

Controversies of a Cashless Society

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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STS Research Paper

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Some economies are beginning to transition to using less and less physical currency, in fact, some businesses are beginning to refuse physical money altogether. Digital transactions are typically much more convenient for consumers and businesses that have access to them but abolishing cash might have consequences. If the trend of paying digitally continues, a new society in which there is zero cash, known as a cashless society, may eventually be ushered in. Many actors have many questions surrounding cashless societies. Naturally, these actors have competing visions as they advocate the benefits and detractions of going cashless

In the United States (and most other countries), there are two official ways to make payments at most establishments, the first by using legal tender (banknotes and coins), and the second digitally. Digital transactions typically happen by using a credit or debit card or mobile wallet. The shift from cash to digital has already begun, research reports are finding that the percentage of businesses transitioning to cashless is increasing in the U.S, U.K, and Canada (Lee, E.).

The complete adaptation of digital payment options, and thus a cashless society, rests largely on three major actors: consumers, governments, and private companies. If consumers do not forego cash and adopt digital payment options en masse, then it won't matter if governments and private companies approve. Mobile payment options market themselves as more convenient and secure as well as often times offer perks such as discounts and technology to help track spending, so why are some consumers happy to jump on board while others are reluctant to the

idea of only digital payments? More specifically, what are some imaginaries that consumers hold regarding the benefits and negatives of a cashless society. Lastly, what role do governments and businesses play in supporting or preventing consumers from adopting digital payment options through their own imaginaries (the imaginaries of the government and business). I aim to analyze these competing visions as I attempt to understand what different imaginaries and depictions of futuristic cashless societies the different actors hold for a cashless society through the sociotechnical imaginaries STS framework.

Sociotechnical Imaginaries in a Cashless Society

Sociotechnical imaginaries are essentially “collectively imagined forms of social order reflected in the design of technological projects” (Hess & Sovacool). Within the context of my research question, I’m analyzing the “collectively imagined forms of social order” from the perspective of the three different major actors (consumers, financial institutions, and governments) with the “technological project” being transforming all transactions to digital (i.e. cashless society).

The sociotechnical imaginary framework is valuable for considering the aspects of a cashless society because “sociotechnical imaginaries call attention to the fact that visions of future developments in [Science and Technology] almost inevitably bring with them wider visions of social futures, of risk and benefit, and of the collective good” (Evans et al.). As different entities imagine a cashless society, they bring with them different visions of the risks and benefits that their imagined vision of cashless society entails. By analyzing these different visions, we can begin to understand people, governments, and businesses positive and negative perspectives on cashless.

Furthermore, sociotechnical imaginaries include “the framing of risks, policy, controversies, and civic epistemologies” (Hess & Sovacool). At the forefront of my analysis especially is the risks and thus the policies and controversies that are surrounding the design of transforming society to become completely cashless.

In my analysis I rely heavily on legal battles and prior scholarships. I use these works to investigate the components of my research question regarding what the perceived benefits and detractions of a cashless society are as well as what might usher in or prevent a cashless society.

In my introduction, I mention 3 main actors that are present in the sociotechnical imaginary of a cashless society: government, fintech companies / banks, and consumers. The legal battles I dissect in my paper are especially insightful because all 3 actors tend to be present at these legal battles and contend with one another, giving us their points of views on what imaginaries they might hold regarding cashless societies. Furthermore, because it is a policy issue, the transition to cashless will happen on a national level initially as opposed to globally. With this in mind, I have to take care in not treating the government as one actor with consistent views: within the United States, where I’m basing the bulk of my analysis, government officials hold different feelings towards going cashless and thus have introduced different policies. I use these legal case studies to investigate how governments are reacting to big tech and consumers transition to cashless as a result of their imaginaries. I analyze what the government is worried about regarding cashless societies through the different bills that have been introduced as this will help answer the “what might usher in or prevent a cashless society” component of my research question. Lastly, these legal battles offer insight into what imaginaries policy makers and their constituents hold regarding cashless societies.

From there, I use prior works and other research related to cashless societies and digital transactions and compile my findings into different topics including environment, security and privacy, equity and justice, and reckless spending. I begin each section by explaining what detractors certain actors (or opponents of cashless) have regarding cashless societies through the imaginaries they hold and what the proponents of cashless argue about the same topic through their own imaginaries of what cashless might look like as well.

A Legal Case Study

I'd like to begin by conducting an introductory analysis to a situation in which these 3 actors are contending with one another and dissect some of the imaginaries that are present. There are lawsuits, hearings, and bills being signed across several U.S. states regarding whether businesses can stop accepting cash. Some government officials as well as their constituents in favor of passing bills that make it illegal for a business to not accept cash hold the imaginary that low-income and undocumented consumers have no means of shopping there as they may not have access to smartphones or payment cards/ bank accounts (Selyukh, A). This controversy is an important imaginary: a cashless society might have negative impacts for those who simply don't have the financial or legal means to use digital payment as they are excluded from participating in society as consumers with one policy director stating "A cashless economy is not an inclusive economy" (Selyukh, A). Showing that some policy makers believe that this could thus result in an economy that is discriminatory and exclusive by nature. Other consumers have pushed back on these cashless businesses because of their fear of being tracked by governments, marketers, and financial institutions which poses yet another negative that consumer, governments, and private businesses hold, one which is typically regarded as a negative to the consumer but beneficial to the government and companies: a society in which every transaction,

no matter how small, is available to banks, advertisers, governments, etc (Lee, E). However, not everyone believes the lack of privacy is a bad thing. Proponents of going cashless sometimes claim that although some personal freedom is given up in that there would be no private transactions in a society without physical currency, it would become much more difficult for individuals who make their money illegally or unethically to continue operating. In fact, “The International Finance (IFF) trade body has called for greater data sharing between financial institutions and law enforcement” (Holden, 2020) as an example of what imaginaries financial institutions may hold regarding cutting down on crime by reducing their customers’ privacy. Another interesting point of contention in this lawsuit is that consumers are usually more sensible when paying with cash in terms of how much they spend and what they buy. Some are worried that a cashless society would result in reckless consumers spending way more money than they should (Bolluyt, J), (Passy, J). However, from the point of the financial institutions and businesses pushing for strictly digital payment, this is a great thing as consumer spending is what drives their profits: a cashless society where consumers think less about spending sounds grim to consumers and but pleasant to businesses and financial institutions. One last important imaginary present in this ongoing clash is that some businesses argue that going cashless will cut down on robberies. Is a cashless society truly synonymous with a society in which there are significantly less robberies? Some consumers are worried that going cashless wouldn’t cut down on theft, as thieves would just instead transition to cybercrime (Some key challenges of a cashless society. NCR).

Now that many of the imaginaries and controversies surrounding cashless societies have been introduced, a new question needs to be posed, are there any individuals trying to address

these controversies through technical or rhetorical means perhaps by introducing untraceable digital currencies or through marketing campaigns?

Cash's Impact on the Environment

One important imaginary that was not at the forefront of the previously discussed legal battles is the potential of cashless societies reducing waste, specifically by reducing the need and thus quantity of paper and coin currencies. There is an imaginary that a cashless society eliminates the need for cash and coins as individuals can transact between themselves (CashApp, Zelle, Venmo, etc) as well as with businesses (ApplePay, GPay, Samsung Pay, etc) without ever needing physical currency. In fact, some fintech companies are actively using the imaginary that cashless society equates to less waste as a marketing point to consumers. One mobile payment option, Pomelo Pay, a mobile payment option in the U.K, has stated that “Coins are incredibly damaging to the planet” as well as “polymer banknotes are worse for the environment than traditional paper notes” and conclude by asserting that they “allow businesses to conduct cashless payments in a ... sustainable way” (Pomelo Pay).

Equity for the Underbanked

Perhaps the most pressing controversy that must be addressed by going cashless is making sure that by going cashless, societies are not effectively discriminating against low-income and undocumented individuals. Over a quarter of global consumers lack access to a bank account. Furthermore, cashless societies will hurt consumers in more unexpected ways, according to a report, in addition to low-income individuals, those who live in rural areas, in abusive relations, or are disabled may also not be able to make purchases should society rid itself of cash (Villegas, S.). This is a significant problem for consumers, businesses, and governments

alike, without a solution to this issue, the prospect of a cashless society is unfathomable as a quarter of consumers won't be able to participate in the economy. Furthermore, businesses will lose revenue from a significant portion of the population will governments will have to answer to these individuals as well as miss out on tax revenue from these missed transactions.

The statistics in the previous paragraph have led some government officials to hold the imaginary that a cashless society would significantly reduce underbanked people's ability to participate in the economy to create policy as some cities are making it illegal for business to not accept physical currency and with one policy director asserting that "a cashless economy is not an inclusive economy". (Selyukh, A.). Others have proposed that there are other solutions which could still allow economies to completely get rid of cash while not leaving behind unbanked consumers. Cashless proponents have argued of a potential solution of using mobile phone money transfer application and point to Kenya's M-Pesa as an example. M-Pesa in Kenya is a mobile-phone based application that allows users to send money, make transactions, and even pay bills. All that is required to join is a phone, sim card, and valid government id (Erlanger, S.).

Although this solution will allow for unbanked and underbanked individuals to make cashless transactions, this doesn't solve the issue of undocumented people from being left out of the economy. Unless governments are willing to allow people to create monetary accounts without a valid form of identification, which may pose severe security risks, my research hasn't found an argument from any proponents regarding how those who are undocumented could participate in a cashless economy. This imaginary held by government officials and consumers in which not everyone can make transactions is one of the most significant barriers for a cashless economy.

Privacy Concerns

One of the concerns worrying consumers regarding cashless societies is the lack of privacy. Many consumers hold the imaginary that a cashless society would be dystopian as governments and corporations would have access to every single transaction. Furthermore, people worry that in a society with no cash, even small transactions such as giving birthday money will be tracked and taxed by the government. (Villegas, S.) Finding a replacement for cash to make truly anonymous purchases is the only way to address the privacy controversy: a cashless society may be more quickly embraced by consumers if they feel that they can still make anonymous digital transactions the same way they can with physical money. One solution that has been proposed by some cashless proponents as an untraceable way of making digital transactions is to use cryptocurrencies. Cryptocurrencies are a digital form of decentralized money that leverage cryptography to make secure transactions. One proponent has stated that “crypto is the next step towards a cashless society” and that “anyone with a crypto wallet and internet connection can lend, remit or trade their crypto without validation by a central authority or intermediary” (Hosp, J). Although many people believe that cryptocurrencies solve the privacy concerns surrounding digital transactions and that it is impossible to track transactions made using cryptocurrencies, opponents point out that recent events actually support the opposite. Criminals oftentimes use cryptocurrencies to make transactions as they believe they are untraceable as they did in the 2021 ransomware attack on the Colonial Pipeline. Hackers received 75 Bitcoins during the ransomware attack but it didn’t take federal officials very long to recover 63.7 of the 75 Bitcoins (Perloth, Griffith, Benner). There are, however, cryptocurrencies that claim to be truly anonymous and untraceable. While these claims have not yet been put to

the test, the Justice Department's success with tracking bitcoin may continue to cause consumers to be wary of whether or not there exists untraceable currencies.

Some have addressed the privacy controversy, not by trying to solve it by presenting private ways to make transactions, but by attempting to convince the public that a society with only trackable transactions is not a bad thing after all. They argue that only those who are engaging in illegal or immoral activities have to worry about the government knowing about their transactions. Furthermore, many argue that the government and its agencies having a transparent view of citizen's transactions will allow everyone to be taxed fairly, especially those at the highest income brackets who tend to evade the most taxes as Adam Holden states that "Cash is often blamed for illicit money movement, such as bribery, tax evasion, money laundering, counterfeiting, corruption, and the finance of terrorism. Governments around the world have been focused on reducing these crimes, as they pursue the ideal of a cashless society... A cashless society would make it far easier to prevent this tax evasion". President Biden and Congressional Democrats seem to hold this imaginary as well as they have proposed bills that seem to attempt to solve exactly that problem: sacrificing a little bit of everyone's privacy in order to increase tax compliance from everyone. Biden's tax compliance bill essentially gives the IRS more access to everyone's bank accounts. (Zipperle, S.) Many of the arguments in favor of this bill are parallel to those arguing that a lack of privacy is not necessarily a bad thing for law-abiding citizens. (Hanlon, S.). Some proponents argue that some degree of privacy could be preserved in a cashless society through "the systems can be designed in a way that protect people's information from the start... for example, allowing for privacy of certain transactions under \$50 could be coded into systems in advance"(Lee, E).

Reckless Consumer Spending

One imaginary consumers are concerned about is the fact that they tend to be more reckless when spending digital currencies as opposed to hard cash and so in a cashless society, their spending will be too reckless. There has been a great deal of research done on this topic and it's clear that consumers spend more when paying with currencies other than cash, whether that is credit / debit cards, mobile wallets, etc. This seems to be a psychology issue, researchers have theorized that when consumers use cards instead of cash, they spend more money because the amount of cash in their wallets is not physically decreasing despite spending money. Researchers at MIT have even found that when consumers use credit cards, parts of the brain linked to rewards light up as consumers receive the reward of the purchase immediately but don't deal with the consequences until the bill comes. (Prelec, D., & Banker, S)

This controversy will be tricky to address. Proponents have argued that consumers will be less reckless with digital transactions if there is some sort of "pain" associated with these transactions similar to giving cash up. MIT researchers suggested a possible solution when paying with smartphones (mobile wallets) could be sounds and notifications on the phone. In addition to notifications about purchases made, the researchers also suggested that financial institutions could send additional notifications about consumers balances and how they can temper their spending (Prelec, D., & Banker, S). Unfortunately, the latter might not be realistic as financial institutions make more money when consumers spend more money therefore it is probably not in their best interest to help consumers make smart decisions. Others have suggested that in a cashless environment, consumers need to rely on themselves to make smarter purchases by taking steps such as lowering their credit limits or leaving their payment methods at home when not intending to shop (*Cashless effect. The Decision Lab*) Unfortunately, many

believe that since this issue is psychological, it doesn't seem like there's a great solution for preventing consumers from spending more than they should when using cash alternatives.

Conclusion

There are definitely both many positive and negative imaginaries regarding cashless societies, but the negative imaginaries in the way might prevent society from making the zero cash transition. From my previous discussion about how the controversies are addressed, it seems that the proponents of cashless agree that many of the controversies can be addressed while the opponents are not very confident. Many continue to believe that by going fully cashless, those who are undocumented will undoubtedly have a much harder time making transactions. Those who value their privacy will be skeptical and their transactions might be tracked. Those who are mindful of their budget might lose their favorite way of tempering their spending. For these reasons, I believe that society will continue transitioning to cashless, but physical money will probably not go extinct. This does not mean that it will be accepted everywhere, in fact, it already isn't. As it stands, it seems that the only real solution to the aforementioned controversies is for society to not let go completely of cash.

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