"Se Graban Memorias,"
A Contextual Analysis of *El Paquete Semanal*, Human Networks, and Internet Access in Camagüey, Cuba

Conlon Novak (conlonn@andrew.cmu.edu)
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Abstract

Due to limited internet infrastructure, expensive Internet access offered only by the national telecommunications company ETECSA, and the precipitous cost decreases and increased availability of high-storage hard disks and USB drives, Cubans have developed a widespread "sneakernet" to more affordably access Internet content. This offline network, which consists of large "packets" of data moved via copied hard drives and passed from courier to courier, is called *El Paquete Semanal* (literally 'The Weekly Package,' despite recently implementing daily updates). This curated distribution contains domestic and foreign media, video entertainment, educational materials, desktop and mobile phone applications, downloaded YouTube videos, and whatever else is in demand by the people of Cuba, potentially further curated to the users' province, city, neighborhood, or individual preferences by enterprising *sub-matrices* (intermediary *paquete* redistributors) and *paqueteros* (*paquete* salespeople and deliverers) trying to set themselves apart in a pseudo-capitalist microcosm of the Cuban black market. This paper presents and contextualizes a series of twelve interviews, conducted in March 2019 and January 2020, of current and former Camagüey residents about the history, present, and future of this phenomenon in their city and country. Through this lens, this paper offers insights about *El Paquete Semanal's* curation, interactivity, affordability, and innovation in relation to other ways Cubans access digital media, such as various informal networks, the formal Cuban intranet, and the Internet proper.

Acknowledgments

Introduction

> "Never underestimate the bandwidth of a station wagon full of tapes hurtling down the highway."
> (Andrew S. Tanenbaum)

Tanenbaum's quote was already an old joke in the computer networking field by the time it was recorded in 1989 because it, like many good jokes, captured a simple but obvious fact; data can only move from computer to computer so quickly, which means that very large collections of files can sometimes be moved faster by hand than if they were transferred over a network. While these cases occur less frequently since Internet infrastructure has improved significantly in the intervening thirty years, the principle still holds true. Because you can only fit so much data through a wire at a time, the bandwidth limitations of network infrastructure connecting two computers causes bigger files to take longer to transfer, and massive files often prohibitively so.

The analogy of the station wagon sounds like a hypothetical—an outlier, perhaps only used by the data centers of large tech companies who can't afford to wait for immense amounts of data to trickle through bandwidth-limited connections[1]. For everyday Internet users in countries with generally ubiquitous internet infrastructure, like the United States, it's easy to think of data on the Internet as moving at the speed of light. In some countries like Cuba, though, one popular means of accessing Internet content moves closer to the speed of a bus rolling down rural dirt roads, or the teeth-rattling pace of a bike weaving over the cobblestone-laid city streets.

That speed is further limited by the latencies intrinsic in one hard drive being copied to another, over and over through an invisible "sneakernet," a network of people, cars, busses, and hard drives, until the data has reached the most remote parts of the island – places far from government-controlled Internet connections, but where people are just as eager to watch the latest episodes of their favorite TV shows, the newest movie releases, updated downloads of their favorite games, and the most recent versions of productivity and anti-virus software. Then the next week, like clockwork, the same thing will happen all over again.

This network is just one component of an increasingly connected Cuba. The niche that the *paquete* format established has been continuously broadened by the increased accessibility (and affordability) of home broadband Internet, 3G and 4G mobile data, public Wi-Fi hotspots, ad-hoc networks, and competing *paquetes*, among other means, suggesting the increasing importance of Internet connectivity to the Cuban people.

The body of research work surrounding *El Paquete Semanal* ("The Weekly Package," referred to here as EP) is somewhat limited due to the network's complex, informal, alegal, and dynamic nature, similar to that of many of the systems that Cubans live with day to day. With that in mind, this paper attempts to contextualize EP as the product of decades of cultural change. Additionally, it seeks to examine human network development within Cuba over time, from the country's initial embrace and promotion of

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[1] Some enterprise data recovery services offer the option of a mailed, physical backup hard drive alongside the ability to download your data from the cloud. The United States Postal Service's effective terabyte per second bandwidth, in this case, far exceeds that of the Internet connection to the average US home or workplace.

technological study and computing, through the government restrictions on access to the global Internet, and to the increasing access (in homes, on mobile networks, and via public hotspots) in Cuba today.

Background

Historical Context[2]

From Independence to Revolution

The island nation of Cuba gained its independence from Spain in 1902, but continued to struggle against the United States' efforts to control, annex, and occupy the country. This power imbalance stemmed in part from Cuba's economic dependency on the US to purchase its single export, sugar. Decades of ineffective, corrupt, nepotistic, and despotic rule reduced Cuban faith in liberal democratic governments as critics of the system became more overtly activist. This culminated with Fidel Castro and Che Guevara inspiring existing political activists, students, dissident military forces, and sugar workers to overthrow dictator Fulgencio Batista in the 26th of July Movement via strikes, protests, attacks, and guerilla warfare over five years (Chomsky, 143).

The Revolution led to the United States breaking diplomatic ties with Cuba and imposing a (still ongoing) trade embargo in 1960, while also the beginnings of the Cuban economic reliance on the Soviet Union, a move which accentuated domestic pressure from Cuba's working class to push the Revolution towards more Socialist ideals. This manifested in a series of aggressive reforms to redistribute the country's wealth and nationalize the economy, which proceeded until the private sector was all but eliminated by 1968.

Cuba's reliance on the USSR and monocrop export had the same flaws as their relationship to the US in the late 1800s and early 1900s, but with the notable exception that the USSR sought to support Cuba's economy rather than to exploit it (Chomsky, 335).

Cultural Changes

The Cuban Revolution was more than just political or economic. The Revolutionary government invested heavily in literacy, the arts, and promoting Cuban and Latin American culture on the international stage. In spite of decades of progress along these lines, Cuba's artistic freedom continues to have its limits, specifically in that it can't overtly challenge or threaten the existence of the Revolution itself (or present erotic content for non-artistic purposes), prompting a long tradition of artistic Cuban exile and dissident communities in Latin America, the United States, and further abroad. While the definitions of what types of content are disallowed in Cuba have changed somewhat over the years, the restrictions did little to hamper enormously successful literacy and cultural accessibility programs designed to bring elements of cultural production to the entire population, rather than only scholars and intellectuals (Chomsky, 335).

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[2] It is not this thesis's intention to comprehensively cover Cuban history. However, as the Cuban Revolution, Castro regime, and the US embargo against Cuba are among the primary reasons that *El Paquete Semanal* exists, they are worth at least introducing to readers who might otherwise have only a passing familiarity with them. For further (novice-friendly) reading on Cuban history, see: Chomsky; Pérez; Skidmore.

The Special Period and Cuba's Mixed Economy

As the Cold War ended and the Soviet bloc collapsed, so did the economic agreements that Cuba's monocrop economy depended on, sparking an economic crisis. In 1990, the government declared a "Special Period in Time of Peace," a time marked in many Cubans' memories as one of need, poverty, shortages, and dramatic changes to the economic landscape.

As a result of these shortages, the Cuban people deepened already strong community relationships and promoted an early form of do-it-yourself (DIY) or "maker" communities out of necessity. Lawn mower and tractor engines might be jerry-rigged to rickshaws or car bodies to save on fuel, or replace an engine that needed an unavailable part. This was especially true in cases where increasingly popular bikes were insufficient for the distance traveled or the amount of goods to be moved. Improvisational architecture meant that structural repairs and electrical work were done with the materials on hand and by whomever might be the closest thing to a mason or electrician available in the surrounding neighborhood.

> "Like everything here, we live by invention" (Participant 4)

In 1993 the Cuban government rolled back some of the Revolution's nationalization policies, allowing certain types of *cuentapropismo* (self-employment) to be selectively legalized and reviving the country's private sector, albeit under strict regulations and oversight (Phillips).

> "Over a hundred categories of "self-employment" have been legalized, and Cuban artisans can now privately produce and sell their works, run storefront restaurants, or operate taxis, albeit under a regime of increasingly stringent taxation." (Chomsky, 596)

These categories of *cuentapropismo* include *casas particular* ("private homes," a type of AirBnb-style room and home rental), taxicabs (usually of restored or maintained antique roadsters), *paladares* (private in-home restaurants), most of which are targeted to support Cuba's lucrative tourist industry at the cost of increasingly capitalistic economic reforms. Licensed doctors who attended medical school at the State's expense now opt to instead drive a taxi for tourists for tips, because the income (although less regular and often under the table, sometimes critically still comes in the form of USD when the currency is favored over CUC[3] on the black market) is significantly more than they would have made practicing medicine. Artists similarly still tie their incomes to the tourist economy.

> "I remember that in other countries in Latin America, if you say, "I want to be an artist" ... your family is kind of worried. Like, "Yeah... you want to be an artist... but what are [you] doing [for] real? ...What is your real job?" But here [in Cuba], if you say, "I want to be an artist," everybody would be super happy and support you. because it's a good business, too." (Participant 6)

The result is a mixed economy (with a robust black market) with multiple currencies (pesos for most Cubans, convertible pesos or CUCs for tourist- and foreign-facing businesses, and dollars for some specific industries, depending on the economic climate[4]) that exist under the control of a Socialist government, an inherent contradiction that Cubans accept as a fact of daily life.

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[3] One Cuban convertible peso (CUC) is equivalent to one US dollar.
[4] In December 2019, the Cuban government announced plans to eliminate the CUC and expand both peso (with larger denomination bills) and foreign currency use (notably, dollars accessed via bank cards) to fill the void (Frank).

Internet Connectivity

Similar to their progressive stance on literacy and culture, the government's stance on technological literacy and development had many of the same elements of egalitarianism and accessibility. Internet connections were made available at first to university students, doctors, diplomatic officials, and other industries. The *Joven Club de Computación* ("Youth Computing Club," referred to here as JCC) was established in 1987 as a government-run community center for technological access, education, and resources, bringing prohibitively expensive hardware, internet connections, and the learning resources to use both, to areas across the country (*Joven Club*).

However, widespread and uncensored Internet access presents another paradox for the Cuban government; the free and open exchange of information runs counter to government interests and propaganda in cases, and allows access to content that could be deemed anti-revolutionary. The government's solution appears to be heavily dependent on restricted geographic access and paywalling of the Internet proper, making the government-controlled Intranet more easily available to many Cubans.

That said, internet connections are now available (despite being expensive, having limited geographical availability as of this writing, and likely monitored) via the nationalized telecommunications company ETECSA in the form of Wi-Fi hotspots in various public parks, plazas, and JCC locations in major cities, in-home Wi-Fi routers through their *Nauta Hogar* program (only available in certain neighborhoods of major cities for now, per Participant 1), as well as cellular data plans for 3G and 4G networks. Given the prohibitively expensive cost, limited coverage, and general lack of availability of these options, an opportunity existed for an inexpensive, scalable, and widespread competing solution to evolve.

"The Weekly Package"

EP is not "the Internet" in any kind of literal sense as no physical hard drive could ever capture more than a fraction of its contents--but through a series of curatorial layers starting at EP's original copy (also referred to as *la matriz*[5]), the service delivers a greatest hits collection of popular internet media and content for that week, rather than a comprehensive catalog. This is compounded by the presence of *sub-matrices* in sneakernet's distribution network, giving power to every level of distributor and redistributor to make decisions about what content to preserve, insert, and/or delete within the available digital space limitations. By the time the hard drive (usually limited to around one terabyte in size) makes its way to the consumer, entire folders of 4K movies might have been cut for space while digital reruns of shows requested by local customers were inserted in their stead.

This also means that there is no one "*paquete*," but rather as many different EPs as there are distributors to make tweaks and changes. What EP and its vast network of distributors, couriers, and millions of customers represent is a human network with striking similarities to an Internet Service Provider (ISP), albeit with bandwidth and latency that more closely resembles that of a station wagon full of tapes than modern broadband infrastructure. Cuba notably doesn't have such infrastructure, which makes EP even more competitive in comparison now that it is receiving daily or every-other-day partial content deliveries to *paqueteros* to assemble over the course of a week, further increasing the service's effective bandwidth.

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[5] While *matriz* means the "original" or "master copy" of the physical EP hard drive contents, the term was also used interchangeably by interview participants to refer to the individuals or groups that assemble these copies (Dye termed this group *Los Maestros*).

EP has created an underground market niche that significantly undercuts ETECSA's pricing models. By frontloading the costs associated with having (ostensibly unlimited) access to high-speed internet downloading hundreds of gigabytes of content in a single point, EP is able to create time savings for users who would otherwise be required to pay for internet by the hour and sit through large downloads over slow connections, if they're able to access the content at all. Add to this the negligible unit replication costs of copying EP at every level, and the revenue scales with the number of customers willing to pay 2-5 CUC for a selection of the EP that ends up at their local distributor. The section that customers are able to copy is primarily limited by the amount of storage on their flash or hard drive, or by the amount of time they're left to copy EP when delivered to their home (generally overnight).

Methodology

Research Question, Goals, and Rationale

Is EP a responsive technology and content ecosystem that is unique to the Cuban cultural context? Or is it a network "alternative" that arose out of necessity and economic factors in the absence of widespread, affordable Internet access? Or is the answer some combination of both?

In attempting to answer these questions, this thesis will summarize the historical background relevant to EP, explore the cultural context surrounding the phenomenon. Additionally, it strives to capture the logistical and technological mechanisms involved in *El Paquete Semanal's* creation, distribution, and consumption, specifically as they relate to the experience of this phenomenon for a small group of Cubans living in Camagüey's city center.

Camagüey was selected as the primary location of investigation because of its geographical and population differences when compared to Havana. Camagüey, a city of 300,000 people (the third largest in Cuba), is about 330 miles away from the Cuban capital. In contrast, Havana is a coastal city of 2.13 million people that benefits from a stronger tourist economy, the headquarters of various national governmental departments, and more educational institutions such as universities. Consequently, a number of the technological and social aspects that contributed to the rise of EP were first observed, best documented, and still distributed from Havana. Additionally, geographic differences directly affect EP's distribution, and in turn its consumption; Camagüey, being physically removed from the initial distribution point, allows for insight into the impact that significant travel time might have on the system. In response, this paper strives to better understand how EP as a phenomenon and other human networks operate in Camagüey to add to the body of knowledge about different types of formal and informal connectivity across Cuba.

Literature Review

A literature review of secondary sources began in late 2018 and continued throughout the project. Research about informal infrastructure, human networks, and greater digital trends in Cuba exists, but focuses largely on the current environment, and some of it lacks the larger historical context that lays behind the contemporary phenomena. Additionally, little formal speculative work has been explored around EP's possible futures, with these more often being suggested in artistic works.

Academic Sources

One Cuban authority on the topic, Professor Fidel Alejandro Rodriguez at the Universidad de La Habana, laid out a timeline of EP's influences and precursors that goes into the ecosystem's history and responsiveness to political and legal considerations. It situates EP and other informal networks as "effective workarounds" to "restricted internet access." Speculating on EP's future, Rodriguez writes that development along these lines presents "the opportunity to pursue an alternative path of socioeconomic and cultural development, in line with the revolutionary project, but not limited by copyright trade guidelines or government restrictions," while also noting that attitudes towards copyright in Cuba may become a significant issue to EP in the more immediate future.

One of the few US scholars pursuing academic work associated with EP, Michaelanne Dye has published several papers and given talks about Cuba's local information infrastructures, the most relevant of which is an ethnographic examination of EP in Havana from 2015-2017. In their 2018 research paper, Dye et al. offer a case study of EP based on observations and interviews (n=53) conducted in Havana of individuals at various levels of EP's distribution network. They classify their interview participants into three groups; *Los Maestros* compile and create EP, *Los Paqueteros* distribute and curate EP, and *La Gente* appropriate, share, and publish to EP. In doing so, they examine how the various levels of EP distribution interact to affect the resulting content ecosystem, the result of which they found to be a personalized, negotiated, participatory, and entertaining Internet. While a detailed view of the current state of EP, Dye et. al. don't explicitly offer any insight into what the future of EP might look like, nor do they present EP as a content ecosystem that changes and responds to outside forces beyond government regulations.

Additionally, Michelle Leigh, an Associate Professor of Modern Languages at Fairfield University, challenges the portrayal of EP as a "'subversive'... 'singular' product" by presenting a view of EP as a distributed, bottom-up phenomenon that uses piracy to subvert US copyright law as an effectively open source platform within the country. She goes on to lay out a case study of a direct-to-*paquete* talk show that interviewed, "some of the original [EP] compilers in Havana," who cite EP as an extension of VHS tape rental and sharing in the previous decades, rather than purely a contemporary phenomenon. Additionally, the *paquetero* guests assert that increased access to WiFi will have little impact on the core business model of EP, which sets itself apart by offering organization and curation at an affordable price. While the paper is a case study with limited scope, it offers a credible window into the attitudes of those deeply involved in the creation of EP as to their views on its past, present, and future.

While there is a wealth of academic research into human networks and information architecture in a range of other contexts, EP specifically is an under-investigated phenomenon with a number of popular misconceptions surrounding it. These can come from (and be challenged by) journalistic articles, media coverage, and artistic works—all of which commonly portray the ecosystem as a novelty, hub for pirated content, and object d'art.

News Articles, Websites, and Artistic Works

English language mass media coverage has mostly focused on the mechanism of EP distribution and its cultural implications. These articles[6] situate the rise of EP (and its competition and substitutes) within both the economic pressures and restrictive internet policies that continue to create demand for EP, as

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[6] See: Harris; Helft; Kessler.

well as the recent relaxation of these policies that has led to the rise of more direct forms of internet access. Many appear to be centered around only one or two primary sources, with some acting more as portraits of *paqueteros* than as systemic overviews of a complex and nuanced economic niche, although some hint at it. At a higher level, these articles occasionally fixate on the relatively anachronistic transportation and delivery elements of EP, and often view EP's market niche through a capitalistic lens, both of which can be problematic when applied to a Cuban context.

Some articles, however, more successfully capture this broader context, such as Ernesto Oroza's article for TorrentFreak's 'The Little Pirate Book' that succinctly describes the high-level interplay between the Cuban government's desire for control and EP's early attempts at widely disseminating contents despite being officially declared illegal and alleged by propaganda to be dangerous. Oroza also mentions the interactions between EP and other informal networks, like Street Net (SNet), Cuban Craigslist website Revolico (then, still planning to be distributed within EP itself in addition to its existing website[7]), as well as their formal counterparts - the government controlled *Mochila* ("backpack", positioned as a kind of "anti-*paquete*") as well as the "very slow and monitored intranet."

For those curious as to the exact contents of EP, three main options exist. On the web, blog '*El Paquete de Cuba*' offers an interactive file structure preview of one copy of EP (sans actual files and contents, likely due to copyright concerns) from one *paquetero*, as well as the occasional article featuring something contained in EP itself or of particular interest (Leo). For those able to travel to a museum hosting an exhibit such as ARCA[8] (an "archive" of a year's worth of EP copies from *matriz* OMEGA, totalling over 64TB), by US artist Julia Weist and Cuban artist Nestor Siré, or The Cuban Matrix, featuring Francisco Masó and others, visitors might be able to view or copy elements of EP that follow US copyright law (Weist; The Cuban Matrix). The third option, and least accessible to most US citizens, is to go to Cuba and talk to the people who use it regularly, or even purchase a copy for yourself.

Primary Research

Twelve oral history interviews were conducted for this project over two trips to Cuba, in March 2019 and January 2020 respectively. Of those, eleven were conducted with men, one with a woman. This disparity in interview participants' genders is not necessarily indicative of larger trends within EP distribution or consumption, but rather is a function of networking contacts available for interviews during fieldwork. Eleven interviews were conducted in Camagüey, with subjects who currently live or work there, and one in Havana, with a subject who had lived in Camagüey previously. Four interviewees were currently or previously *paqueteros* (including Participants 2 and 6, detailed in the table below) at the time of their interviews, one relied on EP for software essential for their work (Participant 5), and one has worked closely with a *matriz*, one of the few groups which assemble EP in Havana, through his work as an artist (Participant 6).

Interview subjects were identified through a combination of networking through local contacts, and "cold calling" individuals with relevant personal, academic, or career experience with EP. These interviews were semi-structured using questions written to capture specific factual elements of EP distribution and

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[7] www.revolico.com

[8] ARCA had a unique solution to thwart copyright concerns: while working directly with rights holders to ensure that their works (reproduced without permission in EP) could be featured in the exhibit, ARCA was exhibited by appointment only, and allowed viewers to create transformational artwork out of the remaining content, on the condition that the resulting work be redistributed in EP as well (Weist).

use as well as explore the impact, or lack thereof, of phenomenon on their lives[9]. Changes to the interview questions used in 2020 were developed after reviewing the findings from the 2019 trip to identify knowledge gaps and corroborate or challenge information from the expanded literature review conducted in the intervening months.

	Relationship with EP	Demographics	Method(s)	Date(s) Conducted
Participant 1	consumer	male, mid-20s, artist	personal interview	March 2019
Participant 2	*paquetero*, consumer	male, mid-30s, media store clerk	personal interview	March 2019
Participant 3	consumer	male, late-20s, student and freelancer	personal interview, Facebook messages	January 2020
Participant 4	consumer	male, late-40s, academic and museum curator	personal interview	March 2019 - January 2020
Participant 5	professional, consumer	male, mid-30s, engineer and photographer	personal interview, Facebook messages	March 2019 - January 2020
Participant 6	artist, former *paquetero*, consumer, worked with *matriz*	male, early-30s, artist	personal interview, emails, WhatsApp messages	January 2020

Interviews were conducted in a mix of English and Spanish, with the help of student and staff translators, depending on the interview, with some interviews switching back and forth between the two. After their interviews, interviewees were contacted over WhatsApp and Facebook messenger to answer clarifying questions or provide additional information, as needed.

Interviews were recorded via paper notes, often in addition to audio and/or video recordings, in accordance with the interviewee's comfort level. Multiple interview subjects declined to be identified by their real name, or to be recorded on video, or even to be recorded on audio. Given the sensitive and alegal nature of EP in Cuba, all names used to refer to interview subjects have been changed. Beyond transcribing or paraphrasing interviews, field notes about environments, contexts, relevant details, and connections between interview content and prior research were recorded to facilitate later thesis-writing post-production efforts.

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[9] See Appendices I and II

Interview Participant Scope

It should be noted that, in the same way that Camagüey is not representative of Cuba as a whole, this paper is not representative of Camagüey and its human network in their entirety. Rather, this paper's goal is to offer a window into a complex phenomenon that lacks extensive historical and contemporary documentation, especially outside of Havana, and hopes to provide some basis for future research in this domain.

The scope of this project was limited to twelve interviews, eleven in Camagüey from 2019 to 2020, and one in Havana in 2020. As such, it is impossible to draw generalizable conclusions from such a small sample limited to one specific context. However, the convergence of interviewees' observations and insights can be used to inform a perspective of EP that is not fully represented in secondary literature. As such, this work aims to provide a contextual snapshot of EP's Camagüeyan context as one potential starting point for further research, which is especially timely given EP's ephemerality, rapid pace of distribution, and a lack of associated research and archival efforts.

Findings

Timeline of Human Networks in Camagüey

"...[EP] is not some phenomenon that started in 2014."

> "[EP is] a cultural phenomenon. But it [started] many, many, many years ago. [EP] is [the] result of different development in relation with [the] economic and political situation in Cuba and the democratization of technology, because the distribution is a very important part of the phenomenon." (Participant 6)

EP is a distributed, underground, and significantly human-to-human network, making its study difficult at best. Much of its tangible history has been lost due to the relatively high cost of computer storage in Cuba, making oral histories about a computer sneakernet one of the few remaining ways to probe its origins. Even asking the seemingly simple question, "When did EP start?" creates problems such as, which EP? There could be as many different versions of EP as there are *paqueteros* to modify, curate, augment, and add advertising to EP itself.

The most conservative (and most plausibly correct) estimate as to EP's emergence is by Michaelanne Dye et. al. in their 2018 paper "*El Paquete Semanal*: The Week's Internet in Havana," which estimates the phenomenon's emergence at around 2011:

> "Responding to the pervasive scarcity of information access, a group of individuals began distributing digital content throughout the country on USB drives around 2011. This was EP, an information ecosystem comprised of digital files, USB drives, external hard drives, servers, and computers, all interconnected through a human network stretching across the country." (Dye)

However, one interviewee familiar with EP's creation claimed that the *paquete* versions that have the broadest reach generally come from two sources: OMEGA (who, in addition to content acquisition and

curation, have a special focus on advertising) and Studio Odisea (who similarly focus on Cuban music promotion).

These *matrices*, or original copiers, strive to remain largely anonymous, meaning that few individuals associated with either of these groups have ever been interviewed or identified in published media. Add to this the fact that those people would have everything to lose and very little to gain monetarily[10], and their reason for remaining relatively obscure comes more clearly into focus.

Despite this, there have been some interviews with individuals claiming to be among EP's creators in US outlets, speaking as to when EP began. In 2015, Forbes cited the rise of EP as being even earlier, somewhere around 2008, but these claims come from an interview with a claimed founder of EP who goes by the pseudonym "*El Transportador*."

> "[*El Transportador*] was an economics student and toured Europe with a theater troupe. At 18 he began collecting digital music and distributing it on thumb drives and CDs to deejays across Havana and the rest of Cuba. Within a year or two he met up with a small group of like-minded types who had done the same with movies, TV and software, and they agreed to team up. *El Paquete* [*Semanal*] was born, and while the original members are no longer together, it remains the creation of a loose band of collaborators." (Helft)

In another 2015 article, Fast Company also cites EP as dating back to 2008, but similarly interviews *El Transportador*, stating that he recently had a falling out with his business partners while noting they wouldn't be giving this type of interview. However, the article questions his reliability, fact-checking his claims that he has employees downloading his *paquete's* 1TB of content from public Wi-Fi hotspots, a feat that would require an inordinate amount of time (on the order of 2,400 person-hours per week, according to the article), money (Wi-Fi access, when acquired legally, costs something around $1/hour), and network reliability (the same article opens with a verbose narrative of just how bad connectivity to one of these hotspots can be, an experience supported by multiple sources in my own research).

> "Around 2008, [*El Transportador*] started to get in touch with other people who had started similar businesses with different types of content–video games, movies, video clips, TV shows–and they decided to collaborate to make a bigger business. Their first collaborative packets were about 500 GB and included a tiny text file with an email address inside that people could use to make requests for the next week's El Paquete." (Kessler)

Oroza cites EP as beginning even earlier, describing the same type of emergent digital content-selling phenomenon that *El Transportador*[11] outlined for Forbes and Fast Company as beginning in the mid-2000s. This is a natural next step for groups of Cubans who owned flash drives and found themselves in possession of sought-after media files and applications. What started as offering to share their files with each other eventually led to Cubans monetizing their collections in the form of underground businesses, which would eventually mesh together to form EP's downstream distribution network.

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[10] Though figures for how much revenue EP generates are hard to pin down due to both its distributed nature and a general lack of study, multiple interviewees speculated that compensation for an interview would be dwarfed by the weekly income of the hub of EP creation for the entire country.

[11] *El Transpotador* is also mentioned in a post-publishing edit to the Oroza article as someone "[pointed] to... as one of the main managers of *El Paquete Semanal*."

"Some people who had computers started collecting and selling kits of digital contents; it became a way to earn money. You could buy one terabyte of contents, connect the hard drive directly to a television, and watch it without any computer. You just needed to bring your own hard drive to the seller and transfer the files at his place. You could even customize the package by asking for a part of it only (to save money) or for more specific contents (only kung fu movies, TV shows, games, music, etc.)." (Oroza)

The interviews conducted for this project supported the portrayal of EP not as a "thing" per se, but as an emergent, evolving phenomenon that began significantly earlier than indicated by the sources above. In fact, according to one subject familiar with early human networks in Cuba, saying EP began in a certain year is one of the most misreported aspects of the phenomenon. While it's likely true that EP "began" in its current form as ad-hoc sharing of the contents of USB drives in isolated communities, the interviewee asserts that it's just the latest in a series of evolving media-sharing phenomena dating back decades. In our interview, he described being a part-time *mensajero* (delivery courier[12]) for what he considers to be one of EP's earliest precursors:

"The way I understand the *paquete* right now, it's not some phenomenon that started in 2014... but at this point, the only thing that changed is the way of distribution, but the idea of distribution of entertainment materials starts further in the past. My grandfather is one of the Cubans who rented novels [and] books [by someone like] Corín Tellado, and I think that this is the beginning of the paquete in this time." (Participant 6)

Book Rental Networks seed the spirit of EP (1950s and 60s)

"But after the revolution we had a [media void], with more [government] control, but we always [found] a way to consume things [that] are coming from the United States. We are so close, you know." (Participant 6)

Participant 6 traces the roots of EP back to the Cuban revolution itself, when legal channels of Cuban media stalled out any possible evolution or growth. The nationalization of the entertainment industry, alongside all of the other industries necessary to allow and support creative endeavors, essentially halted all development inside the country. Add to this that media wasn't yet being widely imported from the USSR or the Soviet bloc, and a niche quickly emerged for enterprising Cubans to take advantage of what supplies existed in the country to turn a profit for the surviving supplies from the now-nationalized small businesses - in the case of Participant 6's grandfather, his books, and later, movies on VHS and DVD.

"In the time of the DVDs, [my grandfather] received the film, he [watched] the film, made a decision about the [genre] (and it's always "super action," because it's the most popular thing in Cuba), and he decided [on] his own stars. Sometimes he [made] another version of information [about] the film that [didn't] have any relation [to] the original film. And for me, this is super interesting because he [is] making a kind of version, different version, very personal version [of the film for] the client he has." (Participant 6)

This egalitarian approach to knowledge sharing, Participant 6 contends, is what was carried forward throughout different versions of media sharing. The types of media exchanged in these early networks would shift as technology matured and became sufficiently affordable and available in Cuba, despite the

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[12] "The word now is *paquetero*," he said, describing modern EP distributors (Participant 6).

US-Cuban embargo beginning only two years after the Revolution, making some types of media and technology more difficult to affordably import, but the spirit of sharing and loaning information within these community networks persisted, even as the technology used by these human networks improved with their ability to organize, collaborate, and grow.

Cuba's Official Transition to the Internet Age (1990s and 2000s)

At the same time, more traditional network infrastructure was also being developed. Cuba's two-tiered access paradigm saw high-speed Internet connections introduced in 2000 only to government officials, universities, and businesses that interacted with foreigners, leaving the public largely unable to access the Internet through official means.

During this time, one interviewee (who requested to remain anonymous, for reasons that will become clear) told a story of his work defrauding the Cuban government by fraudulently applying for DSL connections on behalf of foreigners and providing them to Cuban residents, who otherwise couldn't even apply for the service. These foreigners were in on the hustle, and were characterized during the interview as likely older foreign residents who would qualify for DSL internet but could not afford the service—50 CUC/month bought 80 hours of internet, decidedly a luxury price at the time[13].

In exchange for using their identity in the application (a serious crime), any network users[14] would pay for the entire monthly fee and then some, providing a nice kickback to the foreign residents for the fraudulent use of their connection privileges. This continued from the mid-2000s to the mid-2010s, likely only gradually becoming less common as DSL was phased out and in-home broadband service became legally available to the Cuban public through ETECSA's *Nauta Hogar* service (Batista). While the DSL scheme wasn't strictly network piggybacking, it certainly shares the same spirit of leveraging existing, legal infrastructure (in this case, the bureaucracy itself) in illegal ways to gain access to the internet.

The 2010s - ETECSA expands public internet access, but behind barriers

Internet access points in larger cities are attached to public plazas and government-owned hotels. Access to these networks are limited formally by hourly Wi-Fi cards, available in 1- and 4-hour varieties for ~$1 and $3 respectively from government vendors. If unavailable or out of stock, you can commonly find scalpers selling Wi-Fi cards outside hotels and near popular plazas. The primary use for these types of connections is to connect with friends, family, and partners across the country and internationally.

> "Or by another measure, spending an entire month's salary a worker can only afford 19 hours of internet connection in the Wi-Fi zones enabled by the state telecommunications monopoly, ETECSA, or 84.5 minutes of local calls through cell phones." (Escobar)

These Wi-Fi hotspots have had a number of unintended consequences as to the social aspects of using the Internet. One student told us about the way that they would stretch their valuable Wi-Fi cards by pooling

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[13] For context, the average Cuban monthly salary in 2017 was 767 pesos (29 CUC) according to the Cuban National Bureau of Statistics and Information (ONEI). However, this data can be misleading, as many Cuban rely on other sources, like remittances from family abroad, to supplement their income (Pérez 352). According to one source, "Nobody in Cuba lives on their salary" (Escobar).

[14] At first, the number of connected users was only limited by as many people as could physically connect and reasonably share bandwidth. This was later limited to two connections by stricter ETECSA verification policies via phone verification.

their money to fund one laptop to connect for several hours, then using that laptop to create a private hotspot that several of them could share. This same principle is likely one of the ways that network piggybackers operated, either legally acquiring access or illegally tapping into the infrastructure of the access point before illegally redistributing it to their customers.

In some neighborhoods of major cities (including six or so in Camagüey, covering ~15% of the city), ETECSA has begun to make in-home Wi-Fi a reality via a program called *Nauta Hogar* (according to the Camagüeans interviewed, roll-outs to other districts have been painstakingly slow according to interviewees). Once it is available in an area and a household has purchased a router (a device that requires a permit to own in Cuba), ETECSA Internet plans typically cost ~$15/month for 30 hours of access in 2019.

After availability, price is one of the leading factors preventing Cubans from being online more of the time. As with any market, this demand has created a niche for entrepreneurs who are less concerned with the legality of tampering with state equipment. A second router may be placed adjacent to a plaza that offers lower prices or difference coverage, while still connected to the plaza Wi-Fi with the same hourly cards as the public. Similar improvised systems exist to share home Internet connections where coverage is not yet available.

High-speed cellular networks have been rolled out by ETECSA in Camagüey over the past year, with 3G being introduced in December 2018 (and 4G later in September 2019). At launch, 3G cell service supported only a limited number of supported phones with a 4GB data plan costing ~$30/month (Participant 1). While useful for surfing the web or using social networks, the speed is still slower than those offered in the plazas or available via other means. One person interviewed described using a VPN-like service on their computer via their phone to increase the speed of the connection. Describing the speeds of the 3G, they said, "It's slow, but it functions" (Participant 1).

All of which leads us to the present state, with EP structurally remaining very similar to its introduction around 2014 despite technological, logistical, and availability improvements as the service has increased in popularity, size, and coverage.

El Paquete Semanal

Figure 1: *Se graban memorias* ("USBs copied") adorns the door of a small shop in Camagüey that sells *El Paquete Semanal*. Also posted are the prices for phone minutes, as determined by an ETECSA offer to add bonus minutes to phones when reloaded from abroad and split amongst a number of other people, from 2 to 20. 6 x 7 means customers pay 6 CUC for 7 CUC worth of mobile phone credit. Photo: Participant 5.

> "My, in my own experience, I have 4G in my phone, I have internet all the time. I am, you know, very connected. But I never see a video online because... it's like, why? I can consume the *paquete*. I will receive all the videos, I will receive the YouTubers that I like from the *paquete*. I don't need [to go] to YouTube because [it] will also [be] expensive." (Participant 6)

El Paquete Semanal, or The Weekly Package (abbreviated here as EP) is a collection of a up to terabyte of software, media, and Internet content distributed via mechanical hard drive that makes its way by truck, by car, by bus, and by foot across the country each week (and more recently, every one or two days) to anyone who can afford it. Priced at about 2-5 CUC, EP provides an alternative to those who can't afford—or can't even get, depending on location—direct internet access via ETECSA Wi-Fi or mobile data offerings.

This curated weekly distribution contains domestic and foreign media, video entertainment, educational materials, desktop and mobile phone applications, downloaded YouTube videos, and whatever else might be in demand with the Cuban population. Local *paquete* redistributors may repackage EP with content that their community requests, elevating EP from a static content repository to an interactive ecosystem that's both responsive and localized.

Despite EP's questionable legality (its initial creators and distributors remain carefully anonymous), its low price and relatively uncensored curation (despite some strict internal rules) have made it a popular ecosystem for the mass distribution of domestic and foreign media for a variety of personal and professional purposes.

External Factors - PESTLE Analysis

One lens through which EP can be viewed is that of its reaction to its external environment. The PESTLE macro-environmental framework is useful for examining the external **P**olitical, **E**conomic, **S**ociological, **T**echnological, **L**egal, and often **E**nvironmental factors that influence capitalist business contexts, an economic label that *El Paquete Semanal* arguably falls under, despite its presence in a mixed nationalized economy with a private sector and black market.

PESTLE is a business analysis framework used to identify opportunities in markets that change over time. By repeatedly performing this analysis, businesses can track how different external factors change over time and respond to or anticipate those changes, such as new relevant legislation being passed or monetization schemes popularized, and seize the right opportunity afforded them by the alignment of some or all of these factors.

Abstracting this one step further away from businesses in the US capitalist market, PESTLE is used to describe complex systems that change over time. Here, it can be applied here by treating the *matriz* of the paquete as business owners and EP itself as a "business," despite its inherently distributed and interdependent nature. This can offer some insights as to why EP as we know it today manifested itself how and when it did.

Legal

> "When you don't have a good way and bad way, and you have just one way, is not bad or good, it's just what it is, and this is why the phenomena of the paquete is just normal here and nobody think about piracy include the Cuban directors or the Cuban music or whatever." (Participant 6)

Most if not all of the content within EP is some shade of illegal from the perspectives of other countries, mostly due to copyright law. The *matrices* assembling the hard drives are not paying licensing fees, nor are they honoring distribution or advertising agreements made by IP or copyright holders. Additionally, they are often explicitly circumventing international policies like the US embargo against Cuba, where it may apply to the sale or distribution of media or software. Similarly, *matrices* edit out overtly political and pornographic content to avoid unwanted legal consequences from the Cuban government itself.

Political

The official legal status of EP's contents have done little to slow its rapid growth and widespread adoption. This has the practical effect of causing the phenomenon to be essentially alegal, or operating beyond the framework of the law, in both national and international contexts. EP, a collection of largely

copyrighted works reproduced without payment or permission, exists solely because of the lack of effective international copyright enforcement in Cuba. It also traffics heavily in United States media and software, which are not able to be purchased legally online via Cuban IP addresses due to the embargo, filling a (massive) market niche created by international law by subverting it all together, as well as providing a better service experience - copying files off of EP is cheaper, faster, and more reliable than downloading it from ETECSA-provided internet.

Further examining the curation of EP's contents, while the phenomenon isn't explicitly recognized by the Cuban government, let along regulated by it, the package clearly has taken steps (voluntarily or otherwise) to avoid unnecessary legal scrutiny by enforcing a set of unwritten rules, passed down from the ideals of the Cuban revolution; "no politics" and "no pornography". What these rules mean in practice is a little hazier. Political content from other countries regularly makes it into the package, especially if it's newsworthy or critical of Cuba's international rivals. Late Night TV shows from the US are a regular inclusion, which by default includes a range of social commentary on current events, including international and US politics. However, EP stays away from overtly or explicitly dissident content as a rule. Similarly, nothing that could explicitly and exclusively called pornography appears in the package, but there are no similar reservations about distributing R-rated moves or mature television series that feature graphic sex and full nudity (for example, Game of Thrones' final season featured both, but was also distributed in the Cuban state's official EP alternative, *La Mochila*, as it aired, per Participant 1). This isn't to say that digital pornography can't be obtained in Cuba—it just isn't distributed through EP due to the potential legal ramifications of distributing pornography.

Economic

> "The *paquete* exists in Cuba because time, in Cuba, is not money." (Participant 6)

Money, like many resources in Cuba, can be scarce depending on an individual's situation. What tends not to be scarce is time and patience. Given shortages and scarcities, Cubans are accustomed to often waiting in long lines for good and services, and it's not uncommon to see Cubans sitting outside their homes on nice days just watching afternoon traffic and passerby, calling out to anyone they may know or recognize, striking up impromptu conversations to pass the time. Kids tend to play in the streets or plazas, kicking around soccer balls or riding on scooters.

This same 'money is more valuable than time' mentality carries over to Cuban consumption of Internet entertainment content, with one notable restriction: all internet connectivity costs by the hour to use, making workarounds essential to stretching every dollar spent on the luxury of streaming YouTube videos or downloading specific apps. The workaround for items not in EP tends to be different ways of sharing the cost of access or stretching how far your personal contribution gets you. In one example, a young man described how his friends would each buy a 1 hour Wi-Fi cards and use them sequentially on a shared laptop to create a private hotspot, stretching a 1 CUC investment from five people into 5 hours of access. This may result in a slightly worse connection shared amongst the group, but effectively multiplies the amount of time they could spend online in a friendly, social setting, making this by far the preference for young Cubans looking to stretch what little spending money they may have[15].

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[15] The average Cuban monthly salary in 2017 was 767 pesos (29 CUC) according to the Cuban National Bureau of Statistics and Information, which is likely an underestimation of the amount of money Cubans needed to live (ONEI, Escobar). See footnote 13 for more information.

Other alternatives have cropped up. Specialty mobile apps like SnapTube allow users to download large chunks of Facebook, Instagram, and YouTube for offline viewing, turning what would otherwise be online-only content (running down ETECSA Wi-Fi cards or in-home *Nauta Hogar* hours of connectivity). The result is that many people have found ways to minimize their reliance on needing active internet connections all the time, using mobile data opportunistically for data-light apps like WhatsApp and Facebook Lite and saving Wi-Fi for video calling friends and family across Cuba and abroad.

In fact, according to some interviews, the rise of video calling over the last several years has led to a change in the dynamics of families sending money via remittances to relatives in Cuba. Historically, what might have been conversations held over letters or phone calls now have a more visceral and immediate feedback loop. When being sent money, mobile phone minutes or data, or other goods directly, one interviewee observed that Cubans are directly incentivised to spend some of that money reaching out (now via video call) to their patron family members abroad, which puts them in more direct contact with them, making them better able to ask for other or more things that they may need (Participant 3). This significantly improves the lives of many Cubans, allowing them to tackle expenses that they couldn't afford to cover before meeting their essential needs, or in some cases allowing them to start *cuentapropismo* businesses. Many Cubans have been able to live quite comfortably, with some even so well provided for that they can do so without needing to work (Participant 3).

Sociological

Cuba's education system since the Revolution has been significantly improved, boasting no costs and a near 100% percent literacy rate. Combined with an economic system that prioritizes having a job over having a job in the field you want[16], Cuba's population tends to be over-educated for the jobs they hold. Several interviews presented an anecdotes of doctors who would make more money driving taxis for tourists, due both to the higher seasonal income and the propensity for tourists to tip to the norms of their home country, which often have favorable exchange rates to the Cuban peso in addition to the already significant spending power of foreign currency in Cuba.

EP's consumption is aided by a relatively tech-savvy set of younger generations, starting with those who might have been in the earliest classes of Cuba's College of Informatics to those just now seeing and using iPads or computers at home or through JCC. More recently, under the economic reforms of Raul Castro in the late 2000s and 2010s there's been a significant shift in higher education away from universities and towards vocational and technical schools, or no further education at all (Pérez 353). Interviewees spoke about Cubans who either opted not to pursue university or knew people who did, saying that many "didn't see the point" when there weren't enough jobs for those with college degrees already.

Regardless of their education, these younger people can serve as EP evangelists to their families, friends, and neighbors, facilitating the system's network effects by introducing peers and acquaintances to the affordable service that can be viewed on almost any piece of technology.

Technological

EP benefits from being built on what has become a very mature technological platform; hard drives with SATA ports and USB-A connectors. USB ports can be found in almost every technological device, from car stereos to TVs to computers of all shapes and sizes, and most of these platforms include some way to

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[16] State employment accounts for 80% of Cuba's workforce (Escobar).

browse and play media from EP. Flash drives (usually around 2-8 GB, per multiple interviews) and hard drives owned by EP customers can be taken to stores to copy the EP from its local redistribution point (pricing varies, but one *paquetero* interviewed charged ~1 CUC per GB copied) or full-size EP copies can be dropped off at customer's homes overnight for them to browse and selectively copy at their leisure (charged a flat fee, usually slightly more expensive than copying in-store because of the hand delivery, temporary drive rental, and ability to copy the entirety of EP, time and storage space permitting). The tech landscape might shift slightly as higher bandwidth cable standards become more widely adopted, but for now, it appears to be very stable.

The hard drives that EP customers use to copy the packet overwhelmingly feature standard USB-A connectors, allowing them to plug into personal computers, TVs, DVD players, stereo systems, monitors, and basically any electronic device made in the last two decades.
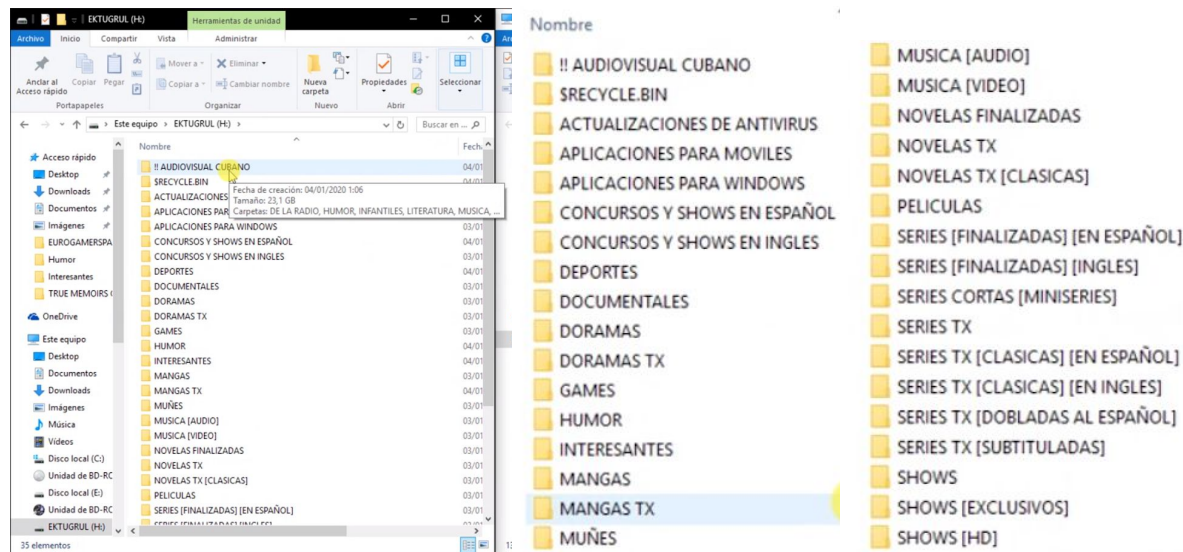
Internal Structure

Figure 2: A series of screenshots of EP's file structure as viewed on Windows 10 on January 11th, 2020. Screenshots: Participant 3.

> "If we are thinking about structure... It's very similar to Hulu, Netflix, ... Apple TV, Amazon - [they're all] the same. The only difference... is that you are receiving ... these channels from the Internet to your home, to your TV. But in Cuba, all [of] these files [are] coming from one human being using a hard drive, completely offline." (Participant 6)

One of the major selling points of EP for many Cubans interviewed was its combination of structure and curation that results in a predictable pattern of content being included in the places where people consuming EP would know to look for it.

The experience of browsing EP varies greatly across devices, relying on (usually preinstalled) file browsers on whatever devices users have, from desktop computers to laptops to TVs with USB ports to car stereos. There are no fancy splash screens or infinitely scrolling pages of text and thumbnails—just a list of folders and files in whatever format the device can display. It's difficult to attribute intentional design to every aspect of the file system, but these different contexts place a strong emphasis on this file

structure to be descriptive as to its contents for new users, to not exceed character limits on abnormal displays (most EP folder names are fewer than 12 characters, though can be above 40 in some cases), and generally help users find what they're looking for as quickly as possible.

To do so, EP employs a number of tricks based on default file browser configurations and knowledge of their audience. Folders deemed important (often news or snapshots of the Cuban Craigslist clone Revolico) have the "!!" prefix attached to them, which is sorted before "A" in Windows File Explorer's default viewing mode and floats to the top of users' lists, making them more likely to see those items and faster to access for those who are looking for them. Additionally, the separation of music into tracks and music videos at the highest level allows users and *paqueteros* to copy only what they need - music videos are in high demand by businesses and restaurants who show them on a loop on a TV, sometimes wired into a stereo system, whereas audio tracks can be plugged directly into stereo systems in buildings or vehicles to serve as a high-capacity CD replacement.

After these highlighted folders, antivirus software updates take the next highest spot, followed by applications for all kinds of popular devices in Cuba (APLICACIONES PARA MOVILES contains folders for ANDROID and IOS, while APLICACIONES PARA WINDOWS has a variety of apps for EP, including the base antivirus software itself.)

The curators of EP also appear to be very conscious of the language barriers inherent with importing media from abroad. TV series (SERIES Tx) are split into folders at the highest level by both their recency (unlabelled vs. CLASICAS) and the spoken or dubbed language of the media (EN ESPAÑOL indicates original Spanish audio, DOBLADAS indicates Spanish dubs, and SUBTITULADAS indicates Spanish subtitles). Folders of Korean "K-dramas" (DORAMAS) and Spanish or Mexican telenovelas (NOVELAS) are also popular enough to warrant their own folder.

TV Series, Gameshows, and other televised media are additionally categorized by whether or not they're still on the air (moving to folders marked FINALIZADOS when concluded) and if they're being distributed in EP as a full season (POR TEMP, short for *por temporada*)

Content Acquisition

Sites such as The Pirate Bay, which host information that allows peer-to-peer file sharing of large amounts of data, are likely used by *matrices* to seek out high-quality copies of media as they make their way online, or else they must explain to their customers why the latest episode of the show they're looking for isn't in this week's package—or risk losing those demanding customers to another *paquetero*.

> "But like if something happened with [an] episode, [the *matrices*] need to put a text [file explaining why] the episode is not online - because something happened with the production, [for example]. But [they] do need to say that, because the people that are consuming some [popular] TV show... want to see [the] chapter on time. " (Participant 6)

However, while popular TV shows often appear on these sites in high-quality "rips" or via satellite TV recordings relatively quickly after their premiere (and sometimes even before), movies often first appear as "cams," or camcorder recordings, usually from an enterprising movie-goer who sneaks a small handheld camera into a theater to tape a new movie in its entirety. These versions of films are popular in regions where official releases are expensive or unavailable, but often suffer from a significantly lower resolution and with added camera shake that you wouldn't find once the movie is distributed through

(official and legal) digital means. That said, portions of EP's audience have come to expect a version of everything popular released that week, forcing *paqueteros* to balance demand with quality in the window before both are easily accessible online.

> "But in relation with movies, [*paqueteros* will] know [when] the movie's premiere [is], but [they'll] never know [when] the movies are [uploaded] in good quality online, in a pirate way, you know. And it's impossible to say, "I need the movie right now." No, we need to wait for the movie [to] exist online in good quality." (Participant 6)

Figure 3: A *paquetero's* desk in Camagüey as they're processing a recently delivered master copy (bottom center, the hard drive labelled PAKTE JUAN REPUBLICA) of EP from a courier. With a custom PC case, they were able to slot the hard drive into their PC without an enclosure, quickly allowing them to start the hours-long data transfer process. Photograph by the author.

Advertising

An extension of EP's extralegal nature combined with its capitalistic niche in Cuba's mixed economy results in *matrices* and *sub-matrices* beginning to explore advertising, a relative first in Cuba, where advertising has been largely banned since the revolution. As a result, advertising as both a concept and an industry are still in the early stages of development, with startup digital ad agencies having to limit the complexity of promoted content to get their intended messages across.

> "The problem is that the people are consuming... advertising for the first time in the history of Cuba... And the level of the advertising... need[s] to be very simple." (Participant 6)

In EP, ads for the private sector may take the form of either files (usually images) strategically placed within EP itself, or content inserted into the media that viewers are most likely to watch (usually in the form of short video ads or animations appended to videos or watermarks shown overtop of them).

Ephemerality

> "[Y]ou can come in here and, in a month, take... four weekly packets. But in six months, [EP] will be completely different. And this information is just gone." (Participant 6)

That said, the content selection within is difficult, if not impossible, to track over time, as there is no historic repository of EP content. While efforts have been made to preserve this content (one artist assembled a year's worth of EP copies, sourced directly from a *matriz*, on a massive server), the fact remains that more niche content in EP tends to be redistributed much less frequently, if at all. Outside of popular media occasionally included in bulk as a kind of digital rerun, the distributed network is almost entirely ephemeral. One interviewee encountered this when he missed the EP distribution the week after a YouTube video he was looking forward to was included and had to wait for six months before it was organically included in his local copy of EP again (Participant 4). Between the relative expense of having and maintaining backups, as well as the financial incentives to keep only popular media files on hand to copy for customers or *paqueteros* downstream, there is a myriad of content that isn't regularly redistributed.

Curation

> "The situation with the curating, if we can use this concept in relation with the *paquete*, is everything this guy can find online [is included in EP]. Everything. Everything." (Participant 6)

While some interviewees maintained that EP wasn't significantly curated (including "everything" that you could find online), or that *paqueteros* were only responding to popular demand, it became evident that certain types of files and folders were more likely to make it end users without significant modifications or being deleted altogether. For example, TV and movie premieres or recently released software were the safest, but massive 4K video files, which only caters to a small, niche audience in Cuba with the hardware to properly view it, would be the first to be removed to save on space while being copied to a smaller hard drive.

"The Backpack"

While EP might be the most popular *paquete* among those interviewed in Camagüey, it is not the only *paquete* in Cuba. *La Mochila*, or "The Backpack," is a *paquete*-like data offering with significant content and distribution differences when compared to EP, likely driven by its official government backing and ability to leverage existing state infrastructure. As such, the history and goals of *La Mochila* are intertwined with those of the organization that curates and distributes it: the national network of youth community computing centers of the JCC.

Joven Club de Computación

> "The government has a project, there [is] a *Joven Club*, [Youth] Club. This project, the idea is [to] make computer access for all Cubans." (Participant 6)

When conducting fieldwork in early 2020, an opportunity arose to interview the directors of JCC on-location, offering insights into the organization's offerings and community engagement. A short walk outside of Camagüey's historic city center, a small complex of buildings stood around an outdoor courtyard that used to be a public park. In 2016, it was converted into *Bosque Tecnologico*, a "technological forest" which also houses a more traditional community computing center in its adjacent blue-and-yellow buildings. Despite a steady flow of people into and out of the complex, the central courtyard was mostly empty when we visited on that January mid-afternoon, but it wasn't hard to imagine the brightly painted industrial architecture sprinkled with people sitting on their phones or chatting at outdoor picnic tables, draped in shade by the canopy of big, leafy trees. Stepping into the shade from even the winter sun's direct heat was immediately soothing, but the shade wasn't why there were so many people passing through. Nor were they interested in the shuttered concession stand towards one end of the plaza. The visitors, many of them young teenagers, were there to play Dota 2 and World of Warcraft in the cool airconditioning of the JCC building next door.

Figure 4: A sign (left) outside of the *Bosque Tecnologico Camagüey* promotes "Fun, Technology, and Nature." The park plaza itself (right) sits under a thick canopy of deciduous trees. Photographs by the author.

Inside of the *Joven* (Youth) *Club* building, two rows of new-looking gaming PCs[17], keyboards, and monitors lined opposite walls, totalling about 20 in all. A few kids had laptops set up on a side table, but most everyone else was sitting in front of one of the desktops, playing online multiplayers games on the Cuban intranet - likely on hacked multiplayer servers configured to work without access to the greater Internet. Teens were walking in and out at their leisure, making the space feel more like an arcade than the cybercafe-styled courtyard outside.

But reducing the center to just an arcade or cafe would undercut a community resource that serves a range of people. The *Bosque Tecnologico*'s main "AV room" was adjacent to a professional-style boardroom,

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[17] The JCC employees interviewed declined to disclose the specifications of the parts inside.

complete with a large, wooden meeting table with a dozen black, wheeled chairs around it (though you could still feel the Cuban architectural influence from its large, metal-barred, glassless windows). Tucked into a corner was a small desk where a (less flashy) PC was situated, which served as a reception area.

Speaking with the directors of the municipal and provincial JCCs, they noted that their organization's role has only continued to increase since their founding in 1986 with the goal of promoting computer literacy in the general public and allowing technological access across the country. JCC's future endeavours include expanding ETECSA Wi-Fi access to other JCC locations and connecting communities across the province to the Intra- and Internet.
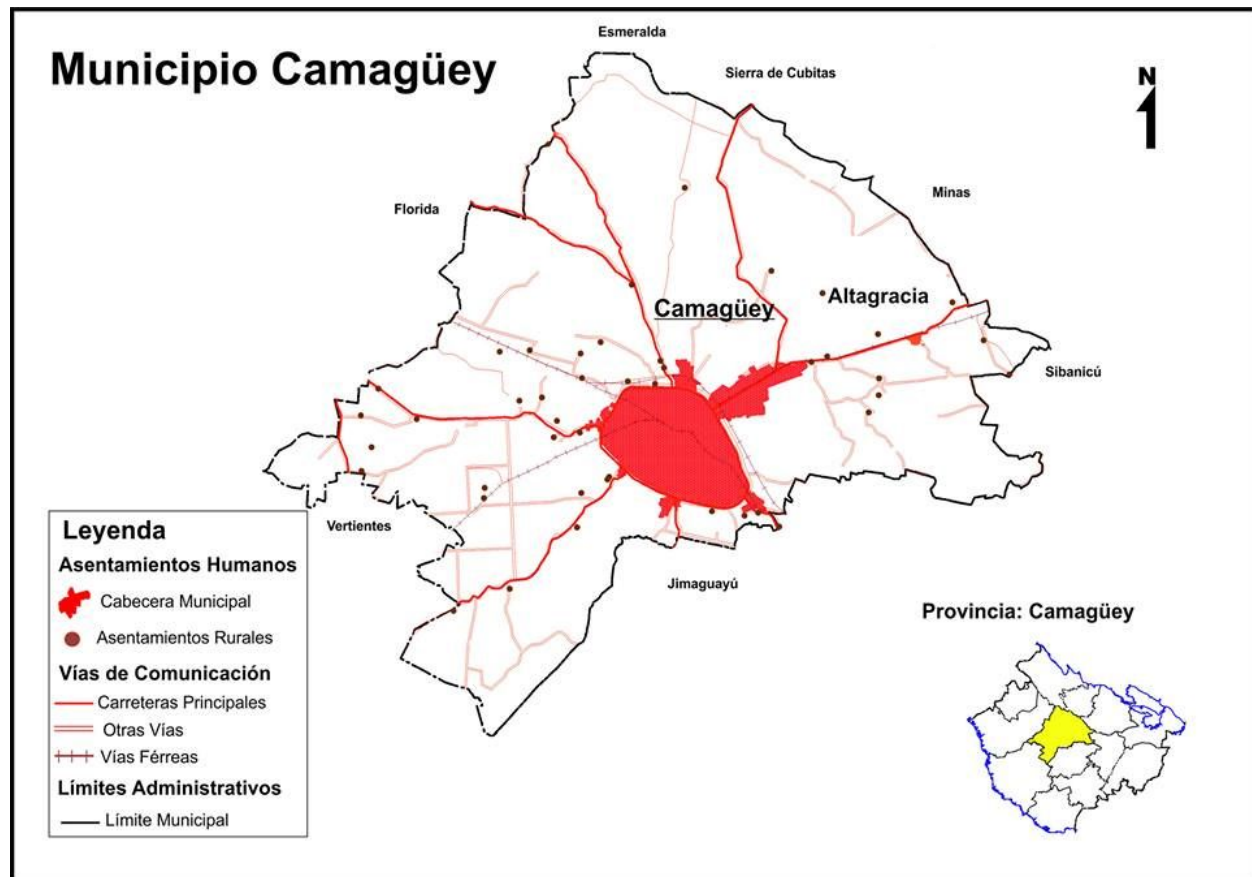
Figure 5: A map of main (red area) and remote (black dots) JCC location in the province of Camagüey, additionally marking highways (single red line) other roads (two red lines) and railroads (hashed red line). Photo: Joven Club.

One of the major offerings of JCC beyond Wi-Fi hotspots, free computer access, and arcade-like gaming computer setups, though, is a collection of hundreds of gigabytes of original, educational, local, and government-sanctioned pirated media known as "the backpack."

La Mochila

On paper, *La Mochila* and *El Paquete Semanal* sound almost indistinguishable: they're both large, frequently updated repositories of entertainment, utility, and educational content[18] that could fill massive hard drives. Even if the source of their entertainment content may be similar or shared in many cases (global priacy sites such as The Pirate Bay were cited by interviewees), the intermediary sources in Cuba are radically different for the respective services. Where EP appears to be assembled by enterprising business people in Havana, *La Mochila* is assembled by the JCC itself, likely closely monitored and approved by government departments such as the Ministry of Culture to ensure that the contents are acceptable to the Cuban government (Mochila Blog). With that said, even those working closest with *La Mochila* at JCC referred to as a *paquete*, wearing the service's inspiration on its metaphorical sleeve.

To that end, *La Mochila* seems content to emulate the aspects of EP that are most useful (distribution) and most popular (distributing apps, games, and entertainment), while opting for entirely different contents to better meet the JCC's goals[19]. In this sense, *La Mochila* is not a direct EP competitor in every sense, but seems to be situated as an official alternative while the service is being built up. This might speak to a longer term strategy that would allow *La Mochila* to outlast EP[20], but to the public, *La Mochila* is seen as a laughable defense against EP with little value attributed to the government *paquete's* cost or different offerings.

Cost and Availability

> "Like it's completely free. You go and you can sit down [at] your computer [in the JCC] and navigate and everything. In all the country, we'll have many, many, many different places like that." (Participant 6)

La Mochila is entirely free to copy, which would make EP look like an expensive premium to pay for a different style of content curation and the added expense of home delivery for some.

While *La Mochila* is free to copy, it's only currently available physically at any JCC, and only if you have the storage space to copy onto (usually in the form form of a small flash drive or a less common, more expensive external hard disk drive), making it de facto available across the country (in a similar way to how public libraries in the United States often offer public access to technological services in large and small towns alike).

Cited by Vice as being over 350 gigabytes large in 2015, "the Backpack" in January 2020 was closer to 600 gigabytes or 1 terabyte according to one JCC employee (Koebler). The provincial director of JCC said that in-house statistics show that on average 60,000 full or partial physical copies of *La Mochila* are created per month in the province of Camagüey (Provincial and Municipal directors of JCC Camagüey).

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[18] For details on *La Mochila*'s contents and file structure, see Appendix 4

[19] Similar to how EP contains flyers, advertising, and event bulletins from local businesses and organizations, *La Mochila* has dedicated folders called 'Correspondence' for 'Letters to the Editor'-style word documents and emails praising the contents of the Backpack or talking to each other in a kind of time-delayed public forum. The means by which these texts are curated is not publically available.

[20] See 'Speculating on the Future of EP and the Cuban Internet,' Scenario 2

A side effect of *La Mochila* being offered through the always-online JCC is that you can access any prior version of the *paquete*-alike that's stored on the Cuban Intranet. 25-28 weeks of *La Mochila* are archived (the past ~6 months worth) and available to be copied from at any given time.

Selection

This was the major difference that most Cubans cited when I brought up *La Mochila* - it didn't have everything that they wanted all the time. In a gray market like underground entertainment distribution (illegal internationally, but legal or alegal in Cuba, depending on the party responsible), where speed and access to niche content are valued highly by their customers, EP's model appears to be outperforming *La Mochila's*.

That said, the contexts of these two services are radically different. EP is constrained by many of the same factors that apply to a capitalistic enterprise: run a lean operation to make a profit, squeaking by without breaking just enough laws or rules to get your distribution point shut down. *La Mochila*, on the other hand, is well-funded, investing in its own infrastructure, and soon to be available in most of the places that people already are getting internet, for free. It's difficult to make the argument on paper that *La Mochila* as a free, widely-available EP alternative, even one that has content this is much less diverse or popular, wouldn't deal a significant blow to EP as a business that relies on people to consistently spend hobby money they're not guaranteed to have week-to-week. Despite its relative lack of popularity amongst interview subjects, *La Mochila* has the faster and more efficient distribution network of the two. This makes *La Mochila* the best situated national alternative to EP, should *La Mochila* ever try to compete in terms of content selection. With that said, the Cubans interviewed were adamant: EP isn't going anywhere anytime soon unless something radical changes[21].

Speculating on the Future of EP and Cuban Internet

> "If anything kills *el Paquete*, it's not *la Mochila*. It's the government or truly accessible Internet." (Participant 3)

> "EP will peter out as entertainment choice becomes more accessible. As a kid, radio was more popular than TV, now TV is prevalent, but radio still has niche uses. Same for EP. People are even discovering radio via the Internet now." (Participant 4)

Before asking interview subjects to speculate about the future, they were first asked about how their country arrived at the present. In response to the question, "How has the Internet changed Cuba?" a variety of responses discussed everything from a near-total lack of "internet culture" (read: memes and online trends) to the importance of information access as human right.

While there's a lack of "internet culture" in Cuba, according to another interview subject, there's similarly a lack of caution, especially in younger users;

> "[Cubans aren't] careful about what they post online, or how dangerous [the Internet] can be. They know it as [being] able to answer their questions, but don't realize that it can be used to

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[21] In the case of StreetNet (SNet) in Havana, something radical did change; the Cuban government effectively outlawed the informal, underground networks unless they were connected to existing JCC infrastructure, a move which has angered critics (mostly the gamers who used the networks). One said, "I don't understand why such a benign network that does not talk about politics, religion or pornography would disappear." (Sesin)

publicize themselves. They lack internet etiquette. The youngest generation is used to having the internet, and because of that they're not cautious at all - they trust any technology, even if it can be dangerous." (Participant 5)

At least for now, Cuba's Internet landscape seems to have settled back into an equilibrium. While the pace of widespread deployment of in-home Wi-Fi through *Nauta Hogar* and modern cellular data infrastructure might be slightly faster than in the past, it still very much appears to be a carefully controlled and gradual process with a series of hurdles to clear (notably geographic location and price) before Cubans are allowed the privilege of paying for a limited connection (Batista).

That said, these growing services may actually be having little, if any, effect on the growth of these informal human networks, rather than competing with them for users.

> "But for example, I had an interview [with] one of the big *matriz* here in Havana after the 4G [service launched] and I asked, 'Okay, what is happening right now? Do you feel that the people are consuming less [of] the *paquete*?' and he's saying, 'No, the people are [consuming] more, because if the hard drives are cheaper and the TVs are cheaper, more people have TVs and more people have hard drives, [so] we have more clients.'" (Participant 6)

Keeping in mind the historical, cultural, and immediate technological context discussed above, most interviewees speculated that some combination of the below scenarios could come to pass regarding the future of EP as a widespread, informal, and alegal network spanning Cuba.

1. **EP continues to exist within its established rules**

This scenario came up in almost every interview, at least as the Cubans discussed the immediate future. Despite the pattern of behavior that the Cuban government has displayed regarding content networks that it doesn't directly control, EP seems to have escaped public-facing government action thus far, and nobody interviewed put forward any indication that the situation might be on the verge of change. This mindset makes a certain amount of sense in the greater economic context of Cuba, as well - the presence of the black market since the Revolution has been essential to filling the economic gaps in Cuba's planned economy for many who can't afford their daily necessities from official sources, or whose business would not survive on only the supplies provided in government stores. When these same problems appear in the realm of Internet connectivity, it makes sense for there to emerge similarly long lasting black market connectivity options for as long as demand exists, assuming nothing else changes.

The fact remains that EP has lasted longer than a number of other related networking efforts, despite the Cuban government's clear and continued interest in oversight and management of the ways that people connect with each other and access online content. To several people interviewed, it seemed clear that some kind of deal was brokered between EP and the Cuban government, but speculation as to what that deal entailed or how official it might be varied significantly. Some combination of bribes paid to high-ranking officials, EP's strict bans on content that would elicit a police response, and the secret but strategic acknowledgement that EP's entertainment content is an affordable distraction in the lives of many Cubans, were all mentioned as possible contributing factors as to why the Cuban government would be so laissez-faire towards the seemingly independent underground network.

2. **EP is outlawed and *La Mochila* is positioned to take its place**

"[EP] could be shut down by the government, and 'replaced' by *La Mochila*, but otherwise *la Mochila* isn't a true competitor. There's a market for [EP] as a "digestible" version of the internet, but better access would help people who know what they want to stop relying on someone else's curation." (Participant 3)

As the next most commonly mentioned scenario, Cubans speculated as to why and how EP might no longer be overlooked by the Cuban government. To speculate further, there are two directions from which a hypothetical EP shutdown might come from: top-down, from the EP producers, and bottom-up, from EP's end users and points of sale.

The most obvious point for them to start dismantling EP's network is from the top, shutting down the two *matriz* studios prominently making content for the entire country, either managing to close them permanently or temporarily driving them underground without access to their traditional distribution network. This would at least temporarily disrupt (and at most, permanently remove) the ability of any remaining parts of the EP distribution network to acquire new content in bulk, leaving them to sell content from whatever backups or local files that individual *paqueteros* might have. Reinforcing these raids with laws expanding the definition of morally objectionable content (or, in the land of make-believe, conforming to international copyright laws) and banning its download, curation, distribution, and viewing might scare the market far enough underground that it would be difficult to reemerge very quickly. Alternatively, the Cuban government could attempt to regulate the number and storage size of flash and hard drives, but such a step against a technology as mature, widespread, and relatively easily concealed as those would likely be difficult to enforce, at best.

Simultaneously, changes to the eligibility categories for *cuentapropismo* (owning a government-approved private business) could be modified to change or remove the most common categories that contain or serve as fronts for local *paqueteros*. This would likely have the effect of driving the majority of EP's end-user sales entirely underground, separating them from legitimate storefronts, and possibly boosting their delivery to users' homes. This, however, runs counter to the increasing trend in recent years to expand *cuentapropismo* and the private sector of the Cuban economy.

If EP were to be shut down, the closest analogue on a national level would likely be *La Mochila*, the government-backed, entirely free, *paquete*-like offering found at physical JCC computing centers across the country. The current biggest complaint from those interviewed is about its timeliness and selection, but how would that change in a hypothetical future where EP is much more difficult (or risky) to get? There would still be a demand for a "digestible" version of the Internet curated by others, free from hourly rates, and it's not immediately clear what the resulting post-EP Cuban Internet landscape would look like.

3. **EP is out-competed by better connectivity options, invalidating its current business model**

"In my personal opinion, if we manage to make the internet more accessible so that it reaches everybody, at a reasonable, accessible price [for] the entire population, [and] not just those with a good job, a good income, or family abroad, I believe that [then] the *paquete* might be in some danger. I believe that it might even disappear. Because [then], if you have access to the web to get your TV shows, your music, [and] whatever information you want on your cell phone, [and] on your laptop, well, that would be like killing the *paquete*." (Participant 2)

The fact remains that ETECSA continues to expand its service offerings, likely responding both to domestic pressure as well as international trends in mobile data adoption[22]. According to multiple sources, in a market niche like EP's that competes on both cost and logistics, the fastest, cheapest delivery option will always prevail:

> "If something happened with the technology, and it's cheaper and it's faster, [then] this will be the next step, but it's always about the time. For me, the quick process, the fast process is just [meeting] my packetero with a hard drive and just downloading things. If, in the future, I have access to a [network]..., and I can download the material [very fast], maybe this is the next step." (Participant 6)

However, it's not clear that ETESCA will be competitive along those lines as a national monopoly. One individual said,

> "I think everything depends on how [much] cheaper and [faster] the internet in Cuba [is] in the future. I am not sure that definitely the internet will be cheaper and cheaper... In time this is the normal process, but I am not completely sure [that it applies to Cuba in the short-term]" (Participant 6)

This leaves room for a variety of potential competitors in the *paquete* space as well as potential substitution services in the form of both standard and informal network connectivity, as well as others that may have yet to emerge.

Conclusion

El Paquete Semanal is a national (but not *National*), distributed (while originating at only a handful of locations), illegal (but *effectively* alegal), offline (but not *totally* offline), sneakernet that violates a significant number of national and international laws to bring entertainment and data to people across Cuba. EP regularly delivers a massive amount of data containing applications, utilities, educational materials, entertainment media, underground magazines, premieres of Cuban movies and music, still-evolving Cuban advertisements, and a plethora of other micro-phenomena that haven't or can't be fully documented due to the relative ephemerality of the package's contents.

A variety of evolving external factors, like increased mobile data connectivity and the growth of *La Mochila*, appear at first to be on a collision course with EP's distribution model and content niche. However, at present these only seem to have strengthened EP's position as the fastest, cheapest way to get the specific large chunks of popular data that the average Cuban user may want.

EP is treated by users as something of a public utility, despite it being an alegal Internet service that follows the laws of supply and demand. This perception is likely caused by a combination of EP having maintained the same relative price point (at least in Camagüey) for the past several years, and the reliable and predictable nature of the service. As Cubans are increasingly allowed access to the Internet via more traditional, legal means by the government (either as infrastructure is built or made sufficiently affordable across the country), it's possible that how Cubans access the Internet may change, but the general public has effectively already been connected to the internet for the better part of the last decade.

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[22] Cuba's relatively expensive mobile service and data pricing are significantly more expensive than global averages. "Mobile data is now so cheap in many countries that free hotspots are not all that needed." (Kopf)

While likely not a comfortable position for the Cuban government, EP has been tacitly tolerated until now without any strong indication that the government position may change in the future. EP is a system that an entire nation's government would rather allow to go officially unacknowledged, especially when disputes over international copyright law have the potential to jeopardize their relationships with countries that fuel their increasingly important tourism industry that so many of their people and businesses depend on for more gainful employment.

While it's possible that EP's days are numbered, at least in its current form, this possibility was repeatedly rejected to varying degrees by most interview subjects. Camagüeyanos don't expect EP to change any time soon, but they also don't expect it to last forever, either. An extension of their resilient and improvisational inclinations, they expect a replacement (naturally or as a product of necessity) to emerge in the coming years (some cited the next 2-3, others 10 or more, and a few suggested that the roots of this replacement likely already exist in one form or another).

This thesis is not intended to be a comprehensive survey of Internet connectivity, archive of EP use, or historical record of informal networks, but strives to offer insights into how these phenomena, past and present, may interact and influence the future of Cuban connectivity. The (limited) data collected in Camagüey for this thesis indicates that EP remains a massively popular economic and cultural force for now, acting as both an Internet alternative for Cuban content and a direct connection to the Internet proper. Its size, impact, distributed infrastructure, and informal nature all warrant further study, as they may contain further insights into how network infrastructure can be built, owned, improved, and maintained by communities of individuals, rather than organizations, corporations, or governments. Some of the same egalitarian principles that the Internet was founded on are evident in and around EP with how Cubans access and share content daily, which stand in stark contrast to the interests (stated and otherwise) of their government.■

Bibliography

Batista, Julio. "Nauta Hogar: Nueva Herramienta Para Emprendedores Cubanos." *Periodismo De Barrio*,
    April 13, 2018,
    www.periodismodebarrio.org/internetencuba/2018/04/13/nauta-hogar-nueva-herramienta-empren
    dedores-cubanos.

Bravo, Joel Lenin Pinargote, et al. "Lessons from El Paquete, Cuba's Offline Internet." *Proceedings of the*
    1st ACM SIGCAS Conference on Computing and Sustainable Societies, ACM, 2018,
    dl.acm.org/citation.cfm?id=3209876.

Chomsky, Aviva, et al. "The Cuba Reader: History, Culture, Politics." Duke University Press, 2019.

Dye, Michaelanne, et al. "El Paquete Semanal: The Week's Internet in Havana." *Proceedings of the 2018*
    CHI Conference on Human Factors in Computing Systems. 2018.

El Paquete Semanal obtained in Camagüey, Cuba, hard disk drive, March 2019.

El Paquete Semanal obtained in Camagüey, Cuba, hard disk drive, January 2020.

Escobar, Luz, and Mario Penton. "Average Wages Rise but Nobody in Cuba Lives on Their Salary."
    14ymedio, Translating Cuba, 17 July 2017,
    translatingcuba.com/average-wages-rise-but-nobody-in-cuba-lives-on-their-salary.

Farrell, Michelle Leigh. "Piracy, Access, and Production in Cuba's Media Distribution Platform El
    Paquete Semanal: The case of MiHabanaTV" *A Contracorriente*, vol. 16, no. 3, 2019, pp.
    403-426.

Frank, Marc. "Explainer: Navigating Cuba's Money Labyrinth." Reuters, Thomson Reuters, 19 Dec.
    2019,
    www.reuters.com/article/us-cuba-economy-money-explainer/explainer-navigating-cubas-money-l
    abyrinth-idUSKBN1YN24N.

Harris, Johnny. "This Is Cuba's Netflix, Hulu, and Spotify - All without the Internet." *Vox*, Vox, 21 Sept.
    2015, www.vox.com/videos/2017/11/16/16658322/cuba-paquete-internet-netflix.

Helft, Miguel. "No Internet? No Problem. Inside Cuba's Tech Revolution." *Forbes*, July 20, 2015,
    www.forbes.com/sites/miguelhelft/2015/07/01/no-internet-no-problem-inside-cubas-tech-revoluti
    on/#34f47294625f.

Interview and Facebook messages with Participant 3, January 2020.

Interview and WhatsApp messages with Participant 6, January 10, 2020.

Interview with Participant 1, March 2019.

Interview with Participant 2, March 2019.

Interview with the Provincial and Municipal directors of JCC Camagüey, January 8, 2020.

Interviews and Facebook messages with Participant 4, 2019-2020.

Interviews and Facebook messages with Participant 5, 2019-2020.

Joven Club De Computación y Electrónica. 2020, www.jovenclub.cu/.

Joven Club De Computación y Electrónica Camagüey. 2020, www.cmg.jovenclub.cu/.

Kessler, Sarah. "In Cuba, An Underground Network Armed With USB Drives Does The Work Of Google And YouTube." *Fast Company*, July 7, 2015, www.fastcompany.com/3048163/in-cuba-an-underground-network-armed-with-usb-drives-does-the-work-of-google-and-youtube.

Koebler, Jason. "Cuba's Communist Computer Club for Kids." *Vice*, 28 Aug. 2015, www.vice.com/en_us/article/78xg8z/the-communist-computer-club-for-kids.

Kopf, Dan. "Google's Free Wifi Program Stopped Making Economic Sense." *Quartz*, February 17, 2020, qz.com/1803773/google-is-shutting-down-google-station.

La Mochila obtained in Camagüey, Cuba, hard disk drive, January 2020.

Mochila Blog. Joven Club de Computación y Electrónica, 2020, mochilablog.cubava.cu.

Oroza, Ernesto. "El Paquete Semanal: How Offline Piracy Flourishes in Cuba." *TorrentFreak*, December 26, 2015, torrentfreak.com/el-paquete-semanal-how-offline-piracy-flourishes-in-cuba-151226.

Pérez Louis A. *Cuba: Between Reform and Revolution*. 5th ed. (New York, NY: Oxford University Press, 2015).

Phillips, Emma F. ""Maybe Tomorrow I'll Turn Capitalist": Cuentapropismo in a Workers' State." Law & society review 41.2 (2007): 305-342.

Rodriguez, Fidel A. "Cuba: Videos to the Left - Circumvention Practices and Audiovisual Ecologies." *Geoblocking and Global Video Culture*, *Theory on Demand*, no. 18, 2016, pp. 178-188.

Sesin, Carmen, and Orlando Matos. "In Cuba, Gamers Lament What They See as the End of the Island's Underground Network." *NBCNews.com*. NBCUniversal News Group, August 24, 2019, www.nbcnews.com/news/latino/cuba-gamers-lament-what-they-see-end-island-s-underground-n1045846.

Skidmore, Thomas E., et al. *Modern Latin America*. Oxford University Press, 2014.

"The Cuban Matrix." *Torrance Art Museum*, 2017, www.torranceartmuseum.com/thecubanmatrix.

Weist, Julia, and Siré, Nestor. "ARCA [Paquete Semanal_archive]" *Triple Canopy*, 2018, www.canopycanopycanopy.com/contents/a-r-c-a.

Appendices

Appendix I - Interview Questions, 2019

Introduction
- Name?
- Age?
- Where are you from?
- Profession?

The Internet
- What does 'The Internet' represent to you?
- How much time do you spend online?
- How has Internet access changed in Cuba in the past few years?

El Paquete
- What is *El Paquete* (EP)?
- When you were growing up, what was your first experience with the internet? How were you first introduced to it?
  - How has that influenced how you use the internet now?
- Describe a memory you have related to/involving EP.

Wi-Fi
- What are the popular places to visit in order to get Wi-Fi and why?
  - Plazas?
  - In-home?
  - Others?

The Future
- What does the future of internet access and EP look like for Cuba?
- Will young people in Cuba today grow up with a different relationship to the internet?
  - How so? Why?
  - Is this a good thing or a bad thing? Why?

Contact Information
- How do you want to be identified in the credits? (Is it okay to use your name in the video?)
  - Name?
  - Preferred Name?
  - Pseudonym?
- How should I send you the completed video?
  - Email Address?
  - Phone number?
    - WhatsApp?

Appendix II - Interview Questions, 2020

1. Introduction
   - Name?
   - Age?
   - Where are you from?
2. Tell me about yourself
   - What do you do?
   - What's your profession/job?
3. Do you follow the news?
   - Where do you generally get your news?
     - Newspapers?
     - TV?
     - Radio?
     - Other people?
     - Internet?
   - What kinds of news do you like?
     - Cuba?
     - International?
       - If you like international news, do you have to go out of your way to get it?
   - Can you get all of the news that you want?
     - Do you have access to everything you want?
4. How do you access the internet?
   - Mobile data plan?
   - Public Wi-Fi Hotspots?
   - SNet?
   - EP?
   - Paquetito?
   - Other?
   - Follow-up: Do you/could you have in-home internet?
   - What do you generally use the internet for?
5. When were you first introduced to 'The Internet'
6. How has 'The Internet' changed your life or your work?
7. Have you heard of EP ?
   - Have you personally ever received or purchased EP?
     - How do you get EP? (EP Logistics)
       - Is it hard for you to get EP from?
       - How easy is it for you to get?
       - Regular/scheduled?
       - Is it ever late/delayed/rescheduled/canceled? Is it the same every week?
       - What happens then, how do you find out?
   - Have you heard of La Mochila?
     - What are the differences between it and EP
     - Is it easier to get EP than *La Mochila*? Do people tend to get one or the other or both?
   - Have you heard of any other packetes?

- ■ paketito?
8. Have you heard of StreetNet (SNet)?
   - ○ Have you used it?
9. How do you think 'The Internet' has changed Cuba?
10. What does the future of internet access and EP look like for Cuba?
11. Will young people in Cuba today grow up with a different relationship to the internet?
    - How so? Why?
    - Is this a good thing or a bad thing? Why?

Contact Information
- How do you want to be identified in the credits? (Is it okay to use your name in the video?)
  - o Name?
  - o Preferred Name?
  - o Pseudonym?
- How should I send you the completed video?
  - o Email Address?
  - o Phone number?
    - ▪ Whatsapp?

Appendix III - Selected File Structure, *El Paquete Semanal*[23]

- !!AUDIOVISUAL CUBANO HISTORIA Y ACTUALIDAD
- !!SITIOS DE ANUNCIOS CLASIFICADOS
- ACTUALIZACIONES DE ANTIVIRUS
- APLICACIONES PARA MOVILES
- APLICACIONES PARA WINDOWS
- CONCURSOS Y SHOWS EN ESPAÑOL
- CONCURSOS Y SHOWS EN INGLES
- CONCURSOS Y SHOWS FINALIZADOS
- DORAMAS
- DORAMAS Tx
- GAMES
- HUMOR
- INTERESANTES
- MANGAS
- MUSICA [AUDIO]
- MUSICA [VIDEO]
- MUÑES
- NOVELAS
- NOVELAS Tx
- PELÍCULAS
  - FILMES [HD][ESTRENOS]
- SERIES Tx
- SERIES Tx [CLASICAS]
- SERIES Tx [CLASICAS] [EN ESPAÑOL]
- SERIES Tx [DOBLADAS AL ESPAÑOL]
- SERIES Tx [SUBTITULADAS]
- SERIES [CLASICAS CUBANAS]
- SERIES [CLASICAS POR TEMP]
- SHOWS

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[23] *El Paquete Semanal* obtained in Camagüey, Cuba, hard disk drive, March 2019.

Appendix IV - Selected File Structure, *La Mochila*[24]

- *Amigos* ("Friends," correspondence, public forums)
- *Catálogos* ("Catalogues," index of *La Mochila* for the week)
- *De mi terruno* ("From my Land," local and provincial content)
- *Estanquillo* ("Kiosk," reference books, news, educational materials)
- *Ludox* (games and emulators)
- *Súmate* ("Come on, join!" information about competitions and events)
- *Apps* (mobile and desktop applications)
- *Media en Cuba* (entertainment media)
- *Servicios* ("Services," advertisements for businesses and services)
- *Sugerencias* ("Suggestions," recommendations by curators, or fulfilled user requests)
- *Utiles* ("Useful," miscellaneous, reviews, wallpapers, tutorial videos)

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[24] *La Mochila* obtained in Camagüey, Cuba, hard disk drive, January 2020.