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Michael K. Spencer

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Top 24 Tech and Future Trends



Black Mirror, Season 4, 2018

Love it or leave it, “disruption” turns into “automation” sometime in the next ten years, truly a unique moment in history.

As a Futurist, I hunger, ponder, yearn and anticipate the variables of these micro-trends.

Here are some of my favorite heading into 2018.



1. Crypto Assets show biggest Growth Ever in 2018

While 2017 had plenty of winners of cryptocurrencies, I believe 2018 will be even bigger. Here were some of the winners of 2017:

NEO up 52,372%

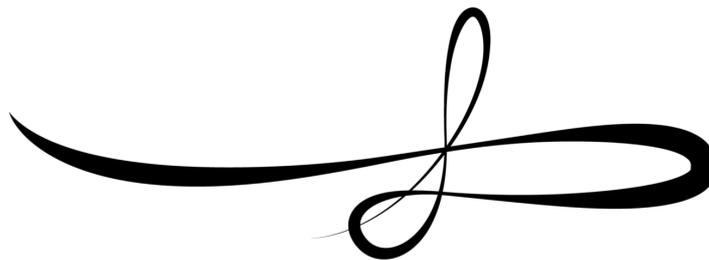
Ripple up 35,564%

NEM up 27,920%

Stellar up 14,511%

Ethereum up 9,383%

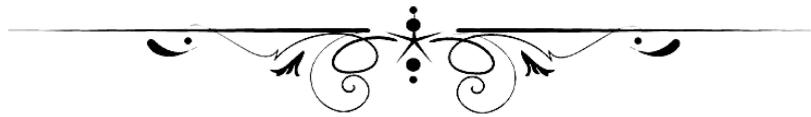
I believe Bitcoin will reach **80,000 in 2018**, and its bubble will burst in early 2019. Cryptocurrencies as a whole are now worth in the area of \$700 Bn. will see huge gains and could be worth about \$8 Trillion by the end of 2018.



2. Store Closures Will Accelerate

If 2017 saw a deluge of retail store closures and bankruptcies, there's some evidence 2018 could be even worse. This is in no small part due to the decline and likely demise of the Sears, Macy's and others. The fact is, there's more retailers on the death watch now than in the supposed heart of the "retail apocalypse" last year.

Let's face it, Toys R Us, JCPenney, Payless and a long list of others are in trouble. The Retail Apocalypse is not an isolated event but an acceleration of what we once termed as "online shopping" and the changing preferences of consumers towards discount shopping and away from legacy brands.



3. Smart Speaker Ubiquity

Google Sold nearly 7 million smart speakers this holiday season, and Amazon likely much much more signaling the **smart speaker** is the next device. It's widely expected to become the next major advertising channel and the next generation of "apps"; changing the game for the likes of Apple and Facebook who are behind.



4. Consolidation and Mergers & Acquisitions will Increase

Expect to see some more big-deals in terms of retail acquisitions. Amazon acquiring Whole Foods and Walmart scooping up Fashion retail startups was just the beginning in the sector.

Will Amazon seek to push into physical retail not just to compete with Walmart but with Alibaba? Who knows, but the outrageous idea of

them acquiring Target may in the months and years to become feel less like fiction and more like an opportunity.



5. China Outcompetes with the U.S. in the future of Tech

With Didi acquiring 99 in Brazil, I think the combination of Didi going global, Lyft maturing and Waymo being first to the best self-driving cars means Uber won't have such a great year.

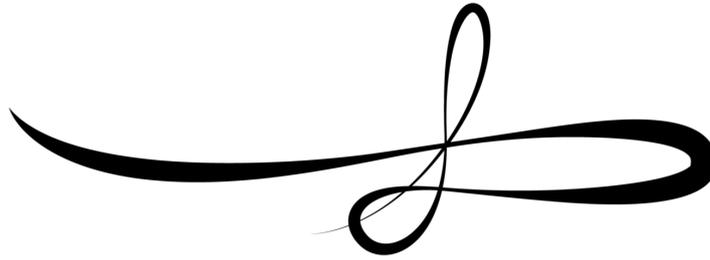
Moreover, I see Tencent and Alibaba growing faster than FANG in their stocks and valuations. In 2018, we'll witness China increasing their presence globally and in tech and in the smartphone market, just as we saw Xiaomi doing so well in India.

A merger of Mobike and Ofo will mean, China will own the future or ride sharing biking globally. China will show more signs of R&D, AI and go-to-market supremacy in online shopping. This with a diminished ability of Silicon Valley to keep up, will change the balance of power with the start of a cold war of tech.



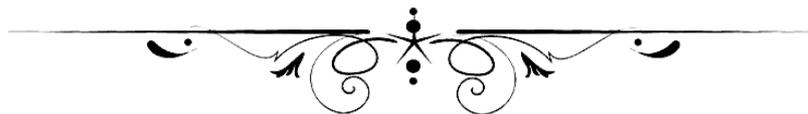
6. Voice AI will have an important year in 2018

With Alexa and Google Home maturing, many new competitors will hit the market in 2018 including Apple, Facebook and a Google' screen to compete with Amazon's Echo Show. Alexa for Business will completely reshape the enterprise space and office environment.



7. Cryptocurrencies Not called Bitcoin

It's widely expected that Bitcoin will keep losing marketshare compared to a host of rising crypto assets, cryptocurrencies and blockchain innovations. The rise of Ripple, Cardano, Stellar, TRON and Ethereum itself is signalling a shift in the Crypto Singularity. How ICOs and cryptocurrency exchanges scale will bear watching.



8. Self-Driving Cars Soon than you think by 2019

If you've been following [Waymo](#) and paying attention, you know that mainstream adoption of fleets of self-driving vehicles is just between 18 months to 36 months away. This means Uber, Didi, Lyft and company—in addition to Google's own service and major automotive makers will all have access to the tech and will be rolling out very quickly.



9. 2018 will be a great year for IPOs

I believe 2018 will be a great year for tech companies going public. Airbnb, WeWork, Spotify, Lyft, Dropbox, Xiaomi, DocuSign, Pinterest, Palantir, BuzzFeed—enough said.



10. Voice AI Speakers Enter Majority of Homes by 2022

In the future of the device and the human interface, before the neutral interface becomes the norm; there's the smart screen and smart speaker. Voice-AI interfaces in the home mean we spend less time on our mobile smartphones. It means, clicking on apps becomes less appealing and feels like work. It also means that the web goes from something you search, to something you experience more directly.

Both Google and Amazon cut prices sharply for their smart speakers over the holidays and with new entries in 2018, the market for Voice-AI is quickly becoming the next device. Google's bet to catch Amazon means YouTube becomes even more accessible, while Amazon Prime becomes even more useful, like way more useful.

According to Juniper Research, 55 percent—of U.S. households by the year 2022 will own Voice-AI devices. I think that's actually pretty conservative an estimate. Personal assistants will be far more customizable, have real-time data on us and be able to provide "routines" (chains of skills) that basically make apps on our phones become obsolete. Voice-AI also becomes the ad-channel of the future, destroying the revenue stream of the likes of Facebook.



11. Mobile Payments Will Accelerate a Cashless Economy

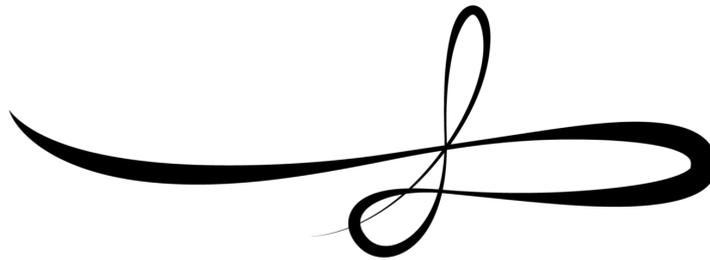
Where China is already cashless in thanks to WeChat Pay and Alipay, the rest of the world is catching up with the likes of Walmart Pay, Amazon Pay, Apple Pay and soon payments in terms of cryptocurrencies.

A greater variety of mobile payment options means it's only a matter of time before U.S. consumers to from debit and plastic to more mobile payments that are faster. In a world where in Japan you can pay in Bitcoin at retail stores, it's only a matter of time before cryptocurrencies hit Retail in more accessible ways.



12. The New Breed of Chinese Firms Takes Hold

Companies like Bytedance and JD.com are not alone, a whole new wave of Tech unicorns out of China will reshape the future of technology, hardware, media, finance, AI and automation. Alibaba and Tencent are catalysts to nothing less than a golden age of Chinese firms and their impact on the world will be felt for decades.



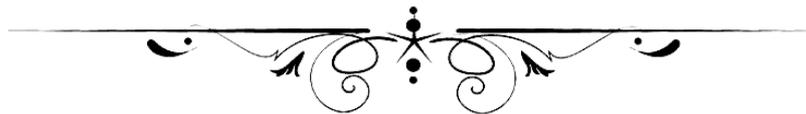
13. Consolidation in Tech, Retail, Grocery and Media Continues

The rise of tech monopolies will continue at a frantic pace. Amazon may very well acquire Nordstrom's and Walmart and Target will in the end be unable to keep up with Amazon.

The Cloud wars and the video streaming wars will mean fewer winners in a convoluted market heading to major consolidation. Apple acquiring Netflix could change things, so could China creating its own version of Netflix likely by Alibaba.

Self-driving tech and the move to electric cars will also see many losers in the automobile industry. The overall pattern will be fewer winners and monopolies forming in nearly every industry and tech companies spreading into new industries. Banking and healthcare are likely.

Let's not forget, Facebook and Google dominating digital advertising is a terrible centralization of the web; pretty much against what the Web was intended to be. Tech consolidation continues with M&A and even less early-funding for tech startups where a dysfunctional Venture Capital scene and a failure of leadership is shortcutting U.S. innovation.



14. Technology Radically Altering Human Behavior

From the crypto hype to app and smartphone addiction, never has technology manipulated and changed human behavior as much. With an evolving Voice-AI channel, the first self-driving cars hitting the roads and new levels of automation on the horizon, we haven't seen anything yet.

From how mobile apps gamifying our attention to how Robotic Process Automation (RPA) is changing our work environments, we are entering an age of hacking humans we've never witnessed before. Our time, attention and pleasure pathways have never been bombarded quite like this before.

The way we view family, traditional life stages, collective institutions and even work itself is shifting via technology. The way we interact, consume and purchase things and get information are all fundamentally being moderated by tech.



15. Ambient Voice-AI Explosion

Think about how addicted we got to our smartphones between 2010 and 2017, now add some digital detox and think about Voice-AI entering all micro experiences of our lives, and you get an idea of the Ambient Voice Explosion (AVE).

Voice-AI banking, in the car, at work, on your coffee break, in your smart earphone buds. The point is Voice-AI will anticipate our needs, help organize our relationships, and be a more active participant in streamlining our Email, our day and help manage our tasks in a smarter way.

Voice-AI will be our new coach, dating advisor, productivity counselor, health monitor and personal assistant. It's hard to over-state how the Voice-AI explosion will transform our family, personal and professional lives.



16. The IoT Era Hits an Acceleration Point

From Enterprise-wide adoption of analytics to fully autonomous data-centers, the role of Big Data and streams of data will continue to permeate our business and personal lives. IoT is maturing and from new drones, to more connected homes to a smarter cloud; 2018 will

see the smart car unveiled and personal assistants that will understand us better, be more customizable and help us connect the dots, in all aspects of our lives.

As AI starts to manage cloud complexity and the smart contract blockchain layer evolves, we are building new foundations in technology. AI guiding and augmenting humans will continue to be the trend, and IoT has a big part to play.

17. Automation of Repetitive Tasks

Report after report have been warning us about increasing automation in multiple industries and occupations that are considered high-risk which involved repetitive tasks. While North America has experienced record low “unemployment” rates recently, this may not always be the case. Cashierless stores, autonomous vehicles, changes in Finance and banking, drones and robots specialized in construction, smart software in marketing and sales, new kinds of automated manufacturing, and dozens of other innovations mean many industries will be challenged to adapt that will result in the loss of jobs via automation.

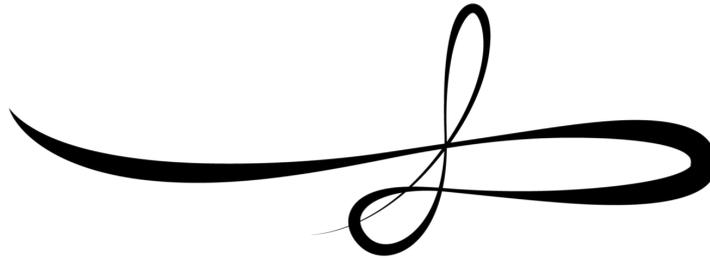
Automation will mean the way we view work itself will radically change in the coming years, and capitalism itself will require an upgrade.



19. 2018 is the Year of Private Labels

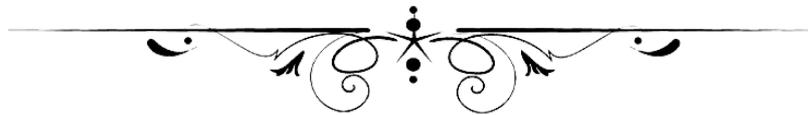
The unsung heroes of 2018 will be the in-house brands of the likes of Amazon. In spite of a series of fashion acquisitions by Walmart, Amazon and Target’s private label brands still offer more value, by quite a wide margin. The exclusivity and margins of private label offerings can’t be beat if you understand your consumers well. Here is where Amazon’s appeal and web traffic really means they can take a greater share of the apparel retail market away from retailers whose stocks will subsequently suffer.

If 2017 solidified the rise of discount orientated retailers, I think 2018 will see the private label brands doing exceedingly well. Amazon has over 41 private label brands and this is only increasing. Amazon can launch private labels exceedingly rapidly to adjust to consumer demand, with the majority of them in apparel thus far.



20. The Immersive Cloud

Advances in cloud computing, smart mesh and AR and VR means more layers of the web, smarter devices and a greater variety of machine learning and Big data in how we use mobile as consumers, workers and information and data natives. The immersive cloud covers everything from Deep learning's impact in Biotech to Mixed reality and VR's impact on professional environments, shopping and remote meeting. Edge Computing, Intelligent things and Amazon Alexa Glasses are all encompassed here, and more.



21. GenZ become Voice Search Natives

In retail and technology, the trends of today and early adoption by young people, become the consumer preferences of tomorrow. There's a lot of evidence that GenZ are using Voice-AI more natively much as Millennials used mobile-first as they grow up. This means that GenZ is

an entire cohort who will be voice-activated shopping natives. This is important to recognize in how the future of online shopping scales. Alibaba has its own mandarin speaking smart speaker too where the Chinese consumer is monetized with some of the best consumer data.

The intersection between Voice-activated shopping and the Chinese and Indian consumer will be pretty important to the future of global e-commerce. Owners of Alexa devices bought about 10% more as Amazon Prime members, however this is expected to increase steadily as Voice-AI becomes more sophisticated and GenZ grow up a little to and in terms of discretionary income. Here again, baby boomers who adopt technology and who possess sizeable purchasing power, may actually prefer voice activated shopping over mobile shopping itself for its added convenience. The impact of voice search on the future of retail cannot be underestimated.



22. AI Consolidation Towards a Digital Centralization

Many institutions we know now as bank, school, hospital, restaurant, newspaper, store, bar, car and many other legacy concepts will change or disappear altogether. This is because tech companies will moderate new paradigms of how these functions are accomplished with Data and artificial intelligence. This means a consolidation of all our data at the service of the consumer impacting all areas of our lives.

This also means more acquisitions by leading tech companies over other less agile firms, and a greater monopolization of all services by a few “winning” tech companies. There will be no Walmart just for things, but “Amazons of everything”, where we won’t just buy clothing, consumables and food, but have access to wider and wider range of services.

The downside is this isn’t a move towards a utopian decentralization of power and wealth, but rather the reverse, a technological centralization so astounding that for many it will be the beginnings of a dystopia of

unprecedented wealth inequality—all in the name of the benefits of AI for humanity. As for convenience, it will be unprecedented while giving just a few tech firms nearly complete control over our lives.

Think about how this might start to occur, the likes of Apple could acquire Netflix and the likes of Amazon could acquire Target.

Companies such as Google, Alibaba, Tencent and Airbnb could become empires across services and industry verticals bringing us consumer fulfillment in radically new ways. As human beings become addicted to such convenience, we may start to question such digital centralization as not augmenting our humanity, but rather imprisoning us and removing our freedom in new ways.



23. Robotic Retail Will Scale

The robot to human ratio is changing fast in E-commerce warehouses. Many of the new retail jobs are in these environments. Walmart is testing retail robots for shelf-scanning and cleaning quite aggressively. JD.com has invested in retail automation of the E-commerce warehouses that may be ahead of the likes of Amazon and Alibaba. Drone delivery is increasingly becoming an option.

To assume that the spike in robots of the 2020s won't impact retail is absurd. Self-driving cars themselves could in theory "delivery" packages with a robotic resident in the self-driving car. Before 2020, we'll see increasingly consumer facing robots in the retail store itself. Then we have cashierless and QR code driven retail mini-stores popping up; sometimes appearing like mobile stores that move, and at other times more like a Japanese like vending machine that's run with Artificial Intelligence. All of these things combined and heading towards the traveling "airships" where drones come down to deliver our goods—means robotic retail is just beginning; but by the 2030s will be the norm.

Improvements in logistics, robotics and consumer-fulfillment like Amazon Dash buttons means a lot of retail growth isn't just around

data-centric retailers, but robotic-centric retailers who usher in an age of automation in the retail sector. If you can make pepper (see above) like robots that are truly likeable and helpful; you will not need as many sales associates in the store.



24. The Great Decline of Consumer and Citizen Trust

2018 should see a continued decline of trust in institutions, government, politicians, banks, but also increasingly towards tech companies and growing monopolies themselves. A weaponized Facebook, to failure of algorithms on YouTube to censor content, to Apple manipulating us to buy new iPhones—this all has a cumulative effect. From Walmart testing robots that will take some of our jobs in the future, to Disney fragmenting Netflix, the PR of trust will continue to be a major issue this year.

The collective failure of Silicon Valley to lead in a responsible way with Uber and others signals just how corrupt the race to being first can be. Silicon Valley has a trust dilemma and it's only going to get worse. Ultimately this means just as automation is increasing and the 1% is getting richer, our trust in capitalism itself is in jeopardy.

Millennials seeking equality and decentralization will continue to view wealth inequality and rising Tech monopolies as major symptoms of America's decline.

Correct me if I am wrong?
