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JULY 2024

Will the future of U.S. retail be cashless?...

Our lives over the last 20 years have moved increasingly online as everything from newspapers to banking have gone digital. Every year more people make all of their daily purchases via credit cards. Fewer than 14% of Americans in 2022 made all or almost all their purchases in a typical week with cash versus 41% who made none of their purchases in cash according to Pew Research. In 2015, 24% of Americans were on either side of the spectrum as seen below. Several factors likely influenced this shift, including faster credit card transactions (tap to pay), online shopping growth, the pandemic, and younger consumers that often carry little to no cash.

As fewer Americans carry cash, stores are installing more self-checkout and creditonly lanes. Some chains have gone further, particularly in large cities. In Chicago, Sweetgreen, a pricey salad chain, and Dos Torros, a high quality Chipotle competitor, both opened cashless locations within the same block in 2017. Sweetgreen reported that its cashless stores recorded 15% more transactions per hour than standard ones and also saved two hours per day on cash management like balancing registers and making deposits. These gains led the chain to go cashless across all locations despite the credit processing charges that average around 2.2% for Visa and Mastercard.

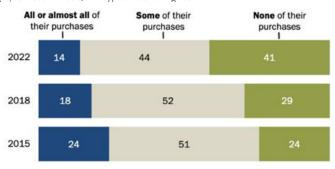
While the cashless trend suits younger consumers and the well-off, many Americans still lack access to credit or debit cards, locking them out of these stores. There are roughly six million "unbanked" consumers in the U.S. today. Despite the fact that every U.S. bill states, "This note is legal tender for all debts, public and private," there is no federal law that prohibits businesses from refusing to accept cash. To fill this breach, some cities like New York and Philadelphia and states like Massachusetts and New Jersey

passed laws forcing businesses to accept cash. Even with these laws, larger retailers are looking for ways to induce shoppers to use credit cards. Both Walmart and Target are adding self-service checkout lines while reducing the number of staffed cash registers.

At the opposite end of the spectrum, some smaller retailers have added a surcharge for credit card (but not debit card) payments, and others have added a minimum charge amount. These practices, while legal in most states, are highly discouraged by credit card networks like Visa and Mastercard, which are trying to maximize card usage. The surcharge may also drive shoppers to competitors including large chains. The relatively high acceptance rate for surcharges means that the trend is likely to continue. A study by PYMNTS and Payroc found that while 58% of users that had never been asked

AMERICANS HAVE BECOME MORE LIKELY TO SAY THEY DON'T USE CASH FOR PURCHASES IN A TYPICAL WEEK

% of U.S. adults who say they make ____ (including things like groceries gas, services or meals) in a typical week using cash



Note: Respondents who did not give an answer are not shown. Source: Survey of U.S. adults conducted July 5-17, 2022. Pew Research Center

to pay a surcharge would resist paying it, 85% that had previously paid one would accept the fee.

The march towards a cashless future

The march towards a cashless future continues at large retailers but not without pushback. Sweetgreen has reversed its previous decision to go cashless across all stores after public complaints. Some consumers will continue to prefer cash for privacy reasons and as a method to curb spending. Others are simply unable to qualify for a credit card. We are moving haltingly towards a cashless society, but don't expect your greenbacks to disappear soon.

- Neil Macker



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CHINA AND THE U.S.

By Eric Hanson

Is this China's Tocqueville?...

In 1831, 26-year-old Alexis de Tocqueville spent ten months in America and Canada. Returning to France, he wrote *Democracy in America* (1835-1840), a book of observations about America and what aristocratic Europe might learn from it.

Tocqueville admired the stability of the American economy, the popularity of churches, and how the spirit of religion and liberty--the Puritan experiment--led to a "leveling of conditions" that did not exist in Europe.

But Tocqueville was not all praise. He found it ironic that even though America professed a desire for liberty and equality, Native Americans were badly mistreated, and slavery was tolerated. He was also worried about the "tyranny of the majority" in politics, whereby the newly elected drowned out the opinions of the minority.

In 1988, Wang Huning, a 33-yearold Associate Professor of International Politics at Fudan University in Shanghai and a rising star, was invited to spend six months in America as a visiting scholar. He visited over 30 cities and 20 universities. He shadowed a House of Representatives candidate in Iowa, visited a Procter & Gamble plant and the headquarters of Coca-Cola, spent time with a fisherman on the lower Mississippi, interviewed professors at MIT and the Kennedy School at Harvard, and questioned researchers at the Hoover Institution. He was in America during the Bush-Dukakis presidential contest and got a close-up view of an American presidential election.

Upon his return to China, Wang put his observations in a book, *America Against America* (1991). Is this the modern day version of Tocqueville? It is doubtful it will achieve anywhere near the same fame. First, it is a bit of a bizarre book. Pages are not numbered, there is no publisher listed, the translation is clunky at best (was it machine translated?), and the text is in desperate need of an editor. But the importance of this book is that the 33-year-old professor has gone on to become China's chief idealogue (some Westerners call him "China's Kissinger"), serving under three Communist Party chairmen



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and today, a member of the all-powerful seven-person Standing Committee of the Politburo.

There is probably no high government official in China with as much first-hand information on America as Wang, and certainly no one who has subsequently published his thoughts. Xi Jinping, prior to becoming Chairman in 2013, visited America only once, participating in a short agricultural group trip to Iowa in 1985.

So, what does Wang think about America? In the introduction he says his intent is to "explore the political and social management process of American society" to try to answer the question, "Why is there an America?" Although Wang is the chief of ideology and propaganda for China, he is surprisingly balanced in his appraisal of America. He sees both positives and negatives in the country, or as he calls them, "paradoxes." He sees modern architecture and infrastructure everywhere, world class universities, innovation and technology, and a capitalistic system which he says, "cannot be underestimated."

But at the same time, he sees problems, great wealth but also many homeless people. America has an advanced higher education system, but significant deficiencies at the elementary and secondary levels. For instance, American students know very little about geography or the rest of the world. And although America is a functioning democracy, there are powerful economic groups that can use non-political means "to determine the woes of others." These contradictions are the reason the book is titled, *America Against America*.

Wang sees a crisis developing in America due to our fundamental beliefs. At the core, according to Wang, America believes in individualism, the freedom of each individual to decide for himself or herself. Personal freedom is good to an extent, but eventually it decays societal values, reduces one's responsibility to family and country, and leads to a self-centered and very materialistic system that will eventually collapse. The Chinese Confucian core is a belief in personal loyalty, to the family, to ancestors, and to the country.

Wang's closing chapter extols the virtues of "collectivist" Japan winning against "individualist" America. Back when Wang was writing, Japan was winning and was at peak economic power. Subsequently it went into a 30-year funk. No one today would hold it up as a winning economic model.

When Wang returned to China, he became the champion of "neoconservatism," the idea that China needs a strong hand, politically and economically, in order to develop. In America he saw the invisible hand working, or as he said, "the political locomotive is not attached to the long train of the economy." In China he helped build the opposite, the State's visible hand controlling both politics and the economy. Over the long term will this be effective? The politicians and bureaucrats in Japan weren't smart enough to make it work, and it remains to be seen whether China can.

ON AGING By Julie Won

"The world is turning Japanese"...

Those aren't my words. I heard them from Shuntaro Takeuchi, a portfolio manager at Matthews Asia, and he wasn't referring to the 1980 pop song by the Vapors, but to how aging around the globe is making the rest of the developed world look more like Japan. With 30% of its population over 65, Japan is the oldest country in the world. But Western Europe isn't too far behind -- and the U.S. is inching that way too.

"Japan's present challenges are our collective future," wrote Sarah Lubman for *National Geographic* last year ("Japan confronts a stark reality: a nation of old people"). Perhaps that's why we can't stop gawking. Japan is our living lab and test case for what happens when you get to this point. Japan's population peaked in the 2008-2010 period and has been shrinking since. Labor shortages are evident everywhere.

The mainstream press prints plenty of stories to satisfy our curiosity – from the dire (more elderly are dying alone), to the techno-optimist (robots can do it all!), to the weirdly fascinating ("The gang's gone grey: majority of yakuza in Japan now over age 50" – a headline from Asahi Shimbun). The reality is multifaceted, but Japan certainly hasn't shied away from it. And in some ways, being ahead of the curve has forced innovation and put it in a position to export its learnings.

Japan has excelled at factory and service sector automation to alleviate labor shortages. But Japan is about more than robots. It also has built supportive policies and a variegated patchwork of initiatives from government, business, community, and individuals.

The government has been incentivizing citizens to work into their 70s - a new idea for many (the average life expectancy in Japan is 87 for women and 81 for men). And while Japan often is viewed as immigration-averse, it has started increasing targeted immigration with a fast track to permanent residency for those with certain skills. The government also provides generous long-term care, covering 70% to 100% of the costs from mandatory contributions from all workers over age 40. More recently, some municipalities have been experimenting with continuous support services for the elderly who live alone.

What is most impressive, though, are the many little creative things that individual communities and residents have done to keep the elderly mobile and independent for longer. In hollowed out towns where the shops have disappeared, there now are mobile supermarkets — grocery-laden trucks appearing once or twice a week so the elderly can shop close

A moving supermarket

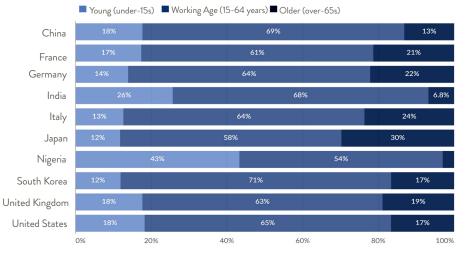
Source: Japan Forward News

to home. Both small towns and housing complexes have organized senior transport services. They've also set up drop-in centers where elderly residents can get help with a wide range of tasks — like filling out forms or reviewing medication instructions. The city of Matsudo established a network of drop-in cafes for residents with cognitive decline who are disoriented or lost — and it's trained over 20,000 volunteers as "dementia supporters" who know what to do when they encounter someone who needs help.

Business opportunities have arisen too, including "age-tech" startups and a wealth of new services like after-death deep apartment cleaning.

The ultimate lesson from all this may be the way Japan has confronted reality head-on rather than dodging the unpleasantness. True, Japan has no choice now, but all sectors of society seem to be energetically embracing problem-solving and continuous experimentation. Most of us would prefer not to think about what aging looks like. A quick Amazon search here for "aging" brings up lots of books on living gracefully and staying vital for longer – plus a few face creams and serums to help you look younger. But there's little on how to manage when you can't shop, navigate a public restroom, or get to the doctor on your own. That is where Japan is now - and it continues trying new things, big and small.

POPULATION BY YOUNG, WORKING AGE AND OLDER GROUPS, 2021



THOUGHTS NEWSLETTER 3

TECHNOLOGY TRENDS By Anne Doremus

Where is AI headed?...

ChatGPT, when first released back in late 2022, made a splash. Al technologies, and more specifically the large language models (LLMs) they are based on, had been around for years. But this Al chatbot was one of the first easy-to-use products capable of generating a range of written content in response to prompts – and it was made available to the public free of charge. Just two months after its release, an estimated one hundred million users had downloaded the software, making it the fastest growing consumer application in history.

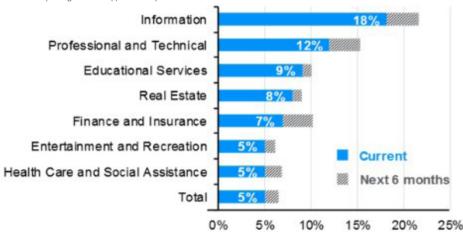
So where does the technology stand today? ChatGPT has continued to gain a following - 180 million subscribers as of today. But investment in AI has expanded well beyond this product. Capital spending by the major U.S. AI-focused firms (Google, Microsoft, and Amazon, etc.) is expected to hit \$183 billion this year, up over 45% from 2023 levels. Interestingly, companies are making these investments in the face of relatively low AI adoption rates across the economy. In a recent survey, The Center for Economic Studies, a division of the Census Bureau, found that just over 5% of all firms are actually using AI today (see chart right).

Experts today are split on AI's longterm impact on the global economy. Optimists claim that the technology will transform work, boost productivity, and spur economic growth. Others, like MIT professor Daron Acemoglu, contend that truly transformative changes relating to AI will take time. And thanks to escalating costs, he expects that only a small portion of "AI exposed tasks" will make economic sense to automate. My guess is that AI will help achieve meaningful efficiencies over time, but the process will be more evolutionary than revolutionary. Some of the obstacles to wider AI adoption are listed below.

Talent: Firms across the economy are scrambling to find employees with the skills needed to integrate AI tools into their work processes. Job posting site *Indeed* recently reported a 20-fold increase in postings mentioning Gen(erative)AI. Many of these roles are familiar and involve traditional tasks like building and analyzing data sets. But jobs

AI ADOPTERS

% of firms reporting use of AI applications by sector, as of Feb. 2024



Source: JP Morgan Guide to the Markets. Census Bureau

unique to AI, such as Prompt Engineer and Conversational AI Architect, are new. AI engineers with experience in specific sectors like healthcare or banking are also needed to customize the technology to specific business needs. Many firms are turning to outsourcing to meet the shortage of skilled workers while others are investing to retrain their existing workforce.

Energy: Generative AI models operate by parsing large datasets to recognize patterns in text, speech, or images. The more data they analyze, the greater the probability they have found a correct match. Improving accuracy is the "holy grail" of most AI models but requires a lot of energy. While estimates vary, a recent analysis published by *Joule*, a peerreviewed scientific journal, estimates that at least 85.4 terawatts of electricity annually – more than what many small countries consume in a year – will be

needed given current trends in AI capacity and adoption. Building and permitting electric generation and distribution facilities here in the U.S. has never been easy, and there are real questions as to whether the industry can scale quickly enough to meet this expected growth -- especially given current carbon reduction-related regulatory constraints.

Regulation: So far, regulatory constraints have done little to restrict AI's use, and what is in place varies across jurisdictions. But further regulation is likely and the related uncertainty has not been helpful to firms trying to implement AI. The EU is furthest along on the regulatory front, having recently passed an Act which included rules around data transparency, safety testing, and "incident" reporting. Over 500 different pieces of AI-related legislation have been filed in the U.S., but efforts here remain a work in progress.

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