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Draft paper for special session: Collective action, commons and commoning : towards the emergence of new forms of territorial development processes ?

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PAPER TITLE: Are Fablabs and Hackerspaces “Urban Commons”? Cases from France and Belgium

DRAFT PAPER

Introduction

This proposal arises from a doctoral research in urban studies (Ferchaud, 2018). The starting point of the research is the observation of the emergence of places where digital fabrication and hacking take place. On the one hand, digital fabrication denotes practices allowed by using electronic equipment, small equipment (tools), numerical control machines as 3D printers, laser cutting, milling machines... On the other hand, hacking also refers to practices combining craft and craftiness (Coleman, 2016).

These places are nowadays expanding at a global scale and are often defined as fablabs and hackerspaces, two “concepts” born in the United States.

First hackerspaces were created in the 1970’s and the 1980’s on the West Coast of the United States (Homebrew Computer Club, Berlin, 1981). Focused on computer programming, hackerspaces are places where “hackers makers” (Lallement, 2015) share tools, machines and knowledge. M. Lallement use criteria to define a hackerspace: an open organization that gather people willing to complete diverse making projects; a physical place where people share and use resources; a collectively managed non-profit organization. Moreover, hackerspaces promote specific values as free cooperation, the negation of hierarchy and discrimination or the belief that techniques have potentials for empowerment.

The “concept” of fablabs comes from a university course initiated by N. Gershenfeld at the Massachusetts Institute of Technology (MIT). Following its success, the National Science Foundation financially supported the continuation of the MIT’s researches. In return, researchers had to equip places or create fablabs in other countries. In 2007, a charter and a logo were published by the MIT. Fablabs from all around the world then were labelled according to specific criteria such as their integration in an international network, free or free-for-access access, apprenticeship training related to digital fabrication. Even though places named “fablabs” opened worldwide, they totally or partially respect the fablab’s charter from the MIT. Fablabs are indeed very diverse places according to its directions, the public they target or its business model (Eychenne 2012; Bouvier-Patron 2015; Bosqué 2016). Because of this diversity, the term “makerspace” seems to be relevant (Berrebi-Hoffmann, Bureau et Lallement, 2018). It allows researchers to think in a more inclusive way, gathering places such as fablabs and hackerspaces in a same theoretical framework.

These definitions highlight potentials of fablabs and hackerspaces in terms of collective practices: these places are existing into a network; where people *gather* together, resources are *shared* and management is a *collective* matter. Considering these potentials, the concept of “commons” and “urban commons” appear to be relevant to define these places, as they mostly emerged in cities.

Theoretical framework

Among the academic literature about these concepts, a recent book (*Dictionnaire des biens communs*, Cornu, Orsi, Rochfeld, *dir.* 2017) helps understand the meaning of the term “commons” from an historical perspective.

First, according to E. Ostrom’s work (1990), the commons comprise four complementary pillars: shared resource; rights and obligations precising how to have access and share benefits associated to a resource; governance structure to guarantee the respect of the rights and the long-term reproduction of the resource; rules to have access and share a resource must be elaborated by commoners in a self-organization approach. E. Ostrom’s work was published when another “family” of commons, *i.e.* the digital commons, was emerging.

Second, the development of an individual ownership right towards new areas, as the information, led to an “enclosure movement” (Boyle, 2003). New licenses were created against this movement. Some were applied to free software (General Public Licence) while others focused on the artistic and literary field (creative commons licences). These commons are called “information commons” (Stallman 2002; Lessig 2005).

There are two differences between the “information commons” and the “land commons”, that were central in E. Ostrom’s work. Firstly, the shared resource (information) is non-rival, because using an information or listen to the music on-line do not prevent others from having access to the same information or to the same music track. Plus, the resource’s access (information) is universal. However, a governance structure is needed in both cases.

In addition, other commons emerged: the “urban commons”. According to the academic literature (Blomley, 2008; Hardt and Negri 2009; Soja 2010; Harvey 2012; Festa 2016, 2017), there is a relation between urban commons and urban neo-liberalism. Following Brenner and Theodore (2002), urban neo-liberalism is defined as a process: the restructuring of public intervention is based on supporting the business momentum among urban spaces regulation. According to D. Harvey (2013), urban commons is produced by citizens engaged to maintain cultural, ethnic and social identity of their neighborhood against speculative dynamics. However, D. Festa (2016, 2017) explains that commons are not only coming from a grassroots movement, as neo-liberalism also creates commons. But according to this author, commons and urban commons are reflecting a request for transformation that cannot be ignored. Following this theoretical framework, one may ask **what kind of request for transformation is expressed through the creation of makerspaces? Beside this, it is essential to question general aspects of the commons. Are fablabs and hackerspaces opened and shared places? What is their governance structure and to what extend would the “makers” be considered as “commoners”?**

Methodology

Since makerspaces are still emerging and academic works still recent, the research questions of my doctoral research are intentionally wide. Following H. Becker (2016), cases were used to find a number of variables, *i. e.* territorial characteristic, institution’s role, dissemination process’s type, etc. The investigation can then be divided into two parts. From 2014 to 2015, the investigation took place in 15 cities in France where 41 individuals were interviewed and

15 places visited. From 2015 to 2016, the investigation was specific to Rennes, Toulouse (France) and Ghent (Belgique). The chosen approach is thus a specific comparative analysis between cities and objects (fablabs and hackerspaces). 114 individuals were interviewed. They were people involved in fablabs and hackerspaces, elected representatives, public agents, key players in the field of urban planning, economy, innovation, social and cultural sectors. In addition, observations in eight places were made during day-to-day activities and events, both off-line and on-line. Furthermore, an on-line survey was sent to individuals who subscribed to mailing lists of fablabs and hackerspaces of these three cities and was completed by 98 individuals. Due to these different methods of gathering information, research data are finally important. Most of these data have been qualitatively analysed, except for the survey results.

The next parts of the paper are presenting main results of the research. We will first focus on the conditions of access (1) and governance (2), as two pillars of the commons. The last part exposes outcomes about the request for transformation concerning the city and the urban development (3). Results globally highlight the tensions and contradictions animating these urban commons.

Result 1: Controlled and limited access

It appears that fablabs and hackerspaces become resources to the cities where they are located by providing access to machines, tools and communities. However, access to these resources is controlled. Despite the fact that it is necessary to balance the financial plan it is assumed that this control is related to a tension between openness and closing. Despite the initial aim of openness, the research shows people tending to stay between themselves and to gather with peers. First, our study demonstrates that groups are homogeneous, mostly comprised of white men, aged from 29 to 36 years old, students or professionals working in the scientific field. Second, a controlled and limited access to the studied makerspaces is analyzed as a “closure strategy” to exclude those who do not look alike the current members of the groups (Mestdagh, 2015). The following quotes are explicitly exposing the strategy:

I came here because I knew B., who came here because of him [he shows a third member]. It's kind of a selection. People who are coming here are those who are really sure that they can benefit from the place, benefit from the atmosphere, and vice et versa.
Member of a makerspace, Gent, 2016.

We're not here to welcome curious people or half-curious... *Member of a makerspace, Toulouse, 2016.*

The “closing strategy” is deployed through different mechanisms, i.e. social codes, ideology, controlled access, etc. This paper highlights various means of access implemented by the studied makerspaces. First, the shared use of the machines, which is part of the resources of the makerspaces, depends on a payment, a membership or a subscription. Spaces can be privatized for half a day, an evening or a week. One of the makerspace studied in Ghent chose to duplicate the control of the space's access: added to a monthly membership, one has to be co-opted by two current members to get a full access to the hackerspace. The second identified way to limit access to the makerspaces is physical. Most studied places are difficult to find, because of a marginal localization or due to a lack of signs to indicate the entrance. Makerspaces that were studied are thus not visible from the street and unknown by the neighbours, partially because some spaces are not open during day time. As an example of this mechanism, a hackerspace in Ghent created a complex system to open the door of the building. A phone number, hidden on the hackerspace's website, is needed.

However, controlled access to the makerspaces is balanced with dedicated spaces and times where the access is open and free. For instance, some makerspaces have devoted spaces open to anyone as long as they don't need to use the machines. Other makerspaces organized monthly events to help new people to discover the space and the projects. Hackerspaces in Rennes, Toulouse or Ghent also have their weekly “social night”. Plus, all makerspaces that were studied organized annual events, based on conferences, meetings, showrooms, exhibitions, concerts, etc. These modalities of opening and freedom have first and foremost a function of socialization.

Result 2: Governance structure related to local context

The research demonstrates that fablabs and hackerspaces integrate within the existing contexts. These contexts are both related to the changes each city is facing and to the specificities of each territory including its history, political, economic, social, cultural and urban aspects. For example, the creation of fablabs in Rennes must be understood in light of the previous experimentations about ICTs in the eighties, but also in relation with the importance of the university education and the culture of public control. Such a context has a strong effect in terms of governance. In Rennes, the municipality (Ville de Rennes) and the political institution

of the urban agglomeration (Rennes Métropole) are part of the governance of the fablabs. First, they are members of a consortium composed by institutions and organizations that created the first fablab in 2012. They are thus involved into the decisions about the fablab, its activities and its business model. Their role became crucial due to their financial support and their help concerning administrative or logistic matters, and it created dependence. Second, while other fablabs were opening their doors, local institutions wrote a charter that has to be signed by fabmanagers in order to integrate the fablabs into the local network.

The role of institutions is contradictory with the values we referred to in the introduction, *i.e.* of free cooperation, autonomy or horizontality. Although the role of *Ville de Rennes* and *Rennes Métropole* in the governance structure of the fablab is specific, other makerspaces that were studied also have difficulties to respect these values. For instance, hackerspaces are self-managed, using the consensus rules to take decision. Nevertheless, as it was revealed by other researchers (Lallement, 2015), rules are based on “do-ocracy”. Someone who “does” (projects) is more legitimate to decide than someone who doesn’t.

Result 3 – Alternative places in the city?

Fablabs and hackerspaces carry a lot of representations, that are about knowledge, technology, but also about their economic, social and political scope. Those representations come from these places’ links with countercultural movements, Internet’s pioneers and American research in the sixties. These historical representations such as “digital utopianism” (Turner, 2006) already carry with them a lot of contradictions, for instance between opening and closing, but also about individuality and community, or concerning capitalism.

Yet new contradictions are being added through dissemination processes, *i.e.* processes related with institutions. In France, instruments were developed to support fablab’s development. For instance, a call for projects was launched in 2013: fablabs were encouraged to develop a business model based on companies and start-up needs. Other calls were launched in 2016, such as “Fab Région” (Occitanie) or “Paris Cité des Makers”. These calls are creating tensions among the maker’s movement. They are thus creating a dependence with institutions that are, in addition, promoting a liberal vision which is not shared by all makerspaces. However, some agreed with it and are effectively working with companies and start-up. Considering this result, part of makerspaces does not seem to be the alternative places to neo-liberalism as they were defined above by Brenner and Theodore.

Moreover, our analysis indicates that makerspaces are partly incorporated into urban public policies related to urban neo-liberalism, i.e. the “smart city” (Rennes, Toulouse) and the “creative city” (Ghent).

Nevertheless, we consider fablabs and hackerspaces as spaces allowing public policies (processes, goals) to be discussed. They are thus part of public action (Mélé, 2009). Three ways of discussing urban public policies are distinguished. The first one is based on discourse. The second one is related to the “fab city” concept based on circular economy. The third one is linked to experiments that could create impulses towards change for cities. Part of these experiments could be qualified as “urban hacktivism”, others are questioning the role of data and private data in smart cities.

Conclusions

Regarding the inputs of the comparison between fablabs and hackerspaces, the research demonstrates that the difference between fablabs and hackerspaces is mainly based on their relation to institutions. For instance, fablabs’ people are asking institutions’ support whereas hackerspaces’ people prefer to stay independent from institutions. Regarding the comparison between Rennes, Toulouse and Ghent, Rennes is the most significant case showing institutionalization logics but these logics are also observed in Toulouse and Ghent. The comparison also allows us to demonstrate global changes faced by cities. Even though Rennes and Ghent are smaller, the three cities want to show their “metropolitan face” through the promotion of knowledge or the creative economy. However, comparison also explains local specificities that are influencing the integration of fablabs and hackerspaces in their existing environment. The comparison of the relation between their localization, their activities and their business models is for example interesting.

Another conclusion is related to the localization. Basically, the creation of fablabs and hackerspaces results from the will to share a workspace or machine-tools such as 3D printers and laser cutters. We identify the needs that this sharing satisfies. First, it comes from the denunciation of the distance taken with initial values of Internet’s pioneers. This denunciation is done through actions to regain control over machines. To experiment with machines is one of these actions. While it is possible to hack a computer or disassemble a phone from home, our research shows that physical interactions are beneficial to such experiments and that such

experiments are beneficial to physical interactions. This explains why a physical, and shared place is needed. Plus, the research demonstrates that on-line and off-line practices are articulated. To some people, on-line interactions among a local group are compensating individual practices. To others, it is the opposite: the loneliness of “hyper connected people” (Turkle, 2011) has to be balanced with physical interactions among peers.

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