

## **Abstract**

New models of shared work spaces have the potential to disrupt traditional employment spaces. The full implications of these new employment spaces for urban policy and planning are unclear.

Drawing on a pilot study of Greater Perth and regional Western Australia, current planning policies that facilitate, or create barriers to, the success of shared work spaces are examined. Interviews with a sample of managers and users of shared work spaces are reported.

Shared work spaces are emerging in regulatory voids left by outdated policy frameworks. They escape adverse policy settings by relying on the forward thinking of local regulators seeking to revitalise urban centres. The success of innovative repurposing of space brings into question the efficacy and purpose of more prescriptive land use regulations and policies.

**Keywords:** Shared work space; Employment Land Use; Planning policy; Co-working; Disruption

## **Introduction**

The shift from manufacturing to post-industrial, knowledge-based economies has been accompanied by changes in the ways that work is practiced and the places where people work in cities and regions. Work can now be readily conducted outside of traditional workspaces through advancements in information communication technology (ICT) and due to flexible modes of employment associated with post-fordist, knowledge industries. An individual's work can now be distributed across a city or region (Harrison, Wheeler and Whitehead 2003). This has led to an increase in the phenomenon of shared work at places like cafes, libraries and co-working spaces. The growth and diversity of new models of shared work spaces (SWS) is symptomatic of the emergence of a "sharing economy" (Davies et al. 2017).

The rapid emergence of big players in the sharing economy (AirBnB and Uber) has disrupted existing markets and confounded regulators (Gurran and Phibbs 2017; Watanabe et al. 2017). On this basis there is also a need to assess the disruptive potential of SWS to existing land use and economic development planning. Planners traditionally rely on land use policy, zoning regulations and development assessment to support the efficient functioning and growth of urban and regional economies. However, the nature of urban land and employment space markets is changing. The increased occurrence SWS is emblematic of a 'post-functionalist city', where "the boundaries between urban functions have become blurred, where different functions co-exist in the same space, and where unprecedented functions emerge through citizens' appropriation of places" (Di Marino and Lapintie, 2017, p. 2). This has implications for planners who have typically relied on a limited range of measures to regulate workspace to both encourage economic growth and mitigate impacts.

In this paper we investigate whether the growing number and differing types of SWS challenge current planning policy approaches and settings, and if so, how planners and policy makers could respond. These questions are explored in the context of Western Australia (WA). We define "SWS" as any location where various workers engage in individual work pursuits. We acknowledge that SWS are emerging in increasingly diverse forms. We begin by exploring new models of SWS within the broader phenomenon of the shared economy, before outlining how these models might disrupt urban planning policy by investigating ways planners have approached employment land use and workplaces. We then present a policy analysis and interviews with managers and workers in SWS to explore the research questions in the WA context.

### **The shared economy and implications for working space**

The growth of SWS, and as a specific sub-set - the co-working space - is illustrative of the rapid changes in working space associated with increasingly flexible economies. By the end of 2017, a forecast 1.2 million people will have experienced working in a co-working space worldwide (Deskmag 2017). At a basic level, SWS are typically office and light industrial spaces where individuals work together with different degrees of independence, whereas co-working spaces additionally seek to enable the creation of deeper community ties (Spinuzzi 2012). Independent workers are able to work adjacently, enjoy incidental social encounters, collaborate with fellow co-workers, and build and transfer knowledge by making employment and business connections (Spinuzzi 2012; Gerdenitsch et al. 2016; Bouncken and Reuschl 2016). Conclusions about the real and potential impacts of this growth in SWS are mixed. Shared working is linked to improvements in regional entrepreneurial activity (Fuzi 2015) and local

innovation networks (Capdevila 2015). However, while some raise potential sustainability benefits of the shared economy (Heinrichs 2013), others highlight that positive narratives may disguise bleak labour practices within the sector, driven by the increasing casualisation of labour (Martin 2016; Malhotra and Van Alstyne 2014).

The emergence of the “shared economy” is associated with disruption to current technological, market and regulatory frameworks (Martin 2016). The concept of disruption is used to characterise the effects of rapid changes on the functioning socio-spatial systems (Graham 2001). Market disruptions may be precipitated by technological advancement, or institutional change (Laurell and Sandström 2016). Advances in internet and mobile phone technologies have considerably reduced transactional costs (Yang 2005; Henten and Windekilde 2016), resulting in new markets based on more distributed, flexible and demand-responsive exchange (Glöss, McGregor and Brown 2016; Watanabe et al. 2017). The distributed nature of transactions – between more numerous smaller individual producers competing for individual demand in technological market platforms - poses significant challenges for traditional regulatory agencies. The basic business of individual shared economy “firms” still entails most of the risks and externalities associated with more traditional forms of the same industry (Miller 2016; Morgan and Kuch 2015).

Despite the expansion of SWS models such as WeWork, (valued at about \$17 billion dollars in 2017 (Reuters 2017)), the literature on various models of SWS, including live/work communities (Alizadeh 2012; Alizadeh and Sipe 2013), third-spaces (Di Marino and Lapintie (2017) and co-working spaces (Kojo and Nenonen 2017; Spinuzzi 2012) indicate that the current scale of shared work may not currently have the same disruptive potential seen with Uber and AirBnB. However, the potential for SWS to disrupt current markets may manifest at different scales and times in cities and regions. Conventional spaces in cities and towns, such as libraries and cafes, are increasingly utilised as places of work, despite not being originally planned to accommodate such practices (Bilandzic and Foth 2013; Di Marino and Lapintie 2017). Case study research in Queensland and the United States finds SWS are becoming integrated by developers into master-planned communities as a way to enable workers to work close to home and activate local neighbourhood centres (Alizadeh 2012). These new places and practices associated with SWS may increase the potential conflicts in how land is used, requiring new modes of regulation to manage conflict and allow trade-offs between conflicted parties (Webster and Lai 2003). Inevitably, disruptions become manifest across both urban and regional spaces, and upon the systems which support them (Antrop 1998, 157). The growth of SWS globally has brought new actors into the production of working space, including co-working space managers and curators who facilitate the marketization of SWS through new ventures or technological innovations (Brown 2017).

### **The planning and regulation of workspace**

To leverage positive externalities and mitigate negative externalities of new forms of SWS, we assert that planners need to reflect on the efficacy of current instruments and practices used to regulate working space; otherwise there is a risk of policy obsolescence. Innovative employment practices may be stifled for their perceived costs, rather than nurtured for their potential benefits. Traditionally, urban planners and policymakers direct the location and form of working spaces primarily through zoning. Zoning instruments are fairly blunt, rarely dictating the intensity of employment (through, for example, stipulating worker-floorspace densities), but instead assigning

broad land use categories to zones in which that use is permitted. Additionally, zoning incorporates a package of controls over the development of land, including plot or floor area ratios. Development control assessments can mitigate externalities, such as noise, odour and environmental wastes through site design, built form design, and management of land use activities (Taylor 1998). Planning policy also directs the location of workspaces relative to other domains and activities (Curtis and Olaru 2010), such as the strategic location of major employment centres, where they are accessible to good quality transport networks to benefit businesses, and for wider public benefit through transport efficiency and reduced commute times.

The adoption of neoliberal agendas in public policy across many western nations, including Australia (Sager 2011), has led to increased use of non-regulatory approaches by city and regional governing bodies to attract mobile capital and support the development of new modes of employment (Jones 2013). Public policy strategies that promote investment in the built environment, either through supplying new infrastructure, prompting urban regeneration, or the development state-of-the-art buildings, are used to stimulate economic growth. Investment in ICT technology and infrastructure is also used as a means to stimulate business creation and economic activity (Tisdell 2017). Governments facilitate the development of new markets and economic productivity through various innovation and 'smart cities' policies and initiatives, which promote technological solutions to the governance, monitoring and management of services and infrastructure (Kitchin 2014; Porter 1990). For example, Smart Work Centres have been rolled out in South-East Queensland as means of stimulating public and private investment in research development (Buksh and Mouat 2015). These initiatives illustrate a shift in public policy and new forms of private-public interactions.

Planners must also contend with the dynamic, emergent nature of urban space. Independent innovators have long repurposed affordable urban spaces to host creative communities (Jacobs 1961), often leading them to adapt underutilised established urban fabric (Zukin 1982). Knowledge work has the capacity to make even greater spatial-temporal use of existing spaces in novel ways, facilitated by peer-to-peer ICT platforms. Entrepreneurial activity is likely to be more spontaneous, small-scale, and potentially short-lived (Martin 2016), as increasing numbers of citizens experiment with producing and consuming shared economy transactions. The distribution of such activity may be unresponsive to, or beyond the normative remit of, conventional planning instruments (Miller 2016). The post-functionalist utilisation of land, built form and capital assets by increasing numbers of citizens and firms is therefore likely to challenge the functionalist, prescriptive planning mechanisms which planners have previously used to ameliorate externalities and support growth.

As planning contends with increasingly complex human activities and settlements, it follows that the definition and practice of planning has similarly expanded, regulating evermore aspects of the environment (Hall 2005) and requiring new forms of analysis and decision-making for cities (Bettencourt 2014). Processes of planning have expanded to accommodate more collaborative processes, which aim to capture possible benefits for private and public interests, to achieve desired urban goals (Brindley, Rydin and Stoker 1989; Rydin 2011). Understood this way, planning has a wider role than simply mitigating negative externalities in land use markets. It can also be proactive in creating new opportunities and positive externalities. However, the capacity for planners to shape the quality of emerging employment space within cities

and regions is limited by other institutional mechanisms, such as fire regulations, building standards, infrastructure governance and economic development policy. Furthermore, the increasing opportunities for the commodification of workspace through new ICT will open up new planning-market relationships. Governance frameworks will need to respond to these new forms of employment-related land uses and activity patterns that arise out of emerging shared and knowledge economies.

### Research approach

We used a mixed methods approach to understand how current planning policy in WA approaches SWS, and to evaluate the potential for shared-working spaces to disrupt the current planning approach at different scales. The research was conducted in the Perth metropolitan region (PMR), and the Mid-West region of WA. Perth is one of the most spatially isolated cities in the world. It hosts an economy largely reliant on mining and related industries, which are exposed to global demand for resources, and subject to strong, medium-term boom and bust cycles. Recent declining economic conditions, following slower Chinese demand for core mining commodities, highlights the importance of a more diversified economy (DSD 2017).

A typology of disruption is employed for evaluation where disruption can occur in four dimensions (Table 1). The typology comprises a quadrant – one axis (after Christensen and Raynor 2003) considers low-end disruption (where incumbent markets are disrupted) and high-end disruption (where there is formation of new markets). SWS could therefore challenge existing structures or additionally there may be disruption in the formation of new markets associated with SWS. On the other axis, drawing on Geels and Schot (2007), we query whether the disruption is in the form of a particular 'niche' of employment or whether it 'saturates', that is disrupts all employment types, similar to the effects that Uber and AirBnB are having on transport and housing systems.

Table 1: Disruption Typology

	<b>Low End:</b>	<b>High End:</b>
<b>Niche:</b>	<i>Small scale and isolated; Conventional forms of activity; existing markets</i>	<i>Small scale and isolated; New forms of activity; new markets</i>
<b>Saturation:</b>	<i>Larger scale, agglomeration economies; Conventional forms of activity; existing markets</i>	<i>Larger scale, agglomeration economies New forms of activity; new markets</i>

A policy review was undertaken to understand how the current planning framework regulates SWS. Interviews were conducted with managers, users and curators of SWS, to shed light on the use of SWS, and their place within the broader urban and regional context.

To target SWS, a list of these was mapped to show distributions within the PMR (Figure 1). Six case study Local Governments (LGs) were selected to represent a geographic spectrum – five from the PMR and one containing a major regional centre and smaller rural centres.

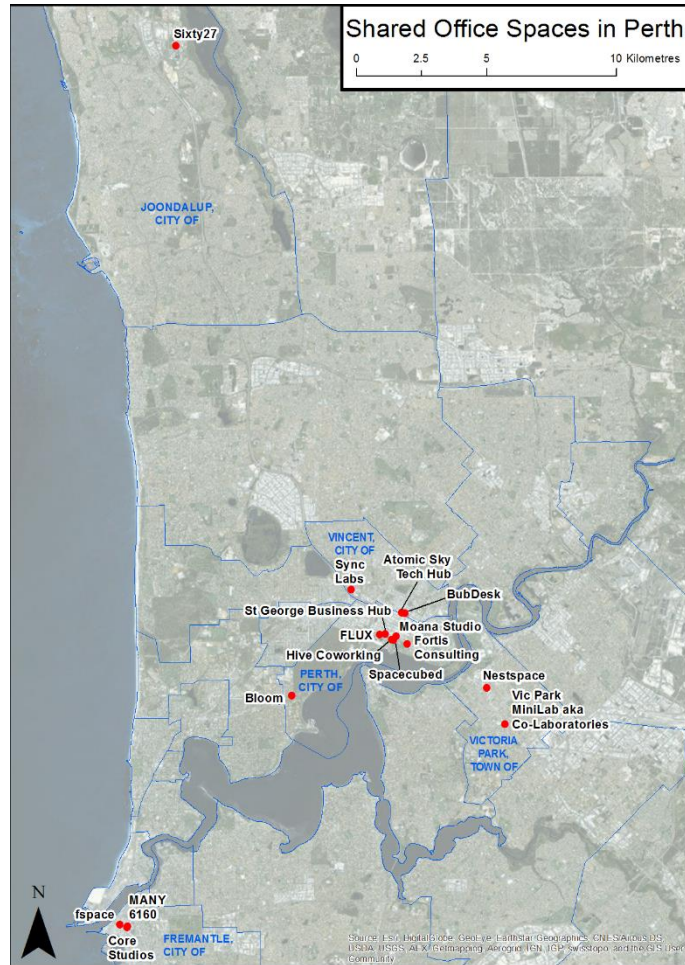


Figure 1: SWS in the Perth Metropolitan region

SWS in Geraldton and the surrounding region were included in order to understand the role and impact of SWS on smaller regional and rural centres. Geraldton, a coastal regional town (population 40,000 people), is located 420 kilometres north of Perth (ABS 2017). It hosts a bulk handling port and services an expansive agricultural and mining hinterland. It was selected through convenience sampling, since it contained one SWS and there were several Community Resource Centres (CRCs) located in the broader region. These CRCs are independent, non-profit facilities providing a range of social and business-support services to local communities (WACRN 2017).

### Planning policy support for SWS

To understand the current state of policy support and measures used to regulate SWS a review was conducted of State Government land use and employment policies that have potential to influence the production and regulation of SWS (Figure 2). Websites of each agency were systematically searched for policy related to employment land use.

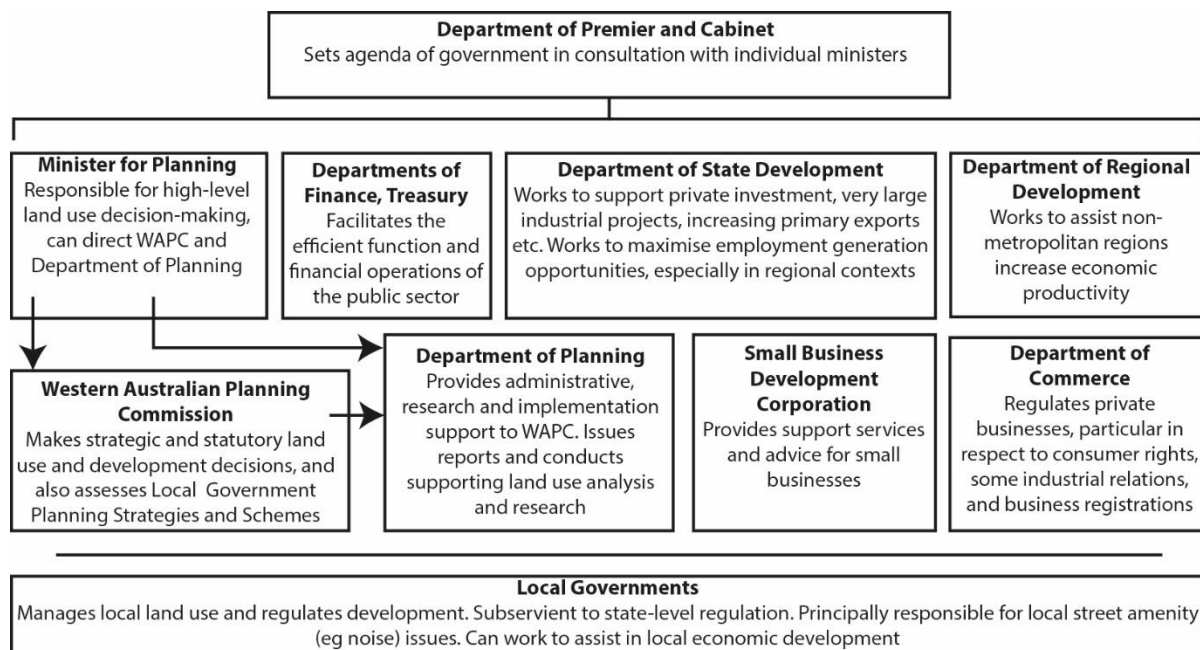


Figure 2: **Governance Framework of WA 2016** (Arrows showing hierarchies between agencies within the same policy portfolio)

The WA planning system is characterised by a high degree of centralised, prescriptive regulatory oversight (Curtis and Punter 2004; Landry 2007). A multi-layered structure of State Government agencies with planning powers delegated to LG exists. LG are principally responsible for regulation of the development of privately owned land through the enforcement of schemes and supporting policies by delegated authority through the *Planning and Development Act 2005*. These schemes and relevant statutory policies and non-statutory strategies were reviewed for the six case study LGs. Importantly, LG planning policies are subject to review and approval by the WAPC.

A set of policy settings for SWS was devised. Table 2 shows the policy settings against planning principles that were deemed to support SWS.

Table 2: **Policy settings for SWS**

Policy Measure		Definition, Purpose, Notes
Status - Statutory/ Non-Statutory (S/NS)		<i>Whether a policy has power under law</i>
Year policy last updated		<i>The year the policy was published (some policies with multiple releases were each reviewed longitudinally)</i>
<b>SWS</b>		
Provision	Geographic Context	Definition (supporting literature).
Mixed use	Activity Centres	<i>The policy position towards mixed use zoning within defined activity centres or significant metropolitan or sub-regional nodes, see (Bohl 2000; Curtis 2008)</i>



	Neighbourhood centres	<i>The policy position towards the mixed land use forms described above within local or neighbourhood-level precincts, see Cervero (1996); (Curtis and Olaru 2010; Filion 2001)</i>
	Outside Activity centres	<i>Per the two criteria above, in land other than metropolitan, regional or local centres</i>
SWS	Activity centres	<i>The policy position specifically towards SWS within activity centres</i>
	Outside Activity centres	<i>The policy position towards SWS beyond activity centres, such as at neighbourhood centres or within residential suburbia</i>
Cottage industry	Residential areas	<i>The policy position towards small-scale industrial production within or near housing (Jacobs 1961; Pyatok 2000)</i>

To enable comparisons between policies of broadly different scope and intent, a rating scale was applied. This enabled assessment of policy provisions against a standard measure of intended policy outcome (Table 3).

**Table 3: Policy Rating Scale**

Code	Meaning	Criteria
<b>P</b>	Prohibited	Where a policy measure explicitly forbids an initiative or non-traditional work place
<b>D</b>	Discouraged	Where a policy measure places strong or onerous regulations on an initiative (eg need to obtain special approval; approval is temporary; approval comes with strong conditions; etc.)
<b>R</b>	Regulated	Where a policy measure permits but limits an initiative or scenario, or where routine approval is required
<b>M</b>	Mentioned	Where a policy measure is mentioned in a vague or immeasurable way such that it is difficult to see how it would be operationalised
<b>S</b>	Supported	Where a policy measure encourages an initiative or requires only very minor approval
<b>I</b>	Incentivised	Where a policy measure provides an incentive for an initiative
<b>A</b>	Absent	Where a policy measure does not include any provision or text relating to the initiative

### **State Government Policy for SWS**

High-level state-wide strategic documents were interrogated first, owing to their significance as guiding documents also for LG. We found these policies lacked direct reference or formal policy specifically towards SWS (Table 4), though some references to mixed-land use in spatial planning policies were noted as potentially supportive. This reflects the new urbanist influence (for integrated activity centres rather than segregated land uses) and travel-minimisation objectives in planning documents from the mid-1990s (Curtis and Punter 2004; Curtis and Olaru 2010; Falconer, Newman and Giles-Corti 2010). This has coincided with a trend towards opportunistic



transformative reuse of inner-urban precincts, and the generation of policies reflecting emergent sustainability imperatives.

Table 4 Policy Settings: Strategic State Planning and Economic Development Policies

Institution	Department of Planning/ Western Australian Planning Commission (WAPC)							Dept. of Commerce	Dept. Regional Devt.
Policy	SPP 1 - State Planning Policy Framework	SPP 2.5 – Land Use in Rural Areas	SPP 3: Urban Growth and Settlement	SPP 4.2: Activity Centres for Perth & Peel	Directions 2031	Perth and Peel @ 3.5	Economic and Employment Lands Strategy:	Teleworking Hints and FAQs	Regional Devt. Strategy 2016 - 2025
Status - Statutory/ Non-Statutory (S/NS)	S	S	S	S	NS	NS	NS	NS	NS
Year policy last updated	2006	2012	2006	2010	2013	2016	2012	2013	2015
<b>Local Teleworking/Shared Offices</b>									
Mixed use – Activity Centres	A	A	A	S	S	S	M	A	A
Mixed use- neighbourhood centres	A	A	A	S	A	M	D	A	A
Mixed use buildings - outside Activity centres	A	S	A	A	A	A	A	A	A
SWS - Activity centres	A	A	A	M	A	A	A	A	A
SWS – outside Activity centres	A	A	A	A	A	M	A	A	A
Cottage industry	A	A	A	S	A	M	M	A	A

Some provisions, such as in *State Planning Policy 4.2: Activity Centres for Perth and Peel* (DoP 2010, 4142), make incidental reference to small-scale employment rather than to SWS per se:

*“Focusing non-retail employment in centres can provide opportunities for clusters of compatible businesses which can lead to greater productivity through information and technology exchange, and more efficient use of infrastructure and services... Planning decision-making should facilitate... smaller-scale offices and commercial tenancies, particularly in neighbourhood and district centres, to facilitate the transition of home-based businesses and the growth of small business”*

In contrast to strategic plans and activity centre policies, policies from other state agencies that promote and regulate economic and growth strategies lacked policy provision towards SWS.

### Local Government

Statutory LG planning policies exhibited a risk-averse approach to SWS, reflecting land use segregation principles, and practical provisions aimed at preserving local residential amenity in residential areas. Some mixed-use planning policies were noted, potentially reflecting a strategic emphasis on multifunctional Activity Centres noted in strategic State Government policies (Table 5).

Table 5 Local Government Policy Settings

Institution	Fremantle	Joondalup			Perth				Victoria Park				Vincent			Geraldton					
Policy	LPS No. 4	DPS No. 2	LPP Consulting Rooms	LPP Home Business Policy	CPS No. 2	PP 3.4 Home Occupation	PP 3.6 Res. Use in Mixed Use Areas	PP 3.7 Mixed Res/Com Dev	TPS No. 1	LPP2 Home Occupation	LPP3 Non Res in Res	LPP5 Mixed Res/Commer	LPP14 Industrial Uses near Res	TPS No. 1	LPP 7.5.9 Home Occupation	LPP 7.5.22 Consulting Rooms	LPS No. 1	LPP Home Based Business	LPP Non Res in Res Zone	LPP Sustain. Res Dev	LPP Regional City
Year policy last updated (20xx)	15	16	13	1999	16	01	14	09	16	n.d.	n.d.	n.d.	n.d.	15	14	n.d.	15	15	16	15	15
<b>Local Teleworking/Shared Offices</b>																					
Mixed use – Activity Centres	S	S	A	A	A	A	A	R	D/R	A	A	A	A	S	A	A	S	A	A	A	A
Mixed use- neighbourhood centres	S	S	A	A	A	A	A	A	D	A	R	A	A	S	A	A	R	A	A	A	A
Mixed use - outside Activity centres	A	D/R <sup>@</sup>	D/R <sup>@</sup>	D/R <sup>@</sup>	A	A	S	A	P/D/R	D	R	A	A	R	A	A	P	D	R	A	A
SWS – Activity centres	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
SWS – outside Activity centres	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	D	R	A	A
Cottage industry	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	P	A	A	A
# Permitted under Regulations; <sup>@</sup> Requirements specified.																					

Most sampled LG had economic development policies, some of which (Joondalup and Vincent) noted the potential for new SWS within local and regional centres (Table 6).

Table 6 Local Economic Development Policies

Institution	Fremantle	Joondalup			Perth	Victoria Park	Vincent
Policy	Econ. Dev. Strat.	Digital Strategy	Joondalup 2022 Strat. Plan	Economic Devt. Strat	Econ. Dev. Strat.	Econ. Strategy	Econ. Devt. Strategy
Year policy last updated	2015	2013	2012	2014	2010	2013	2010
<b>Local Teleworking/Shared Offices</b>							
Mixed use – Activity Centres	S	A	S	A	A	A	
Mixed use- neighbourhood centres	A	A	A	A	A	A	A
Mixed use buildings - outside Activity centres	A	A	A	A	A	A	A
SWS – Activity centres	M	S	A	S	A	A	S
SWS – outside Activity centres	A	S	A	A	A	A	
Cottage industry	A	A	A	A	A	A	

These documents signified strategic ambitions rather than legislated requirements. The Joondalup Digital Strategy (City of Joondalup 2013, 32) specifically promoted the development of a SWS within the city’s urban core. This was realised in 2014 as an adapted building within an existing educational facility. The City of Vincent’s Economic Development Strategy (2010) promoted increased small business support within existing library facilities.

### Perspectives from shared workspaces

Interviews were conducted across a mix of SWS and included five managers, two CRC managers, one user of a CRC, and a SWS curator. The curator’s role was to identify suitable spaces for co-working businesses and this interviewee had considerable experience of a number of examples of SWS. The interviewees had a range of experiences based on different spatial contexts, organisational models, and roles in SWS (Table 7). Interviews were semi-structured and lasted between thirty minutes and one hour.

Table 7 SWS Interview Subjects

Interviewee #	Interviewee Role	Context
1	Co-working Space Curator	Inner city area
2	SWS Space Manager	Inner city area
3	SWS Space Manager	Inner city area
4	SWS Space Manager	Suburban metropolitan
5	SWS Space Manager	Large regional centre
6	SWS Space Manager	Large regional centre
7	CRC Manager	Small rural town
8	CRC Manager	Small rural town

9	CRC User	Small rural town
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The current number of workers presently using SWS in the PMR is estimated to be small compared to workers using traditional working spaces. Table 8 indicates the scale of SWS as a proportion of the total employment space in LGs where formal SWS were located.

Table 8: Locations of SWS Identified in the Perth Metropolitan Area 2016

LG Jurisdiction	Office/ Business (m <sup>2</sup> )	Vacant commercial floor area (m <sup>2</sup> )	Total occupied commercial floor area (m <sup>2</sup> )	Vacancy of Total Commercial Floor Area (%)	Number of SWS Spaces Identified
City of Perth	1,872,589	735,506	4,654,513	13.65%	7
City of Fremantle	110,055	164,579	608,603	21.29%	3
City of Joondalup	118,016	31,066	962,977	3.13%	1
City of Vincent	141,605	64,114	441,805	12.67%	3
Town of Victoria Park	130,572	56,181	390,764	12.57%	2

The flexible use of desk spaces makes estimating actual employment numbers within SWS difficult. The City of Perth for example, at the 2016 Land Use and Employment Survey, had 82,000 full time and 13,000 part time office employees located within the central city area (DPLH 2017). Based on observations during interviews, we estimate the number of people who work in SWS in this area on a typical business day to be between 100 to 250 people. The scale of the SWS floor area is presently insignificant when compared to Perth's established commercial floor area.

The sampled SWS in the PMR were privately initiated ventures. They were based on a co-working or collaborative business model targeted to specific niche markets in knowledge and cultural industries, and to professionals at various stages of their working lives. The users of the SWS were diverse, and included artists, tradespeople, small business owners, workers transitioning back into the workforce, and university students. As well as knowledge-based work, some SWS users conducted hobbies or activities of which income generation was a secondary consideration.

The creators of the SWS in the metropolitan area chose their locations in central urban areas for two main reasons; the accessibility of the site, and the ability of the local area to support economic and social opportunities. Good access to public transport was considered fundamental in choosing a location: *"We've turned projects down because they're not well resourced enough in terms of public transport"* (Int#1). The opportunity for social connection afforded by major urban centres was highlighted:

*"For me it is almost like a silly superstition. I just need to be able to walk out the door, to go get lunch and to see the bodies around me and to feel like I'm part of something"* (Int#1).

One SWS in the central city was located within a more traditional office setting, to be close to the corporate sector labour market - the operator noting: *"...they tap into that energy with the other people that use these spaces"* (Int#3). However, other comments suggested that the corporate sector still *...hadn't come very far along this flexible*

*working journey. They say they have a policy (of flexible working) but actually implementing it is something else” (Int#2).*

Suburban areas were considered by one interviewee (Int#2) to have the potential to support SWS because they provided additional marketable features such as free parking, which was thought to appeal to suburban workers with busy schedules and requiring more mobility. However, the clustering of current SWS in or adjacent to central and large activity centres suggests a suburban model of SWS is not yet viable.

In the regional centres accessibility was less of a concern as most users frequently travelled long distances by car. CRCs typically operate by collating funding contributions from several government agencies and programs, enabling them to provide heavily subsidised SWS and services for local residents and visitors (WACRN 2017). Many CRCs arose initially as rural teleworking centres (Farr and Papandrea 2006), which emerged globally as a means to provide ICT to both urban and rural locations as personal computing technology matured from the mid-1980s (del Águila, Cámara and Meléndez 2002). Today, CRCs in WA still typically provide computing equipment and subsidised working spaces for local business activities, while also serving as an interface point for other services provided by government. The interviewees from the CRC suggested that SWS provided a diverse range of support services for the local town and the regional catchment. The social connections offered by the town site were important. A point of distinction was that the business model of regional SWS was not-for-profit and subsidised by government.

The site selection process was extensive and time-consuming. Two interviewees described a process of going from building to building in an area to identify unused space and then initiate negotiations with property owners. Others noted that the development of technology to reduce transactions based on information gathering markets had changed the dynamics of seeking SWS sites. A new app that matched workers with appropriate SWS was mentioned as an example.

The activities associated with SWS were targeted to specific user markets. All SWS had desk space for use and areas devoted for group meetings and conferences, illustrating primary uses as a range of individual task and formal and informal collaborative activities. In one site, a larger building with warehouse and storage area afforded crafts and bespoke manufacturing. Regional SWS also provided desks and places for meetings, and devoted substantial space for services such as teleconferencing rooms, printers, government transactions, and study, amongst others. There was significant demand for ICT and stationary services from the broader regional catchment, primarily from agricultural workers and a range of small businesses. One interviewee referred to social benefits of SWS, noting that small business owners used the space to meet and connect with others. In one regional centre, a nearby high school hired the shared space as an off-site meeting location to provide a unique collaborative environment for staff. At several of the urban SWS, collaboration was more focussed on mutual support and creation of market synergies between different users. For example, several interviewees recounted observing business collaborations spontaneously arise between co-workers of different business vocations.

The potential for conflict to emerge from activities and uses of SWS was noted. Noise was an issue that arose as a potential conflict between individual users and surrounding businesses, particularly because some of the sites remained accessible

at night. One co-working manager recounted isolated incidents when users would act in risky ways in the building, particularly after hours. The scheduling and impacts of activities were either managed by an administrator or co-managed by the users.

There was also a relationship between the SWS and the surrounding neighbourhood areas that was important to the appeal of the users. The location in “urban” environments was considered vital to the appeal and successful functioning of SWS in the metropolitan area. A dense and vibrant urban environment was likened to a shared space in that it allowed citizens “to share culture, knowledge, intellect and commerce” (Int#1). SWS in urban centres allowed “connection and exchange” (Int#1). Interviewees noted the importance of “third places”, such as libraries, cafes and good quality parks and public space, and neighbourhood context.

There were several points of connection between SWS and planning or built form legislation and policy. Some SWS were established in areas appropriately zoned and without need for development approvals. Other SWS operators emphasised an aversion to formal planning assessment processes, seeking instead to work with private landholders and LG officers to bypass it. Some regulations were considered “out-dated, outmoded antiquities of other times” by one interviewee. They were followed to an extent, but overall they were seen as largely irrelevant barriers.

Experiences of working with LG varied amongst the interviewees. The regional CRC model served an important function in the town and the broader regional catchment by providing ICT and government services for farmers and other business owners, and relationships with the LG was reported as a critical imperative. In urban centres, the LG role varied in supporting SWS. Some LG did not engage or assist the development of SWS, while others were perceived as very supportive. When asked about particular interactions, the interviewees reported that there were one or two key supporters at the LG level, often an economic development officer or the mayor.

### **Shared Workspace: a disruption to planning for employment space?**

The purpose of this research was to evaluate whether the growth in SWS is a disruption to current urban planning policy settings. We explored the current state of SWS in Perth, WA, reviewing land use and economic development policy and interviewing key actors in SWS. We used a typology of disruption to evaluate the state of play and identify emerging disruption to the planning and function of urban economies.

An understanding of the diversity of SWS, and the motivations of the people who establish them, is critical to evaluating their disruptive potential and both the niche and saturation scales of disruption. We observed a diverse typology of SWS, ranging from libraries and university-driven incubators, to non-profit co-working spaces with specific social welfare aims, to young and creative rule-breakers, to quasi-corporate office real estate subletting companies, who were, apart from scale, not substantially distinguishable to corporate leasing agents. SWS enable a new business model for the conduct of employment activity, one that is not controlled by the employer per se. They offer a challenge to existing real estate practice, since the individual does not have to rent an office to conduct their business and can take advantage of a wider range of room types (board meeting, office, library, presentation room) and technologies.

Motivations for locating SWS were based on a mix of potential provided by the internal spaces, access to target markets and, in urban centres, the vitality of the surrounding area. In this sense there is an alignment between SWS and higher level State Government aspirations for creating urban centres of business and residential intensity to create economic opportunities. However, we found that SWS were associated with additional travel, both in trips taken and travel time, which conflict with the travel reduction goals of urban centre policy. Additionally while SWS may be implicitly addressed in policy measures to regulate mixed land use, our analysis found that policy provisions focused explicitly on SWS were mostly absent or expressed as weakly defined aspirations. Of particular concern is the risk averse nature of LG policy settings, also noted by interviewees. This despite the observations of Jacobs (1961, 245) and Zukin (1982) that permissive and affordable spaces are critical to hosting creative industries, young entrepreneurs, and cultural capital. The LG economic development strategies, however, are notable for recognising the potential for SWS to support the development of local economies. The interviewees highlighted these policy and governance arrangements, noting that it is local economic development officers who are capturing the potential for SWS to both enhance employment opportunities and provide a means to activate local centres.

At this point SWS is not a major contributor to the employment mix in WA, suggesting disruption may not be evident at the scale of saturation of existing market structures. However, more SWS activity in WA does challenge existing regulatory approaches by circumventing existing planning regulation, where it is narrowly conceived as primarily focussed on mitigating negative externalities. This highlights a weakness of planning to be proactive in facilitating new employment models. Rather, zoning instruments and processes take a risk-based approach to land use, and may deter emerging formal and informal shared work practices and SWS by using complex and extensive regulatory controls.

The absence of positive planning for SWS is concerning, given the potential for employment markets to be disrupted by emerging technologies. Providing SWS opportunities for diverse work practices may contribute to the resilience of urban places. Desouza and Flannery (2013) highlight the potential for stakeholders to meaningfully adapt to disruptions as a key aspect of resilient and adaptive cities. A significant disruption is occurring to the way work associated with knowledge economies and technological innovation is conceived. SWS users, according to the interviewees, were representative of emergent knowledge economy labour: freelancers, small business owners, hobbyists, start-ups and venture capital. Not only are there opportunities for new types of work associated with the knowledge economy, the future of knowledge work is also uncertain since it too is coming under threat of disruption from technologies, particularly intelligent algorithms (Rylov 2016).

Returning to our typology of disruption, SWS was operating at the niche level in both low end (current) and high end (new) markets. SWS as new forms of employment encompassed in this study generate few negative externalities and do not benefit from segregation policies. Those who establish SWS work in spite of restrictive policies, and in conjunction with innovative, tactical and flexible modes of governance, countenance the potential for the realisation of creative and collaborative planning practices. Whether planners are a part of this or not, or it gets subsumed in the remit of broader economic development strategies, SWS is likely to maintain a presence in the mix of work space. As Hult and Bradley (2017, 16) suggest, LG can play a role in



“setting up table frames and basic infrastructure” by providing suitable spaces and economic support for SWS.

The typology we employ enables a deeper insight into where disruption may occur, as well as its reach. It takes us beyond a simplistic quantitative measure. If measured by the size, either floorspace or employee numbers, SWS compared to existing employment may not be currently disruptive of urban and regulatory systems. However, as SWS proliferate, issues raised in the interviews, such as shifting travel patterns, changing locational dynamics, emerging agglomeration economies and adaptive re-use of existing built form, will challenge existing regulatory structures currently used by land use planners. Planners should not step back from regulating SWS in order for market forces to proliferate unchecked, instead they need to remain open to new externalities from the widespread adoption of shared work, including displacement of existing industries due to gentrification brought on by growth in creative economies and knowledge-based industries (Grodach, O'Connor and Gibson 2017).

Further research is needed. The interviewees were primarily managers. Although we sought more views from SWS workers managers were reluctant to request their customers to participate, noting interview fatigue as an issue (since these workplaces are an innovation of interest to many researchers). Following others (Alizadeh 2012; Alizadeh and Sipe 2013), drawing on greater insight into the perceptions and attitudes of users would add value to knowledge of the disruptive potential of SWS. The views of users of other SWS like libraries and cafes would also expand the understanding of the motivations for workers to share space and the network of spaces and activities associated with shared work. Furthermore, the relationships emerging between the multiple domains that link together to create a SWS – households, third-space and supporting neighbourhood services for example – are important to map to understand their impact in changes to travel patterns, social capital and access to activities.

## **Conclusion**

Currently, SWS in WA is not a major disruption to economic or land use functions compared to the disruption occurring in housing and transport markets by other shared economy players. However, the potential of SWS to disrupt planning policy is real; in relation to our disruption typology, it is occurring at the niche level in both current and new markets. New ways of sharing workspace will continue to emerge as knowledge economies grow and develop. Planners are playing a limited role in facilitating and regulating this new form of employment workspace. Given the potential of SWS for innovation and activation of space, land use planners are missing an opportunity. For planning to play a role and intervene in emerging market development, planners will need look beyond the traditional responses to regulating working space through blunt zoning ordinances, and fixed land use categories. Instead they will need to explore a range of instruments and flexible mechanisms that can harness the innovative potential of SWS to deliver more than simply employment to urban areas, whilst managing potential externalities from the emergence of new markets and associated spatial arrangements.

We posit that these changing employment practices and their consumption of land and buildings are indicative of the need for a shift in the purpose, impetus and goals of effective planning practices. We contend that a practical definition of urban “planning” must extend well beyond the simple application of land use zoning, as policies relating to infrastructure, economic development, housing, building standards, fire regulations

and environmental governance materially influence the emergent form of cities. In this way planning has the potential to act as a foundation for actor and institutional innovation, thus enabling a greater effect in facilitation of employment opportunity.

### Acknowledgements

This research was funded by the Bankwest Curtin Economic Centre. We thank the interviewees for their generous contributions.

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