Coffee, Culture, and Commerce: A Sociotechnical Investigation of Blank Street Coffee's Growth

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Setting the Stage: Blank Street Coffee's Technological Conundrum

In an increasingly modern world, engineers and the general public debate whether automation is a friend or foe (Skidelsky, 2021). Automation brings convenience and efficiency, however, it comes at a cost to workers it displaces. One unlikely ground for this debate is a quickly-growing coffee chain: Blank Street Coffee. Make no mistake, this java joint is no ordinary neighborhood coffee spot. The founders are armed with venture capitalist funding and an army of Eversys super-automated coffee machines to boot (Magazine, 2021). This deployment of resources has raised concerns among local coffee shop enthusiasts about whether the sweeping expansion of Blank Street Coffee could be considered gentrification (Talukder & Christo, 2022). From these events, a sociotechnical question arises: how does the Eversys super-automated coffee machine empower certain groups while marginalizing others? This question will be answered by drawing on Langdon Winner's STS framework of Technological Politics.

Delving into Research Interrogations and Methodology

How does the Eversys super-automated coffee machine empower certain groups while marginalizing others?

An analysis was conducted on news articles related to Blank Street Coffee to address this question. These articles encompass interviews with the founders, financial overviews, and community perspectives on this coffee shop. The key words that guided this research were Blank Street Coffee, venture capital, gentrification, local coffee shops, and Eversys. In addition, a visit to a Blank Street Coffee location in London was made for field research and autoethnography purposes. This research provided an overview of the Eversys technology and its ties to venture capitalist funding. Additionally, the examination included an assessment of

Blank Street Coffee's impact on local neighborhoods. Lastly, personal observations from the visit to a Blank Street location were recounted. Each element mentioned above was examined through the lens of the Technological Politics framework.

Contextual Groundwork: Building the Foundation for Understanding

This now-global coffee chain, founded by Issam Freiha and Vinay Menda, had humble origins. In August 2020, Blank Street Coffee was a small coffee cart located in the garden outside of the Wythe Diner in Brooklyn, New York City (*Made to Be a Daily Ritual - Blank Street Coffee US*, n.d.). Freiha has stated that Blank Street does not need to be "...the most amazing cup of coffee you've ever had." Instead, they "...want to be the really good cup of coffee that you drink twice a day, every day" (Moskin, 2022). Their drink prices are more expensive than Dunkin Donuts but less expensive than Starbucks. The founders aim to make a cup of coffee that is both enjoyable and affordable enough to drink more than once a day.

In February 2021, Blank Street Coffee opened its first retail location. By the end of 2022, more than 50 locations were open for business (Ryan, 2023). Venture capitalists, who gave the founders $25 million in Series A investments, significantly aided this rapid growth (Magazine, 2021). Venture capitalist funding also introduced the Eversys super-automated coffee machine - and its consequences - to Blank Street Coffee. It is suspected that the exact model that locations utilize is the Eversys Super Traditional Shotmaster s-pro. This machine can make 8 espresso shots at a time at a rate of 700 shots per hour (*Eversys SA | Super Traditional Coffee Machines*, n.d.). This specific model is an example of a super-automatic coffee machine, which means that a shot of espresso can be made with the push of a button. In order to understand the impact of this technology, we must first fully understand its functionality. There are a few different types of espresso machines: manual, semi-automatic, automatic, and

super-automatic. At its core, pulling a shot of espresso is "forcing pressurized hot water through finely ground coffee" (Gunter, 2022). The machines that are found in coffee shops are typically of the semi-automatic and automatic varieties. Utilizing these machines, pulling the perfect shot of espresso is nothing short of artistry. First, the machine must be preheated. Next, the coffee beans must be ground to the perfect texture right before the shot of espresso is pulled. Grinding the beans immediately preceding pulling an espresso shot ensures freshness. If the beans are ground to the incorrect texture, the shot of espresso will be either over or under extracted, both of which produce the incorrect flavor of espresso (Gunter, 2022). Afterwards, the freshly ground coffee must be precisely weighed out for the correct dose and placed in the portafilter. Next, the coffee grounds are packed and leveled in the portafilter, which is called tamping. Lastly, the portafilter is placed into the machine in order for water to run over the grounds and pull the shot. In semi-automatic machines, the amount of water that runs over the portafilter is determined by an on/off switch, while automatic machines dispense a predetermined volume of water (Simmons, 2024). For semi-automatic and automatic espresso machines, the active involvement of the barista is still required, as they need to grind the coffee and tamp the puck (Vittitow, 2021). The creators of this machine claim that it allows baristas to make shots of espresso with increased speed and efficiency without sacrificing quality. However, it is important to note that this machine costs nearly $50,000.

Due to the super-automatic coffee machines, Blank Street Coffee has a different business model than most other coffee chains. Blank Street Coffee hires fewer employees per shift and pays them more than the competition. It has salaries starting at $23/hr. Workers earn an average of $28/hr with tips (Moskin, 2022). Minimum wage in New York City, which houses more than

40 locations, is currently $15/hr. Within the context of rising housing prices, among other factors, this is highly beneficial for workers.

Despite the positive impacts of the presence of Blank Street Coffee in several cities, there are also arguments that this coffee chain is an example of gentrification. Critics complain that local coffee shops cannot compete with venture capitalist funding. In addition, they argue that jobs are being taken from skilled workers. These concerns will be examined more thoroughly in the analysis portion of this research paper.

Sociotechnical Lens: Langdon Winner's Technological Politics Framework

A proper analysis of the rise of Blank Street Coffee requires attending to both the social and technical aspects, which is why this research topic fits into the STS field. The STS perspective that is utilized in order to conduct this analysis is the Technological Politics framework. This framework is attributed to Langdon Winner, who is its sole contributor, thus defining the framework according to his perspective.

Within the Technological Politics framework, Winner argues that technological artifacts have "politics", which he defines as arrangements of power and authority in human associations and the activities that take place within those arrangements (Winner, 1980). He also argues that specific features within the design of a device can provide a means for establishing power and authority within a given context. Technology can affect arrangements of power within a given group by empowering some and marginalizing others. This outcome may arise intentionally or unintentionally through the design process. One case that Winner utilized to define his framework was the mechanical tomato harvester. A group of college students designed a mechanical tomato harvester for their capstone project. Their intention was simply to ease the process of harvesting tomatoes. However, the impacts of the technology they designed extended

far beyond its original intended purpose. A new, tougher variety of tomato was planted specifically for the purpose of compatibility with this machine. Many farm workers lost their jobs and many tomato growers went out of business (Filmer, 2015). In addition, the variety of tomato that was compatible with this technology was deemed unappetizing. This unintentionally caused a shift in power dynamics within the tomato harvesting industry. The mechanical tomato harvester is an example of a technology that performs political work and is therefore appropriately categorized within the Technological Politics framework.

Another case that Winner utilized to define his framework was the unusually low overpasses on parkways in Long Island. Robert Moses, who was a prominent urban planner that shaped the infrastructure of New York City from the 1920s to the 1970s, designed those overpasses specifically to prevent buses from using the parkways. He did this in order to block access to Jones Beach for racial minorities and low-income groups (Winner, 1980). In this case, this technology was designed specifically for the purpose of marginalizing the aforementioned groups. By contrasting these two cases, Winner highlights the importance of the role of intentionality in designing technology that influences power structures.

Most scholars agree that technology performs social functions both intentionally and unintentionally. There are a few criticisms of this framework. Most notably, it is argued that this framework overlooks broader systemic issues that relate to technology by giving too much focus to certain artifacts (Bijker, 1993). However, by first focusing on the technology, Winner's framework serves as an excellent launching point for understanding the larger systemic forces at play that influence and are influenced by technology. Such an entry point is necessary for sweeping discussions about complex issues.

Within the context of this framework, the Eversys Super Traditional Shotmaster s-pro is an example of a technology that unintentionally performs political work. Therefore, this research is dedicated to examining how this technology influences power structures within society.

Findings Unveiled: Exploring Results and Discourse

Through influencing power arrangements within society, the Eversys super-automated coffee machine empowers the owners of the businesses that purchase these machines and the Blank Street Coffee baristas while it marginalizes skilled baristas and local coffee shop owners. The technology itself empowers business owners and marginalizes baristas by eliminating the need for skilled labor. The implementation of the technology in local neighborhoods again empowers the owners of Blank Street Coffee while marginalizing local business owners by overtaking small businesses in the market. Lastly, the visit to Blank Street Coffee revealed that the technology empowers Blank Street baristas because of the room it creates in the business model for higher wages.

Overview of Technology

This process of pulling an espresso shot is extremely dedicated and requires adjustments to finely-tuned variables in order to produce the perfect result. The Eversys Super Traditional Shotmaster s-pro, an example of super-automated coffee machine, reduces all of these processes to the push of a button. What was once manual becomes automatic with the utilization of this newer technology. The Eversys machine is an artifact that contains policial properties under Langdon Winner's Technological Politics framework. This seemingly innocuous coffee machine is an example of a technology that was brought about in order to settle an issue in a particular community (Winner, 1980). The Eversys Shotmasters are recommended for "hotels, motels, and

restaurants that see large groups of customers" (Barlow, n.d.). These machines were introduced to the market in order to meet the demand of quickly serving coffee to large groups of customers at locations where coffee is not a primary focus. It is much easier for hotels and motels to invest in one of these machines in order to allow customers to serve themselves rather than pay an employee to make drinks at a much slower rate than the machines can. It is customary for hotels to provide coffee during breakfast, and guests typically do not anticipate an exceptional cup of coffee. Therefore, it makes sense for businesses such as these to purchase a machine that can quickly make a variety of drinks with minimal employee involvement, as coffee is not the primary focus of the hotel. This technology especially allows hotel employees to focus on other aspects of customer service. Freiha, one of the founders of Blank Street, even claims that there are Michelin star restaurants that use these machines (Ryan, 2023). This utilization of super-automatic coffee technology is another example of how businesses streamline tasks that are not their primary focus. The application of this technology to Blank Street Coffee is somewhat unprecedented, as producing quality drinks should be the primary focus of a coffee shop. In order to craft the best drinks possible, it would make more sense to hire trained baristas who can utilize their judgment and make adjustments in order to pull the best shots of espresso. Therefore, within this context, the Eversys machine empowers the purchasers of this technology, such as hotel owners and the founders of Blank Street Coffee, while marginalizing baristas by effectively eliminating the need for skilled laborers.

Furthermore, it is important to note that the hefty price tag on the Eversys machines means that the rise of Blank Street Coffee would not have been possible without venture capitalist funding. Purchasing the Eversys Super Traditional Shotmaster s-pro for each location, as well as opening so many locations, would have been impossible for the founders to afford. In

total, Blank Street Coffee has amassed $113.8M over 7 rounds of funding to date (*Blank Street -*

Funding, Financials, Valuation & Investors, n.d.). This level of funding is significantly higher

than what most local coffee shops could ever dream of receiving.

Impact on Local Neighborhoods

One of the primary concerns revolving around Blank Street Coffee is its impact on local

neighborhoods. Some New Yorkers have taken to Twitter/X to poke fun at the speed of

expansion of this chain, with one tweet joking that the user's apartment had been replaced with a

new Blank Street Coffee location (Patrick Monahan [@pattymo], 2022). Despite this humor,

there are more serious concerns that Blank Street is an example of gentrification. Sandy Ittah, a

student at NYU, wonders how local businesses can compete with the venture capitalist funding

that Blank Street acquired, especially within the context of continually increasing rent (Talukder

& Christo, 2022). One local coffee joint found itself negatively impacted by the

less-than-positive associations some locals have with Blank Street Coffee. Ashley Jaffe and

Zach Israel, the founders of Blank Slate Coffee + Kitchen, faced challenges as they had to

navigate the fallout resulting from the mistaken identity caused by the similarity in name to

Blank Street Coffee. Their first location opened in 2015 and their second location opened in

2019. In addition to the similarity of the two businesses' names, the theme of the coffee shops

both revolved around a light-green color scheme. The likeness led to some negative impacts on

business for Blank Slate, as Jaffe claims that one coffee supplier told her that they refused to sell

to Blank Street Coffee (Holtermann, 2023). In addition, she overheard customers complaining

about Blank Street Coffee outside of her coffee shop (Holtermann, 2023). These troubles

culminated in a legal battle which ultimately led to a complete rebranding for Blank Slate Coffee

+ Kitchen, which is now called Slate Cafe. The cost of the facelift required to completely

rebrand to Slate Cafe cost about $100,000 according to Jaffe (Holtermann, 2023). Within the Technological Politics framework, this is an example of how technology can affect arrangements of power within society. Blank Street's ownership of this technology is what contributed to their rapid expansion. It is also what allows them to exert power over other coffee shops, as this technology drives their income. This further shows how the Eversys machine empowers the founders of Blank Street Coffee while marginalizing local coffee shop owners.

Visit to Blank Street

When walking into a Blank Street Coffee location in London, at first glance, it does not seem entirely different from other coffee shops. The only exception is that the space is smaller than typical coffee shops. Upon first glance, the pastries appear to look much better than the ones at Starbucks. When looking at the menu, most drinks are 3-4 GBP, or 3.78-5.04 USD. Notably there is no additional charge for a non-dairy milk, which is typical of Starbucks and Dunkin' Donuts. When I got the chance to try my drink, it was not one of the better cups of coffee I have had, but it was alright. In short, my experience was in line with what the owners set out to create.

All three of the baristas that I spoke to were relatively experienced and had worked at other coffee shops prior to working at Blank Street. When asked how the Eversys machine changes the work experience compared to a normal coffee shop, the baristas raised several interesting considerations. They all agreed that the machine made things quick and convenient in the mornings due to significantly less time spent hand making drinks. One barista lamented that she prefers to do those tasks by hand sometimes, while another wishes that there were two machines. She also said that the machine made it easy to train new baristas, especially when it came to steaming milk. On the topic of the machine, the baristas explained that it needs to be

programmed and calibrated every morning. Additionally, the machine fails to work if there are problems with Wi-Fi, which causes problems for the baristas. In relation to barista's experiences, Blank Street is conscious of the potential for the Eversys technology to affect power arrangements, which coincides with the Technological Politics framework. They choose to utilize the technology to hire fewer baristas per shift and pay them salaries starting at $23/hr (Moskin, 2022). Menda, one of the founders, argues that this technology allows baristas to "focus most of their time engaging with customers" in order to enhance the customer experience (Yu, 2021). This time management model increases the number of tips that baristas receive because they are able to utilize excess time to establish a more personal connection with customers. Some costs are thus shifted from the business owners to the customers. Due to the careful considerations of the founders, this technology empowers Blank Street Coffee baristas.

Limitations and Future Directions

The biggest limitation surrounding this project was the lack of numerical data relating to Blank Street Coffee's impact on local coffee shops. There was mostly anecdotal data from locals. Another limitation is the lack of transparency surrounding the purchase of the Eversys machines, as well as the inner workings of the company's finances. Future STS scholars could perform field research and interview more local coffee shops that are close to Blank Street Coffee locations. This would provide a more in-depth view of the impact of Blank Street on local coffee shops. In a larger sense, this research is a case study regarding the sociotechnical impact of automation on society. Future cases involving automation could follow the examination methods of this research.

Concluding Remarks

The Eversys super-automated coffee machine empowers business owners who utilize the machine and Blank Street Coffee baristas while marginalizing other baristas and smaller business owners by influencing pre-existing power structures in society. Although a coffee shop seems like unlikely grounds for new sociotechnical developments, this case is just one example of the larger implications of automation on the workforce and society. It is important for everyone involved in the creation and usage of such technology to properly consider its impact and to implement it in a way that produces a net positive impact on society.

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