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01

Silicon Valley's Tech Exodus and Subsequent Return

Jacklin LEE

JD Candidate, UC Hastings College of the Law

Starting in October, San Francisco officially eased its mask mandate for fully vaccinated individuals in workplaces, gyms, and university classrooms. It's one step forward after the setback due to the pandemic as slowly people are going back into the office. The numbers are still low as less than 25% of workers in the San Francisco metro area have returned to working in-person [1]. However, slowly but surely, it seems that the tech industry is being revived in Silicon Valley.

Among the many sectors, the tech industry was the quickest and most enthusiastic in adopting remote work. Twitter and Spotify have even announced that remote work would be available permanently as an option for staff. This means that there are quite a few empty buildings in San Francisco. Many people left the tech hub during the pandemic because there was no reason to stay considering how expensive housing was. Recently, Elon Musk was in the news again by declaring he would move Tesla from the Bay Area to Texas

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with cost being a main factor in his decision to do so. San Francisco is the most expensive city in the US for real estate, with a median housing cost of 1.3 million dollars - with San Jose and Fremont close behind. San Francisco experienced a population loss of 16.6% [2].

People, however, are returning to Silicon Valley, even though they thought they wouldn't need to. Recent data shows that housing costs in San Francisco's Financial District have dropped 20% [3]. This could signal that tech workers will be returning. No matter how efficient remote work aims to be, interacting with coworkers, spontaneous after-work social activities, and meeting in person cannot be replaced completely. Some companies are trying to help workers congregate together again. Google announced in March that it would invest one billion dollars in California developments this year, which includes office complexes for all workers. Twitter is also physically expanding offices in San Jose and Oakland. The venture capitalists in the Bay Area are starting to get used to the new normal in the workplace. Their board meetings are still oftentimes held virtually on Zoom and taking precautions when they have to meet people. Rapid COVID-19 tests are becoming more frequent and there is less person-to-person contact. Before COVID-19, many investors took business trips or traveled to company branches that were far away. Now, many startups are renegotiating or even exiting their leases.

People are still wary to go back completely in person. Although workers are not ready to give up remote work completely just yet, they are realizing the importance of in-person interaction in the workplace. The tech industry in Silicon Valley and especially San Francisco has been a harder hit because of the expensive housing, but many companies are trying to help and brainstorm ways to return to normalcy. The streets of San Francisco are still empty ghost towns, but slowly, tech workers are promising to come back.

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02

Neo Bank: Expectations, Challenges, and Opportunities

Emily Qiyan WU

Department of Economics, UIC, Yonsei University

Neo banks, also called challenger banks, are digital banks that only operate online without any physical presence. Usually developed by fintech firms, they leverage AI and technology to offer apps and software and provide customized service to targeted customers [1]. Some of the pioneering Neo banks operated globally include Chime, Monzo, and Current, each offering a diverse range of services. In South Korea, Viva Republica, the parent company of the fintech app Toss, launched the third national one, Toss Bank in early October. Because neo banks seem to be gradually replacing the role of traditional banking services, it's perhaps important to first understand the opportunities and challenges they are likely to face in the near future.

One of the biggest challenges for every digital platform is handling government regulation. Since neo banks don't have a license of their own, it may be more difficult for them to adapt to the regulatory

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framework of the domestic market. For example, the Reserve Bank of India has not fully permitted the usage of the digital bank model in India yet, thereby posing new regulatory challenges for neo banks in general [2]. Some of them are currently mitigating the regulatory risk by partnering with traditional banks in order to offer a full suite of financial services, but the process can be costly as the neo bank is not fully independent. Cybersecurity is another obstacle that must be overcome. The risk of fraud is inherent in the traditional banking sector, and digital services such as neo banks undoubtedly face increased cybersecurity risks.

Despite the potential challenges, neo banks also provide great opportunities and offer certain advantages over traditional banks. Because they incorporate AI and machine learning into almost every aspect of their service, the overall customer experience is greatly improved with more personalized and efficient services. Most also provide easy-to-use Application Programming Interfaces (API), which are software intermediaries that ease and allow the integration of banking into the payment structure [3]. Automated services such as advanced chatbots and dashboards also enable timely responses to customers.

With these challenges and opportunities in mind, what is the future of neo banks? Their valuation globally is predicted to reach $52580 million by 2027, at an average CAGR of 40.4% [4]. Due to the high fintech adoption rate and adaption of disruptive technologies around the world, it's expected that the market for neo banks will be continuously expanding even after the pandemic. Local governments and private institutions perhaps can work together to construct a more structured and safer environment for digital banking.

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Dangers Behind Dependence

Yewon CHOI

Department of Economics, UIC, Yonsei University

Can technologies like the Internet be dangerous? Losing connection while sending an email to your boss or watching your favorite game can definitely be irritating, but is too trivial to be considered dangerous. But what happens if there is a large-scale outage, not only in your house, company, or even a single city but in an entire country? Dangers, hidden behind the convenience of technology, would finally reveal themselves. Sure enough, several alarming dangers revealed themselves in South Korea in the face of the KT Internet outage.

On 25th October, there was a massive outage due to a technical problem at KT, one of the three existing telecom service providers. The entire country was affected for about an hour and the amount of compensation is expected to be around thirty to forty billion Korean won. The impact of the incident was especially

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widespread because KT has the highest market share within the Korean telecommunications industry. While there are only three major telecommunication firms in Korea, KT is by far the largest, accounting for 41% of the total market share [1]. Also, many major public institutions, banks, hospitals, and schools utilize their services [1].

While some inconvenience caused by the incident was relatively trivial, others had more serious consequences. Many shops lost sales because credit card readers, which use an Internet connection to approve a payment, were not operating properly. Schools and universities holding online classes due to the COVID-19 pandemic could not be held. Stock traders complained of the losses incurred by not being able to trade as expected. On top of that, hospitals had trouble accessing patients' information kept online. Luckily there were no casualties this time, however previously, when there had been another KT Internet outage due to a fire, the emergency room at SoonChunHyang University Hospital closed down [2]. Tragically, a man in his 80s was unable to call emergency services and passed away [1].

How could such a seemingly harmless technology betray us so badly? The answer is over-dependence. For convenience, we started to delegate many of our tasks to technologies. We made it store information, make financial transactions, assist in maintaining our health, and so on. Because of such heavy reliance, we lose our ability to perform the tasks without it in the case of a malfunction. This, however, is not to say that dependence should be avoided at all costs: technology has its own irreplaceable merits, and we have already come too far to turn back.

In the meanwhile, it should not stop us from being vigilant to the concern of over-dependence. Ignorance of the dangers leaves us both unprotected and unprepared for the disasters following a technology breakdown. To avoid overdependence, technology itself must be designed in a way to reduce it [3]. Also, there should be sufficient backup systems ready in the case of downtime [4]. Educating end-users about the limitations and harms is equally important. While it is the developers' responsibility to make sure to create technology safe enough to trust, it is the end-user's role to make sure the developers haven't let us down.

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Meta: The Next Frontier

Simrill SMITH

Department of Civil and Environmental Engineering, Georgia Institute of Technology

Facebook—one of the most important platforms and companies of our lifetimes—is changing while under immense scrutiny this month, raising questions for its future and revisiting how it should be regulated. Chief Executive Mark Zuckerberg announced at the company's augmented and virtual reality conference on October 28th its rebranding to the company name of "Meta." Facebook as a social media platform will stay the same, but Facebook Inc., the parent company to Facebook, WhatsApp, and Instagram, will now go under Meta, meaning metaverse. This change comes as Facebook by name is known as a social app but is expanding as a company into hardware and other innovations. As written in Zuckerberg's founding letter, "there's a lot more to build…The metaverse is the next frontier in connecting people, just like social networking was when we got started [1]."

What will the metaverse look like? It doesn't yet exist but is expected to be the next major computer platform. Many experts believe that this will manifest as "extended reality"—the combination of augmented, virtual, and mixed reality—where it will become harder to delineate between being off and online [2]. Over the past few years, the company has worked on Portal video-calling devices, Ray-Ban Stories glasses and Oculus virtual reality headsets. These efforts in augmented and virtual reality will continue under Meta alongside $10 billion in funding from the company and hiring 10,000 engineers in Europe [3]. The metaverse has the potential to radically change the way we relate to one another through ICT.

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This change comes at the same time as Facebook faces the largest "trust deficits" to date with controversy following the recent whistleblowing by former employee Francis Haugen, who turned over thousands of documents to the United States Congress. Facebook was exposed for being aware of specific harms such as Instagram's effect on teenage girls' mental health and misinformation in the developing world [4]. This change also follows an almost 6-hour outage of Facebook and its subsidiaries the first week of October, summarized by Luke Deryckx, Chief Technical Officer at Down Detector to BBC, "millions, or potentially hundreds of millions, of people are just sort of sitting around waiting for a small team in California to fix something [5]." Our entire economy and society are impacted by Facebook, a cause for alarm amidst outages and harmful content.

As Meta moves its focus towards this new metaverse that could reshape ICT globally, many people are calling for regulation to curb its vast corporate, social, and political power. The company has always presented unique challenges for being regulated, protected for one in the United States by free speech. Self-regulation is not possible according to Francis Haugen, as she noted the company "can change but is clearly not going to do so on its own [6]." Governments around the world are faced with deciding what these regulations include, be it advertising taxes, restrictions on data collection and use, transparency, and more [7]. As Facebook boldly moves into this new frontier, our society must consider how it will affect us.

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The Perfect Fashion Models

Betzabeth NARVAEZ

Department of Applied Information Engineering, GLD, Yonsei University
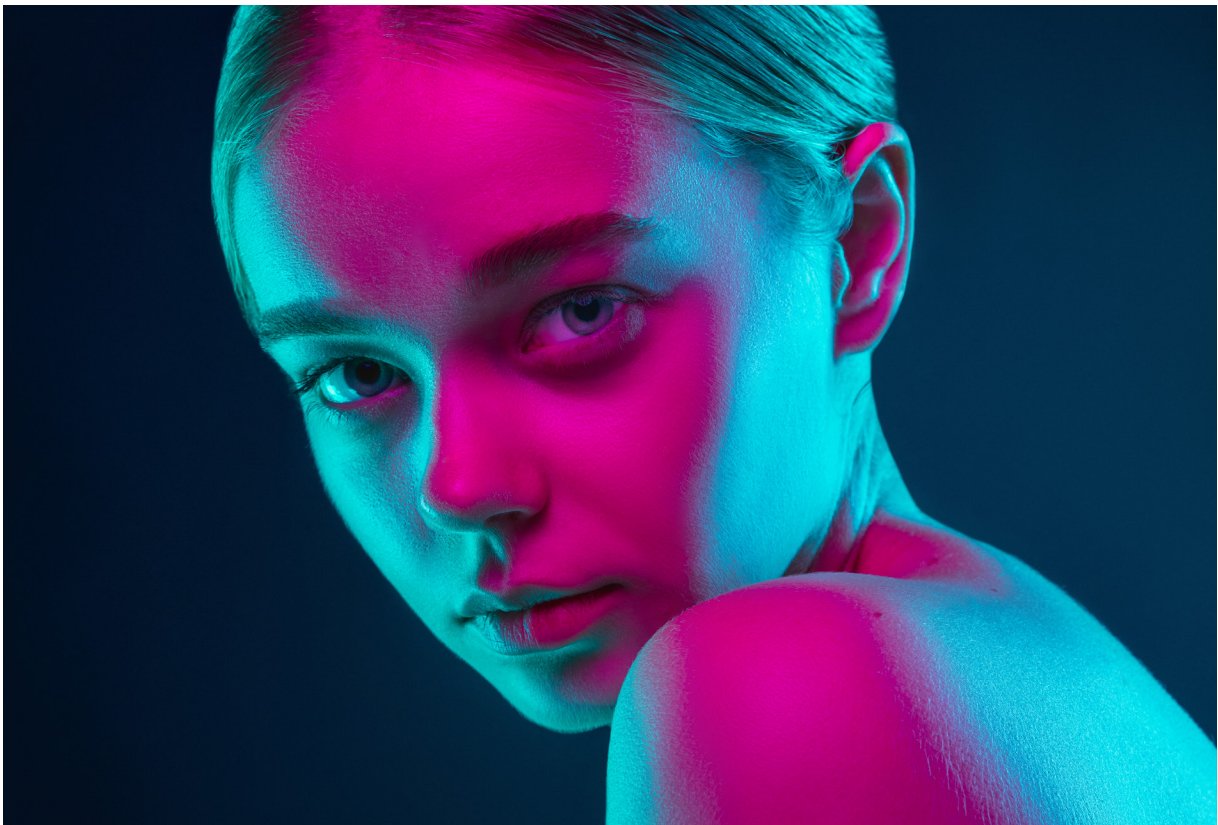
One has probably seen these perfect fashion models on the covers of top fashion magazines, on Instagram with millions of followers, or even modeling clothes in a trendy online store. One might think they are regular people who were lucky to be born with good looks, but these "people" might not even be people at all; they might have been created digitally through artificial intelligence or computer-generated imagery (CGI). CGI virtual fashion models are people that have been generated with CGI by artists, while AI virtual fashion models are those that have been generated through artificial intelligence algorithms and deep learning models. Although once a novelty, these virtual fashion models are becoming increasingly popular among fashion brands and companies.

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As explained by Artificial Talent, an artificial intelligence model agency, virtual fashion models help brands "reduce costs, save time, and eliminate the liabilities currently associated with print advertisement [1]." Although cost reduction is one of the reasons why some companies turn to virtual fashion models, there are also other reasons such as brand exclusivity, customization, reusability, and reduction of liabilities compared to using an actual human. With virtual fashion models, companies and brands can create their perfect representatives without the need of having to look for humans to fit their aesthetic. This means they can be any race, size, age, or nationality. Furthermore, once these models are created, they can be reused for new photoshoots or campaigns as many times as needed without the additional ongoing extra costs that an actual human model would have. Additionally, because the virtual fashion model is created specifically for a particular brand or company, there will be an aspect of exclusivity that is not often seen since human models typically work for more than one brand or company at a time [2]. There is also the added benefit that because virtual fashion models are not real humans, there is no risk to their safety and wellbeing in tough working conditions on set, they won't get caught in a controversy that could be a public relations nightmare, or damage the reputation of the company or brand they represent [1].

Although there are many benefits for the brands and companies, virtual fashion models also have their disadvantages. They hurt the job market for real human fashion models [3]. There is also the issue that companies would rather create their own diverse models instead of hiring diverse and underrepresented human models and paying them appropriately. As fashion model and tech entrepreneur Sinead Bovell questions, ". . . is this a new form of robot cultural appropriation…in which digital creators are dressing up in experiences that aren't theirs? [3]" Although virtual fashion models seem to be here to stay, problems still need to be acknowledged and addressed to create a sustainable fashion industry.

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Industry 4.0 in Peruvian Companies

Yupanqui Flores Yudith HELEN

Department of Industrial Engineering, Yonsei University
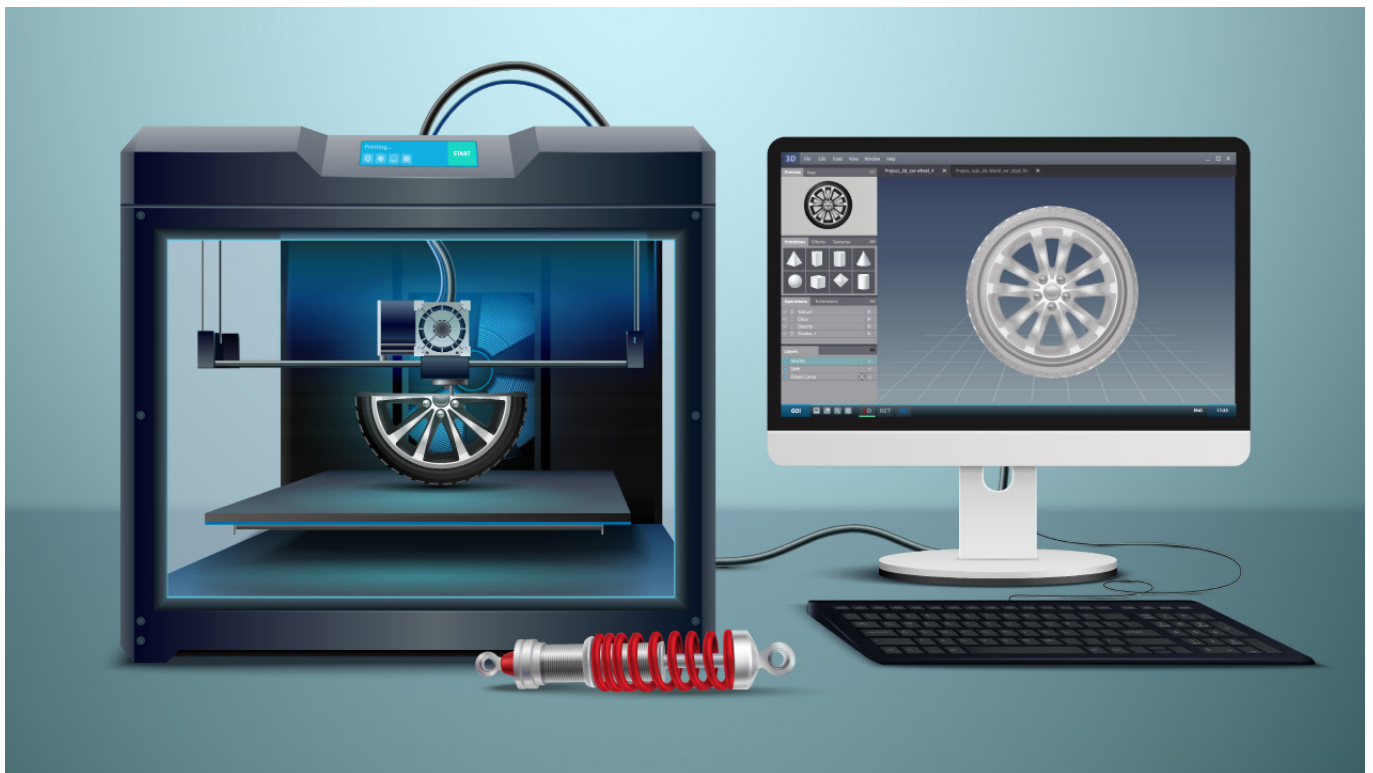
The idea of the fourth industrial revolution is known for its movement toward digitization and hyper connectivity, [1] utilizing tools such as big data and cloud computing. In Peru, the industries that have established themselves the most are banking and insurance, telecommunication, education, and professional services. A Besides big data and cloud computing, 3D printing is also a key technology to mention as it has become a strategic technology to mention as well is 3D printing, which has become a strategic partner for companies undergoing digital transformation.

The intention of companies to incorporate new technologies in the following months, according to Francisco Escudero, is big data and analytics (82%) and robotics automation and artificial intelligence (65%)

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[2]. Currently, collaborative platforms and electronic commerce are the digital tools most used by Peruvian companies. Banking is sector that is investing in the cloud so that it can understand consumer behavior and enhance their experience. It also focuses on digital products and sales. Another sector that is actively participating towards digital renovation is insurance. This type of company collects customer information and organizes it to carry out more advanced digital processes such as cross or upselling. Most of the insurance companies in Peru did not have digital products, Except for SOAT. However, now even health insurance has begun to implement 100% digital methods.

The 3D printing technology tool is a technique that has received a lot of interest from developed countries. However, in Peru it is relatively new due to its slow incorporation into the market and the lack of knowledge about the benefits and fields of application. The 3D printer today has an impact on industry and labor. Since it offers flexibility in design, it is possible to finalize the product in the time specified by the client while simultaneously reducing material waste from previous output levels. The National Health Institute of the Child of San Borja in Peru uses 3D impressions in surgeries through the replication of the anatomies of the patients to plan the surgical process. This technique is advantageous when performing highly complex surgeries. Due to its modern technologies, in 2020 it was awarded as the best-equipped hospital in Peru and received the Global Health Intelligence award [3].

The incorporation of the fourth industrial revolution in Peru started slowly nine years ago. However, with this new wave of big data and cloud technologies, the insurance and banking sectors are few of the leading industries today. 3D printing is providing more opportunities to companies that look toward entering the smart manufacturing campus and accessing its related opportunities. Consequently the fourth industrial revolution is arousing companies' interest in technology which drives performance and improvement.

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