Coworkers, Makers and Hackers in the city : Reinventing policies, corporate strategies and citizenship ?

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Research Group Collaborative Spaces

RGCS White Paper

Omega Version

COWORKERS, MAKERS AND HACKERS IN THE CITY: REINVENTING POLICIES, CORPORATE STRATEGIES AND CITIZENSHIP?

Décembre 2016

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[1] All persons who provided feedback about version Alpha of our White Paper and/or contributed directly to the coordination and elaboration of versions Beta and Omega are mentioned here (e.g. in the context of our workshops). We want to thank them for their (often passionate) involvement in this exciting adventure.

FROM CONFRONTATION TO CO-PRODUCTION

ABSTRACT

The world of work is changing. A century after moving from an agriculture-centered world to an Industrial one, from self-employed workers to salaried employees, our modern economies are slowly transitioning towards a new model: based on simultaneous collaboration and competition, the boundaries of contemporary organizations are blurring; information technologies are allowing individuals and companies to set base away from cities; shared working spaces are triggering new forms of collaborations between individuals and corporations.

This White Paper aims at diagnosing **key institutional tensions** related to **new work practices** in the city, and putting forward **questions and general propositions likely to overcome these tensions**. The idea is to analyze how new collaborative communities and collaborative logics (of coworkers, hackers, makers, fabbers, and teleworkers) and more traditional collective activity and modes of decision making (of the city and corporations in the city) **can jointly contribute to the co-production of harmonious new ways of life and new ways of working**. Reinventing joint public policies, corporate strategies and citizenship appear here as a key stake where usual dichotomies between private-public, collaborative-non-collaborative economy, traditional citizens and hacktivists need to be overcome.

We thus identify in this document **a set of controversies** around **four strong political issues** both for the city and the field of management, linked to the emergence of collaborative spaces:

- **Topic 1.** Space, territories, and public policy on collaborative communities in the city;
- **Topic 2.** Collaborative communities and their roles in education in the city;
- **Topic 3.** Business models and their communication in the context of collaborative spaces and collaborative communities;
- **Topic 4.** Collaborative spaces and their roles in innovation and entrepreneurial dynamics at the level of the city

Beyond our controversies, we underline **three paradoxes** which should be at the heart of new questions for policy-makers, hacktivists, actors of collaborative movements, and citizens (distinctions which may become less and less relevant in the years to come):

- **Social** *versus* **economic orientations** of both the city and the collaborative communities it can host;
- **Critical/revolutionary** *versus* more **incremental relationships** between cities, organizations, societies, collaborative communities, and new work practices;
- **Local territory** (district/proximate area) grounded *versus* broader **city**-oriented or connectivity related issues about collaborative movement and new work practices.

To balance these tensions, we elaborate **seven general areas of questions and propositions** for all stakeholders:

- The generalization of **infra-organization** (physical collaborative platforms);
- The emergence of **" 'inclusive lab' labels"** (elaborated and managed by collaborative communities themselves);
- A **renewed academic presence** in the city and in the country-side (with more virtual, distributed and 'experiential' logics);
- **Ephemeral and mobile labs** managed jointly by public, collaborative and private stakeholders;

- **"Open open" innovation** in public and semi-public spaces of the city;
- Rise of **mega-spaces for creativity** in the city;
- Development of a **global infrastructure** for coworkers, mobile workers and teleworkers.

These are directions we see as particularly promising to manage the tensions, paradoxes and stakes explicated by our controversies.

We hope that these questions and propositions will inspire both academics, politicians, hacktivists and entrepreneurs for future collaborations on the study and joint transformation of public policies, corporate strategies, and citizenship.

Keywords: infra-organization; 'inclusive lab' label; mega-creative spaces; renewed academic presence in the city; "open open" innovation; global infrastructures for coworking; new work practices; politics; public policies; corporate strategies; city

FOREWORD

The previous version (Alpha[2]) of our White Paper was an opportunity to describe both a political vision and to take a historical and critical perspective on collaborative communities, collaborative movements, and their relationships with new work practices and workplace transformations.

We emphasize the growing isomorphism between managerial and political agencies. Basically, entrepreneurship, innovation, and project management are (more than ever) likely to transform political dimensions of societies and organizations (e.g. mechanisms of representativeness and systems of legitimacy). In a way, innovators and entrepreneurs are more than ever part of a 'political class'. We also suggested that these new political agencies needed to be regulated by entrepreneurs, innovators and regulators themselves, and that some collaborative spaces could play a key role for this (as new agoras in the city).

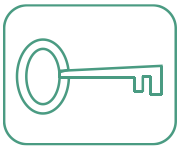
We got tremendous feedback regarding this teaser and description of our vision. We have done our best to incorporate them to elaborate a new version of our White Paper. But we wanted also to go beyond a mere revision of our Alpha version. By means of the feedback and further workshops meetings during 2016, we have organized this final version around key topics. They were at the heart of the workshops and discussions we organized between September and December 2016 in Paris, London, and Montreal.

[2] https://collaborativespacesstudy.files.wordpress.com/2016/06/rgcs-white-paper-alpha-version.pdf

HOW TO READ THIS WHITE PAPER?

IF YOU ARE LOOKING FOR ...

A GENEARAL VIEW OF OUR KEY PROPOSITIONS



SEE THE SYNTHESIS OF OUR 7 GENERAL AREAS OF QUESTIONS & PROPOSITIONS FOR ALL STAKEHOLDERS

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INTRODUCTION: RETHINKING AND PRODUCING JOINTLY PUBLIC POLICIES, CORPORATE STRATEGIES AND CITIZENSHIP. WHY?

Collaborative movements and the collaborative communities (i.e. coworkers, makers, hackers, and fabbers) we explored through the course of our discussions in RGCS workshops are strongly polemical objects. They embody all the tensions, paradoxes and contradictions of the ongoing transformation of work practices and capitalism (e.g. the generalization of entrepreneurship and the pervading status of innovation and 'doocracy'). We have decided to put them at the heart of the present White Paper and to construct our analysis and proposals from them.

Our key concern for this White Paper is to raise relevant questions and make initial tentative and **very exploratory propositions** on **how to co-produce harmonious new ways of working and living in the city.**

Our key thesis here is that we need to overcome several oppositions and traditional divides between collaborative and 'non-collaborative' actors, private and public spheres, corporate strategies and public policies.

With this first White Paper, we want to stress **key joint issues** for public policies, corporate strategies (at the level of the city) and citizenship. We first condensed **a set of 22 controversies**[3], i.e. *major points of debate* about collaborative communities and collaborative movements in the city, what they are, how they evolve and transform work practices, and how they are included or could be included in public policies and corporate strategies. Controversies appeared as issues that clearly polarized the discussions and the audience, exposed clans (pros versus cons, or vision A versus vision B, both being difficult to reconcile).

At first, these controversies emerged in the feedback we received in the context of our discussions in Paris, London, Montreal, Barcelona, Lyon, and Grenoble (seminars and working groups). The 42 meetings organized between February 2015 and July 2016, their summaries by coordinators, have been a precious resource in order to identify them. These controversies were gathered around **four (interdependent) topics** (***see figure 1***).

The exploration and discussions around our 22 controversies organized by the various coordinators of the network have been an opportunity to further analyze coworkers, makers, fabbers, hackers, learners and their roles in the transformation of work practices, society and public policies. We focused the discussion strongly at the level of the city. Thereafter, a set of specific workshops (7) and discussions organized by the coordinators of RGCS chapters were organized between September and November 2016 (***see appendix 1*** for details about these workshops and their organization) in Paris, London and Montreal. They have been a way to gather reactions regarding our first set of controversies: some were removed, others revised, and new ones emerged.

FIGURE 1 : FOUR TOPICS AT THE HEART OF VERSION OMEGA OF OUR WHITE PAPER

[3] Which were at the heart of a preliminary version (Beta) of this White Paper.

The workshops have also been a way to discuss public policies and strategies likely to relate to our set of controversies.

Our idea was not to formalize straight, normative recommendations, but more to raise questions and to discuss options for public policies and strategies, as well as analyze what is at stake for them regarding the controversies.

Both **our final set of controversies (19)** and **recommendations (7)** for public policies and strategies are structured around the **topics (4)** we identified at the beginning of this process (territory, education, business models and innovative processes, ***see figure 2*** to understand the process of versions Alpha, Beta and Omega of our White Paper).

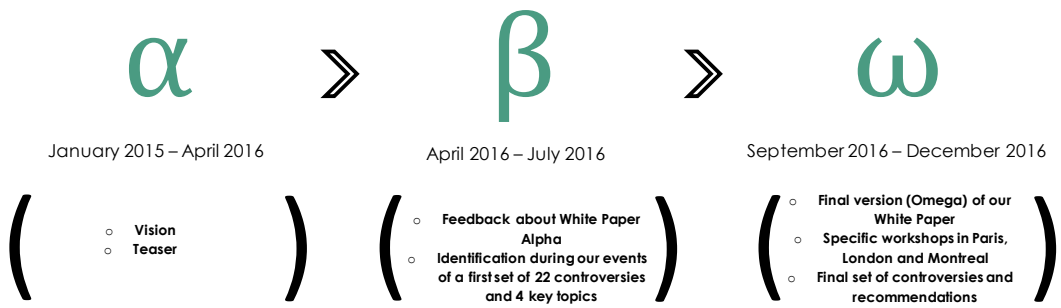

FIGURE 2 : PROCESS OF VERSIONS ALPHA, BETA AND OMEGA OF OUR WHITE PAPER: VISION, CONTROVERSIES AND PROPOSITIONS

This set of creative recommendations were also fed by the workshops we organized in late 2016 (in Paris, London, and Montreal).

This report summarizes both the process and results of our discussions (***see figure 3***). First, it presents the final set of controversies we identified; secondly, it offers a set of seven proposals for public policies and corporate strategies. These seven propositions are: emergence of infra-organization, an "inclusive label" (decided by collaborative communities themselves), renewed academic presence in the city, ephemeral labs, more "open open" innovation, mega-spaces for creativity, global digital infrastructure for coworkers, mobile workers and teleworkers. They constitute directions we see as particularly promising to manage the tensions, paradoxes and stakes elucidated by our controversies.

In following Schumpeter (1942), we will assume here that **economic forms (capitalism) and political forms (democracy) are deeply entangled**. Our propositions thus jointly revisit corporate strategies, public policies and citizenship.

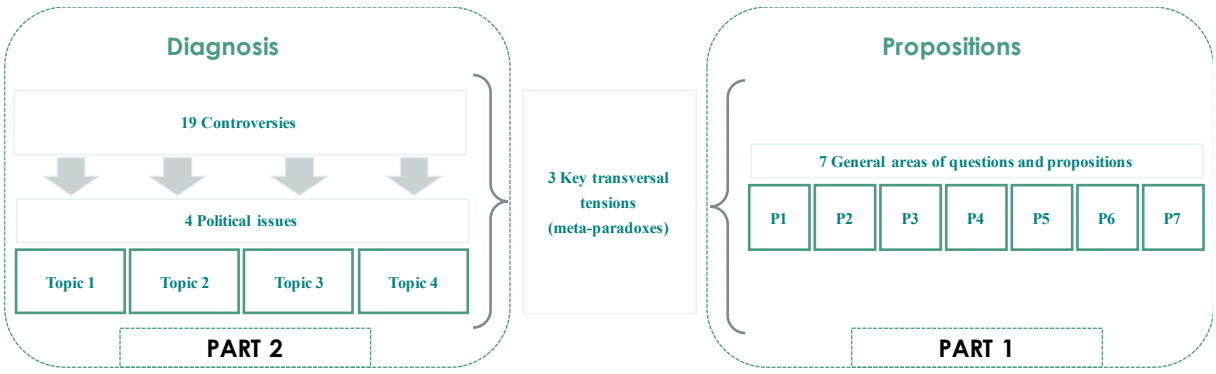

FIGURE 3 : SYNOPTIC SCHEMA OF RGCS WHITE PAPER CONTENT

PART 1. EXPLORATORY PROPOSITIONS FOR PUBLIC POLICIES AND CORPORATE STRATEGIES REGARDING COLLABORATIVE COMMUNITIES[4]

We are going to outline seven key propositions which jointly address public policies, corporate strategies, and citizens in the city.

We see them as ways to extend the ***living lab*** experience (see Capdevila, 2014) in Europe and North America.

"A living lab is a user-centered, open-innovation ecosystem, often operating in a territorial context (e.g. city, agglomeration, region), integrating concurrent research and innovation processes within a public-private-people partnership. This concept is based on a systematic user co-creation approach integrating research and innovation processes. [5]*"*

These propositions derive from the controversies which we detail in the following part of this White Paper.

They aim at summarizing and overcoming some of these tensions, in particular the **three meta-paradoxes**, or **transversal tensions** that have emerged (***see table 1***):

- **Social** *versus* **economic orientations** of both the city and the collaborative communities it can host;
- **Critical/revolutionary** *versus* more **incremental relationships** between cities, organizations, societies, collaborative communities, and new work practices;
- **Local territory** (district/proximate area) grounded *versus* **broader city**-oriented or connectivity related issues about collaborative movement and new work practices.

PROPOSITION & RELATED TOPICS	DESCRIPTION	KEY STAKEHOLDERS	META-PARADOXES MANAGED
P1: Infra-organization 	An urban infrastructure composed of entrepreneurs and makers	The city, collaborative movements, citizens-entrepreneurs-makers	Local territory/city Revolutionary/incremental
P2: 'Inclusive lab' label 	A label of social inclusion granted by collaborative movements and civil society	Collaborative movements, academics, citizens-entrepreneurs-makers	Social/business Local territory/city
P3: Mega-creative spaces 	Big public spaces as creative spaces	City, citizens-entrepreneurs-makers, art and design schools/universities, corporations (as sponsors)	Revolutionary/incremental Business/social (common goods)

[4] Section coordinated by François-Xavier de Vaujany and Amélie Bohas.
[5] https://en.wikipedia.org/wiki/Living_lab

P4: Academic urban and rural mobility	Academics as part of the city, its agora and debates	Academics, universities, collaborative movements, the city	Local territory/city Revolutionary/incremental
P5: Ephemeral and mobile labs	Generalizing and diffusing the lab culture	Academics, universities, art, design, business and engineering schools, citizens-entrepreneurs-makers	Local territory/city Business/social
P6: Opening open innovation	Locating open innovation in public and semi-public spaces	Cities, corporations, collaborative movements, citizens-entrepreneurs-makers	Local territory/city Revolutionary/incremental
P7: European interconnectivity	Better exchanges of good practices between collaborative communities, infrastructures for mobile workers and coworkers to move from one collaborative space to another	Collaborative movement, state, cities, citizens-entrepreneurs-makers	Local territory/city Business/social

TABLE 1 : OUR PROPOSITIONS AND HOW THEY RELATE TO TOPICS, STAKEHOLDERS AND META-PARADOXES

These are global propositions, i.e. we see them as relevant for all cities discussed here (and probably beyond), since the paradoxes we point out are also global in nature.

PROPOSITION 1: FROM META-ORGANIZATIONS TO INFRA-ORGANIZATIONS: TOWARDS A NEW STATUS AND AMBITION FOR LEADING COLLABORATIVE SPACES?

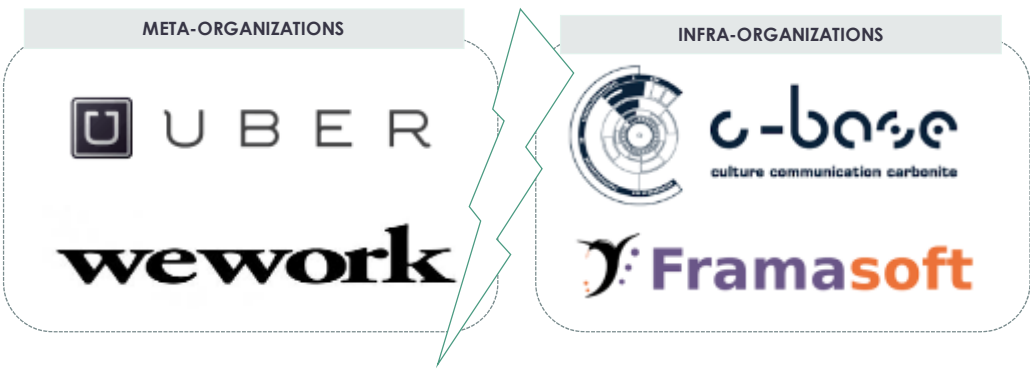

FIGURE 4 : SWARMING INSTEAD OF GROWING: FROM META-ORGANIZATIONS TO INFRA-ORGANIZATIONS

This first proposal stems mainly from discussions on the **communication and business model topic (Topic 3)**. We see it as a way to manage possible tensions between the organizations and projects related to a collaborative space, their image and identity. It is a way to create convergence beyond just sharing floor space.

Some research about collaborative spaces and third places describe them as **meta-organizations**, i.e. organizations hosting other organizations (Ahrne and Brunson, 2008; Berkowitz and Dumez, 2016). Thus, in this view, collaborative spaces would be organizations hosting other organizations (e.g. entrepreneurs and their structures, creative projects). WeWork, but also Uber and even Google are close to this model. They host the projects and activities of numerous people and entities. The bigger the number of hosts, the higher the attractiveness of the meta-organization itself. This context is often linked to increasing returns, 'platformisation' (although all meta-organizations are not platforms) and in the long run, **monopoly**. This centralization is often criticized for the lack of diversity it often introduces and the problem it can present for democracy.

We suggest strategists, policy-makers and citizens consider collaborative communities (and open innovation behind them) differently: as **infra-organizations**. In this conception, they are not an organization hosting other projects or organizations, but several organizations taking the shape of independent entities with the same identity, sharing modes of governance and constituting their own independent platform (***see table 2 and figure 4***). **The heart of the network is expected to have a limited, bounded growth.** Beyond a certain point, the organization fragments and leads to new enclaves which have all the identity of the organization. All coordinators of the new enclaves are expected to participate to the management of the network.

This is a point we found particularly striking for a major hacker space in Berlin (C-Base) and an emerging network in Lyon (Framasoft[6]).

In the case of C-Base, we were surprised to meet other people, places, and projects in Berlin and to discover that they were often connected to C-Base. People found at C-Base expertise, skills, people, and facilities to launch their projects. CCC[7] or Open Berlin were thus using the facilities of C-Base and still do so. More surprisingly, they still feel attached to this community. **They were C-Base at the level of their own entity.** Yet C-Base did not 'host' them. In a sense, all of them were C-Base, a meta-community and infrastructure with an amazing capacity to connect and assemble itself as a fractal. To say it differently, C-base is a **chameleon** or **ventriloquist-like structure** people could talk through easily, in this open knowledge-oriented world which is the hacker movement. It serves also a catalyst and embodiment of all these organizations.

Likewise, Framasoft aims also at becoming an infra-organization. It is an organization trying to provide services close to those offered by Google, but **without a monopoly and increasing return effects**. Independent programmers partake in the growth of each service up to a certain point after which other entities are expected (also with the identity of the bigger project) to develop another platform. This results in a higher diversity of services and make it possible (here in the context of open source technologies) to avoid a monopoly situation.

[6] https://framasoft.org/

[7] We did not expect the Computer Chaos Club (CCC) to operate at C-Base and to use its facilities.

META-ORGANIZATION	INFRA-ORGANIZATION
> An organization hosting other organizations which keep more or less their singularity > An infrastructure and common facility expected to generate (at an upper level) increasing returns. > **Key metaphor:** host > **Examples:** WeWork, Uber, Google	> Several organizations taking the shape of independent entities with the same identity, sharing modes of governance and constituting their own independent platform > A solidarity, a shared time and space, a network-infrastructure expected to control increasing results and information monopoly > **Key metaphors:** ventriloquist, fractal > **Examples:** Framasoft & C-Base

TABLE 2: 'META' VERSUS 'INFRA' ORGANIZATIONS.

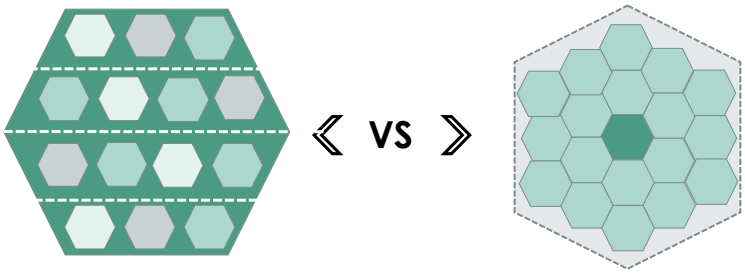

FIGURE 5 : 'META' VERSUS 'INFRA' ORGANIZATIONS.

Interestingly, the infrastructure is generated and managed by all members collaboratively (***see figure 5***).

How about generating other C-Base or Framasoft in Berlin, Paris, Montreal, London, and other cities in the world? Social movements themselves may be part of the answer, with their own iconic hubs and places, their open knowledge values. How about involving them more systematically to set up and launch other infra-organizations, held by nobody, producing common knowledge and positive externalities for the city? This could be a new strategic stake both for traditional political authorities (e.g. cities), collaborative movements, and entrepreneurs-citizens--makers.

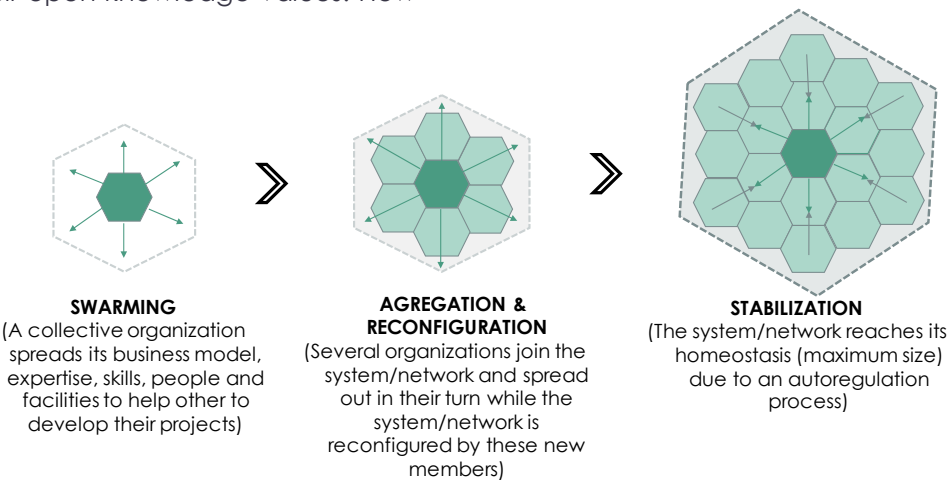

FIGURE 6 : THE PROCESS OF THE EMERGENCE OF AN 'INFRA' ORGANIZATION.

As an extension of our discussion about communication and business models, this probably implies maintaining ambiguity and perhaps (just like for C-Base) some mystery about what the place is, where it starts, where it ends (in terms of organizational boundaries) and what it is meant for[8].

> **"An infra-organization becomes both what people want it to be and a community sharing pre-defined values"**

It allows people to come, play with the place and tools, meet other hackers likely to help and be involved in mutual help processes.

PROPOSITION 2: NEW PUBLIC AND PRIVATE LABELS FOR SOCIAL THIRD-PLACES: INCLUSION AND 'INCLUSIVE LABS'?

FIGURE 7: TOWARDS A LABEL FOR SOCIAL THIRD-PLACES

This second proposition is grounded both into the **innovation topic** (**Topic 4**) and the **territory topic** (**Topic 1**) of our White Paper. In our discussions, oppositions between social and business oriented places were quite frequent. During a session in Paris, a real estate company preferred to define itself as a 'collaborative place' than a 'third-place', stressing that their job was just to rent collaborative spaces. In contrast, other third-places attending our meeting stress **their mission of social inclusion on their local territory**, as we have seen in Montreal.

To manage this tension, we suggest coming back to an idea already present in public debates: **'social labels'**. The social label is a brand affixed on products to guarantee the social and ethical quality of their manufacturing and their marketing (respect for the rights of the workers, for environmental conditions).

But instead of turning to public bodies (such as local councils in England, "conseils régionaux" and "conseils généraux" in France), we wish to put forward a more radical idea.

How about developing an 'inclusive lab' label which would be managed (and awarded) directly by social movements themselves in the same way they already produce on-line and off-line their own representative mechanisms?

At the heart of this label, we could find a combination of public and private structures. The system would combine education, support for employment policy (they could act as a relay of APEC and Pôle Emploi in France, with in-house representatives), physical embodiment of digital platforms (such as "leboncoin.fr") with people directly helping others use them or training them to use them, maker space area (helping to repair and enhance tools likely to have positive impacts), creativity spaces…

[8] Our co-creation workshop about Highly Transformative Third-Places (HTTP) during RGCS workshop on December 16th, 2016 will be an opportunity to test some ideas around this.

“The key criteria to award the label would be social inclusion and the immediate impact on a local territory.”

This impact would be continuously evaluated by social movements (through digital platforms and meetings in other third places located on the territory). The process (***see figure 8***) would not be headed by experts coming in and out, but by citizens involved in issues of relevance to the territory.

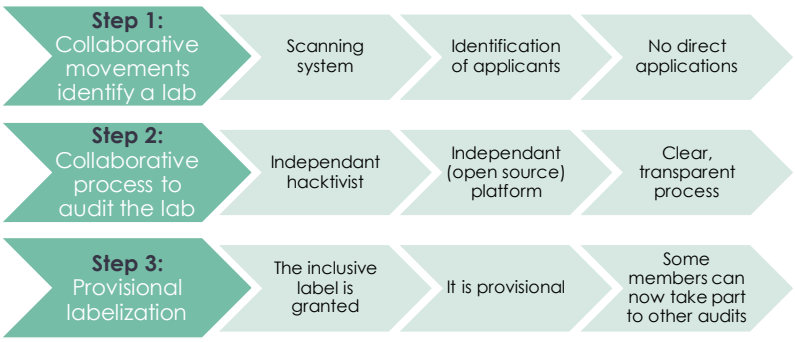

FIGURE 8 : A COLLABORATIVE PROCESS FOR AN “INCLUSIVE LAB” LABEL

Private companies involved in connectivity issues (French railway, Orange, Microsoft, Google…) could sponsor and help finance the infrastructure of the social movements involved in the process of labelization. They could help build them (this could be an interesting part of their open innovation policy). But they should not be part of their governance.

PROPOSITION 3: OPENING MEGA-SPACES FOR EXPRESSION OF CREATIVITY: THE WHOLE CITY AS AN ARTISTIC MAKER SPACE?

PICTURE 1: TRANSFORMING METERED PARKING SPOTS INTO TEMPORARY PUBLIC PARKS: THE PARK(ING) DAY EVENT *(source: https://www.civicdesigncenter.org/events/parking-day)*

“Making things, huge things together could be a great way to strengthen the economic and social fabric of a territory.”

As Butler (2015) explains, gathering bodies massively and regularly in the public spaces of the city has deep political effects.

Leading from our discussion on education (see part 2), we believe that **collaborative spaces should also go beyond their spaces and local territories to coordinate broader**

initiatives (with incentives and protection from the municipality). They could sustain **continuous transformative agencies**, the deep dialectic described by Merleau-Ponty (1955) and Coombs (2015).

During a weekend, the whole city, or a district of the city, could partake in a huge place-making[9] initiative. **A sort of urban planning flash-mob**. More than a mere hackathon (often located in a building and "somewhere"), the idea would be to decorate walls[10], change the landscape of some parks and squares, install new digital tools on buildings and some public areas… and mobilize as much as possible all of the diversity provided by a given territory.

For instance, PARK(ing) Day[11] is an annual worldwide event where artists, designers, and citizens transform metered parking spots into temporary public parks.

Coordinating this (from a bottom-up perspective) would require much more than a single third-place or (which would be partly contradictory) the intervention of the municipal authorities**. It would require a legitimate collective embodying part of the collaborative communities in the city, actors sharing values about the necessity to share something.**

In France, the "Collectif des Tiers-Lieux[12]" could play this role. In Europe at large, Coworking Europe[13] could also be involved in these missions. Although no such equivalent collective exists in Quebec, some of the more established coworking spaces could play such a role. The experience of hacker communities in organizing huge festivals or hackathons (but often somewhere, in a single devoted place and space) could also be particularly productive.

PROPOSITION 4: RE-INVENTING ACADEMIC PRESENCE IN THE CITY: TOWARDS MORE URBAN AND RURAL MOBILITY FOR ACADEMICS?

PICTURE 2: JEAN-PAUL SARTRE'S PUBLIC SPEECH
(source: http://www.sens-public.org/img/arton544.jpg)

This fourth proposal derives both from the **education** and the **territory**-oriented topics (**Topic 1 & 2**). In the Middle Ages, academics were much more defined as a community than they are today. The word university itself comes from the Latin *universitas*, which means "community".

[9] https://en.wikipedia.org/wiki/Placemaking
[10] The experience of Urban Nation in Berlin is particularly interesting: https://www.urban-nation.com/
[11] http://parkingday.org/
[12] http://collectif-des-tiers-lieux.fr/
[13] http://coworkingeurope.net/

The first European university (Bologna) has for long (between the 11th and 16th century), like its rival la Sorbonne, been an open, distributed entity within the city. Academics did their teaching in different buildings, private apartments and sometimes, publics spaces of the city.

> **Coming back at the heart of the city is a key stake in the diffusion of knowledge and to teach citizenship in return.**

Academics are or should be part of the consciousness of society, should their field be economics, management, sociology, anthropology, psychology, physics, chemistry, astronomy, or other fields. Working (more or less occasionally) in third places, moving within them, participating in debates (beyond purely scientific conferences with peers) should become a key stake, supported and valued by public policies. Some collaborative spaces are already engaged in this dynamic. Volumes and Player (in Paris), for instance, organized some academic residency programs.

Rurality is also a key stake. Defending the presence of post offices, practitioners, or hospitals in rural areas is important. We also believe that political, societal, managerial debates can be important. Academic presence in these areas, or the cities' suburbs, is vital for democracy. Of course, citizens and professional politicians can engage in debate themselves (and often do it or try to do it). **But academics can directly (or indirectly through MOOCs) deliver a different type of knowledge and stimulate differently a political consciousness.**

Knowledge (not information) will move because the very bodies of those producing it will move as well (de Vaujany and Mitev, 2015). Academics could thus spend more time in corporate or independent fab labs, maker spaces, coworking spaces, innovation labs, or incubators. Immersed and active in them.

PROPOSITION 5: TOWARDS MORE EPHEMERAL AND MOBILE LABS IN THE CITY AND RURAL AREAS

PICTURE 3 : THE ACCESS TO THE INNOVATION FOR ALL THANKS TO A MOBILE FAB LAB *(source: http://www.oise.fr/reseau/article/view/95193/le-fab-lab-mobile-se-lance-sur-les-routes)*

Mobile fab labs or maker spaces already exist in numerous cities and rural areas (e.g. Fab Lab Truck). We believe they could be more systematically supported and managed by public authorities and sponsored by private companies.

Many teenagers, retired people, disabled citizens, handymen, refugees, still look for facilities and tools they cannot afford to pay.

Beyond that, we believe that ephemeral fab labs and maker spaces (diffused on social networks) should be more systematically organized in the city. Making something jointly is the best way to live together.

What could be the matter, tools, and human resource involved in these ephemeral labs? The very facilities of engineering schools, universities, business schools, coordinated by the city, could be at the heart of these initiatives. An inspiration could be drawn from the Unité Mobile program run by the École nationale supérieure des Arts Décoratifs. With this program, the school puts various transportable units such as a 3D printer, laser engraving machine or a digital embroiderer at the disposal of the entire Paris Sciences et Lettres (PSL) community (association of 18 higher education institutions in the Paris area).

> **Creating ephemeral incubators, ephemeral socialization spaces, ephemeral management labs and innovation labs in parks, train stations, public parking lots… could rely on the fab labs, maker spaces, innovation labs, incubators… already set up by academic actors.**

In alignment with proposition 4, this could be a way to truly re-introduce an academic presence in the city.

PROPOSITION 6: OPENING OPEN INNOVATION: CLOSER TO THE CITY AND ITS PUBLIC OR SEMI-PUBLIC SPACES

FIGURE 9: OPENING OPEN INNOVATION

More and more companies involve startups in the context of their innovation labs (Boger et al, 2016).

On their side, **third places are more and more the result of new open innovation policies, intermediaries of open innovation** (Fabbri and Charue-Duboc, 2016), involving numerous external and internal stakeholders in an unbounded innovation process.

The idea we would like to push here is radical. How about pushing open innovation initiatives in the space of the city itself (Trousse, 2015)? Its train stations, its parks, gardens or streets? Setting up open innovation happenings (not hackathons)? Financing "speaker corners" in parks (such as the one in Hyde Park, London), parts of train stations (in partnership with railway companies), some bistrots or academic campuses. Not "inside" or "somewhere", but just "here" and "now".

> **Digital infrastructures, Wi-Fi systems, have opened new possibilities for innovation which have not been completely seized.**

Teenagers, retired people, tourists, the homeless… could be invited to take part in all or parts of these initiatives.

This kind of initiative could be, again, coherent with the previous initiative regarding social inclusion.

PROPOSITION 7: FOR MORE EUROPEAN AND NORTH AMERICAN INTERCONNECTIVITY: NEW DIGITAL INFRASTRUCTURES FOR MOBILE WORKERS AND COLLABORATIVE SPACES

FIGURE 10: TOWARDS AN EUROPEAN INTERCONNECTIVITY

Last but not least, the seventh proposition is particularly grounded in discussions from the **innovation** and the **territory**-oriented topics. (**Topics 1 & 4**)

Connecting further collaborative spaces and coworkers could be an important project much more supported by major private or public initiatives. Some startups (like Coworkies in Berlin) are already moving in this direction.

Beyond a simple franchise or network (like Impact Hub), how about fostering global fairs and subscriptions schemes (European, North American, or even global)? Subscriptions to specific types of coworking spaces would allow a mobile worker or a digital nomad to quickly meet a customer in any city. Schemes such as Copass or The Coworking Visa (providing access to coworking spaces around the globe with a single subscription) are perfect examples.

How about hybrid coworking spaces (with a maker area) or coworking spaces mixed with business centers (like Qwerk or Dompark Complex in Montreal)? Beyond that, coworking spaces could be more network-oriented (best practice sharing, open innovation oriented between themselves…).

> **Fab labs and maker spaces are more often grounded into the community and network dynamics of open knowledge which more easily foster the emergence of meta-communities and global standards and infrastructures between them.**

The case of coworking is quite different. Maybe in the coming years, Coworking Europe could play such a role.

This objective can be tightly linked to the emergence of a true social movement behind coworking dynamic.

PART 2: CONTROVERSIES REGARDING COLLABORATIVE COMMUNITIES AND COLLABORATIVE MOVEMENTS IN THE CITY

TOPIC 1: SPACE, TERRITORIES, AND PUBLIC POLICY ON COLLABORATIVE COMMUNITIES IN THE CITY[14]

Collaborative communities, their spaces and locations in the city, are associated with major managerial and political stakes. The development of coworking spaces, maker spaces and fab labs in the East of Paris is inscribed in the symbolic space of the city itself, its districts, (urban) connectivity[15] and local communities. The emergence of a big entrepreneurial ecosystem in the South-East of London or former East Berlin is also far from being neutral. This regeneration can be sometimes very visible, with the presence of such street-art initiatives as Urban Nation in Berlin, covering huge walls and facades with artwork (***see picture 4***). The presence of a new dynamic in the district is then obvious for everybody (beyond just the presence of Urban Nation itself).

PICTURE 4 : URBAN NATION IN BERLIN (SOURCE: THE COORDINATORS OF THE WHITE PAPER

In a similar way, in Barcelona, collaborative spaces in the innovation district 22@ also feed the local dynamics of creativity and innovation.

Based on a series of meetings, seminars and workshops, we identified five major controversies (***see figure 11***) which seem particularly relevant in understanding the questions raised by the emergence of collaborative spaces and communities in 21st century cities.

[14] Topic coordinated by Fabrice Periac, Anna Glaser, and Ignasi Capdevila.
[15] Urban connectivity is a specific term to urban planning which refers to the degree to which places in the city are interconnected physically, economically, culturally, socially, politically, and electronically.

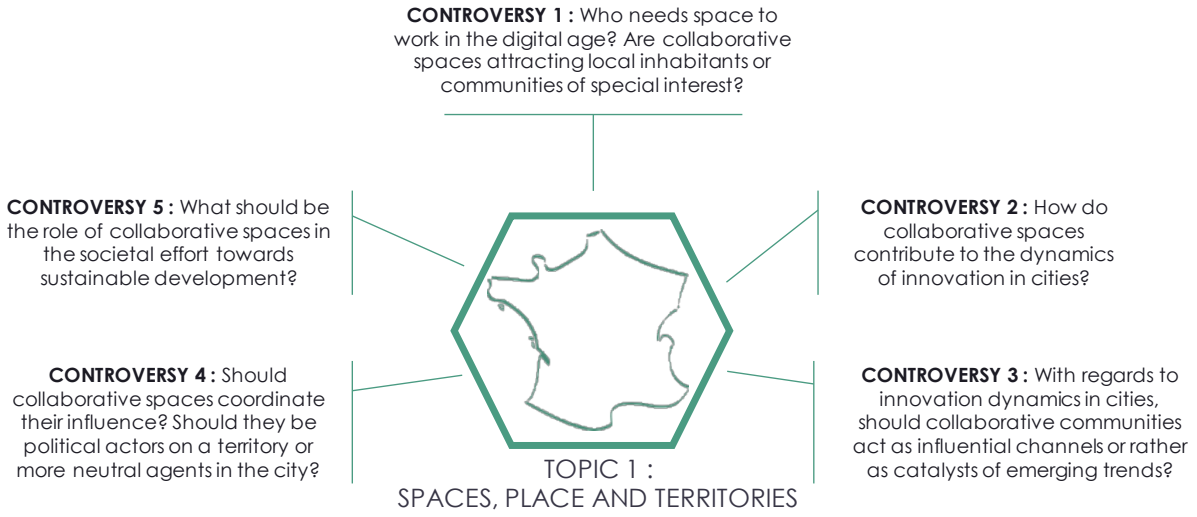

FIGURE 11 : CONTROVERSIES RELATED TO TOPIC 1

CONTROVERSY 1: WHO NEEDS SPACE TO WORK IN THE DIGITAL AGE? ARE COLLABORATIVE SPACES ATTRACTING LOCAL INHABITANTS OR COMMUNITIES OF SPECIAL INTEREST?

Despite the increasing trend of teleworking, co-location is still important for collaborative work and in order to be near colleagues, suppliers, and customers. Even if they intensively use information technologies, entrepreneurs and innovators indeed continue to rely on face-to-face interactions to develop business relations with partners, be they customers, suppliers, or potential employees. Coworking spaces therefore provide an opportunity to extend the space of their organizations, otherwise often limited to the walls of their personal homes. They grant individuals and organizations coming from outside the city an access to the "local buzz" and locally developed knowledge. They also allow local workers to interact with external stakeholders and thus connect to remote markets, knowledge and ideas. This cross-pollination facilitates new professional collaboration and innovative projects.

In this respect, collaborative spaces can be broadly divided into two types, those attracting entrepreneurs and freelancers looking for a 'third place' to work in a relaxed atmosphere near home (location-based communities), and those specializing in a particular subject, attracting various actors interested in that specialized topic (knowledge-based communities).

In location-based communities, coworkers are thus neighbors and the type of social interaction mainly reinforces the personal and social ties with members rather than focusing on professional and interest-related issues. The motivation of coworkers is more related to practical reasons (location, cost-reduction, etc.) than cognitive ones (knowledge sharing, learning, etc.). They tend to emerge in areas with critical density of independent workers. Location-based coworking spaces can be conceived both as a new type of shared spaces within local territories, and as promising places for innovation. Indeed, gathering based on co-location is a good opportunity for congregating people from various professional backgrounds and hence triggering serendipitous interactions. In this sense, this kind of coworking spaces act as "third spaces" (Oldenburg, 2002), spaces of socialization at the local level that contribute to social cohesion and innovation.

In contrast, knowledge-based collaborative spaces focus on a certain specialization (i.e. social entrepreneurship, women entrepreneurs, specific professional sector, etc.). In this case, local or regional actors highly interested in the activities taking place in the space will co-locate to interact with each other. Interactions can

be temporary (in the case of meetings, presentations, events, etc.) or permanent (in the case of regular members of the space). The organized proximity derived from the common focus and the geographic proximity enhance the emergence of local communities around specific topics. In contrast with the first type of collaborative spaces, members might not be neighbors living in the same district as proximity to home is not the main priority. However, this fact does not imply that members of this kind of space will not interact with surrounding neighbors. In some cases, the space managers will try to attract the interest of neighbors and to engage them in the activities of the space.

Makerspaces, fab labs and hackerspaces similar to this second type of collaborative space in the sense that they tend to create a local community around certain shared practices. All these spaces need a critical mass of interested individuals to create a lively local community. Consequently, these spaces are more likely to emerge in medium to large cities where there is a large pool of creative individuals desiring to share their specialized knowledge and experiences with peer

CONTROVERSY 2: HOW DO COLLABORATIVE SPACES CONTRIBUTE TO THE DYNAMICS OF INNOVATION IN CITIES?

Cities have come to be seen as orchestrators for economic development and innovation, which is now considered a key part of city-branding (and a major factor of competition between large cities). Hence, local policy-makers focus on developing and coordinating business ecosystems, i.e. combinations of cooperating organizations coming from different industries with complementary economic interests, knowledge, or capabilities (Tukiainen, Leminen, & Westerlund, 2015). Local dynamics of innovation take place at different levels and involve formal and informal interactions between individuals, communities, and firms.

The collective processes of innovation require platforms that allow different actors to effectively communicate, share knowledge, and cooperate. Collaborative spaces constitute such platforms, allowing collaboration through the organization of projects and events that facilitate the emergence and development of processes of innovation like, for instance, tacit knowledge sharing, diffusion of innovations, or coordination of diverse and complementary knowledge bases. Beyond the innovation taking place within the collaborative community, the creative and innovative atmosphere of these spaces can diffuse in wider economic territory. Traditional firms can take advantage of these facilities, leasing offices and sending employees to immerge in the collaborative communities. Coworking spaces can also play the role of social integrator for outsiders. Foreign workers often use these facilities to improve their professional and social integration in the local environment, thus offering local actors opportunities to get in contact with external sources of knowledge. Collaborative spaces can also contribute to favour a better sense of citizenship (i.e. sense of political belonging to the symbolic space of the city) for innovators.

But how can the innovative dynamic of a collaborative space influence innovation in the city? Can they act as influential channels for local innovation or do they serve as mere catalysts for new work practices?

CONTROVERSY 3: WITH REGARDS TO INNOVATION DYNAMICS IN CITIES, SHOULD COLLABORATIVE COMMUNITIES ACT AS INFLUENTIAL CHANNELS OR RATHER AS CATALYSTS FOR EMERGING TRENDS?

At the first level, the design intentions behind collaborative spaces create a distinction between those intended as platforms for local innovation capability-building, and those designed first and foremost to provide services to their members with no explicit focus on impacting city-wide ecosystems [16]. For instance, living labs, defined as "physical regions or virtual realities, or interaction spaces, in which stakeholders form public-private-people partnerships (4Ps) of companies, public agencies, universities, users, and other stakeholders, all collaborating for creation, prototyping, validating, and testing of new technologies, services, products, and systems in real-life contexts" (Westerlund & Leminen, 2011; Leminen, 2013), are generally designed to be triggers for innovation and learning grounds for various stakeholders at city-level; as for coworking spaces, while they are often designed as catalysts for the interaction between co-located actors, their intentional design does not necessarily include claims of capacity-building at the local level.

At a second level, two structural factors contribute to altering the nature of its influence over local capacity-building: size (and visibility) on the one hand, and relationship with local policy-makers on the other hand. Indeed, while large collaborative spaces often tend to become platform leaders in the local innovation ecosystem, especially when directly supported, sponsored or associated with local government, smaller ones act more as complementary: even if innovative practices emerge from smaller spaces, their role remains less embedded in the city-wide innovation ecosystem. Despite this limited role, the innovation value of these spaces can be significantly high: the innovative experiments that take place within these collaborative spaces can remain highly localized or spread within other, non-city-related networks (intra-organizational networks in the case of distributed and global coworking organizations such as ReWork or Impact Hub, or communities of interest in the case of hackerspaces and fab labs).

CONTROVERSY 4: SHOULD COLLABORATIVE SPACES COORDINATE THEIR INFLUENCE? SHOULD THEY BE POLITICAL ACTORS ON A TERRITORY OR MORE NEUTRAL AGENTS IN THE CITY?

Many collaborative spaces are self-branded or generally considered as communities. However, the use of this concept is not straightforward, since the word "community" carries many ambiguities. In its latin origin, "cum munus", the community is seen as a group of people ("cum") sharing something "munus": which could be goods, resources, or responsibilities. Throughout history, the various definitions of the word have referred to an organized body, but also to a collective with no specific unity, while also being associated to multiple forms of socialization, on a scale varying from voluntary agreement (contract) to more "natural" forms of social unions (families or tribes).

Just like the concept of "community", that of "collaborative space" bears a high level of ambiguity, in defining what they are, and what their activities and projects mean for their stakeholders. In particular, the question of whether they should be considered as political actors in a given territory or as neutral actors is an important one: as community-building platforms embedded in specific spaces, the extent to which they fulfill a political role in that territory has to be defined.

[16] We will come back to this issue with our first proposition.

For some of these spaces, community is considered beyond local ties and locally shared values. It is grounded into a bigger social movement and shared experience. For instance, this is the case of some hacker spaces (e.g. C-Base or the CCC) that aim at contributing to a global "maker movement" through giant hackathons and (maker) fairs. Their members are linked by something much stronger than the local space and its management. For other kinds of spaces, community is closely associated with geographical belonging and the sharing of a specific place (***see figure 12***).

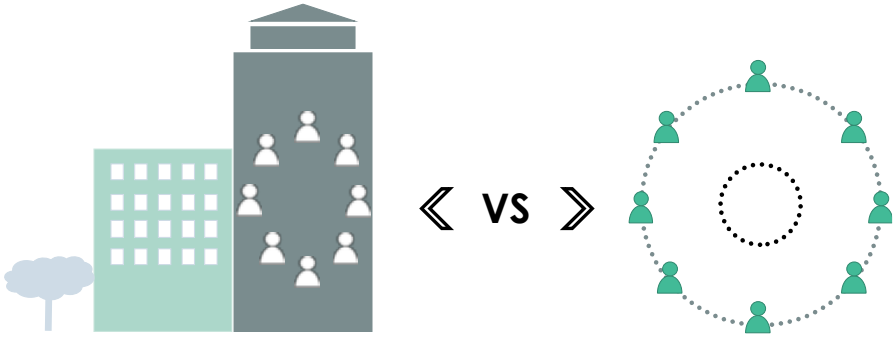

FIGURE 12 : COMMUNITY AS A SHARED PLACE AND SPACE VERSUS COMMUNITY AS A DISTRIBUTED JOINT EXPERIENCE

Moreover, as the movement around collaborative spaces gains momentum, many actors are starting to unite and organize to coordinate their influence. For instance, Le Collectif des Tiers-Lieux in France or Cowocat in Catalonia are organizations set-up to federate and speak for all actors of the coworking sphere, in order to spread its values and contribute to increasing its impact at the regional and societal levels.

CONTROVERSY 5: WHAT SHOULD BE THE ROLE OF COLLABORATIVE SPACES IN THE SOCIETAL EFFORT TOWARDS SUSTAINABLE DEVELOPMENT?

Collaborative spaces are considered the outcome of the blurring of the frontiers and hybridization processes between technological, economic, and social categories (Moriset, 2013). In parallel, sustainable development, which has become a primary societal goal for numerous policy-makers and institutions at various scales over the past decades, is traditionally conceptualized as composed of three complementary dimensions, i.e. economic, environmental, and social. Thus, it does not seem absurd to establish a link between both programs. More specifically, the following question is implicitly raised by numerous scholars, policy-makers, and practitioners: What role can collaborative spaces play in the societal effort towards sustainable development?

Several challenges make it difficult to answer this question at the present time. The first of which lies in the lack of robust theoretical foundations and definitional consensus that characterizes it at present time. As highlighted by Christen & Schmidt, it is generally based on "the bare intuitions of those who use it", which results in a lack of guiding power, since "as long as a concept is used to validate whichever action, it does not serve to justify any action at all" (2012, p. 401).

Despite this conceptual blurriness and the defiance that it yields within civil society, it is nonetheless useful to reach a better understanding of how collaborative spaces and their multidimensionality could represent a salient operational tool for addressing effectively the multidimensional and transversal issues that societies face at present time.

TOPIC 2: COLLABORATIVE COMMUNITIES AND THEIR ROLES IN EDUCATION IN THE CITY[17]

In the 21st century society, education has become a central concern for governments, and organizations. Learning and education constitute key processes for all individuals throughout their life. Higher education institutions develop links with the professional world, with two objectives: facilitating students' access to their first jobs and encouraging professional to return to school. Beyond the terminology of makers, hackers, fabbers, or coworkers, it seems that coworking spaces are also populated with another profile: "collaborative learners" (C-learners). A 'C-learner' can be defined as an individual involved in a collaborative, open, community-based process of learning. Beyond schools and families (as institutions), C-learners relate to different online and offline communities which provide events, information, content, surprises at the heart of the continuous learning process. Learning is no longer an institutionalized process with clear boundaries (i.e. focused on 'families' or 'schools').

Many actors in the education sector have decided to innovate in the way one teaches and learns. Alongside traditional education, new communities of learners are emerging: hackers, open source communities, hacktivists, third places… In the traditional industry, schools, high schools, business schools, universities, etc. are also experiencing deep mutations of their space and learning techniques. Learning centers, learning labs, maker labs, serious games, MOOCs… pervade the academic landscape. Are these new trends opportunities to reinvent ways of learning, just fads or simple tactics to reinforce hierarchical positions and traditional teaching techniques? How do collaborative communities and collaborative movements (makers, hackers, fabbers…) contribute to reinvent learning processes? How do traditional institutions, through their use of collaborative values and collaborative practices, reinvent themselves? With which tensions, paradoxes and debates?

Based on creativity workshops organized in Paris in 2016 (the 12th of October, 3rd of November, and 30th of November) following a set of seminars and workshops organized in 2015 and earlier in 2016, we have elaborated a set of controversies around two main topics covering the issue of collaborative spaces and their roles in education: first, the effective role of third-places in the society and more specifically in innovative education; second, the symbolic role of those spaces in the city at large.

Our seminars gathered a wide range of stakeholders: community managers of third places (fab managers, coworking hosts, coworking space managers…), customers, students, academics, entrepreneurs, etc. For example, the manager of a coworking space for students-startuppers, the marketing director of a subsidiary of a real estate management group, the founder of a hackerspace, two members of a cooperative managing a hybrid coworking space-fab lab, the project manager of the prototype of an alternative school for children in a collaborative space, the director of a university library who is working on developing new forms of libraries, etc. This diversity enabled us to raise concrete controversies and to explore their dimensions and implications from different perspectives.

In order to study this role, we identified in the memos of our workshops seven controversies. We gathered them around two sub-topics: Education in collaborative spaces (2.1); Collaborative spaces and collaborative communities in education (2.2).

[17] Topic coordinated by Aurore Dandoy and Caroline Scotto.

2.1. EDUCATION IN COLLABORATIVE SPACES – FROM EDUCATION CHANGE TO SOCIETAL CHANGE

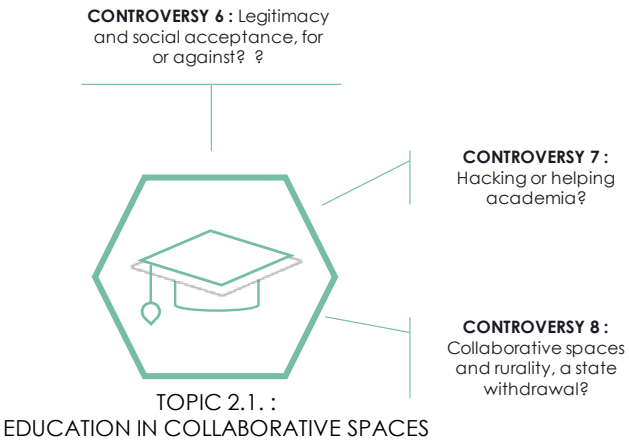

FIGURE 13 : CONTROVERSIES RELATED TO SUB-TOPIC 2.1. (TOPIC 2: EDUCATION)

An increasing number of collaborative spaces are including in their business models and/or their cultural and local values, a significant portion of learning, training, education, knowledge transmission, etc. They are thus becoming potential competitors for educational institutions by creating alternative and/or complementary schools in Paris, like Mutinerie, or challenging start-ups of the ecosystem through many events (from fora to workshops to conferences) like Numa in Paris or Betahaus in Berlin. Others have decided to initiate partnerships with universities and schools, like School Lab (France) which welcomes classes in its meeting rooms.

The fact that third-places are appropriating education issues raises questions beyond the mere creation of a new commercial activity: Are collaborative spaces opportunities to develop new learning processes, or an extension of classic learning processes to reproduce real and/or virtual practices?

CONTROVERSY 6: LEGITIMACY AND SOCIAL ACCEPTANCE, FOR OR AGAINST?

The perspective of collaborative spaces emerging on the educational marketplace, including providers and institutions, immediately makes one wonder of their legitimacy and of the social acceptance of this appropriation. Some collaborative spaces have included in their DNA, from their inception, a collaboration with the educational world. For example, Sceaux Smart reconceptualized the entrepreneurial project through education one year before opening (on June, 2015). As Valérie Andrade, the founder and host of Sceaux Smart, explains: "July, 2014: It is when we did not win the Paris Region competition that everything changed. It was time for us to hear the valuable advice given by our visionary mayor to address the world students." And they began by hiring the vice-president, a student, who launched a crowdfunding campaign with a tutored project with 4 students from the local university. Since then, three partnerships have been signed with local universities, six students came as trainees in coworkers' company, even a PhD student was supposed to become the co-coordinator of Sceaux Smart.

In the case of Sceaux Smart, legitimacy came from different sources: the mayor's will, the hiring of a student as vice-president, the geographical localization (near the university), but also from the founder who is very active as a citizen and in her local ecosystem (and many others). But this legitimacy is specific to the context of this

case. How about other types of collaborative spaces in other contexts?

Coworking spaces, learning hubs, maker labs… The multiplicity of profiles illuminates the incredible number of possibilities when it comes to integrate education and collaborative communities. They are often considered as innovative and/or disruptive in their own way of working. Nevertheless, in order to maintain the benefits of the innovative status they benefit from, legislating, regulating, and controlling could constitute opportunities as much as threats. Although no single universal pattern emerges from our observations, these spaces are places where new learning processes are experimented with.

Collaborative spaces are thus exploring ways in which they could integrate traditional teaching process and their impact in the perspective of the city (as a symbol and a model of society) and through public policies. It is important to understand that collaborative spaces are not only a new trend: they are shaping human relationships, work habits, and sense of togetherness.

Beyond the questions of legitimacy and social acceptance, collaborative spaces raise various issues related to public policies: do collaborative spaces, techniques, and communities need a specific urban morphology (e.g. close to social hubs… or conversely far from them for some collaborative spaces)? Does (urban) connectivity matter? Are collaborative spaces a way to outsource education out of 'old-fashioned schools'? Or a way to connect education with citizens? Are collaborative spaces a way to fill gaps perceived by actors in educational public policy? And what level of public policy is concerned? Local, regional, national, European or worldwide perhaps?

Legitimacy and social acceptance also depend on time. Before institutionalizing education in collaborative spaces through regulation and legislation, there are questions regarding how long it will last and how much, even if it does not last, it will impact society. Do collaborative spaces evolve with movement, uses, needs, or do they become a new fixed structure of an evolving social movement? In the other direction, there is much more fundamental limitation in that what works in a collaborative space may not work in a traditional educational space, a "school".

CONTROVERSY 7: HACKING OR HELPING ACADEMIA?

When talking about collaborative spaces, a myriad of movements comes to mind. Collaborative spaces, be they hacker, coworker or maker spaces, constitute places for learning about business, organizations, strategy, technology, etc. How does this role fit in with academia?

Collaborative spaces could create bridges between educational and professional worlds as well as disrupting the relationship between those two worlds. Should collaborative spaces be considered intermediaries? Facilitators? Binders? Or, on the contrary, disruptors? During seminars, the issue of "opening up" was highlighted. What kind of opening do collaborative communities or spaces have to the outside? How can it improve or hack education outside established institutions?

Collaborative spaces may lead to a shift in the pedagogical toolbox. Pedagogical innovations are often understood as new way of teaching and learning, such as "visual artifacts" like video sessions, "flipped classrooms", etc. or in a material way like "open spaces", "writing on walls", etc. Those considerations have been classified during our seminars as transmission modes and representative modes, examples have been taken from existing prototypes and innovations.

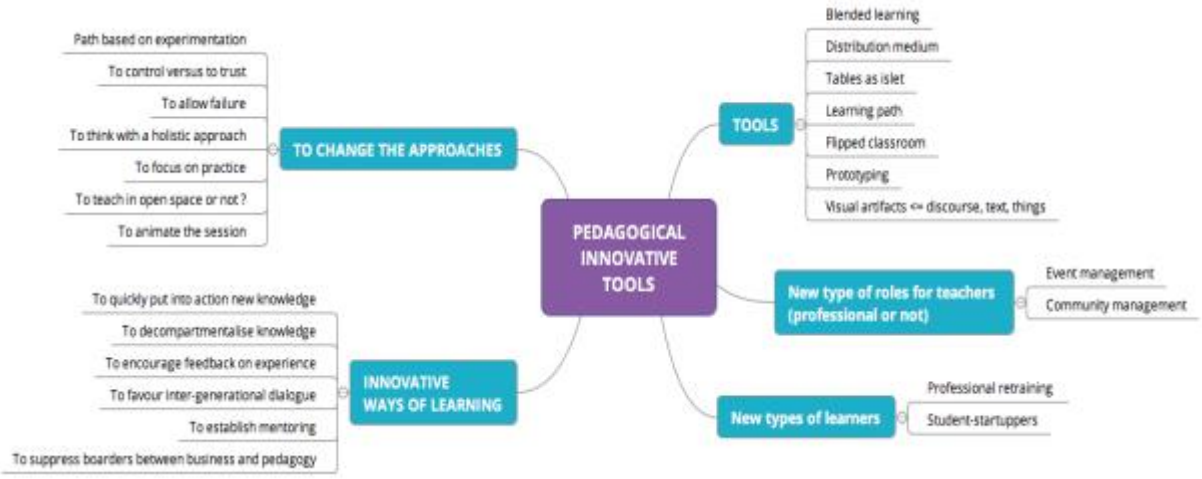

FIGURE 14 : EXTRACT OF THE WORKSHOP OF THE 12TH OF OCTOBER, AFTER A POST-IT NOTES WORKSHOP CALLED "EDUCATION AND COLLABORATIVE SPACES"

Collaborative spaces like PSL-Lab in Paris, Electrolab in Nanterre or Betahaus in Berlin are both offering new learning processes but in complete different ways. On one hand, PSL-Lab is a multi-disciplinary nexus of universities focused on the specific subject of student entrepreneurship, even if they have no lecture courses or event if they never go to the building "university". On the other hand, Electrolab has volunteers teaching volunteers specific skills they require, like how to use a 3-D printer. There, people are simultaneously makers, learners, and teachers.

CONTROVERSY 8: COLLABORATIVE SPACES AND RURALITY, ENCOURAGING IMPLICITLY A STATE WITHDRAWAL FROM EDUCATIONAL ISSUES?

The question of education in rural areas and within small-sized cities is an important topic for public policy. While inhabitants of major cities consider moving to a more rural environment in search for a better quality of life, governments are reducing their investment in these areas and focusing financial, economic, and political effort in big cities or clusters of medium-sized cities. As an illustration, many public services such as hospitals, tax offices, post offices, are being cut in less populated areas and transferred to regional capitals.

Collaborative spaces represent an interesting opportunity on this matter: those located in cities provided inhabitants from rural areas with an office and a space to meet customers and suppliers when they commute ; those located in rural areas offer similar services, as well as high-speed Internet connections and a connection to a network of workers and entrepreneurs. They therefore represent an interesting leverage to stimulate innovation, entrepreneurship and learning in these areas. A good example of this is La Mutinerie Village, a co-living/co-working space located in a very rural department of France, which is the twin site to the very urban Mutinerie in the heart of Paris. The question of whether collaborative spaces represent an opportunity for governments to engage in their mission of supporting rural areas, or on the contrary to withdraw from this engagement, remains unanswered so far.

The importance of public policies on this subject appears crucial. The first aspect of this policy is to consider the notion of scale: should collaborative spaces be supported in large regional capitals? In medium-size "hub-cities"? In small, local, towns? The second aspect deals with the notion of access and mobility: should members of these collaborative communities be supported in their mobility towards the spaces? Or should these spaces be designed to be mobile and thus as "touring

spaces"? Finally, a third aspect regards exchanges between rural and urban territories: could collaborative spaces help bridge the gap between these two worlds? In a time when traditional activities such as agriculture require more and more digital innovation, could rural collaborative spaces help foster creativity and learning?

Vignette 1: Liberté Living Lab in Paris, a place for work, experimentation, and sharing

"We are creating a hybrid space between "social" and "business" logics. The lab of a new economy. We want to bring extraordinary people seized by the urgency to innovate and transmit. The most visionary change-makers, entrepreneurs, intrapreneurs, researchers, artists, children ... We want to invent, to share, to impact, to contribute to the emergence of a new world. We want now what does not exist yet."

Liberté Living Lab (LLL) is a new collaborative space founded by Marylène Vicari and Jerome Richez. It is an innovative concept which aims to be a multidisciplinary, multicultural, and inter-generational place: a "Social Valley" inspired by "Silicon Valley". Its purpose is to detect, accelerate, aggregate, and relate projects with strong stakes of common goods, from NGOs to start-ups to large businesses to researchers to students to institutions. Open 24/7, the building hosts, following a gift/counter-gift dynamic, 200 French and international residents, and events open to the public, even children and teens.

One of LLL's major topics is #edtech. For our tour, we had been welcomed by Audrey Jarre, in charge of Education projects at Liberté Living Lab and co-founder of the EdTech World Tour. One of the program goals for children is social inclusiveness which means finding a space / time / reason to bring new audiences in a space like LLL and to enable them to benefit from it. The goal is to offer something that allows the empowerment of children and teens and to discover the issues they are working on at LLL. The first program of the school is addressed to teens from 13 to 18 years old.

2.2 COLLABORATIVE SPACES IN HIGHER EDUCATION

Discussions during RGCS seminars and workshops have also highlighted the issue of collaborative spaces in education. Increasingly, universities, business schools, art institutes, etc. have their own labs and try to adopt the practices of collaborative communities.

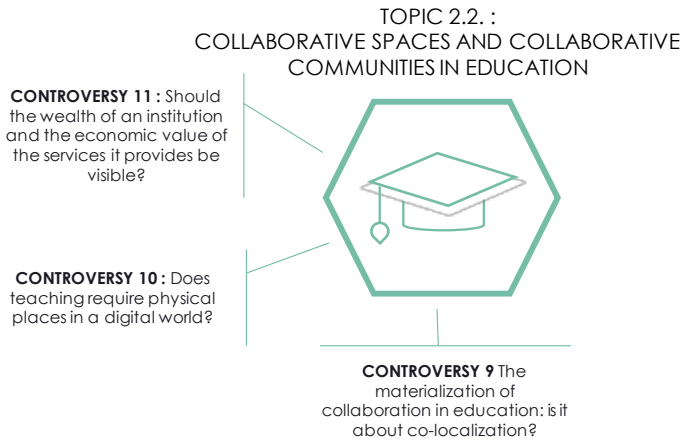

FIGURE 15 : CONTROVERSIES RELATED TO SUB-TOPIC 2.2. (TOPIC 2: EDUCATION)

CONTROVERSY 9: THE MATERIALIZATION OF COLLABORATION IN EDUCATION: IS IT ABOUT CO-LOCALIZATION?

The concept of collaboration has become an organizational principle in European higher education and research systems since the early 2000 with the Bologna Treaty. Its aim is to develop public policy in order to make European higher education institutions competitive at the global level. The result is the standardization of European higher education and research systems.

The nature of collaboration, though, is not clear. Words such as "collaboration" or "cooperation" are used at a political level to justify public policy around the reorganization of higher education and research systems.

Is collaboration about federating knowledge from different disciplines in order to propose new kinds of knowledge? Is collaboration about making research teams work together? Or is it at an institutional level in order to be render more competitive and visible?

Space has been used as a tool to materialize the idea of collaboration. The concept of the campus as a physical and tangible entity is used worldwide in order to legitimize public policies.

The campus and its derived concepts such as « tech city », « cluster », « hubs », etc. are used to advocate the paradigm that co-localization fosters collaboration. Meanwhile, some universities and business schools are choosing a model of a cross-border multi campuses (e.g. Paris-Dauphine University, ESCP Europe or INSEAD). Thus, the same institution is setting up shops in several territories in order to generate collaboration with established businesses.

Provided this context, is being far from each other promoting research collaboration or is it an obstacle? The controversy is to question whether collaborative spaces can help attaint the goals of contemporary public policy in higher education and research?

CONTROVERSY 10: DOES TEACHING REQUIRE PHYSICAL PLACES IN A DIGITAL WORLD?

The digital revolution contributes to the emergence a new immaterial world where information, activities, work, and educational practices as we knew them are challenged. Teaching and learning become increasingly digital, via e-learning platforms, MOOCS, serious games, and virtual classrooms. This move represents an attempt to create new forms of learning, but also a strategy to capture a worldwide market of potential fee-paying students and, finally, a way to reduce costs.

Yet, collaborative spaces challenge the assumption that communities can be entirely dissociated from space, and that learning can take place without face-to-face encounters (see also controversy 1 on this issue). Indeed, despite relying heavily on information technologies to coordinate and cooperate, members of coworking communities underline the importance of physical co-presence and engagement in recurring interactions. Face-to-face encounters, because they imply a certain amount of serendipity, are perceived as a way to stimulate both learning and innovation.

Even if universities continue to invest in the construction of new campuses and buildings, they rarely address the controversy which lies at the heart of this tension between physical and digital spaces.

From a public policy point of view, this controversy raises the question of the instrumentalization of public policy in order to design new forms of higher education. The symbolic factor of new spaces is important to define the message of such a public policy. Architecture has always had a symbolic significance due to its visible and permanent characteristics. In this

context, from a decision-making point of view, the controversy is whether the construction of new spaces in order to materialize innovative education is justified or not?

Vignette 2: The Rolex Learning Center in Lausanne

The design of the Rolex Learning Center as a new form of library for the Ecole Polytechnique Fédérale in Lausanne is a good example of a collaborative space in education. This new type of library is a large open space combining several functions: intellectual resources, learning spaces, restaurants, conference spaces, rest areas, etc.

This new building raises issues about design practices, financing methods, educational innovation, uses, etc.

Although this new building was financed by public funds (50%) and privately (50%), it was a well-executed marketing operation for one of the smaller private contributors - Rolex Corporation. The company managed to ensure the building would be named after it.

Although this building was meant to rethink educative methodology and library services, the result is more of a symbolic architecture in order to give the institution a new viability.

The Rolex Learning Center became a new public space open to several kinds of populations (students, citizens, etc.). The building is open 24/7 and new functions and uses has been developed (visits of the building as a cultural attraction, parties and events, working space for citizens, etc.)

The Rolex Learning Center is a very good example of a case where the paradigm of

CONTROVERSY 11: SHOULD THE WEALTH OF AN INSTITUTION AND THE ECONOMIC VALUE OF THE SERVICES IT PROVIDES BE VISIBLE?

There are managerial fashions, and there are architectural fashions. On this matter, the question of whether collaborative spaces are legitimate innovation…

As mentioned earlier, universities are still investing massively in their physical infrastructures be it in real estate or on campus redesign and expansion. These investments constitute an opportunity to rethink what educational spaces are all about and what they stand for. For centuries, universities buildings have represented open environments for potential learners, as well as safe havens for citizens. Based on this conception, education is a public good. It cannot be the property of someone or something. It cannot be congealed, grounded, rooted into the place and its materiality. It can neither appear as something commodified by space. Knowledge simply flows, and its value is beyond any monetary value.

Yet in the context of a for-profit space, knowledge comes at a price. People choose a specific space among others, in order to access the specific form of knowledge that it provides. The value that they attribute to the knowledge is not only related to the knowledge itself, but to the environment where it is made accessible.

Educational spaces are often stuck in the middle of two different institutional logics. The first one is very open and collaborative: by nature, educational facilities are part of a broader social movement; the second logic is more market-driven, and requires

investment in goods and services which will make the collaborative space attractive.

Finding the balance between the two logics is challenging. As mentioned by some of the interviewed managers of collaborative spaces, a significant investment by owners in the layout of the space (i.e. display of products and goods which are not brought or made by members themselves) can actually be perceived as a lack of true collaborative culture in the space.

This tension is visible in the higher education and research system, due to the European and global drive towards standardization. Facing new global competition has led institutions to develop new strategies. One of them is to be more visible. In order to do so, space (along with logos and mission statements) can be used as a symbolic tool to embody the values and ambition of the organization.

This controversy questions the efficiency and the legitimacy of materializing educational values and missions through architectural symbols and office designs. This questioning relates to the status of education nowadays, as a public service or as a business. The case of the Rolex Learning Center is interesting on this matter: here, the idea to design and construct this new type of library was more decided on concern for increased visibility (through an iconic architecture in the middle of the campus) than for innovative education.

In this perspective, collaborative spaces could serve the objectives of visibility of an institution or an organization. From a public policy point of view, this raises the issue of how public actors should contribute to funding such projects. The sole symbolic power of these new spaces should not be sufficient to justify their usefulness, when much can come from the collaboration potential that they can generate.

TOPIC 3: BUSINESS MODELS AND THEIR COMMUNICATION IN THE CONTEXT OF COLLABORATIVE SPACES AND COLLABORATIVE COMMUNITIES[18]

Business models of collaborative communities and collaborative spaces are full of paradoxes with regards to their communication and strategic practices. At their heart, collaborative spaces are match-makers between individuals or solution providers and they often play with a very abstract and immaterial promise: mutual help, community (with the recurrent statement "you will join a community"), gift and counter-gift: that is the direct and indirect reciprocity that online communities are known for (Faraj and Johnson, 2011). Interestingly, these are activities members themselves need to perform and contribute to value co-creation processes. Frequently, a collaborative space is a "meta-organization" (Ahrne and Brunson, 2008; Gulati, Puranam and Tushman, 2012), an organization hosting independent individuals and other organizations with no real control over them. How are all these heterogeneous actors and projects integrated into processes of value creation and value capturing, that is a business model? How can it become legitimate to customers and future customers and sustainable? What are the kind of events and experiences to provide? During our workshops, we identified several controversies which condense and polarize the discussions and debates around business models, collaborative spaces and their communication.

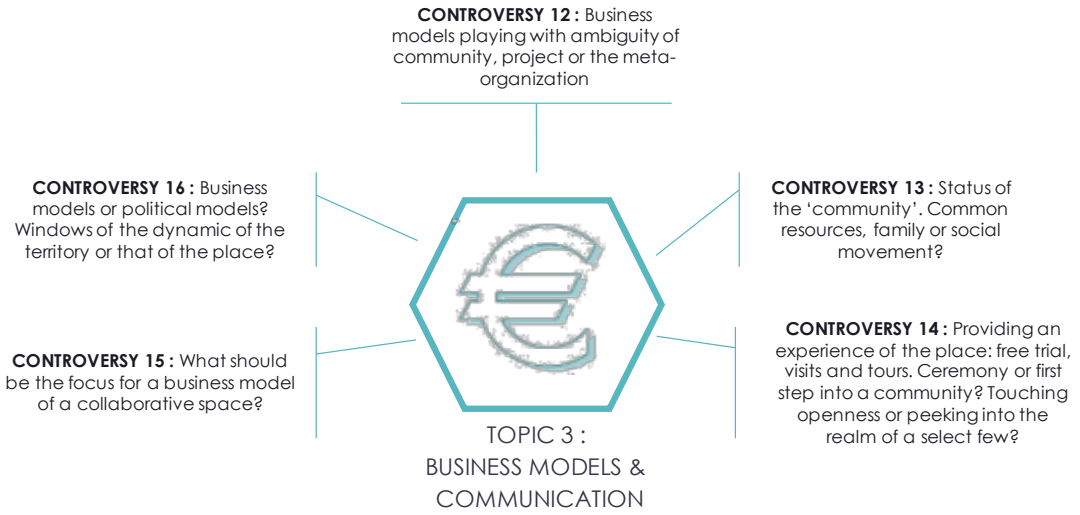

Figure 16: CONTROVERSIES RELATED TO TOPIC 3

CONTROVERSY 12: BUSINESS MODELS PLAYING WITH AMBIGUITY OF COMMUNITY, PROJECT OR THE META-ORGANIZATION

Collaborative communities may want to maintain an ambiguity about what they are, what their activities, projects, and communities mean for customers and public stakeholders. Many spaces we met were both 'makers', 'coworkers', 'fabbers', 'incubators', 'learning hubs' and more and included various sub-places related to these different identities or a flexible space likely to be enacted in different ways depending on who they wanted to convince or serve. Firstly, this makes it possible to mix a diversity of profiles (entrepreneurs and makers, employees and entrepreneurs, intrapreneurs and entrepreneurs…), which fosters innovation and mutual help. If everybody shared the same knowledge this would not represent an incentive for sharing. Lastly, collaborative spaces tend to be in the business of capturing subsidies and public support and retain flexibility in signaling

[18] Topic coordinated by François-Xavier de Vaujany and Stefan Haefliger.

scope and adopting novel practices that become in vogue.

An ambiguity about the role that the community plays in the engagement with customers and among customers who interact with each other rests partly on two other central elements of uncertainty: about the projects and the nature of the meta-organization. The two sources of ambiguity translate into various and vastly different use of space, see the following matrix. The ambiguity of the project refers to the nature of tasks and goals that emerge in collaboration. The ambiguity of the meta-organization refers to the type of structure that constitutes the organization of collaboration, which can range from a loose association of firms and entrepreneurs and individuals all the way to an incorporated association or firm that spells out rights and obligations and the governance of its members. Combined, the nature of the project and the type of organization impact on the existence or absence of a community that persists and, as found in studies of open source software development, can inspire motivation and identity as a social practice. The challenges to the business model of the collaborative space are significant and the impact on physical spaces deserves much more attention in research and practice (***see table 3***).

		AMBIGUITY OF THE META-ORANIZATION	
		LOW	**HIGH**
AMBIGUITY OF THE PROJECTS	**LOW**	Meta-organization and hosts overlap. Example: corporate coworking space, an incubator?	Entrepreneurs and projects will be a steady landmark for external stakeholder. The business model of the meta-organization will be influenced by that of the hosts. Example: a mutualized collaborative space (between different companies)
	HIGH	Meta-organization offers a set of stable resources and facilities. Example: a hackerspace	Extremely loosely coupled system of communication. The place is not perceived as something coherent (it is not a 'space'). It is a liminal space. Projects are not really selected. Example: real estate coworking?

TABLE 3: FOUR CONTEXTS FOR META-ORGANIZATIONS

CONTROVERSY 13: STATUS OF THE 'COMMUNITY'. COMMON RESOURCES, FAMILY OR SOCIAL MOVEMENT?

The word 'community' is used in numerous ways whatever the context (city, kind of space…) to refer to a physical or social space, common facilities, people sharing values, a social movement broader than the space and so forth (see also controversy 3 on this issue). Community lies at the heart of most business models of collaborative spaces and its use and practice is highly strategic. Mutual help, gifts and counter-gifts are very important. For some actors (e.g. Trampery in London), building a community is (becoming) a key goal and they approach community via the idea of shared interests or even an industry focus. For others, it is more anecdotal. Accessing facilities, a good location in the city and interesting events to

network is the key context. This practice is epitomized by WeWork, Impact Hub and many coworking spaces or maker spaces that experience high member turnover.

For some places, community is something very strong, beyond local ties and locally shared values (***see picture 5***). Community may be grounded in a bigger social movement whose members meet in the context of giant hackathons or fairs. This is the case of some hacker spaces (e.g. C-Base or the CCC) or maker spaces. Their members are connected through bonds stronger than those the local space and its management could offer. They can move from one space to another and "still feel at home" as a hacker confessed to us.

PICTURE 5: A COLLABORATIVE SPACE IN SAN FRANCISCO STRESSING THE RHETORIC OF 'COMMUNITY' AND 'TRIBE'[19]

CONTROVERSY 14: PROVIDING AN EXPERIENCE OF THE PLACE: FREE TRIAL, VISITS AND TOURS. CEREMONY OR FIRST STEP INTO A COMMUNITY? TOUCHING OPENNESS OR PEEKING INTO THE REALM OF A SELECT FEW?

How to organize the first experiences of a collaborative place? The question quickly leads to important and controversial discussions: particularly in big cities, describing the services of a collaborative space is difficult. It is immaterial, distributed in time and space, and often we visited empty spaces with a guide telling us what was happening there during other times of the day. Are we witnessing a sales pitch for an office subscription or an invitation into a club or even a reverse application and an attempt at hiring new members? Depending on the nature of the community, joining scripts vary and may be lengthy and complex undertakings both for the community and for the applicant (von Krogh, Spaeth, and Lakhani, 2003).

Visits and tours represent important times and spaces to materialize the services, values and 'communities' on offer, as it were. They are a tool, more or less improvised. Sometimes (e.g. with Betahaus) it turns out to be a (necessary) ritual, as the space is fully booked, successful, and not looking for new members. Tours are, thus, both opportunities to sell and to smell: a recruitment process is always bilateral and information asymmetries need to be surmounted and personal ties created (see figure below). A tour can be rather anonymous or take place on a Sunday and become personal and intimate, as experienced in a hacker space in Amsterdam.

[19] http://www.showupmakespace.com/

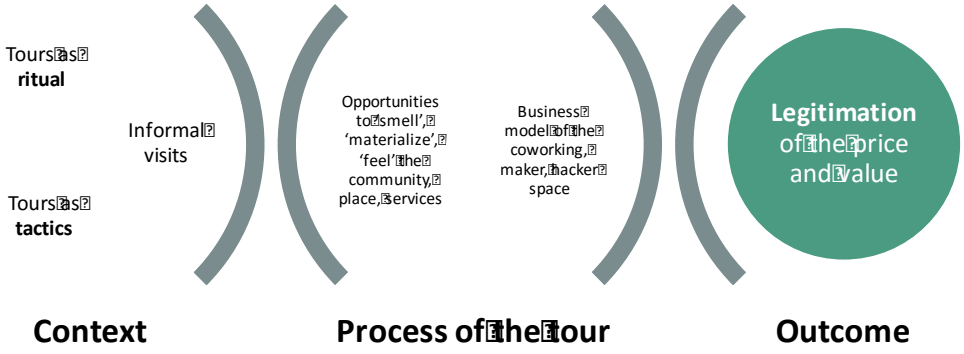

FIGURE 17 : THE PROCESS OF THE TOUR AND VISITS AS PART OF THE LEGITIMATION PROCESS OF THE PRICE OF COWORKING, MAKER AND HACKER SPACES

CONTROVERSY 15: WHAT SHOULD BE THE FOCUS OF THE BUSINESS MODEL OF A COLLABORATIVE SPACE?

Business models articulate value creation and value capturing in a reduced form to allow managers to think and design the customer interfaces. Before implementing the model in everyday life, designing a business model implies answering a fundamental set of four questions: who is the customer? How are the customers engaged? How is the value chain coordinated? And how does monetization happen? (Baden-Fuller and Haefliger, 2013). In a collaborative space, depending on the strength and role that the community plays, the business model may be simply a service to an individual who uses an office or it may enact a matchmaking between different parties of the community, between co-workers who meet and co-create.

In some cases a social movement inspires the collaborative space and the interactions occurring in that space so that the business model might need to accommodate and simplify given certain restrictions: the Free software movement builds on the conviction that software needs to be open and available to anyone, which usually translates into limited possibilities to sell software itself and rather monetize using related services such as training or customizations. The movement organizes its space on a volunteer basis and business may be relegated to certain roles that serves the movement without undermining its core values. For a service business that monetizes on the use of office space, such as WeWork, the notion of a movement does not apply or conflict with business.

A collaborative space can instill a movement and a sense of belonging if and because it is driven by a mission or a shared understanding about why the space and joint effort matters. A historic building and its protection as part of a collaborative project may be such a reason or a shared take on industry dynamics such as the role of architects in the current construction industry and so forth. The anecdote with the coffee, below, or a reserved seat kept (and paid for) by a member who no longer finds time to spend time in the collaborative space testify to the sense of belonging that an organizational culture can create. Business models can leverage such cultural depth and they can also be designed to create an illusion of cultural values just to lure customers into a service agreement that otherwise appears dry and lacking passion. The notion of "sharewashing" has been used to describe business models in search of spirit of sharing when in fact their logic is simple and not dependent on anything being shared.

Vignette 3: a coffee machine in Singapore

During the visit of a coworking space in Singapore, our guide stops in front of a coffee machine. He shows us coffee beans. Proudly, he tells us that they are provided by a former member of the community who left one year ago. The beans originate from a sustainable production source according to the guide. A flyer close to the coffee machine provides more information about the producer and website. Once they leave, former members remain part of the community. Beyond business and rental of a space, people here share some values. In short, collaboration occurs in space, but also in time…in the context of a community which is likely to go far beyond the business model.

CONTROVERSY 16: BUSINESS MODELS OR POLITICAL MODELS? WINDOWS ON THE DYNAMIC OF THE TERRITORY OR THAT OF THE PLACE?

This last controversy is more specific to public policies and their relationships with business models of collaborative spaces. A maker space, a hacker space, or a fab lab is also a major lever for politicians. It is a way to foster the emergence of a place which will condense the knowhow, techniques, production, and art of a broader territory.

It is a way to make it visible. And visiting it with media makes it all the more striking. But is this approach of a territory coherent with the search of true innovative potential? In this case, collaborative spaces may be more transitional place, offering mobile tools (also likely to be brought at home or in the context of companies), and digital infrastructures difficult to show or even explain…

Vignette 4: Showing a place as showing the whole territory

The 20th of October, the major of Nanterre (close to Paris in France) showed the Electrolab (a maker space) to the Prefect and other industrial actors of the area. Through tools, facilities, and described activities, it was also a way to describe the dynamic of a territory (Nanterre).

PICTURE 6: URBAN NATION IN BERLIN *(source: the coordinators of the white paper)*

TOPIC 4: COLLABORATIVE SPACES AND THEIR ROLES IN INNOVATION AND ENTREPRENEURIAL DYNAMICS AT THE LEVEL OF THE CITY[20]

Innovation remains a key stake for companies and the cities hosting them. Entrepreneurship and intrapreneurship are also a key, congruent, stake for cities and companies. More and more, independent or corporate collaborative spaces appear as major levers for re-generating innovation potential (e.g. with open innovation). They are also (and more subtly) ways to reformulate the question of sustainable development and sustainable innovation in a context where the ethical city is more likely to manifest itself (rather than in the context of bounded, isolated, 'business districts', or 'corporate campuses'). Collaborative spaces can be opportunities for 'true' sustainable strategies, genuinely shared by occupants of the space, while traditional corporate environments constrain these opportunities. As such, collaborative spaces have a key role to play in innovation, and have demonstrated their potential as levers to stimulate not only entrepreneurship, but also social entrepreneurship. Nonetheless, this potential is also a source of tensions and paradoxes: for whom these spaces are innovating, themselves as organizations, or for their members? Who should reap the fruits of their innovative practices, the larger collaborative movement in a region, the local community, all actors interested in developing new and better ways of collaborating – or themselves? Collaborative spaces potential in terms of innovation is multifaceted, and this character may translate in dilemmas for these organizations.

The following controversies are grounded in observation and experience of the ecosystem in Greater Montreal area. We will compare this situation with that of other mega-cities in the world.

The Montreal context for collaborative spaces exhibits many of the characteristics of other chapters, while presenting its own specificities. Mainly, the collaborative spaces scene in Montreal is relatively young[21], and still in its emergence phase: the field lacks structure and is not institutionalized. The field is characterized by a high birth rate of new organizations, most of which are still experimenting when it comes to their organizational forms, their business models, their practices, etc. The scene is hence fragmented, and initiatives to federate collaborative spaces are also in their early days. At the same time – and not unusual in the emergence phase of a new phenomenon – at the governmental level (at the level of the city and the province), there is scant awareness of collaborative spaces and what they can bring. This creates a still fragmented landscape with limited synergies between the various actors, including government. From this peculiar environment stem the following controversies.

[20] Topic coordinated by Viviane Sergi, Annie Camus, and Anouk Mukherjee.
[21] At least compared with Berlin, New York, and Barcelona.

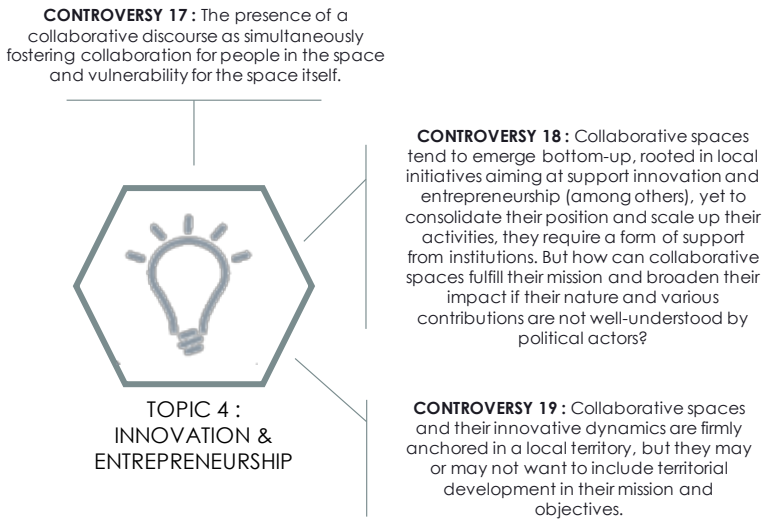

FIGURE 18 : CONTROVERSIES RELATED TO TOPIC 4

CONTROVERSY 17: THE PRESENCE OF A COLLABORATIVE DISCOURSE AS SIMULTANEOUSLY FOSTERING COLLABORATION FOR PEOPLE IN THE SPACE AND VULNERABILITY FOR THE SPACE ITSELF

Is the collaboration discourse leading to an obligation of collaboration at all levels and with all actors, even putting at risk the survival of collaborative spaces? Should collaborative spaces cooperate between themselves or is assuring their individual survival and maintenance the best way to support innovation and entrepreneurship?

Many collaborative spaces have been founded on strong collective values, which are especially at the forefront of the collaborative spaces dedicated to social entrepreneurship and social innovation. These values constitute a pull towards these spaces. Yet, as this has been seen in many instances – for example, in some collaborative spaces in Montréal – these spaces can find themselves in difficult circumstances, especially if they are relatively young. While they promote and try to embody, daily, a collective, community discourse, these spaces struggle in finding ways to fund their mission and activities. Their mission – and the people they are trying to reach – may not all be oriented toward profit generation, yet they need these resources to be able to fulfill their mission. For some collaborative spaces, acting in this direction puts them at odds with their mission and their commitment to certain values; given this commitment, these organization often end up in difficult financial situations, making them more vulnerable which, in the long run, threatens their survival. This tension is particularly problematic as numerous collaborative spaces are clearly putting sustainable practices at the heart of what they do, hence offering a demonstration of their relevance and their impact; hence, the vulnerability of these organizations also represents a problem for the broader movement towards sustainability. In other words, the mission of most collaborative spaces (excluding large corporations like WeWork and traditional organizations that transform part of their space into coworking spaces, for example) and their attachment to community can simultaneously catalyze and curb their survival and growth. London's situation is probably different (with a territory deeply grounded in global finance) and a broader process of gentrification. In contrast, Paris or Berlin situations are probably closer. We invite academics and political institutions to explore further this comparison.

CONTROVERSY 18: COLLABORATIVE SPACES TEND TO EMERGE BOTTOM-UP, ROOTED IN LOCAL INITIATIVES AIMING AT SUPPORT INNOVATION AND ENTREPRENEURSHIP (AMONG OTHERS)

How to combine top-down, institutional recognition, and support with bottom-up emergence while protecting the inventiveness that characterizes many collaborative spaces? Although this reality varies depending on the region and the country, this tension seems to be at the forefront. The push towards entrepreneurship at a societal level may lead individuals towards collaborative spaces, but governmental policymakers may not fully recognize how important these spaces are to sustain entrepreneurial ventures. We therefore consider that it is important to highlight that governmental policymakers need to better recognize how uniquely collaborative spaces enable and sustain entrepreneurial ventures, and how they encourage a networking that can lead to the birth of new ventures. Everything that is offered and made accessible by these spaces (ranging from sophisticated equipment to learning opportunities) contributes to sustaining budding entrepreneurs and start-ups. For example, in Quebec, programs designed for entrepreneurs are in generous supply, however, programs for collaborative spaces remain rare. In this sense, governmental policymakers should be aware that encouraging entrepreneurship also includes supporting the organizations devoted to shoulder entrepreneurial initiatives, be they traditional or social initiatives. Entrepreneurship and innovation may now be playing a key part in cities' development strategies, but it is time to better recognize what is needed, what happens and what is done at the level between city and individual entrepreneurs that collaborative spaces may represent.

At the same time, this recognition must be accompanied by a clear understanding of the collaborative spaces' specific nature. If such a political recognition translates into programs, these programs should be designed in a way that preserves the potential for emergence and serendipity that stems from the nature and functioning of these spaces. Moreover, policymakers should also recognize that collaborative spaces, as new forms of organization, can also be a source of innovation in terms of practices. As the general interest for new uses of organizational space grows, leading to the emergence of new collaborative spaces but also to experimentation on the part of traditional organizations, it would be important to not lose sight of the innovative practices in terms of organizing and managing that are being developed. Hence, policymakers' recognition should not be limited to the spaces themselves, but should extend to innovation in terms of management and work organization that are developed and proposed in these spaces, as these could be.

Moreover, given the growing interest in collaborative spaces, these spaces can do more than drive entrepreneurship and innovation: they can represent an opportunity for cities to showcase their inventiveness, to shine the spotlight on the knowledge, skills, and facilities developed by innovators and entrepreneurs in the city. Hence, better recognition of what these spaces bring about could also reverberate on the cities themselves. Berlin or Barcelona's public policies are probably already going in that direction.

CONTROVERSY 19: COLLABORATIVE SPACES AND THEIR INNOVATIVE DYNAMICS ARE FIRMLY ANCHORED IN A LOCAL TERRITORY, BUT THEY MAY OR MAY NOT WANT TO INCLUDE TERRITORIAL DEVELOPMENT IN THEIR MISSION AND OBJECTIVES

Are collaborative spaces contributing to building the territorial identity or strengthening the social fabric, or are they leading territorial development? Is territorial development as an externality or a formal objective of collaborative spaces? How to open collaborative spaces to their local territory, while insuring a protection of what happens inside their walls? Also, there is a question of territorial development skills.

Does being a collaborative space make you a competent and skilled organization for doing territorial development?

Collaborative spaces are generally grounded in their local territory (city, neighborhood), celebrating this anchoring (see figure below). How to move from local embeddedness (see e.g. ECTO in Montreal) to more global relationship with the city, a platform logic (close to the case of C-Base in Berlin)?[22]

FIGURE 19 : FROM THE LOGIC OF ECTO TO THAT OF C-BASE AND FRAMASOFT?

Moreover, a number of collaborative spaces makes it part of their objectives to not only contribute to their local community, but to innovate for this collectivity. For example, some coworking spaces in Montreal define themselves as more than spaces, resources, and networks for the people 'who belong to them', they also pursue projects and initiatives, often social ones, aimed at reinvigorating their locality, or at addressing issues faced with the collectivity living around them (such as social isolation or poverty).

Collaborative spaces can thus have a larger impact in their broader milieu, and most of them have, given the definition of what these spaces are, this potential. However, this potential can generate a tension for collaborative spaces: where should they position the relationship they have with their local territory in their mission, objectives and activities? As a central concern driving what they do, or as a secondary effect of their activity?

[22] We will come back to this important issue with our first proposition about infrastructures and infra-organizations.

CONCLUSION: AN INCREDIBLE TWO-YEAR JOURNEY, AN ONGOING ADVENTURE?

This final version of our White Paper is a major milestone in an amazing journey which started almost two years ago. The seven propositions we offer here are also representative of an atmosphere amongst participants: innovative, friendly, sharing-oriented, creative, and fun.

Infra-organizations, an "inclusive lab label" (awarded by collaborative communities themselves), renewed academic presence in the city, ephemeral labs, "open open" innovation, and global infrastructure for coworking are directions we see as particularly promising in addressing the tensions, paradoxes, and stakes elucidated by our controversies.

For some of them (involving the academic world which is particularly present in RGCS network), we believe that coordinators and contributors can be true actors. For others, we hope they will find an audience both for policy-makers, strategists, and most of all, the entrepreneurs-citizens-makers who are and will be increasingly at the heart of our world. For the best we hope.

Following our general questions and exploratory propositions, let's collaborate now to study, experiment, transform the city to co-produce harmony in the emerging new ways of working and ways of living stressed by our research.

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APPENDIX 1

1. Specific workshops organized to elaborate version Omega of this White Paper: When? Where?

RGCS CHAPTERS	DATES
PARIS	12th of October (Labo de l'Edition), 3rd of November (Mixer), 30th of November (Université PSL and coordination at Université Paris-Dauphine just before).
LONDON	20th (Maison de France) and 21st of October (Maison de France and meeting at Cass Business School between coordinators of topic 3)
MONTREAL	3rd of November (UQAM), 1st of December (UQAM)

2. Organization of the workshops: How?

To elaborate the final version of our White Paper, we organized creativity workshops in three chapters of RGCS (Paris, London, and Montreal). People were either asked to react to the emerging set of controversies (e.g. the 22 controversies identified based on the memo of 2015 and 2016 seminars and workshops), or were directly involved in general discussions about one of the four topics selected for this White Paper (Education, Communication, Innovation and Space).

The workshops were divided into two key phases:

a) Small group discussions

Workshops relied on sub-groups (3-5 persons) around 3-5 small tables [23] for preliminary discussions. Post-its, vignettes and short summaries by a group-delegate were used to render the results of the discussions as visual as possible. Post-its were stuck on the walls of the meeting room or the lab. They helped to have a broad view of each discussion. People could look at them and discuss in front of the wall.

In the meantime, coordinators of the workshop tried to identify new or refined controversies which emerged during discussions at each table.

b) Collective discussions

Coordinators (or moderators) try so summarize key aspects the discussion, and suggest controversies they have identified. People react. This second phase is also interesting in terms of generating material for the second part of the White Paper (questions, challenges and recommendations for public policies and strategies).

The results (notes and other material) of the workshop is condensed and used as the starting point of the next event.

Please see below illustrations of the workshop we organized in Paris at the Labo de l'Edition which gathered 23 people in Paris on the 12th of October 2016.

[23] When possible. Otherwise we simply used the space as it was (each small group in the corners of the room).

NOTES

Research Group Collaborative Spaces