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**Staging the Hackathon:  
Codeworlds and Code Work in México**

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Institute for the  
Study of  
Societal Issues

## **Staging the Hackathon: Codeworlds and Code Work in México**

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Drawing on ethnographic fieldwork between 2013 and 2016, this paper investigates emerging forms of hacking and entrepreneurial development in Mexico. I show how research participants attend hackathons and hone their coding skills at co-working spaces in Mexico City and in Xalapa, as they hack away to build solidarity and find the “coding bliss,” the affective dimension one encounters when creating beautiful code. As hacker-entrepreneurs tease out the tensions between self-making and being-made, they fill an overarching neoliberal agenda with substance, meaning, and materiality. For young people in Mexico, “hacking” emerges as a way to make sense of their future livelihoods in a precarious state and economy, as a way to exist in a system where things just don’t seem to work, and as a way to let the “code work” intervene in narratives that have only delivered false hopes. As hackathons continue to proliferate across the globe, I conclude by examining how the underlying logics of software design, such as “loose coupling,” become fundamental for the re-organizing of social relations in Mexico.

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## The First Hack of the Day

In the Colonia Anahuac neighborhood of Mexico City, dozens of young tech enthusiasts wait in line to be allowed admission to the 2015 “Hack CDMX” event. Like other hackathons, this event proposes that participants show up, network, build a multi-disciplinary team, and create a technological solution to a pressing societal problem. This year, the challenges fall under four broad categories: civic apps, solutions for the city, urban hardware and infrastructure, and data visualization. The winners in each category receive cash prizes and a promise from El Gobierno de la Ciudad de México [city government] to provide institutional support for the project to be successfully implemented. The event is sponsored by over thirty government entities; the long list of names takes up a substantial portion of the event’s webpage. If the heavy government involvement is somehow lost on any of the participants, they are promptly reminded when a caravan of black Chevy Suburbans pulls up to the building. Several square-shaped men wearing suits, dark sunglasses, and earpieces jump out of one of the vehicles and form a pocket around a slimmer man with a nicer suit as they approach the entrance. “Con esos lentes no pueden ver que hay una cola”<sup>1</sup> [with those glasses they can’t see there’s a line], one young man exclaims. “Quién es?” [Who is he?] I ask. “No sé y no me importa” [I don’t know and I don’t care], he responds.

Waiting in line, a couple of young men spot an obscure door with a sign that reads, “Tocar en la siguiente puerta -> o la cortina de la vuelta.” One of them quickly gets out a marker and makes two small modifications to change “cortina” (curtain) to “cantina” (bar). “Ahí está, el

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<sup>1</sup> All translations by author

primer hack del día,” (There it is, the first hack of the day) he announces to an approving crowd (see Photo 1).

The attitudes and positions expressed in these brief interactions define much of the spirit and tone that will make up the weekend event. That is, these young people exhibit a sensibility for modifying, tweaking, and finding ways to exploit vulnerabilities in systems and structures, from the text on the sign to the practices of corrupt police officers. They embody and perform an ethos of “hacking” everything. In 48 hours—the time displayed as a countdown on a giant screen overlooking the space—enthusiastic programmers, entrepreneurs, designers, and community members will have to pitch their idea to over 1,000 participants in attendance. Among the projects that will be developed at HackCDMX are: *In/fracción*, an app that allows users to quickly verify if a traffic agent is officially registered to give you a citation; *EseTaxi*, an app that helps users feel safe when using public taxis by sharing routes with close acquaintances; and *¡Aguas Güey!*, a platform that allows you to check potable water conditions in your area.



[Photo 1] The first “hack” of the day.

The event has undoubtedly garnered much attention from the tech community. At 9am, one full hour before the doors open to the limited capacity event, the line has already coiled around the corner (see Photo 2). What drives these young men and a few women<sup>2</sup> to show up in the hundreds to this event in particular, and to hackathons in general? Some, especially the “newbs/noobs/n00bs,” or first-timers, are here for the free “swag” (t-shirts, stickers, and other hacker paraphernalia) that will be handed out. Others are professional hackathon participants, known in the hackathon community to show up to these events with previously developed projects and try to nab the winning prizes, which range from cash awards and tech gifts (laptops, smartphones, tablets) to trips to other parts of the world to present projects. Others are here to try to recruit top software developers to work on their “secret” projects. Such is the case of Diego<sup>3</sup>, an Argentine architect who works in Mexico City, who, after observing me interacting with several of the hackathon veterans, asks me if I know who the top “talent” is.



[Photo 2] Line around the corner to enter HackCDMX.

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<sup>2</sup> An analysis of gender dynamics at hackathons is beyond the scope of this paper. For a discussion on the parallels between “hacker culture” and “boy culture” see Douglas Thomas *Hacker Culture* and Sherry Turkle *The Second Self: Computers and the Human Spirit*.

<sup>3</sup> All names are pseudonyms.

Diego is familiar with tech buzzwords, and he's currently on the search for a "10x developer," a term that circulates widely in Silicon Valley and is built on the premise that not all programmers are created equal. A "10x developer" is a (some say mythical) rockstar programmer who is at least ten times more productive than your average, run of the mill programmer. I ask Diego what his startup idea is. "No te la puedo contar – la verdad es que es así de buena" [I can't tell you – the truth is that it's that good]. Diego is also familiar with the popular narrative that an original, creative idea can lead to a lucrative business venture, or "the next Facebook." As Diego scurries along the line in secrecy searching for his mythical programmer, "Chavita" (a common nickname for men named "Salvador" in Mexico), who is waiting in line next to me, observes him and smirks.

The irony is that Chavita is perhaps the best candidate to fill the shoes of the "10x developer" Diego is looking for. Chavita was the top scorer in a software programming placement exam we administered as part of a summer-long tech startup bootcamp at the Universidad Nacional Autónoma de México (UNAM) in 2013, where I served as technical instructor. In addition to hacking away on his computer engineering coursework at the university, he heads the university mobile development team, and during his free time Chavita performs the duties of "sensei" at Dev.f., a hackerspace where young people gather to improve their programming skills, work collaboratively on projects, and promote the "hacker" ethos. At Hack CDMX, Chavita will continue to work in this spirit as he teams up with other members of Dev.f. to work on *Bikingos*, an augmented reality game that allows users to gamify their experiences using *Ecobicis* (Mexico City's urban public bicycle transport program).

Last year, Chavita's app, *Audiovio*, won second prize in this competition. It used a crowdsourcing platform to help find missing persons in the city. Despite the city's promise to

help fund and support the project, nothing materialized from *Audivio* other than a congratulatory letter signed by a city official and some winning pictures and press. As I will discuss below, the hackers know that *In/fracción*, *EseTaxi*, and *¡Agua Güey!* are likely doomed to the same fate. This “app futility” isn’t particular to this hackathon or even to Mexico. Irani (2015) chronicles a similar experience at a Delhi hackathon: years go by without her demo spawning any projects, grants, or working software systems, despite the fact that a team of talented professionals spent a grueling week putting in the “code work” to create a sophisticated working demo. As Irani mentions, many hackathons have similar endings where participants “just shake hands and say goodbye” and where much of what gets built “never gets built at all” (2015, 804). Thus, while anthropologists who conduct fieldwork with young “trendsetters” or “prosumers” (those who blur the boundaries between production and consumption) find themselves infected and inspired by a spirit of making (García Canclini and Cruces 2012), my extended fieldwork hones in on the social worlds constructed during but also beyond this making, where much of what is made is never really made at all.

Chavita, as well as other hackathon participants, are well aware of these dynamics of making and not-making. I asked Chavita why he showed up again this year to the hackathon, in the face of the same empty promises, but he responded with a reserved shrug. The underlying reasons why Chavita and other self-identified hackers continue to show up and help stage and perform the hackathon, in a setting where the promises of rewards and opportunities are largely spectacle, is one of the primary probes that guides this paper.

This paper has three main sections. First I provide the political context in which hackathons and co-working spaces are being promoted by the Mexican government. To further explore the tension between the state constructed hacker and the hacker who constructs his/her intervention,



I examine how research participants fill the hackathon space and their hacking experience with meaning by focusing on the social dynamics and software development practices at a popular hackathon in Mexico City. Next, I follow my research participants outside of the hackathon and back into everyday “hacker life” as they socialize and work together at a co-working space. To tie these three sections together, I conclude by discussing how the underlying logics of the “hacking” that takes place across these sites become fundamental for the re-organizing of social relations in Mexico.

I draw on data from interviews and participant-observation I conducted between 2013 and 2016 in Mexico and the San Francisco Bay Area. In Mexico, I attended over 20 hackathons and spent time in co-working spaces and at tech industry events. I conducted over 50 open-ended, formal and informal interviews with hacker-entrepreneurs in two cities: Mexico City (the center of tech startup activity) and Xalapa (a peripheral city where the startup community is unexpectedly vibrant). These two cities provided geographic and demographic points of comparison. Mexico City is a mega-city where individuals more freely perform bi-cultural identities and interact with foreigners; Xalapa is a smaller city of about 500,000 people that has the second most important public university in the country surrounded by small municipalities where people work the land to earn a living. Although the sites I investigate in this paper are situated in Mexico, my ethnography is transnational in that I traveled frequently between Mexico and the San Francisco Bay Area, sometimes accompanied by my research participants, and sometimes running into them at various tech related events and spaces. Thus, I continued to conduct participant-observation and interviews across these sites.

By choosing the hackathon as a research site, I build on work by scholars who have analyzed the event as a microcosm of Silicon Valley dynamics, where participants perform

mercurial allegiances and work in focused, high-innovation cycles meant to mimic free-market business processes (Jones, Semel and Le 2015). At my research sites, young hackers and entrepreneurs (usually between the ages of 20-35) learn startup methodologies, brainstorm and prototype their products, and develop “pitches” that they use to present their startup ideas. The hackathon is a ritual event for the hacker-entrepreneurs. In a span of 48-72 hours, participants are expected to meet partners, develop a mobile application related to an organizing theme (e.g. healthcare, transportation) into a viable tech startup company, and pitch their startup to investor-judges. The pitch must convey why the startup is an innovative project, what problem it is resolving, and most importantly, that it is scalable and economically viable in the current market.

I use the term “hacker” to refer to someone who loves to program computers in the spirit of playfulness and exploration and who disassociates from capitalistic or technocratic motives. Kelty (2008) uses the term “geek” to avoid subversive or criminal connotations and to be more inclusive of the lawyers and activists sympathetic toward free and open-source software (F/OSS) endeavors. I prefer the term “hacker” for those who have the technical proficiency to do the computer coding; moreover, I found this is how hackers identify in Mexico. Thus, my focus is on hackers who have the skills to put in the “code work;” my aim is to add texture to the contours of everyday hacker life, inside and outside of the hackathons and hackerspaces, without reifying the “hacker.” Chavita, for example, carried himself with a reticent demeanor, unlike the majority of the hackers I interacted with, or the vocal, loud, persistent and loquacious “geeks” other anthropologists encounter—the “superalterns” who can speak for themselves.

Recent scholarship has looked away from the Euro-American hacker lifeworlds and focused on hacker communities in the Global South (Chan 2013; Takhteyev 2012). My goal is to add nuance to an undifferentiated “global” hacker community at the same time that I add complexity

to the “*Mexican hacker*,” and more importantly, to investigate how the shifting meanings of hacking are a sign of significant technical and political change (Coleman and Kelty 2017). By putting in the code work alongside a heterogenous and shifting group of hackers within and outside of the hackathon, across different hackerspaces, and by spending time with them in their daily lives, my ethnography highlights the ways young people position themselves in relation to narratives that promote the “promise of technology” (Shankar 2008). How do their practices index the ways in which they learn to function inside of a neoliberal economy by using different resources and by appropriating the discourses of flexibility and self-management while they remain outside of formal routine employment? By exploring my research participants’ multiple, overlapping, and contradictory relationships to the hackerworlds, I aim to highlight critiques that emerge about neoliberal work life from these “other” hackers or code-workers (Amrute 2016).

Hackers in Mexico immerse themselves in the “coding sublime,” navigating the politics of making and not making at the same time that they re-interpret coding logics such as “loose coupling” to re-organize their relationships with entities who produce value from their hacking. As they negotiate their new subject positions and conditions, Mexican hackers create a collectivist response of alternative meaning-making (and code-making) to fill an overarching neoliberal program with substance, meaning, and materiality.

### **Mexican Hackers as Model Entrepreneurial Subjects?**

In Mexico, the tech startup scene has surfaced in parallel to hype from economic analysts who project that Mexico is set to emerge as the “Aztec Tiger” economy. President Peña Nieto’s administration has quickly orchestrated an ambitious reform agenda, addressing labor laws, tax reform, the public education system, and the telecommunications industry. In addition, a last-

minute labor reform from the previous administration granted foreign corporations greater freedom to hire and fire Mexicans at low wages, enabling maquiladoras (factories that import material and equipment on duty-free and tariff-free basis for assembly, processing, or manufacturing and then exporting) to once again set up shop. Economic analysts claim Peña Nieto has effectively helped Mexico “get back in the game” and changed the country’s image from drug war zone to free trade poster child by signing 44 free trade agreements — more than any country in the world (Friedman 2013). Peña Nieto’s reforms follow developmentalist logic aimed to move Mexico beyond low-wage factory jobs and toward an entrepreneurial economy. Popular discourse claims that Mexico is producing graduates in engineering and technology at rates that challenge its international rivals, including its main trade partner, the United States. University enrollment in general has tripled in 30 years to almost 3 million students who want to join Mexico’s growing middle-class. Thus, analysts conclude that while Mexico has become a top producer of raw engineering “talent”, it lags far behind in basic measures of “innovation,” such as number of patents, scientific papers published, and research and development investments (Booth 2012).

Following these capitalistic and developmentalist narratives, Hack CDMX and other hackathons and co-working spaces fit into the larger Mexican political-economic landscape as spaces to keep these recent graduates busy, as potential generators of companies that will create jobs for them and their colleagues, and as the type of infrastructure that will help Mexico emerge on the global innovation stage. Indeed, government funding and interests have been a main catalyst of the “tech entrepreneurship movement” in Mexico. Not surprisingly, state government offices can be found on the first floor of iLab, one of the co-working spaces where I conducted

research in Xalapa, as politicians frequently drop by to hear the latest startup pitches and take pictures with the teams.

The young entrepreneurs by no means ignore the political backing and presence. Alberto “Chung,” a self-identified hacker from Xalapa, comments on the upcoming hackathon being sponsored by the city government:

No pregunten como pero conseguí un borrador de la convocatoria para el ‘Hackathon Xalapa,’ por si quieren participar se pueden ir preparando. Hay que desarrollar soluciones tecnológicas que resuelvan problemas de movilidad y servicios municipales...según esto ganas o no tienes que entregar tu proyecto, códigos y documentación, y pues el premio es salir en el diario de Xalapa, una beca al iLab y una palmada del presidente municipal...muy tentador no?

(Don’t ask how I got a draft of the call for the “Xalapa Hackathon,” but if you want to participate you can start getting ready. We have to develop technological solutions to resolve mobility problems and municipal services... according to this [announcement] whether you win or not you have to submit your project, code and documentation, and well the prize is that you will appear in Xalapa’s newspaper, you get a scholarship to iLab, and you will get a pat on the back from the municipal president... very tempting, right?)

Especially in regard to hackathons, hackers across my research sites were in agreement that government entities were using them as a way to further their own political agendas and as photoshoot opportunities for their poster politicians.

The use of technology by state entities to advance underlying political agendas is not new and has been theorized in other contexts. “Techno-politics” (Joyce 2003; Mitchell 2002) refers to a mode of politics that functions through invisibility. Grounded in liberalism, governmental bodies seemingly leave citizens to be, to go about their everyday affairs without intervening. Instead, government seeks proxies in technological regimes—building sewers and other infrastructure, network and phone lines, conducting censuses—which are seen as technical and outside of political processes. Mbembe (2001) writes about the simulacral language that was part of an aesthetics of power in African postcolonial dictatorships. The simulacral language was used by the state and accepted by citizens but it was devoid of referential meaning. This system worked not because it generated legitimacy, but because it provided specific events that dramatized state power and therefore reinforced it. Larkin (2008) found a similar pattern in

Nigeria: technology is used as part of political rule, and state-sponsored projects—roads, bridges, radio, any “new” technologies—are linked to events, to spectacular rituals that are meant to produce particular types of affective responses. Not only are state officials always present in the mediated representations of these projects, before and after they are built (and even if they never are!), but the repetition of this pageantry in films and across different media is meant to produce, address, and train a modern subject how to react to these awe-inspiring projects.

The celebration of “modern” engineers, scientists, and entrepreneurs becomes part of Mexico’s nation-making project to stage the potential of technology to fulfill the promise of progress. More importantly, the promise of *entrepreneurial* engineers and scientists helps to promote a political agenda where young people are asked to appropriate neoliberal discourses about taking initiative, being self-satisfied, not waiting for government, and being “socially conscious” (Urteaga 2012). As I will show below, these discourses are entangled by the hackers. The connection between entrepreneurial subject-making and neoliberal nation-making is not specific to Mexico. Describing projects across Asia and Africa that present entrepreneurs as drivers of forward-thinking, large-scale social change, Irani states, “These projects cast entrepreneurs as collaborative rather than agnostic, technical rather political, and constructive rather than complaining” (2015, 803). The model entrepreneurial hacker thus emerges as a valuable subject in the Mexican political-economic landscape, where the majority of young people exist completely disconnected from institutional support and need to provide for their health, work, education, and security (Reguillo 2010; Valdez 2009). About seven million young people ages 14-29 in Mexico are either looking for employment, not enrolled in school, or fall under the broad category of “not economically active” (Instituto Mexicano de la Juventud 2010). Only a minority is connected to institutional circuits that allow them to make decisions about

their livelihoods; nevertheless some opt for working “by the project,” in the “here and now” and “in their own terms” (Urteaga 2011). Some claim to belong to a generalized “generation of disenchantment,” stating, “They fooled us, we did what they told us and in the end things aren’t the way they told us they would be” (García Canclini and Cruces 2012, xviii).

In many ways, Chung’s cynicism about the government backing for the hackathon mirrors the comments from other “disenchanted” youth in Mexico which other scholars have pointed to, and more generally, the expressions of loss of hope for the future and loss of faith in the neoliberal project that other anthropologists have found in contemporary contexts (Riles 2013). Reviewing recent anthropological theory, Cantero (2017) finds that ethnographic explorations have consistently unpacked a persistent disenchantment with the fruits of contemporary political economy. Nevertheless, Chung and others proudly displayed their HackCDMX sticker along with dozens of others on their laptops as they enthusiastically hacked away during the hackathon weekend. While other scholarly research finds that hackathon participants are primarily driven by an interest in exhibiting the entrepreneurial spirit in order to perform middle-classness, to confirm their trust in their ability to “change the world,” I found a much more heterogeneous cast of characters, motivations, and experiences at hackathons in Mexico. To explore further why Chung and Chavita, like many of the other hackers at the Mexico City event, continued to hack away amidst the unreliable government sponsorships, shameless politicians, and empty promises, I participated as a team member and floating mentor at the event in order to stay close to their practices, effectively attempting to hack while I hovered above their hacking, within and beyond the hackathon.

## Staging the Hackathon

If the Mexican state is invested materially and imaginatively in the hackathon, so are the participants who come to put in the “code work” to attempt to make their solutions and dreams come alive. The technical solutions proposed at this hackathon are not of the generic (and often naïve) “change the world” genre, however, but closely guided by intimate understandings of the kind of apps that will win, that the “winning” might not lead to tangible solutions, and that there is real meaning in the process of “making” regardless of the outcome. That is, the hackathon becomes a negotiation between government and corporate actors and the hackers who come to find meaning and a collective sense of efficacy within the bounded space of the hackathon. Among the cast of characters at HackCDMX we will find Hugo, a veteran hacker and recent UNAM computer science graduate who travels over two hours on public transportation in and out of Mexico City from a peripheral municipio to participate in these events and to freelance with small businesses who need apps built. Most of his earnings he contributes to help pay for family expenses, and he saves up just enough to purchase airplane tickets to attend annual expo training events in the San Francisco Bay Area hosted by major tech companies. Wearing t-shirts given away by these companies is a badge of honor for the hacker, and they complement his wardrobe of more colorful t-shirts with even more colorful slogans, “Talk is Cheap,” “Show me the Code,” and Hugo’s favorite, “Programming is the closest thing we have to superpowers.”

Few women show up to these events. One of them is Ana, a visual artist by training who was recruited to join the first cohort at iLab, a co-working space in Xalapa. After graduating college, she helped out with her family’s business renting rooms for university students, and made a small income making picture frames for her artist friends. “In the art world the ones that



make money are the ones that make the frames,” she says, “I didn’t know anything about technology. The first months it was very difficult to understand all of this. Artists are somewhat proud/arrogant. We do our work, and we don’t care if people understand us. Before I saw art everywhere, and now I see apps and technological projects everywhere that can improve anything,” she says, somewhat sarcastically, about joining iLab.

Ana was recruited by iLab’s director, whom students have nicknamed “El Pato” (The Duck), in response to his characteristic phrase, “Yo escopeta, tu pato” (I’m the shotgun, you’re the duck). His phrase is meant to index an overall disciplining of the rising hacker-entrepreneurs who join iLab. El Pato’s bible is *The Lean Startup*, a popular book that circulates widely in the startup world and proposes a decentralized protocol for efficiently developing tech products that meet the needs of early customers, thereby reducing market risks and sidestepping large amounts of initial project funding. In an interview, El Pato tells me:

Lean significa esbelto, pero también significa que siempre estamos en beta. Nada es seguro. Todo el tiempo estamos re-plateando todo. Si vemos que algo no está aplicándose correctamente lo podemos calibrar. Si vemos que hay algún proceso que deberíamos de estar adoptando porque está teniendo éxito en otra parte, en ese momento lo conectamos con nosotros. No queremos hacer algo estático. Queremos que siga siendo muy dinámico.

[Lean means slim, but it also means we are always in beta. Nothing is certain. All the time we are re-formulating everything. If we see something is not being applied correctly we calibrate it. If we see there is a process being applied successfully in another location, in that moment we adopt it and connect it to ours. We don’t want to do something static, we want to continue being very dynamic.]

When he makes appearances at events like the hackathon, he supervises iLabbers to make sure they are adhering to the disciplined entrepreneurship the model proposes.

At HackCDMX, Ana, Hugo, El Pato, Chavita, and his “sensei” friends from Dev.f. spend the weekend together thinking about Mexico City’s and Mexico’s problems at the same time that they meet and work with other hackers, designers, entrepreneurs, and curious onlookers from across the country and from across the world—participants that have shown up to take part in the spectacle of the hackathon. Hackers have gathered not only to create something new but to share,

in person, their latest creations; they show off their code to others who can appreciate it. “Mira todos estos imports” (look at all these import files), Chavita tells Hugo, as he points to the dozens of “import” statements in his Python file. An import statement tells the current file to look at other files that contain previously written code that you can reuse for the task at hand. “No tengo más de cuarenta líneas en cada *class*” (I don’t have more than forty lines in each class), Chavita proudly explains. Hugo, who hasn’t slept in the last 30 hours, manages to follow Chavita’s demonstration with his bloodshot eyes, and confirms Chavita’s accomplishments with an enthusiastic “Eres un chingón” (You’re a badass).

Indeed, the principles of reuse, simplicity, consistency, efficiency, and the ability to shuttle between different levels of abstraction are core tenets of computer science and metrics used to identify a talented computer programmer. Hackers at Hack CDMX use the time and space to share code from other projects they have been working on, sometimes from their professional jobs where there are few programmers and where results-oriented managers fail to recognize the complexity and beauty of their creations. In her ethnography with hackers, Coleman (2013: 118) finds their value of cleverness, ingenuity, and wit transfers to the process of making technology and writing smart pieces of code. That is, hackers “revel in directing their faculty for critical thought toward creating better technology or more sublime, beautiful code.” If one can dissect, manipulate, reassemble, and solve the problem within the given constraints and tools at hand, one can create beautiful, “original” code. Within the space of the hackathon, Chavita, Hugo, and other hackers come together for a weekend to look for this “coding sublime.”

Coleman (2013) and Kelty (2008) found that hackers (mostly in the U.S.) build techno-social movements narrowly configured around a technical craft to ensure “software freedom” and their corresponding individual “productive freedom.” But by highlighting the sociality and

relational construction of hackers in Mexico, I show that their technical craft and love for coding is cultivated within a context of precarious political allegiances and arrangements.

## Loose Coupling

With one hour left in the hackathon, the *Bikingos* team takes a needed break for some non-coding *cotorreo* (fooling around, just hanging). I take advantage to conduct informal interviews with the team. Hugo tells me more about why he is so tired. Hugo works for a tech consulting firm in Mexico City and usually spends ten to twelve hours a day programming and many times has to work weekends with no extra pay since he gets paid by the project. He is aware of the exploitation but instead of framing it as a situation where he has no other choice, he refers to his arrangements as “loose coupling.” Loose coupling is a computing term that refers to a robust way to write code where data structures (or other components) can use other components in an interconnected system without needing to know the full details of their implementation. In this way, each component becomes more autonomous and can be used for different purposes by different components; elements become “coupled” and depend on each other with very little (or no) direct knowledge of each other. Hugo goes on to recommend manuals and tutorials that further explain this software design so that I can appreciate its value. The term “loose coupling” Hugo uses to refer to his flexible work arrangement references his autonomy at the same time that it references his replaceability. Like many of the young people in attendance, Hugo contracts out his programming skills to diverse companies or startups. In the case of startups, they are usually U.S. based companies which find programmers who work for a lot less than software programmers in the U.S.

Hugo further elaborates on the hackathon dynamics: “Antes, los políticos llegaban a repartir licuadoras y a tomarse la foto cuando se terminaba una cancha de basquet, si es que se terminaba. Ahora llegan a repartir stickers del hackathon y a tomarse la foto con los equipos ganadores” (In the past, the politicians would arrive to distribute blenders and take pictures when the basket[ball] court was completed, if it was ever completed. Now, they arrive to distribute hackathon stickers and take pictures with the winning teams). Hugo is referring to the “swag” that is handed out at events such as the hackathon. The stickers are primarily used as marketing material; they show the logos of tech companies, operating systems, development tools, and hackathon events, and participants like to decorate their laptops creating colorful, creative displays (see Photo 3).



[Photo 3] Hackathon “swag” displayed on laptop

Even though Hugo criticized the practice of sticker distribution, associating it with the “old” method of gifting household electronic appliances such as blenders in the name of voter recruitment by politicians, he still proudly displays his stickers on his laptop. Moreover, the varied events, companies, and technological platforms show the contradictory and fleeting

allegiances that currently make up his hackerworld. Like the “loose coupling” approach he takes to code, his sticker arrangement points to his flexible (and legible) networking capabilities.

García Canclini, working in Mexico, has found that the relationship between government and people is continuously staged in rituals where politicians function as vicarious actors in the national drama, and the construction between “old” and “new,” “traditional” and “modern” is predominantly visual (1990). If the stickers function as a new way to remake “the state” by politicians, the hackers use them as a way to visualize their contradictory relations to the state. Mexican citizens have found themselves preoccupied with managing their national culture vis-à-vis “modernity” since independence (Lomnitz 2001), and the arrangement of their hackathon “swag” becomes one way to understand the institutional and relational makeup of their “citizenship” within the ritualized spectacle of the hackathon. Indeed, in a loosely coupled system, interfaces between system components are important communication points, where the rules of the interaction are made explicit. Here, the sticker arrangements take the role of the interface, where (fleeting) relationships are made explicit and negotiated.

These shifting relationships also point to the neoliberal knowledge economy and underlying processes of transnational capitalism that ask young people to work by the project, and on their own time. Rising hacker-entrepreneurs must learn to respond quickly and with agility to volatile market trajectories and frequently cross career, role, and political boundaries to perform their flexible or “latitudinal citizenship” (Ong 1999). Market volatility becomes a way of life, where flexibility, instability, liquidity, and risk-taking are interpreted as desirable and challenges that the modern subject can manage by employing calculative decision-making (Ho 2009; Miyazaki 2003; Zaloom 2003). If politicians have upgraded from *licuadoras* (blenders) to hackathon stickers to construct loyal citizens, these hackers are model citizens using the stickers

to visualize, make legible, and manage their own *liquidity*. If Mexico imagined that it could stage its “modernity” by creating a nation of stable, middle-class citizens using “modern” technologies (blenders) in their domestic spaces, the distribution of stickers and their transient arrangements on mobile machines show that modernity must now be staged outside of the home – that it is less stable and better characterized by future possibilities.

For 48 hours, then, *Bikingos* team members put in the code work in search of “software freedom” while they design a beautiful graphical interface and user experience for their application and test their app while riding bikes around the city. After several iterations of prototypes, testing, and debugging, they commit their final code snippets to the team’s repository, click “deploy,” and celebrate the successful launch of their working application (see Photo 4). They deliver a phenomenal pitch to the hundreds who show up for the final demo session and celebration. *Bikingos* wins first prize in the “solutions for the city” category. The team poses proudly for their group photograph. Chavita gets the same certificate he did last year. In the individual photo sessions, a different politician than last year takes a picture with him.



[Photo 4] Chavita and friends/teammates presenting *Bikingos* to a mentor.

This public performance of the rewards and the potential of the hackathon contrasts with the private discussion the team had as they talked about the actual utility of the app. That is, they were aware that the rating system and route sharing infrastructure that was part of their app was not very likely to be used in daily Mexico City life; because of privacy issues, users would be reluctant to share any personal information despite the promise of secure connections and encrypted data. Similarly, the team members of *In/fracción* and ¡*Aguas Güey!* recognize the challenges of their apps being implemented at institutional levels outside of the hackathon. Team members of *GuarurApp*, an app meant to let users know which parts of the city are “safe” to walk at different times during the day, acknowledge that the app might be used by the very people it is intended to protect citizens from—they might be giving crooks and thieves insight into “new” zones to conduct their business where people might have their guard down. Thus, hackers know that their code might work, but perhaps not in their particular context. Regardless, they demonstrate their intimate knowledge of skills and mindsets of groups who fall on different sides of political and institutional boundaries. Their loose coupling is performed together with this “app futility” within the space of the hackathon as they discuss and negotiate these contradictions.

### **“Programming Is the Closest Thing We Have to Superpowers”**

After the Hack CDMX hackathon, Hugo, Chavita, and other winners reintegrate into everyday life. This means going to the university, helping out at home with brothers and sisters, and the most fun aspect of their everyday lives, going to Dev.f. to hack. Dev.f. is the first “hacker school” in Latin America, created in 2014. It is “nomadic,” in that each batch of students takes part in the 12 week program in a different part of Mexico City, many times within co-working

spaces and sometimes within large tech companies. When they work in a tech company's facilities, they are not involved in the operations of the company, but they do promote hacker students for advertised jobs within the company. The idea is that a few participants might transition into professional roles within the company that do not ask them to sacrifice the "hacker ethic" carefully cultivated within the Dev.f. program. Thus, their interactions with the different companies effectively resemble loose coupling.

Like many of the young men (and few women) that come to the hacker school, Dev.f.'s founders, Kike and Eme, felt their university material was outdated and their teachers lacked passion. "We loved to go to hackathons so we made one that would extend more in time. We wanted to live the hackathon every day," Eme tells me in non-accented English. He is a graduate of the prestigious Monterrey Institute of Technology ("Mexico's MIT") and sells his story to Dev.f. students as someone who was destined to follow a traditional middle-class life (get a good paying job using his degree, get married, settle down) but instead decided to follow the "hacker" life. Eme and Kike consistently assert themselves as individuals who know all about the Silicon Valley culture, from the books and blogs they read, to the lean startup methodologies, to the current tech company mergers and acquisitions. They see Dev.f. itself as a tech startup, and recently landed an office hours session with Sam Altman from Y Combinator, the most prestigious and competitive startup accelerator in the world, with its headquarters in San Francisco. This was an accomplishment they were both quite proud of, but the environment they have built for students, the "everyday hackathon," is their prime accomplishment.

As students at the hacker school progress from white belt (most basic) to black belt (most advanced) classes, their "senseis" (Eme, Kike, and other advanced mentors) provide feedback and mentorship into the hacker ways. You don't have to be part of the program to hang out and



hack, and entry into the official “hacker school,” which grants you an official certificate for completing each phase of the program, is priced on a sliding scale. Thus, Eme and Kike see themselves as both entrepreneurs and evangelists.

The current batch of Dev.F. takes place within a co-working space, “The Pool,” in the upscale Polanco neighborhood of Mexico City. Students like Hugo travel over two hours on public transport to arrive. Their laid back “hacker attire,” jeans and t-shirt complemented by a scruffy appearance, sometimes contrasts drastically against the luxurious shops and perfumed upper-middle class shoppers they pass on their way to The Pool. Inside the co-working space, they rub shoulders with other entrepreneurs whose startups are headquartered in rented office space at The Pool. Hackers-in-training meet their friends and set up their laptops to hack in the perfectly kept space, which adds touches of inspiration with quotes written on the wall, “The only way to win is to learn faster than everyone else. – Eric Ries,” it says in English over the main workspace where black belts work, and a longer quote in Spanish appears over the workspace for white belts:

Tu trabajo te llavará una gran parte de tu vida y la única forma de estar totalmente satisfecho es hacer lo que tú creas que es un gran trabajo y la única forma de tener un gran trabajo es amar lo que haces. –Steve Jobs  
 [Your job will take away a great part of your life and the only way to be completely satisfied is to do what you think is a great job and the only way to have a great job is to love what you do. –Steve Jobs”]

Eric Ries is the author of the widely popular text *The Lean Startup*, and Steve Jobs is the even more popular co-founder and CEO of Apple, Inc. In addition to idolizing and quoting these famous U.S.-based tech entrepreneurs, who have created high-revenue-generating tech companies, one of Eme’s first entries on his popular and widely read blog lays out the 10 principles of the “hacker ethic” one must follow to become a Dev.f. hacker:

- |                               |                             |
|-------------------------------|-----------------------------|
| 1. <i>Give before you get</i> |                             |
| 2. No pedir permiso           | (Don’t ask for permission.) |
| 3. Hacer > Hablar             | (Doing > Speaking)          |
| 4. No existen excusas         | (Excuses don’t exist)       |

- |   |                                   |
|---|-----------------------------------|
| 5. Resolver problemas                   | (Resolve problems)                |
| 6. Sigue tu curiosidad                  | (Follow your curiosity)           |
| 6.2 Fracasar == Crecer                  | (Failing == Growing)              |
| 7 Conoce tus herramientas y comunidades | (Know your tools and communities) |
| 8 Siempre aprender                      | (Always learn)                    |
| 9 Involucrarse                          | (Get involved)                    |
| 10. Divertirse en el proceso            | (Have fun in the process)         |

If the students are too busy hacking to look up at the walls or even to read Eme's blog, phrases of wisdom are worn proudly on t-shirts by their colleagues. On the back of one young man's t-shirt (a freebie that was handed out at a hackathon), the words, "Start Local. Think Global." Eme wears one of Dev.f.'s favorites, the aforementioned "Programming is the closest thing we have to superpowers." The t-shirts have proven to be particularly useful because of their mobility; hackers can display elements of the hacker ethic as they move through the world, thus establishing a boundary between themselves and those who are not hackers.

Dev.f. is itinerant and, as mentioned above, sometimes holds sessions within tech companies. Kike is particularly proud of this practice. He tells me that for the company that allows them to use the space, they get to feel like they are part of this new "hacking" thing and also hire some of the best "talent" in Mexico while saving on recruitment costs. For Dev.f. they get to use the space to continue their operation. More importantly, as the nomadic Dev.f. batches iterate and occupy the space of different companies, they get to observe the inner workings of different institutions and the kind of performance and negotiation that take place within them.

The "hacker culture" thus becomes a product to be sold to hackers-in-the-making by expert "senseis" and also to tech companies who want to integrate talented software developers and also feel they are part of something young and new. The commodification of "hacking" might be seen as positive, in the sense that young men (and few women), many from underprivileged backgrounds, build solidarity with other young people, learn new skills that might enable them to gain employment, and at the very least, hacking keeps them away from

urban crime. The language used in the hacker ethic, however, aligns with the discourse García Canclini (2012) and Urteaga (2012) have pinpointed as neoliberal language used by the Mexican government to “blame the victim,” for example, “no existen excusas” (excuses don’t exist), rule number four in the hacker ethic. That is, this emerging “hacker ethic” must be understood in the current Mexican political and economic climate.

According to Marcus, the co-founder and CEO of one of the first tech startup incubators in Mexico City, the self-motivated and self-governing hackers that keep Dev.f. iterating are part of a new generation of young people who have undergone a complete cultural overhaul. “Five years ago, they would graduate and think about getting a job. Today, more than half of graduates in Mexico want to start their own business,” he says. He mentions that venture capital investments in México surged to \$978 million in the first half of 2015, more than double the \$403 million reported in the first half of 2014. He uses numbers to back up his claim that the startup boom is not only working in Mexico but goes on to credit Mexicans’ “creativity” for being able to stay ahead of the “exploding startup culture” reported globally. Marcus uses dollar amounts to give substance to rising economic trends and backup figures for the number of hackathons and corresponding prototypes created at these events—a 2016 report shows 3,450 hackathons counted worldwide with over 200,00 participants and 13,000 prototypes created across more than 100 countries (Laudet 2017).

Thus, the hackathon and the hacker are at the center of not only the imaginary of the nation but the coding and operation of the new economies that compete to be the “next Silicon Valley,” or other offshoot terms that index rapid economic development defined by technical expertise and information technologies (e.g. “Silicon Alley,” “Silicon Valle,” or “Silicon Savannah” (see Poggiali 2016). In Mexico, major cities (Mexico City, Monterrey, Guadalajara)

have taken turns claiming to be the city that gets it, the city where the future is being built, the city where the top “talent” can be found and where more emphasis is placed on STEM education and infrastructure. Guadalajara’s mayor Enrique Alfaro, for example, claims that the tech sector makes up 30 percent of the city’s economy, a figure he adds to reports that show around \$120 million has been invested in over 300 Guadalajara start-ups between 2014 and 2016 (Popescu 2016). The fact that half of Mexicans are under 30 and the median age is 27 might have something to do with the startup boom in Guadalajara.

No such investment figures have been reported in Xalapa, Veracruz, the home of iLab, and yet the spirit of hacking continues to flourish and connect with circulating narratives of entrepreneurship. This small but vibrant startup and hacking community receives praise from media reports and from the politicians who frequently stop by to take pictures with those who spend their time at iLab. Perhaps the activity is not surprising if we look at demographic data, however. A 2010 survey reveals that the state of Veracruz is home to close to half a million young people (between age 14-29) who do not study or have a formal job, and that 53% of those in this same age range fall under the category of “not economically active.” This represents 7.7% of the national total and the second largest percentage after the state of México (Instituto Mexicano de la Juventud 2012). This same survey reveals that young people in Veracruz place less confidence in “well qualified” institutions (medical, education, public university) than their peers in other Mexican states, and that 35% (also higher than the national average) believe they are worse off than their parent’s generation in regard to finding work or having adequate economic resources.

Thus, just like it is common to hear iLabbers reproducing the popular discourse about Mexico joining the new knowledge economy or the rise of a Mexican creative or middle class, it

is also common for young people to critique the iLab project for its state sponsorship and express feelings of disenchantment in regard to prospects of future livelihood. Omar, for example, tells me, “Todo está muy padre, las instalaciones y el apoyo, hasta que te das cuenta que solo quieren que registres tu compañía para que pagues impuestos” [Everything is real cool, the facilities and the support, until you realize that they only want you to register your company so you can pay taxes]. Omar reminds us that more than half of Mexico’s economy reportedly functions in the informal sector, where people do not pay taxes (but also receive no benefits), and he further evokes the sentiment of mistrust confirmed by the national youth survey. The founders of iLab, along with other economic “experts,” are quick to counter that the main technology systems in the world (referencing Silicon Valley, Boston, and Israel for example) were fueled by government money. The fact that Omar continues to work on his startup and hack away within iLab, with government offices located on the first floor, while he voices his skepticism and disapproval, further highlights the complicated maneuvers young people execute as cycles of expert promises, government projects, and economic models iterate in booms and busts that parallel those of Silicon Valley.

In contemporary Mexico, multitudes of citizens collectively protest the impunity, corruption, and violence that have come to characterize state practices, where *narcofosas* (drug-trade graves) with hundreds of unclaimed bodies frequently appear in clandestine locations, where dozens of protesting students go “missing” in the hands of state officials, where nothing seems to work – something in the here and now at Hack CDMX, at Dev.F., at iLab, “works.” More importantly, there is something to show for it: the constructed apps, however uncertain their futures might be, and the stickers on their laptops, however volatile those allegiances might be. Thus, their “making” (of apps, of spaces, of connections) succeeds precisely insofar as it

allows for a making and remaking of worlds, a necessary practice for Mexican citizens who “have been tormented with recurring modernizing fantasies and aspirations ever since independence” (Lomnitz 2001: 110). Hacking becomes a vehicle for sustaining a set of relations – relations that are crucial in the construction of the “hacker.”

## Conclusion

When I initially asked Chavita why he continued to attend hackathons in the face of empty promises and uncertain outcomes he responded with a reserved shrug. By following his and other hackers moves within and outside of the hackathon, in other hackerspaces, it becomes clear that young people learn to function inside of a challenged neoliberal economy by using different resources, appropriating the discourses of flexibility and self-management while they remain outside of formal routine employment. At the same time, they maintain their bliss for hacking not only to “rate themselves” and form a community where others can *truly* value their code work, but also to fill this overarching neoliberal program with substance, materiality, and meaning. For young people who attend hackathons, “hacking” emerges as a way to make sense of their futures in a precarious state and economy, as a way to exist in a system where things just don’t seem to work, and as a way to let the “code work” intervene in narratives that have only delivered false hopes.

I’ve brought you into the world of hackathons and co-working spaces (and what the participants call a hacker school) to show you how Chavita, Hugo, and the hackers and senseis at Dev.f. actively participate and thoroughly enjoy themselves as they appropriate and embody the hacker spirit and ethic. That is, in some ways they belong to the undifferentiated “global” hacker community other scholars have conducted research with. They value cleverness and creativity

and place a high premium on knowledge, self-cultivation, and self-expression as core tenets to achieving “productive freedom” and corresponding “software freedom.” They improve their technical craft by following principles of reuse, simplicity, consistency, efficiency, manipulation, and agility. Hackers attend hackathons and hone their skills as they work in solidarity to find the “coding bliss,” the affective dimension one encounters when creating beautiful code.

The emergence of the hacker subject position in Mexico also satisfies other interested entities. For government, hackathons provide the opportunity to showcase the promise of technology to its citizens and the “talent” that awaits potential international investors. Co-working spaces, hackathons, entrepreneurial initiatives, and neoliberal “reforms” are seldom differentiated by politicians. Hacker-entrepreneurs become part of the reimagining of Mexico as an orchestrated national project. For Silicon Valley, California, and the U.S., the exportation of the hacker results in economic and cultural capital. Hackers in Mexico not only translate and modify hacker ethics and guidelines across national borders, they also use products from U.S. companies that help them become hackers.

In the last decade, the “tech startup boom” has manifested itself across the globe in the form of tech hub spaces, tech accelerators and incubators, co-working spaces, startup weekend and hackathon events, and “demo days” where young entrepreneurs pitch their ideas to a panel of judges and potential investors. Key actors certainly design these spaces and events with California’s Silicon Valley in mind as the prototypical model of innovation and “disruption.” Out of this movement, hacking has emerged across the globe as a way to be in the world and as a way to relate to institutions. Popular media writers have celebrated the fact that hackers and hacking are now being depicted in popular culture with accuracy and complexity (Doctorow 2016). That is, major media companies have moved away from presenting us with the loner

genius that does impossible things in front of a magic box and instead have moved to show how individuals combine technology and social relations to accomplish specific actions within or against institutions. Definitions of hacking range from repurposing existing technologies for unintended consequences to the use of technology to advance a social good to modifying your smartphone to be able to use any cell phone carrier. My goal has been to investigate the underlying conditions for hacking becoming ubiquitous; I seek to do so without reproducing narratives of core and periphery, power and resistance.

Among Mexican hackers, I found a heterogeneous cast of characters, motivations, and experiences, not just driven by an interest in exhibiting the entrepreneurial spirit in order to perform middle-classness. When research participants search for coding bliss, they carve out ephemeral, unstable, and shifting spaces within the hackathons and co-working spaces, momentary oases where something “works” in a vast desert where, at the moment, nothing else seems to work. Hacking becomes one way to confront the state, or take advantage of state resources without feeling like you are necessarily dependent on it. Blissfully immersed in the coding logics that underlie programming approaches such as “loose coupling,” they learn to design systems that promote separation of concerns and self-determination by actors. That is, the components in a loosely coupled system are less constrained by their platform, whether it’s an element in a coding environment or an actor in a political environment.

Even as goals of hacking, such as personal liberation and removing the shackles of institutional constraint, get taken up by public and private projects that might not necessarily align with the common good or with the political goals of the hacker, the hackathon continues to be staged because hacking is not only a way of being in the world, it is also a way of intervening in the world. Or at least a way to feel like one is intervening in the world. The hacker is



autonomous. The hacker is mobile. The hacker is smart. The hacker is (finally) valued – by his/her peers, and by the state.

Throughout this paper I've attempted to tease out this tension, between the state constructed hacker and the hacker who constructs his/her intervention. I've also taken seriously other anthropologists' calls to examine on the ground the possibility of hacking constructing new subjectivities. Mexican hackers demonstrate agility at performing their "global" hacker status at the same time that they perform their "Mexican" hacker roles. That is, they demonstrate intimate knowledge of Mexican institutions and hone their ability to manage themselves and their "loose coupling" as they make the "app futility" serve a productive purpose—one in which they highlight and renegotiate their relationships with the state, private companies, and their valued hacker communities. As young people turn the spotlight less on what they say and more on what they code and the context in which they do so, they hack away, and in the background we have business as usual, politics as usual, reforms as usual. Politicians create and re-create "the state" in response to narratives that paint Mexico as "hyperconscious of its backward condition for at least 150 years" (Lomnitz 2001, xvii) or as a place where "traditions have not yet disappeared and modernity had not completely arrived" (García Canclini 1990, 13). The hackathon becomes a site where new versions of modernity are staged, where the state and hackers find complex ways to co-produce themselves, and where coding logic becomes foundational for the re-organizing of these relationships. Here, the self-identified hackers find meaning in a community of action and performance that supports them as they negotiate their new subject positions and conditions within these overarching processes that construct them as always "in-the-making," as always "becoming," as always waiting. If they're going to be waiting, they might as well be waiting in line at the hackathon.

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