

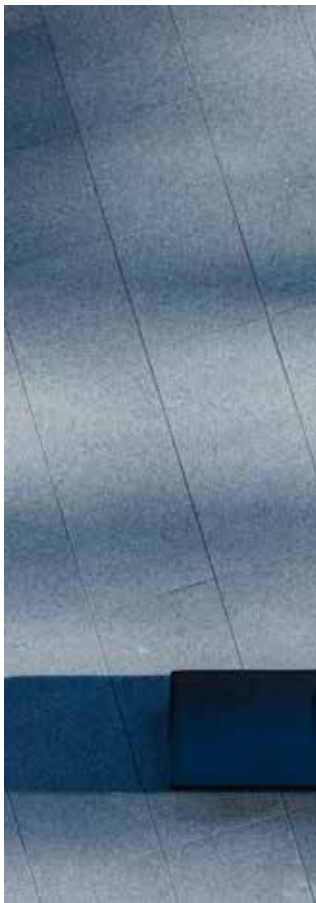
# Barun ICT Global News

Global Student Reporter & Researcher

**01** Guadalajara: A New Kind of Smart City  
by Paloma Carrillo-Gallegos

**02** Cash Is Still King  
by Jeremy Cappello Lee

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**01**



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## ***Guadalajara: A New Kind of Smart City***



This summer, Mexico's vision for smart cities began to gain momentum: the grandiose hotspots of Mexico City and the town of Guadalajara in Jalisco State have finalized an agreement in collaboration with Smart Cities for All [1]; notably, Mexico is the first national partner of this project [2]. Through this partnership, the cities seek to expand their technological infrastructure to as many individuals as possible [2].

Even though one town may seem like a small step towards building a more all-encompassing and technology-based community, it will be much easier to implement these advancements—such as applications for more efficient transportation—throughout Mexico after their introduction.

A “smart city” usually has an eclectic approach in its search for a more practical and health-oriented structure: for example, it considers the ways in which buildings and communities can best benefit from technology and its implementation through company deals [3]. If done properly, this could be a win-win situation for all: residents gain helpful tools for going about their day in the most efficient manner, and companies can draw from user statistics to further improve such technologies [4]. One such example is the San Francisco Park project in California: special detectors connected to an app would tell users, in real time, if certain parking structures had space or not.

While this may seem simple, a study revealed that it reduced pollution by one-third by reducing driving time; in turn, this has clear benefits for the respiratory health of residents [5]. This project had political and social implications as well: the city created an office with a municipal representative to improve transparency about privacy rights with regards to the project’s data collection [5]. This is just one of a myriad of smart city strategies which acknowledges the need for governments, businesses, and individuals to be on open terms with one another in order to create a healthier town.



What makes Guadalajara’s project special is its choice of developing its information and communications technology, or ICT, through the route of art and culture [6]. The Ciudad Creativa Digital (CCD) proposal, is working under the hopes that globalizing Guadalajara’s cultural fame will attract big names in technology towards the city [7]. Its vast lands—which make it one of the most expansive cities in Mexico, second only to the capital [6]—combined with its national recognition as an IT center make it the perfect spot for the country’s move towards smarter infrastructures [7]. There are a number of events hosted by the city which hope to boost Guadalajara’s presence on the global

stage: for example, it promotes live performances in central city spots and hosts the “GDLuz” lights parade in order to best illustrate the beauty of everyday life in this Jalisco town [6]. Such approaches are government-supported as well: for example, the city has invested money into supporting the performing arts, and taxes are not levied on some non-commercial cultural productions [6].

By simultaneously boosting its social and cultural capital through CCD, Guadalajara hopes that companies will take notice and bring further economic wealth to the city [7]. These funds, in turn, could then be utilized to provide basic necessities, such as affordable water and homes, at an even lower price; at the same time, the city could participate in both beautification projects and quicker, further-reaching public transportation routes [7]. This is not to say that Guadalajara is relying only on the arts, however: the city hopes to expand the use of technology to more and more people to the city [1], as nearly forty percent of the population is still not connected to the internet on a regular basis [8]. One such example is Guadalajara’s introduction of the e-health field [7], which hopes to make personal health data more accessible through online exchanges. However, in order to make such a goal a reality and make such services as easily attainable as possible, basic technology itself must reach further and to all corners: according to Reynoso—who leads the International Computer Room Experts Association, or ICREA—there are still a number of places in



Mexico without stable phone lines [9]. This goes to show that the country must do more to encompass the entire population—both in metropolitan and rural areas. Still, there is hope: Intel’s engineers in Guadalajara are currently working on how to expand cellular services in other places using satellites, and applications like Zumbale amplify the map for potential startup recruits [10].

Mexico’s smart city plans are still in the early stages, but they hold promise and potential—especially when one considers that a city like Guadalajara already has a high technology usage rate [9], which in turn simplifies the development of “smart” infrastructures. With hopes of a Mexican “Silicone Valley,” a local engineer named Antonio Yáñez theorises that companies with such resources are the final key to accelerating current developments in the technological and, by extension, the social

and logistical aspects of a town [10]. Guadalajara shows us that the most efficient methods lie not only in the science and math fields, but also in the arts: by becoming an increasingly renowned cultural center, it is possible this Jalisco town will be able to improve the quality of life of its residents through increased technological capital.

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## ***“Cash Is Still King”***



The old adage cash is king seems to be in need of an update. But is society ready just yet?

News headlines of late herald an age of “touchless” convenience that will render clunky cash transactions obsolete. The recent spate of digital payment product launches among big-tech companies – including Apple’s sleek Apple Card and Facebook’s blockchain-powered Libra cryptocurrency – portend that cash is fast going out of style.



The shift to digital currency is correspondingly transforming consumer behavior, with companies seeking to redefine the shopping experience. At the forefront is Amazon, which last year introduced its brick-and-mortar line of “Go” stores. These are sleekly-designed spaces which allow customers to auto-checkout, without the need to wait at a cash register or even physically make a payment. Instead, customers simply scan-in via smartphone and take any items they may need, with Amazon’s computer vision and deep learning capabilities recording and charging the transactions. To date, 22 Amazon Go Stores have opened, with the majority of them operating on a strict cashless system.

There are tangible benefits to moving away from cash. Not having to visit an ATM or fiddle for loose change can save time at the checkout line and eliminate transaction fees. On a macro scale, there is evidence that going cashless can stimulate economic growth, with the Boston Consulting Group estimating that such a shift would add 1 and 3 GDP percentage points to mature and emerging markets, respectively.

It’s not all good news, however. Despite the convenience and economic gains from going cashless, there is growing concern that doing so could worsen societal inequalities. In particular, people who disproportionately rely on cash payments, or who do not have access to other payment forms, could face difficulty in a cashless society.



In the United States, for instance, 6.5 percent of households in 2017 were found to be unbanked, meaning they do not have access to a checking or savings account. These households tend to be with average income of the unbanked just over \$18,000, far below the national median of \$59,000. Correspondingly, among the most common reasons given as to why they were unbanked, most people cited an inability to pay banking fees, or simply lacked enough money to store in an account. For the unbanked and underbanked, therefore, a shift to a strict cashless model would increase the barriers to making purchases.

Looking beyond the unbanked, those who make less than \$25,000 a year in the United States – or about 30% of the population – are much more likely to make cash transactions than those in any other income bracket. Conversely, as incomes rise, so

does the share of credit, debit, and electronic payments. Put simply, socioeconomic factors correlate with preferred payment method, and those who are better off tend to skew cashless. For the wealthy, going digital may make a lot of sense. But what about those who depend on cash to make their purchases?



Critics of a strict-cashless system, then, raise a valid point that such a model would hurt those facing economic hardship. In face of this, there have been corresponding efforts to push for the right to pay in cash. Cities like Philadelphia and San Francisco have enacted cashless bans, with the State of New Jersey levying fines of up to \$5,000 for stores that refuse to take

hard currency. At the federal level, legislators are pushing to enact similar laws nationwide, with Rhode Island Representative David Cicilline introducing the “Cash Should Always be Honored” or Cash Act in May of this year. A similar piece of legislation sponsored by Representative Donald Payne of New Jersey would ban payment method discrimination – for instance, charging a penalty for customers paying in cash instead of card or digital currency.

Such measures at the federal and state levels indicate broad-based societal support for preserving the right to pay in cash. In fact, according to a study commissioned by Square – a payments infrastructure company – 73% of small business owners in America believe the United States will never be a fully cashless society.

The fact that most Americans are not yet on board is a double-edged sword for companies like Amazon and Apple. On the one hand, this means that these companies face an uphill battle to win over societal sentiment. On the other hand, the recent public debate to preserve cash presents an opportunity for them to pioneer technologies that decrease barriers to financial participation.

This would first require an examination of the root cause of diverging payment habits. In other words, companies need to consider where lie the barriers to financial participation. For instance, at a cashless “smart store” requiring smartphone sign-in, the barrier to entry would be possessing an iOS or Android-enabled phone and a working credit card. Both cost money beyond the actual transaction cost of the store items. But say these stores offered the option to open a cash-only account – much

like an in-house tab that could be topped up as needed. This could afford users the same convenience of auto-checkout without the need of a smartphone or credit card.

Of course, finding a solution that gets to the root issue and that then can be deployed at scale, is easier said than done. Barring such innovations, it is the responsibility of civil society and lawmakers to ensure that the digital payments revolution does not come at the expense of the most vulnerable.

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