Knowledge Migration and the Politics of Innovation

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This article illustrates how transborder knowledge migrants cocreate sociotechnical imaginary in the Hong Kong Special Administrative Region (SAR) in the wake of the Anti-Extradition Law Amendment Bill protests and during the COVID-19 pandemic. Through interviews with migrant-led and -staffed startups and analysis of documents published by the Hong Kong SAR government and its institutions, the study shows how these actors shape an imaginary of socioeconomic well-being through technological innovation and diversity. Young people are protagonists in this narrative and are envisioned as transforming desires for political emancipation into desires for self-actualization and creative labor for the common good. The startups' narrative of growth through technology backs the official narrative of the innovative knowledge society firmly embedded in a sovereign China. By referring to other regions in the world, the study argues that migrants become a socioeconomic prosthesis for a society under pressure as they are implicated in narratives of cultural and economic reproduction that serve political goals.

Keywords: digital economy, generation Z, innovation, migration, startups, technology

The Anti-Extradition Law Amendment Bill (Anti-ELAB) movement in the Hong Kong Special Administrative Region (SAR) and the citywide protests in 2019 left Hong Kong in need of a new vision for the future. In May 2019, protesters gathered in front of the government building to oppose a suggested bill that would allow the government to extradite fugitive offenders to jurisdictions outside Hong Kong, including Mainland China. Lawyers, media workers, businesses, and civil society opposed the proposed bill as they anticipated the erosion of the rule of law. In July that year, the Legislative Council was stormed. While withdrawing the bill in September 2019, Chief Executive Carrie Lam did not give in to the other four demands of the protesters, including universal suffrage. The protests became more intense in the fall of 2019, but with the start of the COVID-19 pandemic in early 2020 and the introduction of a new national security law, they subsided. The National Security Law—officially called The Law of the People's Republic of China on Safeguarding National Security in the Hong Kong Special Administrative Region—regulates freedom of speech, the press, and education (Government of the Hong Kong Special Administrative Region, 2020). In the aftermath of the protests, disillusion set in among subsections of the population. The 0.9% population

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decrease between 2021 and 2022 can be attributed to this disillusionment. The decrease was partially caused by a low birth rate and an increased mortality rate during the COVID-19 pandemic but even more so by the net outflow of 60,000 Hong Kong residents in 2022 (Government of the Hong Kong Special Administrative Region, 2023a).

Knowledge migrant entrepreneurs were among those who left the city. In 2019, 34% of startup² founders were nonlocals, which decreased to 28% in 2021 (InvestHK, 2021) and 25% in 2022 (InvestHK, 2022). At the same time, the number of nonlocal founders from Mainland China increased from 14% in 2019 to 21% in 2022 (InvestHK, 2019, 2022).

The government of Hong Kong puts great efforts into attracting international knowledge migrants through visa schemes (Government of the Hong Kong Special Administrative Region, 2022). The target is technology talent, which is not surprising. Skilled knowledge migrants make up 25% to 30% of the overall 232 million migrants globally (Kone & Özden, 2017) and have been shown to accelerate technology-based innovation (Monachesi & Witteborn, 2021; Nadler, 2014; Yeoh & Huang, 2011). Migrants are risk-takers and work across languages and cultural scripts, which enables them to build international networks and anticipate business opportunities (Bernstein, Diamond, McQuade, & Pousada, 2021; Bosetti, Cattaneo, & Verdolini, 2015). Fifteen of the 25 top ICT companies in the United States were founded by first- or second-generation migrants (Molla, 2018).

Despite the importance of skilled knowledge migrants for media and technology innovation, those types of migrants have only been marginally discussed in the media, communication, and migration literature. Some researchers have focused on how these migrants shape local contexts through their global networks and extensive transnational mobility (e.g., Polson, 2016). Most studies, however, have been conducted in other fields, including sociology, political science, economics, and geography. There are studies on migrant voting behavior (Adamson, 2006; Edo, Giesing, Öztunc, & Poutvaara, 2019), migrants' political participation (de Rooij, 2012), and cultural politics in interactions (Yeoh & Willis, 2005). Few researchers have explored how knowledge migrants engage with strategic, government-backed technology visions for their place of temporary or long-term settlement. In other words, there is room to examine the question of how knowledge migrants contribute to narratives of the future that are favored by political authorities in a given time and place. If knowledge migrants are privileged mobile subjects, on the one hand, and impact their place of settlement through their cultural and professional knowledge, on the other, how do they shape the sociotechnical imaginaries of a place? Against the background of out-migration, talent schemes, and the need for a new vision for Hong Kong society after the 2019 political protests, this study addresses the research gap concerning the role of transborder knowledge migrants in co-shaping narratives of change. The term "transborder knowledge migrant" refers here to a migrant with unique skills and competencies who crosses international borders and boundaries, as in the case of Mainland China and its special administrative region of Hong Kong (Hong Kong SAR).

² A startup is a small enterprise with an innovative product and business model that is scalable and operates under high uncertainty in the initial stages (Katila, Chen, & Piezunka, 2012).

Knowledge Migrants in Hong Kong

Studies on the media coverage of migration indicate that the discourse on displaced people as a threat to society has dominated public discussions in the Global North (Eberl et al., 2018). In contrast, privileged knowledge migrants have been singled out as a desirable group with economic benefits for the country of destination. Naumann, Stoetzer, and Pietrantuono (2018) surveyed 15 European countries about attitudes toward low- and high-skilled migrants. The results clearly indicate that local populations prefer high-skilled migrants. This positive attitude by the receiving societies is accompanied by the migrants' privileged position as highly mobile subjects with transnational networks. Polson (2016), for example, illustrates in her multisite study how knowledge migrants not only contribute to society but also tend to live and socialize in spheres parallel to locals. In other words, highly skilled knowledge migrants add diversity value to a society but are not perceived as posing a threat to its cultural and economic fabric.

Research on the intersections between migration and innovation draws two main conclusions. First, knowledge migrants' diversity benefits organizational, economic, and social life as it encourages problemsolving. Second, knowledge migrants accelerate technological innovation. Bosetti and colleagues (2015), for example, studied patent applications and conclude that knowledge migrants contribute significantly to innovation. Caviggioli, Jensen, and Scellato (2020) researched highly skilled migration and innovation in the European Union and the United States. They show that skilled migration is positively associated with an increasing specialization in complex technological fields. The authors use the concepts of skill portability and knowledge recombination to explain that migrants bring new competencies to local and regional settings, which is key for specialized innovation sectors. Likewise, Monachesi and Witteborn (2021) demonstrate in their study of knowledge migrants in Amsterdam that they advance the local technology sector through innovative ideas in design, the circular economy, and social justice.

Hong Kong SAR has focused relatively late on developing its technology sector compared with other regional economies such as Singapore (Hammond & Ruehl, 2020). To accelerate the process, the Hong Kong government initiated a new knowledge migrant admission scheme in June 2018, the Technology Talent Admission Scheme (Government of the Hong Kong Special Administrative Region, n.d.). Technology institutes and companies can apply to sponsor a person for an employment visa for two years. According to the report (Government of the Hong Kong SAR, n.d.), 335 people had been admitted by the end of 2022. This move aligns with the Chinese government's plans to develop the Greater Bay Area (GBA), of which Hong Kong is a part, into a technology hub like Silicon Valley (Tsang & Yim, 2021). The report by InvestHK (2022), the Hong Kong SAR government department for foreign direct investment, indicates that startup numbers have increased over time. In 2022, most founders were local Hongkongers (72%) (InvestHK, 2019) to 25% in 2022, as mentioned before, while the number of Mainland Chinese founders increased from 14% in 2019 (InvestHK, 2019) to 21% in 2022 (InvestHK, 2022). Other than passport holders from the People's Republic of China (PRC), passport holders from the United States and the United Kingdom composed

the highest percentage of nonlocal founders over the years, while the number of founders from the main regional competitor, Singapore, remained stagnant at 4.5%³ (InvestHK, 2019, 2021, 2022).

Overall, Hong Kong SAR attracts knowledge migrants through a welcoming business environment characterized by an expatriate-friendly infrastructure, low taxes, and the ease of obtaining business licenses (Hong Kong and Shanghai Banking Corporation & Hong Kong Trade and Development Council, 2021). Hong Kong has a progressive tax rate system, with brackets between 2% and 17%, and there is no capital gains tax, dividend, or inheritance tax (Government of the Hong Kong Special Administrative Region, 2023b). The handover of the British colony to the People's Republic of China took place in 1997, and since then, Hong Kong has been a special administrative region of China. The city had a rather free press until 2020 and the introduction of the National Security Law. Hong Kong's universities are internationally recognized, and Chinese (the variants of Cantonese and Putonghua) and English were the two official languages during the time of the research.

Thus far, the article has established that knowledge migrants are privileged mobile subjects who move for personal and entrepreneurial purposes. Studies have discussed them as a self-serving population that works hard and plays hard but also engages with local social issues through innovative ideas. The question is how knowledge migration intersects with national agendas and how knowledge migrants actively participate in, or are instrumentalized for, political processes.

Attracting migrant talent is one of the priorities of the Chinese government, which in turn gives legitimacy, if not pressure, to similar efforts by the Hong Kong SAR government. In March 2021, the National People's Congress approved the *14th Five-Year Plan for the Economic and Social Development of the People's Republic of China*. Hong Kong was assigned an important position concerning international finance, shipping, commerce, and trade in the GBA and the Asia-Pacific region (Tsang & Yim, 2021). Likewise, in his 2022 speech on the 25th anniversary of the handover of Hong Kong to the People's Republic of China, President Xi emphasized the city's importance as a hub for entrepreneurship, international finance, and free trade (Nikkei ASIA, 2022). Hong Kong is expected to play a vital role in the GBA, which is planned to be a leading integrated economic area by 2035. The GBA encompasses Hong Kong SAR, Macao SAR, and nine cities in Guangdong province. It had an overall population of 86 million people and a GDP that would have placed it in the top 12 leading economies globally at the time of the research (Constitutional and Mainland Affairs Bureau, 2018).

Transborder knowledge migrants are an essential ingredient in this ambitious development plan for Hong Kong as they have "diversity value" and "consolidate and enhance its status as an international financial, services, transportation, and trade center" (Hong Kong Trade and Development Council, 2021, para. 3). The multicultural environment in Hong Kong is emphasized in government and tourism slogans

³ Mainland Chinese startup founders and staff count as transborder knowledge migrants in this study. Citizens of the People's Republic of China have to apply for work and study visas for Hong Kong, and PRC passport holders are counted as "nonlocal," which is another term for "international" (Hong Kong University, 2020). There is still a physical border between Mainland China and Hong Kong SAR, and there are cultural and systemic differences, such as different currencies, legal systems, and language policies.

(Lo, 2020) and by government-linked bodies such as Invest Hong Kong (InvestHK) and the Hong Kong Trade and Development Council (HKTDC). The HKTDC is Hong Kong's official trade promotion organization, established in 1966 and governed by a council of senior government officials and business leaders (Hong Kong Trade and Development Council, n.d.).

Government reports, like the aforementioned InvestHK documents, strengthen the notion of Hong Kong as the gateway between the East and the West in a context where resourceful migrants leave the city. The InvestHK (2021) report reads:

An increase in the number of startups from overseas and Mainland China, and a continued diverse mix of nationalities [. . .], further demonstrate our unique role as a bridge for innovative companies to access the Mainland and Asian markets through Hong Kong. (para. 1)

In 2022, the InvestHK (2022) report reiterates Hong Kong's role "as a stepping stone for businesses to access the Guangdong-Hong Kong-Macao Greater Bay Area and the rest of Asia" (para. 3). These assurances are essential as international startup founders have started questioning the role of Hong Kong as a geopolitical and cultural connector in the face of the rising influence of Mainland China's political and legal culture. A British founder of a business operations startup, who was interviewed for this study, described the situation in the following way:

Hong Kong is the ideal setting, or was in the past at least, for business to happen. I don't know whether the golden days are over. Nevertheless, the high level of education, people speaking Cantonese, Mandarin, and English, and the open attitudes of Hongkongers toward the West and the East convince me that the place can have a future in terms of innovation and technology. I really like the city. However, the fear is now that it will become like any other Chinese city and that businesses will move elsewhere.

In summary, the Hong Kong government has to take extra steps to assure businesses that Hong Kong will remain a global economic center. The question is how knowledge migrants engage with the government's agenda to create a new vision after the 2019 protests and during the COVID-19 pandemic. This article argues that knowledge migrants contribute to local political agendas by cocreating sociotechnical imaginaries.

Sociotechnical Imaginary and Narrative

While scholars have defined sociotechnical imaginaries as discourses, practices, and media frames, the concept of sociotechnical imaginary remains analytically and methodologically blurred. For example, according to Charles Taylor (2002), social imaginaries are discourses and practices that link culture and history. Social imaginary refers to people's "images, stories, and legends" and their shared nature within a larger group, which gives it legitimacy (Taylor, 2002, p. 106). In media studies, sociotechnical imaginaries have been discussed as discursive formations and mediated practices (Markham, 2021). Jasanoff and Kim (2009) have approached sociotechnical imaginary as a broader cluster of discursive, embodied, and material

practices. They conceptualized sociotechnical imaginaries as "collectively imagined forms of social life and social order reflected in the design and fulfillment of nation-specific and/or technological projects" (Jasanoff & Kim, 2009, p. 120). There is an emphasis on the material and how historically derived values and modes of action shape cultures of technology. Jasanoff (2015) maintained that individuals and small groups can have sociotechnical imaginations, but those only gain the level of imaginary when they are collectively performed. The brief overview of the concept suggests that sociotechnical imaginaries are collective narratives, which can manifest in policy documents, legal regulations, interpersonal interactions, and the built environment, among other things.

The narrative concept needs a more specific definition and discussion, as theorizing varies, depending on the discipline, from literary to film studies, linguistics, sociology, and nursing (e.g., Elliott, 2005; Riessman, 1993). Rudrum (2005) argued that representation (of events and characters) can be a necessary condition for narrative but not a sufficient one. Performativity and use are essential. Rudrum (2005) cites Phelan (1996), who approached narrative from a rhetorical perspective in which performance, audience, and the purpose of storytelling are vital to the analysis. In an update, Phelan and Frow (2022) propose author-resource-audience as the conceptual basis of any narrative situation. Resources can be characters and events and are categorized as mimetic, thematic, and synthetic. The mimetic component refers to how the author presents events, spaces, and characters from the embodied world in the text and how these representations are received and evaluated by an audience. The thematic component gestures to the topical and ethical dimensions of the narrative and response by the audience. The synthetic dimension alludes to the constructed character of the aforementioned, as evidenced in the text, and to the audience response through which the synthetic dimension is confirmed.

In sum, this article approaches sociotechnical imaginary from a narrative angle. Narrative sociotechnical imaginary is (re)produced on the interpersonal and institutional levels and performs, enforces, and represents a larger sociopolitical order. This order structures the built environment and the actions of political actors, including the "selection of development priorities, the allocation of funds, the investment in material infrastructures, and the acceptance or suppression of political dissent" (Jasanoff & Kim, 2009, p. 123). The discussion about the role of the Hong Kong government and its institutions in supporting technology through science parks and migrant schemes will highlight the truism of this statement. Moreover, the themes of a dominant sociotechnical imaginary can be in tension with each other, as the analysis will demonstrate.

Based on the above discussion, the article posits the following questions. First, which main narrative themes are present in the startup interviews and the officials' discourse, and who are the main narrative characters in the stories about the future? Second, how do the themes and characters align and differ? Third, what is the role of transborder knowledge migrants in cocreating sociotechnical imaginaries for post-protest Hong Kong?

Methodology

The data corpus comprises 20 hours of personal interviews with 16 startup founders and staff and documents from government-affiliated institutions. The data collection period was from October 2021 to

February 2022. English was used as the interview language as it is a lingua franca and one of the official languages in Hong Kong. Twelve of the interviewees identified as male and four as female, which presents a gender selection bias due to snowball sampling and the difficulty of interviewing technology entrepreneurs with limited availability. The interviewees held passports from the United States, Canada, the People's Republic of China, the United Kingdom, Australia, India, and France, representing dominant nationalities in the startup sector in the city. Two interviewees had already returned to their countries (France and the United States) due to the protests in 2019 and the economic slump during the COVID-19 pandemic. One interviewee had grown up in Hong Kong with expatriate parents from India but was educated in Canada, and two others grew up with Chinese parents in Canada. The Indian–Hong Kong interviewee and one Chinese-Canadian interviewee, as well as four PRC passport holders could imagine living in Hong Kong long-term. The other migrants wanted to return to their country of citizenship or were undecided. However, even the interviewees who could imagine staying long-term mentioned the possibility of moving elsewhere or back to the country they or their parents had been born in. All interviewees had close networks in the city but saw themselves as expatriates rather than as fully integrated members of society.

The interviewees came from the key startup sectors in the city, including e-commerce, fintech, consulting, and business solutions (InvestHK, 2021). The startups were approached via LinkedIn and, in two cases, via e-mail. LinkedIn was the platform of choice for startups at the time of the research. One startup founder was interviewed in person in his office space, and three staff in a coworking hub. The other interviews were conducted via Zoom with video function due to the social distancing requirements during the COVID-19 pandemic.

In addition, the data collection included press releases by the Hong Kong SAR government and reports produced by government-linked bodies between 2019 and 2022. These government-linked bodies include the aforementioned InvestHK and the HKTDC. The interviews were analyzed in tandem with government documents to not bias the analysis toward one or the other.

The analysis of sociotechnical imaginaries was guided by identifying formats in the corpus in which interviewees shifted into a narrative role to answer a research question, to reflect on experiences, or to praise or criticize a person, group, or institution. Overall, the narrators adjusted their narratives to the context, which means that the narratives were brief due to the limited time resources of the business founders and staff. Government-affiliated press releases and reports were also identified as narratives. Instead of narratives about personal experiences, as in the interviews, those are narratives constituted by institutional narrators (e.g., the HKTDC). They stage events and characters (government, startups, competitors) through statistics and other factual information. Eventually, the narrative themes and their material manifestations provide information on the socioeconomic, political, and technological future of Hong Kong. In the following section, I analyze the central theme of startup and innovation growth with the contradictory yet related theme of temporal stagnation.

Growth

Startup founders and staff staged the theme of the growing fledgling consistently. Interviewees started narrating about the technology sector in Hong Kong using summaries (called *abstracts* by Labov,

1972) that set up the mimetic character of the startup sector as a young entity. The narrated events were arrival in the city, access to resources, setting up the business, potential competitors, and eventually staying in Hong Kong or exiting, depending on the growth potential. Here is a typical narrative told by a U.S. fintech startup founder:

Startups here have the opportunity for growth, as the scene is young and startups are still fledglings. When I came here several years ago, Hong Kong had few startups. The sector has developed and is growing. But in comparison to other locations, it is still relatively small. There is not that much funding and a lack of angel investors. Real estate is expensive, and it wasn't easy to find an affordable office space. I tried several locations and moved from Hong Kong Island to the new Kowloon business district. The factory buildings are incredible, and there is a good vibe. Singapore is a startup rival to Hong Kong and a place where startup friends of mine have moved after the unrest in Hong Kong in 2019 and an uncertain future. And yet, I stick it out here, as Hong Kong is still more exciting regarding social networking opportunities and access to the Mainland market.

The narrative enacts the startup fledgling as a living organism with the potential for growth. To grow, the fledgling needs to be nurtured. Translated, this means a political, financial, and social environment supportive of technological innovation and protected by the law and political stability. The fledgling trope appears in 40% of the interviews in some iterations. Interviewees shifted into a narrative role by using summary phrases like "startups have potential" (male fintech founder, the United States), "technology here has a lot of potential" (female Mainland China staff, virtual reality startup), "rather young and new" (male Canadian–Hong Kong staff, fintech startup), and "this is a young startup market" (female French staff, textile startup). Those who were optimistic about the growth potential of technological innovation in Hong Kong emphasized the importance of Hong Kong as a gateway to China and a cultural bridge between Western economies and those in East and Southeast Asia.

The startup narratives of growth align with those of the Hong Kong government-affiliated institutes. "While Hong Kong's start-up ecosystem continues to grow, its overall performance still has room for improvement," is the summary by the HKTDC (Fung, 2021, para. 2). In the government's narratives, startup support comes in the form of built spaces, such as science parks and incubators, and accelerator programs for promising startups. Planned districts include Cyberport near Hong Kong University on Hong Kong Island and the Hong Kong Science Park in the New Territories, close to the Chinese Mainland border, with the Chinese University of Hong Kong Science Park, which was founded by the government in 2001 to promote technology and innovation. The report of the Advisory Committee on Innovation and Technology (2017) highlights the flagship position of this park, with 330,000 square meters of research and development space. Through the surveys and reports about the local startup scene, the government stages itself as a leading actor in the narrative about the future. While it admits areas of weakness, the government emphasizes the growth of the innovation sector through a planned approach, which includes built space, a stable legal system, access to Mainland China and international markets, and low taxes.

Stagnation

In contrast to the growth narrative, there is the competing narrative theme of stagnation. In 60% of the interviews, narrators discuss the "fledgling" innovation sector as being "flat" and "doomed." Those evaluating the sector as "flat" link it to a lack of nurture, support, and protection. The mimetic characters in the narratives of stagnation are finance and real estate actors, which slow down the development of a flourishing ecosystem due to economic dominance, vested interests, and a risk-averse culture. Angel investors were rare at the time of the research as they did not invest in the new economy or as the sum of investment was too large, according to the founders. Startups had to raise capital elsewhere, which increased the probability of moving where the funding was, such as to Singapore or the United States. Interviewees highlighted repeatedly how Hong Kong's conservative business culture, emphasis on real estate, and traditional finance stall innovation.

Interviewees and government reports stage another type of mimetic character in their stories: The competitor. Competitors enact the thematic component of the narratives, which is stagnation in Hong Kong's startup and innovation sector. Singapore is consistently mentioned as the main regional competitor. Founders admired Singapore as a startup hub and underscored the move of startups to Singapore instead of Hong Kong as another reason for the stagnating sector in Hong Kong. In 2019, Singapore already had more startups (4,000) than Hong Kong (3,184), with 22,000 people working in this sector compared with 12,478 staff in Hong Kong (Hammond & Ruehl, 2020). Thirty-five fintech startups in Hong Kong received venture or private capital between 2016 and 2019, while in Singapore, the number was 87. In 2019, Singapore had 59% of the Asian regional headquarters of multinational technology companies, from Facebook (now Meta) and Google to Visa. Hong Kong had only 18% that year (Hammond & Ruehl, 2020).

Importantly, stagnation has a temporal dimension and refers to the years between 2019 and 2021. Those were the years of intense political protest, economic uncertainty due to the COVID-19 pandemic, and the eventual passing of the National Security Law in 2020, which criminalizes subversion, secession, terrorism, and collusion with foreign organizations (Government of the Hong Kong Special Administrative Region, 2020). Journalists, nongovernmental organization workers, and businesses alike can come under scrutiny for exercising press freedom, working with overseas institutions on issues regarded as sensitive, and financing projects evaluated as secessionist by the government. One founder had left the city for the United States as he could not see himself operating and living in a place with shrinking civil liberties. In particular, he mentioned the restrictions on freedom of thought and information, which, in his view, curtail innovation and are not productive for a startup ecosystem. The founder concluded his narrative in the Zoom interview with an emotional statement: "I love Hong Kong but could not stay in the city anymore after the protests. There is no future, neither for me nor for my business."

The government-affiliated institutes regularly publish surveys on how startups evaluate the city's attractiveness for innovative businesses. The survey results are presented in the form of qualitative reports, which means a narrative interpretation of statistical evidence. In these reports, the main mimetic character is the government, and the thematic storyline is its actions to support innovation in the city by identifying areas of improvement. Overall, the surveys produce a positive spin on the narrative of the technological future. For example, InvestHK (2019) praises Hong Kong in its 2019 report for having entered "the world's

top 25 startup hubs" in the Global Startup Ecosystem Report (para. 1). Diversity is highlighted, with talent coming from the United States (15.4%), Mainland China (14%), the United Kingdom (12.5%), France (7%), Australia (6.3%), India (6.2%), and other nations (InvestHK, 2019). From 2017 to 2021, startup employee numbers more than doubled, according to the InvestHK report from 2021. While the startup founder who left Hong Kong thought that restricted civil liberties were counterproductive for innovation, the number of startups in Hong Kong has increased over time. However, increasing numbers do not necessarily translate into meaningful actualized projects that not only meet economic but pressing social needs. The impact of limited civil liberties on innovation is beyond the scope of this study, but the topic lends itself to future comparative research.

In general, startup and government narratives address the conditions that slow innovation but not the narrative of economic growth and social progress through innovation itself. One U.S. founder gave the following account:

The innovation sector is flat, in my view. When I moved here, I knew that there was a robust financial sector in Hong Kong. I was attracted as Hong Kong has a good business environment; it is easy to open a new business, there are low taxes, and a very educated workforce. At the same time, traditional finance is backed by prominent real estate oligarchs who maintain a risk-averse business culture. All of these issues became problems for my business and innovation in general. Some of my friends have moved to Singapore or back to the U.S. There are more angel investors, and the tax system encourages those with capital to invest in startups. So, yeah, the sector in Hong Kong is flat and may be doomed.

The narrator identifies finance and real estate actors as mimetic characters that contribute to stagnation, in addition to a lack of investors and a risk-averse business environment. Stagnation, however, is not a separate theme as it is part of the narrative of growth and highlights the conditions that need to be improved to attract more startups to the city. More broadly, stagnation is integrated into a narrative of socioeconomic growth, which neither the interviewees nor the government question.

Youth as Protagonists

Youth refers to narrators in their 20s who were socialized in Hong Kong in migrant families and outside the city. *Youth* is a generalized narrative character in the startup stories, which represents the larger thematic dimension of social change. The narrators ascribe particular values to young people that match those of Generation Z, or GenZ. A 2023 study by public relations and marketing consulting firm Edelman on Hong Kong SAR indicates that GenZ has been raised on mobile technology, social media, global connectivity, and the digital attention economy. This generation values self-optimization, flexible working hours, a supportive work culture, local and global learning opportunities, and working on social causes. This profile does not only fit young Hongkongers but also the knowledge migrants in this study. The following subsections discuss how young knowledge migrants link innovation to their social values, which shape their view of life, work, and position in society.

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Innovation Growth Through Changing Social Values

In the narratives, values such as self-actualization, meaningful work, and a collective goal are driving the desires of young knowledge migrants to work in startups. Self-actualization counters daily routine and boredom and means contributing to the greater good through technological innovation. Self-actualization is also a value that motivates young people to migrate, either to Hong Kong or back to Hong Kong. A male employee of a fintech startup who was from Mainland China and in his early 20s at the time of the research told the following story:

I am curious and get bored quickly with daily routines. When I finished school, I wanted to work in an area that gives me flexible hours and the opportunity to be with people I like and can discuss ideas. The work in this fintech startup is exciting, and our business is growing fast. I like the job, especially after having been in school for many years. When I started my career, I felt I was part of something bigger. And coming to Hong Kong and working in this startup is exciting, as I meet new people and learn new ways of thinking about a problem and how to solve it.

The author of the story addresses diversity as one thematic dimension that motivates his authorial and narrative self and satisfies the desire for self-actualization, continuous learning in multicultural teams, and meaningful work. Diversity, autonomous problem-solving, and shared goals also drove the motivation of another young employee in his early 20s. He grew up in an Indian expatriate family in Hong Kong, studied in Canada, and had just come back to work in startups in Hong Kong. At the time of the interview, he was employed as a marketing and social media manager for a startup specializing in art non-fungible tokens (NFTs). He was very excited to be in this young startup led by a Hong Kong woman and spoke enthusiastically about the fast-growing NFT sector in Hong Kong. While he found the team in his previous startup more international and interactive in terms of communication and socializing in bars and restaurants, he appreciated his Cantonese-speaking teammates. He did not speak Cantonese, which made access to the local Cantonese-speaking startup scene more complex, in his view. For him, Hong Kong was familiar and yet foreign after spending several years abroad. Nevertheless, for this narrator, Hong Kong was an exciting setting for startups. The young man appreciated the similar age structure of his team, the different cultural identities, flexible working hours, autonomy in terms of problem-solving, and having a desk in the glitzy coworking space of an upscale Hong Kong Island tower. Traditional work in marketing, finance, or real estate did not speak to him due to strict hierarchies, rigid working hours, and top-down communication.

In summary, the interviewees connect the narrative of economic growth and social progress through innovative technology with values, such as diversity, independent problem-solving, and teamwork. The need for cultural and professional diversity in contexts of innovation has been confirmed by extant research (e.g., Lee & Nathan, 2010). As the aforementioned values are also crucial to subsections of local Hong Kong youth (Edelman, 2023), one can imagine startups becoming increasingly attractive workplaces for young Hongkongers. The diversity in cultural views and experiences can create open spaces for young people to interact with others in the face of an increasingly restrictive political environment in the city.

Stagnation Through Received Social Values

Narrators attribute the stagnation of innovation growth not only to insufficient government support and a lack of investors but also to some deeply ingrained social values in Hong Kong society. A male fintech staff member from Canada with Hong Kong-born parents recounts the following:

Young people work in the startup sector. Those brought up outside Hong Kong and China, but increasingly also young local people, have different values than the older generation. It is cultural. I was socialized in Canada in an educational environment with room to experiment. When I moved here, it was exciting but also difficult due to a business environment driven by values like risk adversity, valuing stability over uncertainty, seeing mistakes as a bad thing, and being used to hierarchies. Young people have to wait to move up the hierarchy. But we are impatient [he laughs]. I am always reminded that I am socialized elsewhere when communicating with locals. I am more outspoken and find mistakes essential to learn from.

Socialization outside of Hong Kong and China compounds value differences. Young people did not see Hong Kong as competitive in the global startup scene due to the culturally conservative environment, driven by solid seniority hierarchies, powerful business lobbies, and older officials who tend not to value unconventional thinking. All of the interviewees who had grown up in Mainland China or were raised by Chinese-speaking families in Canada or the United States said that their parents did not regard startup work as a promising career. Parents regarded this type of work as too risky in terms of income and future development. Parents were worried about the failure of startups, unemployment, a tainted reputation as a risk-taker, and being spoiled by what they perceived as unstructured workdays and tasks.

While the narrators perform youth as a progressive and forward-thinking social body, neither the narrative characters nor the narrators discuss technology's negative consequences, including its climate impact or consumption patterns in a city with limited natural resources. For the knowledge migrants, innovation is technology-centered, and technology itself becomes the tool to tackle pressing issues. Stagnation is part of growth, and conditions can be adjusted to accelerate technological and economic development. According to this logic, adjustment includes a calibration of outdated values, which frees young people from the bondage of rigid social relationships and received thinking. This emancipatory agenda, however, comes at the cost of pushing an apolitical imaginary that values technological innovation for innovation's sake.

Conclusions

This study examined the role of transborder knowledge migrants in cocreating sociotechnical imaginaries for post-protest Hong Kong. It asked about the main themes and characters constituting narratives about the future and how they align and differ in the officials' and startups' discourses. One sociotechnical imaginary identified in this article is a narrative with two related themes: Growth through technological innovation and innovation stagnation, the latter being only temporal and open to calibration. Narrators point to the reasons for stagnation and mention the lack of investment and expensive office space,

political and economic uncertainty, and cultural conservatism that does not cater to the needs of GenZ and innovation. The main narrative characters are a government that drives innovation, startups that provide the impetus for technological change, and young people who embrace innovation through values such as workplace diversity, collaborative problem-solving, and flexibility.

The startup and official narratives are similar as both address growth and stagnation. However, they differ in the ways they conceptualize those notions. Startups conceptualize growth as technological and economic *potential* (through the fledgling metaphor), while the government conceptualizes growth as an economic *fact* (by pointing to areas of improvement that will strengthen existing patterns). The government portrays itself as the growth enabler through infrastructural projects and funding. The startups, by comparison, emphasize youth as the driver of change and attribute the slow innovation progress to the dominance of established industries and a conservative local and business culture that values certainty, predictability, and an obedient workforce. Actors like startups and the government and narrative characters cocreate a techno-solutionist vision for collective well-being without questioning its possible negative impact.

The theme of growth and its tropes of technological innovation and diversity stabilize the received Hong Kong narrative of bridging the East and the West. Through these tropes, local Hongkongers are officially legitimized to be the curators of controlled social and cultural change. The government sanctions difference in the multicultural context of startups and encourages young knowledge migrants and Hongkongers to practice diversity within limits. In other words, startups are envisioned as places for the socialization of productive members of society, as the Chinese government media outlet, the *Global Times*, maintains: "The Guangdong-Hong Kong-Macao Greater Bay Area can be a very good option for Hong Kong's youth. [. . .] By May, there were already 10 entrepreneurial bases established, with hardware and software support provided to innovative activities" (Ho, 2019, paras. 16–17). According to this line of thought, reinventing the self as a creative self is a legitimate practice to deflect desires for political emancipation and replace these desires with a quest for personal fulfillment and labor for the national good. Startups staffed by international knowledge migrants provide one of the settings in which Hong Kong and PRC citizens and citizens of other nations can realize this vision.

The migrants' presence is a double-edged sword. On the one hand, migrant startups are agents in that they willingly decide to make Hong Kong their base for business opportunities. On the other hand, they become instruments for nation building and marketing Hong Kong as the most internationally oriented city in China. Overall, migrant-led and -staffed startups bolster the Hong Kong government's imagination of a future where a patriotic political establishment, industries such as finance and real estate, and startups drive economic growth and determine sociotechnical needs. In other words, by co-constituting a narrative of technological development, migrants become active participants in legitimizing political and neoliberal order as a blueprint for the future.

The narrative of economic and social growth through technological innovation can be interpreted as competition for the civil disobedience narratives of democratic governance, initiated by the Occupy Movement in 2014 (Lee, 2015) and continued by the Anti-ELAB protests in 2019. While political and techno-economic narratives can coexist, the shift to a narrative of well-being through technological development, planned diversity, and competition is more likely. This imaginary has a higher chance of being actualized by a broader slice of the Hong Kong population than an ongoing political struggle against the increasing influence of the central government in Beijing. The economic vision seems the safer alternative as it is already ingrained in Hong Kong society and backed by the Chinese government.

In addition, political demands for universal suffrage, as expressed during the protests in 2014 and 2019, can be replaced by a narrative of technological innovation that ensures the reproduction of neoliberal values, such as hard work and financial success, only this time under the mantle of GenZ values, such as self-optimization, meaningful tasks, and cultural diversity. The arguments echo Irani's (2019) statement about the "promise of innovation and fear of disorder in society" (p. 3; see Rossi & di Bella, 2017). Technological innovation can engineer social discontent by winning people as allies in building an imagined future. Knowledge migrants take part in this engineering, including those from Mainland China. Eventually, this study reverses Irani's (2019) question of who "becomes the innovator's other" (p. 3) to the question of how knowledge migrants become the state's other to pacify society. In the narratives in this study, the migrant is woven into an imaginary of economic growth, linear social progress, and the promotion of apolitical citizenry. This imaginary can stand in for the social and affective void left by civil disobedience in 2019 and promises to ease the intergenerational tensions in the city left by the protests (Tsang & Wilkinson, 2022). In terms of this logic, "difference becomes a repository of potential to mine for value" (Tsing, 2009, as cited in Irani, 2019, p. 14). In Hong Kong, the knowledge migrant is a desirable actor for smoothing out the social, affective, and economic cracks created by a shrinking labor force and an aging population. The knowledge migrant also becomes a desirable actor in easing society's fears about Hong Kong becoming another city in China and losing its international edge, including the English language.

There are other regions in the world where the migrant is imagined as the socioeconomic prosthesis for a society under pressure. The current discourse on migration to ease the labor shortage in Europe is an example. In Germany, politicians and businesses hail migrants as a promising workforce to support the economy and rejuvenate the aging population (Angenendt, Knapp, & Kipp, 2023). Migrants are instrumentalized for political agendas, this time not as a threat but as an opportunity. The Hong Kong case is no different. Knowledge migrants are promoted as an opportunity for Hong Kong as they can create multicultural buffer spaces in which local and nonlocal young people can participate in economic and cultural reproduction instead of political change projects.

In this study, the material benefactors of the progress-through-technological innovation scenario are the regional economy, the occasional startup-turned-unicorn, and investors. The symbolic benefactors are the Hong Kong and Chinese governments and parts of society that pride themselves on fostering a creative workforce that has turned away from politics. Most importantly, the interaction between Hongkongers and Mainland Chinese creates an ideal scenario that speaks to social harmony and productivity in the national interest. The scenario sets the tone for how work-life can and should look in the GBA and China in the 21st century. It remains to be seen how Hong Kong youth will play its part. Likewise, it remains to be seen how migrants will continue to cocreate narratives about the future in Hong Kong and elsewhere.

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References

- Adamson, G. (2006). *Immigrants and political participation—Background, theory, and empirical suggestions*. London, UK: London School of Economics and Political Science. Retrieved from https://fra.europa.eu/sites/default/files/fra_uploads/221-Immigrants_and_political_participation_2006.pdf
- Advisory Committee on Innovation and Technology. (2017). *Report*. Retrieved from https://www.itib.gov.hk/assets/files/acit_report_eng.pdf
- Angenendt, S., Knapp, N., & Kipp, D. (2023). *Germany is looking for foreign labor. How to make recruitment development-orientated, sustainable and fair* (SWP Research Paper, 03). Retrieved from https://www.swp-berlin.org/10.18449/2023RP03/#hd-d35124e908
- Bernstein, S., Diamond, R., McQuade, T., & Pousada, B. (2021). The contribution of high-skilled immigrants to innovation in the United States (Working Paper 22-065). Boston, MA: Harvard University Business School. Retrieved from https://www.hbs.edu/ris/Publication%20Files/22-065_75b489b5-ce29-49db-942d-972a18c58822.pdf
- Bosetti, V., Cattaneo, C., & Verdolini, E. (2015). Migration of skilled workers and innovation: A European perspective. *Journal of International Economics*, 96(2), 311–322. doi:10.1016/j.jinteco.2015.04.002
- Caviggioli, F., Jensen, P., & Scellato, G. (2020). Highly skilled migrants and technological diversification in the US and Europe. *Technological Forecasting and Social Change*, 154, 11995. doi:10.1016/j.techfore.2020.119951
- Constitutional and Mainland Affairs Bureau. (2018). *Overview*. Retrieved from https://www.bayarea.gov.hk/en/about/overview.html
- de Rooij, E. A. (2012). Patterns of immigrant political participation: Explaining differences in types of political participation between immigrants and the majority population in Western Europe. *European Sociological Review, 28*(4), 455–481. doi:10.1093/esr/jcr010
- Eberl, J. M., Meltzer, C. E., Heidenreich, T., Herrero, B., Theorin, N., Lind, F., . . . Strömbäck, J. (2018).
 The European media discourse on immigration and its effects: A literature review. *Annals of the International Communication Association*, 42(3), 207–223. doi:10.1080/23808985.2018.1497452
- Edelman. (2023, March 15). *Gen Z vs X. Influencing the future of comms and marketing*. Retrieved from https://www.edelman.hk/sites/g/files/aatuss641/files/2023-03/GenxGenZ_FIN3.pdf

- Edo, A., Giesing, Y., Öztunc, J., & Poutvaara, P. (2019). Immigration and electoral support for the far-left and the far-right. *European Economic Review*, *115*, 99–143. doi:10.1016/j.euroecorev.2019.03.001
- Elliott, S. (2005). *Using narrative in social research. Qualitative and quantitative approaches*. Thousand Oaks, CA: SAGE.
- Fung, D. (2021, February 4). Hong Kong start-up survey: Ecosystem overview. Hong Kong SAR, China: HKTDC Research. Retrieved from https://research.hktdc.com/en/article/NjYwMTUyNDYy
- Government of the Hong Kong Special Administrative Region. (n.d.). *Hong Kong: The facts. Immigration*. Retrieved November 30, 2023, from https://www.gov.hk/en/about/abouthk/factsheets/docs/immigration.pdf
- Government of the Hong Kong Special Administrative Region. (2020, July 6). *Press releases. Implementation rules for Article 43 of the Law of the People's Republic of China on safeguarding national security in the Hong Kong Special Administrative Region*. Retrieved from https://www.info.gov.hk/gia/general/202007/06/P2020070600784.htm
- Government of the Hong Kong Special Administrative Region. (2022, January 19). *Press releases. LCQ15: Quality migrant admission scheme*. Retrieved from https://www.info.gov.hk/gia/general/202201/19/P2022011900327.htm
- Government of the Hong Kong Special Administrative Region. (2023a). *Year-end population for 2022*. Press releases. Retrieved from https://www.info.gov.hk/gia/general/202302/16/P2023021600304.htm
- Government of the Hong Kong Special Administrative Region. (2023b). *Tax rates of salaries tax & personal assessment*. Retrieved from https://www.gov.hk/en/residents/taxes/taxfiling/taxrates/salariesrates.htm
- Hammond, G., & Ruehl, M. (2020, February 6). Why Hong Kong is failing to produce more tech start-ups. *Financial Times*. Retrieved from https://www.ft.com/content/458bc9d0-3e79-11ea-a01abae547046735
- Ho, L. (2019, December 8). Hong Kong youth should rechannel anger. *Global Times*. Retrieved from https://www.globaltimes.cn/content/1161232.shtml
- Hong Kong and Shanghai Banking Corporation & Hong Kong Trade and Development Council. (2021). *Exploring the Greater Bay area start-up ecosystem*. Retrieved from https://portal.hktdc.com/resources/RMIP/20211213/4a2tms0b-RXhwbG9yaW5nIHRoZSBHQkEgc3RhcnR1cCBlY29zeXN0ZW1fZnVsbCByZXBvcnQgKEVOKV8yMDIx MTIxMw==.pdf

- Hong Kong Trade and Development Council. (n.d.). *About HKTDC*. Retrieved from https://aboutus.hktdc.com
- Hong Kong Trade and Development Council. (2021, July 9). *Bay to bay: China's Greater Bay area plan and its synergies for the US and San Francisco Bay area business*. Retrieved from https://research.hktdc.com/en/article/NzkxNzUwNTQz
- Hong Kong University. (2020). *The university profile*. Retrieved from https://review.hku.hk/the-universityprofile/
- InvestHK. (2019). *Hong Kong: Asia's most dynamic startup ecosystem*. Retrieved from https://www.investhk.gov.hk/sites/default/files/SMUHK_Startup_infographics_2019.pdf
- InvestHK. (2021). *Hong Kong: Asia's most dynamic startup ecosystem grows in strength*. Retrieved from https://www.startmeup.hk/wp-content/uploads/2021/10/InvestHKs-2021-Startup-Survey.pdf
- InvestHK. (2022). Hong Kong—Asia's most dynamic startup ecosystem grows in strength. Retrieved from https://www.investhk.gov.hk/sites/default/files/Startup%20Survey%202022.pdf
- Irani, L. (2019). *Chasing innovation: Making entrepreneurial citizens in modern India*. Princeton, NJ: Princeton University Press.
- Jasanoff, S. (2015). Future imperfect: Science, technology, and the imaginations of modernity. In S. Jasanoff & S. H. Kim (Eds.), *Dreamscapes of modernity: Sociotechnical imaginaries and the fabrication of power* (pp. 1–33). Chicago, IL: University of Chicago Press.
- Jasanoff, S., & Kim, S-H. (2009). Containing the atom: Sociotechnical imaginaries and nuclear power in the United States and South Korea. *Minerva*, 47, 119–146. doi:10.1007/s11024-009-9124-4
- Katila, R., Chen, E. L., & Piezunka, H. (2012). All the right moves: How entrepreneurial firms compete effectively. *Strategic Entrepreneurship Journal*, *6*(2), 116–132. doi:10.1002/sej.1130
- Kone, Z. L., & Özden, Ç. (2017). Brain drain, gain, and circulation (KNOMAD Working Paper 19).
 Washington, DC: Global Knowledge Partnership on Migration and Development. Retrieved from https://www.knomad.org/sites/default/files/2017-04/KNOMAD%20WP19_Brain%20Drain%20gain%20and%20circulation.pdf
- Labov, W. (1972). The transformation of experience in narrative syntax. In W. Labov (Ed.), *Language in the inner city: Studies in the Black English vernacular* (pp. 354–396). Philadelphia: University of Pennsylvania Press.

- Lee, F. (2015). Social movement as civic education: Communication activities and understanding of civil disobedience in the Umbrella Movement. *Chinese Journal of Communication*, 8(4), 393–411. doi:10.1080/17544750.2015.1057192
- Lee, N., & Nathan, M. (2010). Knowledge workers, cultural diversity and innovation: Evidence from London. International Journal of Knowledge-Based Development, 1(1/2), 53–78. doi:10.1504/IJKBD.2010.032586
- Lo, W. Y.-W. (2020). A year of change for Hong Kong: From east-meets-west to east-clashes-with-west. *Higher Education Research & Development, 39*(7), 1362–1366. doi:10.1080/07294360.2020.1824210
- Markham, A. (2021). The limits of the imaginary: Challenges to intervening in future speculations of memory, data, and algorithms. *New Media & Society*, 23(2), 382–405. doi:10.1177/1461444820929
- Molla, R. (2018, January 12). The top U.S. tech companies founded by immigrants are now worth nearly \$4 trillion. Recode.net. Retrieved from https://www.vox.com/2018/1/12/16883260/trumpimmigration-us-america-tech-companies-immigrants
- Monachesi, P., & Witteborn, S. (2021). Building the sustainable city through Twitter: Creative skilled migrants and innovative technology use. *Telematics and Informatics*, 58. doi:10.1016/j.tele.2020.101531
- Nadler, R. (2014). *Plug & play places: Lifeworlds of multilocal creative knowledge workers*. Berlin, Germany: Walter de Gruyter.
- Naumann, E., Stoetzer, L. F., & Pietrantuono, G. (2018). Attitudes towards highly skilled and low-skilled immigration in Europe: A survey experiment in 15 European countries. *European Journal of Political Research*, 57(4), 1009–1030. doi:10.1111/1475-6765.12264
- Nikkei ASIA. (2022). Full text of Xi speech marking 25 years since Hong Kong's return to China. Retrieved from https://asia.nikkei.com/Politics/Full-text-of-Xi-speech-marking-25-years-since-Hong-Kongs-return-to-China
- Phelan, J. (1996). *Narrative as rhetoric: Techniques, audiences, ethics, ideology*. Columbus: Ohio State University Press.
- Phelan, J., & Frow, J. (2022). Reading characters rhetorically. *Narrative*, *30*(2), 255–267. doi:10.1353/nar.2022.0015
- Polson, E. (2016). *Privileged mobilities: Professional migration, geo-social media, and a new global middle class*. New York, NY: Peter Lang.

Riessman, C. K. (1993). Narrative analysis. Thousand Oaks, CA: SAGE.

- Rossi, U., & di Bella, A. (2017). Start-up urbanism: New York, Rio de Janeiro and the global urbanization of technology-based economies. *Environment and Planning A: Economy and Space, 49*(5), 999–1018. doi:10.1177/0308518X176901
- Rudrum, D. (2005). From narrative representation to narrative use: Towards the limits of definition. *Narrative*, *13*(2), 195–204. doi:10.1353/nar.2005.0013
- Taylor, C. (2002). Modern social imaginaries. *Public Culture, 14*(1), 91–124. doi:10.1215/08992363-14-1-91
- Tsang, A., & Yim, S. (2021). *Exploring the Greater Bay Area start-up ecosystem*. HKTDC Research. Retrieved from https://research.hktdc.com/en/article/OTAzMDI1MTk2
- Tsang, E. Y. H., & Wilkinson, J. S. (2022). The home as a barometer of society: "Practices of intimacy" to moderate family intergenerational conflict in the 2019 summer of dissent. *The China Review*, 22(1), 307–334. Retrieved from https://www.jstor.org/stable/48653988
- Tsing, A. (2009). Supply chains and the human condition. *Rethinking Marxism, 21*(2), 148–176. doi:10.1080/08935690902743088
- Yeoh, B. S. A., & Huang, S. (2011). Introduction: Fluidity and friction in talent migration. *Journal of Ethnic* and Migration Studies, 37(5), 681–690. doi:10.1080/1369183X.2011.559710
- Yeoh, B. S. A., & Willis, K. (2005). Singaporean and British transmigrants in China and the cultural politics of "contact zones." *Journal of Ethnic and Migration Studies*, 31(2), 269–285. doi:10.1080/1369183042000339927