Working Alone, Together: Coworking as Emergent Collaborative Activity

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Abstract

Mobile professionals can choose to work in offices, executive suites, home offices, or other spaces. But some have instead chosen to work at *coworking spaces*: open-plan office environments in which they work alongside other unaffiliated professionals for a fee of approximately \$250 a month. But what service are they actually purchasing with that monthly fee? How do they describe that service? From an activity theory perspective, what are its object, outcome, and actors? This article reports on a 20-month study that answers such questions.

Keywords

Coworking, activity theory, knowledge work, telecommuting

The term *coworking* has been used with increasing frequency over the last few years, often in books that describe business trends (Botsman & Rogers, 2011; Ferriss, 2009; Hunt, 2009). The first book on coworking (Jones, Sundsted, & Bacigalupo, 2009) does not provide a definition although it quotes many coworkers and space proprietors who describe what coworking means to them.

Nevertheless, people do seem to agree that some sort of service called coworking exists. Moreover, they are willing to pay for this service. In Austin, Texas, for instance, at least 13 coworking spaces have opened since 2009, and most of them charge about \$250 a month to allow professionals to work there. These spaces differ radically in ambience, amenities, location, and clientele—and as important, their proprietors and the coworkers who work there differ radically in how they describe coworking in their talk and in a great variety of texts, including business documents, collateral, advertisements, Web sites, and social media.

Services such as coworking are edge cases of more general trends toward distributed, interorganizational, collaborative knowledge work: work that includes independent contracting, freelancing, virtual teams, and peer production. Consequently, understanding coworking—in particular, how people define it, who decides to engage in it, and why they do it—can help us to develop theoretical and analytical tools for understanding other cases of distributed work.

In this article, I report on a 2-year study of coworking at nine coworking spaces in Austin. I examine interviews with coworkers and coworking-space proprietors and written materials (business plans, Web sites, collateral, site reviews, social media) that describe those sites. Using a fourth-generation activity theory (4GAT) framework and an approach based on grounded theory, I examine how coworkers and coworking proprietors define coworking, who coworks, and why they cowork. I specifically focus on how these professionals collaboratively construct coworking through their talk and texts. Finally, I discuss the implications for applying 4GAT to such emergent collaborative activities. This approach, I argue, can help us to better account for other cases of distributed, interorganizational, collaborative knowledge work.

First, I review recent work changes that have made coworking a viable option. Then I discuss using activity theory to analyze coworking, review the methods I used for this study, describe my findings, analyze coworking as a coherent 4GAT phenomenon, and discuss implications for workplace writing and communication.

Background

Toffler (1980) predicted that personal computing would lead to the "electronic cottage," in which workers could do work at home. "Put the computer in people's homes, and they no longer need to huddle," he argued; "white-collar work ... will not require 100 percent of the work force to be concentrated in the workshop" (p. 199). Rather, they could create, analyze, and transform texts in the comfort of their own homes, for that is the sort of work Toffler envisioned happening in the electronic cottage—knowledge work. Toffler's prediction of the electronic cottage has been repeatedly cited in the telework–telecommuting literature (e.g., Clark, 2000; De Jong & Mante-Meijer, 2008; Ellison, 2004; Ramsower, 1985), particularly with regard to the obvious drawback: working from home is potentially quite isolating and erodes the boundaries between home and work life (e.g., Gurstein, 2001; Kjaerulff, 2010; Kylin & Karlsson, 2008).

Yet long-term employment trends (e.g., Burton-Jones, 2001; Castells, 2003; Malone, 2004; Zuboff & Maxmin, 2004) and developments in mobile technology have tended to encourage more work from remote locations, more cooperative work that is not collocated, and more federated work that is contingent rather than permanent. Examples include independent contracting and other forms of contingent labor (Burton-Jones, 2001), nomadic work (Mark & Su, 2010; Su & Mark, 2008), distance work and telework (Bradner & Mark, 2002; Paretti, McNair, & Holloway-Attaway, 2007), peer

production (Benkler, 2006; Mueller, 2010), and other forms of distributed work (Spinuzzi, 2007). One recent industry report estimates that "the modern contingent labor umbrella encompasses over 22% of the average organization's total workforce" (Dwyer, 2011, p. 2).

To get a sense of these employment trends, consider the growth of nonemployer firms (firms that have no employees, earn receipts over \$1,000, and are subject to federal income taxes). The number of these firms overall has increased 21% in the United States from 2002 to 2008—and 41% in the Austin–Round Rock Metropolitan Area during the same period. And such firms have particularly increased in the information sector, which includes "(a) producing and distributing information and cultural products, (b) providing the means to transmit or distribute these products as well as data or communications, and (c) processing data" (U.S. Census Bureau, 2011a), These have grown remarkably in both number (64% in the Austin–Round Rock Metropolitan Area vs. 32% in the United States) and receipts (105% in the Austin–Round Rock Metropolitan Area vs. 46% in the United States) (U.S. Census Bureau, 2011b). These changes all far outpace the population growth in the Austin–Round Rock Metropolitan Area vs. 46% in the United States) (U.S. Census Bureau, 2011b). These changes all far outpace the population growth in the Austin–Round Rock Metropolitan Area vs. 46% in the United States) (U.S. Census Bureau, 2011b). These changes all far outpace the population growth in the Austin–Round Rock Metropolitan Area vs. 46% in the United States (5.8%) during the same period (U.S. Census Bureau, 2011c). Apparently more people are working alone, especially in Austin.

But working alone can take a toll on people, who sometimes find themselves, cut off from networking and trust-building opportunities, with limited access to infrastructure and without firm barriers between their personal and work lives. For instance, Kjaerulff (2010) described how teleworkers struggled with separating their work lives and home lives, and sought other teleworkers with whom to socialize during weekly lunches. Similarly, Clark (2000) described how rural teleworkers struggled with professional isolation and sought local networks of freelancers (p. 173).

Compounding the problem is cities' increasing immobility, making commute times longer and causing two industry analysts to predict that "the city will become more permeable, punctuated by a series of places to work" (Dixon & Ross 2011, p. 6). The Austin–Round Rock Metropolitan Area, which was ranked fourth in the United States in terms of the lengthiest travel time for commuters (INRIX, 2009, p. 12), seems to fit this profile well.

To sum up, on the one hand, more people (nationally, but especially in Austin) can work anywhere—telecommuting, collaborating electronically, running their own businesses with mobile phones and laptops. On the other hand, their freedom to work anywhere often means isolation, inability to build trust and relationships with others, and sharply restricted opportunities for collaboration and networking. One emerging solution to these drawbacks is coworking.

Coworking

In the United States, Brad Neuberg is generally credited as starting the coworking movement in 2005 when he organized Spiral Muse in San Francisco (Botsman & Rogers, 2011; Hunt, 2009). By 2011, over 700 coworking sites had opened globally (Deskmag, 2011), including the 13 in Austin. A Google group and a wiki keep space proprietors in contact as does an annual event held during the South by Southwest Interactive Conference.

But what is coworking? The coworking wiki defines it this way:

The idea is simple: that independent professionals and those with workplace flexibility work better together than they do alone. ... coworking spaces are built around the idea of community-building and sustainability. Coworking spaces agree to uphold the values set forth by those who developed the concept in the first place: collaboration, community, sustainability, openness, and accessibility. (Coworking Wiki, n.d.).

This definition is useful but imprecise. What kind of service is coworking? Who, beyond "independent professionals," coworks? Why do they choose to cowork?

To answer these questions, I turn to activity theory to provide a theoretical and methodological framework that supports my case study of nine Austin-area coworking spaces.

Analyzing Coworking as Activity

To understand coworking, I draw on activity theory, a sociocultural approach to understanding cyclical, collective human activity. Specifically, I start with third-generation activity theory (3GAT), what was formulated largely by Yrjö Engeström (see Spinuzzi, 2011, for an extensive discussion). Rather than recapitulating earlier, detailed discussions of 3GAT (e.g., Geisler 2001, Russell 1997), I focus on the activity system, with its actors, object, and outcome, and the contradictions that emerge in activity systems.

An *activity system* is a collective in which one or more human actors labor to cyclically transform an *object* (a raw material or problem) to repeatedly achieve an *outcome* (a desired result). For instance, construction is an activity system in which actors (construction workers, a foreman, an architect, etc.) labor to transform an object (raw materials that will become a building) in order to achieve their desired outcome (a building that provides a lucrative return). In 3GAT, activity systems form *networks* in which different activities interoperate. For instance, the actors' tools come from different manufacturers; the actors themselves come from different disciplines; the building is constructed according to specifications that best accommodate the activity for which it is intended.

Contradictions are systemic disruptions that form within activities, sometimes within parts of the activity, sometimes across parts of the activity, and sometimes across activities in the network. For instance, different actors working on the same construction project might seek contradictory outcomes: the foreman wants to finish the building as quickly as possible whereas the investor wants it to return the best investment and the architect wants to be able to take pride in the building, even if that means going over time and budget constraints.

In construction, the object is quite concrete (literally). But in collaborative knowledge work, the object is harder to define. Indeed, Engeström (2009) recently suggested that we need a fourth generation of activity theory (4GAT) to address such work (p. 310):

third-generation activity theory still treats activity systems as reasonably well-bounded, although interlocking and networked, structured units. What goes on between activity systems is processes, such as the flow of rules from management to workers. [But] In social production and peer production, the boundaries and structures of activity systems seem to fade away. Processes become simultaneous, multidirectional, and often reciprocal. The density and crisscrossing of processes makes the distinction between processes and structure somewhat obsolete. The movements of information create textures that are constantly changing but not arbitrary or momentary. (p. 309)

Like Engeström (2009), others have seen challenges to 3GAT in how knowledge work is organized (Bodker, 2009; Lompscher, 2006; Ruckriem, 2009). For instance, Yamazumi (2009, p. 212) argued that the knowledge society has shifted from mass production to interorganizational collaboration (cf. Castells, 1996, 2003; Toffler, 1970). This shift results in "new types of agency [that] are collaborations and engagements with a shared object in and for relationships of interaction between multiple activity systems" (Yamazumi, 2009, p. 213). As Engeström put it, "social production requires and generates bounded hubs of concentrated coordination efforts" (p. 310), hubs in which interorganizational collaboration is the object, or at least a large aspect of it (cf. Adler & Heckscher, 2007; Gygi & Zachry, 2010). That is, 4GAT understands internetworked activities by examining the interorganizational collaborations to which they contribute. These challenges correspond closely with the long-term employment trends and changes in work organization that I've discussed above.

In sum, 4GAT responds to the same trends that have led to coworking. Thus, I follow the 4GAT line of analysis here, examining the phenomenon of coworking as an interorganizational, collaborative object. What are the aspects of that collaboration? What activities does it network? The 4GAT analysis proffered here, I believe, fits the phenomenon of coworking well: Although coworking initially seems to be an unproblematic service, it means rather different things to different participants, and a 4GAT analysis can tease out these differences and suggest further lines of inquiry.

Methods

This qualitative case study was approved by the institutional review board at my university. Following Smagorinsky's (2008) suggestions for developing the methods section, I describe my research questions, the sites and participants, and my data collection, reduction, and analysis procedures.

Research questions

I sought to answer the following research questions based on three parts of the activity system, the object, actors, and outcome:

Research question 1: What is coworking? That is, how do these space proprietors and the coworkers in their spaces define coworking in their interviews and texts, and to what extent do they agree? What metaphors and analogies do they use to describe coworking? What is the object of their activity, and what contradictions exist in their understanding of that object?

Research question 2: Who coworks? That is, what potential coworkers do proprietors target, and who actually decides to cowork in their spaces? Who are the actors of the activity, and what contradictions exist across them?

Research question 3: Why do people cowork? What motivations do these space proprietors and the coworkers in their spaces report in their interviews and texts? What outcomes do the actors desire, and what contradictions exist across those desired outcomes?

Sites and Participants

I interviewed proprietors at nine Austin-area coworking sites and toured their facilities. I interviewed one group of proprietors the month before the facility (Cospace) opened. I interviewed another proprietor twice: once when she announced that she planned to open a coworking site (Link), and again after the site opened. In the other cases, I interviewed as soon as I found out about each site and could persuade the proprietors to be interviewed. Site names and proprietor names are not pseudonyms. I also interviewed 17 coworkers at the three most populated coworking sites (see Table 1).

(Table 1 goes about here)

Data Collection

I collected data for the study from July 2008 to February 2011. Given the number of sites and the difficulty of setting up interviews with people who have busy and fluid schedules, I collected data snapshots rather than longitudinal data: The data represent points early in the life of the coworking spaces, not necessarily the current state of these spaces. Given the research questions, I focused not on how people acted out coworking daily, but rather on how they described the object of coworking, their characteristics as workers, and their motivations for coworking. Thus, my data collection was built from these self-descriptions rather than observations. It included both formal and informal interviews with proprietors, photos from space tours, texts, coworker interviews, and LinkedIn profiles.

Proprietor formal interviews. I conducted formal interviews with proprietors of the coworking spaces (see Table 1). Interviews ranged from 29 to 77 minutes, averaging 48 minutes. When a space had multiple proprietors, I interviewed them together.

Proprietor informal interviews and photos from space tours. In addition, I conducted informal interviews with the proprietors, which I then posted on my blog after soliciting their feedback. I also toured the spaces and took photographs to record details such as layout, furniture, and amenities. Finally,

I informally observed the most populated spaces (Conjunctured, Cospace, Link) by working at least six hours in each space.

Texts. In addition, I collected 84 texts, including collateral media, membership agreements, member lists, business plans, Craigslist ads, and Web site pages for each site (Appendix A). I also collected any social media related to each site: Yelp and Google Places reviews, Foursquare and Gowalla check-ins, and Facebook pages.

Coworker interviews. I interviewed 17 members of the three most populated coworking spaces: Conjunctured, Cospace, and Link (see Table 1). I selected these members in a convenience sample—by approaching coworkers who were working in the space during my visits. Later, I compared the convenience sample to these sites' membership directories, verifying that it was roughly representative of each site's coworkers in terms of industry and gender. Interviews ranged from 9 to 45 minutes, averaging 21 minutes.

LinkedIn profiles. I collected all the available profiles on LinkedIn.com: all 17 of the coworkers I interviewed and 13 of the 16 proprietors. The profiles described these participants' education, job history, industry, and job title.

Data Storage, Coding, and Reduction

After collecting the data, I transcribed all the interviews, resulting in 2,608 entries (paragraph-separated units) for proprietors and 1,893 entries (paragraph-separated units) for coworkers. I coded entire entries rather than text segments. I placed all data in a relational database, with tables for participants, proprietor interviews, coworker interviews, texts, and photos, and created summary characterizations for entries in each data type (Miles & Huberman, 1994, pp. 54-55). My coding system was nonexclusive (i.e., each datum could be assigned multiple codes) and included starter coding, open coding, and axial coding.

Starter coding. I began coding deductively, using descriptive starter codes (Miles & Huberman, 1994, pp. 57-58) based on my semistructured interview questions.

Open coding. Using open coding (Corbin & Strauss, 2008), I inductively identified recurrent themes, defined codes based on them, then checked these codes deductively based on these definitions. First I developed open codes based on specific issues discussed during interviews, then applied them to related data in the other data types. I initially autocoded entries, applying codes based on keywords in the interview text, then I added codes to applicable entries that did not share the keywords. I interspersed autocoding with developing open codes, which I treated as emergent and recursive (Corbin & Strauss, 2008): Information in one data set might yield hypotheses that I could then test by coding other data sets.

Axial coding. Finally, I performed axial coding (Corbin & Strauss, 2008) to draw connections across starter and open codes. To develop axial codes, I looked for codes that appeared together frequently, then used a single code to articulate the relationship between them, developing a specific description for that code. I then recoded all data for those axial codes, applying the respective axial code to each piece of data that fit its description.

Data reduction. Coding also allowed me to reduce the data by focusing on heavily coded data related to key themes. Appendix B lists a selection of these codes and descriptions.

Data Analysis

I analyzed the data through comparisons and member checks.

Comparisons. I tested relationships between codes by examining whether they were supported by multiple data sources—across data types within the same site and within data types across sites. I compared how the same phenomenon was treated in proprietor interviews, coworker interviews, texts, and photos at a given site. For instance, I examined whether a definition of coworking was consistent and supported across data types at a given site. And I compared how the same phenomenon was treated within a given data type across sites. For instance, I examined whether a definition of coworking was shared by all proprietors across sites.

Member checks. I enacted three levels of feedback for my data. First, after informal interviews and site walkthroughs, I wrote blog profiles of each site

(http://spinuzzi.blogspot.com/search/label/coworking). Site proprietors reviewed and gave feedback on these profiles before posting them. Although this method resulted in positive, somewhat promotional profiles, it also allowed me to check the profiles' accuracy and build trust with proprietors. Second, after I transcribed the interviews, I conducted a transcription check with each participant to gather comments and feedback. And third, after writing a draft of this article, I gathered manuscript comments from site proprietors, which I used in later drafts.

Findings

As we examine how participants described the three aspects of coworking—the object (what), actors (who), and outcome (why)—we find contradictions in each. In fact, if we just look at the activity system of coworking, we might even wonder if *coworking* describes a coherent phenomenon at all. The proprietors and coworkers seem to disagree at every point. I discuss the contradictions that I found in each aspect; then in the analysis that follows, I discuss how a 4GAT approach can make sense of these contradictions and lead to a more coherent understanding of coworking as a collaborative activity.

What Is Coworking? The Object and Its Contradictions

Although proprietors and coworkers alike described themselves as being in Austin's coworking community, their definitions of coworking differed significantly. Both groups offered a variety of definitions, most of which were more specific than the definition provided by the coworking wiki. In the following subsections, I examine the characteristics of these definitions.

Proprietors' Definitions

The proprietors seemed to define coworking quite differently from each other in the site interviews and in their texts. Based on their various definitions, we might characterize these coworking spaces as community workspaces, unoffices, or federated spaces.

The Community Workspace: Soma Vida and Space12. The proprietors of Soma Vida and Space12 considered their sites to be *community workspaces* and defined coworking in terms of serving their local communities.

Soma Vida was a mixed-use center located in a recently gentrified neighborhood in East Austin. Its roomy interior was sectioned into various spaces, including spaces for child care, massage therapy, acupuncture, meetings, yoga, and coworking. Its Facebook page (T62) states that Soma Vida is "a place for people to find peace of mind, balance and community." In the coworking space, individual desks sit in front of long padded benches. According to one of the proprietors, Sonya Davis, "cowork" is short for "community workspace," and she worried that people might think that "you have to actually sit down and collaborate with someone, like there's co-projects. But what we do is we work within a community, and that's what we're all doing as anchor tenants." Soma Vida's Web site and collateral media emphasize that "Our work space allows you to have dedicated time to concentrate and accomplish tasks" (T30). In fact, Soma Vida's policies handout states that the coworking space is not for conversations: interactions between coworkers should be confined to other areas, "which include our lounge area, kitchen, and outside garden areas" (T15) as well as a conference room. Rather than being a central focus, coworking was one of many services that Soma Vida offers.

Space 12 was also a mixed-use building. It was once a notorious East Austin nightclub before a local church took over the site. The church now served the community in which the building is located. "It's kind of the opposite of a typical community center," codirector Sam Lee explained. "We ... create a space so that people could use it to do their own community initiatives. ... instead of offering services, we're offering space." Space 12 had a large open plan with a recreation area, shelves of books for a prison ministry, a stage area for concerts and church services, a small computer room for disadvantaged students,

and a coworking space (Figure 1). Its Facebook page (T65) reflected the wide variety of events held there, including concerts, church services, neighborhood barbecues and yard sales, and a swap-and-sew event, events that were reflected in people's Gowalla check-ins (T79). Space12 did not have a dedicated conference room. Also like Soma Vida, Space12 had "quiet" rules, although they were restricted to "quiet" hours rather than a blanket policy: "You have a set quiet time between nine and three, probably, until the kids get out [of school]," explained codirector Paul Wang. Unlike the other coworking spaces in this study, Space12 did not charge coworkers, and its Web site's definition of coworking was minimal: "Co-Working Space at Space12 is a shared office space for people from all walks of life in our community" (T33; see also T65).

(Figure 1 goes about here)

The community workspaces defined themselves in terms of serving local communities; the object was to work alongside, but not with, others. Consequently, both had quiet policies in their spaces, a characteristic unique to this category of coworking space. Both also had mixed uses, in keeping with their larger community-oriented missions.

The Unoffice: Brainstorm, Cowork Austin, Link, and Perch. In contrast, the proprietors of some coworking spaces saw their sites as providing office space for those who do not work in an office but miss the interactions and amenities of the office environment. In contrast with the community workspace, the *unoffice* encouraged discussions; interaction between the coworkers was an essential feature of this coworking space. One proprietor, Liz Elam at Link, emphatically declared that if a space had a no-talking policy, "then it's not coworking."

Brainstorm, which was based in a Victorian house in East Austin next to the freeway, defined coworking on its Web site as "a style of work in which independent professionals share a working environment yet perform independent business activities. ... Collaboration is common as a result of the social interaction that naturally occurs when talented and creative people share the same physical space" (T34). Brainstorm occupied the second floor of the house, upstairs from an architecture firm; it had three rooms, including a conference room, and a kitchen. Brainstorm sometimes rented out rooms for company retreats and other outsider meetings, and it hosted an Imagine Austin meeting.

Cowork Austin, on the third floor of a historical building in downtown Austin, defined coworking similarly. According to proprietor Blake Freeburg, coworking is "kind of a low-cost business platform with shared knowledge that amplifies your business opportunities. ... And to a lot of the people out there, what is coworking to them? Oh, it's a cheap office. ... But you get the bonus of community and shared knowledge and maybe avenues." Like Brainstorm, Cowork Austin saw interaction as natural but optional. Cowork Austin boasted three open-plan spaces, a kitchen, a conference room, and two private offices that could be leased. Freeberg confirmed that coworkers met clients in the conference room and also emphasized that Cowork Austin hosted various after-hours meetings for interest groups and organizations (e.g., a Women in Tech meeting, a Cassandra hackathon, an interface-design group, a tequila-tasting event).

At Link, a modernist space in North Austin that was renovated specifically for coworking, Liz Elam defined coworking as "a membership club that brings people together who share the need for a place to conduct their business in an interactive space" (T36; see also T64). She likened it to a gym membership. In her business plan, she emphasized that "coworking not only provides a more desirable physical space [than a home office or coffee shop does] but promotes collaboration, networking and incubator-like sharing of ideas" (T7). But as she specified, "I am not here to form lah-di-dah, let's-all-sing-Kumbaya community. I want people paying me, and I'll provide a great space for you." In particular, Elam emphasized, Link was suitable for client meetings. It had a large open-plan room (Figure 2), a kitchen, a conference room, and five small meeting rooms large enough to accommodate four people each. (Elam said she got the idea for the meeting rooms by observing business meetings at Starbucks.) Link also hosted networking lunches and after-hours events (e.g., Blogathon ATX, Rock a Charity, a book club, a summer concert series).

(Figure 2 goes about here)

At Perch, a modernist space "on the ground floor corner of a mixed-use development" in a recently gentrified area of East Austin, Lisa McTiernan defined coworking as "a nontraditional or parttime flex office space where [independent professionals] can truly get some serious work done, network with others" in an environment that is "affordable," "low-commitment," "flexible, and easy." Similarly, Perch's Facebook page specified that "our space is designed to provide a wide variety of users with a creative, functional and affordable workplace community" (T68). Like Link, Perch emphasized that it provides a space for meeting clients in a professional environment and for networking (T32). Perch offered an open-plan room for coworking and a conference room, which coworkers used for client meetings. Perch also hosted art shows and a regular yoga class.

The unoffice spaces defined themselves, then, as flexible office spaces that allow workers to interact and to meet with clients; their object was to recreate characteristics of the traditional office environment that independent workers may miss. In particular, they emphasized that coworkers can exchange ideas and get feedback from other coworkers, and they tended to emphasize how their meeting places are superior to the default meeting place for independents: the coffee shop.

Two of these unoffice spaces, Cowork Austin and Link, had explicitly considered and rejected the federated workspace model that I describe below.

The Federated Workspace: Conjunctured, Cospace, GoLab Austin. Finally, some proprietors saw the mission of their coworking spaces as fostering more active connections between coworkers, connections that could lead to working relationships between businesses—contracts or referrals—that is, federations (Zuboff & Maxmin, 2004). Their focus was on entrepreneurship. Like unoffice spaces, *federated workspaces* strongly encouraged interaction, but they also encouraged formal collaboration.

Conjunctured, Austin's oldest coworking space, was located in a large refurbished house in a gentrified area of East Austin (within walking distance of Perch and Soma Vida). Members who reviewed Conjunctured on Yelp tended to emphasize its proximity to popular restaurants and bars (T61). In an interview, its proprietors defined coworking as a "culture" and delineated between the culture of coworking ("people working together, collaborating, in the most general terms") and a coworking space ("a café-like environment/executive suite"). "Personally, I don't think it's about space at all," offered coproprietor Dusty Reagan. Similarly, Conjunctured's Web site defined coworking as "a global trend where freelancers, entrepreneurs, and other mobile workers come together to work in the same space. These mobile workers want to remain independent, but have hit a wall working in isolation at home. Coworking allows them to be part of a community of like-minded individuals with whom they can share ideas, trade business leads, foster business partnerships, and create friendships." (T37). That last point was emphasized on Conjunctured's Facebook page, where its entire self-description consists of "Conjunctured loves you. Yup" (T63)—a sentiment that reflects Conjunctured's relaxed, playful atmosphere (see Figure 3).

(Figure 3 goes about here)

Conjunctured's proprietors emphasized that they saw Conjunctured as a way to quickly form federations of contractors in order to take on projects that were too large for individual contractors. As coproprietor John Erik Metcalfe argued, "I've always thought of [taking on a project] as the white blood cells, right? So, everybody's kind of going along in their pipe. A project gets dropped in, we can swarm to kill it, disseminate, and keep flowing." Conjunctured could offer a brand that is larger than that of an individual contractor as well as a large stable of entrepreneurs who had gotten to know and trust each other. It could also offer referrals: If one coworker could not take on a job, that coworker could refer it to someone else in the space.

Conjunctured had a conference room, a kitchen, and three open-plan rooms. It also hosted frequent events and meetings of special-interest groups (e.g., CocoaCoder meetings, Bootstrap Interactive, Wordpress Meetup, and a poker game). These events were popular with coworkers, who described them frequently in their Gowalla check-ins (T75).

Cospace was on the second floor of an office park in North Austin. Like Conjunctured, Cospace focused on entrepreneurs. And like Conjunctured's proprietors, Cospace's proprietors drew a distinction between coworking and a coworking space. "Coworking is an informal gathering of people who need to

accomplish a task or a project or have some work to get done, but they want to work alongside others," coproprietor Kirtus Dixon offered, whereas a coworking space is "the more formal collection of all those people in one designated location, with the amenities ... [including] access to resources, space, desk, WiFi, coffee." Coproprietor Pat Ramsey emphasized that independent workers need a "home base" where they can interact, but not "a full time office where you sort of stovepipe yourself with a bunch of people, and you see the same people every day." Cospace's Facebook page emphasized this aspect, describing the space as a "coworking, networking, and meeting space in North Austin" (T66).

Like Conjunctured, Cospace emphasized the federated aspect of the space. As coproprietor Andrew Bushnell put it, "it gives [the coworkers] a chance to form together into a group. ... a group of 50 people is much more powerful than 50 individuals." Cospace had a large open-plan room, two conference rooms, a kitchen, and two offices that could be leased to groups. It also hosted frequent social events and meetings of interest groups (e.g., GeekAustin, Austin Drupal Users Meetup, WordPress Camp, Startup Weekend) as described in their coworkers' Gowalla check-ins (T76).

Austin's newest coworking space, GoLab Austin, occupied excess space in the offices of FG Squared, an interactive marketing company. Unlike the other spaces, GoLab Austin focused specifically on the interactive media industry. Steve Golab, who owned FG Squared and was proprietor of GoLab Austin, defined coworking as "basically giving people the tools that they need to be effective in their work. Making sure that they are productive. ... I think it's about helping facilitate relationships between one another and with people who are inside of the network." GoLab Austin's Facebook page makes its federated model quite explicit, describing it as "more than just a shared office space" and promising facilitated interactions and referrals (T53, T84). At the time of the interview, GoLab Austin had not yet hosted events, though Golab planned to do so.

The federated workspaces defined themselves in terms of fostering business relationships in addition to personal ones; their object was to facilitate collaboration with others in formal and informal relationships. That is, the proprietors saw these spaces as comprising a collocated network of potential contractors. Although they emphasized this collaborative focus, the proprietors also saw their spaces as providing the benefits of interaction that the unoffice model provides.

But what did the coworkers think?

Coworkers' Definitions

To get the coworkers' perspective, I interviewed 17 coworkers at the three most populated coworking spaces—Conjunctured, Cospace, and Link. (I also examined user-generated texts such as Yelp and Google Places reviews and Foursquare and Gowalla check-ins, but users did not define coworking in these texts.) Coworkers at these three spaces presented interesting differences in their definitions (see Table 2). They believe that the definitions they proffered capture the essence of coworking; in a later section, I discuss their *motivations*, the reasons why they cowork.

(Insert Table 2 around here)

Coworking as space. Of these three most populated spaces, only Link was defined as an unoffice in the proprietor interviews and texts. But coworkers across all three spaces defined coworking as an alternative office space. For instance, at Conjunctured, CW01 defined coworking as "a very cheap and easy way for me to work in an office space around people that are, I guess, very similar to me" whereas CW04 defined it as "trying to recreate some parts of the office environment … the parts of the office hopefully that work better than working from home." Similarly, at Cospace, CW06 said that "just like in any office, you know when Monday morning comes, what you're getting into," and CW10 called it "an office opportunity … it's a financial advantage to be able to have an office." Overall, 7 of the 17 coworkers explicitly defined coworking as analogous to the office, whereas 15 of 17 defined it as an office, space, or workplace. *Coworking as an inexpensive office alternative*. Although coworking is dramatically less expensive than leasing an office space, only three coworkers (CW1, CW2, and CW10) mentioned that fact.

Coworking as a social hub. "I now have a water cooler," stated CW15. "I have a place where I can bounce ideas off of people." Like CW15, many coworkers across the sites emphasized interaction with other coworkers. For instance, CW09 simply defined coworking as "social working.... It's a social environment to do your work." Similarly, CW03 defined it as "combining social networking and working in a laid-back environment where the stress is gone." Overall, 6 of the 17 coworkers used some variation of the phrase "bounce ideas off of people" (CW15), and 9 of the 17 coworkers defined coworking in terms of a social component.

Coworking as collaboration. Surprisingly, most coworkers did not define coworking as an opportunity to collaborate on federated projects (although more discuss collaboration as a motivation, which I discuss later). For instance, CW08, who worked in Cospace's federated space, defined it as people "working on different projects in the same shared space"—hardly the federated vision that Cospace's proprietors expressed in their interviews and texts. Overall, only 5 of the 17 coworkers defined coworking in terms of collaborating on projects, four of whom worked at the unoffice rather than at one of the federated workspaces.

Coworking as heterogeneous and homogeneous. Proprietors and coworkers alike sometimes referred to homogeneous and heterogeneous populations. Conjunctured (T37), Perch (T32), and GoLab Austin (T53) texts contained the phrase "like-minded," and proprietors of Perch and Soma Vida used it in their site interviews. Like the proprietors, three coworkers (one each at Conjunctured, Cospace, and Link) defined coworking in terms of working with people like themselves.

At the same time, three coworkers emphasized appreciating the heterogeneity of workers at the space. For instance, CW15 emphasized, "I can get really different views because I have individuals across the spectrum in their jobs, and what they do. You can get a better idea of what people think outside of the industry that you're in." (Proprietors of Cospace, Perch, and Space12 all emphasized heterogeneity in their site interviews, and Perch's Facebook page mentioned it, T68.)

Coworking as work/home separation. Only two coworkers (CW2 and CW17) mentioned work/home separation as a component of coworking. (Others mentioned this component as a motivator for them, but not as part of the definition.)

The Object of Coworking and its Contradictions

What is coworking, then? That is, what is the cyclical object of coworking activity at these sites? As we have seen, answers vary. A coworking space is a place to get work done—specifically, knowledge or service work that originates outside the site in other intersecting activities. Although coworkers work together, that work involves different, contradictory objectives, attached to and pulled by the network of activities in which each coworker engages. These intersecting activities perturbed the development of the object at each coworking site.

Coworking proprietors defined coworking in ways that emphasized specific models. Yet coworkers had different objects in mind as well—different from those of the proprietors and each other. For instance, the coworkers I interviewed tended to emphasize the unoffice model, in particular, the combination of space and social interaction as they performed separate projects. Yet beyond saying that they worked in the presence of other people, they provided definitions that were far from unanimous.

This finding is interesting because how the participants perceive the object of coworking affects how they coconstruct it. For instance, proprietors structure, design, furnish, and run their sites based on their understanding and model of coworking—and indeed they have considerable incentive to differentiate their sites from others. But the coworkers I interviewed seemed to understand coworking primarily based on one model, the unoffice. Coworkers were split on other characteristics of coworking, which meant that they came to their spaces with different expectations about the activity in general: Would they work in parallel or in collaboration? Would they socialize or find partners? Would they meet like-minded individuals or coworkers with different views and backgrounds?

As I discuss in the next section, some of these differences appear to relate to the individual coworkers' businesses and fields: For instance, an independent professional who needs to meet clients has

different needs and expectations from an independent contractor who needs to make business connections and get to know potential subcontractors.

I promised that the contradictions would begin to pile up, and they certainly have. So we can be forgiven for wondering if coworking is a coherent phenomenon rather than an unstable referent. Across proprietors, across coworkers, even between the proprietors and their coworkers at a given space, participants disagree in their definitions of coworking. These contradictions continue to pile up as we move to the next question: who coworks?

Who Coworks? The Actors and Their Contradictions

The activity systems at these coworking spaces involved various actors. Who did coworking proprietors expect to work at their sites, and who actually did?

Who Proprietors Targeted

To determine the proprietors' target audience, I examined their statements in the proprietor interviews as well as the texts I collected from each site, although proprietors may have changed their target audiences after these data were collected.

All proprietors, of course, identified individuals who could choose where to work. Those ideal coworkers had found home offices and coffee shops to be inadequate workspaces. Additionally, proprietors tended to seek and expect coworkers who shared their own background. For instance, Conjunctured's proprietors, who were experienced freelancers and entrepreneurs, sought freelancers who were used to working virtually. Cospace's proprietors, who had previously owned small businesses, sought small-business owners. Link's proprietor, a former global account manager for Dell, sought high-end Gen X business travelers. Soma Vida's proprietors, who identified strongly as female entrepreneurs with children, sought "mamapreneurs" and "papapreneurs." Even Space12's proprietors, who targeted the most diverse set of coworkers, emphasized that they wanted their church staff working there.

In addition, the proprietors identified people with specific characteristics. For instance, Conjunctured's proprietors specifically sought people seeking leads and business partnerships—in keeping with its orientation as a federated workspace—but also friendships. Cospace's proprietors specifically sought diversified small-business owners in North Austin needing a "home base" who can supply referrals to each other. Link's proprietor sought high-end independents who valued interaction with other coworkers, but were more concerned with minimizing unwanted distractions and meeting clients.

These proprietors, then, envisioned different actors for their sites. But they certainly did not rule out others as coworkers, they just did not identify them as targets. They were glad to take coworkers with different profiles from what they envisioned as long as those coworkers were not disruptive.

Who Actually Coworked

Who actually chose to work at these coworking spaces? The actual coworkers often did not match the targeted coworkers whom proprietors described. The coworkers I interviewed at Conjunctured, Cospace, and Link worked in various industries and capacities. But most of the coworkers at the nine sites were independent workers. Based on their interviews and LinkedIn profiles, I found that of the 17 coworkers I interviewed,

- 10 were small-business owners other than consultants; 6 of these were in one-person organizations
- 4 were consultants; 3 of these were in one-person consultancies
- 1 was a dependent contractor working remotely for a large business
- 1 was an intern for a business in the coworking space
- 1 was a permanent employee of a business in the coworking space

• 12 had an Internet or information technology component to their business. For instance, CW02 worked in the apparel & fashion industry for a company that sold apparel exclusively online.

At Conjunctured and Cospace, all coworkers I interviewed had an Internet or information technology component to their business. At Link, the coworkers I interviewed were diverse independent professionals, all of whom were small-business owners or consultants. Only two of the seven had an Internet or information technology component to their business, and none of them fit the profile of business traveler. Based on the member directories from the three most populated coworking spaces, this breakdown appears to reflect the membership at the three spaces as a whole.

The Actors of Coworking and Their Contradictions

Although they continue to pile up, the contradictions are relatively mild here because the actors are so loosely defined. The coworkers generally represented the clientele that proprietors expected, although with important differences (e.g., none were frequent business travelers). But they also were involved in a wide variety of professional activities, activities that involve different ties and relationships. Coworkers cowork, but freelancers freelance, consultants consult, entrepreneurs start and grow businesses, and small-business owners run small businesses. These activities are different, particularly because they are exercised in different fields and disciplines and require different sorts of work and resources—and collaborations. Consequently, the actors of these coworking activities expected quite different things from their shared spaces.

Why Do People Cowork? The Outcome and its Contradictions

What did coworkers expect to get from coworking? That is, what outcomes did they expect to cyclically achieve by coworking? To investigate this question, I examined coworkers' interviews as well as coworker-generated texts such as Yelp and Google Places reviews and Foursquare and Gowalla check-ins.

All of the coworkers reported that they had tried working from home, and 14 of the 17 reported working from coffee shops. As Table 3 shows, participants were unhappy with these workspaces, reporting that they experienced distractions, self-motivation problems, and feelings of isolation. For instance, CW06 reported that when he worked at home, he would have to take conference calls in his parked car because "you never knew when [my dogs] were going to start barking. And it seemed like they would sadistically plan to bark when I was on a call." CW15 found that when she worked from home, she would realize at noon that she was still in her pajamas, and she also found herself being distracted by domestic chores such as washing dishes and doing laundry. CW08 recounted, "I got really depressed [at home] because I didn't talk to anybody all day long." And CW03 described problems with coffee shops that many others had raised: "When you go to a coffee shop, you are obligated to buy something. You don't want to spend too much time there. It's not really conducive [as] a workspace because people are talking. People don't think of it as a workspace."

(Insert Table 3 About Here)

Given that the coworkers I interviewed were primarily small-business owners and consultants, such problems are critical: These professionals had to be highly motivated and focused because their livelihoods depended primarily or solely on their own initiative. Yelp reviews and a Gowalla check-in reflected how difficult coworkers found it to work in home offices and coffee shops (T58, T59, T61) and how these coworkers welcomed quieter, less distracting environs (T56, T80).

These themes carried through to what the coworkers sought from their coworking spaces. Coworkers reported that they sought a variety of characteristics from their spaces, and the various spaces provided key differentiators, according to their space, design, and professionalism; flexibility; and location and the benefits that coworkers tended to receive from each other.

Space, Design, and Professionalism

Coworkers across the three sites specifically discussed furniture and space design, but they judged these by varying criteria. CW04, for instance, specified that "if you're going to be sitting somewhere for three or four hours, the chair better be comfortable." Indeed, at Conjunctured and Cospace, coworkers included mostly entrepreneurs, freelancers, and consultants who seldom met their clients there, so these coworkers' focus was primarily on functionality and comfort. That is, the space design was inward facing, focused on facilitating comfort and relationships within the coworking site. Particularly at Conjunctured, the space design and atmosphere did not support formal meetings. CW05 recalled one day that she met clients there: "That was the day that like three people showed up with their dogs. Like it was 4:00, and it was loud, and the dogs were barking and fighting. And they were laughing, and then somebody was like drinking beer." CW04, also at Conjunctured, reported that he tended to meet clients at coffee shops instead.

In contrast, at Link, coworkers included mostly small-business owners who met with their clients face-to-face, so their focus was on image and professionalism. Six of the seven coworkers emphasized that they were proud to meet clients there. (The seventh coworker, an artist, did not have clients.) For instance, CW13 commented, "This place has a modern design, but it's organic and comfortable, and that's so hard to pull off. It's also clean, and there's no microwave-popcorn smell, and there's no worry about science experiments in the fridge. These things matter and especially if you want to bring in clients or friends or whatever." That is, the site was designed to be *outward facing*, to facilitate professional contacts with outsiders, to impress rather than to comfort. CW16, who had worked at both Conjunctured and Link, also mentioned how Link, as opposed to Conjunctured, had the "wow factor" for meeting clients.

Coworkers also mentioned how spaces supported events. For instance, in comparing Cospace to Conjunctured, CW06 claimed that Cospace had a greater ability to host conferences and meetings "because Conjunctured isn't quite as big as this place."

In social media, coworkers described the spaces approvingly, focusing on the unique characteristics of each space. For instance, Link was described on Google Places as a "high-end space" (T60) and in a Gowalla check-in as "such a beautiful space!" (T77). Soma Vida was described in a Foursquare check-in as "relaxing" (T72). And when a coworker checked in at Cowork Austin, she suggested that others "check out the patio and terrific conference room" (T74).

Going beyond specific space elements, coworkers at Cospace and Link, when comparing their site to Conjunctured, often centered their comparisons around how spaces allowed them to project professionalism. For instance, at Cospace, CW07 claimed that Conjunctured represented an "artist-commune type" of coworking, compared to Cospace's "businessy" model; similarly, CW10 claimed that Cospace was "a little bit more business minded" than Conjunctured. Coworkers at Cospace (CW07) and Link (CW13, CW16) emphasized the age gap between themselves and the younger coworkers at Conjunctured, using terms that tied age to professional demeanor. For instance, CW13 said that Conjunctured "felt like college to me again. ... I just wanted to have it be a place where I can turn on professional brain and stay focused and have the peer pressure to be Professional Lady."

Flexibility

On the other hand, some people sought more time flexibility, particularly entrepreneurs and freelancers, who typically set their own hours and do not have to meet clients regularly. These people tended to frequent Conjunctured, which had extended hours and gave keys to trusted coworkers, more than Cospace, which charged extra for keyed access, and especially more than Link, which was open only during normal business hours.

Location

Another differentiator was location. The coworkers sought coworking sites that were closer to their homes, clients, or desired amenities. The desired amenities differed from one coworker to another. For instance, CW12 and CW13 specifically cited Link's proximity to day care as one of its advantages for them. Conjunctured, on the other hand, was closer to downtown in a rapidly gentrifying area of East Austin. Using a Yelp review to rib people at other coworking spaces, one Conjunctured coworker wrote: "I seriously feel sorry for people that go to coworking spaces in North Austin or downtown," before describing Conjunctured's proximity to popular bars and restaurants (T61). Different locations seemed to appeal to people in different life stages: Link's coworkers were mostly in their 30s and older, whereas Conjunctured's were mostly in their 20s. Finally, Cospace was at the corner of a highway and major artery, making it more convenient for commuters coming from suburbs north of the city (CW07).

These differentiators, of course, sometimes conflicted with each other. CW04 articulated one such conflict: "The question is, is [coworking] going to be community based or proximity based? That, you know, 'do I come to this place because I like the people here or this happens to be the closest place, and the people don't piss me off?" That is an important question because people also seek coworking sites to interact with others.

Benefits from Coworkers

Beyond these benefits that the spaces themselves provide, coworkers sought certain benefits from other coworkers (see Table 4), such as interaction, feedback, trust, learning, partnerships, encouragement, and referrals.

(Insert Table 4 about here)

Interaction. Many of the coworkers across the sites expressed their desire to interact or socialize with the other coworkers. For instance, CW07 told me that "probably I am not going to work on jobs with these people, but I like to socialize with them and talk to them." This theme of interaction was common, especially in the Link and Cospace interviews but also in the Yelp and Google Places reviews; for example, one Cospace coworker enthused that "I get to see new people every day" (T58), a Conjunctured coworker described how "congenial" people were (T61), and a Link coworker emphasized how much of a host the proprietor was (T59). And frequent after-hours events provided plenty of other opportunities to socialize and network, and those events were reflected particularly in some of the sites' Gowalla checkins.

Interaction also took other forms. For instance, during his interview, CW17 remarked that "for me, it is about just the casual relationships," and that he had a friendly rivalry with CW19 on Foursquare: both competed to be mayor of Cospace. Later, CW19 mentioned the same rivalry—then paused the interview so that he could check in. "He's not here," CW19 told me, then added hopefully, "I might actually get the mayorship today."

Feedback. People across the sites also expressed their desire for feedback, although feedback had different meanings at different sites. For instance, at Conjunctured and Cospace, coworkers were generally in fields relate to technology or the Internet, so they tended to seek feedback on problems from others in their field. In contrast, coworkers at Link generally worked in more diverse, customer-contact businesses, so they tended to seek feedback from coworkers in different fields. As CW15 put it, "You can get a better idea of what people think outside of the industry that you're in."

Trust. Similarly, trust looked different across sites. At Conjunctured, in accordance with its federated model, coworkers sought collaborators they could trust as partners. As CW01 put it, "do [subcontractors] have a handle on their time? Can they manage all the stuff that we need to get done?" Conjunctured provided an environment for developing such trust. Similarly, at Cospace, CW06 emphasized that "you like to do business with people you trust" and reported that "there are already trusting relationships being built here."

On the other hand, at Link, coworkers tended to work in parallel. These coworkers thought of trust in terms of personal possessions and in terms of sharing ideas with people with whom they were not

partnered. For instance, CW12 told me, "I don't have to worry about my purse and my Mac. And at the same point, I feel like I've told [other coworkers] about my business plan. They're not going to go and tell my competition. I think they're going to keep it [to themselves]. I haven't sworn them to secrecy; I haven't made them sign a nondisclosure agreement."

Learning. Learning was a consistent theme. Again, coworkers at the federated sites (Conjunctured and Cospace) tended to emphasize learning within their fields when tackling work problems. At Conjunctured, for instance, CW03 said, "I feel comfortable to a point now where I know if I have difficult questions, I can ask people around here." Similarly, at Cospace, CW09 anticipated learning from a "pool of talent." At Link, on the other hand, coworkers emphasized learning about business practices in general rather than about field-specific tools or processes. For instance, CW17 said she had sought guidance on outsourcing accounting and using billing practices, whereas CW15 had asked for guidance on a piece of collateral she had developed for her business, and CW11 intended to seek help from someone who was "a brainiac on spreadsheets and budgets [since] I'm really bad about keeping my receipts." Partnerships. The three sites also differed in their potential for forming business partnerships. As a federated workspace. Conjunctured had targeted entrepreneurs who could work virtually and who could seek business relationships within the space. The participants whom I interviewed generally fit this profile. At Conjunctured, all of the coworkers had an Internet component to their business, and three coworkers reported subcontracting others in the space. For instance, CW1 said that Conjunctured was a good space to find subcontractors because people with a certain work ethic chose to work there. CW1, CW4, and CW5 all cited the fact that working alongside coworkers helped them to assess whether those coworkers would be good subcontractors. As CW5 put it, "I've seen them interact, you know, I've seen them make agreements and deliver or not deliver. ... What better interview could you get?"

CW5 also mentioned that at Conjunctured, subcontracting opportunities could be spontaneous: "One day we needed an editor, and I saw [a coworker] walk in ... and I'm like, do you have three hours to edit something? She said yeah. So she took a left instead of going into the room, and came in here and edited this stuff that we had to deliver." By offering a concentration of independent professionals within related industries, Conjunctured provided the potential for nimble business collaboration.

At Cospace, although coworkers saw the potential for establishing business partnerships with each other, at the time of my interviews, they had not. CW7 and CW9 expressed interest in establishing such relationships in the future. As CW9 put it, "They're still getting started here, so there aren't really a lot of members yet. But, one of the cool things about coworking is that you meet other people that you could potentially work with at some point." CW10 reported that he planned to refer Web clients to a coworker.

Similarly, Link's coworkers had not yet established business relationships with each other. Four of the seven (CW12, CW13, CW16, CW17) expressed the hope of establishing such relationships, and CW16 said that the promise of such relationships was "a big part of my choice to be involved in coworking originally." But these coworkers largely worked in very different customer-contact fields, so the business relationships that they envisioned tended to involve one-off services (e.g., buying a house, commissioning an interior-design session): They sought customers rather than partners.

The Outcomes of Coworking and Their Contradictions

Why did people cowork? That is, what outcomes did they hope to achieve through the object of coworking? These coworkers sought multiple outcomes, ones that were often not shared across coworkers. They expressed overlapping concerns, partly because different sorts of workers needed different kinds of support. Indeed, these concerns often contradicted each other: Specifically, coworkers had different expectations and desires concerning space design, feedback, trust, learning, and partnerships. One major contradiction emerged from these different concerns: some coworkers expected to work in parallel whereas others expected to work in cooperation.

Parallel work as an outcome. Coworkers who expected to work in parallel wanted to interact with each other socially, sometimes gathering feedback from those in different fields, building a sort of neighborly trust so that they could leave their belongings unattended or discuss business dealings without having those details repeated. These coworkers often worked in sole proprietorships in customer-contact areas (e.g., interior design, real estate) and needed space to meet their customers as well as other amenities that would make them look more professional. Although this outcome did not involve direct collaboration between coworkers, these conditions for parallel work definitely represented ongoing joint achievement: For these people to work alone together took considerable coordination and communication. They had to work at being good neighbors.

Cooperative work as an outcome. Coworkers who expected to work in cooperation wanted to gather specific feedback and learning techniques from others in their own field, building a working trust that could lead to partnerships or subcontracting. Often these coworkers were freelancers or entrepreneurs who provided services to other businesses rather than individual customers, and sometimes they would never meet their clients face-to-face. As a result, these coworkers focused less on image and client meetings—explaining in part the extremely relaxed atmosphere at Conjunctured in comparison to the other coworking sites—than on generating cross talk and camaraderie that could lead to trusted partnerships. They had to work at being good partners.

These are contradictory outcomes, implying two different sets of amenities and services. Again, the contradictions pile up. Is coworking really even a coherent phenomenon? In the next section, I argue that it is, and that a 4GAT analysis can help us understand it systemically.

Analysis: Coworking as a Coherent 4GAT Phenomenon

Throughout this article, I have examined the objects, actors, and outcomes of coworking, and I have described so many contradictions that you might suspect that coworking does not even describe a coherent phenomenon. But coworking makes more sense if we examine it in 4GAT terms, as "collaborations and engagements with a shared object in and for relationships of interaction between multiple activity systems" (Yamazumi, 2009, p. 213)—activity systems sharing collaborative objects that are "bounded hubs of concentrated coordination efforts" (Engeström, 2009, p. 310). Doing so lets us connect some of the isolated contradictions we have noted in the objects, actors, and outcomes of coworking.

For instance, one coworking configuration can be described as the Good-Neighbors configuration (see Figure 4). In this configuration, coworkers (whose activities are represented by triangles) who regularly meet with customers face-to-face bring their work into the coworking space (the circle) and work on it in parallel. Their collaboration is not focused on these individual tasks but on sustaining their neighborly relationships so that the coworking space can best support everyone's parallel work. An important aspect of this collaborative work is to provide what Goffman (1959) called a "team performance," a front stage of professionalism that is appropriate for meeting with customers. In these coworking spaces, this good-neighbors configuration is reflected in several areas: the proprietors' unoffice model, coworkers' focus on sociality, coworkers' tendency to meet with customers face-to-face, and coworkers' desire for a parallel work outcome in a professional space where they could meet and impress customers. These aspects of the object, actors, and outcomes make sense when we understand the good-neighbors configuration as a nexus of otherwise unlinked external activities. Like neighbors, these coworkers may be entirely unconnected in their work lives, but committed to sharing and improving a communal space.

(Insert Figure 4 about here.)

In contrast, the good-partners configuration (Figure 5), independent, unaffiliated specialists (whose activities are represented by triangles) can link up inside the coworking space (represented by the circle) to attack shared work problems. These shared problems are the objects of their momentary collaborations, the problems that individuals from the space are recruited to swarm; the more enduring object, however, is the networking that facilitates these fast-forming instances of cooperative work. One

such transient team is illustrated in Figure 5: experts in Web development, search-engine optimization, Web services, and copywriting have temporarily linked up to solve a problem posed by an external business client. (The graphic designer and retailer have been left out of this particular collaboration but could be picked up on future jobs.) The good-partners configuration supports not a front stage of professionalism but a backstage in which coworkers can attack these work problems. This good-partners configuration is reflected in the coworking spaces in several areas: the proprietors' federated workspace model, coworkers' focus on collaboration and sociality, coworkers' business-services orientation, and coworkers' desire for a cooperative work outcome. These aspects of the object, actors, and outcomes make sense when we understand the good-partners configuration as a nexus of transient work teams composed of specialists. As partners, these coworkers forged connections through their work lives as well as their social lives, and they treated the coworking space as the backstage for making these connections happen.

(Insert Figure 5 about here.)

So we can detect at least two configurations of coworking, two distinct ways in which a coworking space can function as a nexus of networked activities. Obviously other configurations are possible, and other activities impinge. For instance, coworkers preferred certain locations because they were closer to certain amenities, suggesting that other activities (e.g., parenting) also influenced coworking. Similarly, a detailed study of a coworking space based on the community workspace model might well turn up another configuration in which other activities are networked. Nevertheless, Table 5 compares the two configurations for which we have the most evidence.

As Table 5 suggests, the tensions between these two configurations appear to explain some of the contradictions that I discussed in previous sections. These tensions arise because the two configurations are superimposed in each space (see Figure 6). One configuration may be dominant in each space—for instance, Link is dominated by the good-neighbors configuration whereas Conjunctured and Cospace are dominated by the good-partners configuration—but both configurations are manifest in each space, and the tensions between them appear as systemic, affiliated contradictions.

(Insert Figure 6 about here.)

Implications: Who Writes the Definition of Coworking?

In this case study, I have examined how people collectively define and interpret an emergent collaborative activity through their talk and their many texts. Coworking is not a concrete product like furnishing a building, but a service—in fact, a service that proprietors provide indirectly, by providing a space where coworkers can network their other activities by engaging in peer-to-peer interactions. This service is now vaguely defined, allowing different configurations; consequently, we have seen many different contradictions in the object, actors, and outcomes of coworking. But coworking has evolved and will likely continue to evolve; as we examine how, we can also examine implications for how we apply activity theory to other emerging collaborative activities.

How Will the Definition of Coworking Evolve?

As we have seen, space proprietors confidently offered their definitions of coworking in their interviews, business plans, Web sites, and collateral media, and they have made decisions (e.g., space design and location, hours, rules, pricing, and approved events) that influenced how their coworkers understood coworking. But we have also seen that coworkers additionally define coworking in terms over which proprietors have little control: through interactions with coworkers and the partnerships and trust that develop from these interactions. In fact, since key aspects of coworking as a service are provided by those who buy that service, proprietors have little control over the definition of coworking. Coworking is a low-margin monthly service with well-established competitors such as coffee shops and home offices in addition to other coworking sites. Indeed, coworkers freely compare spaces in their interviews and in social media. Much of coworking's value rests on who else is coworking; indeed, many of these spaces

have subsequently hired or designated community managers who can structure interactions, facilitate introductions, and otherwise introduce greater social coherence—that is, managers who can orchestrate the networking of external activities within the site.

Coworkers tended to select spaces based on various factors: whether other coworkers did business with other businesses or with individual clients, were Gen-X or Gen-Y, were technologyoriented or not. People vote with their feet, and as they do, they change the networked configuration, the value proposition, and thus the object of coworking at each space.

So what is coworking? In this analysis, coworking is a superclass that encompasses the goodneighbors and good-partners configurations as well as other possible configurations that similarly attempt to network activities within a given space. What configurations should a given coworking site support? That is, how can the site serve as an effective nexus of different work activities? As they answer these questions, proprietors and coworkers develop their own configurations and further define what coworking means at their own sites. Looking at these interviews and texts, we can see these developments take place via largely decentralized discussions: in daily interactions at each site, in Gowalla check-ins, in Yelp reviews, at after-hours events, and in innumerable other forums.

As cities become more porous and workers become more mobile, we can expect coworking and variations to multiply. In this early study of an emerging phenomenon, we can see how critical texts and talk have been to coworking's definition and development. In fact, it is striking how much of this emerging discussion has taken place over scattered genres—such as Web sites, business plans, collateral media, guidelines, reviews, check-ins—distributed across all who are involved in coworking.

How Will the Activity of Coworking be Defined?

And that brings us to the implications of this study for activity theory. When I began studying coworking, I conceived it as people simply working in the peripheries of each other's activities—working alone together, as some in the coworking community say. Thus, I wondered whether activity theory could provide an adequate framework for studying coworking. Indeed, the term coworking seemed to gloss several objects achieved by several different actors to yield several different outcomes. Coworking seemed not to be a single activity at all, and certainly the participants' understanding of coworking rested heavily on how it intersected with their other networked activities. These dense interconnections with other activities continually pulled the participants' understanding of coworking in at least two very different configurations, and we can expect further differentiations as coworking becomes more common. With such a highly collaborative, interorganizational, and fluid phenomenon, an activity theory analysis seems difficult to apply.

To do so, I have turned to an emergent 4GAT approach that understands internetworked activities by examining the interorganizational collaborations to which they contribute, an approach that examines peer production in textured activities (Engeström, 2009), objects shared by activity networks (Yamazumi, 2009), and multiactivity interagency (Edwards, 2009). This turn, I believe, is necessary if activity theorists are to make sense of work that is increasingly focused on knowledge and services in interorganizational and cross-disciplinary collaborations—and coworking is just one example of such collaborations. As I have argued here, developing and applying a 4GAT analysis allow us to better examine how these networks of activities interact, interpenetrate, and at times contradict each other. Examining how these people work alone together prepares us to better apply activity theory to other examples of distributed, interorganizational, collaborative knowledge work.

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	Appendix A: Selected Texts
Text	Description
T2	Conjunctured business plan
T7	Link Coworking business plan
T15	Soma Vida coworking policies
T16	Soma Vida "What is Coworking?"
T30	Soma Vida Web definition of coworking
T32	Perch Coworking welcome page (with short definition of coworking)
T33	Space12 coworking page with coworking definition
T34	Brainstorm Coworking Web site with coworking definition
T36	Link Coworking FAQ with short coworking definition
T37	Conjunctured—About page with history and coworking definition
T38	Conjunctured registration form (on Web site)
T39	Cospace members directory
T40	Link Coworking members directory
T41	Conjunctured members directory—full time
T42	Conjunctured members directory—basic
T43	Conjunctured members directory—alumni
T53	Facebook page for FG2 "The Go Lab" (GoLab Austin)
T56	Yelp reviews for Space12
T58	Yelp reviews for Cospace

Т59	Yelp reviews for Link Coworking
T60	Google Places reviews for Link Coworking
T61	Yelp reviews for Conjunctured
T62	Facebook page for Soma Vida
T63	Facebook page for Conjunctured
T64	Facebook page for Link Coworking
T65	Facebook page for Space12
T66	Facebook page for Cospace
T68	Facebook page for Perch Coworking
T72	Foursquare check-ins for Soma Vida
T74	Foursquare check-ins for Texas Coworking [the original name of Cowork Austin]
T75	Gowalla check-ins for Conjunctured
T76	Gowalla check-ins for Cospace
T77	Gowalla check-ins for Link Coworking
T79	Gowalla check-ins for Space12
Т80	Gowalla check-ins for Brainstorm Coworking
T84	Gowalla check-ins for GoLab Austin

Appendix B: Selected Codes

Selected Starter Codes

Code	Definition

cw_definition	What is coworking?
cw_history	Proprietor's history and background related to coworking.
cw_whyYou	Why do you cowork?
cw_whyOthers	Why do your coworkers cowork?
space_planning	How did you plan your space?
space_events	Do you hold events here?
reqs	What are the minimum conditions for coworking?
space_collaborating	How do people coordinate or collaborate here?
space_clients	Do people meet clients here?
cw_evolve	How will coworking evolve?
cw_challenges	What challenges do you think your space will face over the next 6 mo-year? Over the next 5 years?
cw_changes	What are some critical changes that could help coworking spaces or coworkers?
cw_diversity	How diverse coworkers are re fields.
cw_target	Stated target market

Selected Open Codes

Code	Definition
biz	The coworker's business
biz_costs	Business costs, including costs of coworking space
biz_partnerships	Partnerships or subcontracting in the coworking space
biz_refer	Referring business to each other in the coworking space

biz_selfdesc	Their self-description, including title, sector, or status	
coffeeshop	Discussion of how people work in coffee shops	
cw_community_likeminded	like-minded people in the space: similar in outlook, profession	
cw_community_managing	how the space establishes and manages its community	
cw_comparison	Comparing alternatives to coworking spaces	
cw_comparison_spaces	Comparing coworking spaces	
cw_encourage	Coworkers provide encouragement or support	
cw_feedback	Coworkers provide feedback or perspective	
cw_location	Location of the coworking space	
cw_target	target market for this coworking space, including general relationships (telecommuter, freelancer) and specific occupations (web developer, architect). Differentiation from other coworking spaces.	
cw_trust	Coworkers can be trusted	
gen_boomer	Characteristics of boomers	
gen_x	Characteristics of Gen-X	
gen_y	Characteristics of millenials	
learning	Coworkers have to learn skills	
model_mixed	Mixed model	
reqs_confidentiality	Need for confidentiality in meeting clients, associates, etc.	
reqs_daycare	Daycare or childcare options	
self_motivation	Coworker discusses ability to motivate self or challenges to self-motivation	
social_capital	Social capital	

space_commcenter	Comparing coworking to a community center, church, or nonprofit; interactions among these
space_furniture	furniture needs, purchases
space_pricing	How they price their coworking space and amenities
space_segment	Segments for coworking
time_flex	Time flexibility. Degree to which space hours accomodate flexibility for coworkers.
work_home	Work-home separation
work_home_distractions	Distractions of working from home

Axial Codes

Code	Definition
ax_benefits	What proprietors expect coworkers to get from the site
ax_trusted_community	What sorts of trust coworkers expect in the site.
ax_motivation	What benefits coworkers expect to get from the site.

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Bio

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Figure Captions

Figure 1. Space12, a Coworking Space based on the Community Workspace Model.

Figure 2. Link Coworking, a Coworking Space based on the "Unoffice" Model.

Figure 3. In Keeping with its Ethos, Conjunctured Offers Vending Machines that Serve Both Candy and Dog Treats.

Figure 4. The good-neighbors configuration of coworking: An outward-facing front stage that supports individuals' work efforts.

Figure 5. The good-partners configuration of coworking: an inward-facing backstage that supports ongoing networking, leading to transient teams.

Figure 6. The two configurations superimposed.

Site	Proprietors Interviewed	Coworkers Interviewed
Brainstorm	Martin Barrera	
Conjunctured	Jon Erik Metcalfe, Dusty Reagan, Cesar Torres, David Walker	CW1-5 (5)
Cospace	Andrew Bushnell, Kirtus Dixon, Pat Ramsey	CW6-10 (5)
Cowork Austin	Blake Freeburg	
GoLab Austin	Steve Golab	
Link	Liz Elam	CW11-17 (7)
Perch	Lisa McTiernan	
Soma Vida	Sonya Davis, Laura Shook	
Space12	Sam Lee, Paul Wang	

Table 1. Austin Coworking Spaces, Proprietors Interviewed, and Coworkers Interviewed

Characteristics	Coworkers at Conjunctured	Coworkers at Cospace	Coworkers at Link
Space	1, 2, 4, 5	6-8, 10	11-14, 16, 17
Inexpensive office alternative	1, 2	10	
Social hub	3	6, 9, 10	11, 12, 14, 15, 17
Collaboration	4		11, 12, 15, 16
Heterogeneous		6	14, 15
Homogeneous	1	6	12
Work/home separation	2		17

Table 2. Characteristics in Coworkers' Definitions of Coworking.

Characteristics	Coworkers at Conjunctured	Coworkers at Cospace	Coworkers at Link
Had worked from home	1-5	6-10	11-17
Home: distractions	1,4	6, 8	11, 12, 14, 15
Home: self-motivation problems	4	6, 8	11
Home: isolation	3	7-9	12, 13, 17
Had worked at coffee shops	3-5	6-10	11, 13-17
Coffee shops: distractions	4	6	14

Table 3. Coworkers' Experience Working from Other Spaces.

Benefits	Coworkers at Conjunctured	Coworkers at Cospace	Coworkers at Link
Interaction	3	6-9	11-15, 17
Feedback	1-3, 5	6, 10	11, 15, 17
Trust	1, 4, 5	6	12-17
Learning	1, 3, 5	9	11, 15-17
Partnerships	1, 3-5	6-10	12, 13, 15-17
Encouragement	1, 5		14, 17
Referrals	5	10	16

Table 4. Desired Benefits from Coworkers.

	Good Neighbors	Good Partners
Object (proprietors)	Unoffice	Federated workspace
Object (coworkers)	Sociality (as neighbors) Collaboration (as neighbors)	Sociality (as potential partners) Collaboration (as partners)
Actors	Small-business owners and consultants providing customer- contact services (front stage)	Entrepreneurs and freelancers providing services to businesses (backstage)
Outcomes	Parallel work	Cooperative work

Table 5. Two Configurations of Coworking and Their Contradictions.