Libraries as transitory workspaces and spatial incubators

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A R T I C L E   I N F O

Growing flexibility in work arrangements, particularly in the knowledge industries, and the ensuing possibilities for teleworking are challenging the traditional ways of conceptualizing and designing public spaces and public services. As an example of this development, public and university libraries are studied from the point of view of teleworking. Although work still only accounts for a small amount of the activities that take place in libraries, its transformations can be seen as a ‘weak signal’ of newly emerging spatial arrangements. In addition to the home and workplace, teleworkers are using a network of public, semi-public and private spaces (so-called third places) for different types of working. The research used the concept “spatial portfolio” to address this phenomenon of spatial modalities. The new role of public libraries within this context is discussed. In addition to their traditional functions of lending books and providing spaces for reading newspapers and magazines, libraries are now becoming more multifunctional, providing space for different activities, including work. This new phenomenon has been studied empirically by conducting a qualitative interview and observing teleworkers in two public libraries and one university library in the City of Helsinki, Finland. The objective was to find and analyze different profiles of workers in libraries, thus providing input for future planning and design of these spaces, as well as the urban fabric around them. The results show that a considerable range of activities within research and education, art and culture, information technology, business and finance, and social services and government are performed in the libraries, all of which are in part supported by the new concepts and policies of the city. Libraries can be seen as ‘transitory workspaces’ where people work at least a couple of hours per week and for different reasons such as free wifi connection and location. Also, libraries might be considered ‘spatial incubators’ or rather places able to attract people who start up their own activities. These concepts contribute to define a new way of appropriating libraries.

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1. Introduction

Recently, scholars have focused on the role of libraries as social and community places for interacting, spending leisure time, and learning (Griffis, 2010; Houghton, Foth, & Miller, 2013; Johnson, 2010). Libraries have been defined as “meta-meeting places” (Aabe & Audunson, 2012). According to Jochumsen, Rasmussen, and Skot-Hansen (2012), the new model for libraries may consist of up to four places: an inspiration space, a learning space, a meeting space and a performative space. Libraries serve as a utilitarian place, one that learners, mostly adults, who study and conduct research, perceive as an alternative habitat or home away from home (Lincoln, 2002). The digital era has also forced libraries to adapt and evolve their functions in order to justify their existence in the changing information environment (Houghton & al., 2013). At the same time, library users are increasingly interacting with virtual services for all purposes (Lincoln, 2002). Innovative spatial fragmentation and particular zoning patterns in libraries have increasingly allowed for various functions in the same place (Servet, 2010).

Furthermore, libraries along with coffee shops, parks, and other public spaces, are also emerging as transitory workspaces. Transitory workspaces can be defined as those places that do not have any room dedicated or designed for work, but which teleworkers choose temporarily for working purposes. Apparently, this happens because work practices are changing and becoming more flexible, and new kinds of workplaces are emerging (Forlano, 2008a). The library's place seems to acquire the role of creative incubator and working space. From this combination the concept of “spatial incubators” has its origin.

There is a need for further knowledge of how libraries are used for working purposes, and by whom. In fact little is known about the profiles of workers, the activities they perform, and the spatial and architectural requirements for working. More precisely the aim is to know what kind of people use libraries as workplaces and what kind of features the libraries and the urban context present for them.

1.1. Problem statement

For decades libraries have been mostly associated with being a place to study or research and more recently with a place to meet people. Libraries are changing rapidly in the wireless age, and they can also be
interpreted as a place to work. Although work still only accounts for a small amount of the activities that take place in libraries, its transformations can be seen as a weak signal of newly emerging spatial arrangements.

In previous studies, scholars have interviewed library patrons with the main aim of exploring community benefits and possible social interaction, and have observed what kind of activities people usually perform (Griffis, 2010; Johnson, 2010). To this end, researchers have also studied the roles and functions of libraries as meeting places, considering the features of the neighborhood and, in particular, the demographic and social characteristic of people that use the libraries with respect to where the libraries are located (Aabø & Audunson, 2012; Fisher, Saxton, & Edwards, 2007).

Only recently have scholars begun to reflect on those libraries where spaces are being transformed and new services provided for working purposes (Servet, 2010). There is need for further attention on what people do while in the libraries, and what kind of space they are looking for (Aabø & Audunson, 2012).

Libraries have been changing dramatically as they offer new services and spaces (such as wifi, printers, and meeting rooms). Considering also the growing flexibility of work, there is a need to explore what kinds of teleworkers are using libraries in increasing numbers for working purposes. Since it is not possible to easily make generalizations about the types of workers who use libraries, the objective of the present study is to explore the profiles of these new workers and their relationships with the urban context that surrounds libraries. Findings from this study should be relevant to future design and planning.

2. Literature review

2.1. The role of libraries

The public libraries have played a key role in building social capital (Putnam, 2000), and in preserving democracy by providing safe and open access to knowledge resources (Pang, Denison, Williamson, Johanson, & Schauder, 2008). In recent decades libraries have acquired the role of community foundation, and they might also serve as third places (Lawson, 2002; Oldenburg, 2001). Originally, libraries were not considered typical third places, even if they embodied some of the features of a third place (Codispoti & Frey, 2007). They can be referred to as first places, serving as an extension of home, as second places supplementing the school or workplace, and as third places serving as community spaces (Aabø & Audunson, 2012).

Oldenburg defined third places or “great good places” as public places on neutral ground where people can gather and interact (Oldenburg, 1999). They are neither workplaces nor private homes. Third places allow people to engage in conversation and enjoy the company of friends. They represent the heart of a community’s social vitality, conviviality and democracy (Oldenburg, 2001).

However, mobile workers are also associated with these places (Brown & O’Hara, 2003; Willis, 2008). Thus it may be reasonable to question the relevance of Oldenburg’s original, functional definition of the third place as something distinct from work, allowing only playful conversation. Many of the features that he attached to these places may also be among the reasons why people are increasingly using them for working. These places can provide place to get away from the home and office distractions and focus on the work itself. Apparently, the advantage of the third place is that even if one may feel at home and be able to concentrate on work, one has no obligation to stay in one place. The interactions in these places seem to be rather mobile, but as Foth and Sanders (2008) argued they still remain somehow face-to-face and place-based.

Putnam was the first to consider libraries as part of such vibrant spaces of social capital (Putnam, 2000). Libraries have become familiar territories, comfortable and accessible places that promote social interaction (Black, 2011). If bookstores are seen as third places, similarly libraries can be included in this category, since they increasingly serve as central hubs of community (Fisher et al., 2007; Harris, 2007).

Aabø and Audunson (2012) conducted an observational study in three public libraries in Oslo, Norway. The findings show that most of the people like the idea of the public sphere that the libraries represent. In fact, the library is an arena where you can find information, but also engage in activities in the local community. To describe this, Aabø and Audunson used the term meta-meeting place. However, they found that some people come to the library with individual projects. For instance, architects and writers use the public library as an inspiring place to work. So beyond the well-known categories of library users like students and researchers, other categories of workers using libraries are emerging (Aabø & Audunson, 2012).

Thus, libraries are challenging the traditional concept of public space by including a range of more private functions. Several kinds of furniture and user services that have recently been introduced in the libraries (such as floor cushions for seating and IT-support) contribute to the blurring of boundaries between the private and public sphere. Servet (2010) pointed out that new libraries such as DOK Library in Delft have increasingly arranged innovative spatial fragmentations and specific zoning, such as silent areas suited to informal workspace. To this end, the OBA Library in Amsterdam (Openbare Bibliotheek van Amsterdam) provides white ottomans equipped with computers at their centers; this configuration leaves no other choice for users than to sit cross-legged; Usually this posture is reserved for the domestic sphere (Servet, 2010).

On the other hand, the library is still a public place open to all (Houghton et al., 2013). The observational studies and interviews conducted by Houghton and his co-authors in the Concord Library, City of Canada Bay, Australia, show that despite the use of technology and social media within the library and with other libraries, users seem to prefer social connections within the physical space. Users are interested in both quiet study spaces and engaging in social activities. The library has catered to users’ needs by creating flexible spaces that can be easily re-arranged. This allows re-appropriating the space for different activities at different times.

Another typical example of a third place is, of course, the coffee shop. Students and businessmen are increasingly using coffee shops as “open-plan offices with living-room qualities” (Hartmann, 2009, p. 427). According to Brown and O’Hara (2003), coffee shops and other public spaces can be transformed into sites of work, even though noises might disturb the work activities, such as reading and writing, and other customers can listen to confidential conversations. Although teleworkers are usually surrounded by several types of noise, such as espresso machines, they seem to be really stimulated to work (Forlano, 2008a). According to Hartmann (2009), coffee shops become workplaces especially for those whose actual workplaces are in crowded or cold environments. Sanusi and Palen (2008) observed that coffee shops are so far not designed for performing working activities, but they are expanding to include the categories of people who will typically be found in those spaces. Sanusi and Palen argue that not only students but also mobile workers, or people who work at home, move to the wired coffee shop for changing scenery while corporate workers reach coffee shops in between meetings to meet friends or colleagues or avoid distractions. Ind and Holm (2012) claimed, in fact, that coffee shops can be a place for solitude or where social interactions happen. These places welcome people belonging to the upper-middle class, but also customers with different backgrounds. The coffee shop represents a fusion of public and private place.

However, Meyric has argued that “coffee shops will play a vital role in helping libraries to build communities and create the new third place” (cited in Harris, 2007, p. 145). Currently, studies refer to the recombination of traditional spaces like coffee shops within libraries as third places (Horan, 2000).

The categories of people who usually visit libraries are thus changing, as are the range of activities performed in the library. However, so far
most libraries have not provided any space dedicated to or designed for work.

2.2. Transitory workspace

As previously mentioned, the theoretical framework of this study is drawn on the concepts of transitory workspace and spatial incubators. So far the concept of transitory has mostly referred to the employees who are changing employment and consequently workplace (Appelbaum & Batt, 1994), and to the residents who are moving around in third places (Oldenburg, 2001). Actually, Augé (1995) argued that cities are abundant in “non-places” that are transitory and, accordingly, their effect on people might be temporary.

Nowadays, libraries, along with coffee shops, lounge areas, and other public spaces can represent transitory workspaces that are defined as temporal and unplanned working locations. This concept has been formulated in consideration of how current habits of mobile employees and teleworkers have been restructuring their work more and more outside of offices (Bailey & Kurland, 2002). They are spending less time in the office because they are involved in meetings with people from other organizations located in other parts of the city, visiting clients, training, and even working during holidays and while on sick leave. Harrison, Wheeler, and Whitehead (2003) have called attention to the nomadic work styles found in multiple workplaces. New terms describe the changing nature of workplace in itself, such as “guest” office, “instant” office and “home” office. For example, the instant office represents a workplace instantly created by the user, and not originally designed for work, such as in airplanes, trains and lounges (Vartiainen et al., 2007).

The concept of transitory workspaces is also linked to the idea that where and when people work can depend on their own individual needs and preferences (Pyörä, 2003), and to the ability to be connected almost everywhere because of private and municipal wireless networks (Forlano, 2008b). This idea of places and distances losing their meaning is, however, overstated, and since instant offices are also selected based on their relational, social and physical characteristics. It is a new form of appropriating place (Aurigi & De Cindio, 2008). Workers choose to stay in these transitional public spaces (Willis, 2008) even though they have not been properly designed for working activities.

2.3. Spatial incubators

Libraries can be seen as spatial incubators or rather, places able to cluster creative people who start up their own businesses, and whose incomes might not be fixed, such as freelancers and entrepreneurs. The concept is related to the theories of Florida (2003) who pointed out the role of those places as incubators of creativity, innovations and new industries. “People today, especially creative people, are looking for authentic creative places that are affordable and allow them the openness and social space to do their work” (Florida, 2008, p. 1). Indeed, he argues that these incubators are able to create not only new sources of employment and level of income, but also social cohesion and citizens’ identity (Florida, 2002). Incubator is more than a physical place.

However, considering regional growth since the 1980s, the importance of incubators has been mostly associated with high technology and science parks. Usually incubators offer office space and basic services, but also coaching and funding (Hansen, Chesbrough, Nohria, & Sull, 2000). For decades, the impacts of the incubators at the regional and local scale have been measured by their contribution to employment and wealth creation in helping small and medium sized enterprises (Liargovas, 2013). Only recently, the spatial context has been considered one of the crucial factors for incubators’ success. Nowadays, it is well known that creative ideas can be successfully developed if there is also a stimulating interaction between people and their environment in particular spatial settings, relations and contexts (Meusburger, 2009). A spatial incubator’s vision might involve new profiles of working engaged in high-tech entrepreneurship, business, art and culture, education and research, and in a network of places creating new social capital.

2.4. Appropriation of space

The appropriation of space and time in the city can allow differentiation among places, “by inhabitants and passers-by” (Stanek, 2011, p. 86). However, a dramatic change in how people experience time and space both individually and collectively is occurring. The meaning of space is being transformed as a result of the acceleration in the temporal structure of main everyday activities (Sirowy, 2007, p. 46). There is also a need to think about alternative spatial forms with reference to everyday life (Lefebvre, 1991, p. 387).

People can experience spaces and dynamic data simultaneously, because information has been increasingly added as content to human experiences within the physical space (Berruti, 2008, p. 9). Although the “space of places” seems to be predominant, the “space of flows” that Castells (2004, p. 449) writes about is inducing phenomena such as the marginalization of people and places. From the point of view of working people, however, the metaphor of flow is problematic. Professional and creative workers can hardly be said to be “going with the flow”, since virtual connections represent, at least for them, new possibilities for maintaining important connections and access to data, and at the same time, for customizing their physical and social environment by moving around. A more suitable metaphor to characterize this coexistence of physical and virtual possibilities or modalities could be “spatial portfolio,” (Lapinie, 2008).

Despite the proliferation of wifi networks and nodes in urban environments, they cannot easily be mapped within physical or architectural boundaries. In fact, they permeate “walls bleeding into public spaces and breaking down certain traditional notions of privacy and property while re-enforcing others” (Forlano, 2008a, p. 9). To this end, the conventional forms and functions of these public and semi-private spaces cannot survive everywhere in the current urban environment, which is made up of on and off-online spaces. This fact also calls for a new understanding of space that is not limited to physical space and its social characteristics, but also includes the virtual spaces provided by both public and private agents. Workers usually need to access information for particular purposes, but this information is increasingly being stored in remote servers. Internet access is thus crucial, and the provision of wifi nodes is restructuring urban spaces and creating new functions for public services.

3. Methods

A mixed methodology was selected for this research, including conducting qualitative (structured and semi-structured) interviews and observing teleworkers in two public libraries in the City of Helsinki, Finland. Kirjasto Kymmenen (or Library 10) and Meeting Point in the Lasipalatsi Film and Media Centre, were research partners in the project ‘CityWorkLife.’ The research also included the Kaisa Library because it is a new and innovative university library that opened in 2012. The third

The multidisciplinary and interdisciplinary research project titled “CityWorkLife, Smart and Flexible Work and Living in Metropolitan Areas” has been led by the Department of Industrial Engineering and Management (School of Science) and the Department of Architecture (School of Arts, Design and Architecture). The units involved have been the Virtual and Mobile Work Research Unit (School of Science) and Public and Private Spaces (SPACE) research group (School of Arts, Design and Architecture). The project is funded by Tekes (The Finnish Funding Agency for Innovation), and Aalto University, as well as the partners Telia Sonera, Finnair, Café Köket, Helsinki City Library, Regus and Workspace. The study has focused on flexible and multilocal work in metropolitan areas by exploring private and public spaces as flexible work environments and organizational and employee perspectives on flexible work. The research aimed to investigate how employees as citizens are mixing and melding their work with their living and out of the “main office”, and how places and technologies are integrated in working and living practices.
library is open to all citizens, but the digital resources are reserved for the students and staff of the university.

The reason for selecting these cases is that the policies of public libraries in Helsinki are deliberately challenging the traditional concept of a library (in terms of buildings and functions) by providing spaces and services for different activities (such as playing music, exhibiting art, and software assistance). In particular, Meeting Point does not have any book collection; rather, it provides practical advice and guidance on electronic communication and living in an information society (Lämsä, 2013). However, Meeting Point is well known in the city as belonging to the public library system of Helsinki since it operates in tandem with Library 10 by offering extra services, such as multimedia computer workstations, along with a video editing workstation and meeting rooms. The Kaisa Library, on the other hand, provides new spaces, facilities, and virtual services that a few innovative libraries in Europe have been recently proposing. Apparently, the design has also kept in mind new virtual working practices.

In order to find suitable interviewees, people who were using IT devices were approached in the libraries, asking specifically if they were working (and not studying for instance) and if they would be willing to participate in the research project. Since it was reasonable to assume that workers are usually busy with their own work, the interviews were kept brief, no longer than 10 min. Within the months of June, August (which are working months during summer in Finland), and September and October of 2013, two observers made a total of 15 visits to the three libraries and interviewed 90 teleworkers. Each visit took between 1 and 5 h, with the average visit being approximately 3 h. Overall, each place was observed for a minimum of 15 h. The researchers also interviewed Kari Lämsä, the department head of Meeting Point and Library 10 public libraries, and Vesa Oiva from Anttinen Oiva Architects Ltd., which was the architectural firm in charge of designing the Kaisa Library.ii

The physical characteristics of the libraries were also observed, including the location, the surrounding urban structure and services, and the architectural and design attributes of each place. The objective was to understand how working practices were related to these physical features inside and outside the libraries. To this end, accessibility from surrounding neighborhoods was analyzed, specifically the availability of public transportation and easy walking and cycling access to the library. Visibility from distance and nearby that might be a determinant for the library access was also observed. Nearby functions were checked in order to examine the urban fabric that characterizes the context of the libraries. Finally, the libraries were observed to see whether they were well furnished and equipped, and if they provided a good comfortable space for those users who chose the library as a transitory workspace. In fact, design elements such as furniture types, good natural and artificial lighting, free or fee-based wifi, and availability of electrical outlets are all factors that can have a positive impact on the workplace environment and can support the work being done. The study used an architectural features checklist to frame the three places, supported by comprehensive visual documentation.

Each visit included a sequence of observations focused on people at work and using IT devices (smartphones, laptops, or tablets), in order to see how they used the space. In particular, observations included where teleworkers were seated and what furniture they used, and whether or not they were connected spatially. IT users engaged in other activities, such as reading and studying, were also mapped. Simultaneously, structured and semi-structured interviews were conducted to explore the profiles of some of workers (Appendix A).

First the study analyzed the demographic, educational, and employment characteristics of teleworkers (e.g., sex, age, level of education, field of primary occupation, type of contract, and workplace). Then, the semi-structured interviews consisting of 12 questions were used to explore the workers’ routines and habits. For example, the respondents were asked how long they usually use libraries for working and the reasons that they choose the libraries as workplaces. They were also asked about their personal preferences for the library space, considering architectural and physical features. They were also asked which other workplaces they go to before reaching the library. Finally, teleworkers were asked how many on line and face to face contacts they have while in the libraries with colleagues and clients for work reasons, and with friends and relatives for personal matters.

Open-ended interviews with Kari Lämsä and Vesa Oiva were conducted on November 6, 2013 and December 16, 2013, respectively. They were asked whether they were aware of the range of types of teleworkers that use the library. In particular, they were shown the research results about type of contract, field of occupation, and habit and preference of users. They were also asked how information technology is affecting the layout and provision of facilities and services offered by libraries. The open-ended questions sought to identify the current and emerging challenges that library managers, librarians, and library designers will have to face in the near future.

4. The libraries studied in the urban context

Library 10 is one of the most popular libraries in Helsinki. The library is located on the first floor of the well-known Post Office Building, which faces the Central Railway Station on one side, and the Kiasma Museum of Contemporary Art on the other side. The library is easily accessible by foot, bicycle, and public transportation (buses, trains, trams, and the subway), as well as by private car since there are large underground parking spaces in the vicinity. At the time of the research, however, it was not easy to see the entrance because of a construction site blocking the first and ground floors of the building. The library is located in a vibrant urban district with a high concentration of retail and office buildings and also public and cultural spaces, such as Kiasma Museum of Contemporary Art, Musiikkitalo (Helsinki Music Centre) and the nearby Kansalaisori (People’s Square) (Fig. 1).

Open every day for a total of 78 weekly hours, the library 800 m² of public space welcomes more than 50,000 customers a month (Lämsä, 2013). The library does not have any small and private study rooms which might tend to segregate library users. The idea is to create areas with large group tables but not confined spaces, except for one meeting room for around 12 persons. The public space is well furnished with comfortable furniture, such as tables suitable for two to four persons and chairs, individual desks, and a sofa as well as floor cushions for seating. Every seat is equipped with electrical plugs, which are mostly spread out along the perimeter walls. Customers benefit from free wifi, and printers and scanners are provided by the library. The library is decorated in pleasing colors and creates an attractive environment with good natural and artificial lighting.

Meeting Point is on the first floor of Laisipalatsi (the Glass Palace) and its main entrance is on Mannerheimintie, while a secondary entrance faces the Kamppi Bus Station and square (Fig. 1). The library can be reached by foot, bicycle and public transportation (buses, trains, trams, and the subway) as well as by private cars due to the presence of underground parking facilities. The surrounding commercial and business district is quite lively, and the library is only 5 min walking distance from Kamppi, which is a major hub in Helsinki. Close to the main entrance there is a space dedicated for meeting rooms that can be transformed with movable walls and individual laptop workstations, the so-called “red seats”, which are well equipped with red ergonomic chairs, keyboard holders, monitors, and electrical outlets. The phone cabinet that is placed between the red seats and meeting rooms allows customers to make personal phone calls without disturbing anybody.

ii Both are members of the steering group for the new Helsinki Central Library that is planned in the Toomiskatu areas close to Library 10. This steering group is monitoring and managing the design process of the new library (City of Helsinki, 2012, p. 37). The Central Library will be the largest public library in the Metropolitan Area in terms of both facilities and services, with a floor area of 25,000 m² and a staff of 45 people (City of Helsinki, 2012, pp. 23 & 27).
The library receives a great deal of natural light through the huge windows which are facing Mannerheimintie, and also has a large amount of artificial light.

The City Centre Campus Library of the University of Helsinki is situated in the heart of the Helsinki City center. The main entrance is located on Fabianinkatu and it faces the Kaisaniemi Metro Station (to be renamed The University of Helsinki station). Numerous tram and bus stops also connect the urban district surrounding the library with most neighborhoods. The library is only 5 min walking distance from the Central Railway Station and Senate Square and close to the Faculty of the Humanities (Fig. 1). Most of the public buildings, such as the municipal and ministerial buildings and museums, are nearby.

It is Finland's largest multidisciplinary university library. The new Kaisa Library is approximately 30,200 m², of which the library covers 15,500 m² (V. Oiva, personal communication, 16 December, 2013). Most of the meeting rooms and workstations are available to students and researchers from the University of Helsinki. Usually, laptop users are located in the center of each floor, where seats are also available for non-university visitors. The seats take advantage of the skylight, which brings natural light to each level of the library. Laptop users can sit close to the wide windows characterizing the main and secondary facades (Fig. 2).

The spaces have been designed by combining a relaxing area that is well equipped with lounges, sofas, and carpets, and a studying area with tables and chairs. The meeting rooms are located laterally and most of them are hidden by the bookshelves. The library has both a coffee shop and a bookstore, which are located on the first floor of the building.

5. Results

5.1. Physical and virtual co-presence

In Library 10 teleworkers mainly sit alone and rarely in pairs. Usually, groups of three or more teleworkers book a centrally located meeting room that is behind the main workstation (Fig. 3). Individual teleworkers typically do not have any kind of physical interaction or verbal communication with the other customers or library staff. Often they sit at every other table in order to keep some distance from one another. It is quite
rare to see two teleworkers seated at the same table, even though the tables are large enough to seat 2 to 4 persons.

The teleworkers predominantly use their own laptops and sometimes a smartphone. Generally teleworkers have been in contact with people online (from 0 to 5 times) and also face-to-face (from 0 to 3 times) for work related matters.

Teleworkers at Library 10 choose to sit mostly alone, but unlike in Meeting Point they also sit in pairs or groups of three and more people (Fig. 4).

Usually, workers book the meeting rooms located at the entrance of the library. However, some workers prefer to use the individual laptop workstations (the red seats) that are located by the movable meeting rooms (Fig. 5). People work at the stable workstations in case they need specific software and/or staff assistance.

The findings indicate that teleworkers engage in a considerable amount of online contact (between 2 and 30 times) and also face-to-face contact (between 1 and 4 times) for work related matters.

At the Kaisa Library, teleworkers generally sit alone and use their own laptops. They sit in seats that are most suitable for working (with tables, power outlets, and natural light) (Fig. 6). Their contacts with people are mostly online (from 1 to 3) and for work related matters. In fact, teleworkers at the library do not have any contact with the staff or face-to-face interaction with the other customers.

5.2. The profiles of teleworkers

The results show that work activities in the fields of research and education, art and culture, information technology, business and finance, and social services and government are well represented (Table 1) and related to different types of contracts, such as freelancers, entrepreneurs, and workers employed by small, medium and large sized organizations (Table 2).

Based on the empirical data, some profiles of teleworkers were constructed by combining the number of teleworkers demonstrating particular work-related features and also by considering whether or not these features and the reasons for using the library made sense. The profiles were understood as ideal types instead of individual profiles, and they were constructed from a selection of important features (field of occupation, education, type of contract, given reasons for working there). In this way the profiles were identified and named as “the scholar”, “the artist”, “the walker”, “the starter” and “the fugitive”. With reference to the starter, for instance, the relationship between entrepreneurs and freelancers and the free provision of spaces and wifi connections was mostly evident in the answers and also understandable, considering the small size of the companies and the fact that start-ups do not always have their own office spaces. This is also the reason why the study may refer to libraries.
as spatial incubators. Another example is given by the profile of the fugitive, which is mostly characterized by people who are fully employed. This profile was created by considering among the given answers the desire to escape from the colleagues and searching for quietness. Accordingly, the answer was combined with the interviewees that mostly mentioned this wish, and it was found that they are the teleworkers engaged in social and government services.

5.2.1. Profile 1: the scholar

For educated researchers and university teachers, the library has always been a natural place to work, with its peaceful environment and easy access to information resources. However, since more and more of these resources are online, the social and cultural milieu is becoming more important. Easy accessibility and the central location of libraries are also relevant. In particular, research is an activity that
allows for and even requires a large amount of teleworking without constant meetings with other workers.

This profile could be found in all of the libraries. Representing all age groups between 25 and 64 people in this profile were employed in the fields of education and research (with post-graduate degrees) and usually employed by large or medium-sized organizations, such as the university.

I live in Helsinki and work in the city centre since I am employed by a large-sized organization. I have never worked here before. I like the environment and the concept of a music library that gives a special feeling and attracts a certain kind of people. The places where I usually work are at home, the office and in coffee shops, as well as at the library. However, the best place to work must have an aesthetic and emphatic atmosphere.

[Library 10 researcher]

5.2.3. Profile 3: the walker

Contemporary work is often mobile by its very nature, including necessary meetings with clients and colleagues. In between these activities, workers often need spaces to sit down, check their e-mail, or prepare for essential meetings with clients and colleagues. In between these activities, workers often need spaces to sit down, check their e-mail, or prepare for necessary meetings with clients and colleagues. In between these activities, workers often need spaces to sit down, check their e-mail, or prepare for necessary meetings with clients and colleagues. In between these activities, workers often need spaces to sit down, check their e-mail, or prepare for necessary meetings with clients and colleagues.

I live in Helsinki and work as a freelancer in the city. I come here four hours per day and mostly in the morning. The main place to work is my own home. I usually work here because of the free wifi. I also like seeing people working around me, and, despite the central location, this place is still quiet. The main features of this space are certainly the movable walls and the large amount of daylight. Accordingly, in my opinion the best place to work is Meeting Point or those public places that embody the same concept of urban office.

[Meeting Point teleworker]

5.2.4. Profile 4: the starter

Information technology is one of the fastest growing industries, with success stories such as Angry Birds by Rovio and Clash of Clans by Supercell. However, most of the enterprises are small and have few resources, and so the library can act as an incubator for them, allowing easy access to facilities and also an urban environment often sought after by young masterminds.

The teleworkers corresponding to this profile were found mostly at Library 10 and Meeting Point. They were younger, between 25 and 34 years old. They were employed in the field of information technology, had a post-graduate degree, and typically were freelancers or entrepreneurs.

I live in Helsinki and work as a freelancer in the city. I come here four hours per day and mostly in the morning. The main place to work is my own home. I usually work here because of the free wifi. I also like seeing people working around me, and, despite the central location, this place is still quiet. The main features of this space are certainly the movable walls and the large amount of daylight. Accordingly, in my opinion the best place to work is Meeting Point or those public places that embody the same concept of urban office.

[Meeting Point teleworker]
I live in Helsinki and work as an entrepreneur in the city centre. Usually I work in the libraries and coffee shops. In fact, today before coming here, I worked in a café located in Sanomatalo [in the city centre nearby]. I come here four hours a week and occupy different seats for several hours at time. Usually, I take a break at some point since the furniture is not sufficiently ergonomic. However, the best features of this space are the special red chairs that are placed close to the windows. Also, I can easily access the power outlets, even if I do not need any Internet connection. Anyway, the best place to work is the client's premises.

[Meeting Point respondent]

5.2.5. Profile 5: the fugitive

Sometimes you need to get away from work to get work done. Working life is becoming more and more fragmented, making it quite difficult to concentrate between meetings and constant personal encounters with colleagues. The anonymity of urban space and public spaces like libraries can, paradoxically, be more suitable for work than spaces specifically designed for that purpose.

The teleworkers corresponding to this profile were found mostly at the Kaisa Library and Meeting Point. They represented all age groups between 25 and 54 years. They were employed in the fields of social and government services, and held a university or college degree. Typically, women between 25 and 44 were employed by small organizations and men between 34 and 54 were employed by large-sized organizations.

I live in Espoo and work as an employee in a large organization in Helsinki. Usually I work at my office. In fact, I have never come here before. Today I decided to come here to get away from my colleagues. I have been working for four hours. Even though my main place of work is at my office, I like several features about this space, such as the furniture, good lighting and silence.

[Kaisa teleworker]

The profiles are not equally distributed between the three libraries. The category of the artist is represented more at Meeting Point even though Library 10 is also an attractive place to work. The starter goes mainly to Library 10 and less to Meeting Point. The fugitive prefers working in the Kaisa Library and Meeting Point, while Library 10 is not a workspace in the fugitive's mind. The scholars choose the Kaisa Library and Library 10 as workspace while Meeting Point is not among the main destinations. Meeting Point and Library 10 both attract the walkers equally.

It is important to note that the reasons for this diverse distribution might be related to the spatial settings of the three libraries. In fact, even though all of the three libraries are centrally located, each one is surrounded by different urban functions. Meeting Point and Library 10 are within the commercial district of Helsinki, nearby several office buildings and the cultural district, while the Kaisa Library is mainly surrounded by public buildings (such as university and ministerial departments). This might explain why the Kaisa Library is not the favorite place for those who want to start up new business activities, while researchers and professors work there. Meeting Point attracts mostly web-designers, filmmakers and architects, and teleworkers engaged in business and finance. Each library provides specific spatial layouts (Figs. 3, 4 and 6) and facilities that might fit the profiles in a different way. However, Library 10 attracts a wide range of categories (such as the scholar, the artist, the walker and the starter), and the answers of the respondents vary accordingly.

5.3. The changing library

The chief librarian at Library 10 and Meeting Point, Kari Lämsä, painted a dramatic picture of the past and current state of public libraries in Helsinki (Fig. 7):

Over the last decade several libraries have closed around Europe. Most of the libraries have not updated their services when considering the developments in information technology. For these reasons, only those places that are highly specialized, such as in children’s sectors and/or sport and music departments, still survive.

[K. Lämsä (personal communication, 6 November 2013)]

However, he affirmed that the public library must still be a place of learning since it embodies both culture and content. Compared to the past, today books represent only a small fraction of a library's holdings. Customers use the library for several activities simultaneously, such as borrowing records, playing music, reading magazines, studying, booking and printing tickets, and working. The librarian is perfectly aware that a certain type of polarization exists between two categories of users. Independent users do not need any help in the library, while other users cannot survive without the library staff helping them search for material online or print tickets, for instance. Face-to-face interactions are increasing considerably because of the new types of services. To meet the customers' needs, Library 10 conducts periodic user surveys. It has already been providing free wifi and power outlets, as well as tables, chairs, and relaxing area, for the last four years.

Lämsä knows from personal experience that most of the students and other IT users are spatially isolated from one another. For this reason, he thinks that future libraries should include more space for social interaction and working in groups, while fewer areas should be dedicated to individual purposes. When discussing current needs, he listed more space for magazines and newspapers and more flexible tables that are easy to combine and move around.

Although he was certainly aware of the presence of teleworkers in the library, he was surprised by the results of the qualitative interviews and observations. In particular, he had not known about the range of types of teleworkers and the reasons for which they choose the library as a workspace.
It would be significant in the near future to consider the profiles of those working remotely at Library 10, Meeting Point and the Helsinki Central Library.

[K. Lämsä (personal communication, 6 November 2013)]

In fact, Lämsä is conscious that this phenomenon might interest other urban libraries that are frequently used by residents and teleworkers. However, a sense of community still remains in such satellite libraries since families, children, and the elderly are the principal users. Urban policies and politicians should take these differences between suburban and urban areas into account.

The politicians do not know how people currently use public spaces. Nowadays, the use is much more flexible. To this end, the private sector seems to be more responsive to the IT users.

[K. Lämsä (personal communication, 6 November 2013)]

The results from the interview with Vesa Oiva present another picture. The design process for the university library involved more than 10 groups of librarians, students, professors, and researchers working together for two years. The members of the steering group asked for facilities such as outlets, printers, and workstations, since they considered students to be main users of the library, and they designed the seventh floor as place for research activities.

Kaisa Library still represents the university library. It is mostly a place for studying. It would be difficult to use this library as a spatial incubator for other activities, even if the 7th floor was initially designed for research activities.

[V. Oiva (personal communication, 16 December 2013)]

After he saw the qualitative data, Oiva was pleasantly surprised to see how researchers work randomly in the library and not only on the seventh floor that was originally dedicated to them. He considered the data extremely interesting and useful for Helsinki’s new library project. Oiva also found the profiles of the other teleworkers who regularly work there interesting (Table 1).

However, he said the following

Kaisa Library will not change dramatically in the next 30 years. Basically, the space is quite flexible since it is possible to create extra reading areas by moving around some of the bookshelves.

[V. Oiva (personal communication, 16 December, 2013)]

Both Lämsä and Oiva seem to be quite fascinated by the growing flexibility of work arrangements occurring in the libraries. Basically, all of the libraries now provide several activity areas (Figs. 2–6) based on the outcomes from steering meetings (such as in the Kaisa Library), and customer surveys (such as in Library 10). However, so far the services and spatial requirements in all of the libraries are mainly designed for IT users without taking into account any of the related profiles (in terms of preferences and habits and also future activities such as working).

6. Discussion

Although work still only accounts for a small amount of the activity that takes place in the libraries, its transformations can be seen as a “weak signal” of emerging spatial arrangements in the use of libraries. The results show how wireless Internet connections in Helsinki are offering more concrete possibilities to telework from the libraries; in fact the libraries studied provide wifi spots for free and this is one of the main facilities that teleworkers are looking for. However, the movement of teleworkers into libraries is also related to the satisfaction of individual needs (such as free workplaces), preferences (for a peaceful place and good location), and spatial requirements (such as good light and view, atmosphere, and meeting rooms).

It might be assumed that some teleworker functions are not a result of deliberate library strategy, but more because of the individual choices and appropriation of space. However, a few representative libraries (such as Openbare Bibliotheek van Amsterdam and Concord Library) have changed their function and partially their layout, in recognition of this new user group.

Some of the teleworkers interviewed said that they could not find affordable offices for rent, and consequently, they moved into transitory workspaces. In other cases, spatial requirements drove respondents to meet clients or colleagues in the libraries since their own studio did not provide any meeting rooms. However, there are also teleworkers that move to the libraries just for a change in scene and to work in the cozy and peaceful atmosphere that these spaces offer.

The idea that the library can play the role of an incubator for new activities has recently emerged in the Idea Stores in London. Adult education classes, library services for all (books for loan, CDs and DVDs for hire), events for all ages, free internet access, and a café have been provided under the Idea brand. Obviously, libraries might increasingly take on the role of incubator if they new spatial layouts and other flexible design elements. For example, new libraries such as DOK Library and Concord Library have arranged flexible spaces that allow different types of activities in the same place.

Apparently, libraries seem to be new spatial incubators not just for students and researchers (groups that are well known as main users), but also for the other profiles of teleworkers involved in art and culture, information and technology, business and finance, and social services and government. In particular, the profiles of the artist and the walker
are aligned with the need to interact with clients and colleagues and to generate creative ideas in starting up new businesses or making artistic works (such as film, websites, and interior design projects). The potential for libraries to be spatial incubators for these groups is not only represented by the furniture, view, and good lighting, but also top the social interactions that can take place, and the facilities provided by the libraries.

Researchers who study users in academic libraries have not so far focused on teleworkers, but rather on students. Surprisingly, in the Kaisa Library, one of the main findings indicates that not only researchers choose the university library as workplace (Table 1), but also teleworkers engaged in other working activities such as social and government services, art and culture, and information technology, although they still represent a minority. This suggests that university libraries might also act as spatial incubators.

The profiles of teleworkers embody categories that allow flexible work and many of the profiles are characterized by advanced academic degrees. Teleworkers are not merely freelancers or entrepreneurs such as artists, who are generally considered to be flexible, but they also include those employed by small, medium, and large-sized organizations as researchers, and those employed in social and government services or business and finance (Tables 1 and 2). This probably means that organizations are increasingly allowing their employees to work outside the office and, consequently, teleworkers can choose to work in transitory workspaces such as libraries. Furthermore, entrepreneurs embrace not only the categories of designers, architects and writers, but also those engaged in information technology who are attracted to libraries, where they can start their own business.

It is also clear that work is increasingly being performed in a network of transitory workspaces. The idea is to move around several public, semi-public, and private spaces as temporal locations. Working is also taking place as a result of the commuting that some of the teleworkers described in the interviews. In addition to this, teleworkers are increasingly looking for spatial opportunities and facilities in transitory workspaces of the city. This happens mostly between meetings, after work, and on the way home.

Apparently, the librarians of Meeting Point and Library 10 make a great effort to meet the customers’ needs through periodical questionnaires as Kari Lämsä said in the interview. Similarly, as Vesa Oiva confirmed, the steering meetings during the design process of the Kaisa Library were really important to gather the requirements of all people involved. However, librarians and designers often respond to predefined needs and desires for libraries based on their own personal experiences and do not fully interpret all possible practices. The risk is that the concept of space and the ideal role of libraries (e.g., as places of learning) that librarians and designers have in mind no longer meet the real needs of citizens.

Library design might consider several categories of users including teleworkers, although they still represent an emerging category of users. At least the library has to be designed keeping in mind the needs for flexible space in terms of size and location inside the libraries, movable furniture and ergonomic chairs, and tables for multiple purposes. At the same time, it would be interesting to develop more space for social interaction and further activities in groups as Kari Lämsä suggested.

However, since teleworkers choose the libraries in part because of their central location (such as the proximity to their own offices and client’s premises), libraries should always be seen as extensions of the public space around them (such as squares and streets outside, as well as public transportation). Furthermore, disciplines such as urban design and urban planning should reconsider the meaning of those public spaces that assume the role of spatial incubators.

7. Conclusion

The study has documented how libraries are increasingly used for new purposes such as working; still, this is an emerging function that concerns only some library users. Some categories of teleworkers have already considered libraries as a place to work, even if their use is still temporally and spatially limited.

Design and quality of library space are extremely important since teleworkers actually appreciate comfortable furniture, wifi, power outlets, silence, and good natural and artificial light. However, since most of the current spaces are not designed with working in mind, they often perform poorly in terms of ergonomics, lighting, or the acoustic environment. Libraries as public spaces can be more easily adapted to the requirements of working.

So far libraries have mostly been seen as a part of public spending; in the near future cities and policy makers have to be more conscious about the new role of libraries as spatial incubators. First, they should increasingly consider the innovative space that libraries (such as Meeting Point) can offer, and the potential that libraries have in the urban context. Secondly, the profiles of users are changing rapidly, and consequently the library can be designed according to the teleworkers’ needs. Designers, architects, and urban planners need more knowledge of this complex phenomenon that seems to involve particular social and economic trends as well as physical and spatial features inside and outside the libraries.

Furthermore, the results give a good starting point for further developing the concept of transitory workplaces and spatial incubators, especially in the disciplines of urban design and urban planning that have to consider the increasing mobility of people. The growing disappearance of the traditional functionalist divisions between housing, work and services challenges urban planning and design, as well as governance structures. For these reasons, libraries can be re-configured and re-designed for multiple uses. Multi-functionality might represent one of the qualities of libraries in the future design strategies for public spaces and public services in the cities.

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Appendix A

1. I saw that you were using your smartphone (or tablet or laptop). Would you mind telling me if you are working here?
2. How long do you usually use this space as a workplace?
3. Have you worked here before?
4. What are some of the reasons that you use this place for working?
5. What is the best feature of this space?
6. What other places have you used for working today?
7. What is the best place to work?
8. What time of the day do you use this space?
9. How many people have you been in contact with online for work-related matters while working here?
10. How many people have you been in contact with online for other matters while working here?
11. How many people have you had face-to-face contact with for work-related matters while working here?
12. How many people have you had face-to-face contact with for other matters while working here?
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