A Hackerspace of One's Own Feminist Social justice oriented hackerspaces

Introduction:

This case study focuses on the emergence of intersectional feminist, queer and trans inclusive hackerspaces in the United States. It highlights a new breed of hackerspaces that has seen new spaces of hacking open up, particularly on the west coast of the United States in 2012-2013. These new hackerspaces are significant as they seem to set a clear vision as to how to redefine hackerspaces according to intersectional feminist and social justice principles.

Feminist hacker-maker-geek initiatives whether physically or virtually have existed in the USA and elsewhere under different shapes and forms for more than a decade now. The rapid spread of hackerspaces in North America, and the ensuing feminist and post-colonial non-scholarly critics of them, has seen an increased interest and desire from intersectional feminist to rethink the concept of openness at the core of their projects. The best known cases of intersectional feminist and/or people of color-led hackerspaces are with Miss Despoinas Critical Engineering Space in Tasmania (created in 2008), Mz Baltazar's Laboratory in Vienna (2008-2009), Liberating Ourselves Locally in Oakland (2012), Mothership Hackermoms in Berkley (2012), Seattle Attic in Seattle (2013), Flux in Portland (2013) and Double Union in San Francisco (2013).

The hackers, makers and geeks that are spearheading these projects foreground unique and somewhat varying feminist ideologies, which deserve attention. The social, cultural and political environment that surrounds them as technologists, in addition to the spaces they envisage for themselves and their communities influence their praxis and the principles they put forth. While some of the social and cultural hacker artifacts, mythology and some element of the hacker "culture" remain crucial to their subjectivities and the embodiment of the spaces they create, the intersectional feminist ideology that they embrace set them apart from others spaces.

This article will delve into the very specific material manifestation of intersectional

feminist "hacker-geek-maker" culture through the creation of intersectional feminist hackerspaces. An extensive and expansive feminist geek virtual world exists that has helped connect intersectional feminists hackers-makers and geeks together, but until recently few permanent spaces where dedicated to the material manifestation of such culture. This speaks volume to the importance of the In real Life (IRL) meetings for hacker-maker-geeks well-being, inspiration and community as highlighted by Gabriella Coleman (2010) in an article entitled Hacking In-Person: The Ritual Character of Conferences and the Distillation of a Life-World. Though in the past, feminist hackers-makers and geeks could meet virtually (via Internet Relay Chat (IRC), twitter or the geek feminism wiki and blog), at conferences (WisCon, Ada Camps, etc.) or through groups such as LinuxChix, Lady Py, Girl Geek Dinners, etc., permanent and more public spaces attuned to intersectional feminist principles were largely inexistent.

In this article, I will argue that the creation of intersectional feminist hackerspaces is no less than a physical manifestation of a vibrant intersectional feminist hacker-maker-geek culture. Moreover, these local manifestations help refine what intersectional feminist hacker-maker-geek culture means, in turn attracting people who would not have otherwise gone to traditional hackerspaces, but who do share an intersectional feminist ethos. All and all, I will argue that this physical manifestation is about the synthesis of two traditions: that of the feminist culture and of the hacker-maker-geek culture. The fact that many discussions are happening in a variety of cities throughout the USA to build more of these new hackerspaces attuned to intersectional feminist and social justice principles speaks volume to the necessity of and excitement around such spaces.

This case study aims to better understand the ways in which intersectionality and feminism translate in those spaces of hacking. I will attempt to shed light on these new initiatives and highlight their significance for the larger hacker community. I will do so first through tracing a brief history of hackerspaces, then I will discuss the reasons why feminist and social justice spaces are emerging and finally, I will look at the ways in which intersectional feminism is being manifested in those spaces.

Research activities and methods:

Flux, Double Union and Seattle Attic are unique in the hackerspace scene as they

combine intersectional feminist principles with the very popular hackerspaces model. They represent my primary source of data. Other hacker- and maker-spaces such as Liberating Ourselves Locally or LOL (Oakland), Hackermoms (Berkeley), Miss Despoinas (Tasmania) or Mz Baltazar's Laboratory (Vienna) also fit into this new breed of hackerspaces and are included in the backdrop of this research. Feminist hackerspaces embrace somewhat similar principles sometimes focusing more on feminism, mothers, intersectionality or on people of color-led spaces. This research aims at giving a voice to those who have started these initiatives and highlight the reasons why they have decided it was necessary for them and their community to have such spaces. It is their perspectives that I am interested in. Hence, this study does not cover the ways in which non-feminist or more "outsiders" to this community react to such initiatives; it rather focuses on the voices of those who have been at the core of those spaces. Moreover, this article is my own contribution to such a movement that I see emerging, that in some ways I am part of, and which I strongly believe to contribute to social change and to the opening up of the hacker culture.

As an activist and independent researcher involved in the creation of a feminist hackerspace in Montreal, called FouFem (a.k.a FemHack), and a participant at Ada Camp 2012, I have been particularly interested by the new emergence of intersectional feminist hackerspaces. When I learnt via twitter and a few mailing lists of the emergence of such hackerspaces in the United States, I decided to investigate further. From November 2013 to January 2014, I conducted twelve semi-structured interviews with women, queer and self-identified women involved in intersectional feminist hackerspaces. The in-depth interviews lasted between 45 and 90 minutes. When reaching out to feminist hacker-maker-geek activists, I have always offered to use encrypted means of communication to ensure safety and confidentiality. Moreover, to ensure protection to my interviewees, I have anonymized all quotes in this article.

Though not all feminist hackerspaces, which are part of this study are women-only space (the understanding of the subject of feminism changes from space to space as we will see below) all the people interviewed do identify as women, queer or trans. The focus of this study is thus not on the dominant hacker "subject" or "culture", but rather focuses on the subjectivities of women, queer and trans people

whose experiences have too often been miss-understood, discredited and/or not taken into account in traditional hackerspaces. Using a feminist methodology to write this article also demonstrate that intersectional feminist issues (gender, sexual orientation, ethnicity, class, etc.) are crucial to understand the experiences of those who do not identify and/or fit in the larger hacker/hackerspace community. This article contributes to telling the history and experiences of women, queer and trans in the larger hacker-maker-geek community.

The intersectional feminist approach I use for this article ought to be put against the backdrop of my own positionality i.e. a white heterosexual *québécoise* woman from a middle class background. I fully acknowledge and recognize my own subjectivity and positionality in this research, which contribute to partial truth to the subject at hand. Finally, I believe that this research is of particular significance as few have been dedicated to examining feminist hacker experiences from a feminist perspective.

Brief History of Hackerspaces:

Hackerspaces are volunteer-run spaces where one can tinker with hardware, software or any other types of technology. Some write codes on their personal computers while others focus on soldering, play with Arduinos, hack their clothes, etc. Hackerspaces have existed for a long time in Europe, but are more recent in North America, at least in their more open public format. Private hackerspaces, such as L0pht in Boston and others have existed since the 1990s. But it is mostly after the year 2007 that hackerspaces started to mushroom in North America. This was in part triggered by a project spearheaded by The Hacker Foundation called Hackers on a Plane (HoaP), where technologists from North America went to visit hackerspaces in Europe and took part in the 2007 Chaos Computer Camp (CCC). The Chaos Computer Club (CCC) who organizes the camps is the largest association of hackers in Europe. A few months later, at the 24th Computer Chaos Congress (24C3), an event happening every year in Germany in late December, a panel on Building a Hackerspace was put together laying the ground for the most common form of hackerspaces, making it a model to follow. The following year at the 25C3 a panel on the international hackerspace movement took place where hackers from North America and Europe talked about their experiences with creating and

sustaining their hackerspaces. At that time the movement was going full blown in North America. As this hackerspace model came out of the CCC, most spaces that exist today have come to espouse libertarian principles, which Maxigas (2012) argues are the main sphere of influence around the German CCC. The popularity this model of hackerspaces has gained in the past few years has largely overshadowed the more political hacklabs located in social centers or squats present in certain European countries (For a Genealogy of hackerspaces and hacklabs read: Maxigas 2012). According to the hackerspaces.org web platform, which gives an inventory of hackerspaces around the world, the numbers surpass five hundreds. Hackerspaces can now be found in Seattle, Montreal, Guatemala city, Seoul, Barcelona and Nairobi, among many other cities.

Hackerspaces have overall attracted and retained very specific participants whether they are in the United States, Europe or elsewhere. Despite their attempt to be opened (they have for instance open nights on Tuesdays where *all* are welcome) and inclusive, hackerspaces in general have had a hard time attracting and/or retaining women, lesbian, gay, trans and queer (LGBTQ), gender non-conformists and people of color, among others. The reasons for this are multiple and generate a lot of discussions on mailing lists, Internet Relay Chat (IRC) or at conferences.

A brief history of intersectional feminist hackerspaces:

In the United States, intersectional feminist hackerspaces have a very different trajectory than traditional hackerspaces. The history of this movement is not only very recent it has very different roots. It came out not only as a reaction to sexual harassment, a feeling of not belonging and/or feeling unsafe, as understood broadly, an experience that is too common in traditional hackerspaces with intersectional feminist, queer and trans, but also and mostly of an affirmation of a vibrant culture that was until now more diffuse.

There is no definite point in time, where one can identify exactly when the spark to start intersectional feminist hackerspaces emerged, as many different trajectories and forces have led to their creation. Nonetheless, a two-fork feminist online project has been central to the rise of intersectional feminist hackerspaces. The geek feminism wiki (started in 2008) and blog (started in 2009) were projects on which intersectional feminist, queer and trans would contribute and help build an online

community based on the concept of participatory culture (Jenkins 2006). The recognition of the need of Intersectional feminist hackerspaces largely came out of such project, which over the years has built a digital resource for feminists and those who want to know more about feminism. This project was a form of consciousness raising 2.0 group, where one could share one's experience or report on another experience as a way to document instances of sexism, sexual harassment, discrimination, among others.¹ The geek feminism wiki and blog were projects that helped raise a red flag on sexual harassment at tech and open source conferences, topics which were rarely being discussed.

This two-fork online project would be very important for building a community of women, queer and trans around the issues of discrimination, violence and how to address them individually and collectively. The wiki and the blog were where many feminist geeks got to know each other. Many of today's administrators are some of the founding members of intersectional feminist hackerspaces. These hackerspaces are in some ways an extension of the wiki and blog project in that they reacted to something they had experienced or knew someone who had experienced it and crafted projects that would counter such reality.

Another trajectory with the creation of hackerspaces is with the creation of a feminist organization, named Ada Initiative, aimed at addressing issues of sexism, among others in the FLOSS and tech industry. Ada Initiative, which was found in 2011 has been crucial in the development of intersectional feminists, queer and trans inclusive hackerspaces. The non-profit supports women in producing codes of conduct and anti-harassment policies under the Creative Commons License for conferences, hackerspaces and other events. Such work followed a number of reports of groping, sexual assaults and other sexist incidents that happened at conferences and which were documented on the Geek Feminism Timeline discussed earlier. Many of the founders and advisors of Ada Initiative are also contributors to the geek feminism wiki and blog and are behind the creation of intersectional feminist hackerspaces.

One of the first activities Ada initiative organized was Ada Camps², a yearly

¹ The Geek Feminism Wiki Timeline of incidents can be accessible at: http://geekfeminism.wikia.com/index.php?title=Timeline of incidents.

² They had a first Ada camp in Australia (2011), then in Washington D.C. (2012) and finally

conference dedicated to increasing women's participation in open technology and culture where women were brought together to "build community, discuss issues women have in common across open technology and culture fields, and find ways to address them"³. Ada Initiative specifically positions itself as an intersectional social justice organization, which is open and friendly to women and gender non conformists:

The Ada Initiative welcomes women of all kinds, and specifically welcomes trans women and genderqueer women. We strive to be an intersectional social justice organization. ⁴

Around the same period, i.e. in 2011, a group of moms started to meet in each other's house and a few months later they started The Mothership Hackermoms, a feminist mom-centered hackerspace in Berkley, California. In the United States, Hackermoms are often recognized as being the first outright feminist hackerspace to emerge. During their kickstarter campaign in 2012 they highlighted:

We started our non-profit organization in April 2012 because traditional hackerspaces don't really have safe spaces for babies and young children or, consequently, their mothers.⁵

From there on, a succession of hackerspaces attuned to different ideologies would be created. In February 2012, Liberating Ourselves Locally (LOL), a people of colour led and gender balanced makerspace opened its doors in Oakland. LOL is anchored in a DIY culture and is attempting to push the boundaries of making:

[We work] for a future where members of our community can be involved in all aspects of creating things that sustain us, such as food, clothing, energy, technology, shelter, and art. ⁶

In 2013 a wave of intersectional feminist hackerspaces emerged. The first of three

one in San Francisco (2013).

³ Ada camp San Francisco: http://sf.adacamp.org/about-adacamp-san-francisco/

⁴ Ada Initiative: http://adainitiative.org/

⁵ Hackermoms Kickstarter Campaign:

https://www.kickstarter.com/projects/1569887044/mothership-hackermoms-the-first-womens-hackerspace

⁶ LOL: <u>http://oaklandmakerspace.wordpress.com/about/</u>

was Seattle Attic a community workshop (a.k.a hackerspace) based in Seattle. Let's now turn to where the aforementioned trajectories meet and led to a multiplication effect.

The multiplication effect:

During the 3rd Ada Camp, which happened in San Francisco in June 2013, Seattle Attic organized a presentation on how to build an intersectional feminist gueer and trans hackerspace. This presentation and the gathering of feminist, queer and gender non conformist helped crystalized a movement of feminist, queer and trans hackerspaces or what Seattle Attic call a community workshop (a concept which appears as less threatening and more anchored into community development) in the USA leading to the creation of Flux (Portland, Oregon) and Double Union (San Francisco, California). At present, discussions to open up new intersectional feminist hackerspaces are happening in Washington D.C. Chicago, Boston and others as a result of this gathering and presentation. In some ways, I could compare the Seattle Attic HowTo workshop to the presentation made at 24C3 that kicked off the movement of hackerpaces. A significant difference being with the numbers of attendees (Ada Camp gathers less than 200 participants) and Ada Camp runs under the Chatham House Rules, where very little record of the actual discussions are available in the public realm, pointing to the importance of making safe space for talking, debating, making and hacking.

Ada Camp has been instrumental in the development of intersectional feminist hackerspaces specifically and more broadly with the intersectional feminist hacker-maker-geek culture as it has provided a space for people who had commonalities in terms of ideology and identities. Moreover, the discussions happening at Ada Camp went beyond feminism 101 and why we need to consider feminism in today's world.

The Intersectional Feminist Queer and Trans (IFQT) focused hackerspaces:

The reasons for intersectional feminist hackerspaces to emerge are multiple and complex. Some feel more comfortable and less intimidated to join because of the explicit politics of making a space safer, having a code of conduct and mostly knowing that from the outset intersectional, feminist queer and trans principles are

foregrounded. In this way, intersectional feminist hackerspaces are linked both to positive aspects and challenges inherent in the traditional hackerspace culture. Challenges include: an emphasis put on "openness" as well as the difficulty to address issues of privileges and meritocracy. The struggle with acknowledging, discussing and attempting to resolve these challenges have pushed feminist hackers-makers and geeks to craft their own spaces. The ways in which they have decided that their spaces would operate deserve a deeper look into the issue of women-centered space, the subject of feminism, intersectionality and relational feminism. By looking at those aspects, it will allow us to have a better understanding of how these principles materialize in intersectional feminist hackerspaces.

Separatism, Openness and its Discontent:

These new women-centered initiatives are significant for multiple inter-related reasons. First, they highlight what feminists scholars and practitioners have been arguing for years now that the so called "open spaces" are never as inclusive and open as one might hope since the dominant culture of a space attracts certain people while pushes away others, *de facto* building exclusion by the principles it enforces. Furthermore, there have been long-time cautions against what Freeman (1972) termed the "tyranny of structurelessness" where lack of formal structures in a group or space ends up favouring those who already enjoy gender, class, and race privilege, and facilitates the informal power of certain individuals or cliques. As a way to create unique spaces crafted according to their own imaginaries and boundaries, intersectional feminist hackers-makers and geeks have resorted to an old feminist tactic: the women-centered space.

Women-only spaces have existed for many decades now. They became very popular in the 60s and 70s, and in the following decades, when women saw the need to have female-only spaces often called consciousness-raising groups during the USA women's liberation movement. These regular face-to-face discussions and meetings were designed for emancipatory reasons, to understand one situation as not unique and uncommon, but has structural and systemic, to create safer spaces and to have a collective respite from patriarchal behaviors often experienced in the leftist movement (Echols 1989).

It is the radical-feminist movement of the end of the 60s who pioneered the female-only spaces. Some of the best-known examples are with Redstockings, Cell16, The Feminists and New York Radical Feminist (Echols 1989). At the forefront of the creation of their spaces was that radical feminists "agreed that gender, not class or race, was the primary contradiction and that all forms of social domination originated with male supremacy" (Echols 1989, 139). This view grew from a discontent and an experience shared by many white women who had experienced sexism within the larger leftist movement. Radical-feminist saw female-only space as instrumental in redressing one of the multiple imbalances they saw happening in their activism; making spaces for raising awareness about issues of patriarchy and sexism – a latter term they coined. Such view has changed and has been highly contested in the past decades, especially with the rise and importance of intersectionality, queer and trans ontologies, but the tactic is still being used today.

The praxis of separatism or women-only spaces has been used differently over time by minoritarian groups such as women, people of color, LQBTQ, youth, among others. When discussing the Riot Grrrl movement⁷ that was vibrant in the beginning of the 1990s, M. C. Kearney (1998) argues that separatism worked because it created a temporary tactic for safety and empowerment. The example of Riot Grrrl being closely link to intersectional feminist hackerspaces is interesting to look at. It was a manifestation of women and girls wanting to reclaim a form of art and technology in a DIY fashion that had been until then dominated by white men; what they wanted were to change this state of affair. Kearney argues that the construction and maintenance of groups such as Riot Grrrl "rely on understanding themselves as already marginal as well as imagining a place of power and agency outside dominant culture" (Kearney 1998, 151). She goes further in stressing that "once the formation of an autonomous place occurs, a self-determined agency can be asserted on behalf of the group and the individual members." (Kearney 1998, 152).

The critics of women-only spaces are still present today, and they are particularly

⁷ In 1991, a group of teenage girls started a punk group called Bikini Kill after a fanzine of the same name. The idea behind it was that more girls and women should be involved in the predominantly white, male punk scene (Rosenberg and Garofalo 1998). Also, Riot Grrrl attempted to create a safe space within the (white) punk rock scene for girls and women to claim their place and also to show that girls and women had something to say on and about this culture (Angelica 2009).

acute outside the feminist movement. Many hackers have a hard time understanding why such a tactic is being used. One very powerful explanation in favor of women-only spaces comes from Faith Wilding and Critical Art Ensemble.

"It should be remembered that separatism among a minoritarian (disenfranchised) group is not negative. It's not sexist, it's not racist, and it's not even necessarily a hindrance to democratic development. There is a distinct difference between using exclusivity as part of a strategy to make a specific perception or way of being in the world universal, and using exclusivity as a means to escape a false universal. There is also a distinct difference between using exclusion as a means to maintain structures of domination, and using it as a means to undermine them." ⁸

For certain feminists, the main critics to women-only spaces are about the essentialist principles that come to fore with separation, and with the possible isolation and marginalization that might ensue (For more on the feminist critics see: Berlant 1988; Reagon 1988). The essentialist dimension is of particular importance at it is linked to the subject of feminism. In other words, who can be part of women-centered and/or feminist hackerspaces? In the next subsection, this subject will be addressed.

Marginalization and isolation issues come up often as a way to question and challenge women-centered space. In her chapter entitled Choosing marginalization as a space of radical openness, the pioneering black feminist theorist bell hooks (1990) argues:

"I am located in the margin. I make a definite distinction between that marginality which is imposed by oppressive structures and that marginality one choose as site of resistance – as location of radical openness and possibility." (p.209)

hook's understanding of separatism is that it is a political act. It is a response to domination. Even more, it is a site where participants are transformed individually

⁸ Wilding, F. and Critical Art Ensemble. (no date). "Notes on the Political Condition of Cyberfeminism,"

Retrieved from http://www.obn.org/cfundef/condition.html.

and collectively. Through that lens, a form of separatism is really about empowerment, and not about isolation and marginalization.

The issue of women-centered and/or feminist-centered spaces is also about the development and manifestation of a culture. Again, the Riot Grrrl example is a powerful example. The DIY message of Riot Grrrl, the pro-girl identity politics and separatist philosophy (from male, but also in this specific case from adults and older women) helped the creation of a strong radical female youth culture (Kearny 1989). Over the years, Riot Grrrl went beyond the punk scene and it quickly transformed into a counterculture movement that was crucial in creating new ideas about feminism. Kearny goes further in making the link between do-it-yourself culture and separatism.

"Reinterpretating the do it yourself directive commonly associated with the punk scene as 'don't need you' – a self-affirmation as well as a refusal of assistance from those outside their group – riot grrrls have adopted the radial political philosophy and practice of separatism in order to liberate themselves from the misogyny, ageism, and, for some, homophobia and racism they experience in their everyday lives" (Kearny 1989, p.149).

For feminists hackers-makers and geeks, this issue of separatism, is often less about whether to have a women-centered spaces or not, but rather more about the degree of separation. A debate that is becoming more and more prevalent among certain hackerspaces, is whether to try to change the culture of an existent hackerspace, or try to start women-only or minoritairan-only hacking nights as a way to address the lack of diversity and lack of women in the hacker culture. It is important to highlight here that it is not necessarily the gender of a person that will determine whether he/she/they is in favor of such projects, but rather it is linked to the politics of the person.

In talking about whether one should change a space or start a new one, one of the co-founders of an intersectional feminist hackerspace said:

"One of the realization I had in starting our hackerspace was there was a lot of discussion around cultural change versus creating new spaces. How toxic and ineffective sometimes it can be to change spaces. We realize it would be

way more fun to set the boundaries from the get go rather than change the culture of an already existing space." (Co-founder and Member of a feminist hackerspace, interview, January 2, 2014)

Within a hackerspace that embrace an open policy, even the motto "be excellent to one another" though filed with good intentions is not enough to create spaces where privileges are acknowledged, challenged and confronted. The white heterosexual male culture that often comes to predominate hackerspaces often limits possibilities of emancipation first for those who do not associate and identify with such culture, but also for those who are part of the majority culture.

"I found that now, when I look in the [hacker]space that I still love and part of, it's falling into the easy route...of mostly men sitting around and playing on things and it's detrimental to them and it's not as diverse as it could be and they are getting very little out of it in comparison to what the possibilities are." (Queer feminist hacker, interview, November 18 and December 6, 2013)

Feminist hackerspaces prefer to open up possibilities in order to create spaces and practices that are more in harmony with their ideology and identities, and with slightly different imaginaries and cultures.

"By using the F word we are filtering a really large set of assholes and at the same time, in addition to filtering out assholes we also positively open up possibilities for people who you know will be making jokes involving feminist theory and that's a pretty unique set of filters." (Co-founder and Member of a feminist hackerspace, interview, January 2, 2014)

One of the reasons why feminist hackerspaces have been created and are emerging is also to create spaces where all forms of violence will be limited and dealt with, particularly gender-based violence. The openness mantra, though a principle based on wanting everyone to have a chance to experience hacking and making, has in fact created other problems that have been difficult to deal with:

"The standard hackerspaces are open and inclusive to harassers. They don't kick people out because of their open policy, even if they are a danger to other members, particularly women." (Co-founder and Member of a feminist hackerspace, interview, January 2, 2014)

This idea of feeling safe from harassment, but also from other kind of prejudice is expressed in the following:

"Being able to go a place and work on something you are passionate about without worrying constantly about protecting yourself, defending yourself, explaining yourselves." (Member of a feminist hackerspace, interview, November 18, 2013)

Feminist hackerspaces are not in competition with traditional hackerspaces, rather they are complementary and even beneficial for influencing new practices, particularly when it comes to code of conducts.

"What we have seen here is that other hackerspaces have adopted anti-harassment policies based after the very first event that our feminist hackerspace had. People went back to their hackerspace and propose an anti-harassment policy and it was actually adopted, and this is something that space had being trying to adopt for a while, but it is not until we had an event that...well this show us that feminist hackerspaces make a difference." (Co-founder and member of a feminist hackerspace, interview, January 10, 2014)

All and all, intersectional feminist hackerspaces aim at applying both a DIY (Do-it-Yourself) and a DIT (Do-it-Together) approach to technologies in fostering individual and collective projects and in crafting the boundaries for their space. They focus on a methodology of learning and sharing which is anchored in mutual aid and, in the understanding that systemic and structural problems (racism, sexism, transphobia, queerphobia, etc.) are embedded in the social fabric of our times. Attempting to challenge a variety of systems of oppression is an inclusive part of intersectional feminist hackerspaces. Additionally, what these spaces are attempting to do is to (re)open the meaning of technology to include what has been too often pejoratively referred to as feminine technologies and hence discredited (such as looming, (guerilla) knitting, clothes hacking, etc.) while also attempting to reshape the meaning of "hacking" as a way to hack life in all its forms as to (re)gain autonomy.

"We all had a sense of making, hacking, or tinkering as an inherently empowering sort of thing. The ability to make your world fit you better. I think that is a form of power. And the really cool think about the Hacker-Maker movement is that when you come together and share skills and stuff like that, people who could not change the things around them can." (Co-founder and Member of a feminist hackerspace, interview, December 18, 2013)

The subject of feminism:

The meaning of feminism has never been historically stable or fixed it has rather shifted across time and space. Nonetheless, the term signals an emancipatory and constructivist politics on behalf of women in the sense that if conditions are unjust, they can be changed (McCann and Kim 2010). Therefore a group can recognize the injustices they are confronted with and take action to change them. The emergence of intersectional feminist hackerspaces is doing just that in a world where for a century now the association of "men and machines" caries on and in, which sexual harassment and instances of sexism in the tech industry and open source movement has been downplayed and, worst survivors have been demonized for speaking up.

The question of who is the subject of feminism has always been a heated issue. With the rise of queer and trans ontologies, trans and queers have been more and more included in feminism, though tensions still exist.

I think that the word feminism needs to be constantly qualified to be explicitly anti-racist and inclusive of queer and trans feminism to account for the violent histories of feminisms excluding people. (Queer Feminist hacker, interview, December 18, 2013)

The subject of feminism has been at the core of defining who the members of intersectional feminist hackerspaces are:

Double Union is a feminist makerspace to be located near the Mission in San Francisco. The goal is to create a space where women feel comfortable working on projects together: art, writing, computer programming, woodworking, printmaking, fabric arts, etc.

To keep the focus on a great space for women, all members must be significantly female-identified. Members can host guests of any gender or age.⁹

Seattle Attic embraces a different type of openness than Double Union, but nonetheless is still women-centered and intersectional:

This summer, a group of idealistic intersectional feminists started a hackerspace in downtown Seattle. [...] We're building something new and cool in downtown Seattle - a feminist, woman-centered, and trans- and queer-inclusive space where tinkerers, makers, crafters, and hackers of all genders encourage each other to work, teach, learn, and collaborate.¹⁰

Finally, Flux presents itself has open to all genders with explicit intersectional feminist and social justice politics. They also highlight this attempt to create a new culture:

We are working to create a space for a new culture of makers/breakers/fixers and benders in Portland, Oregon. [...]We recognize that the technology world is often a binder full of testosterone, and are working to make technology inclusive for people of all backgrounds and genders. We do our best to maintain an explicitly intersectional feminist space that welcomes members and guests of all genders, racial and cultural backgrounds, and levels of ability. We must make our space safe so we can be dangerous together!¹¹

The kind of feminism these spaces foreground is one influenced by intersectionality as well as queer and trans theories and praxis. These intersectional feminist hackers are too well aware of the damage certain kinds of feminisms have done on non-normative genders (Salamon 2010). By attempting to move away from social and cultural binaries (e.g. pitting masculine vs. feminine, women vs. men) they move away from essentialist notions of gender in particular. This also allows them to expand on the notion of the subject of feminism to include and embrace

⁹ Double Union: http://www.doubleunion.org/

¹⁰ Seattle Attic : http://seattleattic.com/

¹¹ Flux: http://fluxlab.io/

self-identified women (trans women), queer and in some cases feminist men. Though female-centered hackerspaces, they nonetheless understand the subject of feminism in different terms. Particularly, Seattle Attic and Flux's understanding is more about sharing common feminist principles and processes rather than one linked to ones sex (whether cis- or self-identified). This understanding is close to Teresa de Lauretis (1989) subject of feminism.

"The subject of feminism I have in mind is one not so defined, one whose definition or conception is in progress[...]; and, to insist on this point one more time, the subject of feminism, much like Althusser's subject, is a theoretical construct (a way of conceptualizing, of understanding, of accounting for certain processes, not women)" (p.10).

The construction and performance of gender (Butler 1990, 2004) is important to intersectional feminist hackerspaces as it can be shows by who is let in, in those spaces and in which conditions. When talking about Gender, Judith Butler (2004) states: "If gender is a kind of doing, an incessant activity performed, in part, without one's knowing and without one's willing, it is not for that reasons automatic and mechanical" (p. 1). The importance of the gendered performance is particularly obvious for Double Union in as far as they say: all members must be significantly female-identified. The need to look and act as a female seems to prevail over other principles. To understand this stance, one must be aware of the construct of one's experience, which for women, queer, trans and women of color is often through an experience of gender-based violence, sexual harassment and/or instance of sexism, which forges ones outlook on gender relations in a particular milieu.

The intersectional and relational dimension of feminism:

The emphasis on intersectionality (Crenshaw 1989) highlights a desire to look at the world and at technology through intersecting and plural perspectives. Crenshaw coined the term intersectionality in 1989 in a seminal article entitled Demarginalizing the Intersection of Race and Sex where she highlighted the ways in which race and gender interact in the life of black women's employment experiences. Moreover, she brought to the fore the ways in which feminist and antiracist discourses at that time had a tendency to avoid intersecting patterns of

racism and sexism (Crenshaw, 1991). Echoing Crenshaw concerns, Chantale Mouffe (1992) says:

"my argument here has been that, for feminists who are committed to a political project whose aim is to struggle against the forms of subordination which exist in many social relations, and not only in those linked to gender, an approach that permits us to understand how the subject is constructed through different discourses and subjects positions is certainly more adequate than one that reduces our identity to one single position - be it class, race, or gender" (p. 382).

Intersectionality has gained a lot of traction in feminist circles and is even becoming a new paradigm in gender, feminist and sexuality studies. Feminist scholars and practitioners realize more and more that social oppression, economic and technological inequity (who "makes" the technology? who has the luxury to use it, to develop it? etc.) coexist and are intimately linked. Intersectional feminists argue that feminism cannot be studied, understood, or practiced, from a single, immediate, standpoint as such understanding requires engaging with the culture, class, sexuality, ethnicity and other power structures that create various forms of inequality. The new breed of hackerspaces is very much embracing a form of intersectional feminism as they highlighted in their mission statements.

Moreover, the feminism that is foregrounded is one that is relational i.e. one that is created in relation to a particular social, cultural, political and technological environment. In fact, I posit that these initiatives are more grounded in ideology that is the principles they foreground, than in identity. On the latter topic, Crenshaw warns that groups have to be aware that even though identity can be a great source of empowerment and strength to its community, it can frequently conflates or ignores intragroup difference (1991). Being grounded in a "political project" intersectional feminist hackerspaces seem to be much closer to the hacklab tradition than to the hackerspace tradition. Indeed, the social justice principles they foreground in their processes and projects seem to be more important that the identity and affinity of its members.

These new breed of hackerspaces are about creating a new "we" not based on sexual difference, or binaries such men/women, masculine/feminine, but anchored

in a political project. As Chantla Mouffe (1992) argues:

"Once it is accepted that there cannot be a "we" without a "them" and that all forms of consensus are by necessity based on acts of exclusion, the question cannot be any more the creation of a fully inclusive community where antagonism, division, and conflict will have disappeared (p.379)."

Conceiving these new hackerspaces through ideological framework (who has power over and why and how can we shift the balance of power within groups and within society) is a way to address some of the problems that the hacker community has experienced as well as trying to reframe the discourse.

"There is an ongoing tension in hackerspaces between: it is a political act to hack on things and shut up and hack. People who want to talk about politics really want to talk about politics and rarely make anything and the people who do want to make shit do not want to talk about it because they are already living it or they actually don't care. And so we need to bridge between those parties." (Queer feminist hacker, interview, November 18 and December 6, 2013)

A good example of this bridging is with Flux, which has grounded its project in an ideological framework open to all genders provided that they embody, embrace and respect feminist principles and process such as understanding issues of privileges while constantly and willing accept to challenge them. Building a transversal praxis, which involve being aware and ready to address issues of power - during meetings, decision-making, informal gathering, when playing with technology, etc. - requires a considerable amount of work and awareness. This is seen as being as important as working on hacking projects. In other words, the process in those intersectional feminist hackerspaces is as important that the "end-product".

It is crucial to acknowledge that situations of conflicts or forms of power relations will occur and will need to be addressed and challenged in these new hacker-maker spaces too. These spaces will not be devoid of challenges; they might however be better equipped and sensitive to some issues that might emerge. With their anti-harassment policy and their acceptance of the possibility of kicking someone out of a community if that person does not respect and abide by the formal or

informal "community agreement" or to the larger culture, might in fact create more room for emancipation for their members.

The creation of those spaces is also helping to create a strong collective sense of belonging to a culture that embodies a legitimate form of political expression. The fact that those spaces are emerging is a sign that there is a vibrant intersectional feminist hacker-maker-geek community and that they people are ripe for such spaces.

Intersectional Feminist hacker-maker-geek culture:

Intersectional feminist hackers, makers and geeks have questioned their identification with the dominant hacker culture because of uneasiness with the dominant white heterosexual male culture. Moreover, discussing issues of privileges such as sexism, patriarchy and racism within the hacker community has overall been a major challenge for feminists, LGBTQ and gender non-conformists. The notion that one does not need to talk about gender, race, sexual orientation, class and ability because what matters is how well one can "hack" (a stance often identified with the dominant hacker ethic) is deemed by intersectional feminists to largely disregards privileges that people have in society. As far as resistance to anything that is related to feminism in the dominant hacker culture, one of my interviewees says that:

"There is this whole meritocracy thing. My theory is: hackers have this intense belief that they got where they got on their own merits and if they are confronted with the idea that there is discrimination that means that the one who quote on quote got there had it easy. It runs counter to the idea of meritocracy." (Co-founder and Member of a feminist hackerspace, interview, January 2, 2014)

Such discomfort with the hacker culture has led many to prefer being associated with terms like maker, crafter, geek or tinkerer.

"I do identify as a geek. However, part of me is pulled away from that identity [the hacker identity], just because what it means to be in those spaces [hackerspaces]. That's a very hostile environment for people like me." (Member of a feminist hackerspace, interview, November 18, 2013)

"I consider myself a hacker, but not in the computer sense, but rather looking at infrastructure and cooking in the holes. Also: I consider myself as a maker because I like developing on top of what infrastructure there is." (Queer feminist hacker, interview, November 18 and December 6, 2013)

"The hacker identification specifically to the computer security field... what a horrible misogynist culture. So why would you want to identify with that?" (Co-founder and Member of a feminist hackerspace, interview, January 10, 2014)

In looking at the extent to which intersectional feminist hackers-maker-geeks associate with the hacker community –identity one interviewee said:

"We are trying to pick the good parts. The parts that are about curiosity, collaboration and leave the parts that are about shit testing and you know that are about competition." (Co-founder and Member of a feminist hackerspace, interview, January 2, 2014)

Creating these spaces is also about the (re)construction of what feminism means in a hacker-technologists context. It is about differentiation and agency; it is about DIY and DIT: if it does not exist, lets create it.

Conclusion:

With the emergence of a new breed of hackerspaces, what we see emerge are social justice oriented hackerspaces where intersectionality and feminism are at its core. By embracing such principles intersectional feminist hackerspaces get closer to the tradition of hacklabs, in so far as they are political and also they embrace a constructivist understanding not only technology, but also of social, cultural, economic and technological relations, among others. Their emergence is an attempt to open up possibilities in the hacker culture, as well as acknowledging and challenging multiple forms of subordination from those who do not fit in or do not want to be associated with the dominant hacker culture. The material manifestation of intersectional feminist hackerspaces demonstrates a clear synthesis between two traditions: the feminist and the hacker tradition.

In this article, I have shown that for intersectional feminist hackers-makers and geeks the open spaces concept prevalent in hackerspaces is in fact not the way they envisage safe space or even open spaces. In fact, through the creation of their hackerspaces they are countering the myth that open spaces are inclusive. Through their shared and common principles, intersectional feminist hackerspaces are expressing an alternate hacker-maker-geek culture, which is opening up possibilities for the non-white male hackers and in turn contribute to an increase in the diversity of hackers, makers and geeks. Though intersectional feminist hackers, makers and geeks have been affirming their collective identity for a long time now via online or face-to-face means, the material manifestation that is happening via the creation of their hackerspaces help makes their culture not only more vibrant, but accessible and visible.

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