-looking one, that sees CWS as part of urban business ecosystems, together with makerspaces, incubators and accelerators. In the first strand, individualistic and communitarian behaviours are compared (Spinuzzi et al., 2019), while in the second, authors make sense of the variety of collaboration and sharing-based workplaces that compose the middleground of big cities (Kojo & Nenonen, 2016; Schmidt & Brinks, 2017; Schmidt et al., 2015).

CWS present both positive and negative outcomes to individuals, neighbourhoods and cities. On the bright side, networking opportunities for independent professionals and startups, access to technical and managerial knowledge, technology dissemination, urban revitalisation and extended use cycle to nights and weekends are cited (Mariotti et al., 2017, Fiorentino, 2019)). In mid-size cities, they can also improve the standard of living, create local jobs and income, lessen environmental impact by reducing commuting trips, and revitalise downtown areas and landmark buildings (Buksh & Mouat, 2015; Jamal, 2018). However, more than in large urban centers, impact in smaller cities is path-dependent, defined by the local history and economic context (Boutillier, 2018). CWS can act as intermediary organizations in the commercialization of science, as boundary spanners that level information asymmetries, exert coordination, support knowledge diffusion and networking (Clayton et al., 2018). However, despite the fact that qualitative studies have found several beneficial outcomes, the few available quantitative analyses did not yield evidence of impact on job creation (Hicks & Faulk, 2018). Also on the negative side, the indirect suppor tgiven to precarious work relations and the possibility of gentrification are of concern. Finally, urban policies and land-use regulations have been found as not yet adapted to shared workspaces, which can bring legal insecurity and discourage initiatives (Babb et al., 2018).

**CWS: Multiple avatars?**

The expected impact of CWS comes from income and job creation, entrepreneurship and support for early-stage businesses. CWS can also enhance individual learning, technology transfer between firms and help technology innovation in SMEs. However, empirical evidence, gathered from different perspectives, reached mixed conclusions: statistical analysis found no evidence of job creation, some qualitative studies found positive influences of CWS on the city level both in large and mid-sized cities, while others found limited positive effects on entrepreneurship support and workforce training (van Holm, 2017; Mariotti et al., 2017; Hicks & Faulk, 2018; Jamal, 2018). Part of the lack of clarity can be attributed to the nebulous definition on what CWS are and which roles they can play to create social and economic impact. Due to this fact, CWS implementation plans may fail to establish clear causal connections between action and outcomes, leading to ambivalent results. To address this weakness, five CWS roles are proposed:

A. **Infrastructure provider**: This is the basic and essential role that any CWS have to play, they are work space and service providers for professionals, SMEs and corporations (Kojo & Nenonen, 2016; Bueno et al., 2018). In this role, they act as real estate lenders,

and the quality of the infrastructure, the atmosphere they create and image they project are important for users. They can be either for-profit or not-for-profit organizations, and provide public, semi-public or private access to their users.

B. **Community host**: CWS can support sharing and collaboration, which may come either from rational choice and opportunism, participants collaborate looking for their own benefit, or from shared goals, in which collective action is valued as a principle (Spinuzzi et al., 2019). As well as professional relations, CWS can foster social interaction, which is important for autonomous professionals and freelancers, as they can often experience isolation and lack of social contact and friendship. SMEs can also profit from a communal environment, their owners and workers can enjoy interaction and sense of belonging to a social group. The literature warns that communities do not emerge spontaneously, just from physical co-location, they have to be stimulated and managed (Brown, 2017). In this regard, CWS must have a community manager in close contact with users, who works to create and foster communities, promoting activities and interaction opportunities. Communities can also create connections with the neighbourhood or groups from other CWS, establishing interaction opportunities or even promoting events that may increase economic impact in the neighbourhood (Parrino, 2015).

C. **Knowledge disseminator**: CWS can actively promote knowledge flows of both managerial and technical nature, they can create knowledge sharing dynamics in the same way as industrial clusters in a micro scale (Capdevila, 2013; Parrino, 2015). CWS can provide training sessions, workshops, lectures and courses, and business tutoring to capacitate professionals and increase the survival rate of nascent companies. They can either offer them as part of their services, or charge fees and increase their revenues, which make this role attractive and more frequently played. Knowledge is also propagated by personal contact and buzz, in informal conversations and social encounters, making this role to overlap to Community host. When CWS house communities of practice, those groups disseminate knowledge among their participants by their own nature, and if they are connected to similar groups in other CWS, they also create external knowledge flows.

D. **Local Coupling Point**: CWS can serve as focal points, reference spots to where different actors converge to look for specific resources, services and interaction (Waters-Lynch & Potts, 2017). Specially in large metropolitan areas, entrepreneurs, companies, and service providers need reference places to meet and interact, and CWS can become those spots. Some CWS have public areas, such as coffee shops and open areas that serve that purpose, and they can also promote events and meetups to gather people in search for contact. Branding is important to this role, well known CWS can become focal points more easily, a natural choice to go and make business contacts.

E. **Global Pipeline Connector**: Connections to global networks provides access to new information and perspectives, which helps refresh the knowledge base of CWS users. Distant interactions can provide access to new knowledge and strategic partners that local contact and buzz are not able to deliver, promoting innovation and increasing local competitiveness. Global networks grant access to new or infrequent partners, and to become part of them may result in enhanced visibility and improved image to the market. CWS can act as global connectors when they are part of worldwide networks or give access to international platforms that allow connections to foreign partners (Richardson, 2017).

Those roles can be used as a guide to CWS implementation and impact assessment. There are two important and opposing aspects related to them: the fewer roles they play, the more cost-effective they are as businesses, but the smaller is their impact. Conversely, the more roles they play, the greater their impact to users, neighbourhoods and cities, but their economic feasibility is threatened. For instance, to be a Community host, in order to foster collaboration and communitarian behaviour or to encourage innovative action requires endeavour and managerial action ( Fuzi, 2015; Cabral & Van Winden, 2016; Brown, 2017). Conversely, if the CWS is not limited to be an Infrastructure provider but if it also fosters local connections, as a Local Coupling Point, its effect, both to participants and the locality, will be more pronounced (Capdevila, 2013; Mariotti et al., 2017; Jamal, 2018). There is thus a conundrum: from the CWS point of view, it may not be of interest to perform more roles, as it means increasing complexity and resource requirements, however, from the policy perspective, greater local and social impact is desirable, thus, it should be required that CWS play more complex roles.

## Conclusions

CWS are, together with incubators and makerspaces, part of the urban middleground, a layer of spaces and places that support the urban ecosystem, which is believed to bring innovation and economic development, as well as social engagement and improvement. Not surprisingly, they have been frequently recommended in public policies, as they can support job and wealth creation and increase technology transfer and innovation (Buksh & Mouat, 2015; Schmidt et al., 2015; Babb et al., 2018; Hicks & Faulk, 2018). However, their contribution is yet to be verified, as current evidence is mixed. Partly this is due to the fact that the roles a CWS can perform have not yet been clearly stated. CWS are primarily infrastructure providers, but their expected results, particularly in public policy, come from more complex duties.

An assumption we made is that the more roles a CWS plays, the higher its effects is on both participants and the locality. Thus, this review outlines frameworks that takes into account the impact of CWS, where managers can use those roles to plan and manage resources and operations, and to policymakers, to access the outcomes of their regulations. Finally, roles can be extended to other middleground spaces and places, which are also frequently suggested in public policies.

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