

Buying insurance is like adopting a
child:
risk prevention, familial duty, guanxi
and social media in modern China

A Thesis Submitted by
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Declaration

I, Xiangchu Tang, confirm that the work presented in my thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

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Abstract

According to the World Health Organization, China is now an aging society: life expectancy continues to rise and the proportion of the population over 60 years old continues to increase. These demographic changes are leading to policy changes in how the national state, families and individuals plan for old age and for health care provision, and they are also prompting Chinese insurers to adapt to a new situation. This thesis is a study on the social construction of risk, specifically how new technological affordances are reshaping the practice and culture of marketing risk and insurance in China. I draw on ethnographic fieldwork in two Chinese insurance companies, I investigate how they evoke their clients' perception of risks. I pay close attention to how technologies such as genetic testing and social media aid insurers in making risks visible and compelling. I show how insurers call upon traditional family duties to justify the need for their products, duties that extend forwards and backwards to future and to previous generations. I show that insurers have been able to construct new, close, relationships with clients thanks to the wide adoption of WeChat. The WeChat platform creates a constant co-presence among its users, within the company it intensifies power dynamics and supervisions, while in the local communities, it makes agents members of the neighbourhood, it has helped to extend offline friendships online and to construct an online mutual-support community which makes buying insurance as "helping friends." In the study, I also reflect on my positionality as researcher and member of the communities I am studying and I think through that experience adopting the lens of the Chinese concept of *guanxi*, which from my understanding necessitates "reciprocity". Overall, my research casts a light on the technocultures of contemporary China within that critical industry, the insurance industry, whose job is to secure our uncertain future.

Impact Statement

First of all, this study contributes to the academic research on Chinese guanxi, in particular, how reciprocity works in a guanxi relationship. As stated in Chapter 3: My positionality, guanxi still remains to be an important feature of contemporary Chinese society, it can still facilitate the progression of some tasks. In particular, reciprocity is the key to maintaining a constructive guanxi. One can express reciprocal gestures in multiple forms, it is not necessarily about bribery, it can be conducted with the different choices of each participant. Guanxi can be helpful especially for doing research in China, and my study offers an example of how researcher can perform reciprocity in a guanxi relationship without being too passive because of the local social setting. Also, in a broader sense, my study offers some practical insights in doing ethnographic research in financial institutions.

Second, my study contributes to the academic research concerning the social impacts of social media platforms, especially in how a social media platform becomes a social and civil infrastructure. My analysis on WeChat enriches the academic discussion on how social media influences interpersonal relationships, workplace power dynamics, and the understanding & execution of traditional moral values. Beyond this, my thesis presents a good example of how a social media platform can become effective in helping people with their lives in front of social crises.

Third, my study will help non-academic audience regarding their understandings of risk in the modern society. Lots of modern risks are invisible while impactful on individual level and social level, people need the knowledge to perceive them then arrange precautionary actions to mitigate the impacts. My research tells the story of the insurance business to the public, including how insurers interpret the modern risks and how they plan to communicate their interpretation to the society, I hope it can be helpful for ordinary people to understand more about insurance as a financial product also as an industry made up by humans. I hope my research can help people to understand the risks particularly in the aging society, so that they can choose appropriate methods to reduce the impacts of these risks on their life.

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Chapter 1: Introduction

“Recently, one of my husband’s friend came to me, she is a young women who works in the same company as my husband’s, the company which is famous for its extremely intense work pressure. She has a wonderful family, she already arranged insurance protection for herself and her children, but her husband, the father of her children, is still living without the safety coverage of insurance. She was so anxious about the risk of anything unfortunate, so she came to me for help...”

-----A post to WeChat Moments by Coco, an insurance agent from Noah insurance company

Risk is often perceived as the anticipation of harm or loss either on people themselves or on their possessions. From historical times until present, people suffer significantly from natural disasters such as storms, earthquakes or famine, these disasters not only put people’s lives in danger but also damage people’s homes and other property, thus there is an outstanding need for reducing how these disasters can impact people’s lives. In maritime trading activities, the feasibility of transporting goods heavily relied on a safe journey on the sea, when storms or pirates came, there was the possibility of losing all crew and all shipments. The impacts of loss were too substantial for traders. Under this circumstance, traders formed contracts with insurers to sell the insured goods to insurers before safe arrival, with a condition for terminating the contract if the goods were safely delivered (Holdsworth, 1917). In this way, the risk of goods on the voyage was transferred to insurers, then the impacts became much bearable for traders. This marks the early practice of maritime commercial insurance business.

In contemporary world, risk becomes an important concept, and its nature alters with the development of science and technology and human power. Impactful man-made accidents such as the nuclear leak in Chernobyl forces mankind to reconsider how risks and their impacts should be perceived. For the reconstruction of understandings of modern risks, sociologist Ulrich Beck (1992) came up with the Risk Society Theory.

According to Beck (1992), the advancement of modern science and technologies has significantly augmented human power, the variety and reach of modern risks expands, these modern risks will impact everyone regardless of economic classes, and their final consequences are open-ended. The Risk Society Theory is beyond a single field such as economy or commercial capitalism overlooking insuring boats against storms, or caravans against robbers. In the risk society, risk has become omnipresent, in unanticipated ways that requires constant vigilance and the knowledge to perceive it.

In ancient world, disasters were regarded as the “acts of god”, they mostly came from nature and had little human influence on their occurrence. However, in modern world, as humanity now possesses the power to change the natural environment, to construct more artifacts, and even to modify substances, the occurrence of modern risks display a strong human interference (Beck, 1992). Human activities can generate more risks which can even multiply and reproduce themselves. For instance, research shows that extensive mining activities deeply under earth surface can lead to rockfalls and seismic activities (Cook, 1976), and nuclear radiation brings significant fatal damages to human health such as causing cancer (National Cancer Institute, 2022). Furthermore, in terms of the reach of modern risks, under globalisation, risks can impact more territory beyond its origin, they can influence people’s lives from afar. A much reviewed case of this idea is the nuclear accident in Chernobyl. This man-made accident took place in one country but its influence expanded to many countries around it, and the influence could persist for generations (World Nuclear Association, 2024). Last but not least, modern risks can impact every social class. According to Beck (1992), the impacts of risks in the risk society such as ecological disasters cannot be prevented by wealth, even the rich and powerful cannot escape. Risk creates new classifications on people, classes that are not necessarily linked to economic and social privilege. These classifications can be geographical, they can also be linked to lifestyles. Moreover, the very structure of the society remains open-ended, so interventions on risk are also interventions on the identification of social groups.

In contemporary society, as the financial institutions which were established upon the perceptions of risks, insurance industry is now a critical participant in global

economy and everyday life of people, and its importance is increasing through time. From Swiss Re's (2024) market statistics, in the year of 2024, total life insurance premium globally has reached 3.1 trillion dollars, and the number is expected to exceed 4.8 trillion by 2035. Furthermore, in the past decades we have witnessed an explosion of disruptive technological innovations entering the business of insurance and medical care. Numerous technologies, including "Cloud Computing, Big Data, Artificial Intelligence, The Internet of Things, Blockchain", Social Media, and more, are being incorporated into insurance practice (KPMG, 2019). These technologies are reshaping the professional experiences of insurance while cultivating people to perceive and understand insurance and risks in a novel way. For example, in my fieldwork I noticed that, in the outbreak of Covid-19, many Chinese insurers initiated online platforms to help their customers with the difficulties of underwriting policies and settling claims, meanwhile they also used social media to communicate the knowledge of insurance, such as pushing daily promotive content to clients on WeChat and Tik Tok.

As these technologies become convenient and effective tools for insurers to affect people's conceptions and preferences, some insurance practitioners then hold a technological deterministic idea which sees these innovations as the foremost factors in determining the future of industry and how people perceive insurance and risks (e.g. Armond, 2018; Balasubramanian, Libarikian and McElhaney, 2021). However, in the research of Science and Technology, and Society (STS), regarding the power relations between science, knowledge, culture and the society, many STS scholars believe that how people understand the world is formed under cultural and social influences, such as the "co-production" theory proposed by Sheila Jasanoff which contends that "the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it." (Jasanoff, 2004: 2) and "Scientific knowledge, in particular, is not a transcendent mirror of reality. It both embeds and is embedded in social practices, identities, norms, conventions, discourses, instruments and institutions – in short, in all the building blocks of what we term the social. The same can be said even more forcefully of technology." (Jasanoff, 2004: 3) Similarly, in this sense, the construction of the modern understandings of risk is also

the process of interactions between the knowledge of science and technology and the preexisting socio-cultural beliefs. Therefore, in the face of the transformative insurance technologies, to understand the social dynamics and interactions behind their massive implementations, the time is ripe for this study that at once examines how the modern understandings of risk is constructed with the influence of insurance technologies and Chinese cultural values, as well as how insurance companies, agents, clients and regulators are shaping the culture of these technological affordances.

As a prominent political force which has experienced modernisation at an unprecedented speed over the past forty years, China is fast becoming the favourite backdrop for social research. And in particular, many researchers (e.g. Fan, 2007; Fu, 2007; and Li and Lu, 2018) believe that the Chinese society which has over unparalleled 1.4 billion population also provides a fertile and promising ground for STS studies which concern the social impacts of China's industrialisation and modernisation. Thus in this context, many Western and Chinese scholars examined thoroughly about the salient new risks brought by modernity to Chinese society. And consequently, many sociologists affirm that contemporary China is entering risk society, which is supported by the theory of "*Risk Society*" (Beck, 1992) and its implications to the reality of increasing varieties and impacts of invisible risks, such as new pandemics and pollution (e.g. Thiers, 2003; Kyung-Sup, 2017; Han and Zhai, 2022). And in this Chinese scenario, apart from the novel risks brought by modernisation, the historical social risks also emerged, thus the society comprised many problems including excessive pollution caused by accelerating industrialisation, the uneven urban-rural developments, the lack of collectivistic safety net since the economic reform, the aging population and the demographic changes in each household, and more. In the ends, these problems all contribute to influencing people's perception of risks.

First off, the problem of pollution in China is eminent. For example, according to *2020 China Ecological and Environmental Status Report* (Ministry of Ecology and Environment of People's Republic of China, 2020) looking at 337 cities, the air quality for 40.1% of them lied below the national standard (pollutant concentrations for PM_{2.5}, PM₁₀, SO₂, NO₂, O₃ and CO were considered), such side effects of the rapid

industrialisation on the environment impact and potentially deteriorate the health conditions of the whole population. Secondly, the uneven urban-rural developments had led to the massive migration of population to urban area over the past decades. For example, the result of 7th *national population census* in China in 2021 shows that more than 492 million citizens live away from their original “hukou” address (Chinese registration system for households’ original address), including more than 375 millions of “floating population” who live in different cities from their “hukou” address (National Bureau of Statistics, 2021). I will elaborate on how this phenomenon facilitates the trend of individualisation in urban area in chapter 2. Consequently, the housing price in large cities showed a significant growth, and the relative shortage of other resources contributed to numerous social problems, such as real-estate bubbles, the fierce competition for adults’ occupations and children’s education.

Thirdly, in the social aspect, scholars argue that Chinese people become more mentally and financially vulnerable to risks without the support from collectivistic job opportunities, because being laid-off from the State-Owned Enterprises cost them a guaranteed stable income for life (Ren, 2015; Yang, 2015). Since 1990s, the Chinese government has dismissed numerous government-owned enterprises in the economic reform, which ended in tens of millions laid-off employees being detached from the conventional socialist work unit which not only provided a workplace but also an entire welfare system that included housing, childcare and healthcare support (Ren, 2015). In such changes in life, people were forced to live and take responsibilities for themselves, and unhooking from all of those benefits exposed the more individualised citizens to drastic uncertainty. In the relatively wild society which hides various risks, how people protect themselves and their families in front of risks became a notable shared social problem.

Furthermore, fourthly, according to the 7th *national population census* in China, 18.7% of the total population age above 60 years old, and 13.5% of population age over 65 years old, and proportion of senior population is expected to grow, (National Bureau of Statistics, 2021) so there will be more old people in the society. On the other hand, the one-child policy from 1979 created a generation of only child, (Kane and Choi, 1999)

when the only child of a family turned 30 from 2010s, they would marry the only child from another family, thus this young couple needed to take care of 4 senior members after the marriage; In the meantime, in 2015 the one-child policy was abolished and the government began to encourage young couples to have a second or a third child (Population and Family Planning Law of the People's Republic of China). From national statistics, in each year between 2017 and 2022, over 50% of the total new-born infants are the second or the third child in their respective families (National Health Commission for the People's Republic of China, 2018; 2019; 2020; 2021; 2022; 2023). The joint force of 4 senior members and 2 children resulted in many married Chinese couples aged around 35 having to take care of at least 8 family members (including themselves) simultaneously. Such unbalanced family structure exerted overwhelming familial responsibility to those middle-aged citizens, and in this aging society of contemporary China, many families now live with financial burdens and the risk of bankruptcy. In the face of the mixed pressure from multiple directions, many Chinese citizens on the one hand suffer from high health risk physically and mentally caused by the overload of work and responsibilities together with a “*fear to get sick*” (Yang, 2019), and on the other hand strive to maintain the vulnerable balance of their family's financial condition. In short, Chinese families are constantly living a stressful life under intense anxiety and insecurity, and how they will cope with the issues of modernity makes a promising STS research.

The Chinese government proposed a few measures to address the current challenges in the public medical and healthcare system. In October 2016, the state council issued *The outlines for the 'Healthy China 2030' Initiative* which outlined the government's plans including promoting healthy lifestyles, improving health-related services and constructing a beneficial living environment. The document specifically called for the insurance industry, exploiting their capital and advanced technologies, to actively undertake more responsibilities and support this grand scheme (State Council of the People's Republic of China, 2016). Subsequently, the Chinese insurance regulators issued several more specified advice to insurers, including “expanding the supply for commercial insurance while preserving the protective nature of health insurance,

involving the new medical technologies and applications of novel medical apparatus under the cover of health insurance” and “establishing the mutual information sharing between commercial insurance and national medical care system, and promoting the use of big data and new payment methods for medical services” (China Banking and Insurance Regulatory Commission, 2020). In conclusion, in this environment of growing public’s acceptance of insurance, the intensification of new risks and institutional progress in helping the expansion of insurance, commercial insurance is endowed with profound capacity on the Chinese ground, and this study on technocultures of commercial life insurance in China will potentially find more favourable assistance along the way.

Starting in the last two decades of the 20th century, the concept of commercial insurance came to the attention of many Chinese citizens in tandem with the explosive growth of the national economy and the dramatic elevation of all population’s living standards. To initially introduce themselves and raise their social recognition and influence, various Chinese insurers relied on the mass media to advertise their characters in positive and appealing representations. For example, many insurers named themselves after specific Chinese adjectives like “Ping’ An, Tai Ping, Tai Kang, Xing Fu” which symbolised auspicious meanings including “safety, soundness, healthiness, and happiness”; Meanwhile some others like China Pacific Insurance Corporation created thought-provoking slogans such as “Ping shi zhu ru yi di shui, nan shi yong you tai ping yang”, meaning “Accumulating drops of water in normal times, then a pacific ocean awaits when you are in trouble” to imply the beneficial image of the company. With the help of such advertisements and an early generation of insurance agents ready to explain the details of each policy to each of their clients, commercial insurance and risk were popularised in Chinese society. And in this way, starting from around 1990, after the establishment of multiple major domestic Chinese insurers such as Ping’ An (in 1988), China Pacific (in 1990) and Tai Kang (in 1996), a large portion of the population gradually accepted the idea of insurance and began to purchase various insurance products, thus the Chinese insurance industry earned a sharp boost and became a prominent force in the market.

By 2024, there are 239 registered insurance institutions in China, including 75 life insurance companies, 9 pension insurance companies and 7 health insurance companies, (National Financial Regulatory Administration, 2024) and according to regulation, the total 91 (75+9+7) insurers above can sell health insurance policies under the permission of the national insurance regulator (China Banking and Insurance Regulatory Commission, 2019). Nevertheless, after over thirty years of progress, when the fever of demographic dividends¹ faded away, the pace of Chinese insurance's explosive expansion began to decelerate. Existing market statistics suggest that the annual premium income increase rate for the domestic life insurance business has dropped from 27.49% in 2016, to 18.16% in 2017, 3.93% in 2018, 12.17% in 2019 and 6.1% in 2020, and in the first half of 2021, the increase rate declined to 4.2% for which the number of new-signed policies dropped 7.4%, (Qianzhan Industrial Research Institute, 2020; China Banking and Insurance Regulatory Commission, 2021a; 2021b) the need for exploring new markets seems imminent. Regarding what should be responsible for this deceleration, the explanations from several Chinese insurance practitioners pointed to the rather crude and ineffective marketing approach of conventional insurance. There are several objective reasons such as the lack of appropriate market regulations, professional insurance education and training systems in China, as well as some subjective reasons including agents' attitudes and relatively lower professional standards. Cheris Chan's research on Chinese insurance marketing suggests that, at early stages, lots of policies were sold by agents physically visiting others, mostly visiting friends and relatives, aiming to utilise their interpersonal relationships to secure the deal (Chan, 2012). However, many risks are now invisible in the risk society, the contemporary social environment is changing accordingly, and it requires more efforts to convince people of the existence of risks and the need for insurance. In the study on the development of commercial life insurance in America, Viviana Zelizer (1979) asserts that life insurance flourishes under a favourable social and cultural environment,

¹ According to United Nations Population Fund (2016), demographic dividend is "the economic growth potential that can result from shifts in a population's age structure, mainly when the share of the working-age population (15 to 64) is larger than the non-working-age share of the population (14 and younger, and 65 and older)."

therefore, in contemporary China, in the social environment of a risk society, regarding the risks that are advertised by insurers and stressed by the state government, how are the experience of insurance and these risks changing? How are individuals' relations to insurance being restructured? What role does technology play in this?

Moreover, the Covid-19 pandemic, while increasing the financial and operational stress of each insurance company, also uncovered and highlighted the new potential of digital insurance marketing and the digital communications between insurers and clients. Because of the restrictions exerted by the epidemic, instead of physically approaching their clients, most of insurance agents began to and were gradually getting used to conduct the business online, sending and receiving digital documents (Beijing institute of FinTech, 2020). And since the consultation about more new risks and hazards that came along with the pandemic were included in the content of their conversations with customers, in the end, the agent-customer bond was even tighter. And beyond this, the digitisation of customers' profiles not only eased the storage but also made it possible for insurers to collect and summarise customers' information and preferences so that their product recommendation can be less general and more personalised.

The contemporary context above puts up a complex socio-economic background for insurance companies, and it seems to signify a default deterministic client-company relationship, which interprets that insurers must passively accept and adopt to social trends and customers' dispositions to survive in the market competition. However, I would like to propose this study which suggests a co-productionist point of view. In my hypothesis, the influence between insurers and customers goes both directions, while the customers' understanding of risks and insurance are affecting how insurers conduct their business, insurers are also using various technologies and business strategies to guide the society and customers to form the appropriate awareness of insurance and risks. Therefore, the technologies, the insurance companies and clients are co-producing the experiences of risk and insurance in contemporary China. And in this study, I choose to examine the dynamics in the market between life insurers and customers to prove my hypothesis.

To form my reasoning on how life insurance companies interact with the public in contemporary China, I ask:

- **How do Chinese insurance companies challenge the current social understanding of risks?**

And the main research question above can be deconstructed into the following secondary questions:

- How do Chinese life insurers communicate the risks of contemporary China to the public?**
- What new technologies have been adopted by Chinese insurers and what uses have been given to them?**
- What are the broader societal implications of this technological insurance practice?**

This main research question sits within the sphere of contemporary China, where there are modern technologies, various financial institutions, an aging society and a trend of individualization in the lives of individuals. Beyond these, in the society, the experience in the past years especially how people lived through the Covid-19 pandemic also raised general concerns regarding the vulnerability of each individual in the face of such global crisis. When the state governments underwent severe burdens in finance and healthcare and required citizens to take care of themselves without the state's safety net, how one should protect themselves and their families from the impacts of the risks becomes a salient problem. And as the powerful financial institutions who particularly deal with risks and provide financial compensation for their clients to ease their loss, the actions of insurers are attached to great importance and responsibility. Therefore, I construct this main research question to inspect the way

insurance companies interact with the public regarding the social understandings of risk and how they convince a broader group of public audience of the need for insurance.

Here, the main research question consists of several actors and elements, there are actors including insurers, clients, and state regulators, also elements such as various interpretations of risks, the technological applications in insurance practice and the traditional and modern Chinese cultural beliefs. For this reason I divide the main research question to the three secondary questions above, aiming to simplify each step of it before the final conclusion. The first secondary question only looks at what are the understandings of risks that Chinese insurers try to influence their audiences about, the second question discusses what technologies are used by insurers to help achieve their objectives, then the third question evaluates the impacts of insurers' words and actions, also assesses what roles do these insurance companies play in the current Chinese social environment.

My research question aims to examine how insurance companies influence people's understanding of risks with emerging technologies, the insurer-insured interactions and the dynamics of customers' dispositions in the contemporary social environment. Like in the classic Chinese poem "the ducks are the first to sense the increasing warmth of the water (chun jiang shui nuan ya xian zhi)", if the warmth of the water is the change in the culture of risk, including both the insured's perceptions of risk and insurance companies' novel business models; then the ducks are the insurance agents that work closest to the market, who can directly experience the impact of emerging technologies on the business. Learning from agents and observing their operations will aid me in unpacking the interplay of social and technical factors, such as technologies, their commercial uses and their social aspirations. If I completely rely on recruiting insureds for my study, the results might lead to a biased attitude towards insurers, as clients may end up using my research as a channel to raise and claim their voice and complains against insurance companies. Compared to this, picking agents for my study in fact includes an opportunity to reach to their clients, since I will have a glimpse of their interactions with clients through observing how agents conduct their business. Apart from this, it is more feasible to get admitted and accepted to insurers than to clients,

and it is also easier to spend the day with agents rather than their managers because agents are more generous with their time. For the reasons above, insurance agents will be the focus of my research project.

Furthermore, since my intentions were to understand the social construction of modern risks and of the techno-culture of contemporary insurance, as well as the practical aspect of how do contemporary insurance agents conduct their business with the assistance of modern technologies, my research necessitates direct first-hand information from the customers and agents. Therefore, in order to collect the data of my research subjects and more importantly, to understand their situation with their own languages, for the compelling research methodology that suits my demands, a fair number of literature pointed to ethnographic approaches. For example, according to Clifford Geertz (2008) in *Thick Description: Toward an Interpretive Theory of Culture*, ethnography is embodied in what the practitioners do, and observing what they do is the most suitable way for outsiders to understand the culture. And more specifically, as participant observation specialises at “learning the objective’s code (or at least parts of it) in order to understand the meaning of their actions” (Gobo and Molle, 2016: 6), and field research is “especially appropriate for the study of those attitudes and behaviors best understood within their natural setting” and “well suited to the study of social processes over time” (Babbie, 2013: 325) which resonates with my purpose of examining the new culture of risk and the nature of the qualitative data that I ought to collect, I chose participant observation at the field as the main strategy to collect the qualitative data from my research interlocutors.

Moreover, a wise choice of the sites for participant observations is also important. Despite most Chinese insurers demonstrated a positive attitude towards the integration of insurance and technology, their applications (e.g. marketing & sales, claim settlement, risk control) tend to vary. Beyond this, contemporary Chinese life insurers have two major operational modes for business, the ones that completely operate online (with little number of agents) and the traditional ones who started offline and are committing numerous efforts to catch up with the trend of online business (Beijing institute of FinTech, 2020). In this context, to maximise my chance of interacting with

agents, I decided to design the study around the Marketing & Sales sectors of traditional life insurance companies. Furthermore, considering top and middle-tier insurers may have different corporate cultures and operational practices, I decided to pick one top-tier company and one middle or small-sized company for a potential comparison. So eventually, combining my experiences from examining industrial reports and the advice from my informants, as well as the concerns for accessibility, two companies became my research subjects for this study. The first is called Robin and the second is Noah, both using pseudonyms. Robin is a private company with more than 25 branches in 6 provinces, they had around 5 billion RMB annual premium income in 2023, and ranked in 30s in industry. While Noah is a State-Owned Enterprise with more than 1700 branches across the country, making around 150 billion RMB annual premium income in 2023, and ranked in top 10 in industry.

Under ethics approval reference STSEth276, I began my research. With the fieldwork material that I collected, to answer the questions that I proposed above, I present my thesis in seven chapters. The first one, this chapter, where I introduce the social background and the existing conditions of my research, I bring out its topics and research questions, offering an opening picture of the whole study. Then in chapter two, in order to demonstrate the theoretical background of my research and seek support from existing scholars and their views, I review the literature in relevant fields, covering the essential topics for my study, including understandings of risk, the relationships between risk uncertainty and insurance, the sociology of insurance technologies, the development of social media, the role of insurance agents, and the history and development of Chinese insurance industry. Based on the existing academic research in the four areas above, I frame my thesis on risk and insurance in modern China. Afterwards, in chapter three, I reflect on my ethnographic experience in two Chinese insurance companies, namely Robin and Noah. The two companies have different corporate values and backgrounds, while sharing a similar set of practical objectives and cultural perceptions as they both operate in Chinese society. Among all the noteworthy progresses in the fieldwork, “guanxi (interpersonal relationship with a reciprocity feature, I will explain its concept in chapter 3)” stood out as a constant theme,

it appeared even before my first contact with the insurance professionals, and acted as a thread all the way from accessing the fieldwork site to building up initial relationships with my colleagues, to conducting my observation and to the maintenance of relationships with my former colleagues after I finish my observation. Therefore in this chapter, I discuss the essential principles of guanxi and its maintenance with my own experiences in the field.

From chapter four comes the main argument and discussion of the thesis. In chapters four, five and six, I discuss the major themes around my research questions, I organize each chapter in the same format, starting with a brief literature review of the studies closer to the respective themes of each chapter, followed by my analysis on the evidence and material that I collected from the fieldwork, then I end each chapter with a separate summary and discussion. Specifically, in chapter four, I posit my study in the complex social background of the aging society, the predicted failure of China's state pension fund, and the demographic changes in typical one-child Chinese families, through discussing how Noah sell the "increased sum assured whole life insurance (Zeng'e Zhongshen shouxian)" policy in this context, I examine how Noah construct the understandings of risk of longevity both financially and culturally with Chinese moral values, linking buying insurance with fulfilling familial responsibilities, so as to raise public audiences' awareness of risk and convince them with the need for buying insurance. Then in chapter five, I turn to the other insurer, Robin, with presenting the technological and other affordances of their "insurance ecosystem", specifically, the direct-to-client genetic testing services, I investigate how Robin's employees promote genetic testing services and interpret the reports to clients as the aid for selling insurance products, also how they pull the strings of familial responsibility, similar to Noah's approach, in their conversations with customers. Afterwards, in chapter six, I first probe how Noah and Robin's agents use WeChat to construct their online profiles and constant co-presence in the life of their clients; I then look at Noah's "Good neighbour of China" campaign, with multiple examples and evidences from the local community's WeChat groupchat history, showing that the technological affordances of the WeChat platform not only facilitated insurance agents in promoting insurance, but also enabled agents to

construct online informal neighborhood-based mutual-help networks within the local communities, in which these agents themselves are accepted as friends and members of the community. Last but not least, after the detailed analysis of the ethnographic material, I conclude the thesis in chapter seven, also offer my insights on the broader societal implications of my research.

Chapter 2: A Review of Literature in Key Fields of My Research

To start with this chapter, I shall explain how I deconstruct my research questions for my study afterwards. As stated in the introduction chapter, my research questions aim to investigate how Chinese insurers influence people's perception of risks in modern Chinese society, and in this process, insurance companies adopted multiple technologies for assistance, this includes social media, biological technologies, wearable behavioural trackers, and more. Thus, to start with those research questions, there are several actors and elements that need to be covered first. In insurance market, clients, insurance companies and state regulators all perform critical roles, and the market and industry evolve around the interactions of these key actors. The clients, who are raised under the influence of their family and the society, already formed their understanding of the world especially the perceptions of risks, their perceptions are formed with not only traditional cultural values that existed since ancient society, but also more recent ideologies created in the modern world, their understandings of risks change with the development of outside world. Guided by these conceptions, people show different dispositions towards insurance business and the need for insurance policies. The emergence of modern insurance business is associated with people's demand for mitigating the financial loss due to accidents in trading activities, and as time goes by, the insurance industry has grown to cover more aspects of life and become more active in communicating the understandings of risks to the public, they utilised multiple approaches to make people recognise the existence of risks, and make profits from people's increasing need for insurance policies after the awareness of more risks. For state regulators, insurance can assist in social governance, state insurance is a safety net for people and commercial insurance can act as a supplement for fields beyond state insurance's reach, in addition, regulators also expect commercial insurance to remain active in securing people's lives in front of various side-effects caused by the country's development.

As humanity enters the modern era, technological developments significantly

empower human capacities, technologies also bring impacts to many industries, the insurance business faces several challenges as well. The dynamics in insurance market keeps on evolving. In terms of the client-company relationship, on the one hand, the advent of social media change the way people interact with each other, how they obtain the information from outside world, and noticeably, how insurers can interact with clients; On the other hand, the development of biological technologies and behavioural trackers make people know their body more, also enable insurance companies to know clearer about the personal data of their clients. With the changes in how interpersonal relationship is maintained and how public and personal information is disseminated, people may perceive risks with a set of different criteria, and insurance companies also have more power to exert their influence on their clients. In this context, and in the following text, I present my literature review on the academic discussions concerning these topics.

In this chapter, I will review literature in key fields related to my research with two purposes. I wish to lay out the theoretical background of the study, and to guide my further discussion around risk and insurance in the following chapters. For this chapter I will only review the literature for the theoretical background of my study, and in each chapter of my main argument, I plan to present separate literature analysis respectively around their specific topics. I divide this chapter into 7 parts, with each part respectively focusing on an area of academic research. In part 1, the review looks at the understanding of risk in the era of modernity, it focuses on the sociology of Risk, in particular the Risk Society Theory and its impacts on the society. Then in part 2 comes a brief introduction of the relationship between risk, uncertainty and insurance. Part 3 looks at the literature on how applications of behavioural-tracking technologies can influence the power dynamics in the insurance industry, especially on the debates over data privacy. Afterwards, in part 4, I will briefly present the review of sociological discussion of social media focusing on its influences on interpersonal relationships. In Part 5, I discuss the role of insurance agents in insurance marketing. Then in part 6, I illustrate the history of Chinese insurance industry, from its ancient forms to the much modern developments, beyond this, I will also offer an illustration of the various social

and institutional context that make Chinese insurance develop and evolve with the influence of native cultural and political characteristics. Then in part 7, I conclude my findings in the literature on these topics, and use them as the theoretical background, I lay out my rationale and plans for the thesis.

1. The ontology of risk and the understandings of risk in sociology

In this section, I will review the meanings and social understandings of risk. I will begin with analysing the definitions of “risk” in English and Chinese dictionaries to inspect how this word is used in English and Chinese linguistic contexts. Then, I will start the overview on how sociologists of different expertise interpret the word “risk” in their research. After introducing the various themes of sociological understanding of risk, I will elaborate more on the theory of Risk Society proposed by Ulrich Beck, which is well-known for its contribution to forming the understandings of risks in modern society. And based on the Risk Society theory, I will proceed to the link between Risk Society Theory and modern China to put forward a context for how the Risk Society Theory can be applied to China and my study.

Starting from the definitions, according to Oxford English Dictionary(2024), the meaning and use for “risk” are:

1. “(Exposure to) the possibility of loss, injury, or other adverse or unwelcome circumstance; a chance or situation involving such a possibility. Frequently with *of*.”
2. spec. (Exposure to) the possibility of harm or damage causing financial loss, against which property or an individual may be insured. Also: the possibility of financial loss or failure as a quantifiable factor in evaluating the potential profit in a commercial enterprise or investment.
3. A hazardous journey, undertaking, or course of action; a venture. (*Obsolete*).
4. Usually with modifying word. a) A person or thing regarded as likely to produce a good or bad outcome in a particular respect. b) A person or thing regarded as a

threat or source of danger.”

The definitions above on the noun “risk” in English context consist of the ideas including “possibility of loss”, “possibility of harm or damage”, “a bad outcome” and “a threat or source of danger”, even the obsolete definition in item 3 describes the targeted action to be hazardous. And when we look at the etymology of “risk” in Oxford English Dictionary (OED) (2024): the word “risk” first entered OED in 1621, translated from the French word “risque”, which refers to “danger or inconvenience, predictable or otherwise”. Besides, as for more etymology of this word in the Oxford dictionary, in the certain evidences of its etymology, its French, Italian, Post-classical Latin and Occitanian sources all encompass similar meanings such as “hazard, danger, unpleasant consequence, and more”. For instance, in French, “risque” denotes “danger or inconvenience, predictable or otherwise”, and in Italian, “risco, rischio, and risico” mean “possibility of harm, an unpleasant consequence, etc.” More particularly, dictionary evidence shows that “risk” emerges from commercial activities. It is noticeable that many etymons of “risk” in various languages in early practice were used in trading activities on the sea. Such as “resicq, risicq” (Middle French), “risco” (Portuguese), and “risico” (Dutch) depicted “possibility of damage to or loss of merchandise” in 15th and 16th century (Oxford English Dictionary, 2024).

Moreover, in Chinese context, “risk” is translated to “feng xian”. According to *Xiandai Hanyu Cidian (Modern Chinese Dictionary)*, the most-respected Chinese dictionary edited by the Institute of Linguistics, Chinese Academy of Social Sciences in 2016, “feng xian” is “ke neng fa sheng de wei xian”, which is “the hazard that can possibly take place”. In the meantime, the explanation for the noun “wei xian” (hazard) refers to “zao dao sun hai huo shi bai de ke neng xing”, which in English is “the possibility for experiencing damage or failure” (CASS Institute Of Linguistics, Dictionary Editing Room, 2016). In short, in dictionary explanations, “feng xian” and “wei xian” are interconnected, and their use cases in daily context are also similar.

According to Ortwin Renn (1992), the conceptualization of risk mostly focus on the

difference between reality and possibility, he also claimed that the notion “risk” only matters if human activities can make a difference on the outcome. That is, if the future of a matter is “predetermined”, independent (cannot be altered) from the actions of human, such actions can include controlling its occurrence or taking precautions to reduce the impact, then it is needless to conceptualize “risk”. Furthermore, some theorists link “risk” to subjective judgements, see risk as a constructed concept based on one’s cultural and social knowledge (e.g. Rosa, 1998). In this constructivist view of risk, one assesses an action as risky based on their existing experiences, their sociocultural and individual judgements. Therefore, just as the people who take extreme sports, as the future of a decision can be either positive or negative, based on people’s judgements, they voluntarily decide whether to take risks for the potential positive rewards, implying that not all risks have to be prevented (Lyng, 1990).

Similar interpretations can also be found in the Chinese context. In some linguistic contexts of Chinese language, “wei xian (hazard)” can be simplified as “wei” in some phrases and proverbs, for example, there is “ju an si wei, si ze you bei, you bei wu huan”, referring to “think of danger when you are safe, if you think like this you will make preparation, so your preparation will help you through the danger” (Hao, 2023). Also, there is “sheng yu you huan, si yu an le”, reminding people that “one can thrive on thinking about risks of danger, one can also fail if he indulge himself only with happiness” (Tao, 2020). These proverbs convey a traditional wisdom in perceiving and dealing with risks, it says that, risks constantly exist even in a safe situation, and in this case, however, instead of neglecting the risk or panicking about it, the correct way is to make preparations for its impact. Thus, if one takes precautionary measures, such as sensing the risk in advance and taking timely counter-actions, the impacts of risk can be contained, also, the degree of negative outcome can be controlled. Moreover, in some Chinese understandings, risks also imply the opportunity for positive rewards. The risk-takers can even obtain beneficial results from actively bear the risks. There is another frequently-used word called “wei ji”, which is commonly used in daily conversations and public official statements, (for example, see: Tao, 2020) emphasizing on the possible rewards for facing the risk. The word “wei ji” have both “wei xian

(hazard)” and “ji hui (opportunity)”, constantly encourages people to be risk-takers, as sometimes the opportunity and benefits scale with danger.

In sociological study, there is a debate on the conception of risk, on whether risk is an entity which is objectively calculable or a constructed concept comes from social and cultural theory and mediated in the society (Rosa, 1998). In the first, positivistic point of view, risk is “the probability of an adverse event times the consequences of that event” (Rosa, 1998: 27). Some people believe that risk can be mathematically calculated, as what Deborah Lupton concludes: “Technico-scientific approaches to risk, emerging from such fields as engineering, statistics, actuarialism, psychology, epidemiology and economics, bring together the notion of danger or hazard with calculations of probability,” (Lupton, 2023: 25a) and in these fields, “various scientific instruments are employed to monitor, measure and calculate risks and to construct predictive models of how risks might affect individuals or populations” (Lupton, 2023: 25b). A suitable example for this is the risk assessment in engineering. Engineers use mathematical techniques to design and construct artifacts or buildings and perform risk level assessments of them, and when their existing knowledge is not capable of supporting an accurate mathematic model, they tend to collect more data (from present and from the past) to upgrade their models. In addition to this, some people’s perception of risk is “*subjectively biased*”, hence with a socio-culturally constructed feature, as Jens O. Zinn argued: “although we can objectively find out what the best response to a risk would be, the observable subjective judgments and perceptions deviate systematically” (Zinn, 2008: 5). That is, although acknowledging risks are present, people’s response to risks is dependent upon the quality of risks, such as the magnitude, impact and possibilities, when the effect of risk is relatively minor, people might worry less and choose not to take actions. In the forthcoming paragraphs, I will briefly introduce the realistic and constructivist views of risk respectively.

In the book named *Social Theories of Risk and Uncertainty* which overviews various theories of risk in sociological research, Zinn (2008) categorizes *Edgework Theory* as realist. In the *Edgework* concept by Stephen Lyng on those who take high-risk activities, “edgework” are those activities which “all involve a clearly observable threat to one’s

physical or mental well-being or one's sense of an ordered existence" (Lyng, 1990: 857). In this sense, the risk-taking decision is therefore pushing boundaries of injuries and safety, life and death, and risk still refers to the probability of injury or death. The concept was initially proposed in the face of an increasing popularity of extreme sports, such as sky-diving and cliff jumping, and claimed that although pushing the limits of the self is what these people aim at, they still make best preparations to reduce the risk of harm (Lyng, 1990). Thus, this example shows that the edgeworkers seek new boundaries of life rather than seek risk. Moreover, for edgeworkers, their intention to take the high risk is to find a real self from the everyday life, as Lyng (2008: 132) describes "by committing themselves to exploring dangerous edges, actors discover the creative possibilities of an "acting self" that has been liberated from the constraining influences of reflective consciousness and the social self (the "me")." This is another example suggesting that people can subjectively choose an attitude towards risks, despite acknowledging that risks can bring real harm, not all risks are deliberately avoided.

On the other hand, in a much sociological opinion, risks are socio-culturally constructed and mediated within the society, or some social groups, as Lupton (2023: 31) claims: "Sociocultural perspectives on risk emphasize the very aspects that cognitive psychological and other technico-scientific approaches have been criticized for neglecting: the social and cultural contexts in which risk is understood, lived, embodied and negotiated, and the dynamic nature of these contexts." In this view, risk can be perceived and managed by human, and it can also be connected to decision and responsibility. In particular, there is a view which sees risk as a governmental tool or strategy. In this outlook, risk is defined, given meanings, and explained for governmentality purposes. This is the foundation upon which social group leaders (such as politicians) determine risks and create the continuing regulations and activities over them (Lupton, 2023). For example, although risks can be calculated by mathematics and actuarial techniques, the techniques that are used to calculate risks themselves were validated by institutional processes; also, the causal relationships of events can be interpreted for purposes, powerful organisations, such as politicians, can even link the

reason for a consequence to unrelated events, such as having Asian immigrants foremostly accountable for the spread of Covid-19 and then initiate racist and xenophobic campaigns.

The governmentality approach to risk has a constructivist character, scholars of this approach view risk as a technique used to describe and govern social problems (e.g. Zinn, 2008; Lupton, 2023). According to Pat O'Malley (2008: 57), in this frame, risk is "a statistical and probabilistic technique, whereby large numbers of events are sorted into a distribution, and the distribution in turn is used as a means of making probabilistic predictions." And in Zinn (2008: 178)'s explanation of the governmentality theory of risk, risk is "a specific way to manage uncertainty by calculative techniques and a specific way to govern society by allocating responsibility to a prudent subject." More specifically, Ewald (1991: 197) views insurance as an abstract technology based on "a technology of risk, makes possible a range of insurance combinations shaped to suit their assigned function and intended utility-effect." This also leads to what he conceptualizes as the "insurance technology" for which based on calculation, risks are translated into monetary states of the world and are spread across all the insured through the payment of premiums. The risk pooling techniques in insurance share a consensus with this, in the practice of the classic way of insurance actuary, instead of focusing on every clients' risk profiles and individual characteristics, insurers tend to identify high risk factors from a group of previous data, then set classes of premiums to the client group of each risk level (e.g. Vitality, 2024). For instance, people with occupations such as construction worker might receive higher premium request than teachers, as construction worker is deemed as of higher risk of injury than teachers based on insurers' analysis. Afterwards, as new risks and needs emerged since modernity, insurance industry also upgraded their risk techniques and refined their products to suit the society, therefore, in this case, the notion of risk becomes a way of governing uncertainty of future rather than a probability of harm (O'Malley, 2008). Moreover, the governmentality approach of understanding risks also appear in governments' visions of managing threats such as global pandemic or disasters, it can manifest itself in governmental strategies or legislations, this resonates with Ulrich Beck's theory of Risk

Society.

Beyond the either realistic or constructivist viewpoints of risk presented above, there are also scholars take both features, including Ulrich Beck. Beck defines risk as “a systematic way of dealing with hazards and insecurities induced and introduced by modernization itself” (Beck, 1992: 21). He believes that there are risks from the real world which have real consequences, such as natural disasters and man-made calamities, and there are also social constructed concepts for future possibilities by the powerful social institutions such as scientists, insurance companies and governments. I will elaborate more of this around his theory of Risk Society in the following paragraphs.

Published after the catastrophe in Chernobyl, the risk society theory immediately gained massive attention from both scholars and the public, as Chernobyl presented a most deadly example of the new risks brought by modern technologies. The book named *Risk Society: towards a new modernity* by Beck(1992) has three parts, the first one focuses on the new risks generated and brought out by the advancement of modern society, this includes nuclear power; the second part discusses a trend of individualization in the society, and the third part connects the theories above and looks at the sociology and politics within modernity. For this thesis, I will mainly focus on the first two parts of this theory.

In the first paragraphs of Beck’s discussion over the relationship between risk distribution and wealth distribution, he states:

“In advanced modernity the social production of wealth is systematically accompanied by the social production of risks. Accordingly, the problems and conflicts relating to distribution in a society of scarcity overlap with the problems and conflicts that arise from the production, definition and distribution of techno-scientifically produced risks.” (Beck, 1992: 19a)

And:

“This change from the logic of wealth distribution in a society of scarcity to the logic of risk distribution in late modernity is connected historically to (at least) two conditions. First, it occurs - as is recognizable today - where and to the extent that genuine material need can be objectively reduced and socially isolated through the

development of human and technological productivity, as well as through legal and welfare-state protections and regulations. Second, this categorical change is likewise dependent upon the fact that in the course of the exponentially growing productive forces in the modernization process, hazards and potential threats have been unleashed to an extent previously unknown.” (Beck, 1992: 19b)

In this analysis, Beck firstly offers the background of the modern society, as the one we live in, where the scarcity of living goods has been improved by the development of productivity, or through social welfare systems by each national government such as pension or unemployment support. On one hand, in history, the insufficient material supply could result in risks of instability of society, and because of the high productivity of modernity, the risk of social instability due to lack of supply, or poverty, loses its social impact and becomes less observable. However, on the other hand, as stated in the second half of the paragraph, despite the risk of poverty has been compensated by technologies of high productivity, the new risks generated by the modern society come in a much various ways and magnitudes, significantly differ from those in pre-industrial society, and include some that are unprecedented, for example, the risks of nuclear leaks, biological pollution, global pandemics, and more forms.

Also, according to Beck (1992), the understandings of risks change with the progression of society. In historical pre-industrial times, risks are mainly linked to natural disasters which were often seen as divine acts, the risk back then were also incalculable. Afterwards, with scientific and economic development, some risks were understood as calculable then the insurance business emerged and actuarial techniques were used to evaluate risks levels, take premiums, and offer financial compensation to insureds. Then as humanity enters industrial modern society, humans have much more influence on the world. Although some risks remain calculable and manageable, many other modern risks, beyond individual level, cannot be controlled by existing strategies, the impacts are taken by humanity regardless of social class, nationality or other means of classifications.

In the face of such significant impacts of new risks, Beck does not view risks as merely probabilities nor a pure subjective concept, instead, he sees risk as knowledge.

The risk is real, but the knowledge is socially constructed by cultural and scientific settings. In this way, he views risk as a hybrid which is both real and socially constructed, one cannot separate one side from the other. Furthermore, the institutions who can define risks have significant power, because these modern risks, such as radioactive substances and pollutions, are normally “invisible” and can only be understood with specific knowledge, their conception is “open to social definition and construction”, and their impacts can be “changed, magnified, dramatized, or minimized” by the knowledge (Beck, 1992: 23). In the society, the eventual impact of risks is not realized only by the risky entity itself, the legal, cultural, and other social powers also contribute to the final outcome. For example, in an accident of nuclear leak, the radioactive contamination will cause illness and environmental pollution in the first place, but the measures of local government and organizations after the accident, such as shutting down the leaked plant to prevent the overflow of contaminated waste to more area, can make a huge difference in terms of the global impact.

Beyond the new risks, another focus of Beck’s theory is individualization. In Part II of *Risk Society: Towards a new modernity*, he claims:

“In the welfare states of the West, reflexive modernization dissolves the traditional parameters of industrial society: class culture and consciousness, gender and family roles. It dissolves these forms of the conscience collective, on which depend and to which refer the social and political organizations and institutions in industrial society. These detraditionalizations happen in a social surge of individualization.” (Beck, 1992: 87)

And:

“The individual himself or herself becomes the reproduction unit of the social in the lifeworld. What the social is and does has to be involved with individual decisions. Or put another way, both within and outside the family, the individuals become the agents of their educational and market-mediated subsistence and the related life planning and organization.” (Beck, 1992: 90)

According to Beck’s theory, modernization reshaped the structure of society, the relationship between individuals and the collective has changed with the trend of

individualization. Whereas on one hand people are much individualized as members of society, they on the other hand rely on the support of the society like never before. The prerequisite of individualization lies within the welfare states where the existing social constructions should be capable of providing a level of stability, such as economic prosperity, adequate education, free labour market and more conditions, and in this way, individuals can choose to freely live the lives of their own. However, this means that the individualized life of this kind heavily depends on the welfare state and the market, as the result, compared to the traditionalized collectivist structure, individuals are more vulnerable to the hazards and risks from the instability of social environment outside, they have to bear the risks by themselves.

Furthermore, many scholars try to apply Beck's theory of Risk Society on contemporary China (e.g. Thiers, 2003; Zhang, 2017; Han and Zhai, 2022). Along with its fast development, Chinese society indeed enters a predicament of modernity. On the one hand, domestically, a new stage of prosperity has eliminated most cases of poverty and scarcity for food but also has brought new and unsettling challenges to each individual within the society. On the other hand, from a global perspective, China is also receiving the impacts from other countries, despite China has nothing to do with the creation of these influences, when they arrive in China, there is little to do to reject its effect. I use one example respectively to illustrate these two scenarios above.

Domestically, for example, in contemporary China, food-safety problems has attracted numerous attention from the public. According to Yan's (2012) study, public concerns of food in China have three major categories, namely food hygiene, unsafe food and poisonous food. In a modern industrialized society, when people live at a higher living standard, they naturally begin to pay attention to the quality of food that they consume. However, the industrialized society also include an industrialized food system, in such systems, to increase productivity and profits, biotechnological artifacts such as chemical ripener and preservatives are introduced in the manufacturing of food. Food with chemicals saturates the market, and since it is a highly common practice in food industry, it is impossible to pick out the individuals or groups responsible for creating food safety problems (Zhang, 2017). The use of bio-chemical substances in the

industrialized food system stands in opposite with people's wish of a quality and safe food resource in modern society, and when people's awareness of food safety grows over time, such confrontation becomes increasingly salient. However, what is different from Beck's theory contending that the distribution of risk in risk society is universal across social classes, when many Chinese citizens are actively trying to avoid the impacts of these unhealthy food, research (Yan, 2012; Han and Zhai, 2022) shows that the risks of food safety is unevenly distributed in China, wealthy people tend to be less effected compared to the poor. Since the rich are generally better educated, knowing more about these risks, and can pay more for safe food, they can better protect themselves against the risk of food safety. That said, targeting at the public from all across the society, there are campaigns such as the Good Food Movement calling on people and regulators to pay extra attention to food safety risks, people come together and form civil communities under the consensus of increasing food safety, their voice is raised, but it takes time for their claims to be transferred to regulatory policies (Zhang, 2017).

And internationally, for instance, after the nuclear leak in Fukushima, Japan, as a geographically close neighbour, China passively became one of the many victims for this accident. The impacts of this global accident appeared in many aspects, such as a concern on the overall safety of nuclear power plants in China and food safety due to nuclear contamination. According to He et al., (2012)'s research, after the Fukushima accident, the Chinese public demands more information and transparency about the safety of nuclear plants in domestic region, and the government is expected to timely answer to these needs in order to retain their trustworthiness from people. Also, after the accident, Chinese government issued levels of restrictions on the importation of food from affected area in Japan, in the meantime, according to Wang, Huang and Zhang (2022)'s research, on both mass media and search-based media (search pages) around this topic, three major themes stood out, namely: "(a) general hazards of post-Fukushima food imports (e.g. 'nuclear disaster', 'nuclear food', 'import', 'radiation', 'nuclear radiation', 'disaster area'); (b) comprehensive investigations of illegal food import from nuclear disaster-hit Japanese prefectures (e.g. 'milk powder', 'spinach',

‘safety’); and (c) controversies and discussions revolving around the legitimacy of lifting the post-Fukushima ban or proposing a partial relaxation on Japanese food imports (e.g. ‘lift a ban’, ‘lift a restriction’)” (Wang, Huang and Zhang, 2022). These themes not only concern food issues, but also legal and diplomatic issues. Through these updates on the media, people to a deeper extent understand the impacts of these international events on their individual life even if they live in a different country.

2. Introduction of the relationship between Risk, Uncertainty and Insurance

Following my presentation of the academic dialogue about the sociology of risk, in this section, I will briefly introduce the academic discussions of the relationship between risk, uncertainty, and insurance industry. I plan to organise this section with reference to the development of society and time, in the beginning I will introduce the nature and functions of insurance as a business established upon the understanding of risk, and how the insurance business thrive in early times dealing with risks; Then afterwards, as human enters modernity, I will lead this review to the modern world, looking at the relationship between insurance business and risks in the modern society where risks and uncertainties multiply and vary in numbers and kinds. More specifically, in the discussion of modern insurance and risks, I will focus on life insurance industry to put up a theoretical background of my research and to guide my analysis in the following sections and chapters. I commence my review in the following paragraph.

As defined by Allan H. Willett in *The Economic Theory of Risk and Insurance*, insurance is “social device for making accumulations to meet uncertain losses of capital which is carried out through the transfer of the risks of many individuals to one person or to a group of persons” (Willett, 1951: 72). This definition describes not only the purpose of insurance, “the transfer of risks”, but also the nature of how insurance works to achieve its objective, which is “making accumulations of many individuals” to insure the risk of each individual. Another core idea in insurance is the Law of Large Numbers,

a probability concept which reads: “the average of a large number of independent identically distributed random variables tends to fall close to the expected value” (Smith and Kane, 1994), which in insurance means, “the entry of additional risks to an insured pool tends to reduce the variation of the average loss per policyholder around the expected value” (Smith and Kane, 1994). In such mechanism, Willett finds that, “what the increase in the number of separate risks in the group does bring about is a reduction of the uncertainty for the group as a whole, a substitution of certain loss for uncertain loss” (Willett, 1951: 72). That is, when multiple risks of the same kind are accumulated to one risk pool, according to the law of large numbers, for the whole risk pool, instances of loss can be seen as an almost certain outcome with a theoretical probability, then the overall uncertainty of the whole risk system can even be controlled. Put it in insurance, for insurance companies, with the help of insurance actuarial technologies, when as many insureds accumulate for a type of policy, the uncertainty of loss can diminish theoretically, then behind the much foreseeable loss there is the reward for insuring such risk.

However, as presented in previous section, when human enters modernity, theorists such as Beck (1992) contends that in modern society, risks are becoming increasingly uncontrollable, incalculable, and uninsurable. Further to Beck’s (1992) theory of “Risk Society”, Richard V. Ericson and Aaron Doyle claim that contemporary society is an “uncertain society” where “risk is the frequency with which an unwanted outcome is likely to occur and the severity of losses suffered when it does occur” (Ericson and Doyle, 2004: 4), and surrounding risk there is uncertainty which comes from “the lack of secure knowledge about an unwanted outcome” (Ericson and Doyle, 2004: 5). Thus, in the uncertain society, “the limits of scientific knowledge of risk and imagining unintended consequences of that knowledge” (Ericson and Doyle, 2004: 14) become the prominent social and insurential problem. Because of the lack of knowledge of risk and the inability to control the risk, the “risk society” and the “uncertain society” pose a challenge in front of the existing science and technologies that insurance companies possess.

In face of the challenges of uncertainty, insurance business thrives. Ericson and

Doyle (2004) assert that, insurance business has a long history of conducting business with a level of uncertainty due to insufficient knowledge, and the insurance business can live in the risk and uncertain society. Historically, life insurance emerged before the publishment of actuarial data of human life expectancy, and fire insurance appeared without the calculation of probabilities of accidents (Zelizer, 1979). Beyond this, in modern world, in the risk and uncertain society created by modern science and technologies, although technological advancements indeed contributed to the generation of catastrophic disasters, nevertheless, “disasters of this type and many others - for example, hurricanes, earthquakes, terrorism, and corporate fraud liabilities - are regularly addressed by the capital risk and loss ratio governance mechanisms of the insurance industry” (Ericson and Doyle, 2004: 20). Facing the uncertainty of the multiple incalculable risks, in order to chase profits, insurance industry endeavours to insure as much risks as possible, utilising its science and technologies to converse the events of risk to their arrangements of capital, which is, transferring the insured risk to capital, and protecting that capital from the insured risks. For example, after catastrophic accidents, although the influence of the accident on effected people is incalculable, insurance can offer a certainty of financial compensation to cover the loss in monetary form (Ericson and Doyle, 2004).

As stated by Beck (1992) in the theory of risk society, the organisations that possess the knowledge of risk and the capability of defining risks have significant social power. Bearing the knowledge of risks and the affordances to conduct business with risks, insurance industry become a key player in the risk society. Apart from exercising its role as the financial institution which offer people monetary compensation against harm, insurance also serve as a machinery of social governance (Ericson and Doyle, 2003). In this perspective, Ericson and Doyle (2003) claim that insurance uses its actuarial knowledge to define risky behaviours and hence influence people’s actions. As they write, in an insurance system, “all statistical knowledge of risk provides an objective standard of normalcy. It specifies what is normal about a population and who within it deviates from the norm and therefore poses a risk. At the same time, what is statistically normal functions to evaluate what ought to be” (Ericson and Doyle, 2003: 10). Thus in

this manner, based on their actuarial and statistical knowledge of people's actions and the consequences, insurance companies identify and therefore define what is normal action. Then by setting criteria on the normal and risky behaviours, insurers attach a layer of moral responsibility upon people's mindset and use such moral regulations to define how people should behave: being morally sensible and responsible for themselves, and taking actions to control and minimise the impacts of risks (Ericson and Doyle, 2004).

The use of statistical and actuarial model to manage the accumulated risks of insureds is particularly salient in Life insurance. In life insurance business, with the data such as population life expectancy and health information that they collected from the society, life insurers design and sell various policies and set varying pricing tactics concerning people of different risk levels. However, as the development of insurance industry and society, especially due to a prolonged lifespan of population, the role of life insurance has gradually shifted from the protection against accidental death to a provision for retirement and longevity (Ericson and Doyle, 2004). The change in the social role of life insurers introduces more uncertainty to the business, and insurers also have to face more types of risks.

In practice, the uncertainties that life insurers have to deal with appear in multiple aspects. The first issue concerns the data. Scholars point out that the actuarial data that insurers rely on, including the morbidity and mortality rate of population, are usually inaccurate (Ericson and Doyle, 2004). The quality of these data varies concerning statistical methods used and is heavily time-dependent given the rapid development of medical sciences. Beyond statistical data, insureds may also submit inaccurate or even false data of themselves to take advantage of insurance policies. Inaccurate data and case-specific insurance decisions both lead to risks and uncertainties to insurers' business. Secondly, since the role of life insurance has changed, life insurers actively introduced more component into their business, for example, beyond basic benefits of insurance, life insurance policies can have features of wealth management, investment, and medical services (Ericson and Doyle, 2004). Although expanding product coverage can possibly attract more clients and obtain more profits, the new products are more or

less developed with little pre-existing knowledge and there is insufficient historical data to assess the risk. In the end, the insurers are exposed to more risks and uncertainties in the social environment.

To govern the risk and uncertainty of the business, life insurers developed various measures to manage their insureds, from reinforcing education of relevant knowledge to collecting more detailed data from their clients. As presented above, insurers set criteria of normal and risky behaviours to the public, and through further education of the knowledge of health, they nurture the insureds to be more considerate and responsible in their life, becoming self-disciplinary for a healthy lifestyle. And for collecting more detailed information from the insureds, insurers incorporate multiple technologies, including behavioural trackers, Big Data Analytics and more, into the daily practice. I will assess the application of these technologies in insurance in next section.

3. Sociological Research of Technologies in Insurance

In previous section I briefly introduced how scholars view the relationship between risk, uncertainty, and insurance industry, and in the end it reached the discussion of how life insurers responded to the changing social environment and risks, so in this section I will continue with this topic and present in more detail of how modern insurers adapt to the contemporary market. In order to embrace the changes in the society and keep up with the trend of technological advancements, there are many technologies, such as genetic testing, health monitors, behavioural trackers, and Big Data Analytics, being adopted in modern insurance practice, and in their utilization, these technologies have brought significant impacts to the industry. In this uncertain business of insurance, the applications of genetic testing, health monitors, behavioural trackers and Big Data Analytics are to introduce more clarity and certainty to it. The conventional insurance business runs with the pooling of risks, which utilises the information that each clients

submits and divides clients into large groups based on their risk levels, then set the premium for the group. As a result, as the information can be less accurate, some clients may pay more premium with respect to their actual risk level, and some may pay less. In this background, technologies such as genetic testing, health monitors and behavioural trackers are introduced to insurance with the promise to enable insurers to know their clients more and make insurance truly “personalised”. Thus, in this section, I will review the industrial and academic discussions on the adoption of these technologies in insurance. In particular, I will review the influence of genetic testing later in a separate chapter.

In insurance industry, Insurance Technology (InsurTech) has a globally accepted definition. For example, KPMG (2019) describes InsurTech as the applications of “technologies such as cloud computing, big data, artificial intelligence, the Internet of Things and blockchain” which “will lead to greater improvements in insurance companies’ operations—in areas such as product development, cost control, risk management, customer service and others”. And according to the Beijing Institute of FinTech (2020), Insurance Technologies can be perceived as a novel business model and ecology of insurance that integrates Big Data Analytics, Cloud Computing, Artificial Intelligence and a series of science and technologies with the traditional insurance business. And they benefit from various aspects including the diversity of insurance products, the way insurance service can be fulfilled, and the efficiency of companies’ internal and external operations. Hitherto, numerous Chinese InsurTech innovations have been successfully integrated into the five primary aspects of insurance business, including Marketing and Sales, Contract Underwriting, Claim Settlement, Risk Control and Operational Management (Beijing Institute of FinTech, 2020). Although my fieldwork in insurance industry suggests that there are still a lot of hype in these prospects, here in this thesis I only focus on the technologies that have been adopted. While the insurance industry significantly focuses on commercial interests, sociologists are here to fill in the gap of revealing the social and cultural interactions between people and technologies.

From a sociological angle, in the risk society of modernity, people are constantly

living with risks, but they require specific knowledge to perceive and potentially manage the harm before they take place. And the institutions, including the mass media and insurance companies that possess such capabilities of defining risks and disseminating relevant knowledge to the public, are at a vital social position (Beck, 1992: 23). Moreover, regarding the modern risks which are harder to quantify but with highly-uncontrollable consequences, such as nuclear leakage or several disease caused by the side effects of technological developments (e.g. pollutions, global pandemics, toxins), some scholars have advocated that insurance companies' actuarial approaches to measure risks also require improvements (Ekberg, 2007; Collier, 2008). Sadowski, Lewis and Bednarz (2024) point out that modern insurance industry has always been proactive in preventing risk and controlling its influences, and the new concepts of "insurance technology" also carry the expectations to govern risks with enhanced capabilities. To meet these challenges of modern risks, a few insurers updated their techniques for risk evaluation. In contrast with the traditional model of risk pooling which used the law of large numbers, biotechnologies and Big Data Analytics provided an alternative path in which risk classifications can be more personalised for individuals. For the theoretical hypothesis of this new approach, with the support of more detailed customers' personal health data and behavioural-based analysis, insurance companies can use algorithms to generate more individualised risk evaluation scores for each client, and hence charge them for more "personalised" premiums (Lupton, 2016; McFall and Moor, 2018). Thereby, as McFall, Meyers and Hoyweghen (2020) acknowledge, these emerging technologies, especially with Big Data Analytics, pose a fundamental challenge to the insurance industry by changing how insurance "knows, classifies, manages, prices and sells" risks. Despite the promise of disruption, the real-world applications of these technologies remain limited and controversial.

The perspective of this study is to attend to the users and mediators alongside the technologies. The theory of co-production puts science and technology in a social context where the knowledge about science, people's understanding and social epistemologies are intertwined, and hence looks at the influence of the social contributors to the shaping of science and technologies (Jasanoff, 2004). More

specifically, the theory of co-production also suggests a novel relation between researchers and research subjects. For instance, Rabeharisoa and Callon (2004) 's research on the Association of French Muscular Dystrophy Patients revealed that the conventional boundary between “researchers” and “research subjects” had faded out, the patients were playing doubled roles as both the research subjects and the research collaborators that actively participated in the study of the disease. And in a similar sense, in the utilising scenarios of tracking technologies, the relationship between insurers and the users of insurance companies' health monitors and behavioural trackers then become bi-directional. When giving the devices to a client, insurance companies aim to collect data from this individual, so that they can have more information of this specific client and those who have similar lifestyle/ behavioural patterns. In the meantime, the users of these technologies, as insurers' clients, also produce much accurate data to insurance companies, who can take these data for updating their actuarial models. That is, both clients and insurers contribute to the forming of a new mode of insurance.

Jathan Sadowski (2023) proposed a framework for assessing the logics of how InsurTechs are developed for the daily practice of insurance, the logics are: “(1) ubiquitous intermediation, (2) continuous interaction, (3) total integration, (4) hyper-personalization, (5) actuarial discrimination, and (6) dynamic reaction”. And among them, 1 and 2 aim to boost interactions while intensify the datafication and automation of the interactions between insurers and their clients, 3 and 4 enhance the extent of how insurers understand their clients thus aid them in product design, then 5 and 6 concern the backstage of insurance, such as actuary, pricing and claim settlements. In designing and implementing Insurance Technologies, insurers have the following objectives; by design, technologies with *ubiquitous intermediation* enable insurers to influence the life of clients about their lifestyle, behaviours, and more; *continuous interaction* consists of wearable and other similar devices that can track and report clients' everyday data; while *total integration* Techs offer insurer the chance to create a much complex and fuller profile of their clients, and based on *total integration*, *hyper-personalization* applications can create a “near personalised” price for clients, making the offer

tempting to them. Then at last, with the data collected from clients by the technologies with the above features, insurers apply *actuarial discrimination* by setting high price to high-risk clients, and through *dynamic reaction*, to constantly and timely adjust insurance decisions (Sadowski, 2023). I will use this framework to formulate my review of insurance technologies in the following text.

Sadowski (2023) uses *ubiquitous intermediation* to depict insurers' efforts to penetrate into little aspects of people lives. An example of these applications is the "embedded insurance" like 'extended warranty' or 'additional protection plans' which often shows up at the check-out page of insurable products, such as Apple Care services (Sadowski, 2023). The purpose of these innovations is to make insurance no longer a concept or idea that only shows up occasionally and periodically, nor a mere tool for protection only when considering important issues such as insuring large property or personal safety. Through inserting insurance into these daily activities such as purchasing a small device, the concept of insurance also becomes more mundane, and insurance service can enter the realm of consumers' everyday lives seamlessly.

Under the idea of *ubiquitous intermediation*, the logic of *continuous interaction* also have the power to change people's understanding of insurance and the mode of insurance services, from occasional communications to all-day continuous interactions (Sadowski, 2023). The affordances of technological applications such as wearable devices and smart monitors enable users to observe and collect their everyday data, these data can include the users' diet, health information, and exercising information and more. As advertised by insurers such as Vitality, insureds' healthy lifestyle will be rewarded, including discounted electronic products, and in some area, premium rebates (Jeanningros and McFall, 2020). As researched by Jeanningros and McFall (2020), the core of the Vitality client reward programme is "Improve your health": In order to access the rewards, insureds need to share their health and behavioural data, such as weight, blood pressure, maximum heart rate (during exercises), gym visits, to Vitality, and to manifest the *improvements* in health status, such sharing of behavioural and health data have to persist continuously. Thus for clients, there is a reward for using behavioural trackers. In the meantime, for insurers, the collection of users' personal

data and the use of Big Data Analytics allow them to know their clients in a true, specific, detailed, granular and straightforward manner, so that the actuarial risk management model can be refined timely (Sadowski, 2023).

In the process of *total integration*, all of customers' data can be integrated to insurance data. According to Sadowski (2023), through traditional (e.g. surveys) and technological (e.g. wearables) approaches, clients' information including their gender, address, income level, living conditions, health conditions, purchase history and more can all be collected, "knowingly and voluntarily" to insurers' database, until "every person can be a universe of data unto themselves." Afterwards, with Big Data Analytics, clients' data can be thoroughly analysed, classified and stored in the database, based on analytical results, insurers can apply algorithms to data groups and further refine the categorisation of healthy or risky actions. However, such aggressive analysis of users' personal data can raise the concerns regarding surveillance and breach of users' privacy (Zuboff, 2019; Jeanningros and McFall, 2020). From the client's perspective, when they are used to the life of trading personal data and privacy for convenient and discounted insurance services, if at a certain time point they choose to stop sharing these information with insurers, they may be treated as deliberately hiding key information thus be classified as moral hazard which could affect the insurance premium and coverage (Sadowski, 2023). In the end, with data collectors like wearable devices, insurers can exercise constant surveillance over client's life, and hence exert power to control client's life.

When enough data is integrated to insurance database, there is the potential of *hyper-personalisation*. For clients, as Sadowski (2023) asserts, "hyper-personalization is marketed by insurers as a source of interactive policies, self-knowledge, subsidized rewards, potential discounts, convenient services, accurate assessments, fairer prices, faster claims, speedy payouts, and more", the benefits listed above seem to be tempting and convincing. Many insurers aimed to bind the "personalised" premiums of each individual tightly to their everyday behaviours. Multiple essays (e.g. Blasimme, Vayena and Van Hoyweghen, 2019; Nayak and Bhattacharyya, 2020; Tanninen, 2020; Meyers and Hoyweghen, 2020) have examined the applications of real-time

behavioural monitors in insurance practice, especially in health insurance and car insurance. In health insurance, the proliferation of smartphones and wearable smart devices not only makes it convenient for their users to log and save their health data but also enables insurance companies to track the health status of their clients, use algorithms to conduct risk-level evaluations for each of them, and finally assign personalised rates (Lupton, 2016). In motor insurance, telematic black boxes are installed in subscribed customers' vehicles to record their driving styles, and discounts are awarded for "good" driving habits (Meyers and Hoyweghen, 2020). With all the instances above, some scholars (e.g. McFall, Meyers and Hoyweghen, 2020; Cevoli and Esposito, 2020) acknowledge the potential of these technologies, asserting that, Big Data Analytics, "individualised" health and behaviour monitors (e.g. smart watches), and risk-predictive algorithms render the alternative model of insurance pricing effective, for such implementations allow insurers to take into account of more precise and up-to-date data about their customers with the feedback from their behavioural trackers.

However, as discussed above, from clients' standpoint, the achievement of such a hyper-personalised mode of insurance is established upon the basis that they voluntarily and continuously submit their personal information as much as possible, so this is an exchange made between customers and insurers. Meanwhile, for insurers, the blueprint of hyper-personalisation is fundamentally different from the statistical and actuarial models that they followed for decades, as the rules of Law of Large Numbers and Risk Pooling look at groups rather than individuals (Barry and Charpentier, 2020). The lack of historical reference means that the personalised mode is an uncharted territory with undiscovered risks for business. Furthermore, for insurance sociologists, the traditional social role of insurance, including creating group solidarity, spreading risks and mutual-aid, will diminish in the era of personalisation, since there are no large groups in consideration (Lehtonen and Liukko, 2011; Sadowski, 2023). Last but not least, from a societal level, a hyper-personalised insurance business will change insurers' mode of operation, insurance companies will eventually divide the whole population into two groups, including the healthy people who do not need insurance but are insurers'

favourite clients, and the unhealthy people who need insurance but are classified as uninsurable (Metcalf and Sadowski, 2024).

Issuing high premium to people at high risk is practice of *actuarial discrimination*. At the backstage of insurance companies, actuaries use various data to categorise people into different risk levels, and then underwriters match each client with their respective risk group. Such rationale requires people at higher risk to pay higher premium. As I have discussed in previous section, to manage the uncertainty and risks, insurers govern insureds through defining normal and risky acts and demanding insureds to be responsible for their actions (Ericsson and Doyle, 2003). When insurance companies possess more detailed information of clients and formulate risk models for individuals, they can define a set of “healthy behaviours” then evaluate clients’ actions. McFall (2019) points out that, when categorising people into different personalised risk levels based on their lifestyles, new forms of discrimination is formed. Those who follow insurers’ instructions and live a healthy lifestyle can be rewarded, whereas those who breach the codes will be defined as high-risk and hence receive actuarial discrimination. Under this condition, insureds lose the full autonomy of their life, but live under insurers’ surveillance and control instead.

As the result of constant interaction with clients, insurance can offer *dynamic reaction* to clients’ various actions (Sadowski, 2023). In the traditional mode, insurance comes to people’s mind only occasionally, and the processing and updating of client data also operate relatively slowly. After the introduction of insurance technologies discussed above, via the daily interactions including the sharing and analysing of data, insurance becomes more flexible and automatic, bringing multiple benefits to clients. However, what comes along with the huge convenience and automation is insurers’ surveillance and control over insureds. Being both protection provider and risk bearer for insureds, insurance companies also react reflectively and rapidly against clients’ changes of life decisions (changes of risk levels) (Sadowski, 2023).

In short, the literature on InsurTech demonstrates the potential of digital technologies to transform the commensuration and control of risk, many of insurers have treated technologies as a given, and as a result, they overestimate the power of these

technologies on an industry. With all the hypes discussed, whether this novel mode of calculating personalised risk levels qualifies to threaten conventional mode of insurance is still under debate. In a research on behavioral-based insurance products in Finland, Maiju Tanninen (2024) finds that, despite the promises of forming a functioning service loop of behavioral tracking- data analysis- risk identification- intervention, the Finnish life insurers failed to accomplish such loop in practice and link it back to theory, because “although the insurers think it is likely that a physically active lifestyle does decrease the risk of mortality, they struggle to measure, document and prove this connection within their population. It remains uncertain how customers’ self-tracked data relate to their wellness and risk levels and how those data should be effectively used for interventions” (Tanninen, 2024). Equally important as the feasibility of the rationale which regards behaviour as risk indicator, the quality of behavioural data should also be considered. For example, in insurance actuary, the precision and consistency of customers’ data are normally vital for a pricing model for commercial purpose. However, in contrast, the health and behavioural data being collected by customers’ trackers has uneven quality, and constrained by the prices and utility of smart devices currently on the market, the accuracy and continuity (potentially depends on battery) of data collectors lack a universal standard (Berkman, 2024). Thus it seems that the truly individualised risk profile cannot be achieved yet since there is no standardised measuring technique for health data. Until present, multiple evidence suggest that the discounts that are granted for “healthy behaviours” are more like a promotional strategy (e.g. McFall, 2019; Barry and Charpentier, 2020; Tanninen, 2024). At the current stage, the individualised method still needs further verification and can only be considered as a guide or communicative tool rather than an insurance actuarial paradigm.

In conclusion, regardless of being defined as a new actuarial approach or a promoting strategy, biotechnological applications and health and behavioural monitors achieve to make health risks and hazards visible to their clients in the processes of user interactions, and their algorithms and functions are also being constantly updated with the feedback. Also for insurance companies, by financially incentivising healthier lifestyles,

including awarding bonuses and adjusting premiums, they in a way associated the concepts of healthy and risky behaviours directly to monetary embodiments, provoking their clients to better recognise the benefits of being healthy and the pitfalls of risks. In the best scenario, such improvements on the one hand contribute to raising the public's understanding of risk and insurance, and on the other hand, manage to make insurance an active component in people's daily lives.

Furthermore, since these widely adopted technologies are mostly developed by technological corporations and private companies, they already acquired overwhelming power in both economic and social sectors, when they have more access to user's data, they become even more powerful compared to each individual. The issues of unbalanced power relations and digital privacy have always been under attention of scholars (e.g. Lupton, 2016; Zuboff, 2019). According to relevant studies, (Ulbricht and von Grafenstein, 2016) as an outcome of datafication, large streams of consumers' personal data are generated and acquired by the data collectors, and many of their private information is included. Through analysing the data, service providers take over tremendous amount of consumers' privacy data. Besides, the contracts for starting the service are often solely written by service providers, and consumers are only allowed to use the service after agreeing to all conditions. In this scenario, data collectors are given significant power in their relationship with customers, forming an "algorithmic authority", and they may even analyse and deploy users' private data without people knowing it (Lupton, 2016). Furthermore, since the use of digital technologies always appears in various forms in insurance practice, which is continuously gathering personal data from consumers for a refined client profile and for "personalised" risk models, as a result, service providers (insurers) acquire tremendous power in this process, and they can easily influence the decisions made by consumers by actions such as adjusting the premium. Therefore, the influence from regulators, such as government's policies, should be introduced to help return power from data collectors to consumers to restrict pricing discrimination and protect consumers' rights (McFall, 2019). Nevertheless, the conversations on to what extent should external regulatory force influences the development of insurance technologies still exist, and the

discussion on how insurers use and collect customers' personal information will also be presented in following chapters of this thesis.

4. Development of Social Media

After reviewing the theoretical frameworks concerning various understandings of risk in daily context and academic research, also offering the discussions of how insurance companies govern risks and uncertainty in theory and in practice, the focus of this chapter now shifts to much practical aspects. In the process of communicating the understandings of risks to the society, the channels and platforms are also important, because through these approaches, insurance companies can reach out to more audience, they can scale up the influence of the information that they would like to propagate. Therefore, social media platforms, now with the power of connecting billions of people worldwide, become one of the optimal choices for insurers. In this section, I will briefly examine the development of social media and its impacts on people's lives in aspects such as interpersonal relationships and the sharing of information. Here, I will only look at social media as a general technology and lay out the development of this industry, for the particular platform that was used in my research, the WeChat platform, I will review the relevant literature later in its separate chapter.

The definition of the term "social media" is rather flexible in details and emphasises, but there are still some overlap among different definitions such as social media is "internet-based" or "online" and it enables the sharing or exchange of information. For example, Kaplan and Haenlein (2011) defined social media as "a group of Internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of user generated content."; Yates and Paquette (2011) asserted that "Social media consists of tools that enable open online exchange of information through conversation and interaction."; And Fischer and Reuber (2011) claimed that "Social media channels are user-friendly, inexpensive,

scalable internet- and mobile-based technologies that allow for the sharing of user-generated material.” Besides the overlaps in the definitions, as there are still several differences, in the study that particularly looks at the conceptualization of social media, Ouiridi et al. (2014) examined the definitions of “social media” from multiple published papers from 179 most cited academic paper in the Web of knowledge database, from 2008 to 2012, ranging from the field of business to the research of health and politics. As the result of this research, they found out that: 1. Compared to the “initiators of communication” such as “online users”, which was mentioned in 14 papers, there is no definition specifically includes the recipient, as the boundary between initiator and receiver in social media had been blurred. 2. Sixteen definitions covered the content being transmitted on social media platforms, including “information and digital user-generated content and material in several formats, such as words, images and audio”. 3. Nineteen definitions included the “channels” of social media communication, and the core idea were the concepts of “mobile and web-based technologies”, “the platform” of user interaction, and “digital media”. 4. Nineteen definitions mentioned the functions of social media, basically, to “create, cocreate, exchange, share, discuss, modify, consume, communicate and disseminate user-generated content”, and “form communities that engage in social interactions” (Ouiridi et al., 2014). As these four traits demonstrate above, although the detail of the definitions of social media varies, the factors of “online users”, “digital content”, “web-based technologies and platform”, and “exchange of content” in social media are commonly acknowledged by scholars. And the forms of social media can be social networking platforms, (such as *Facebook*, *Instagram*, *WeChat*), online blogs, online community sites, and more (Taprial and Kanwar, 2012).

Some scholars believe that the origin of social media can be traced back to the telephone era (1950s), with the emergence of Phone Phreaking, a technique to explore telephone companies’ telecommunication system to avoid phone call charges and host virtual seminars (Borders, 2009; Edosomwan et al., 2011; Taprial and Kanwar, 2012; Korenich et al., 2013). Then humanity entered internet era and developed UseNet in 1979, which marked an establishment of an online community, as UseNet enabled

people around the world to post and have live discussions about content in common groups (Korenich et al., 2013; McIntyre, 2014). In the meantime, Sajithra and Patil (2013) argue that E-mail (invented in 1971) also qualifies to be a practice of social media following the definition “social media is conversations that happen online”. Afterwards, there came Bulletin Board Systems (BBS), the first BBS was developed and opened to public users in 1979, on these platforms, people can complete several actions including initiating discussions, sending and exchanging messages, and downloading files. Also from late 1970s and onwards, there were Commercial Online Services, such as *CompuServe* and *Prodigy*, their users could access resources including bulletin boards, downloadable content, forums, news updates, e-mail services and more (Taprial and Kanwar, 2012; Korenich et al., 2013). After this, the next huge milestone was instant messaging technologies like IRC (Internet Relay Chat) and ICQ (1980s to late 1990s). These applications allowed users to instantly update their status to the global network. Emotional icons, word abbreviations were also brought to mainstream in this phase (Korenich et al., 2013; Sajithra and Patil, 2013). Apart from this, Peer-to-peer (P2P) file sharing applications were also developed in late 1990s, music files and videos began to be freely downloadable to all internet users across the globe. Although these P2P sites indeed made a revolutionary process and made it extremely easy for users to download files and disseminate information, they in some way touched legally grey area as they pirated some content with copyrights (Taprial and Kanwar, 2012; Korenich et al., 2013). As Internet entered the life of hundreds of millions of people, from late 1990s, social networking sites (SNS) emerged. Scholars regard *SixDegrees.com* (in 1997) as the one of the very first SNS to offer users the services of creating online profiles, inviting friends and checking others’ online profiles (Taprial and Kanwar, 2012; McIntyre, 2014). Then in the beginning of 21 century, lots of renowned social media sites were brought online such as Facebook, Instagram, LinkedIn, Twitter, and many most popular Chinese platforms like QQ and WeChat.

In the development of social media sites, when a site integrates multiple functions and explores its boundaries, it becomes a platform. The development of Facebook from a social networking site to the platform as it is now provides an example for how a

social media platform is constructed. The research paper by Helmond, Nieborg and van der Vlist (2019) offers a timeline of Facebook's corporate development. This paper classifies the development of Facebook platform into four stages, on stage one, since Facebook incentivised third-party developers to create "social apps" within the company's programmable platform, and through the integration of more marketing technologies for developers, many brands and business moved in. On stage two, Facebook upgraded its marketing technology and partnered with more companies to widen the boundary of the platform and its service, then became a "one-stop-shop marketing platform". Then on stage three, Facebook acquired other major social media applications such as Instagram and WhatsApp, the reach of the platform expanded, also, it attracted more publishers and content producers into the ecosystem. Lastly, on stage four (until present), as the platform grows bigger, problems such as data misuse and false information become salient, thus Facebook implemented several technologies and mechanisms to tackle these problems (Helmond, Nieborg and van der Vlist, 2019). Until present, Facebook has now become a platform of multiple purposes including marketing, information consumption, social activities, and more, it also has noticeable influence in the discussion of social and political topics (see Grömping, 2014; Spohr, 2017).

In the current stage of the development of Social Media, there are applications covering nearly every aspect of one's life. According to Korenich et al.'s (2013) conceptual framework of the current stage of Social Media, the core and an indispensable factor of the social media world is "User Generated Content", compared to the "Users" which used to be the core of the previous phase. In other words, in the previous stage of the development of social media, the users mainly extract information out of the media services, whereas now they have become the integral player in shaping the content and functions of social media applications by both contributing inputs to the network and pulling out information. Surrounding this concept, Korenich et al. (2013) further state that there are 9 types of major applications that heavily participate in people's lives, namely: "Social Networks, Real-time Updates, Virtual Worlds, Internet Calling, Blogging/microblogging, Content communities/Media sharing, Social

news and bookmarking, Life-streaming (Livestreaming) sites, and Collaborative projects (such as Wikipedia)". More importantly, in the online communities that are created by these applications, such as on blogs and Social Networking Sites, people are connected even without physical presence, they share their thoughts and opinions with their peers, they build up consensus, form and solidify relationships, and they can easily influence the behaviour of others through peer-to-peer communications (Eikermann, Hajj and Peterson, 2008; Constantinides and Zinck Stagno, 2011). However, scholars have also raised the concern that social media has become an echo chamber of users and the people who are similar to users themselves (such as sharing similar political views) (Grömping, 2014; Quattrociocchi, Scala and Sunstein, 2016; Cinelli et al., 2021).

Many scholars argue that social media constructs a new form of sociality (van Dijck, 2011; Arda, 2015; Chambers, 2016). Sociologists normally define sociality as "the extent to which a person socializes, or interacts with others" (Murphy, Hill and Dean, 2013), that is, the emergence of social media changed the patterns of interpersonal communication. Murphy, Hill and Dean (2013) argue that the sociality of humans is both constrained and improved in some ways by social media. For its advantages, as social media applications made it much accessible for people to construct an identity or profile online, to build up relationships with their peers or others with similar interests through forums or group chats, and to expand friend matrixes, connecting with others became much easier than before; However, on the other hand, as the online environment is open and public accessible, one's privacy is inevitably restricted. People have to pay special attention to the level of disclosure of their connections or relationships with others (e.g. personal relationships, family relationships and romantic relationships), the interpersonal boundary is much weakened than before, and it is increasingly difficult for people to protect their own privacy (Leenes, 2010). Marwick and Boyd (2014) assert that, because the material that people share on social media, such as images and videos, even being uploaded for personal purposes, contain intertwined information about others, hence it deconstructs individual control over privacy. Thus users have to make certain extent of sacrifices of their privacy to suit the "networked nature" of social media platforms. In light of this phenomenon, Marwick and Boyd (2014) argue that

people need to re-frame the understanding of privacy in terms of the social network, instead of sticking with the former conceptualisation that thinks privacy with respect to individuals or small groups. Furthermore, regarding the online intimate relationship that might occur on social media platforms, using Facebook as an example, Chambers (2016) concludes that, social media platforms like Facebook encourage and respects online intimate relationship (like friendship) and view it as the result of users voluntarily sharing and disclosing their personal information. The example of Facebook unveils a trend that, on social media, some of people's personal information becomes openly accessible.

Moreover, as social media has now become a major platform for disseminating information, including knowledge, many scholars have recognised the importance of social media in the public communication of health-related knowledge not only for general precautionary health-care purposes but also for dealing with the medical issues properly in the era of a pandemic (e.g. Schroeder, 2016; Khanday et al., 2022; Yoo, Oh and Kim, 2023). Healthcare institutions, hospitals and scientific organisations are also actively seeking to engage the broader public with the help of social media (Suby, 2013; Murthy and Lewis, 2014; Fiammenghi et al., 2024). More particularly, in the research on the role of social media in the 2015 Middle East Respiratory Syndrome (MERS) pandemic in South Korea, Oh, Lee and Han (2020) find that social media could not only help to shape the proper public understanding of the disease, but also increased public engagement in preventive behaviours, both of the merits made significant contributions to the public health sector. According to them, people tend to express emotions of fear and/or anger in light of the pandemic, induced by the content they receive from social media, and these two feelings are normally positively associated to people's perception of their risk-level status. When one is exposed to the content on social media about an outbreak of disease, their feelings of fear and/or anger will be triggered with respect to the certainty or the controllability of the event, the more unsure they are, the more intense feelings the event can induce. When the emotions show up, people will worry about being affected by the event, then they will become more active in taking precautionary measures. Also in the pandemic of COVID-19, similar patterns

were discovered by Al-Dmour et al. (2020), people can receive the correct knowledge about COVID-19 and the information about the appropriate disease-protection measures from social media platforms, the use of social media platforms have a direct positive influence on public health awareness and public health protection against the pandemic. In their study on the impact of social media platforms on the health and safety awareness of people in Jordan, they found that the public health campaigns on social media could significantly change one's behaviour positively regarding disease control, and even could prevent unhealthy behaviours of individuals, and as a result, contributed to the overall pandemic control across the country.

5. The roles of agents in life insurance marketing

In this section, I will discuss the role of insurance agents in life insurance business. In insurance industry, especially in life insurance, agents play an essential part in insurers' communication with potential and existing clients, as they bridge up the connection between the two sides. For insurance companies, agents are their hired employees who market the merits of insurance and bring back premium from customers, they speak for the company and represent the company's value and corporate culture; Whereas for clients, many insurance agents are merely a group of paid persuaders who approach people for commercial interests, they tend to use their trained words to convince people to submit their money for protection against something less perceivable such as risks. In the daily interactions between agents and their potential clients, in order to convince people of the existence of risks and the need for insurance, insurance agents undertake various trainings and education from their companies including self-identification, professional skills, and the understanding and interpretation of local socio-cultural beliefs. The fusion of insurance companies' objectives and clients' diverse positions lead to insurance agents' complex roles in the

business. In the following text, I will look into the development of the occupation as life insurance agents, how people think about the agents' roles, and the role of life insurance agents particularly in China.

In *Morals and Market*, Viviana Zelizer (1979) shows that, in the early development of life insurance industry, life insurers normally chose to market through advertisements and make premium transactions through mails or meeting clients at the office, and the role of professionalised life insurance agents was regarded to be less important in selling policies. However, in 1840s, the Mutual Life Insurance Company of New York first introduced agents to meet clients door-to-door, face-to-face, marketing with the knowledge of risks and selling life insurance policies. In little time, such marketing tactic with professionalised insurance agents brought a great success to the company's business, along with the subsequent success of many other insurers who market insurance with agents, the importance and indispensability of insurance agents were gradually recognised by the commercial insurance industry (Zelizer, 1979).

There is some ambiguity in the objective of life insurance industry, as a business it is profit-seeking, while as a social institution it also provides support for those who are unfortunate. According to Zelizer (1979), on the one hand, despite life insurers and agents claim to follow the spirit of altruism and professionalism, since the overall commercial insurance marketing system for agents always rewards, via bonuses and commission, the salesmen who sell the most valuable policies to as many clients as possible, in order to earn as much commission and bonuses, insurance agents would try their best to sell policies to anyone they meet, without seriously checking whether the potential client needs a policy or if the client possesses a higher-risk which can bring loss to company. Therefore, some people treat life insurance agents as mere seekers for money rather than providers of assurance. On the other hand, Zelizer also affirms that life insurance agents are trained with the noble ideology to become the "devoted missionaries of a beneficent institution" (Zelizer, 1979: 129) who serve the society with *moral* and *philanthropic* contributions. Life insurance business and the daily interaction with clients become a process of mitigating the harm of loss and bringing benefits to the disadvantaged social groups such as orphans and widows, and the insurance agents

can become kind friends to their clients (Zelizer, 1979). I will elaborate on the two sides of the role of life insurance agents in upcoming paragraphs.

For the call of both signing new policies and offering support to people in need, to play the role as businessmen and missionaries, life insurance companies and agents need to understand what people concern and worry about, in order to better comprehend the clients' real needs. A professional insurance marketing system is then developed. Regarding the insurance marketing system, Zelizer (1979) believes that such system was developed and integrated blending with the features and influences from the broader social environment, and "their structure and characteristics are deeply interrelated with such other variables as customers' social and cultural backgrounds" (Zelizer, 1979: 120). Hence, in different social and cultural backgrounds, insurance agents, as the window for the communication with clients, can have varying roles and functions. For example, Zelizer (1979) points out that selling fire and marine insurance did not require agents to persuade client as much as life insurance, and she attributed such phenomenon to the way clients view different risks. She writes: "The distinctive role of the agent in life insurance was not simply an ingenious marketing device of the industry, but a response to powerful client resistance. As we have seen, the management of death could not be rationalized and bureaucratized as easily as the management of property" (Zelizer, 1979: 124). Thus, the role of agents is closely and tightly linked to how people perceive risks, harm, and insurance. To understand the role of life insurance agents in the business and in the society, one should first make sense of the social and cultural customs in each particular society where the agents and clients live in, including how people consider different types of risks in their lives, and undoubtedly, how life insurance is perceived by the society.

From early times, the job as an insurance agent has endured criticisms from the public. In the early development of the business, life insurance was closely connected to undesirable concepts such as death, and insurance was treated as "blood money". Zelizer (1979) uses "dirty worker" to describe the embarrassing situation of life insurance agents, as these people work in this "dirty" business which makes money from unethical concepts. Although there are many other occupations including doctors

and physicians who also deal with injuries and death, people tend to believe that “to save and to heal is holier than to sell” (Zelizer, 1979: 136), therefore life insurance agents bore such stigma of the “dirty worker” and “businessmen of death” similar to undertakers. Moreover, compared to the managers and officers who have a higher status and work at the backstage, it is the agent who directly communicate with clients about the unpleasant news and information, hence inevitably, the agent become the one who receive majority of the hate and the stigma from the public, as what Zelizer has concluded, “the industry pursued its image of noble disinterestedness by deflecting the ignoble tasks on its salesmen, so that even when life insurance became fully adopted and its beneficence accepted by most, the agent remained stigmatized” (Zelizer, 1979: 138).

Another set of public criticism for insurance agents came from the way they interact with client and market insurance policies, the incompetent professional performance was because of not only the agents’ personal capability, but also the lack of institutional training. First, some agents’ individual capacity were inadequate for the job. For a time period, the occupation as an insurance agent was the last-choice and shelter for those who failed in their previous career, a lot of insurance agents were “unaccomplished lawyers, teachers, and preachers” (Zelizer, 1979: 132). In the meantime, the overall stigma and low social status as an insurance agent prevented life insurers to successfully attract the most suitable candidates. As a result, only the mediocre ones chose to be insurance agents. Second, evidence show that many early-time life insurance salesmen did not receive proper professional training before heading to the market. Zelizer notes, “The only available sources of printed information for agents were the various articles in trade journals and company sales booklets. Insurance principles were only briefly discussed. Most of the space was reserved for the description and rates of the various policies, and responses to prevalent objections against insuring” (Zelizer, 1979: 134). and “Beginning agents were occasionally advised by more experienced general agents. Yet even this was rare, since most agents worked alone in their communities” (Zelizer, 1979: 135). When beginners could only learn as they talk to clients through very preliminary approaches, inconvenience and mistakes were inevitable, so the overall

social image of insurance agents had to pay the price.

When insurance agents conduct business, marketing techniques determine whether they can sell the policy to the listener. According to Liz Mcfall (2014), a core objective of marketing is to “‘qualify’ products, that is, to equip them with qualities calculated to intensify consumer longings” (McFall, 2014: 63), and agents are to “endow products with more than their face value” (McFall, 2014: 63). In practice, insurance agents, when approaching potential clients, do not know any certain forecast of future, they have to use the material in hand, including sales booklets, historical data, and product descriptions, to convince the listener of the less perceivable risks and the need for insurance. In these interactions with people, agents use the information that they obtained from insurance company, adding with their own experiences and expertise, to negotiate with potential customers who also have their own set of knowledge and experiences, and this makes the agents’ role more pivotal. As Mcfall concludes, “Through routine personal interactions, agents enabled the adapting fit between companies and clients; agents remembered, transferred and adjusted information in ways that made them more than just a feature of the market. They were what made the products available, attractive, persistent and calculable” (McFall, 2014: 64).

Recognising the pivotal role of agents in the business, insurance companies gradually began to pay special attention to the selection and recruitment of agents, in order to make sure they are the right ones for the job. For example, Mcfall (2014) finds that Prudential Assurance Company established a district-based management system for agents in 1910s, in such system, there were superintendents for insurance agents in some business districts, and the superintendents needed to constantly monitor the agents’ status of life in many aspects. The superintendents’ record could contain “the total annual business transacted by the agent, the district he covered, the roles he had been employed in and a number of other observations about his family, disposition, dress, habits, circumstances and so on” (McFall, 2014: 75), as well as “agents’ domestic circumstances, including their family circumstances, wives and children and any significant illnesses or deaths in the family” (McFall, 2014: 75). Beyond what was mentioned above, those who possessed pre-existing local connections and knowledge

about the neighborhood were also preferred candidates for insurance agents. All the measures and observations by the superintendents and the company were to find the suitable, reliable and capable men with good personal qualities (responsible, respectable, motivated, hard-working, and more) for the agent job.

With the right people for the job, the qualified insurance agents would then use their local connections to interact with people, including establish the initial contact, start the sales pitch, and maintain the relationship with clients. For the first step, agents were trained to pick out potential customers from the existing data that they had for the local community to establish the first contact, as Mcfall adds, “by keeping a close eye on births, deaths, engagements, marriages, business and community relations, hiring and firing in local firms, agents should be able to refine the targeting and timing of their pitches” (McFall, 2014: 79). That is, the people who were experiencing some certain events in life could be the prospects for an insurance policy, as these events (such as death or layoffs) could provoke more thoughts on the risks in future and hence generate the demand for insurance. Afterwards, when starting the sales pitch, the agent have to show their “charisma” to attract customers. The charisma of agents can be organized and trained by their institutions. Apart from understanding the principles of insurance and details of policies, the agents’ appearance, voice and pronunciation, personalities, attitudes and behaviours can all be refined by the insurance company, so that the agents can not only explain the details of the policy straightforwardly to prospects but also show the prospects with assurance that they are buying insurance policy from a legitimate and well-established insurance institution (McFall, 2014). And in the later interactions for maintaining the relationship with clients, these agents would continue to behave in a kind and friendly manner following what was educated by the company to secure this relationship. In short, as Mcfall states, “respectability, social confidence, articulacy, education, sportiness, presentability and so on were sought in recruits then cultivated and bureaucratically organised in the ‘good, average’ agent” (McFall, 2014: 81), who in the forthcoming interactions with clients, also became a window for people to know about the company and the product, as “part of situated rational judgements about the product” (McFall, 2014: 90).

The guidelines for a “good” insurance agent and the bureaucratic arrangements for training insurance agents were brought to China along with the introduction of commercial insurance business to Chinese market. However, the cultural stigma for insurance agents also followed the path. Similar to every other country, in China, the topics regarding death and misfortune are taboo subjects and people tend to deliberately avoid talking about them, let alone using them for commercial objectives (Chan, 2012). Therefore, the cultural background posed a challenging barrier for insurers and agents to market life insurance to Chinese people. Beyond this, being a businessman who earn commissions have more cultural and financial challenges here. Culturally speaking, in Chinese society under the influence of Confucius ideology, businessmen has always been less respected in the society because people look down upon money seekers, considering them disgraceful; and financially speaking, commission fees are much instable income source for labour, those who wanted financial stability will not likely to take this job (Chan, 2012). These challenges made insurance agent a very unattractive occupation in China.

In face of such cultural and financial challenges, Chinese insurers came up with various methods to mold the self-dignity and self-confidence of their agents, and these methods were then blended in their respective corporate cultures. There are participants of various backgrounds in Chinese insurance market, both indigenous and transnational, and the company with different cultural backgrounds tended to have varying strategies. In the research on Chinese insurance industry, Cheris Chan studied the agent and corporate management systems in several insurance companies and concluded some features of each respective institution, I will briefly review some of their characteristics in the following text.

According to Chan (2012), in Chinese market from 1990s, some insurers, such as AIA, a foreign company, focused on the professionalized side of the business and expected their agents to be “professionals and missionaries”. Chan (2012) notes that, AIA took their experiences in the western market and aimed to create a group of insurance elites for their Chinese agents team. From targeting at university graduates for the agent job, to asking agents to wear suits and ties, to locating the agency at one

of the most expensive and high-end office building in Shanghai city, to educate agents with ideologies of altruism and the philanthropic missions of insurance, and to designing an income system with varying commission rates for insurance policies sold, AIA brought many western and elite culture to China, planning to conquer the market with their skillsets that were proven successful elsewhere.

On the contrary, there were other insurers who weigh “quantity” over “quality” of their insurance agents, such as Ping’An insurance, a Chinese indigenous company. As Chan (2012) puts, in the beginning, Ping’An was imitating the professional and elite mode from foreign companies like AIA, trying to recruit college graduates as their agents. Soon it gave up and focused on expanding its agents group to as big as possible, so the agents became “money-making crowds” (Chan, 2012: 92). On the contrary to AIA that still polished the agents’ role with thoughts of altruism and missionary ideals, Ping’An operated around much capitalist concepts, that is, explicitly educating agents to be money-makers. Money were used to incentivize hard-working employees, and agents could also get higher commission rates than elsewhere. Moreover, in terms of training, Ping’An taught less about the basics of life insurance, instead, it put most of its efforts in teaching agents about how to sell insurance policies (such as details of their products and the pros/cons compared to other options in the market...). More importantly, targeting at rules and etiquettes in Chinese way of interpersonal relationships, the company taught agents how to lend favours to potential/ existing customers to construct/ maintain a beneficial interpersonal relationship for the clients’ willingness to purchase and make referral (Chan, 2012).

Then in the practice of selling insurance policies to Chinese people, after interviewing several agents from AIA and Ping’An respectively, Chan (2012) states that these two companies adopted totally different approaches. AIA kept with its professionalized and standardized track, instructing its agents to follow the scripts that they received, these scripts covered from requirements for creating a professional image, to steps of completing a cycle of signing policies, as well as the content in their conversations with clients. For example, the company’s manual included “how to dress, how to shake hands, how to hand over business cards, how to debate with prospects,

what to say and what not to say, and how to catch prospects' impulses to close a sale" (Chan, 2012: 88) and more. Beyond this, AIA encouraged its agents to talk to strangers. In terms of the content of their sales pitch, apart from the basic concepts of risk and insurance, AIA sales scripts taught agents to bind moral value such as familial reasonability, love and protecting loved ones to the meaning of their insurance products; Besides, agents were also trained to add stories of early death and the bad outcome without life insurance to their pitch to provoke prospects' impulse to purchase life insurance policies (Chan, 2012).

On the contrary, Ping'An used to encourage its agents to focus more on their social circle, that is, to start with selling insurance policies to their friends and families (Chan, 2012). An apparent advantage of this method was that it automatically bypassed the prospects' mental barriers towards strangers, as there was existing trust and friendship/kinship between the agents and the potential buyers their insurance policies. Chan (2012) finds that, in 1990s, when approaching their friends and relatives, Ping'An agents tended to talk less about concepts of insurance, but emphasize more on their connections and kinship, trying to persuade the prospects to purchase the policy as a way of completing an obligation to friendship, and this resulted in many people having the insurance policy that they did not need. These type of insurance policies were then named as "renqing baodan" meaning "the policies bought due to obligation to friendship".

Although the market of "renqing baodan" has faded in 21st century, insurance agents, from many companies, still try to make full use of their social connections to sell insurance policies (Chan, 2012). In my fieldwork in Chinese insurance companies, agents take on many roles to market themselves to win over the trust from their prospects. They can be kind and helpful friends, friendly neighbours, knowledgeable experts, insurance professionals, and more, in order to facilitate daily interactions with prospects to accumulate the sense of reciprocity, trustworthiness, friendship, and so on. In forthcoming chapters, with the evidence from my fieldwork, I will elaborate more on the practice of how insurance agents market themselves through nurturing the relationship within their social circle.

6. Background of Chinese Insurance: the social and cultural context

After discussing the theoretical understandings of risk, the relationship between risk and insurance, the impacts of technological applications in insurance industry, the influence of social media on people's lives and the roles of insurance agents in insurance marketing, here comes the next essential topic in my study: the socio-cultural context for Chinese insurance business. In this section, I will briefly review the development of insurance-like institutions and modern commercial insurance in China. I will also discuss how the social changes took place in Chinese society in recent decades created the promising ground for commercial insurance to thrive.

As discussed in the first section of this chapter, in China, as manifested by many proverbs, the thoughts of understanding risk and take precautions have existed since ancient times. In *Li Ji*, there is an outlook on a perfect society saying: “da dao zhi xing ye, tian xia wei gong, xuan xian ju neng, jiang xin xiu mu. gu ren bu du qin qi qin, bu du zi qi zi, shi lao you suo zhong, zhuang you suo yong, you you suo zhang, guan gua gu du fei ji zhe jie you suo yang (大道之行也，天下为公，选贤与能，讲信修睦。故人不独亲其亲，不独子其子，使老有所终，壮有所用，幼有所长，鳏寡孤独废疾者皆有所养)” (Zheng, 2023), it means “when society operates in a great moral standard, everyone thinks for the collective, the talent can be recognised, people are also kind to each other. Therefore, people do not only care for their own parents and children, this can make every old people have pleasant twilight years, working aged people have their jobs, and children have their chance to grow up, people who lose the support from their family members can also be supported by others.” As shown in this quote, ancient Chinese people already had the thoughts of mutual support and collectivistic insurance-like social protection schemes based on the contributions of each individual.

In my master's dissertation project I found that, in history, the national government has always been the leader in the development of insurance-like systems and

institutions in China. Since ancient China was an agricultural civilisation, most people live on growing grains, people not only fed on crops, but also traded them for money and daily necessities. Therefore, when famine years or natural disasters arrived, people's life could be significantly impacted as they would lose a great portion of food and income resources. Therefore, from the governor's perspective, for the well-being of people and to protect the overall stability of society, there was a need for a social protection system which can reduce the effect of famine. There were several early attempts for such system, mostly achieved by storing food grains from normal years and use them in case of famine. For example, there was "wei ji zhi du" since around 4th century B.C., in normal years, farmers hand in a portion of their grains to the national storage which is managed by the government, and when natural disasters or famine impact the nation, the governor opens the storage and issues food to relieve the impacted population. Similar practices of national schemes can also be found in the "yi cang" and "chang ping cang", as well as "she si" (Tuo, 2020).

Modern commercial insurance business entered China in a much recent time. In 19th century, British insurance practitioners opened the first modern commercial insurance institution in Guangzhou, China, called "Canton Insurance Society". Then shortly after, in 1875, "Renhe Maritime Insurance Company" was opened for business, marked the establishment of the earliest indigenous Chinese insurance institution (Swiss Re Corporate History, 2013). Later, in 20th century, Shanghai replaced Guangzhou as the centre for Chinese insurance industry, however, the domestic insurance business was still dominated by western companies (According to data, by 1935, there were 166 foreign insurers compared to only 45 domestic ones, and more than 80 percent of business was dominated by foreign companies)(Chan, 2012). After some disturbance due to social changes, the first state-owned insurance enterprise in the People's Republic of China, named "The People's Insurance Company of China (PICC)" was founded in 1949, in the same year of the nation's establishment. Then in 1988, Ping'An Insurance was founded, in 1991 China Pacific Insurance was established, all marking the participation of domestic private insurers into the business. Afterwards, when China was accepted into the World Trade Organisation (WTO), more foreign capital and

insurance companies commenced their business in China (Chan, 2012).

On the other hand, the significant growth in the country's economic performance and the living standard of citizens provided a fertile ground for the development of commercial insurance in China. In the book *Marketing Death*, Cheris Chan (2012) assessed the economic and institutional environment in Chinese society, then offered a set of reasoning in the following dimensions, namely: Economic growth and Rising Purchasing Power, The Birth of a New Middle Class, Increasing Job Insecurity, Eroding State Provision of Welfare, Urbanization and Increasing Difficulties of Informal Mutual Help, and Government's Supportive Attitude and Legalization. I adopt this framework here for further analysis.

The first two components can be linked together, For "Economic growth and Rising Purchasing Power", As Viviana Zelizer (1979) has unveiled, citizens' prosperous economic lives especially increased savings pushed the rapid development of commercial insurance in the United States, Chan (2012) asserts that similar pattern also appear in the Chinese environment, that is, the expansion of Chinese economy enhanced people's lives, their savings were accumulating, and their need for commercial insurance emerged. Second, the newly formed middle class in China also boosted the progression of life insurance industry. Yuan and Jiang (2015) assert that the improvements in income level and education level significantly increase Chinese people's demand for insurance, as citizens can afford to buy policies, meanwhile they also gain more understandings of risk through education. This can also apply to the new middle-class in early times, this group of citizens can understand that, because of their typical occupations, such as clerical workers, blue-collar worker at State Owned Enterprises(SOE), or professionals, they tend to become vulnerable in the face of accidents as these accidents could stop them from working. Although these new middle class citizens normally had deposits at banks, without working, their savings could run out easily, so there is a need for risk management to ease the impact of potential financial loss (Chan, 2012).

The third and the Fourth, which are "Increasing Job Insecurity, Eroding State Provision of Welfare" also have internal connections. As Chan (2012: 26) states, "A

strong purchasing power of the population does not automatically transform into demand for life insurance, if people do not have a higher sense of risk.” These two factors both influence people’s perceptions of risk. At the establishment of People’s Republic of China, the country adopted a collectivistic economy, there were many permanent and even inheritable job opportunities at SOEs or other public institutions, called “danwei”(work unit). When people work at these institutions, they receive an “iron rice bowl”(in Chinese: tie fan wan) which provide them with not only a stable income, but also benefits of housing, children’s education, and more (Ren, 2015). However, after the reform of economy, a marketized contract scheme was implemented, the door to lifetime benefits was then shut, every new employee at SOEs needed to sign limit-term contracts so did those in private enterprises (White, 1987). As contracts could be terminated and people could lose the job, it added the sense of insecurity to every employee. Furthermore, from late 1980s, a wave of lay-offs hit the society as SOEs reformed to keep up with the market economy. In this wave, lots of those who used to enjoy their “iron rice bowl” were laid off from their positions, losing many of their previous benefits while only receiving little compensation compared to what they have lost (Yang, 2015). In this way, many working aged Chinese passively experienced the changes in their lives and hence grew the trauma, along with perceptions of risk and insecurity. In the meantime, as previously stated, general welfare from the state used to be tightly linked to jobs at SOEs, when the reform took place, the welfare that surrounded the position also vanished, people lost a major support for their lives. Beyond this, the national pension system, which was structured upon the social security fund, is also predicted to face some difficulties in repayment in the future (Lee, 2002). In short, the social changes that took place over the past few decades exposed many citizens to financial risks, forcing them to individually take the responsibility, both in their work time and their future retirement years, people need to consider effective methods for managing these risks (Chan, 2012).

The fifth, “Urbanization and Increasing Difficulties of Informal Mutual Help”, argues that Urbanization in a way constrained informal mutual help between people (among friends, families and neighbours). In this argument, the fast urbanization and

metropolitanisation of China over the past decades pushed numerous dwellers in rural area to seek for jobs in cities (Quan, 1991), it brought in huge increases in migrations thus intensified the housing pressure in large cities. To accommodate the need for living space, high-rise apartments were gradually built for the old and new city residents. However, upon the individualised job and responsibilities, such housing arrangements further reinforced a trend of individualisation among urban residents, Chan's (2012) interview with residents in Shanghai indicates that, compared to the compact traditional Xincun (types of traditional housing arrangements where buildings were not tall and neighbours lived close and shared things with each other), the residents in high-rise buildings which became the major choice of living did not have these intimate connections. As Chan (2012) describes, between neighbours, "iron doors have been fortified". There is a weak sense of community help, and people tend to live the lives of their own. Furthermore, with urbanization also comes a reduced family size (Tsui, 1989), and the family planning policy from 1980s also strengthened the trend (Kane and Choi, 1999). The absence of siblings (because only one child is allowed) not only diluted the family kinship network by reducing family members but also put the "only child" under severe burden to take care of their parents and grandparents after they retire. In total, the trend of rapid urbanization in China undercut the informal mutual support connections between neighbours/friends or families, it reinforced individualisation of Chinese citizens in their lives, and it created a favourable social environment and opportunity for commercial insurance to cover the gap.

And last but not least, as many researchers have pointed out, the government's attitude played an essential role in the growth of insurance industry in many countries, including China (Zelizer, 1979; Borscheid and Haueter, 2012; Chan, 2012). Although the state government of the People's Republic of China defines the country to be socialist, the national government develops economy under the system of Social Market Economy, which means that under the overlook of socialist principles, there is also rooms for market-driven economic activities, making "the micro sector of the economy operate according to the capitalistic rules of the market, i. e., the price mechanism and the profit motive" (Karsten, 1988). After the economic reform, the government

announced that, both socialist or capitalist business were welcomed to the Chinese market, then more capital flowed into China along with more market participants (Chow, 2004), Chinese commercial insurance industry received a further stimulation. Beyond this, evidence shows that the government also advocated commercial insurance industry to offer support for citizens' pension and healthcare plans, another institutional advantage was placed (Xinhua Net, 2017; China Development Research Foundation, 2018).

Backed by the State Council of China, China Development Research Foundation issued a report in 2018 on the development of commercial insurance in China. This report semantically illustrated the updates for the regulatory policies on commercial insurance in a chronological order, and marked several leaps in the development of this industry. According to the report, national regulators actively promote commercial insurance's participation into the national health plans, I pick out four important ones and list them below (the names and the details of policies are already translated to English in this English report by China Development Research Foundation):

In 2009, the State Council asserts: "We should 'encourage commercial insurance companies to develop diverse health insurance products to meet different needs...and actively promote the health insurance management model under which the government **procures health insurance services from qualified commercial insurance companies.**'" (in "*Opinions for Deepening the Healthcare Reform*" (State Council of the People's Republic of China, 2009))

In 2012, Multiple Ministries including the Ministry of Health and China Insurance Regulatory Commission advised: "urban and rural critical illness insurance services should be '**purchased from commercial insurance companies.**'" (in "*Advice for Promoting Urban and Rural Critical Illness Insurance*" (National Development and Reform Commission , 2012))

In 2013, the State Council instructed: "We should 'encourage commercial insurance companies to **invest in the healthcare sector by investing new projects and participating in restructuring, trusteeship, operation of companies established by the government, etc.**'" (in "*Several Opinions of the State Council on Promoting the*

Development of the Healthcare Sector” (State Council of the People's Republic of China, 2013))

In 2014, the State Council further emphasised: “We should strive to **‘increase the supply of commercial health insurance... so that commercial health insurance can play its role in deepening the healthcare reform, driving the development of health services and promoting economic upgrading.’**” (in “*Opinions of the General Office of the State Council on Accelerating the Development of Commercial Health Insurance*” (General Office of the State Council of the People's Republic of China, 2014)) (China Development Research Foundation, 2018)

It has been demonstrated in the changing details of these policies that, with the push by state government, commercial insurance industry has grown from the supplement role to one of the essential participants in not only the nation’s healthcare reform plans but also the overall economic development plans of China. As contemporary China enters a predicament of modernity where multiple risks become notable, commercial insurance industry will play its increasingly important role in healthcare, economic development and more sectors. In next chapter, I will illustrate how Chinese commercial insurance companies assist the national strategy concerning protecting people in an aging society.

7. How I construct my research based on the literature

As I have shown above, in modern society, the study of risk is attached to significant meanings as it has profound impact on the power dynamics of culture and society. I structure my research upon the risk society theory, and posit its context within the Chinese society. In modern Chinese society, more new risks were born, and the impacts of traditional risks can be magnified. The risks that people now face not only consist of the ones from old times, such as disease, natural disaster and accidents, what is more, there are new risks generated from society, from new technologies, or derived from the past, such as the risk of food safety, aging society and globally transmitted pandemic.

The modern risks can also bring harm, financially, mentally or physically, to everyone, or every organisation.

Under this circumstance, the organisations who get to define and explain risks are endowed with significant power over the rest. In the society, through advertising the benefits of risk management and communicating to the public about the potential harmful outcomes of risks, either based on the danger of a real problem, or a socially constructed notion for governmentality purposes, many institutions grew levels of understandings of risk to the public. And in this process, insurers manage to attract customers and make profits from pooling of risks. However, the pricing discrimination of insurance has caught the attention of many people. Based on their actuarial models and data from the past, insurers have the authority to define risky behaviors and set high premiums for those who they deem as “high-risk” clients. Insurers justify their pricing strategies based on the data that they collected from clients, and with insurance technologies, both digital ones like social media and physical ones like tracking devices, they now have access to much more detailed, continuous and accurate data of their clients compared to the conventional way of clients’ self-reporting. On the perspective of insurers, knowing clients better can help them adjust actuarial models accordingly to avoid adverse selection and financial loss, but from the stand point of clients, although they can possibly get a discounted premium for a “healthy” lifestyle deemed by insurers, their privacy is compromised, and they can easily be put under a fairly disadvantaged position if they make any mistakes on lifestyle.

As scholars have shown, modern Chinese society has its necessary social and institutional conditions for a prosperous development of commercial insurance business. The progress in national economy created a massive group of new middle class who are both vulnerable to risks and have sufficient funds for insurance premiums. The national government also encourages these people to purchase commercial insurance as a supplement to the national security. Socially speaking, previously, the informal friend/ family and neighborhood support system was in a way facilitated by the large family size and the conventional housing arrangements of the collectivist era. However, compared to the traditional arrangements, at present, family size is smaller, and each

person is much more individualized from the collective, people are not very closely connected with their neighbors, they do not know each other well, thus this undermines the forming of an informal community/friend mutual support system. In the end, each individual needs to face and deal with risks on their own, which makes them more vulnerable.

Based on the review above, in the social environment of risks with increased impact and each individual with higher vulnerability, I form my research on how Chinese insurers manage this situation and how people interact with insurers' actions including their arguments and technological solutions. I especially focus on how insurers incorporate traditional Chinese cultural values into their claims, how they use social media to promote neighborhood rapport, and how they interpret risks for their purposes. I will elaborate more of the details starting from the following chapter.

Chapter 3: My Positionality, and How “Guanxi” Was Preserved During My Fieldwork

In this chapter, I reflect on how I accessed each site in my fieldwork, my roles at each company, and how I positioned myself in each environment. This reflection is also an opportunity to interrogate the meaning and practice of ‘*guanxi*.’ Guanxi shaped my access to sites and people and it may have conditioned the way people behaved towards me. The aim of this chapter is therefore not only to record the operational process of entering the field of Chinese insurance but also an inquiry on the significance of ‘*guanxi*’ in the negotiations that frame ethnographic research in China. The companies/sites that I will discuss here are Robin and Noah, but I will also refer briefly to some of my previous experiences with employees in other Chinese insurers when introducing the industry and comparing the two sets of experiences at Robin and Noah.

For the sake of exposition I will describe my fieldwork as made up of two components, gaining access to each site and practising observation. My reflections of each component will respectively be led by a question: “How did I gain access into each institution?” And, “how did my route into a company shape how supervisors and colleagues treated me as I observed them?” At the heart of my analysis, along with my thoughts and arguments about my field experiences, I will also discuss how I maintained the *guanxi* with my supervisors and co-workers with my own capital and capabilities, the *guanxi* described here was an extended one from my family and for which I had the duty to preserve.

1. “*Guanxi*,” a literature review

The core problems in the pre-fieldwork phase were to reach out to the institutions’ key gatekeepers and obtaining their permission to study the company. If I was successful and where I was successful were determined by “*guanxi*,” which directly translates as “social connections”. The definition of the social term in the *Modern*

Chinese Dictionary (CASS Institute Of Linguistics, Dictionary Editing Room, 2016), reads “the connection of some nature between people, or between human and objects”, such as the relation between spouses, or the relation between actors in the society. While the dictionary offers the most bare of definitions, in the practice of living with *guanxi* or using *guanxi*, people have extended the meaning of the concept and added more elements to it, then there comes more associate words such as *la guanxi* (making *guanxi*), *guanxi* practice, *guanxi* exchange, or “*guanxixue*” (the art of making *guanxi*) allowing the word *guanxi* to become more active.

As my core analytical frame for assessing the concept of *guanxi*, I chose to adopt the approach of “Asia as Method”, with the objective of explaining this Chinese concept with local Chinese terms and descriptions. As the effect of imperialism and west-centralism has been dominant in the process of knowledge production in cultural research on regions worldwide, there is a call for decolonisation and de-imperialisation in understanding the current world (Chen, 2010; Fan, 2016). Under this condition, the proposition of “Asia as Method” was put forward. “Asia as Method” states, when doing Asian studies, referring to Asia, to the local history and concepts, is helpful in capturing the local social characteristics and formulating the cultural study with specific focus (Chen, 2010). For example, when assessing Asian social orders, apart from modern political society that runs on laws, in Chinese societies there is also a civil power called “*minjian* (meaning the space of populace)” that runs upon moral virtues and usually takes the form as non-state mutual-aid organisations. The “*minjian*” system has been there since feudalistic times, survived through drastic social reforms of Chinese society and the process of modernisation, and still has much social influence in the modern society. Viewing “*minjian*” as an important notion in study of China, Chen states, “to the modernist eye, *minjian* as a living concept and category may seem too particularistic and therefore cannot possibly possess theoretical value or analytical precision. But if *minjian* is able to offer us a tool to capture the specificity of a local social formation, we need to suspend the pretentious frame of universalism and particularism. We must be able to understand specificity as a fundamental working assumption of critical cultural studies” (Chen, 2010: 245). Therefore, the concept of *minjian* is indispensable

in studying modern Asian society, and the same rationale can be applied to the notion of “guanxi” which also roots in history and lasts until modernity. In this sense, in my research, focusing on the original guanxi idea, including its specific philosophical roots and cultural representations, rather than the universal social concept of interpersonal relationship as perceived in the west, is fundamental in understanding the cultural setting behind my fieldwork, my positionality, and the bigger Chinese society where I posit my research into.

Mayfair Yang (1994) argues that the idea of the art of guanxi has deep roots in traditional Chinese culture, and is connected with the concepts of *Ren* (benevolence, ideal ethical qualities to guide human behaviour) and *Li* (manners, proper conduct, the rules of human behaviour and interactions) in Confucian Philosophy. As guided by Confucian, people should follow the rules of *ren* and *li* to act appropriately in interactions with others, so that there can be harmony in the society, and the people who act with *ren* and *li* can become “the sage” (Zheng, 2023). To further support this argument, Yang elaborates that “the Confucian virtues of filial piety, brotherhood, loyalty, and trust, which place primary emphasis on the relations of kinship and friendship, are seen as the cultural roots of the art of guanxi” (Yang, 1994: 71). And for these reasons, on criticising Guthrie (1998)’s view which assumes the significance of guanxi will decline in modern China, Yang and Chang respectively assert that guanxi is “resilient as it is in adapting to new institutional arrangements with the introduction of capitalism” (Yang, 2002) and “While the embedding form of guanxi gradually gains popularity, and the accessing form loses legitimacy, the latter has not disappeared even though it has increasingly been engaged in more private and “back-staged” circumstances” (Chang, 2011).

Although the exact definitions of “guanxi” by scholars tend to vary tied to cultural environments and occasions, there are still some overlaps in the understanding of the concept, including “guanxi” being a reciprocity based interpersonal relationship. For example, Chen and Chen (2004) explain “guanxi” as “an informal, particularistic personal connection between two individuals who are bounded by an implicit psychological contract to follow the social norm of guanxi such as maintaining a long-

term relationship, mutual commitment, loyalty, and obligation.” And other scholars such as Li (2020) defines guanxi as “a general Chinese term used to describe the relationships that may result in exchanges of favors or ‘connections’ which are beneficial to the parties involved”, and the importance of reciprocity and exchange of favours in guanxi is also emphasized in Chu et al. (2019)’s argument in “Guanxi generally refers to informal personal connections through which individuals carry reciprocal expectations and obligations to facilitate mutual exchange of favors”, similar statements can also be found in the research of many scholars (e.g. Davies et al., 1995; Yan, 1996; Lovett, Simmons and Kali, 1999, and Burt and Burzynska, 2017), hence, in guanxi, reciprocity is key.

Some sociologists argue that guanxi is a form of social capital or similar variants (Fan, 2002; Gold, Guthrie and Wank, 2002; Qi, 2013). Following Bourdieu’s definition, social capital is “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group – which provides each of its members with the backing of the collectivity-owned capital, a ‘credential’ which entitles them to credit, in the various senses of the word” (Bourdieu, 2002: 286). In this definition, three essential aspects are covered, including the “resources”, the “collectivity-owned capital” , and the “credit credential”. The first element concerns the resources or the benefits that the network can provide, while the third element necessitates an “entry requirement” for such resources, these two elements resonate with the idea of guanxi as a network which endows its participants with several advantages compared to the public while setting some admission criteria for outsiders such as the sponsorship of an insider. Therefore, based on such descriptions, some scholars concluded that guanxi as a network can be regarded as a part of social capital but not the concept of social capital itself, so a term “guanxi capital” can be adopted to describe the ability to mobilise resources from one’s “guanxi” social network (Bian, 2001).

Moreover, there are several dimensions of guanxi, which respectively are “ganqing” (emotions, feelings and affections), “renqing” (exchange of favours), “mianzi” (face),

“yiqi” (loyalty), and “xinren” (a mutual trusting relationship) (Kipnis, 1997; Yen, Barnes and Wang, 2011; Ruan, 2018; and Li, 2020). And guanxi is always constructed based on various extents of familiarities between two parties or people with shared personal identification, such relationships can include kinship, friendship and other overlaps of personal experiences (“tong” in Chinese) such as people from the same hometown (“tong xiang” in Chinese), classmates (“tong xue” in Chinese) or co-workers (“tong shi” in Chinese) (Yang, 1994; Wu and Chiu, 2016). Crucially, a person’s social circle can be expanded through guanxi, and existing guanxi between two individuals can also be passed on to a third person, like how parents introduce their children to their friends, or alumni sharing a social and professional network (Ruan, 2018). However, the quality of this inherited relationship is not assured and it is up to the new participants to maintain it, while each of the participants should be responsible not only for a dyadic guanxi but also the guanxi within the multi-direction network, which is a guanxi with all the parties involved (Qi, 2013).

In a more practical aspect, in ethnographic research, some researchers’ access to field was brokered through personal connections. For example, in *Liquidated*, Karen Ho (2009) relied on the “institutional kinship” and the alumni networks to build up and maintain the primary connections in her fieldwork at Wall Street; In *Out of the Pits*, Caitlin Zaloom (2006) showed that her fieldwork as a trader in Chicago was brokered through the son of family friends; And in *Best Practice*, during her fieldwork in China, Kimberly Chong (2018) leveraged a shared Malaysian commonality to close up her relationship with another Malaysian-Chinese colleague who felt herself differentiated from mainland Chinese co-workers. Beyond personal connections, guanxi can also facilitate fieldwork. Several ethnographic studies disclose that researchers’ access to sites and the construction of contact matrixes were made possible by utilizing their “guanxi”. For instance, a famous Chinese anthropologist, Xiaotong Fei (1939), in completing his research named *Peasant Life in China*, took advantage of the previous friendship between his elderly sister and the local villagers, who were both friends and “tong xiang,” to access the field and obtain the active cooperation from the local residents. On the other hand, a good guanxi can also become helpful in the collection

of research data as it can close up the relationship between the researcher and interlocutors. For example, a contemporary Chinese scholar, Biao Xiang (2005), in his book called *Transcending Boundaries: Zhejiang cun- the Story of a Migrant Village in Beijing*, used his personal background as a university student in Beijing who originated from Zhejiang province (in this case, also “tong xiang”), and through offering help with clerical works, he established a trusting, friendly, while mutual reciprocal relationship with the migrant residents in the village, then received active support including transparent communication from them; and the author of “*Guanxi, Social Capital, and School Choice in China*”, Ji Ruan(2018), for the purpose of research data collection, used his guanxi with the informants, such as friendship, as he believed their feedback could provide more ‘inside information’. As such, both advantages listed above appeared in my research, and in the upcoming sections, I will use my field experience to elaborate how I understood my duty to nurture guaxi, that experience stresses the reciprocal aspect of a guanxi, offering more evidence to the claims which deem reciprocity to be essential.

2. How I accessed Robin and Noah for fieldwork

In my case, to initially broker an encounter between myself and insurance elites, I leveraged my family’s social connections. My father has been working in insurance industry for approximately 30 years, he has a reputation in the industry and has built up friendships with several executive members in many Chinese insurance companies. After hearing about my plans to conduct fieldwork in insurance companies, he called some of his previous colleagues (“tong shi”) to ask if they were willing to help. Tellingly, given what I will later study the place of social media in the industry, he forwarded their contacts to me via WeChat (a Chinese social media platform). It was through such preceding social ties that my fieldwork began as I was introduced to the institutional gatekeepers by way of a social media application. While my father’s social ties brokered my introductions, they did not guarantee access, I was up to me to translate how my research was in the interest of the company and give assurances that I was fit

for the position and could possibly offer some contribution.

Before making the decision to call on my family guanxi, I was aware of the concept's troubled reputation: guanxi has been linked to many unethical phenomenon such as bribery and corruption (Yang, 2002). For this reason, I had to restrict the influence from my parents in realising the fieldwork, such as asking my father not to impose any pressure on the decisions of my superiors. Also, I made clear statements to both my father and his friends that I will not accept any forms of salary from them, I had to also make sure that my presence would not affect anyone else's job opportunities. Finally, in return for their help, I promised to voluntarily make my own contributions to each company during my fieldwork.

My family guanxi did not mean I could bypass the companies' entry requirements. Back in 2016, one of my friends at a Fortune 500 insurance company headquartered in Shanghai told me that they had stopped recruiting fresh employees from job market outside the company, the only way to get in was to be promoted from branches. Five years later, the industry had only become more professionalised, and the regulations for internships and recruitments had evolved to be more demanding. The company's recruitment websites demonstrate high entry criteria, and some occupations required at least a master's degree. When I prepared for my pilot study, after contacting these companies asking for the possibilities of internship, the immediate response was to request my Curriculum Vitae. Chinese Human Resources managers often defer to universities' global rankings (e.g. the QS rankings and Times Higher Education's world university rankings) and tend to assess applicants on the basis of their degrees. UCL's reputation in such rankings helped me to overcome the hurdle of evaluation.

According to Bourdieu's (2002) claim, cultural capital has the most vital "symbolic efficacy". Also, in this theory, cultural capital can also be divided in three forms, including embodied, objectified, and institutionalised form, in which educational degrees or academic awards belong to the institutionalised category (Ayling, 2021). More particularly, research (e.g. Flemmen et al., 2017) has suggested that the institutionalised cultural capital, represented by educational certificates, is especially valuable in labour markets. On the other hand, in China, since the beginning of the

Reform and Opening-up era from 1980s, Chinese government officials attach great importance to the role of Chinese graduates from western institutions in the development of Chinese economy and academic research, and such appreciation of students with a western academic background had become a shared understanding in Chinese society since then (see: Yang and Wang, 2000; Qi and Liu, 2003; and Chen, 2003). Thus eventually, such appreciation of my degree from a top western institution became an determinant factor in my admission to these insurers.

For both my fieldwork at Robin and Noah, I had to go through a round of interviews of some formality with the gatekeepers. In my first visit to Robin's headquarter, after handing in my CV to the Human Resource Manager, the company's director, Mr Chou, who was also my father's friend, welcomed me in his office. It was the first time that I met him in person, and considering his position in the company, I was flattered while also extremely anxious at the beginning of our talk. I chose to behave as if I was at a job interview. A later chat with a colleague of Mr. Chou supported my intuition: he has always preferred to interview the applicants with higher-educational background by himself (given the relatively small size of the company), so our meeting at that day indeed served the purposes of both welcoming and interviewing me.

In our chat, in contrast to my nervousness, Mr. Chou acted casually and started by asking for the recent updates about my family, and after a bit of small talk, our topic shifted to insurance. I understood the first few questions were a friendly gesture from a family friend to ease my tension, but on the other hand, when our topic moved to insurance, with the thoughts of showing Mr. Chou my capabilities, I still regarded our talk as an interview and aimed to answer everything with very thoughtful answers, although there was no actual job offered to me. In general, majority of our talk was about my background, my research, my thoughts on the current situation of Chinese insurance industry, and in return, he also offered me some of his views on the insurance market. In our discussion, Mr Chou, as father to a son of a similar age to mine, acknowledged my academic performances and understanding of the current insurance market, appreciated the motivations and objectives of my research, thus expressed the willingness to offer me some help in my research. Then after our first and long

discussion, I ventured my request to visit and conduct observation at one of their district branches. With no hesitation, he agreed to help me, forwarded me the contact details of my prospective supervisor and left to us to arrange the visit by ourselves.

A few months later, when I revisited my first interactions with Mr. Chou, instead of concluding one certain answer to why he put me through this interview-like arrangement, I came up with three possible explanations. One scenario was that he used this interview to assess my professional capabilities so that he could assign me to a place where might suit me, enabling me to make my own contributions to the company rather than being a complete outsider who merely sits at a random corner of the central office for weeks. The second scenario was that he might have believed that going through such process was necessary for my fieldwork so that I could experience the whole package and have more detailed reflections. And for the third scenario, out of the professionalism and meritocratic concerns as a company's manager, he needed to evaluate if I was capable of joining in their company, and my background as a doctoral researcher at UCL might polish my proposal and win over his recognition. For either reason, thanks to his arrangement, I obtained some experience on being interviewed and it became even more helpful in my upcoming fieldwork in other companies.

My access to Noah was similar to the experience at Robin, the private connections between my family and the managers in the local branch were crucial for the initial contact. However, unlike the rather glorious welcome and introduction at Robin with which Mr. Chou greeted me, this time, Mr. Gu, a family friend who has known me since my primary school years and the team leader of a group of agents, recommended me to join the company's new training program for employees called "the excellence Project". Following a brief introduction to the project, Mr. Gu sent me a QR code via WeChat with the instruction to scan the code to sign up. The QR code led me to an online form which asked my name, my age and my educational background, as well as the employee number of my recommender and the name of his agent team. After paying 100 RMB for the signing-up fee, I became a candidate and waited to be informed of the scheduling of an interview.

In both of my two fieldwork experiences at Robin and Noah, I did not receive any

wages for my contributions to the companies or take advantage of any benefits of being an employee. That is what they had in common. Everything else felt different - my introductions at Noah and that at Robin, the procedure and the value placed on my cultural capital at Robin. These differences may have been related to the nature of my father's connections but a simpler and more direct explanation are the differences in each companies' recruitment processes and the expectations of the respective gatekeepers at the companies. At Robin, I had the chance to meet the director on the first day and used that opportunity as my personal introduction, it enabled me to introduce my research and my purpose clearly to the gatekeeper himself, then I earned his sponsorship to conduct my upcoming research. However, at Noah, I was sent to normal procedures by my recommender, despite such procedure did not create any detour on my accessibility other than an online signing-up process. Moreover, the cultural capital that I commanded, which was led by my UCL degree, played a much more vital role in my admission process at Robin than at Noah. As I added earlier, Mr. Chou, as the director of Robin, given the relatively smaller size of their company, always preferred to interview applicants with higher educational background by himself, so I was no exception. Moreover, as a friend of my father's, my speculation was that, since my father used to be at an executive position like his, he expected me to experience his company from the view of a manager (similar to his own and my father's view), the view of a manager in a way necessitated adequate academic background, and his expectations not only manifested themselves in how he respected the status of my parents and my previous education, but also in our own conversations asking my opinions regarding the current Chinese insurance market; In comparison, at Noah, Mr. Gu was a leader of an agent team, so he followed the recruitment process for sales agents in his company and sent me the signing-up form. Whereas considering my cultural capital, at the entry level, given that the lowest entry requirement for Noah's employee recruitment project was a college diploma, my UCL degree did not have an impact as it already far exceeded the bar. However, although the cultural capital that I commanded was not determinant in my introduction at Noah, it played a rather significant role later on how I secured and maintained my guanxi there.

My interview at Noah was allocated to a Thursday morning in May, 2022 at the district branch where I intended to conduct my observational study. To look like a professional, I dressed up in a formal shirt and suit jacket with a necktie. I was lucky that the workplace was just within walking distance from my home, but I still experienced the heat of summer on the way. After arriving by myself, I found that there was no sign leading the way to the interview room, it took me a few minutes and I only found the correct room after asking for help.

I was called to enter the interview room after waiting for around twenty minutes, there were four people, including the manager of the department of training in the local branch as the main interviewer, sitting in front of me. After taking the seat, I suddenly became nervous as it was my first job interview facing four interviewers. Then the department manager started the interview by asking me to briefly introduce myself, my educational background, the reason for choosing this company and the objectives that I wished to accomplish. I responded with my background as a PhD researcher at UCL with a short introduction of my research, meanwhile emphasised my focus on agents and expressed my intentions of observing and learning from their practical experiences concerning training sales agents. My responses did not surprise them, all of my interviewers were friends with Mr. Gu and presumably had the information of my background beforehand.

As the result of my interview, instead of including me into the list of trainees, to help me better understand the whole process and construct an overall picture of their new “excellence project”, they assigned me the role of teaching assistant. That was what I had hoped for, the chance to see up close the whole cycle of organising and running a training program, what I had not expected was that I would be asked to do it. In the following weeks, I would prepare advertisements, compose presentation slides for current agents, arrange and document interviews, decorate the classroom, take attendance, organise group activities, distribute homework, record specially memorable moments, even help with order lunch every day, and more. Once again WeChat emerged as a constant companion, the department manager assigned me to assist two of my interviewers with training agents on the use of WeChat. In the end, I had two core

responsibilities, one was to design a promotional pitch to current agents to raise their enthusiasm for recommending more participants to the project, and the other was drafting daily interview reports which would be distributed across the company's WeChat group.

My initial contacts at each company were brokered through the *guanxi* that was extended from my parents, and this relationship most likely helped for gaining access, but as I went past introductions it was my understanding of the industry that I demonstrated during the interviews, the content of my research, and most importantly, my educational background as a top university graduate and a PhD candidate in training that genuinely captured the gatekeepers' interest, along with the existing *guanxi*, helped me to pass the fences, and eventually steered me to a suitable place where I could make contributions. It was a combination of these factors that allowed me to enter these companies and conduct my research. And, to fulfil the obligation of "mutual reciprocity" in the idea of *guanxi*, in exchange of their favour to my parents which was eventually passed on to me, and to maintain the *guanxi* with my supervisors, I also made promises to utilise my knowledge and capabilities to assist them with some of their work. In the upcoming text, I will describe in more details how I have used my skills to secure my position within the company and to strengthen my relationships with my colleagues.

3. How I nurtured my *guanxi* with colleagues at each site

My roles at Noah and at Robin were fundamentally different and so were my dwellings. At Robin, I was treated as an observer who entered the sphere of the company from the outside world. After my conversation, Mr. Chou led me for a tour of their headquarter and introduced me to some department managers. And on my first day to the district branch, my supervisor James also showed me around the office. Then after the room tour, he led me to my seat by a large vacant table at a corner of the open space office. They had divided the large table into four equal portions so it became a shared working desk for four people, each section had the space of approximately 1 m², more than sufficient to simultaneously place my backpack, laptop and a few books.

Moreover, since most of the agents were constantly visiting clients outside the office, for most of the time, there were only two people including me sitting by our desk. Our seat was spacious and bright as it was close to the window, so an ideal place for me to spend my time while keeping away from the attention of the working office.

For the main part of my time there, I arrived at the company at 8: 30am every morning to attend the morning meeting and then I was free. And when Robin “University” which was next door to our office, had training sessions for agents or product promoting events to customers, I usually got called by a colleague to help set up the venue in advance, and afterwards, I would sit in the last row to listen to the whole session. Other than that, I spent the rest of my time observing my colleagues’ daily work and occasionally having conversations with them, our topics were mainly about my life and their work-life. My supervisors and all my colleagues were genuinely friendly to me, they were very interested when I introduced my background and my research. They all were willing to share their professional experiences and thoughts with me just to help me gain a better idea of their work. Especially valuable was that two of my co-workers voluntarily shared and explained their genetic testing reports to me after hearing about my interest in their products. With this autonomy there also came drawbacks, possibly even a confinement in an open space office. I was never invited to join the company’s WeChat group and I never had the chance to explore the work that happened outside the office. I was never assigned any work by my Robin supervisors. Although this gave me time to observe the office and take extensive notes of my conversations, it also held me away from working alongside the agents and build with them relationships of trust and fellowship.

At Robin, to avoid unnecessary conspiracies about Mr. Chou within the company, I did not disclose my relationship with the company’s director to my colleagues, but stressed my identity as an independent PhD researcher who had been introduced to the company by a friend. And when I was introduced to all my colleagues by my supervisor James, he also simply told them that I was *his* friend who had come there for doctoral research. After the first few days of chatting and getting along with me, I discovered that my deskmates thought that I was an intern recruited by the headquarters, being sent

there to gain more experience and then would soon be recalled for a managerial position. One of my colleagues even joked that she had a conversation about me with her family and they advised her to stay close to me as I might one day become her superior. From their understanding, first, I was brought in by the managers from headquarter, why was still unclear, but the fact that I came from the headquarter was apparent; second, my educational background as an elite college graduate fitted in a common corporate culture in which highly educated young people often serve as manager candidates; third, possibly more importantly, I was introduced and respected by the local branch manager, then in the simultaneous presence of all these factors, they immediately drew from their cultural repertoire that I was sent here for training and I would take a bigger role in future. I immediately started to dispel this misunderstanding and told her that I was still a college student who wanted to conduct observation on the daily life of insurance agents and learn more practical knowledge at this insurance company, and that I was there just as an independent researcher, so there was no need to think of our relationship being so formal and repressive. Another colleague, who always liked to joke around, teased me when he found out about my conversation with the other colleague, saying that “you are not sent by our supervisors to spy on us, are you? So we would have to think through our responses carefully before we can talk to you.” I also explained to him that I was there simply to conduct my research on how they interact with customers, my notes would not be shared with the company’s management team, and I was not thinking about politics or power relations within the company.

At the time my main concern was to give plenty and emphatic assurances and to secure their trust, I think I succeeded as my colleagues were always supportive to my needs such as voluntarily lending me their genetic testing reports. But when I reviewed the issue again in writing this chapter, I realised that, the joke was a legitimate concern from them that only took a “friendly” disguise. Just as existing research (Whitman, Halbesleben and Shanine, 2013; Stein et al., 2020) suggest, abusive supervisors can be a major source of stress for employees, and I understand that out of self-protection, many ordinary employees would act unnaturally in front of their supervisors and those who are related to their supervisors, deliberately showing some submissiveness so as

to reduce the possible harm and impact on their work. Thus this colleague was expressing his concerns, and I found his concerns reasonable, so I always actively explain to my colleagues that I was not a spy sent by the leaders of the company and we were on an equal status. From my intention, being transparent with them at the beginning about my personal background was a gesture to convince them there was no ‘secret mission’ to hide from them, and I chose a partial disclosure of my relationship with the management level, as what I thought to be the second best option to both avoid unnecessary conspiracies about Mr. Chou and show my colleagues that I indeed had some connections with the managers. However, there are still times when I have to admit that my relationship with the leaders does, to some extent, closes some of the opportunities for me to have a completely honest and genuine conversation with my co-workers about certain topics, such as their most genuine thoughts about the merits and disadvantages of their products.

By contrast, at Noah I was immediately put to work. On the day I was interviewed, I was given three tasks that I continued to execute across the whole duration of my fieldwork: becoming an assistant in the interviews and the training session that followed, reporting the progress of every day’s interviews to the branch’s WeChat working group, and designing the presentation slides for agents to stimulate recruitment of more trainees. On the same day, after my interview, my supervisor at the local branch spoke to me “We want you to actually take some responsibilities in our operation, so you can feel for yourself about the actual process of our job. We will invite you to audit our interviews, going through all of our trainings, I will also invite you to our working WeChat group, and you will need to send updates of interviews to the group everyday by yourself. That is, not only offer you these opportunities, we also expect you to give what you have to us and help us to improve.” Unlike at Robin, I was invited to join three working WeChat groups (all groups shared similar purposes of communications within the company, the only difference was that some group are for agents and some are for clerical employees), in which I could not only see the daily progress reports of each agents’ team leader, the company’s performance statistics and future plans, but I also needed to send out my daily notes on the interviews, so that I really became a part

of the company's business process. And in this way, I gradually grew a much deeper understanding of Noah's corporate culture.

After my own interview, I was led to my desk, then I became a temporary member of Noah. My desk was at the spot equivalent to the doorstep of the training department, and in this sense, it also inevitably became the waiting place for interviewees before being called. From this standpoint I was able to see that most interviewees were led there by their recommenders (the agents), which coincidentally answered my puzzle of why there were no signs indicating the way: they were not needed, the agents were all already familiar with this place.

Afterwards, in the interviews with other participants, I initially chose to sit in the last row of the office so that I could avoid getting too much attention. However, since a part of my task was to film the interview from three different angles - left, back and right (not front because some interviewee might feel extra nervous when sitting directly opposite to a camera)- I had to move around in front of both the interviewee and the interviewers. My assigned role made my status as observer conspicuous, a man with a camera. So to reduce my influence on the interview process, I tended to finish the filming tasks swiftly in a few seconds with very little noise made, and I would quietly sit back at my place for the rest of the time. The three main interviewers were all very experienced sales agents, they prepared each interview with extensive written notes and used them to guide each session. These interviewers did not pay extra attention to my presence also did not even include me in their discussions, we had no conversations throughout, they only discussed about the interviewees' performance and the documents that they submitted. Therefore at Noah my first designated job was to observe and record without any invitation to contribute.

After taking part in the interviews and the training that followed, I was invited by Mr. Gu's agent team to experience the life of a sales agent. So I started to join in their morning meetings and other events. Again I was given two roles, as observer and sharer of my knowledge. Starting from here, I will illustrate more on how to nurture the guanxi with my superior.

Mr. Gu once asked me to give a presentation for his team leaders, without giving me

any specific requirements in the first place. While I had given presentations to audiences of academics, this would be my first speaking to very experienced professional people averaging forty-five years in age. I had three main concerns at the time, firstly because I had no practical knowledge of how to sell insurance policies as a college student with only a few short-term internships in insurance companies, I was not sure what topics I needed to cover, as they had a deeper understanding of the products they sold, of the laws and regulations related to insurance, of the local culture in Xi'an, of how to build a relationship with customers from scratch, and of the environment of the local insurance market. Also, I did not know, could not know, what they needed to add to their existing skill set, or what was the aspect of their ability that they wanted to improve. With no further guidance, I was sure to waste 40 minutes of their time.

After receiving Mr. Gu's invitation which seemed randomly popped out in our conversation, I told him of my concerns. I treated that presentation as the opportunity to not only introduce myself but also represent my educational background, after all, I was the first one in their team who had studied abroad, and the first one who was pursuing a PhD degree. In response to my concerns, Mr. Gu seemed very relaxed, he just kept smiling and told me not to feel such a big pressure. He said that the purpose of inviting me to give this presentation was not to give me an assignment, but he, in his dual role as a good friend of my family and a business manager of an insurance company, after learning about my background and my research at the beginning, felt that my experience would give his team some insight into the outside world, especially into what the insurance industry looks like in a relatively more economically developed area like Shanghai. He added, "These agents in Xi'an have been in this narrow environment for all of their lives and have always been exposed to older concepts and ideas. They need to realise that the market has changed and that only by embracing new ideas can they do well in the new market".

Mr. Gu, who is approaching the age of fifty-five, is very open to new technologies compared to his peers. Unusual for his generation he is active on WeChat and Tik Tok where he posts regular photos. Compared to him, I am a restrained user of social media,

but as I discovered Mr. Gu's preference for managing a good personal social media presence, I decided to frame this presentation around the use of social media. In addition, based on the principle of mutual reciprocity in a *guanxi*, I felt obliged to complete this presentation, knowing that helping Mr. Gu with this presentation, also showing support to his opinions like increasing online presence and promoting social media, would strengthen the gap and mistrust between me and these agents, reinforcing my image as "a close friend to the leader" in their minds. This was undermining my research, but it was a detriment that I have to bear in order to continue my research here.

To match Mr. Gu's expectations, I had to design and steer the presentation according to his needs, trying my best to find a balance between including as much 'novel' and "fresh" ideas into the slides and respecting the easy-going atmosphere of a very casual morning meeting, not making it too academic. At the beginning, I had to think long and hard about how to name the presentation slides. For the slides I used at college, I usually choose a short sentence that sums up my argument as the topic, but in this environment of an insurance company, using such sentence would be too long and unattractive to my audience, and might repel these agents because they may assume it was an academic presentation. In the end, for the considerations of simplicity and audience-friendliness, I simply named it "Information Sharing" like the name of the session in their morning meetings. I deleted a lot of the academic content, but in order to introduce my background and in a way assert my credentials, I chose to use the template provided by UCL with the college logo as a background. I ended up speaking for about an hour, which was much longer than I anticipated at the beginning. I divided the whole presentation into four primary sections.

The first section was mainly about myself, I briefly introduced my educational experience and my research, especially about my experience of pursuing a degree abroad. Mr. Gu was interested in pursuing more middle and upper class clients, and sending children to study abroad was a very popular educational choice for these clients, so I was asked to talk about this topic in my presentation. In the second part, I started to introduce the current stage of the development of Chinese society and the overall environment of the Chinese insurance market, such as the trend of ageing society,

people's awareness of their health, the current market demand for insurance and some data about the current Chinese domestic insurance market including the annual growth of the sector and the annual premium income of key insurers. In this section I proposed the concept of the insurance ecosystem, then introduced the use of technology in insurance, such as smart wearables and the internet technologies, and then I mentioned the effect of the internet era on the mode of communicating information. I introduced the impact of social media and the concept of "the internet constellation" (Castells, 2010). My audience's reaction to this metaphor was interesting, they were impressed and thought it was novel but very vivid. Later, I talked about the influence of different companies' cultures and regional characteristics on the business practices of insurance agents, sharing the contrasts in the practice of local insurance agents through my previous internship experience, such as the differences between Shanghai and Xi'an (despite that I just started the fieldwork at Noah in Xi'an, I already had some thoughts and reflections learned from my father who used to work there for years). Finally, in the fourth part, I focused on the role of WeChat as China's largest social networking software in insurance marketing. I referenced several industrial reports to raise my audience's attention, using existing data to demonstrate a grand picture of the utilities of WeChat in insurance industry, then reinforced the importance of using WeChat to build up connections with customers, especially when face-to-face interactions were restricted. Afterwards, I discussed with them about my thoughts as a heavy WeChat user on how I normally use this application and what I have observed in terms of other agents' online presence on WeChat such as several types of most frequent posts. For every section of the presentation, I made my best efforts to meet Mr. Gu's expectations and included the information that I presumed to be notable in his view, and fortunately I received quite satisfactory feedback from both the audience and him afterwards. As they were already very willing to accept new concepts and use new technologies to better communicate with customers, my thoughts resonated with their belief.

Afterwards, Mr. Gu told me that the feedback from my talk was the best response he had seen in the recent morning meeting events, not only because the content of my slides was really eye-opening, but he found that many agents were very active in

thinking and asking questions. He joked, “Do you remember those people who are very active in asking you questions, but in fact, usually when I give them a meeting, they are all looking down and playing with their phones, or if they are not playing with their phones, they are just sitting there staring at the ceiling. But today you see them taking notes and asking questions at the same time, I really have not seen them like this for a long time.” At first I thought it was probably because the audience was so interested in my research, but after listening to him, I started to wonder if they were putting on a show for me just because they knew about my relationship with Mr. Gu. Perhaps they had noticed that Mr. Gu was standing in the last row recording my lecture on his mobile phone (the fact was that, he just wanted to send the video to my parents to show them my updates) and were trying to be active and co-operative, such reaction was even more ingenuine. Mr. Gu always introduced me as a good friend of his and as “Doctor Tang”. My relationship with the team leader could affect the communication between me and these agents, it seemed unavoidable, and as long as everyone is aware of such relationship, this problem would become a barrier that could be difficult to eradicate, thus affecting the sincerity of the performance of these agents in front of my presence, and I could only do my best to reduce this to the greatest extent possibly by my own explanation afterwards like my experience at robin. I could only minimise the damage of such relationship with the superior to my trusting bond with these agents but could never fully recover it.

As an insurance practitioner who have been working in this industry for over twenty years, Mr. Gu attached great importance to the timeliness of the understanding of insurance, he was open to hear many novel concepts in the industry and encouraged all his co-workers to learn the new knowledge together. Therefore, knowing my background, he treated me as one of his most convenient connection to the new world. Thus I became the “modern figure” in the company. Mr. Gu’s purpose of asking me to help him share knowledge at the morning meetings was mainly to give some fresh and novel ideas to the members in his team, as according to him, they all lived in a Chinese city and had very little interactions with the foreign world. My role in these activities was not essential, only as a sharer of some information from a broader while unfamiliar

world to them. In fact, since these knowledge and information that I shared was still concerning practical aspects of insurance, and my understanding of how to communicate with customers and sell insurance policies was little, I instead needed to learn from them in more ways and for most of the time. So my role was not key and was replaceable. But in the middle and later stages of my fieldwork at Noah, I was given a new task in which I played an irreplaceable role. This task was to communicate with their clients about sending their children to the UK for higher education.

In order to attract more high net-worth clients and form long term stable relationships with them, many Chinese insurance companies are focusing on aspects such as education of their clients' children. Many companies, including Noah, have chosen to partner with international schools or organisations to provide consultancy services to their clients for their children's study plan. And as a student who had been living and studying in the UK since 2015, my personal background made me the perfect candidate here to give talks to parents who had similar plans.

The way that Mr. Gu chose for me to share my story was to hold small seminars and invite clients/parents to attend. For these seminars, I made a set of 25 slides focusing on my personal experience in the UK. I gave four talks in total, all held at the conference room in Noah's city branch, usually lasted three to four hours each, to about a dozen people each time. The range of age of my audience's children was quite wide, from students just entering junior high school to college graduates. The first two seminars were conducted jointly by me and one of Noah's lecturers. Firstly, the lecturer presented a set of 60 slides about the international school that Noah worked with, which lasted for about an hour and a half, and then I, as a student in the UK, used my own slides to talk about my personal experience of studying and living abroad, including the details of my life in terms of studying, travelling, food, and culture. At the end, there came a 40-minute Q&A session, in which I was responsible for answering various questions from the audience. For the latter two seminars, Mr Gu thought that I was already familiar with the whole process, so he asked me to edit and combine the two sets of slides together, then left all the tasks to me: I was in charge of hosting, presenting and organising the next two seminars all by myself, they only needed to send out invitations

to customers.

I think I performed as expected, getting warm applause from the audience and having several parents approach me to ask more about the topic, several requested to add me as a WeChat friend, saying that they “*want to know more about my future developments as a student who studies abroad through my WeChat friend circle*”. At the first time that I received a friend request from one of Noah’s clients, I was inclined to decline, because I always regard my personal contacts and the WeChat friend circle as my private space rather than a work space. I was used to sharing updates about my personal life with my friends on WeChat, posting photos and more. However, these Noah’s clients were not my friends, and adding someone I was not familiar with would make me feel like I was being watched when I share my life with my friends online. Whereas on the other hand, considering that these people were clients of Noah, or even Mr. Gu himself, and that I was doing my fieldwork at Noah with Mr. Gu’s help, Mr. Gu’s personal relationship with his clients became an issue that I (as the person who received Mr. Gu’s favour) had to take into consideration and accept, and considering such relationship, I could only accept the friend requests from these clients. In the following months, I did not receive any messages or enquiries from these clients who added me as a friend, nor receiving any likes or comments from them on my posts to WeChat friend circle. I gradually got used to knowing that there were unfamiliar people in my WeChat list observing me, and later, in my consciousness, I gradually blurred the boundaries between my personal private space and my work space, thus when more people that I met from work sent friend requests, I no longer had any resistance to it.

4. Discussion

In conclusion, guanxi is resilient in the Chinese atmosphere, it is a part of Chinese cultural heritage, its idea started to exist since ancient times in Confucius philosophy, witnessing countless shifts of regimes, forms of society and market regulations, including the economic reform and China’s opening to the western capitalist world.

Despite the meanings and representations might change over time, it still flourishes in Chinese society and is expected to last into foreseeable future.

My fieldwork was facilitated by both *guanxi* and meritocracy. On the one hand, *guanxi* brokered me through the fences of these insurance companies, enabled me to directly communicate with the management level, and granted me the relative autonomy in conducting my observation; On the other hand, in the eyes of these institutional gatekeepers, upon my initial identity from *guanxi* as the son of a friend, meritocracy gave me a second layer of identity as a doctoral researcher from a world-renowned university, the combination of these two layers of identities rendered my proposals more convincing and appealing to both my managers and co-workers, so that I could receive the support and cooperation from them beyond my initial anticipation. Furthermore, my experiences of accessing each Chinese insurer proved that *guanxi* is extendable, it can be passed on from the participants in the network to another outsider with their sponsorship, in my case, my ticket is the family bond between me and my father. My father introduced me to his friends also to the existing *guanxi* between them, making me a third participant in this network, and within this triadic network, I initiated my own bilateral *guanxi* with my father's friend. However, when it comes to maintaining the *guanxi* between my father's friend and myself, my own effort becomes essential, and reciprocity is key in maintaining this *guanxi*.

There is a Chinese proverb called “*Li Shang Wang Lai*”, meaning “reciprocity is a respected manner in a relationship”, and it is essential in the preservation of an effective *guanxi* (Chang, 2010). To help me enhance my dyadic *guanxi* with his friends, my father always ask me to bring gifts such as well-packed tea or his written pieces of Chinese calligraphy to his friend on his behalf as a gesture, implying his influence in our triadic relationship on fostering my own dyadic one under it, although the gift themselves were not prepared by myself, I was always the one who finally hand it out, so a part of the credit came to me. In such manner, not only my father's gratitude for his friends' willingness to help me was expressed for his dyadic *guanxi*, but I could also use such credit of handing out the gift to improve my own dyadic *guanxi* with my superiors. Moreover, in a similar way, as the person who inherited the *guanxi* and

received the favour from my father's friends, I also have to pay back in my own way, to articulate my appreciation to their help and demonstrate my best efforts to match their goodwill. In this process, not only did I fully exhibited my professional capabilities to complete the tasks that they gave me, but also, I had to implicitly make certain extents of concessions and sacrifices, such as my privacy and private virtual space on WeChat friend circle, just to help preserve a potential "guanxi" between the ones who helped me and others, without making them aware of even a glance of my efforts on this.

In my fieldwork at Robin, I chose to introduce myself as the friend of a manager, as I believed it was the second best option than the full disclosure of my guanxi to both protect Mr. Chou from unnecessary conspiracies and offer an extent of transparency to my co-workers. I initially thought that, disclosing the guanxi with Mr. Chou himself would create more gossips directly towards him, because others, especially those basic-level workers, could potentially criticise him for inserting a friend into the company to enhance his personal reach, or sending a spy down to the office to report on everyone's working behaviour. However, without a clear explanation, gossip filled the gap. Although I managed to keep the speculations away from Mr. Chou himself, it turned out that there was indeed the concern from my co-workers about if I was a spy, and such concerns still created anxiety and hesitancy on the part of my interlocutors. This is a side effect on my choice of hiding the real guanxi and adopting an alternative explanation.

Regarding collecting the data from my observed objectives for my research, to preserve the guanxi with my superiors, I had to make choices that were not in the best interest of my research. Having aware of that my relationship with the leaders will not bridge the gap but rather create a barrier between me and my colleagues, I still had to make my best efforts to meet the expectations of my supervisor, such as doing what they intended me to do without any hesitation, and sending out their choices of information in my own presentations to meet their purposes, even using my own cultural credentials to polish the reliability of the information. Such decisions reinforced my image as the leaders' friend in the eyes of my colleagues and pushed

them away from me. Thus, as the side effects of this guanxi which granted me access to the company and the flexibility in conducting my observation, the most genuine response from my objectives was also restricted.

Last but not least, in terms of the outcome of my fieldwork, I obtained more ethnographic material from Noah than from Robin. In Robin, I spent most of the time in the main office observing the work life of their employees, and sometimes I was called to help with their seminars, such as arranging chairs and decorating the seminar rooms. Compared to my experience at Robin, in Noah I was much deeper involved in the work of the company, I personally experienced and helped to plan training sessions, negotiation with clients, product promotion events, weekend trips with clients, and more, all these experiences listed above to an extent made me truly a part of the Noah team, as well as enabled me to understand Noah better than Robin when analysing my fieldwork notes. From my perspective, there are two major reasons which lead to the contrasting experience in Robin and Noah. For the first reason, the fieldwork at Robin was my first time conducting participant observation in an unfamiliar environment, although I made various research plans and set many targets in advance, in that environment, I was always worried about causing any inconvenience to my co-workers and supervisors, also so afraid of being rejected by them. I did not find a way to properly raise my requests to my colleagues in Robin, therefore I could only adhere to their random arrangements: doing the simplest tasks such as decorating the seminar room. On the contrary to the much passive story, in Noah, I adjusted myself after reviewing the episode in Robin, in a simpler term, I became braver in my interactions with colleagues and supervisors. I could straightforwardly communicate more detail of my research targets to them and ask for their help, therefore I was much deeper involved in many corporate events with the help of my colleagues, this offered me more opportunity to enrich my fieldwork notes. Then for the second reason, since maintaining a guanxi requires reciprocity, and I believed that, in the fieldwork, when I ask for more assistance from my colleagues for my research, I also had to offer my contribution to their work as a reciprocal action. In Robin, as I was afraid of causing inconvenience to my colleagues or being rejected by them, I always hesitated about directly asking them if

I could be more involved in their work, thus I did not have the opportunity to exhibit my skillset, and did not establish the mutual reciprocal guanxi which can benefit both sides. As a result, I only participated in the most basic events, and obtained not much information for my research. However, in Noah, since I actively took part in more activities and made my contribution to the overall success of those events, such as giving presentations at morning meetings or sharing my international education experience to clients. Since these events received satisfying results, I managed to earn the recognition from my supervisors and colleagues. And as they understood what I could bring to the company, in the subsequent days they directly came to me with more offer to corporate events, and I continued to use my capabilities to reciprocate their favour. Such mutual exchange of reciprocity reinforced my guanxi with people in Noah, and to a great extent facilitated my ethnographic research there. This is how guanxi influenced the outcome of my research.

Chapter 4: Life Insurance, Financial Planning and Family Duties in the Long-Life Era

Every year the China Central Television (CCTV) hosts a gala for the Spring Festival, it often discuss the most trendy topics in the society. In 2009, the broadcast included a piece of xiao pin (skit) which became an overnight sensation. The actors that played in the skit became instant household names, but their celebrity pales compared to the line they spoke and that became viral: “-‘What is the most suffering thing in a man’s life?’ –‘He has gone and left a lot of money unspent.’ –‘And what is even more suffering in a man’s life than that?’ –‘He lives, but with no money!’”

What lies behind the popularity of this skit was not only the felicitous turn of phrase and the hilarious delivery, but also, more importantly, how it resonated with feelings of unease about ageing in an economy that was both wealthier but also less secure. Thanks to national prosperity and the advancement of modern science and technology, Chinese people face prospects of longer and healthier lives never before recorded in the nation’s history. According to World Health Organisation (2023b), life expectancy across the globe grew from 66.8 years in 2000 to 73.3 in 2019, and in China, an individual’s life expectancy at birth has improved from 71.6 years at the start of this century to 77.4 years in 2019 (World Health Organisation, 2023a). The good news is not without its qualifiers, while people can expect to live longer, the demand for long-term care increases, the cost of living is also set to increase, led by medical and healthcare expenses (Légaré, 2015; Norton, 2016). When a longer life brings more financial burden and risks to each family, it may also challenge each family members’ judgement on familial responsibility especially concerning elderly care.

In this chapter, I will draw on my fieldwork experience at Noah to examine a set of Chinese attitudes towards longevity, its risks and how Chinese insurers translated the risks of long life into product offerings. In my analysis, my main argument is that, based on Chinese cultural understandings of familial responsibility in particular filial piety, Chinese insurers are constructing a modern understanding of risks of longevity, which

includes both financial risks and moral risks. The financial risks come from the increase in the cost due to the prolonged life after retirement, and the moral risks are because of people's potential moral failure in not taking good care of their parents and offspring. At the heart of my analysis is an unconventional life insurance product that blurs the lines between savings and insurance called “Zeng’e Zhongshen Shouxian” (increasing sum-assured whole-life life insurance).

1. To live long in today's China

In this era of long-life, the problem of population ageing in the current society is outstanding. China's National Bureau of Statistics (2023) defines the criteria of “entering ageing society” as when “the proportion of the population aged 60 and above in the total population reached 10 per cent, or the proportion of the population aged 65 and above in the total population reached 7 per cent”, when one of these criteria is met, the country is then on the path of an ageing society. According to the data from China's seventh national population census (National Bureau of Statistics, 2021), the proportion of senior citizens in society is of 18.70 per cent of the total, that is 264.02 million people aged 60 years and over, of whom 190.64 million, or 13.50 per cent, are aged 65 years and over. Chinese society is under its statistical agency's criteria an ageing society and the trend is accelerating: from 2010 to 2020, the proportion of people aged 60 and over rose by 5.44 per cent, and the proportion of people aged 65 and over rose by 4.63 per cent of the total.

World Health Organisation (2010) suggested that aging population is jointly caused by the decline of birth rate and death rate of people. A decreasing birth rate leads to less young generation entering the society, and the dropping death rate results in more senior citizens alive, thus, with the coexistence of both phenomenon, the demographic structure of a society shall move towards an aging trend. Particularly in China, China used to be a country with a constantly increasing population, the average fertility rate was 35.1‰ across 1949-1958, while death rate dropped from 20‰ in 1949 to 10.8‰ in 1957, leading to an explosive increase of 120 million people in the country; then

after the gradual recovery of national economy in 1960s and 1970s, an average of more than 20million people was born across each year between 1962 and 1975, totally accounting for 360 million people born and 270million net increase in total population (National Bureau of Statistics of China, 1999; Qiao, 2024). Afterwards, since the issue of family planning policy in 1973, the national government began to control the birth rate, but in the beginning, since the execution of the policy varied in different provinces and areas, after the dropping for several years, the nation's birth rate rebounded and caused another net increase of 160 million people from 1982 to 1991. However, the growing trend reverted after 1992, the birth rate of Chinese people consistently remained on a relatively low level until recent years, even the family planning policy was shifted to incentive measures to stimulate fertility rate, the situation continued. In 2022, the nationwide birth rate was 6.77‰, only 9.56 million babies was born, and for the first time since 1949, to total Chinese population decreased (National Bureau of Statistics of China, 2023). In 2023, birth rate dropped to 6.39‰, the nationwide death rate was 7.87‰, another decline of 2.08million happened to the national population (National Bureau of Statistics of China, 2024).

As the result of decreasing birth rate and death rate of population, the age structure of Chinese society changed over the past decades. According to the data from previous rounds of China's national census, in 1964, 40.7% of citizens were 0-14 years old, 55.8% were 15-64 years old, while people of 65+ years old only accounted for 3.6% of the total population. Then the portion of young people in 0-14 age group started to decline year after year, finally to 16.5% in 2015, and the portion of people of 15-64 years old increased to 73% in the same year, and people of 65+ occupied 10.5%; although the percentage of 0-14 years old increased in 2020 (17.9%), the number then fell down again afterwards, to 17.5% in 2021 and 16.9% in 2022, meanwhile the number for people of 65+ kept climbing to 14.9% in 2022 (National Bureau of Statistics of China, 2023). More importantly, the people who were born in the previous birth rate spikes in 1960s-1970s (360 million were born) will gradually enter their senior ages from and after 2020, so we have to expect much more significant increases in the portion of senior citizens in society across 2020s, the same rationale can also be applied to the prediction

for people born in the spikes in 1980s, a another round of huge growth for people entering elder age shall happen 20 years later. Therefore, demographic structure of Chinese population will continue the aging trend in foreseeable future (Qiao, 2024).

As many scholars (e.g. Fried, Wong and Dzau, 2022; Louria, 2005; Scott, 2021a, 2021b) have already raised, the impact of ageing population not only exists on the larger national and demographic scale, but also on much microscopic scales including each individual and household. On the national scale, research from several countries have suggested that aging population could bring more financial burden to the national pension/social security system (e.g. Amaglobeli, Gaspar and Dabla-Norris, 2020; Department for Work and Pensions UK, 2006), which could possibly result in a system breakdown, meaning there will be no government-led back-up plan for the income after retirement.

In the Chinese case, according to Peng Du's (2023) analysis on the data from China's seventh National Population Census (Office of the leading group of the state council for the seventh national population census, 2020), in terms of the funding after retirement, lots of Chinese citizens still heavily rely on the support of national social security fund (ranked first in income resources) or the support from their family members (ranked second). In particular, 34.67% of retired citizens relied on pension fund, and 32.66% of old people relied on support from family. By law, employees and employers jointly submit a certain portion of their salary regularly (mostly monthly) to the "Wu Xian Yi Jin (Five Insurance and One Fund) Scheme" of the nation, which includes Basic Pension Insurance, Basic Medical Insurance, Unemployment Insurance, Work-Related Injury Insurance, and Maternity Insurance, and Housing Provident Fund (Bo and Wang, 2014).

However, although the government and investment experts chose a very precautionary and prudential investment approach, there is still chances of investment loss. Especially in 2022, according to the bulletins of the national social security fund of China of that year, the pure investment return of the Fund was -138.09 billion Yuan, and the return rate on investment was -5.07 per cent (National Council for Social Security Fund of China, 2023). The publication of such data instantly raised public

anxiety on the future of the fund (e.g. new pieces: Li, 2019; Liu, 2019; Ye, 2019). As indicated by the *China Pension Actuarial Report 2019-2050* from China's Academy of Social Sciences (2019), and by the analysis of government experts (Du, 2019), the income of the national social security fund is gradually becoming insufficient to match the total expenses. In 2019, there were approximately two working citizens submitting to the fund and supporting the repayment of one retired citizen, in 2050, the ratio will be 1 to 1, meaning every repayment to one retired citizen will have to be drawn from the contributions of a single working citizen. By 2028, the national pension system will face a loss when it is predicted that the total expense will surpass the total income, and by 2035, the entire accumulated balance of the national pension system will be exhausted (China's Academy of Social Sciences, 2019).

Down to the scale of households and individuals, research from various countries have shown that having more senior family members will mean increased medical and healthcare expenses (e.g. Song, 2001; Du, Zhai and Chen, 2005; Allianz Life Insurance Company of North America, 2016) because old people often require more frequent medical and other relevant (such as hiring care workers) supports. And in the meantime, the prospect of a collapsing social security system adds mental stress on the current working population pressuring them to look for protection schemes for an incomeless longer life. How to take care of oneself in the future has become a very salient problem for middle-aged citizens in contemporary China.

In the sociological and cultural discussion of elderly care, sociologists suggest that the family centered provision of elderly care in Chinese society is rooted since ancient times and has formed a set of important cultural guidelines for the Chinese household (e.g. Mao, 1998; Yuan, 2001; Lin, 2010). Xiaotong Fei (1992) pointed out that the interpersonal relationships in traditional Chinese society follow a "chaxugeju"(differential model), meaning the relationship with one person is normally formed as rounds of coaxial circles around the person as the centre point, where levels of intimacy varies along with the distance to the centre, in this model, kinship is one of the closet relationships. And the Confucian classic named *Li Ji* (the book of rites) provided a guideline for family kinship and filial piety as: "Xiao you san, da xiao zun

qin, qi ci fu ru, qi xia neng yang” (Zheng, 2023), meaning “there are three tiers of filial piety, the best tier respects the parents in every act and aspect, the second tier makes sure their own acts never bring shame to their parents, and the third tier is just take care of the parents.” In the feudalistic society, grandparents, parents, and their children should live and dine together as a fundamental patriarchal family form, old people were extremely respected in the family following the traditional Confucian virtue, and it is the children’s moral obligation to provide support for the older family members (Zhang, 2011). Various rulers of feudalistic dynasties also issued laws to reinforce the moral and legal authority of filial piety and such family support model, they put unfilial acts such as not taking care of parents into “shi e (ten acts of evil)” which was equivalent to insurrection, and forbade offsprings from moving out of the family when their parents and grandparents are alive (Zhang, 2011; Yang, 2021). Such belief lasted for hundreds of years and became the guideline for elderly care in most Chinese households.

As China entered modernity, research shows that the establishment of People’s Republic of China and the government’s following political measures did not call a halt on the continuity of filial piety (Davis-Friedmann, 1983; Ikels, 1983). Whereas from 20th century, industrialisation and modernisation had changed the traditional values and norms of filial piety, as the foundation of Chinese society has shifted from “*a self-sufficiency type of agricultural economy and a patriarchal-feudal social system*” to a modern industrialised society with much sufficient living resources and the wide acceptance of thoughts of independence and equality (Sheng and Settles, 2006). As a result, with the introduction of more modern sense into the traditional understanding of filial piety, keeping the idea of respecting and taking good care of parents as the essence while discarding the compulsory and feudalistic thoughts such as extremely unbalanced patriarchal family status, the core ideologies of filial piety has shifted from absolute submission to parent’s authority to mutual affection between the two generations (Yeh et al., 2013). The status of senior family members were no longer extremely regarded, they were still respected, but instead of completely relying on the reciprocity from their offspring, they began to actively seek for approaches to help others take care of themselves, and eligible citizens also received adequate amount of pension from the

government's collectivistic social security system. Thus, a complex mode of elderly care was established with the joint contribution of old people, the government, and their children (Lin, 2010). Despite the change of traditional values and the establishment of the complex elderly care model, the survey on Chinese young people by Yeh et al. (2013) shows that the gratitude to parents and the willingness for caring for parents and treating them well were still strong consensus.

However, as mentioned above, the feedback from the seventh national population census suggests that 34.67% of retired citizens relied on government's social security fund and 32.66% of old people relied on support from family (Du, 2023), the three-element support mode seemed to be stable until present. But when the national security system breaks down, a huge portion of income is likely to disappear. For the one-child families, there is only one working-age member who can offer input as the result of One-Child Policy, when their parents gets retired and lose a stable income resource, a huge uncertainty will occur as the only child will be under acute financial pressure in order to support the system. The situation is even worse for elderly citizens with no offsprings. The current elderly care model may collapse if there is no further help from outside. As that, longevity brings financial risks to each household, and specifically on the young generation, it also placed the moral and cultural risks for not being able to fulfil filial piety and taking good care of their parents. In the face of such hazard, finding an appropriate aiding approach seems eminent, and I will present as follow how an insurance company can contribute to mitigating this crisis.

2. An insurance approach for managing the risks of long life

In the light of the expectations of elderly care crisis, many people strive to save money regularly for future. According to China's National Development and Reform Commission (2021), the national savings rate and household saving ratio of China both ranked high globally, especially in 2021, the national savings rate was 48.7% and household saving ratio was 23.4%, higher than the world average numbers respectively of 24.9% and 16.8%. Moreover, by the analysis of Chinese economists, the national

savings rate of China remains on a growing trend since 2018 in the range between 45% and 50%, and the household saving ratio also started to increase since 2022. In addition, the result of a survey in 2022 of over 2200 Chinese citizens under 40 years old revealed that 41.7% of the post-90 generation and 40.6% of the post-95 generation tend to save money monthly, and 30% of the respondents regularly save 50% of their monthly income (Ren and Zhejiang Economic and Information Centre, 2023).

However, the yields of investment-based wealth management products and the rates of return on fixed-term deposits have been gradually declining over recent years. The leading Chinese state-owned banks (including Bank of China, Industrial and Commercial Bank of China (ICBC) and China Construction Bank) announced three rounds of deposit interest rate cuts in 2023, for example, the interest rate for 5-year deposit at Bank of China dropped from 2.5% in June 2023 to 2% in December 2023, the same rate applies to all three banks mentioned above (ICBC, 2023; Bank of China, 2023; China Construction Bank, 2023). Such relatively-low and decreasing long-term deposit interest rates urges people to seek other wealth management approaches. Seeing the opportunity to attract customers, many Chinese insurance companies began to sell life insurance products called “Zeng’e Zhongshen Shouxian (abbreviation: ZZS)(increasing sum-assured Whole-life life insurance)” with features of growing cash value, where cash value refers to “*the value of a policy cashed before it matures*”(Oxford English Dictionary, 2024), so as to meet the citizens’ needs of investment and growth in their retirement fund.

“Zeng’e Zhongshen Shouxian belongs to the category of Cash Value Life Insurance, whose variants are offered in many countries. Using a common industrial explanation, such type of product can be understood as: “a type of permanent life insurance that includes a cash value feature. Cash value is the portion of your policy that accumulates over time and may be available for you to withdraw or borrow against for long-term savings needs such as retirement, paying down a mortgage, covering an unforeseen emergency, or a significant expense” (New York Life, 2024). As the explanation suggests, the prospect of investment return is an outstanding trait of this type of policy. Apart from ZZS, the addition of an investment component is also a feature of other

insurance policies, including Participating Whole Life² and Universal Life³. As examined by Peter. C Katt (2015), the history of insurance policy with a cash value component can be traced back to late 1970s, when Participating Whole Life (PWL) policies became popular due to their high dividend returns. Then in early 1980s, American insurers introduced Universal Life (UL) policies, also offering customers considerable interest rates (double-digits). In 2010s, some Chinese insurance companies, including China Life and Ping'An Insurance introduced this concept to mainland China and launched their “Zeng’e Zhongshen Shouxian (increasing sum-assured Whole-life life insurance)” to the market, as an alternative to wealth management products at banks. In the modernity society, cash value insurance initially became popular as it offers a variety of advantages including tax-free investment returns, life-long protection and flexible withdrawals (will reduce the total benefits from the policy), but under the current circumstance of an aging population and the financial risks of elderly care, it is now given another layer of meaning for providing an alternative approach to finance clients’ old age.

3. Noah’s “perpetual cash machine”

When I returned to Noah in the summer of 2023, ZZS was the main product that they were selling. To introduce me to this product, Mr. Gu asked Sherry, his assistant, to walk me through the key information. According to Noah’s company policy, this product was designed to be coupled to life insurance. The core idea of the product can be explained by three key phrases: increased amount, full life, and life insurance. In contrast to traditional life insurance, which has a fixed sum assured, the sum assured of this product will increase every year according to the duration of the contract. The insurance company will agree on an annual interest rate in the contract when

² A type of insurance policy that pays dividends to policyholders. And “the dividends represent the favorable experience of the company and result from excess investment earnings, favorable mortality and expense savings. Dividends are not guaranteed.” (New York State Department of Financial Services, 2024)

³ A type of insurance policy with three elements: premium, death benefit and cash value account. “The company credits your premiums to the cash value account. Periodically the company deducts from the cash value account its expenses and the cost of insurance protection, usually described as the mortality deduction charge. The balance of the cash value account accumulates at the interest credited. The company guarantees a minimum interest rate and a maximum mortality charge.” (New York State Department of Financial Services, 2024)

underwriting the policy. With a constant premium, the sum assured (amount of money paid to customer for their demise) and cash-in value (the money customer can get back if they surrender a policy before it terminates) will grow over time across the whole life of the insured, i.e. the older the insured gets (in the contract period, after signing the contract), the higher the sum assured will be. By analogy to saving and withdrawing cash at banks, such increasing-sum-assured whole-life insurance policy can also be viewed as a life insurance policy that includes a benefit in case of death as well as a saving account, and in this way, customers can put their money in the account to earn a growth in the value, and then withdraw a portion of the funds when needed by partially surrendering the policy (asking for a portion of money back without terminating the whole contract).

Sherry offered me a short training course designed for their agents called “New Discoveries of Wealth Management Using Two Accounts”, which introduced the company’s “Dual Account” increasing-sum-assured whole-life life insurance product. The first part of this course material analysed the current situation of Chinese households’ wealth management plans at banks and summed up the current situation as an era of low-interest-rate by citing the downward trend of the standard interest rate at Chinese banks for one-year deposits from 1996 to 2016, stating that it had fallen from 10.98% to 1.5% over the past two decades. This number was close to the listings on the websites of major Chinese state-owned banks, for example, 1.45% for ICBC, Bank of China and China Construction Bank (ICBC, 2023; Bank of China, 2023; China Construction Bank, 2023). And beginning with the second part, this report started to examine the causes of low interest rates and concluded that there were three important reasons, which were an ageing population, declining economic growth, and a drop in banks’ investment returns. Regarding the analysis of the ageing population, it quoted the forecasts of the Chinese Academy of Social Sciences (2019) on pensions to raise potential customers’ awareness of a risk of pension shortfalls. Furthermore, in their analysis of the economic downturn, through emphasizing the high unemployment rate, the volatility of real-estate prices along with the high risk of loss on investments, the report described a situation where low-return was on one side and social instability on

the other. In this way, they elicited the audience's need for a risk-free and stable arrangement for their fund, in which their money can not only stay safe but also appreciate through time. And this, led to the third part of their presentation, the concept of compulsory saving ("qiang zhi chu xu"). Cheris Chan (2012)'s study reveals that Chinese insurance clients always prefer the money management feature, Noah's concept resonates with this finding. Put it in a simple idea, Noah wants the clients to "deposit spare money to them as a self-disciplinary act so it won't be wasted on unnecessary expenses (translated from Noah's training presentation)", and more specifically, compulsory saving is the highest level of self-discipline (using their words: "qiang zhi chu xu shi zui gao ji de zi lv").

To compare the features of increasing-sum-assured whole-life insurance to traditional bank saving Noah relied on geometric reasoning: the triangles. The company's promotional literature seems particularly apt since the common illustration of an ageing society is an inverted pyramid where each step is an age class. And yet, here in Noah, the triangles were not representations of people but of money, the wealth increasing or decreasing depending on what product was purchased. The triangles demonstrated a client's total amount of the pension fund ("The Triangle of Fund", illustrated below), figured in a coordinate system. For a clear illustration, I deconstruct this graph into two components shown below.

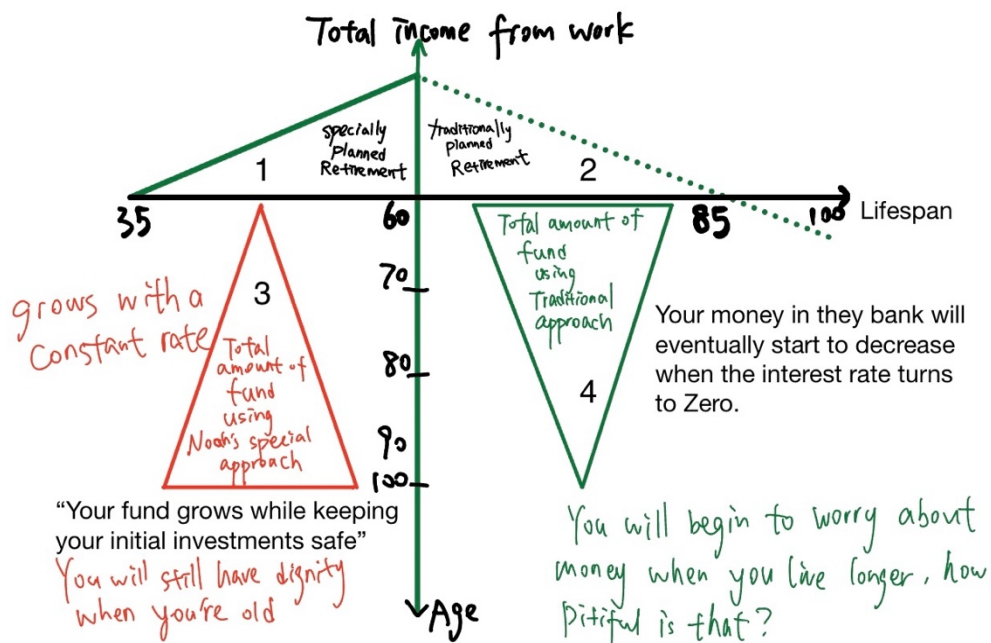


Image: The Triangles of Fund

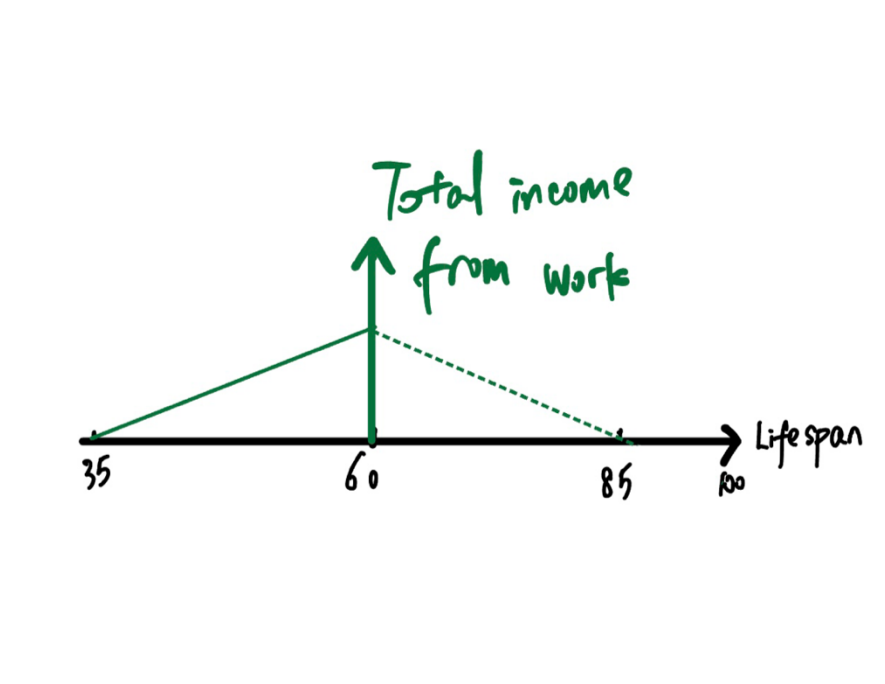


Image: Component 1 of The Triangles of Fund

The first component concerns the two triangles above the horizontal axis, triangle 1 and 2. The horizontal axis stands for the lifespan of an individual, the numbers on this axis (35, 60, 85) are age milestones, and the vertical axis above the horizontal axis shows an individual's total income from work. In this view, the key milestones are 35

years old (an approximate age when they assume customers come to enquire about insurance), 60 (the official retirement age in China for men), and 85 (the example that they gave as a long lifespan, also to be symmetrical to the length between 35 and 60 years (25 years)). This diagram illustrates a scenario of a 35-year-old person without Noah's insurance policy, their salary accumulates over the next 25 years until they retire, so the area of the triangle 1 is the total amount of retirement fund from salary, then view it symmetrically with the vertical axis, the triangle 2 which has the same area as 1 becomes the total fund that can be spent after retirement under the condition that the overall living standard matches previous level of income.

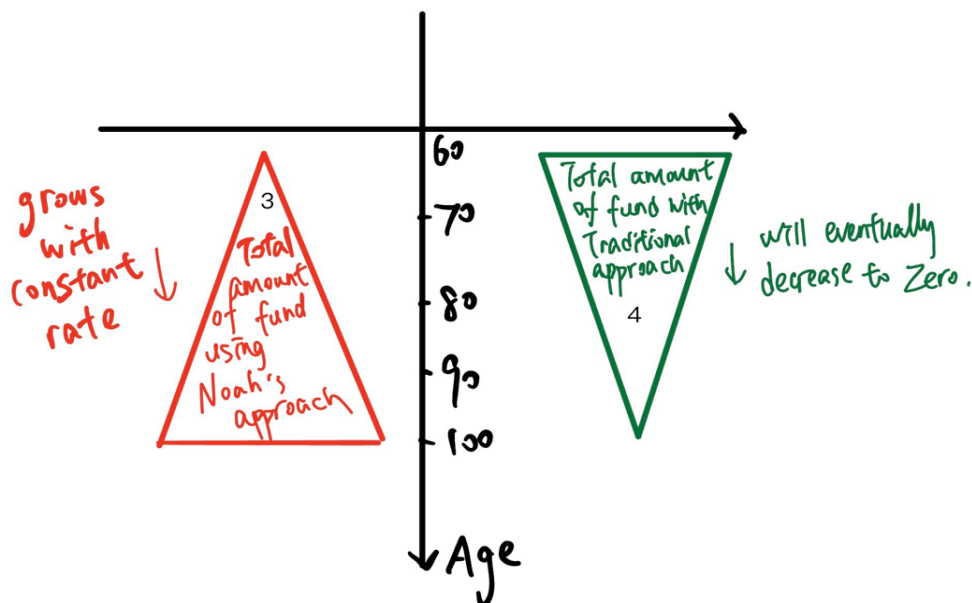


Image: Component 2 of The Triangles of Fund

The second component looks at the information beneath the lifespan axis, which contains triangle 3 and 4. The vertical axis in the downward direction, which lied beneath the lifespan axis, stands for the age of an individual. The total area of the triangles stands for the client's total amount of money in each scheme. For triangle 3, from the time point when the client purchases this policy, the value of their total saving in the account starts to grow, extending from the tip to the two sides continuously and forming a triangle. Thus, from this tip (from a small fund), the area of the triangle can

be gradually expanded (the amount of money increases over time at the stated rate (3.5% per year)). In other words, their product increases the total amount of the retirement fund as long as the insurance contract remains, even after the clients' death, with a few amendments it can still be passed on to the next generation, and the original investment will always be kept safe.

In contrast, however, for triangle 4, under the traditional bank saving approach for managing retirement fund, if the client only withdrew a fixed amount such as the interest on their deposits each year, in the current low-interest-rate environment, the amount of cash that can be withdrawn each year will only diminish. Hence compared to the triangle of increasing-sum-assured whole-life insurance, it is more like an inverted triangle, where the amount of money left in the pool that can be withdrawn may be greater at the beginning than in the insurance option, but such amount will only diminish over time. When the interest rate at banks move towards zero, one must begin to withdraw cash from the original deposit to remain a constant living standard, then the triangle (total amount of money) will narrow down and eventually be depleted.

Moreover, when putting all four triangles simultaneously on the same surface, considering the nature of them, this complete graph can then be divided into two sections. The two triangles on the left hand side of the vertical axis represent the promise to increase the original investments, including income from work, and the accumulation of return in the insurance account. The total balance grows along with time, and the area of the two triangles have "infinite" potential. Whereas the triangles on the right hand side have finite area, depicting the depletion of the fund, meaning that after the clients' retirement, with all the expenses that will occur, the money will finally run out. On the sharp contrast of stable investment return on the left and unpromising end on the right, Noah made the rationale for choosing their products straightforward to their audience, using their own words: "if you choose our policy, you will still have dignity when you're old, but if you miss this opportunity, you will have to worry about money when you live longer, then longevity will no longer be a blessing but a burden, how pitiful is that?"

Examining their approach of illustration, with the choice of extending one triangle

from a single dot, and through contrasting the final area of the triangle with the original beginning point, they managed to use a very explicit way to convey to their clients about the product, which have the similar nature as a stable income from work, that is able to achieve significant growth in their retirement preparation money, so as to earn the favour of potential clients. A similar idea can also be applied to the right section, through showing the decreasing trend of the area of the two triangles, from a giant triangle finally to one point, they created a tragic scenario to the audience: if the client insist on the traditional approach of depositing money at banks and withdrawing after retirement, their fund will eventually become zero. Therefore, this becomes another reason that they present to the audience for their decision. Furthermore, looking at the wording of Noah's pitch, "worrying about money when you live longer", it seemed to concern a longer life rather than a short life which was what traditional life insurance normally about. Traditional life insurance reminded people of the risks of unexpected early death, while Noah claimed to cover the risks of unexpected long life expectancy with this product. Such shift of concept not only marked Noah's plan to adjust the target of their product design with reference to the current social environment, more importantly, it also pushed the audience to change their mindsets and plan for the novel financial risks that come along with their highly-adored longevity.

After this, there were two accounts numerically presented, as their "Dual Account", a fixed interest rate account and a flexible rate account (number to be determined by the company's annual performance each year), where the amount that can be deposited in the latter cannot exceed that in the former. Using the two accounts with the plan of 100,000 RMB annual premium (input) each with ten-consecutive-year payment as an example, by the tenth year, the account will accumulate 2 million RMB from premium payments, whereas the total cash-in value of the two accounts can be up to 2,610,000. Then from the eleventh year onwards, even if the customer does not need to pay premiums, the cash-in value of the two accounts will still grow at the stated rate. If the customer does not withdraw any fund from the pool, it can accumulate to 3.2 million in the fifteenth year, 3.92 million in the twentieth year, 4.81 million in the twenty-fifth year, and 5.9 million in the thirtieth year. That is what Noah's agents called "a perpetual

motion machine for cash”.

More importantly, such “cash machine” can be passed on to the next generation. The report presented an example here, if Mr Lee buys an increasing-sum-assured whole-life life insurance product that allows him to deposit 500,000 RMB per year for ten consecutive years when he is 40 years old and his child is 10 years old, he can receive 260,000 RMB per year from the age of 60 until the age of 100, for a total of \$10.4 million; and then when he passes away at 80, his child (who is now 50 years old) can become the policyholder, and afterwards continue to receive 260,000 RMB per year for his whole life until 100 years old, with a residual balance of 8.5 million RMB left in the account, for the next generation.

Family succession has always been a key mission in Chinese culture. There is a Chinese proverb called “cheng jia li ye”, which means “setting up a family and start a career”, and there is a long-existing common belief that values these two components as standard and essential processes in one’s life. However, the debate on which element, setting up a family or starting a career, should come first still exists and it even becomes increasingly prevalent in the modern society (Liu, 2008; Zhu, 2019). In ancient society, people commonly believed that having a prosperous family was one of the most crucial matter in life, as it not only meant a strong labour resource in the agricultural society, as in the family shall have a bright future (Shi, 2016), but also a filial duty towards their parents and ancestors (Shi and Zhang, 2017), just as another proverb goes “bu xiao you san, wu hou wei da”, meaning “there are several things that stand against filial piety, having no offspring is the first and greatest one.” Therefore, under such cultural influence, Chinese parents attach huge importance to taking good care of the children and the succession of family, they always put their children at the first place and make most of the life decisions around the benefits of them, which indisputably includes saving money for their offspring.

However, as dramatic changes came along with modernity, the social environment has changed significantly over the past few decades. As the side effect of fast urbanisation and modernisation, across the globe and including China, the younger generation are experiencing severe financial and mental pressure in their lives in the

cities, such pressure comes from many sources including education, professional career, marriage/relationships and more. In such circumstance, lots of people began to question the traditional sense which puts “starting a family” before “starting a career”, as they had already become exhausted in dealing with several much more imminent problems, such as finding a reasonably-paid job and making sure not to be eliminated in their company with fierce competition (e.g. Holleran, 2018; Colombo, Leonini and Rebughini, 2018; Zhu, 2019; Youth Select Committee 2024, 2024). When all the energy is consumed by the existing personal problems, there is indeed no room and spare attention for the young generation on planning for their offspring and thinking about matters of the future which will only come after decades. Therefore, the thought of putting themselves first before thinking about offerings become a mainstream among the young people.

In this social atmosphere, and to add to the concept of compulsory saving and family succession, Noah then quoted several lines (“duanzi”, similar to memes) from popular Chinese social media platforms like Weibo, then summarised the differences between modern and traditional perceptions of saving by comparing several mindsets of previous generations of Chinese and the contemporary generations, including their views on saving money, consuming products and attitudes towards life. When viewing the shifts of the cultural and social traits between the two generations, the popular lines in each generation can in a way represent the differences that stood out. For example, the previous generation always says “save some money in case it will be useful someday (*duo cun xie qian, wan yi na tian jiu yong dao le*)”, which contrasts sharply with the current generation’s “save nothing in case you die tomorrow (*cun shen me qian, wan yi ming tian jiu si le*)”. Moreover, the previous generation’s concern for the future generation, which included “saving money to buy cars and houses for our children (*cun qian hao gei haizi mai fang mai che*)” and “taking good care of our children and not to make their life miserable (*ku shui ye bu neng ku hai zi*) ”, had changed to the current generation’s “My children and grandchildren will be blessed and have their own luck and fortune, and I will even enjoy my own blessings better without them (*er sun zi you er sun fu, mei you er sun wo xiang fu*)” and “I should only take good care of myself

(*guan hao zi ji jiu gou le*)”, which focuses only on the present life without considering the future. In Noah’s presentation, from the audience’s perspective, these pairs of contrast targeted at the younger and middle-aged customers, and used a sarcastic tone to these modern mindsets intending to advocate the younger listener to think that they still have a longer life to live, should spend their money well, and more importantly, ought to think more about their responsibilities to the next generation.

4. Running out of working time

Beyond the theoretical course described above, there was also a practical course called “The Logic for Selling Pension Plans”, which focused on proactively motivating customers to plan for their retirement fund by asking them a variety of questions that will ultimately lead to the sale of the company’s products, Noah’s managers attached huge importance to these practical skillsets. At one of their morning meetings which I attended, Noah’s team leaders gave each agent an oral exam on their skills of interpreting the product to clients. During the test, these agents were required to form teams of two and play the role of each other’s customer (a very common form of drill in their training practices), and complete a simulation of a sales scenario in front of their team leader, while the test content required them to guide the customers following their lead based on the six “Ice-breaking” Questions, I present them as follow:

- “1. What determines your retirement?*
- 2. How much money do you think is sufficient before you dare to retire?*
- 3. For the pension, do you want to receive a lump sum or a monthly income?*
- 4. Do you think the pension should be funded by your existing deposits or by the investment returns?*
- 5. What kind of financial instruments can achieve both securing your deposit of funds and offer you regular returns?*
- 6. If both, would you mind it is an insurance policy?”*

In addition to these questions, the company provides two other tools to assist the agents in communicating with the client, including the Policy Review Form (a simple form which concerns the type of insurance coverage that the client has) and the Ruler of Life (see below for an illustration). The Policy Review Form is often given to the client by the agent, to be completed by the client themselves. This form allows the customer to find out what type of insurance they currently have and what they need to purchase as supplement. While the Ruler of Life is actually just a 20cm long by 2cm wide strip of white paper that is as long as a ruler, but with Noah's sales pitch of their understandings and interpretations of life using this strip of paper, it became a '*paper tool*' that bear substance (Jardine, 2017) and can be manipulated by Noah's agents to convey meaning and knowledge as planned, with their specially designed phrase bank.

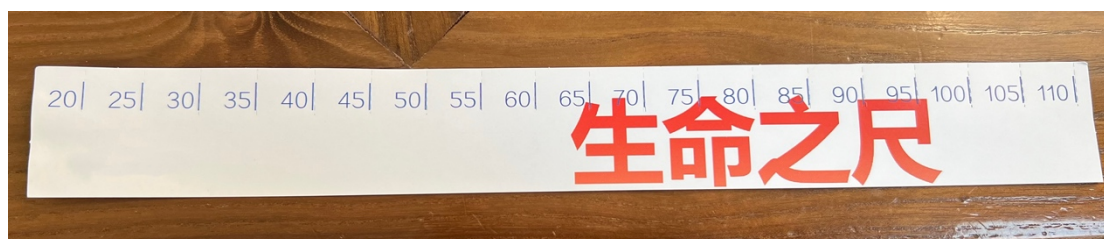


Image: a picture of the Ruler of Life (with each 5-year section of life, red Chinese character means “ruler of life”)

The form of this ruler is fairly flexible, even without one of these well-prepared Rulers of Life at hand, at the start of their communication with the customer, the agent can always use a ruler and a pen to draw a horizontal line on a strip of paper to demonstrate the length of the customer's lifespan, and by marking a few points on the horizontal line, including the customer's current age, the expected age of retirement, and the expected length of life, to indicate to the customer in a more intuitive representation, of the proportion of time at different stages of their lives. Presenting along with the questions, the agent can fold or tear apart the corresponding time period on this “ruler” to make the client more aware of the passing of time and the shrinking of the remaining working years, and thus the importance of setting aside sufficient funds for their retirement. Hundreds of these Rulers of Life were available at the office, and as a daily routine after every morning meeting, team leaders gave a handful to

members of their team, including to me, asking us to practise the pitch of Ruler of Life with each of our colleagues.

After a few practice sessions, I could also fluently go through these selling pitches and felt confident that I could present it to an audience. With the worries of ruining one possible sales opportunity, I never gave a pitch to a potential client, but a few weeks later, I was having dinner with a friend and reviewing our recent experiences, I seized the opportunity to improvise a simple version of the selling pitch over a tissue. Since my friend's parents had reached retirement age, she had been considering various retirement options and recommending these to them, so she showed great interest when I mentioned the increasing-sum-assured whole-life life insurance to her. But as we share the same age, it was easier for me to frame this presentation of the various stages of the Ruler of Life on our age.

My friend is 26 years old and has a job in Beijing with an annual income of around RMB 300,000. This level of income is at the top tier in the national context, but because the cost of living in Beijing is high, other than paying her rent and other living expenses each month, she does not have much money left to save.

Our conversation went as follows, reproduced from my notes taken soon after that day:

I tore a tissue on the dining table into strips of paper, took out one strip, following the script I learnt from Noah, and said to my friend "Assuming this is the ruler of your life, the length of the ruler represents your lifespan, how long do you expect to live?"

She said, "It seems like the average life expectancy is pretty long these days, so of course I would like to live more than 90 years old so I can get enough of everything that I haven't played with in all the years I've been working."

I agreed, and then folded back one end of this slip of paper a bit near the end and said, "So here is the long part of the ruler, it represents the life you expect to live, so how old are you now?"

She replied: "26."

Thus I folded back the first quarter of this strip again and said, "Let's fold off the part that we have already lived through before, so pretty much you are now a quarter to a

third of the way through your whole life, so how old do you want to retire?”

She: “The state requires it to be 50 for women, but I think it might be extended later, so 55.”

I folded it again around the mid-point of the rest of this note and said, “So if you expect to live to 90 and retire from 55, does that leave you with 35 years of retirement and the remaining 29 years from 26 to 55 as your remaining working years?”

She said yes.

I continued, “So do you plan to work every day for these 29 years?”

She said, “No way, I want more holidays, I want more rest.”

I replied, “Okay, then it means that in these 29 years, you only work during the day and rest at night, on weekends you also rest, and when holidays come, you also take a few days off. So do you know there will be two unexpected contingencies and one inevitable event in your life?”

She said, “I don’t know.”

I explained, “The two contingencies in a person’s life are that no matter what kind of person they are, they may get sick, they may have an accident, and the inevitable event is that they are bound to leave this world⁴. You have 29 years before you retire, but it is not like you are at work every day, so if you encounter the first two contingencies, the length of your recovery time plus your expected time off will only be longer, and then your effective time at work will only be shorter.”

I then folded the part of the ruler representing 29 years in half again and said, “Now this is your remaining work time, much shorter, isn’t it?”

Then I revealed the part of the ruler that represented the 35 years of her retirement time and showed that the length of the ruler that represented the length of her retirement time was more than twice as long as the length of her actual working time.

My friend laughed at this comparison and said, “How can there be such a big difference?”

⁴ The description of “Two contingencies and one inevitable event” in Chinese is “liang ge ou ran he yi ge bi ran”, it is a commonly used phrase across Chinese life insurance industry, from insurer’s advertisements to everyday communication with customers, here I used it as the starting point for our conversation regarding this life insurance policy. And for the rest, I followed the 6 questions and the phrase bank for ruler of life that I learnt from Noah.

I said, “Actually, according to current statistics, with the development of medical technology, the average life expectancy of people will increase a little bit every few years, so in fact, it is very likely that you will be able to live for a longer period of time than you think now, and then this comparison will be even sharper. Think about it, although you have a good income every month, but when it subtract the rent and the cost of living, there is not much money left to save, and if you have to buy an apartment in Beijing, at the centre of the city, with the price of 50,000 to 60,000 RMB per square metre, if you have to take it on your own, you will also be under a huge amount of mortgage, your pressure financially will be even greater. So in this case, how do you save up enough money, in order to live the retirement life that you always wanted?”

My friend was stumped by my question and was silent for a few seconds.

I then added, “Then shouldn’t you plan ahead for your retirement now? Because if you change your bad spending habits now and save a sum of money into your account every month on a regular basis, then in the following 29 years, not only will this sum of money continue to grow because you are constantly depositing it in, but there will also be a stable interest rate that will make it grow continuously, so it will help you to earn enough money to enjoy your desired retirement life when you decide to retire.”

My friend thought for a moment and said, “That seems to make sense, I seem to be convinced, let me think more about it when I return home!”

What I did not expect, at a later date after a few weeks. this friend came back to me on WeChat, asking me to recommend some insurance products for her, so I directed her to some of the insurance products of this similar kind from various insurers. When I review my notes of the ice-breaking questions and this conversation later on, I noticed that Noah’s wording presented an unexpected perception of time and retirement to the clients, they divided work time and retirement time starkly, meanwhile extending the time length of the latter and shortening that of the former, therefore a sharp contrast was formed, and retiring seemed to become taking a risk. With such a perception, the audience could unconsciously did all the job for the agent who asked these questions, including thinking about their remaining work time and retirement life ahead, especially worrying about the expenses and risks if they lose a stable income after retirement. The

agent could only ask the questions and respond to the client's answers with what they learnt from their general phrase bank, with only minor adjustments to suit each case. It was solely the client, as a first-time listener, who constructed the complete scenario of the life after retirement without stable income from work, including imagining the impact of retirement, the expenses, and the financial risks that they might encounter with, which they could rarely think of in the relatively early stages of their lives .

Furthermore, the demonstration with the "Ruler of Life" also plays a critical role in unveiling a sense of "imminent risks", and the ruler itself is by nature in coherent with the "Triangles of Fund", both using the measurements on a life time, to examine how risk is inserted into time and time warped to heighten that risk. But there are also differences between these ideas, on the objectives of what they intend to compare: One highlights the effect of time on wealth, the other highlights the effect of time on people's income generating opportunities. The graph of triangles compares the amount of fund while the ruler compares the length of time. As the name suggests, the triangles represent the fund, using the legal retirement age (60 years old for men) as the original point, the complete graph of four triangles put fund with an increasing trend on the left and the opposite trend on the right, in a symmetrical sense, partly because the time hypothesis that they proposed were more or less equal both in remaining working years and the time left after retirement, also because they assumed there is a balance between the total accumulated income before retirement and the total expenses afterwards.

The ruler of life only looks at the time in one's life, and the legal retirement age can be an imaginative original point. However, unlike what the agent does with the graph of triangles, illustrating a symmetrical relationship, here with the ruler, their job was to break up the symmetry in order to form a much sharper contrast in terms of the time length of each life interval, especially the time remaining and the time left of lifespan after retirement, with the indication that even with the full capacity of the remaining working time, the listener will still not be able to save sufficient money for their retirement with their current level of income, so that they certainly need the help of this insurance product that offers more than accumulated savings. More particularly, to

make the comparison even sharper, agent also reminds the client that life expectancy in the modern society continues to rise without anyone doing anything for it, automatically, surprisingly, and out of the client's control, and because of this, the need to protect oneself against their own unexpected and uncertain longevity is made much vital.

5. How life insurance fulfills family duties

In 2023, according to the latest requirements from government regulators, Chinese insurers need to set lower interest rates on their increasing-sum-assured whole-life life insurance products. As a result, by the second half of the year, many Chinese insurers planned to replace their current life insurance product of this category sold at a 3.5% annual interest rate with a new product at a lower interest rate. At the time I returned to Noah, in May and June 2023, almost all of their staff there were working hard to sell this product, hoping to communicate with more customers about the advantages of taking up this product before the conditions changed.

My interactions with my friend mocked the use of the ruler of life but was nowhere near the tone of the interaction between agents and potential clients. In comparison to my reservedness, Noah's agents' efforts and attitudes were significantly more passionate than mine, especially when approaching deadlines. They gave all their efforts, including practicing sales pitch time after time and working extra hours to meet up with clients, to sell more products in the last few weeks, just to increase their sales revenue to the company and personal income. In order to promote this product, Noah's team leaders frequently asked their agents to continuously invite customers to each of their offline product presentations, thus after listening to this training content repeatedly every day, I became interested in this offline seminar and asked my team leader to offer me an invitation letter to it.

These seminars were generally organised in some famous local four-star or five-star hotels, one or two times a week on average, each time there are about 60 participants. The seminar I attended started at 2:00pm on a Wednesday. After I arrived at the venue, all the clients were asked to queue up at the entrance of the meeting room and were led

into the room by the agents who invited them. There were also two tables set up at the entrance with some souvenirs, including tote bags, mugs and so on. I handed in my invitation letter to a Noah's staff waiting at the entrance, and followed them to my seat.

This conference room was rectangular-shaped, with the area about a hundred metres square, very much like the classrooms I used in my undergraduate days when we took lectures in some hotel conference rooms. I entered through the back door and the first thing I saw was the podium at the end of the room and a huge LED display mounted behind it. The entire room was covered with a red carpet and there were eight rectangular tables (two rows with 4 tables in each row), each with four pairs of chairs on either side of the rectangular table. The first five tables were fully occupied by the time I arrived, so I chose to sit in the corner of the eighth table in the last row to get a better view of the activity in the room. It was about 2:10pm when I was seated, and when I sat down, I noticed that there were three leaflets and a bottle of mineral water on the table that corresponded to each chair: a brochure about Noah's medical services called "Health Services for All"⁵, a handout with a brief description of Noah's background and basic information⁶, and last one, the brochure on the product⁷ that they were going to be selling that day, the increasing-sum-assured whole-life life insurance.

⁵ The brochure named "Health Services for All" promotes the healthcare resources that Noah can provide to their clients. On the front cover, they list a series of numbers to demonstrate their strengths, including: their services cover 34 provincial areas and over 330 cities nationwide, with over 1,000 partner hospitals, more than 230,000 partner doctors, and more than 3,000 full-time doctors are made available. Opening up, The brochure covers the three main sections, namely: hospitalisation services, surgery operations, and medical examinations, it also introduces the core content of these three sections based on their respective characteristics, including the time length for making appointments, service content, and service instructions.

⁶ The leaflet on Noah's company profile aims to introduce the company to the client, and the profile has seven sections, including: About us, Industrial layout, Strategy & corporate Culture, Our products, Our services, Serving national strategies, and Corporate Social Responsibility. Notably, the company presented the names of each chapter in both English and Chinese, possibly to express an high-end image. (so the names that I mentioned above were directly from the original leaflet). To summarise, the leaflet is intended to show the customer that the company, as a state owned enterprise, has strong economic strength and social stability, and thus can satisfy the customer's various expectations and needs.

⁷ The cover of this brochure was designed in Chinese red, with the name and features of the product printed in golden characters and floral patterns, and an image of a happy family in the centre. At the bottom of the cover, they emphasised the three main features of the product, which are steady growth of wealth, inheriting love, and specific care. The main body of the brochure is divided into six sections, which are Product Features, Product Information, Product Responsibilities, Presentation of a Case, Summary of Benefits, and again, a brief description of the company's financial strength. The product features are the same as those shown on the cover, while the product information contains the limitations on the age range of the insured (from 30 days old to 71 years old), the duration of the insurance and the payment method for premiums (5 year or 10 year). The insurance responsibilities section specifies the amount of money that the company can pay out in different situations, such as death, disability, or accidental injuries caused by certain means of transport. In the next section, the presentation of a case, the company demonstrates how a specific pay-out amount is calculated using a mock customer scenario. Then, in the next chapter, the Summary of Benefits, the company demonstrated the investment value of the product by showing the increase in benefits and cash-in value over time in a table for a policy with a total premium of 1 million RMB.

I then took some time to look through these brochures before the rest of guests arrived.

I spent about 10 minutes browsing through the three leaflets, and a while later, I realised that all the seats were filled. So at about 14:25, an employee from Noah's city branch came up on stage as a moderator and announced the official start of the event. At the beginning of the seminar, a manager of the company was introduced to the stage and made some remarks similar to the content of the leaflets distributed to everyone, I was not surprised by such opening, as having a manager to kick off the event was quite common in China, this time at this state-owned company, was of course no exception: first, he introduced the company's background, emphasising in particular its governmental background and financial strength, and then he mentioned that the product would soon be withdrawn from the market and replaced by a new version with a lower annual interest rate, in order to attract all the attention from the audience. Then after a few more words, he handed over the microphone to a senior lecturer at Noah who was in charge of the formal presentation of the product.

The lecturer firstly presented the slides of his personal introduction, on the left side of the screen was him wearing a suit and holding his arm, on the right side of the screen, he listed out some of his professional achievements and titles within the company, which was not much different from other insurance company's lecturers' self-introductions. After the introduction, the lecturer went straight to the topic. The core content of this seminar was not very different from Noah's training for agents that I mentioned earlier. The main emphasis was still on the following keywords: the ageing population, the changing family structure, the increasing financial burden of each family due to a longer lifespan, longer average life expectancy, sources of individual's pension fund, and the need to arrange for retirement in advance. However, there was a major highlight in this presentation that I found to be particularly worth elaborating, it concerned the theme of "family duty" .

The idea was introduced by the story of the shift in the responsibilities for taking care of the old from the government to the individual. Research on Chinese government's social protection system and guidance to older citizens and to elderly care suggest that the regime changed over time in the past few decades, and is tied to the "One Child

Policy” (e.g. Liu, 2010; Huang, 2008; and Chen and Song, 2013). The Family Planning Policy became effective nation-wide and was added into the national Constitution in 1982, then afterwards, in order to correspond to the child policy, and advocate citizens to follow such policy, the government issued several slogans and put them in banners. By comparing the slogans of government strategies and personal retirement planning on newspaper headlines and street banners in 1985, 1995, 2005, 2012, and 2023 on the same slide using photographs, the lecturer demonstrated the change of the responsibility to take care of the old after retirement in the most direct way: from “Family planning is good, the government is here to take care of you” in 1985, to “Family planning is good, the government is here to help” in 1995, to “You can’t fully rely on the government for your old age” in 2005, to “Delaying retirement is good, you can take care of yourself” in 2013, to the last, “Three children is good, you won’t need the state to take care of you” in 2023.

The content of these slogans directly reflected the government’s instructions for individuals on their retirement, shifting the responsibility for elderly care from the government itself at the beginning, to the individual, and finally to the children. That is to say, the financial risk on each individual household of taking care of the senior members has also been shifted from the government to each individual household itself. I noticed that a number of audience members took out their mobile phones to take a picture of the slides. And regarding this financial burden on each family, the presenter indicated the function of insurance using a metaphor:

“Most of us only have one child or two children, and of course we don’t want them to be stressed out because of this, so purchasing our insurance policy is just like adopting another child, but with tremendous flexibility and stability, and it can guarantee you with considerable reward.”

The audience laughed and agreed.

Although being said in a fairly humorous manner, the lecturer’s expression was not a joke by its meaning, and even touched a serious cultural consensus. The metaphor of “insurance as an adopted child” resonated with one of the core ideologies in Chinese culture, which concerns family duty. In the traditional virtue especially the Confucian

view of filial piety, parents rely on their offspring to support in the old age, and it is a moral responsibility for each individual to take care of their parents (Lv, 1992; Yang, 2010; Yang and Lv, 2012). Also, Xiaotong Fei (1998), who was one of the most respected Chinese anthropologist, claimed in his study that, in the traditional view of Chinese society, the family elderly-care protection system was based on an inter-generational exchange scheme of family resources, from parents to children at first and children to parents later, which was a *feedback model* of family support between the two generations. Moreover, there is a Chinese proverb that goes “*Yang er fang lao, ji gu fang ji*”, meaning “Raising children to provide help in old age, stocking grains to prevent famine”, and upon this idea of “Raising children for future”, there is another proverb that goes “*duo zi duo fu* (having more children brings more prosperity)” from ancient China (Shi, 2016), together with Fei’s contention, implying the ideas of ‘having more children can help raise the living standard of the family in the agricultural civilization’ and ‘more children can bring better protection for the old, so that the old can live in a worry-less condition’. Apart from this, existing research (e.g. Shi, 2016; Wang, 2017) over the past few decades has also suggested that the old people’s satisfaction towards life also varies along with the quality of children, as they can potentially bring robust support. Generally, the more quality children they raised, the better protection against risks they had, the happier about life they became.

However, after the legalization of the Family Planning policy, most families can only have one child. Then the main supporter for elderly care, which is the young generation, will be put under significant pressure because there will be no other siblings to share such responsibility, the quality of their reciprocity may vary or reduce also because of such severe pressure. In the current society, having children stops being a source of return to a family but a cost. Starting from childbirth, parents invest long years of caring and support on their children both mentally and financially, including paying for education, helping to purchase the first house, and more. Despite all that being said, when their children grow up, most parents who invested so much don’t necessarily want their reciprocity financially, they even tend to neglect the sense of entitlement of being protected and cared for by their offspring, instead, they want their children to have their

own lives, and thus worry about not being able to remain as a provider and becoming a burden or an extra cost to the children (e.g. Cahill et al., 2009). In this case, worrying about “becoming a burden to children” can be perceived as worrying about a moral risk in family where parents will feel guilty for causing more trouble to children, and children will feel themselves being unfilial to parents if they do not look after parents well, and they can both be prevented according to Noah’s approach.

Here, this lecturer from Noah borrowed the “*feedback model*” (Xiaotong Fei, 1998), using the metaphor to put their insurance product to the equivalent position as a “*child*”, combined it with their core idea of “saving money for the future”, and eventually, lead to the final implication of theirs: just like the traditional proverb of ‘yang er fang lao’ and ‘duo zi duo fu’, Noah’s insurance policy can also reach such aim even in the One-Child era. Buying an insurance policy as an adopted child allows one to have a “child” in an old, out of date sense, where old parents can still expect this “child” to care for them.

In sum, Noah’s presentation was structured upon the growing public concerns of retirement life, it contained both the uncertainties in the broader social environment (such as the government’s instructions on elderly care, and the low-interest-rate bank deposits) and the possible risks in individual’s and families’ lives, targeting both the middle-aged audience who were experiencing the change in the lives and the younger generations who just entered the society with some extent of pre-existing understanding of insurance. They increased the client’s trust in the company by emphasising the company’s governmental background and financial strength; they prompted the client to think about their future by demonstrating a shift in the responsibilities of elderly care after retirement; they made the client more aware of their own life by directly asking them to think about the risks of issues that were not very visible when they were younger and healthier. And in this way, customers can realise more straightforwardly that they are living with risks; and by comparing the income from bank savings with that from purchasing their insurance policy, customers were made aware of the advantages of buying their increasing-sum-assured whole-life life insurance product. Together, these elements were the key to Noah’s capability to attract customers to their

product at this very late stage.

6. Discussion

In conclusion, the advancement of modern science and technologies helped to improve people's life expectancy dramatically. However, when people live longer in the current society, their understanding of the risk of a longer life was constructed under the influence of the social environment such as financial instability, pension shortfalls, low interest rates and other salient risks, together with the individual-level concerns such as the possible emergencies and accidents in daily lives. To live a satisfactory longer life, they will need much more amount of money by themselves to support their lives, and to pay for the expenses, especially for healthcare and medical expenses. When people retire from work and lose a stable income, such financial burden will come directly to their family members in particular their children, and especially in the current Chinese society after the one-child policy, the only child in each family will live under extreme financial pressure for taking care of their parents, also face risks of moral failure if they cannot fulfil filial piety adequately. Thus, a longer life implies financial risks and moral risks, and these risks of long life are a family matter.

During Noah's presentation about insurance and family duties, there was another highlight appeared when the presenter talked about the financial pressure that people will have to carry after retirement. They summed up "the eight significant fears of old age", namely:

1. *The fear of not having friends to keep you company when you are lonely,*
2. *The fear of not having money for emergencies,*
3. *The fear of not being able to get financial aid when you have no money,*
4. *The fear of having no one to support you in your old age,*
5. *The fear of not having anyone to look after you when you are sick,*
6. *The fear of not being able to take care of your family,*

7. *The fear of financially dragging your children down when you are in hospital,*
8. *The fear of losing your dignity in life.*

These eight fears took into account of the relationship between the individual, the family and the friends, as well as the financial resources in times of emergency or need, the wellbeing and the dignity of the old. More particularly, these risks were not about personal death or disability, instead, they were framed financially and morally about not having enough money (financially) and being a burden to the family (morally). Here, Noah used financial representation to offer customers an evaluation on the level of impacts of an unexpected long life on a household, so that the understanding of family duties (parental duties) could also become more perceivable with the representation of monetary terms. Even the affective relationship and moral considerations within a family were also represented in monetary sense, such as leaving the money for children or avoiding from costing them too much. Moreover, in the descriptions of these “fears”, although they only looked at relatively microscopic aspects, excluding larger reflections on the future of the economy or the development of the country, only concerning individual’s personal and family life, these factors are still essential, even need to be planned in advance, and many of these risks would not be easily noticed by people, especially the younger group, when these problems do not arise. Putting these issues visually in front of the audience and asking them to plan for future at a younger age will effectively help to raise the awareness and motivate the thoughts about the needs to reduce these risks.

Moreover, according to Beck’s (1992) Risk Society Theory, in modern society, technological advancements brings new types of manufactured risks, these risks penetrate through modern social structure and have profound impacts on people’s lives. As a side-effect of the overall social development, in particular the improvements in medical technologies, the risk of aging population becomes salient. As I have illustrated in my research, the progress of medical science and technologies in China significantly prolonged the average life expectancy of Chinese people, it made Chinese society an aging society and its extent continues deepening. The effect of aging population is also

manifested at household level, in which there are more senior members in each family. Besides the change in family structure and demographic status, the impact of aging population also appears in cultural aspects, as it challenges the concepts of familial responsibilities and filial piety that Chinese people have believed for centuries.

As I have explained earlier in this chapter, the notion of family is essential in traditional Chinese ideology. From a cultural perspective, Chinese people weigh performing family succession as a moral discipline; and from a psychological perspective, raising the offspring and taking care of the old can make people experience the sense of happiness and the joy of family life. In history, when there were no developed medical sciences and technologies or sufficient support from social security, “*Yang er fang lao* (Raising children to provide help in old age)” became an optimal choice for each household, since it stipulated the children’s reasonability to take care of their parents who invested fortunes to raise them. In the cycle of family succession, young parents spend money and labour efforts as their children grow up, if we perceive this as a process of making deposits, then the feedback from children to take care of their parents can be understood as a repay of deposits. In this way, a functioning loop of fulfilling family responsibility is formed.

In this traditional mode of family succession, the concept of “filial piety” became the moral guidance and discipline to restrain the offspring from evading their responsibility to take care of the old, and there were also public judgements and legal regulations overlooking the offspring’s conducts. Such system has operated in China for centuries. However, as China enters modernity, when there is a changing family structure, the existing feedback model and the concept of “filial piety” encounter challenges morally and financially. Financially speaking, taking care of more senior family members brings intense financial pressure for the working people, and morally, since old people do not want to be a burden to their offspring, having a prolonged life even poses a moral dilemma to them. That is, aging population creates conflicts between filial piety, parental responsibility and financial arrangements, furthermore, it forces a conceptual shift in terms of how people value familial responsibility and filial piety.

In the light of the risks of aging population and a longer life, instead of insuring early

death, Chinese insurers are trying to insure “*late death*” and the modern risks that they constructed from social and cultural factors. Although it is called life insurance, the risk that they are looking at is not death, but a longer life, as well as the moral and financial risk that come along. As what Noah repeatedly advertised in nearly every occasion, their solution to such complex risk of long life is asking clients to “save money at their insurance accounts” for future. Just like adopting another child and having them support the family when the time is mature, the insurance policy that client purchased, will act as another participant in this family and in the new reciprocal family model, to ease the financial and moral burden of both parents and children and run this family model faultlessly. Therefore, beyond the considerations of making investments and mitigating the risks, purchasing this insurance policy becomes another crucial factor in accomplishing one’s responsibility for the family and offspring.

Then in practice, in order to raise public awareness of the potential financial and moral risks brought by the longer life, Chinese insurers developed a set of approaches, including sales pitch and handy apparatus, to demonstrate the potential risk and special occasions that their audience might have in a more vivid way. Both Noah’s “triangles of fund” and “ruler of life” divided clients’ work time and retirement time sharply, and inserted risks, especially financial and moral risks, into the measurement of time of the clients’ each stage in life. With shortening work time and extending retirement time to escalate the contrast in between, the risks of retirement was made much notable. In particular, they used the graph of triangles to dramatise the effect of extended lifetime on assets, unveiling the hazard of living off a depleting asset, to remind clients of not leaving anything, including financial risks and filial duty risks to their children; With the ruler of life, they directly compare the length of remaining work time to retirement future, showing that saving with the current rate might not be enough, so as to justify the need for their financial instruments.

Moreover, they use a sales pitch that resonates not only with the governments guideline but also traditional values to finally attract the customers’ attention to their product. Last but not least, when trying to convince the customer to purchase these insurance products, Noah’s agents pulled the existing trusting relationship that they

have with their clients. They transformed the narrative of persuasion, shifting the core idea from “purchasing insurance” to “saving money at your own accounts”, as an effective approach to lower the mental fence of their clients, and to finally sign the deal. I will illustrate more on how Noah’s agents build a trusting relationship with clients in chapter 6.

Chapter 5: Genetic testing with Insurance: the Chinese Wish to Manage an Uncertain Future for the Family

The previous chapter has opened up the discussion of contemporary Chinese society, where on the one hand, people are generally expected to live longer, whereas on the other hand, expectations of longevity and the modern family structure with more elders challenge the recognition and fulfilment of family responsibility in each urban household. As concluded previously, longevity brings financial and moral risks to urban families, the financial risks emerge from the excessive cost for the prolonged life after each family member's retirement, and the moral risks manifest themselves when family responsibilities, such as filial piety and parental concerns, cannot be adequately fulfilled. Therefore, in this context, insurers claim that buying insurance is like adopting another child to the family who can bring stable income and secure the overall financial stability of the family, so that taking care of the elders and raising the children can bring less burden, the financial and moral risks can then be mitigated. In the previous chapter I mainly looked at the senior age group and discussed the topics around how insurance helps in taking care of the elders, however, equally important in a family, the children also need to be considered because they represent the future. Therefore, in the following text, I will shift my attention to the younger generation to examine under the ties of families, how the risks concerning the family's future are understood and evaluated in Chinese insurance practice. I will particularly investigate how Chinese insurers conceptualise genetic testing as a tool for signalling the health risks flowing in clients' family, as well as a guide for planning their children's education and future development.

In this chapter, based on my fieldwork experience at Robin insurance company, I will present the way in which a Chinese insurer bundle predictive genetic testing products with their insurance and health related services. I will demonstrate how Robin manages to sell genetic tests as a life insurer, how Robin's employees live with genetic testing products at office, how they understand genetic tests as direct-to-customer products and

communicate with clients, and ultimately, how they raise the awareness of risk even out of healthy audiences. Upon the findings above, I will then discuss why and how genetic testing, especially predictive disease-risk tests and children's talent tests, fit in the current Chinese understanding of family, general longevity, and anxiety for future.

1. A literature review on genetic testing and its connections to insurance: a powerful, impactful, while controversial tool

The early medical uses of genetic testing can be traced back to DNA based paternity tests in early 1990s, then other uses such as tests for inheritable breast and ovarian cancers emerged in late 1990s (Nelson and Robinson, 2014). Afterwards, in order to review the development of genetic testing and advise clients to understand the technology properly, the United States' National Institutes of Health and Department of Energy jointly created The Ethical, Legal and Social Implications (ELSI) Working Group, and from the working group, two Task Forces were formed, respectively on "genetic information and health insurance" and "genetic testing", to assess the ethical, legal, social implications and future developments of human genome research. Various scholars and industrial experts were invited to the group. After thoughtful evaluations, the task force on genetic information and health insurance published a report named *Genetic Information and Health Insurance Report of the Task Force on Genetic Information and Insurance* in 1994, and the task force on genetic testing came up with a report in 1997 named *Promoting Safe and Effective Genetic Testing in the United States*, the reports not only defined the criteria for valid and utility genetic tests, but also set recommendations for the requirements for service providers regarding the quality and delivery of their genetic testing products to customers for commercial uses such as health insurance (Holtzman and Watson, 1997; National Human Genome Research Institute, 2010). The recommendations have been adopted in several legislative proposals until present.

According to the definition in the Task Force's report on genetic testing, genetic

testing is “the analysis of human DNA, RNA, chromosomes, proteins, and certain metabolites in order to detect heritable disease-related genotypes, mutations, phenotypes, or karyotypes for clinical purposes. Such purposes include predicting risk of disease, identifying carriers, establishing prenatal and clinical diagnosis or prognosis. Prenatal, newborn, and carrier screening, as well as testing in high risk families, are included. Tests for metabolites are covered only when they are undertaken with high probability that an excess or deficiency of the metabolite indicates the presence of heritable mutations in single genes” (Holtzman and Watson, 1997). That is, genetic tests can be used on newborn infants, children, and adults, to find out their inherited diseases such as Huntington's disease, hidden health risks such as propensity to cancer, and their body's responses to medications (Burke, 2002), and in practice, predictive genetic testing is a clinically accepted approach that doctors apply on asymptomatic people for assessing their risk of having certain disease in future.

In medical industry, compared to traditional medical diagnostic tests which look at the patients' current condition, genetic tests offer doctors and patients the chance to reduce the risk and impacts of a disease by taking precautionary measures (Evans, Skrzynia and Burke, 2001). Although an extent of uncertainty still exists, with the evaluation of genetic tests, experts can tailor targeted preventive treatments to customers with susceptible genes, so that they can intervene at a presymptomatic condition (Peterson, 2005). Because of such advantages, many scholars and experts in medical industry have recognised genetic testing's potential and have adopted this method in treating various diseases such as cancer, epilepsy, and cardiovascular diseases (MacLeod et al., 2013; Poduri, 2017; White et al., 2018). With the adoption and combination of genetic research and other concepts in various domains, acceptance of genetic technologies has grown over time, and it has brought along other products like personalised medicines and precision education (e.g. Leeder and Spielberg, 2009; Au, 2021).

In practice, genetic tests are normally used to assist clinical diagnosis and in preventive measures for diseases. For assisting clinical diagnosis, Burke (2002) asserts that “Genetic testing is often the best way to confirm a diagnosis in a patient with signs

or symptoms suggestive of a genetic disease.” And for indicating preventive measures, one widely accepted application for genetic tests is to detect susceptibility for inherited diseases (Shaw and Bassi, 2001). For instance, in the research for the cause of epilepsy, various studies have suggested that some genes are responsible for familial epilepsy. For example, investigations on genes named “*SCN1A*, *CHRNA4*, and *LGII*” indicate that epilepsy can run in the family (Poduri, 2017). And apart from inherited factors, further genetic research has expanded the list of genes responsible for sporadic cases of epilepsy (not inherited), genetic research have been used to illustrate the associations of some genes with the occurrence of different types epilepsy, such as Dravet syndrome and epileptic encephalopathies (Steinlein et al., 1995; Claes et al., 2001; Wallace et al., 2001; Kalachikov et al., 2002; Veeramah et al., 2013; Appenzeller et al., 2014). With the support of genetic evidence, scholars believe that seeking genetic diagnosis in epilepsy can provide diagnostic certainty and advise on potential targeted treatments (Poduri, 2017). Moreover, for Huntington’s Disease (According to NHS (2021), it is “a condition that stops parts of the brain working properly over time”), people with a mutated HD gene are highly susceptible for the disease in their lifetime, but as the gene for this disease is inherited from parents, people without such mutated gene will be safe from the disease (Lerman et al., 2002). Thus, taking a genetic test to discover the risk for such disease prior to its onset is possible, one can discover whether they carry such mutated gene, and for those who carries such gene, it is especially helpful for them as they can seek treatment and support in advance.

For cancer, such as breast, colon and ovarian cancer, a positive genetic testing result does not guarantee a 100% chance of catching the disease, and a negative result also cannot exempt people from the risk of cancer in future, more factors including environmental and other genetic factors also influence one’s susceptibility for cancer (Lerman et al., 2002). Despite this, genetic tests can be helpful in indicating one’s risk of cancer if they have a high-risk family profile (Peterson, 2005). For example, data suggests that around 5 to 10% of patients with colorectal cancer acquire the disease because they inherited the mutated gene which made them highly susceptible, the ratio is similar for breast and ovarian cancer, thus for individuals whose three or more close

relatives being diagnosed with these cancer by 50 years old, they are recommended by experts to take targeted genetic tests for evaluating their own risk (Evans, Skrzynia and Burke, 2001). However, for reducing the risk of disease and preventing it from happening, genetic tests can only confirm the risks rather than reducing it, so after identifying the risks by genetic tests, doctors and patients have to design a set of preventive approaches to reach a promising outcome (White et al., 2018).

The advancement of genome research such as genetic testing and genome sequencing also contributed to the emergence of precision medicine (Sun, 2019). In clinical use, precision medicine is a notion which describes tailored medical treatments regarding the patient's specific characteristics based on their extrinsic data such as living environment and biologic factors such as genetic information (Klonoff, 2020), it allows doctors to decide on "the diagnosis of disease subcategories, the prognosis of patients, the choice of therapeutic, and accurate dosing" (McCrea et al., 2018), which offers personalised strategies for treating disease including cancer and diabetes (Klonoff, 2014; McCrea et al., 2018; Klonoff et al., 2020). For example, patients with heterozygous mutations in their gene HNF1A or HNF4A respond very well to low-dose sulfonylurea, and those who carry activating mutations in gene KIR6.2 or ABCC8 treated with very high-dose sulfonylurea can possibly live without insulin injections alongside careful management of glucose intake (Klonoff et al., 2020).

Apart from health care discussed above, some experts claim that genetic tests can be used in sports, education, or other domains to tailor lifestyles, and discover talents or disadvantages from those tested. The use of genetic tests in sports for general disease prevention is commonly accepted, for example, some Australian boxers voluntarily take genetic test for Gene APOE4 for their susceptibility to Alzheimer's disease, as this gene is closely linked with the illness (McNamee et al., 2009). And in the study on the professional experiences of a football player, Hadley and McNamara (2020) show that professional football clubs use genetic tests to examine players' susceptibility to diseases, vulnerability to injury, and their talents in specific aspects, genetic tests have also been used to indicate the nutritional requirements of top athletes to boost their performance. Professional Clubs like Ajax introduced their plans to design the diet of

their players based on their testing feedback for the objective of enhancing their performances on the pitch (Chu, 2016).

Furthermore, in children's education, studies have shown that children's ability to speak and understand languages is influenced by their genes, some genetic variants, such as FOXP2 and ATP2C2, can cause communicative disorders including verbal dyspraxia and specific language impairment (Newbury and Monaco, 2010; Graham and Fisher, 2013). Children with these mutated features in their genes are expected to have developmental language disorders. Additionally, there are also findings in Children's music abilities, in terms of their perceptions of pitch, music listening and memories. According to Tan et al.(2014)'s research, gene AVPR1A can be associated with music perception, memory and listening, SLC6A4 can also be linked to music memory and choir participation. More specifically, the rare ability of "absolute pitch" has been proved to have a genetic basis (Gregersen et al., 2001; Theusch and Gitschier, 2011), and the abilities to discriminate sound pattern and sing also show some connections with genetic factors (Park et al., 2012; Oikkonen et al., 2014).

Since the genetic explanations of children's characteristics in terms of their talents enabled parents to know clearer about the advantages and disadvantages of the kids, such as their talents in several fields, it was made possible to design an appropriate approach for promising educational outcome. Such idea resonates with the initiatives of precision education (Au, 2021; Mertanen, Vainio and Brunila, 2021). Hart (2016) argues that the idea of precision education emerges from the principles of precision medicine which focuses on the tailored treatments for each patients, thus similarly, in precision education, "education equals more efficient individually tailored and personalised behavioural management, optimisation, teaching and learning" (Mertanen, Vainio and Brunila, 2021). That is, with a clearer understanding of children's talents from their genes suggested by genetic testing, and under the tailored educational material and approach based on the kids' genetic talents, parents and teachers can possibly find a way for the children's eventual success.

Although clinical performances have proved the scientific validity of genetic tests, there are still more ethical, social and legal discussions around this technology. A

critical concern is to prevent the excessive exploit of genetic tests, both in service provider's code of conduct and in the utilisation of this technology. In the Task Force's report on genetic testing, the committee advise that "(a) the introduction of new genetic tests into clinical use is based on evidence of their analytical and clinical validity, and utility to those tested; (b) all stages of the genetic testing process in clinical laboratories meet quality standards; (c) health providers who offer and order genetic tests have sufficient competence in genetics and genetic testing to protect the well-being of their patients; and (d) there be continued and expanded availability of tests for rare genetic diseases" (Holtzman and Watson, 1997). Genetic testing for ordinary people should be used with caution, for utilitarian purposes, and for the good of customers well-being.

As a technology with such immense medical potential and social influence, genetic testing has attracted the interest of many scholars, their discussions are on its ethical impacts, including the concerns for data protection, discrimination and social inequalities. The well-being of customers not only includes their medical safety, but also covers the safety of their private data. Parthasarathy (2004) raised worries about individual's genetic data being exposed to insurers, employers or other entities which might discriminate people with disadvantaged genes. Gannon and Villiers (1999) also warned that, for the economic interest of the company, employers may require their employees to take genetic tests and reveal their genetic information to the company against their free will, and genetically disadvantaged individuals might face exclusion or even dismissal from workplace. Many other researchers also raised worries about genetic testing reinforcing discrimination (e.g. Keays, 2000; Geelen et al., 2012). Moreover, study demonstrates that, taking genetic tests very socially and emotionally disruptive, after knowing one's genetic information, whether having a genetic disorder can affect their self-esteem, personal characteristics and decision making, and even relationships within a family as well as marital relationship (Carter, 2001). Other than the tested individuals, taking genetic tests can further affect their family members even without their prior notice. Ruel Mannette (2021) argues that, compared to the conventional medical examination which only relates to a single individual, genetic testing can potentially expose more inherited information of the patient's whole family

which will affect their other relatives, and it oversteps the protection to privacy given by individual consent.

Last but not least, many scholars and insurance practitioners have discussed the potential of genetic testing in insurance practice (e.g. Huize Insurance, 2017; Swiss Re, 2017; Blasimme, Vayena and Van Hoyweghen, 2019), but the appropriate way to utilise this technology is still under debate. On the side of genetic testing service providers, as mentioned in paragraphs above, according to the task forces' advice on genetic testing, genetic tests should be carried out in three dimensions, namely analytical validity, clinical validity and utility to patients. Thus for the adequate genetic testing service, the service provider is required to have sufficient medical and technological expertise, the patients' safety needs to be protected, and the test results have to be of adequate credibility (Holtzman and Watson, 1997). These suggestions raised the concerns for the importance of qualified genetic testing suppliers in practice, particularly in insurance business, as the test reports can have significant impacts on the mutual relationship between insurers and clients. Unreliable test results can be misleading for both insurers and clients in the evaluation of insurance policies and premiums.

On the clients' side, some scholars claim that disclosing genetic information to insurers should be voluntary (Smith and Raithatha, 2006), some even argue that the use of genetic testing results needs to be banned (Rothstein, 2018). However, from the insurers' standpoint, for the interests of both insurers and insured in insurance underwriting, it requires both sides to possess even knowledge of the client's morbidity and mortality risks and assess them with an equitable standard, so that no actor uses privileged knowledge to take advantage of an insurance product, and the calculated premium can properly indicate the risk level of the insurance applicant (Swiss Re Centre for Global Dialogue, 2017). Moreover, since genetic testing promises to predict the risk of developing a disease for each individual, Blasimme, Vayena and Van Hoyweghen (2019) assert that it is a possible solution to asymmetric information and the growing risk of adverse selection⁸, for such technology can offer insurers more

⁸ According to *Introduction to risk management and insurance*, "When policyholders have better information than an insurer about their risk levels, they can take advantage of it through a process called adverse selection."

transparent information and prediction about the health status of their clients.

On the regulatory side, according to *Genetic Information and Health Insurance Report of the Task Force on Genetic Information and Insurance* in 1994, the task force on genetic information and insurance (1994) suggested to the United States government that, for citizens' health care coverage:

“1) Information about past, present, or future health status, including genetic information, should not be used to deny health care coverage or service to anyone.

3) The program of basic health services should treat genetic services comparably to nongenetic services and should encompass appropriate genetic counseling, testing, and treatment within a program of primary, preventive, and specialty health care services for individuals and families with genetic disorders and those at risk of genetic disease.

6) Participation in and access to the program of basic health services should not be conditioned on disclosure by individuals and families of information, including genetic information, about past, present, or future health status.

7) Until participation in a program of basic health services is universal, alternative means of reducing the risk of genetic discrimination should be developed. As one step, health insurers should consider a moratorium on the use of genetic tests in underwriting. In addition, insurers could undertake vigorous educational efforts within the industry to improve the understanding of genetic information.”(Task Force on Genetic Information and Insurance, 1994)

The advice from task force focuses on the sharing of genetic information by clients, the use of genetic information in health care coverage, and the genetic services available to patients, in order to ensure fairness and a less genetic-discriminative healthcare system, but it also stated in the report that: “the recommendations concern health care coverage and should not be applied uncritically to other forms of insurance, such as life or disability income insurance” (Task Force on Genetic Information and Insurance, 1994). Some national governments have set varying regulations on using test reports to approve or refuse insurance applications, for example, according to Swiss Re (2017),

(Dorfman, 2013)

the United States forbids health insurers to use genetic information in underwriting while gives exemptions to life insurance, disability insurance or long-term care insurance, while Australian insurers are allowed to use existing genetic testing results if they comply with a few specific regulations. Insurers worldwide tend to advocate their clients to take genetic testing for early discovery of diseases and for promoting healthy lifestyles (Swiss Re, 2017; Blasimme, Vayena and Van Hoyweghen, 2019). On another perspective, for market feedback, an Australian industrial analysis reveals that customers actually tend to expand their insurance coverage when they obtain more knowledge about their health status and risks (Actuaries Institute, 2017).

In summary, in this section I briefly reviewed the definitions of genetic testing, its medical use, followed by its applications in much broader industries such as sports, education and insurance, with some discussions about the ethical issues around the adoption of this technology. It can be demonstrated that although genetic tests have their scientific basis and foundations, more issues, in cultural and social dimensions, need to be considered along with its application to the society. And in insurance industry, the question of whether insurers can have access to clients' genetic information is still under discussion. Therefore, in the upcoming section, I will propose my contribution to this ongoing discussion, offering my findings on the real-world application of genetic testing in Chinese insurance practice. In detail, I will draw on my fieldwork experience at Robin insurance company, to illustrate how genetic testing interacts with insurance practice in Chinese insurance industry, I will also demonstrate that apart from insurance, genetic tests get a much broader and complicated appearance in the society, in the social and cultural perspectives, they also conduct a very important work of binding familial duties, accommodating to an anxious understanding of the future, and resonating with the beliefs of Chinese people regarding their lives in the contemporary world.

2. Robin's Insurance "Ecosystem" with Genetic Testing

In the previous section I have reviewed the academic discussions around genetic

testing and its uses in insurance industry, genetic testing is viewed as a disruptive and controversial application, and its use in insurance industry not only brings technological advancements but also carries profound social and cultural impacts on the actors in the industry, concerning insurer, clients, and regulators. In this section, by illustrating my fieldwork at Robin insurance company, I will show how Robin uses genetic testing in Chinese insurance practice. In the market race competing for customers, Robin adopts the self-image of an insurance elite, it deploys genetic testing, social media and other technologies in business, and it keeps on trying to improve its employees' professional skill set in customer communication. In this part of my study I want to draw attention at how Robin stresses the value of its insurance "ecosystem", how it harnesses promotional sessions to attract public audience, and crucially how Robin's agents sell genetic tests to reframe understandings of health risks and of family responsibilities.

Mainstream Chinese insurers regard "ecosystem" as an upgrade to the traditional business, and a sign of a maturing industry. Due to the growth and consolidation of the industry, the deeper integration between insurance and technologies, and the increasing collaboration of insurance and its related industries such as health management and medical support, traditional insurance enterprises and other participants in the market are establishing multi-component risk-management ecosystems (Huize Insurance, 2018). Yanli Zhou (2017), who is the former vice-chair of China Insurance Regulatory Commission, claims that Chinese insurers have explored two modes of developing ecosystems with the support of InsurTech. According to him, the first path is to extend a collection of auxiliary services based on one type of insurance policy. For instance, in car insurance, apart from insurance coverage, insurers can also call upon big data analytics to offer legal consultancy, traffic updates, car maintenance services, and even travel or entertainment guidance that cover both insurance services and a lifestyle related to motors. Another mode is to unify various derivative functions and products at both up-stream and down-stream of insurance industry using internet or cloud services, such as integrating health management services, medication and clinical support, nursing homes, and investment consultancy under the realm of life and health insurance (Zhou, 2017). In sum, the latest wave of technological affordance has

reinforced the connections between insurance and its related industries and in that way engendered cross-industry business ecosystems. In these ecosystems, the role of insurance has begun to shift away from the financial security against potential harm to an active partner in making risks known and shape people's perception of them, as an ideal of what Dan Bouk (2015) called "a modern conception of death" arising in early 20th century America for which "death could not only be predicted, it could be controlled and resisted".

The parent company of Robin insurance is the Wayne Group (both are aliases). Over the past 30 years since Wayne's establishment, it has grown to a large group with around 100 thousand employees worldwide, with substantial investments in pharmaceuticals, hospitals, insurance, real estate, and biomedical laboratories. Wayne's capital was the foundation for the business ecosystem of Robin. It was only after attending several meetings and short talks that I began to have a fuller image of it, that the ecosystem was not merely an advertisement in the company's self-presentation to associates and consumers. The ecosystem was centered on health management, and it aimed to serve Robin's customers by linking them to a supply chain of various services including insurance, medical services, recovery assistance and more.

In Wayne's schemes, the set of "full-life-cycle service" consisted of five stages, which respectively were Genetic Testing, Insurance, Physical Examination, Medical Treatments and Recovery & Rehabilitation, each stage in this cycle targeted a specific type of customer demands, so in every scenario, there would always be a most suitable product that could attract customers and add them to the ecosystem. All services on the five stages were made available by the group to Robin. From what I observed in the training sessions, Robin's agents were trained to make flexible product recommendations to clients addressing their various needs, the diversified options that cover from cradle to grave (in Chinese "cong yao lan dao fen mu") made it much easier for agents to start the conversation with new potential customers and disrupt the stereotype that agents focus solely on selling insurance policies. In many scenarios, the most recommended service other than insurance was genetic testing.

Chinese state government highly regards the potential of genetic technology and

included it in the “14th Five-Year Plan”, as they believe genetic technology is one of the high-growth technologies that will secure socio-economic progress and development. In the scheme for the “14th Five-Year Plan” issued by the national government in 2021, it stated that “In the fields of cutting-edge technologies and industrial transformation such as brain-inspired intelligence, quantum information, genetic technology, future networks, deep sea and space development, hydrogen energy and energy storage, to organise and implement the plans for incubating and accelerating future industry, then make plans and moves in several future industries” (National Government of People's Republic of China, 2021). The text shows that Chinese government deems genetic technology as a “future technology” which has immense potential as an industry and an actor in the society.

Moreover, the government supports legal research on human genetics, in the *Rules for the implementation of Regulations on the Management of human Genetic Resources* issued by Ministry of Science and Technology of the People's Republic of China (2023), it stated that the deemed legal purposes for collecting human genome resources include testing inherited diseases (affected over 3 generations), testing people from a certain area (people with special physical characteristics and more), and testing for population research such as genome sequencing research and clinical research. However, on the other hand, research also reveals that genetic testing in China is fairly under-regulated, the industry runs mostly with self-regulation of service providers in term of the quality of services (Du and Wang, 2020; Nagai et al., 2023). Beyond this, the rules offer little instructions on the ethical considerations of genetic testing, especially on the details of implementation stage of the service. According to Wang et al.'s (2023) research which conducts a text analysis on 197 government's documents in ethical aspects of genetic testing, most regulatory policies are schematic documents without proper instructions on the actual implementation of relevant regulations.

State regulators for Chinese insurance issued several clear instructions on the use of genetic testing in insurance. According to *The instructions for managing health insurance* issued by China Banking and Insurance Regulatory Commission (CBIRC) in 2019, in Rule No. 17, CBIRC stated that

“Except for family history of inherited disease, insurance company must not set differentiated prices for products based on insureds’ other genome information and genetic testing data”.

And in Rule No.38, it stated that:

“Insurance companies when selling health insurance products, must not illegally collect or obtain insureds’ genome information and genetic testing data except their family history of inherited disease; and must not require insurance applicant, insured, or beneficiary to submit the information above. Insurance companies must not use insureds’ genome information and genetic testing data except their family history of inherited disease as criteria for insurance underwriting.” (China Banking and Insurance Regulatory Commission, 2019)

That is, although using genetic testing data was strictly prohibited for insurance underwriting process, including setting premiums and assessing whether to approve an insurance application, other practice of associating insurance with genetic technologies, such as recommending relevant services to customers, were still made possible for Chinese insurers. Thus in this environment, if insurers cannot use genetic information for differentiated pricing or for discriminating between better and worse clients, why was Robin so enthusiastically promoting genetic tests to their clients?

In such a regulatory environment, genetic testing in China developed rapidly in recent years, especially as the price for some services significantly dropped to several hundreds of RMB per test (iResearch, 2019). And according to industrial statistics, the accumulated number of clients for genetic testing services in China has increased from around 1.5 million in 2016 to over 22 million in 2022 (Li, 2024). Accessing genetic testing services is easy in China, all it takes are a few clicks on a searching engine like Baidu, and sometimes you don’t even need to search since test providers promote their products on popular Chinese social media platforms including WeChat and QQ (Du and Wang, 2020). The phrasing and expressions that these service providers use in their websites is revealing, Nagai et al., (2023) studied 53 Chinese sites and found that providers stress the value of tests across a broad range of uses for well-being, weight loss, disease risk assessment (especially cancer), disease prevention, pregnancy (genes)

and paternity tests, more significantly, 83% of these sites target at each consumer's family including adults and children, and to implicitly draw viewers to relate the product to their offspring, many Asian testing websites present image of children on the site (52.8% of Chinese sites), along with providing special educational services to those tested with “talents” such as high IQ.

The practice of incorporating genetic testing in insurance emerged in China a decade ago. Since 2013, several insurers such as Zhong'An, Ping'An and Tai Ping have partnered with biotechnological corporations to launch health management or cancer-risk detection products (Huize Insurance, 2015; 2017). In the Wayne ecosystem, one of the current outstanding “stars” among all the services was also Genetic Testing. It was provided by a subsidiary of the group, a medical laboratory named Medi (again an alias). At Robin, they often promoted and sold 5 packages of tests, namely cancer-risk prediction, brain and heart disease prediction, memory gene test, slimming gene test and Genetic Analysis and Potential Advantage programme. Besides offering individual testing reports to customers, Robin also trained agents to interpret the results to their clients. Crucially, customers could get very tempting discounts if they purchased from Robin, the table below shows the market price and the “Robin price”.

Name of product	Market price/ RMB	Robin's price/ RMB	Description
Cancer Risk prediction	2400	880	11 items ⁹ for men and 14 items for women
Brain and Heart Disease prediction	2400	880	16 items
Memory Gene test	599	299	9 categories ¹⁰ with 18 items

⁹ “Item” means “xiang mu” in Chinese. For example, in cancer-risk detection, 1 item refers to an analysis on the risk of having a certain type of cancer (e.g. lung cancer).

¹⁰ “Category” means “lei bie” in Chinese. For example, 1 category in memory ability test refers to the analysis on the ability to remember a specific category of objects such as images.

Slimming Gene test	599	359	4 categories
Genetic Analysis and Potential Advantage programme	5999	2999	4 categories with 29 items

From my observations at Robin, genetic testing products seemed to unconventionally have a near equivalent status to insurance policies. Robin had the custom of holding morning meetings to summarise the previous day's market performances, a common practice among insurance companies. Every morning after announcing the “sales champions for insurance” there was a list of “sales champions for Genetic Testing”. Employees at an insurance company were celebrating the sales achievements for a product other than insurance policies. I noticed that many agents had several volumes of published Genetic Testing results on their desks. Some of the reports were the results for themselves, and there were always “guidance on interpreting genetic testing results” accompanying them. In order to raise the public’s awareness as well as promote their products, Robin and Medi regularly held public-facing seminars at the Jing’An District offices. The frequency of such sessions was once or twice per month, the lecturers were usually either Medi’s doctors or its executives, and these individuals always held a Doctoral degree. In the first week of my internship, I attended a briefing seminar explaining the basic structure and content of a cancer-risk testing report, one of the single tests that made up the packages above. The room was crowded so that many late comers including myself had to sit at the far back, and the content of the seminar followed the sequence of chapters in a typical report, but added more health advice for preventing several other diseases than cancer, I present an example of their advice for preventing lung cancer below.

	High-Risk Factors	Health Advice
Environmental Factors	Too much carcinogenic chemical gas in the air	Use air purifier in living environment, regularly open the window for

		ventilation and fresh air
	Asbestos fibre floating in the environment	Wear facial masks
	Oily smoke in the kitchen	Reduce cooking fried food, use range hood
	Air pollution	Reducing going out in hazy weather, wear facial masks
	Vehicle exhaust	Reduce walking in heavy traffic avenues
Lifestyle	Smoke cigarettes	Quit smoking
Diet Habit	Unbalanced diet, lack green feed intake	Intake more vegetables and fruits
Exercising Habit	Lack exercising	Do jogging and other aerobic exercises, keep exercising regularly
...		

After the briefing seminar, I went back to my desk and saw a colleague checking her own report, so I asked her if I could have a look at it and take some notes on the descriptions in the report, also made promises not to share any confidential information of her, she agreed without any hesitation. Contrasting my notes with my colleague's personal report that she voluntarily lent me, I was this way able to examine the content of their cancer risk prediction reports. The report consisted of two primary sections, the introduction that briefly outlined the key messages and the detailed explanation of the results. Looking at the detail, section one contained a reader's instruction, a risk classification scheme and a summary of the risk of certain types of cancer based on the test results. I reproduce two examples in the table below for illustration.

Number	Type	Relative	Risk category	Position in
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	of cancer	risk level		the database
No.	Cancer name	Calculated from the risk assessment model for multiple-genetic disease	>1.85, high risk, coloured in red; 1.65-1.85, relative high risk, coloured in orange; 0.9-1.65, medium risk, coloured in yellow; 0.8-0.9, relative low risk, coloured in green; <0.8, low risk, coloured in blue	Your risk level position in the company's database, 99% means you have higher risk than 99% of the data (customers)
(example) 1	Lung Cancer	0.88	Relative low risk	35.73%
2	Liver Cancer	1.53	Medium risk	64.29%

Section two had four chapters, respectively were Detailed Analysis Results, Gene Annotation, Description of Disease and Health advice. The Detailed Results chapter contained an overall risk evaluation score (by Medi's analyst) plus all the genetic test results on every relative gene locus concerning each certain common type of cancer, and such evaluation score was used as an indicator for the risk of having a disease. Then the gene annotation chapter included the name of each gene section, its genetic locus, chromosome position and related disease, plus a set of comments to help understand those terms. In the end, the Description of Diseases chapter concluded the background and the epidemiologic cause of each disease, and the Health Advice chapter summarised the early-stage symptoms of each illness, with presenting their advice for specific physical examinations and preventive measures, thus, integral to that health advice is the guidance of when to seek the next product in the Wayne ecosystem, see a

doctor, and get tested for an illness. Overall, from the perspective of a non-academic reader in genetic technology, their health advice were clearly stated and easy to understand, the descriptions had substantial referenced scientific evidence behind each claim, and all of their bibliography came from established academic publishers such as the University of Cambridge or *Science*.

One can make sense of Robin's decision to promoting genetic testing products as an insurance company, raising them to an equivalent position as insurance policies, in at least three ways. It was a marketing strategy giving their potential clients access to a non-insurance related benefit established connections between those individuals and agents, and Robin. It was a strategy of client education, or acculturation, it made risks visible and recognisable to customers, and by raising their awareness of risks, urge them to either seek protection by buying insurance policies or looking for supports from other services in the ecosystem. And insurance-wise, it helped to create loyalty and reliance on the company. Genetic profiling make risks visible and calculable to clients, attracting them to join the broad health service ecosystem, then after clients enter the ecosystem, they can later come to Robin's agents asking for tailored insurance recommendations when they need one.

As a brief summary, Chinese law prohibits insurers from using genetic data in insurance underwriting, but genetic testing itself is still under-regulated and there is insufficient government's instructions on how these the tests can be offered to the public. Robin's choice of bundling insurance with genetic testing under their ecosystem is legal, as the service provider of genetic tests is a licensed separate entity from Robin itself. By introducing the well-trusted licensed medical laboratory to clients, Robin even managed to increase the credibility of their tests, as well as present themselves in a thoughtful and trustworthy way. Moreover, Robin required every agent to learn to interpret test results, to take tests for professional certification (even if this certification was being issued by the company), and invite clients to attend regular seminars by medical experts. Because of these actions, they managed to demonstrate to clients that they took such business seriously, even if they were only insurers rather than the actual genetic testing company.

Later, in a casual chat, I shared my thoughts about genetic testing with a colleague named Mandy who sat opposite to me. She was in her early 30s and had worked at Robin for more than eight years. Mandy was a “Wai qin” (in Chinese, this includes agents and brokers, the employees who work outside the office selling insurance policies), although she had a desk at the office she had to regularly be out meeting customers. It was relatively rare to see her at the office, and that also explained why we met for the first time a week after the start of my internship. Our first conversation happened after a morning meeting when I was taking notes, she started the chat by asking if I was an intern or a new formal employee. As we walked to our desks I explained my background as a research student and my curiosity about the promotion of genetic testing in the company. She sat down, poured herself a cup of herbal tea, and began to talk about her own experiences.

She mentioned at that period she was undertaking the group’s training course for interpreting genetic test results, the course had three divisions, low, medium and high levels, and every employee had to finish studying the course material for each level to obtain the respective certificates. She then showed me the high-level course material that she was learning, the book content was similar to a biology textbook except that it only focused on the genes and some certain types of cancers. The book was well worn, and heavily marked. Subsequently, she took four volumes of genetic testing reports out of her carry-on bag and began to talk about how she usually communicated with customers.

“I always take these four reports with me,” she said, “they are the reports for myself, my parents and my daughter. I personally purchased these services for every family member. So when my clients ask about our genetic testing services, I simply hand these four reports to them, it shows my confidence in our technologies and our service.”

Also, to my question of “Am I still too young to take the test, should I wait for my 30s?”, she responded:

“Age does not matter here. According to my experience learning this, taking the test early means knowing this several years before going to the hospital. It is obviously better. We offer quite comprehensive tests.

Recently I came across the testing report of a client who was born after 1990. There were already some cancerous lesions on the glial cell in her brain, it is very problematic. I offered her advice on taking a genetic test because her father had rectum cancer, then it turned out that, apart from this glial cell problem, she also had high risk in her rectum.

But for many other people, remember to maintain a good lifestyle. Preventing is better than taking the treatment when the disease comes, an undiscovered problem can result in a bigger trouble. There are still many people in their 60s and 70s still healthy, this is not that scary.”

I agreed that this was a very straightforward strategy to reach out to customers, and it somewhat explained why she had won the sales champion titles numerous times. I could not tell if Mandy treated me as a potential client, but I was impressed by her communicative skills, the openness and self-confidence, and her personal experiences added credibility to the product as herself indeed became a client of their service. Then in response to my question of why Robin was promoting genetic testing in such an active manner, Mandy attributed those reasons to the market:

“We don’t get paid for this. It is only because we are trying to win over more customers with more attractive products, and luckily our group and our ecosystem enabled us to offer such service to the market. Moreover, we are living in the society with many unknown risks, lots of citizens have an unhealthy lifestyle, and we wanted to use our technologies to make risks visible to them, so that they can either lower the risks by changing their lifestyle or ease the impacts of the harm by purchasing insurance policies.”

When completing this chapter, I returned to Mandy on WeChat asking for more details on their genetic testing service, and she responded with several long pieces of

voice messages, in which she again clarified:

“The mode of co-operation between Robin and Medi was structured because we are siblings under the Wayne group, so it is just brothers empowering each other with more capabilities, I could not say if this is the only case in industry, but we have some unique benefits here. Our agents at Robin do not receive any reward for selling genetic tests. Medi offers us a cost price for their products, and we use it to expand our customer base. You cannot find such quote anywhere else, so in terms of the quality-cost ratio, ours is better than what others can offer...If you are a Robin employee, in our WeChat public account, you can access the online mall and place an order only with your unique employee code, you cannot do it elsewhere...If a client decides to approach Medi directly for genetic testing, they have the freedom to do so, only without such a bargained price. For our agents, whether purchasing genetic testing through us makes no difference.”

And to respond to my questions on what clients will go through during this test, she added:

“For taking the test, client can even have the testing kits sent to their home, use the cotton swab to take some of their oral mucosa then send it back to Medi. There is no need to draw blood. Therefore, regarding signing the paperwork, there is nothing special here. Robin do not give clients documents to sign. If they need more information, we would host briefing seminars or events to demonstrate what these services could mean to them. Thus if they would like to take a test, we will take the sample from them and conduct the test. In this process, Robin still does not charge anything. After clients’ report coming out, we will then collect the report and interpret the report for our clients.

This is similar to buying a test from jd.com (a popular Chinese online shopping platform), in fact, the service and products that we have here, are clearly priced for selling on that platform. Any individual can get the identical product online, and the difference is that, there will be no one there to interpret the results in depth for them. Doing the interpretation actually requires some proficiency, much harder than just reading them, everyone understands the report differently, also to different depths.

As we need to learn how to interpret the results, we gained more understanding of

notions such as risks. That is, we have more to tell the customers, they can in a way perceive more of the future, then they can make plans to buy insurance. Genetic testing requires proper interpretations, so for clients who want to know more of their genes and what types of risks can occur in future, they can come to us, and to Medi.”

I could not tell if Mandy and most of her colleagues genuinely believed in or had sufficient consensus with the set of values that the Wayne group wanted to express, did they have adequate understanding of the scientific knowledge of such technologies like genetic testing that they kept advertising, or were they aware of how these new technologies would change the whole insurance industry. Just from my observations, her actions demonstrated that she trusted the technology and wished to illustrate to customers in a more visceral, personal way, presenting with stories about how one’s risks might influence one’s life. More important than this, the technologies led by genetic testing are reshaping insurers’ and clients’ perceptions of risks especially regarding health, they enable consumers to view and understand the risks in terms of levels and numerical values. Genetic testing makes risks visible to both insurers and clients, so that they can intervene with precautionary measures before the arrival of a disease.

Considering the scholarly debates on whether an insurance company should have access to clients’ genetic data, here in Robin’s case, they provide an unconventional configuration to the problem, and their insurance “ecosystem” plays a vital role in it. As many people have noted, when insurers have the genetic information of their clients, the clients enter a disadvantaged situation in that relationship, as insurers may re-assess the risk of underwriting this particular case, and eventually make unfavourable decisions. As a result, pricing discrimination may be put upon the client, which may make coverage more costly or even make them withdraw their insurance application. In China as elsewhere, the government forbids such practices. Therefore, in Robin’s case, since the introduction of “health service ecosystem” offers a variety of choices to clients with differential health conditions and risks, their genetic testing data is then no longer an evidence for insurance underwriting to assess whether they are of high risk

but a reference to the clients' eligibility for more services within the ecosystem.

In the beginning, when insurers meet clients for the first time, clients can go through a conventional process of insurance consultation similar to any other insurer, but regardless of the decision on buying an insurance policy, afterwards there comes more options, led by the recommendation of genetic testing, followed by other lifestyle or medical options. In the best of case, for healthy clients with no or negligible risks for critical illness in their genes, they know their health condition better after taking the test, and with such results, they receive thorough explanations about their genes and hidden risks from Robin, offering them more guidance on how to live a healthy lifestyle to maintain the healthy status.

And for those who are disadvantaged in their genes, they can still have a clearer understanding of their health condition after the tests, receiving the interpretations of their report and the suggestions for preventive measures. If for the worst case, such as an extreme high risk of some disease, that they need to be taken into medical tests immediately, there are timely offerings from Robin to choose other health-related services from the list of Wayne's ecosystem, from disease prevention to recovery, covering the clients' "full life cycle". As both previous academic research and Robin have claimed, for some type of disease, genetic factors only account for a small portion of susceptibility, a proper lifestyle is also important for risk management, and it can be supported with the various services of the ecosystem. Thus, Wayne's ecosystem here provides a modern while supportive way for clients to manage their risks: they insure themselves but also intervene to change the risky factors.

3. From Risks to Talents and Tailored Education, How Does Genetic Testing Fits into Contemporary Chinese Context

In the section above, I have mostly discussed how genetic testing suggests the risks of health, how it was promoted by Robin in accordance with relevant laws, and how

Robin's ecosystem provides a novel angle in the relationship between insurer and clients. In this section, I will present how Robin's genetic testing for talents resonates with Chinese parents' attitudes towards the education of their children, and in a broader perspective, how it links to middle-class Chinese families' common anxieties for the future. On the current stage of Chinese society of high peer competition, it seems that the moral, cultural and social ground for testing children is the stresses from peer competition.

In *Love's Uncertainty*, Theresa Kuan (2015) offers a historical account of how Chinese on raise and educate their children. She argues that viewing "the child" as the future of the nation is a widely accepted conception deeply rooted in Chinese society from the time of feudalism to the modern era. She notes how in 19th century, at the end of the Qing Dynasty, when the country lost the war against the west, many people began to reconsider the concept of a proper education and childhood with reference to the western examples, and politicians reformed the traditional civil service examination system to a modern school system similar to the west, more importantly, a line proposed by Qichao Liang became inspirational even until now, it went "if young people are strong, then the country will be strong", it linked up the connection between the fate of young generation and the destiny of the nation. Afterwards, with the establishment of People's Republic of China, the "yousheng youyu" (excellent births, excellent rearing) campaign came out, to educate a rural society about modern practices of pregnancy and birth, hoping to level social disparities and ensure a healthy population to support its nation building and development agenda. In this campaign, from the government level to ordinary people, the ideas and practices of "excellent births, excellent rearing" were widely accepted for the sake of the collectivistic nation. The campaign promoted medical knowledge to people such as proper diet and nutrition during pregnancy and offered advice on conceiving healthy and intelligent children. Adults, especially women, felt the strong sense of responsibility to give birth to quality children for the population. Although the collectivistic thoughts and responsibilities for the nation eased over the years, the "yousheng youyu" campaign and its scientific thoughts are effective until present. Apart from this campaign, there was also One-Child Policy issued from 1982

and lasted until 2015. This policy restricted most families to have only one child, the child became the only hope who bore the responsibilities of caring and family succession and all other expectations of the whole family. Thus, under this circumstance, the risk of failure of the only child becomes unbearable for each family (Kuan, 2015).

In contemporary China, with 1.4 billion people in total and millions of students in different grades, the core mission of each child and their family became “how to stand out against the crowd” (Kuan, 2015), and the problems and uncertainties about raising a child then became: “How to be outstanding in a classroom of sixty or seventy other classmates who also want to be outstanding? How to stay on the path that might lead to a decent life, with competition and risk all around?” (Kuan, 2015) Under such high expectations from the nation and each family, parenting and education became demanding and stressful, not only on parents but also on the children.

Parents are already comparing their newborn babies with each other’s kids even before their children have a clear sense of self, they commonly like to compare whose child is the first to speak, whose is the first to walk and whose is the healthiest, and they also like to tell their children about the results of these comparisons as soon as these kids can understand the meaning of these sentences. Although it is not enough to cause any real anxiety so far, when these kids start to enter primary schools and begin to live with their peers, the comparison on a larger scale and to a further extent is then initiated by teachers and parents. When the children enter the realm of schools, parents worry about whether their children can succeed in their education, and the children are anxious about whether they meet the expectations of their parents and teachers (e.g. Chan and Chan, 2008; Kobakhidze, Ma and Tsaloukidis, 2023; Zhang et al., 2024). In order to understand why they are anxious and what they are anxious about, I think it is important to firstly understand the experiences of Chinese young generations (born after 1995) when they grow up. From my personal experience and my observations of my peers around me, the anxiety arose from the living atmosphere, in which the comparison between ourselves and others has been going on since we were little but conscious and will follow us through every stage of our lives, from school time to entering society.

For most students of my generation, the first three years of primary school were

relatively easy-going. Then after we entered Year 4, our teachers began to tell us that we needed to work hard to get into a good middle school, so most of us, including myself, started attending extra-curricular courses after school every day and on weekends. Study shows that Chinese students on average take 33.1 hours per week studying out of school, and 74% of Chinese students took math tutoring after class (Yang and Zhao, 2021). Our daily routine of life became saturated by workload, the school time starts from 7:30am and ends at 17:30pm, during this time students often chat about the extracurricular classes they have attended; and then after school, parents will pick up their kids and rush to the classes, some eating dinner on route. These classes are usually Chinese, Mathematics and English courses that offer these primary school students the knowledge of middle schools three years in advance so that they can perform well in middle schools' entry exams. Moreover, at school, teachers reward the best and criticise the worst based on the ranking of students' performances, labelling students with marks and even requiring to isolate those individuals who are not doing well; not only do they compare academic performances, teachers also compare who is more obedient. In this environment, these students, who already have a clear sense of themselves, are put under intense peer pressure by the teachers and their classmates, and many of them also feel very anxious because of the gap between themselves and others (Yang and Zhao, 2021).

After going through the entrance exams into middle school, these students are in an even more competitive environment. From my personal experience, since the school I attended had a very high admission rate to Peking University or Tsinghua in its high school division (the highest entry rate in the whole province), even the competition to get into its middle school division was extremely high and we had to compete with our peers from all over the province for the chance to get in. As soon as we entered this middle school, we were told that we needed to start working extremely hard to get into a good high school and the school divided us into two categories based on the results of our entrance exams: out of all the approximately 2,800 fresh Year 7 students, only the top one-sixth would be in the 'advanced classes' and the rest would be in the 'regular classes', where each individual class normally has 60 students. Although our name was

“regular classes”, the teachers preferred to call us “slow classes” to distinguish us from the “fast classes” which was what they used to call “advanced classes”. Not only that, starting from the first week, all of us had to take exams every Friday (1 subject a week, for example, week 1 is Mathematics, then week 2 is English, week 3 is Chinese, week 4 is Mathematics... and the cycle continued for the following weeks), the school recorded our results and ranked us when every cycle was completed, and our ranking and results were published and accessible to every student in our year division(2800 students). Therefore, everyone knew exactly where they stood among all the students and how their results changed each month, and they were treated differently by their teachers because of the changes in their grades. For these reasons, also due to such highly competitive atmosphere, almost all students lived with the anxiety of trying to improve their grades and not being overtaken by others, which generally lasted for three years until they finished the middle school.

And later, since there are only nine years of compulsory education according to China’s policy (primary school and middle school), not every middle school graduate will be able to go to high school. About 50% of them will be eliminated in the high school entrance exam (Li, 2023), and the lucky remainder will have to compete for the limited opportunity to enter an esteemed high school, so a similar situation as in middle school would occur again, with even fiercer competitions. Once in high school, everyone’s goal becomes getting into a good university, and the students’ teachers and parents tend to make getting into university the most important achievement, while all the rest, even the students’ mental health, seems to become relatively less important. There is an infamous but representative sentence in lots of Chinese high schools that can conclude such mentality, it goes “as long as you will not die from studying hard, you need to study until your last breath” (China News, 2014). In sum, throughout the school years, almost all students’ lives are dominated by the pressures from schools and their homes, these teens spend an average of 10080 hours on their homework before 18 years old, and lots of them finish their homework after 11 pm every day (Liu, 2015).

When students graduate from high schools around the age of eighteen, they will have to choose which university they will go to through the extremely competitive university

entrance examination (gaokao). As a national-level examination, the college entrance exam is a relatively fair assessment and qualification of students' academic proficiency, which gives people from all social classes the opportunity to enter higher education; however, as such examination only happens once a year, all students have to face the mental pressure of having to waste another year if they fail. Such complex mental pressure includes not only the student's own concerns about their poor performances, the implicit comparisons with their peers, but also the possibility that their family will be put under financial and mental burdens if he or she repeats another year. And subsequently, some college graduates will have to go through a set of similar process and pressure again in their qualification exams for a master degree.

For those who are lucky enough to graduate, they will have to enter the society and look for a job, which brings along new pressures, possibly with a "I have worked so hard until now, I deserve the best salary" expectation and a reluctance to give up some of their pride because of the fierce competition for jobs. Moreover, in lots of households, since the child enters university and reaches a certain age, many parents start to push them to find a date, get married and have offspring (Gui, 2016; Gui, 2022), and in recent years the Chinese government has also been urging young people of the right age to get married and have children as soon as possible because of the growing trend of an ageing society and decreasing population (e.g. Master, 2024). However, for the young people who have just graduated from college and have little experience dealing with the problems from the society, they (including myself) have no mature concept of marriage or starting a new family. Our parents try to persuade us by referring examples of our peers' success in some aspects, but from the children's perspective, it seems that these examples to an extent aggravate peer pressure and confusion about the future, and as a result, many conflicts show up in the relationship between parents and children because there is too much parental involvement in children's life choices (Gui, 2016; Gui, 2022).

In this social environment, as what I have shown, most young people have a unique experience from their teenage years to their young adult years, when key life events such as further education, employment, marriage and having children are concentrated in this stage. Especially in China, the young generation is born and raised in a highly

competitive environment, and their life journey is accompanied by various expectations and pressures from family, school, peers and the society. When these pressures are not dissolved or transformed into motivations for studying or working hard, they become a sense of anxiety that dominates these young people's lives (see: Zhang and Xu, 2013; Wang, 2021; Bicker, 2024). Such anxiety is exacerbated by what they see and hear in their daily lives, and can spread to a wider range of audiences through the posts of similar topics on social media.

Many articles describing and provoking anxiety and peer pressure are becoming increasingly popular on mainstream Chinese social media such as Weibo and WeChat. I paste several paragraphs of two sensational and popular articles (each has multi-million views) from the two categories respectively, the first article is named "The founder of MoBike cashed out 1.5 billion: your peer is abandoning you (ni de tong ban zheng zai pao qi ni)" (Sina, 2018), and the second is named "One year after graduating from a 985 university, I couldn't afford to cure my cold" (Sohu, 2018).

"She is, Hu Weiwei, the founder of Mobike.

Just in three years, she has taken the business and made it a popular startup. She may have cashed out \$1.5 billion from an acquisition.

What do most of the post-80s do nowadays?

They are either in the office buildings in a tier-1 city, just becoming a director, growing fat on their bellies, afraid to quit every month because of the mortgage. Or they are in third or fourth tier cities, living a dull life, and they can see their whole future just at a glance.

Whether you like it or not, your middle age is coming as promised.

However, Hu Weiwei, who was an ordinary journalist three years ago, has moved to a height that is difficult for others to reach.

Looking at Hu Weiwei's soft appearance in the photo, you can hardly imagine that this is a business elite who reigns supreme.

Yet this is how your peers are abandoning you without a word." (Sina, 2018)

And:

“We’re not really living, it’s more like surviving.”

“One year after graduation, I became poor and lonely.”

When a female university student was once asked what she felt most on her 365th day away from university, she said with a bitter smile, “One year after graduation, I got a bad cold and found that I didn’t even have money for medical treatment and had to ask my parents for it, which I think, is probably the worst thing in my life.”

“Graduation is meant to be the beginning of the breakthrough for university students, but every year is the hardest graduation season for graduates, and the new most expensive season for renting a flat.” (Sohu, 2018)

These articles generally resonate with their audiences by telling the stories of the people from their own generations, often including those with successful entrepreneurial experiences or those with good educational backgrounds but struggling to make a living in big cities. The effect of these stories does not teach readers anything positive or inspirational, rather, it creates greater anxiety and peer pressure among the audiences about themselves, their current situation and their future. In the case of other people’s successful business stories, instead of expressing that the reader should learn to be positive, optimistic and not afraid of difficulties, these articles are more about using some specific expressions such as “your peer is abandoning you” to deepen the reader’s anxiety about finding a job or getting a bigger salary; while for the stories of others who are trying to live in big cities, instead of showing that everyone is struggling for their dreams without the fear of difficulties, these texts intend to convey the sentiment that “even the best educated people are suffering”, thus reinforcing the anxiety of new university graduates about the uncertainty of employment and living independently.

All these senses of anxiety, induced from both traditional and modern ideas in and outside each family, affect the people in this social environment. These anxieties tangle and cover all people within, from the broad society to families, then result back to

parents of each family, forcing them to add more expectations to their children, as to avoid the children from being “abandoned” by their peers. Therefore, the next generation will face fiercer peer competitions. As Kuan (2015) has demonstrated, in contemporary China, parenting in middle-class families becomes extremely difficult and stressful, as parents are struggling to determine the most suitable approach to raise and educate their kids in the pressured social atmosphere, worrying about their children lose the race at the start (shu zai qi pao xian shang) and being “abandoned” (paoqi) by their peers, and many parents chose to send their children for “special-talent classes” (techang ban) such as sports, art, math, and more, to raise the competitiveness and self-confidence of them. That said, in short, Chinese parents are working on their best efforts to create the best “tiaojian”(condition) for their children to make them stand out among others (Kuan, 2015).

In my chat with Mandy, I had also wondered out loud about why she took her daughter for such a test, also about the credibility of the genetic talents test as it seemed to me that some talents cannot be accounted for by a handful of genes. In response she took out her phone and proudly showed me a few pictures of her daughter’s painting. This was vivid evidence of a talent for painting that had been signalled by the genetic profile. Mandy seemed to have read approval in my facial expression and continued talking:

“Like all Chinese parents, we used to take our daughter to lots of extracurricular tutorials like piano or dancing lessons, but she seemed to have very little interest in them. So I took her for our talent test and discovered that she was sensitive to colours and shapes which implied her talent for painting, now she only has painting lessons to attend and she enjoys it.”

In *Testing the talented Child*, Au (2021) also illustrates a scenario:

“Lei Jun [Xiaomi’s founder] was a high achieving student. He finished his university program in just two years, and he became an engineer and now has a good life. Jack Ma [Alibaba’s founder] grew up naughty and got into fights. In his first gaokao exam, he scored 0 in mathematics; on his second try, he scored 19. But now Jack Ma has become a leader of China’s economy . . .

When parents want a Lei Jun-like child, the problem is when they have a naughty Jack Ma-like child. They can only sigh and desperately chase after Lei Jun with the Jack Ma-like child with a whip: forcing them to study subjects like math where they cannot succeed. This will only lead to failure . . . Genetic testing looks at these two children in multiple dimensions.”

Au (2021) claims that one way from parents’ perspective that can grant their children advantages is to discover talent by genetic tests and conduct precision education afterwards, in the same article, Au even demonstrated that several Chinese parents actively embrace genetic testing for talents because they afraid their children being left behind by their peers. As I have illustrated with my personal experience also suggested by Au (2021), the conventional characteristic of Chinese education in “one-size-fits-all”, children go through the same path, taking the same courses such as Chinese, Mathematics and English when they grow up, while the courses are not suitable for everyone. Despite these courses were specially designed by educational experts to train children’s intelligent and cognitive abilities so that students can understand the world, children’s individual talents, especially in area such as music, painting which are hardly covered in ordinary schools, are neglected. In the worst case, the talent will be hidden forever, never be known by anyone, and children and families will not only be “abandoned”, but also lose an opportunity to stand out in peer competitions.

If we take a look back at the genetic talent tests that Robin and Medi offered to public, beyond Genetic Analysis and Potential Advantage Project (GAPA) which was took out as a representative in the listed packages that I presented in the previous section, at Robin and Medi, in terms of talent tests for children, there were in total four packages came in different prices, namely Hobby Gene test (HG), Memory Gene test (MG), Attention Gene test (AG), and Genetic Analysis and Potential Advantage Project (GAPA) (the one mentioned above in Robin’s table), all claimed to suit children of 0 to 18 years old. Other options were less promoted compare to the GAPA because of a lack in coverage. Also, as Robin’s employees always emphasised, with each package came their tailored suggestions on optimising children’s talents and improving their disadvantages. I summarise the details of each pack below.

Name of Package	Main objective	Description
Hobby Gene	Helping parents to choose suitable education content and stress.	<p>Offer tests regarding:</p> <p>Category Art: play instruments, singing, dancing, performing;</p> <p>Category painting & Writing: painting and calligraphy;</p> <p>Category lingual ability: learning foreign language, making speech, debating</p> <p>Category skills: spatial, numerical sensing skills, handcraft skills;</p> <p>Category sports: speed, stamina, strength, physical competition, etc;</p>
Memory Gene	Analysing children's abilities to remember objectives	<p>Offer tests regarding:</p> <p>Visual memory, Spatial memory; logic memory, episodic memory, lingual memory, numerical memory, aversive memory, procedural memory, potential to boost memory ability at work</p>
Attention Gene	Assessing children's ability to focus	<p>Offer tests regarding:</p> <p>Characteristics of ability to focus: selective attention, switching attention, reactive inhibition, attentional bias;</p> <p>Types of ADHDs</p>
Genetic Analysis and Potential Advantage	Comprehensive analysis on Children's potential	<p>Capacity for study: activating potential and intelligence</p> <p>Capability for study: evaluating advantages for different subjects</p> <p>Emotional quotient and emotions: fostering</p>

Project (GAPA)		communicative skills Intellectual merits: suggesting suitable future plans
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On the promoting material of each package, the highlights all unwrap around aspects of children's education, such as talents, intellectual ability, memory ability, and the ability to focus. And the emphasis were twofold, understanding the children better, and saving a talent from being undiscovered or wasted. In ordinary schools, students are taught together, thus those with difficulties face the risk of poor academic score, what is worse, they are more likely to lose in the competitions for college admission. However, a suitable tailored education approach might alter such destiny. Generally speaking, for students, when taking lectures, a great learning outcome of knowledge requires their full concentration and good memory capacity, thus knowing themselves about their advantages and drawbacks on these capabilities and further targeted trainings can help them to adjust the mode of study, understand, and memorise the lecture material, hence to boost their academic performances. In addition, for those who used genetic tests and discovered their talents in some field, such as music or painting, their families and themselves can then make much tailored education plans based on their advantages, taking professional certifications and pursuing a professional career based on those can also become an alternative path instead of the conventional progression at schools, for example, taking entrance exams to music colleges which request higher proficiency in playing an instrument while lower requirement in academic scores. Scrutinising the offering of each test, through these proposals, these genetic testing products claim to reduce the risk of failure in education, they intend to make a difference in the conventional ordinary practice of children education, reminding parents and children that they do not need to be restricted on the "one-size-fits-all" traditional path and can choose much constructive ones.

These genetic testing packages did not have any explicit connections to some special insurance policies, or at least in my fieldwork at Robin, no clear link was found. In their

insurance offerings, Robin does not have any insurance policies specifically designed around these genetic talent test packages for children, what they present to clients and their children after these tests is normally a choice for a development plan targeted around the discovered talents. This plan consists of the advice from certified educational experts hired by the Wayne Group, and the children can establish a long-term relationship with Wayne for a set of continuous guidance from as early as kindergarten, to applying for colleges and beyond. For Robin's agents, these genetic talent testing packages are the resources available to them from the ecosystem, so that they can have more opportunities to communicate with potential clients and to establish connections with them. With the resources including genetic testing and the following education plans, these agents have the chance to maintain the continuous connection with clients, and ultimately, turn the clients and even their family to regular customers at Robin. And for parents, in the contemporary educational and social environment, they view raising their children adequately as their top familial responsibility. Parents are aware of the importance of a suitable approach to the eventual outcome of children's education, they will try their best to ensure their children at least not being left behind, and they also deeply understand that, when their children are outperformed by peers, they will face a higher risk of being rejected by top universities and well-paid jobs. The consequences for such failure can even last for a lifetime. These risks, not only contain the risk of financial instability for the family, but also encompass the risk of moral failure due to parents' lack of success in fulfilling the family responsibility for children's education.

Therefore, the rationale for genetic testing can be justified in contemporary Chinese society of general education and the prevalent sense of competitiveness, and these genetic talent testing products offer each family a route that can possibly avoid these financial and moral risks in children's education. For the children who take extracurricular courses like Mandy's daughter, genetic talent tests help them to discover their talents so that they can at least make sure their tuition fees well-spent and talents well trained. Also, for those who find themselves not suitable for general courses at school, discovering their talent even guides an alternative path to success.

4. Discussion

In this chapter, using my fieldwork experience at Robin insurance company, I presented a Chinese scenario of how genetic testing is embedded in insurance practice in terms of a cultural perspective. Many existing literature only look at the integration of genetic testing with insurance itself, discussing the possibilities of individualisation of risks or the disadvantaged position that client might enter if their insurer knows the genetic data. However, as Chinese regulators already issued laws to restrict the use of genetic information in insurance underwriting, while clients' rights are being protected from discriminations, a truly individualised risk assessment based on clients' genetic profile is no longer possible. In the face of this, Robin and Wayne Enterprise came up with an alternative approach with their ecosystem for health service. Clients' genetic profile, in the hand of Robin, then becomes a reference for recommending ecosystem services rather than the evidence for insurance underwriting. In their ecosystem, both genetic testing and insurance become the elements which can act individually, while cooperate with each other if in need. Clients can feel the need for buying insurance after taking genetic tests, they can also take the test after buying insurance in order to know their own bodies better and design a healthy lifestyle. For the insurance and medical cases, genetic testing in insurance makes the risks visible and then manageable by consumers and experts.

Moreover, as *Testing the talented child* says, while experts have criticized genetic talent tests for its scientific credibility and ethical legitimacies, genetic talent testing persists, because China and Asian countries have cultural roots for it (Au, 2021). Beyond this, my story with Mandy also suggests that there are indeed Chinese parents making life decisions with the aid of genetic testing results. In contemporary Chinese society, parents articulate different rationales for using genetic talent tests, such as the intense competition in education and the need to identify areas where their children can outperform others and become successful. All these reasons above provide the social and cultural ground for the adoption of genetic testing among lay Chinese people. In

educating the children, genetic testing can indicate the talent of the child, then a tailored education approach based on the testing results helps to guide each family a path, which reduces the risk of wasting talent and educational failure. Again, with the technology and a set of moves, insurers demonstrate to clients that these risks are manageable.

Moreover, as I concluded in the previous chapter on risk of longevity, risk of a long life is a family matter, and it brings financial risks and moral risks to the family. A typical Chinese family has three generations, the elderly, the working aged people and their children. The elderly are expected to live longer in the current society, they already passed the oldest requirement for buying most insurance policies, but they are still eligible for discovering hidden risks of critical illness with genetic testing; The working aged people are expected to lose their chances of receiving national security and are expected to live on their own funds after retirement, with their investments in insurance and other financial tools to finance themselves and their family's future. Thus in this case, knowing whether they are at high risk of any disease is important, so they can take prior actions to avoid more financial loss, and even avoid the risk of moral failure for leaving their old parents and young children unattended. This justifies their need to take genetic testing for disease. And for their children, as I have also asserted in the longevity chapter, parents do not want to leave too much burden to their offspring, they expect their kids to live a better life, so parents buy insurance policies for themselves and for their children as a financial arrangement. And for the same reason, parents accept genetic talent testing for their children to discover the hidden talent and with more precise education to raise the chances of their kids' success. All that above run under the notion of family responsibility. Thus, similar to buying insurance performs family responsibility, for people, taking genetic testing for themselves, their parents and their children also become the actions of fulfilling family responsibility.

Chapter 6: Interpersonal Relationships on WeChat: The Construction of Co-Presence on China's Super-App

The former two chapters offer the analysis on the social and cultural construction of modern risks in contemporary urban China. According to Chinese insurers' interpretations, the risks of aging society in modern China consist of not only financial risks but also moral risks. That is to say, taking care of elders and raising children bring excessive cost to the family, they produce financial risks, and on top of that, there will also be risks of moral failure either when the elders are not being properly looked after, or the children lose the opportunity for adequate education and potential future success. It is the responsibility for each family member to prevent such moral failure from taking place. Therefore, Chinese insurers advocate that, for urban families, buying insurance and taking genetic testings are ways of fulfilling family responsibility and avoiding the financial and moral risks. In order to propagate their claims to the public, Chinese insurers adopted multiple methods, online and offline, to reach out to clients and much broader groups of social audiences. In previous chapters I mainly illustrated how they accomplish such task offline, thus in the following text, I will focus more on the online approach.

In this chapter, I will discuss how the modern working experience and interpersonal relationships between Chinese insurers and clients are embedded on a social media platform, the specific platform that I will be looking at is WeChat, a Chinese super-application that has penetrated into nearly every aspect of Chinese citizens' lives. I divide this chapter into five sections, I will start with a brief literature review to introduce WeChat, including its origins, developments, and current academic debates surrounding it. I will then lead the text to a more practical focus, with a discussion of my personal experience with WeChat initially as a tool for my casual life and later as it featured in my fieldwork life, I want to demonstrate a shift in conception from private sphere to public domain on the usage of WeChat. Afterwards comes my main argument, where I analyse the two facets of WeChat flagged by the academic research included in

section 1 and by my fieldwork experiences at Robin and Noah. In section 3, I will focus on WeChat's managerial use, such as a tool used by companies to incentivise employees' sense of competitiveness through group chats, I will record how work tasks can be accomplished on WeChat's platform, and how WeChat acts as a tool for constant work surveillance by employers. In section 4, I will examine how WeChat can be harnessed for a different kind of work, that of emotions and affections. Drawing on examples such as online group purchasing activities from the Covid lockdown period through to the current re-opening of society, I will describe how trust and friendship can be forged and fostered online on WeChat and how an offline community can be re-constructed online. Finally, I will conclude with a reflection on how WeChat, as more than just a social media application, is reshaping modern life and interpersonal relations, especially on how WeChat helps to initiate and maintain a collectivistic lifestyle with mediated co-presence.

1. A literature review on WeChat: mediated co-presence and colonization of private life

WeChat is the English name of “Wei Xin” (direct English translation: micro messages), a Chinese instant messaging software released by the Chinese technology giant Tencent Holding Limited in 2011 (Tencent, 2024a). After 13 years of growth since its release date, it is now regarded as one of the most widely-used applications in China, with over 1 billion monthly active users (Tencent, 2023). WeChat is not the first household super social media platform from Tencent. Its elderly sibling, named QQ, had already attracted millions of internet users since the start of 21th century, and the birth and rapid development of WeChat inherited strong support, especially in terms of customer resources, from the user base of QQ (Harwit, 2016). When WeChat was first released, many Chinese netizens thought it as a fashion to move from QQ to WeChat platform (Wang, 2016). For my personal experience, I have been a user of QQ since primary school days, in around 2005, so were many of my friends and relatives. When

WeChat first became available to us, we were encouraged by Tencent to create accounts on WeChat with our initial QQ accounts, many of us followed the trend, and kept using WeChat afterwards. It was through such procedures that enabled WeChat to boost its user base.

The WeChat platform integrated several functions, and there is a trend that it serves as a social infrastructure (Plantin and de Seta, 2019). There are functions including text messaging, voice messaging, audio/ video phone calls, sharing of multimedia contents (photographs, videos, emojis), WeChat Moments (“pengyou quan” in Chinese, meaning ‘friend circles’), public accounts, mini-applications, WeChat Pay, and more. The one function that particularly worth elaborating is WeChat Moments, as its Chinese name “pengyou quan (friend circle)” suggests, it is a virtual place where users can post their thoughts and updates, also share multiple formats of materials (such as links to advertisements, music, videos, long articles), and other users get to like and comment on their friends’ posts. Therefore, friend circle becomes a virtual place to enable co-presence and interactions between acquaintances. Also, likes and comments under one’s Moment updates are only viewable to the two users involved and their mutual WeChat friends, for example, I liked/commented below A’s post, and the only people who can see my like/comment are my mutual friend with A, if A’s friend, B, is not my WeChat friend, he will see nothing below that post (Wang, 2016). Apart from friend circle, public accounts offer users hundreds of thousands of channels to subscribe. Any user can create their own public account, either companies or individual users, and the content to be uploaded is also determined by the users themselves (Wang, 2016). As long as passing through the validation process and legal requirements of Tencent, the updates of each accounts will be automatically pushed to its every subscriber on the WeChat platform. Then there is also mini-applications, they are built-in applications on WeChat platform that cover similar functions as individual downloadable ones from app store, for instance, users can order food delivery directly through mini-apps within the WeChat app without opening the individual delivery app on their smartphone (Hao et al., 2018). In short, as has been noticed by scholars, WeChat is consolidating its influence on its users everyday through each interaction on the platform (Huang and

Miao, 2020), the multiple functions of WeChat has made the application “super sticky” (Chen, Mao and Qiu, 2018): its adhesive and adaptive characters allow it to penetrate into nearly every aspect of people’s everyday life, the more users use this platform, the tighter they get glued to it.

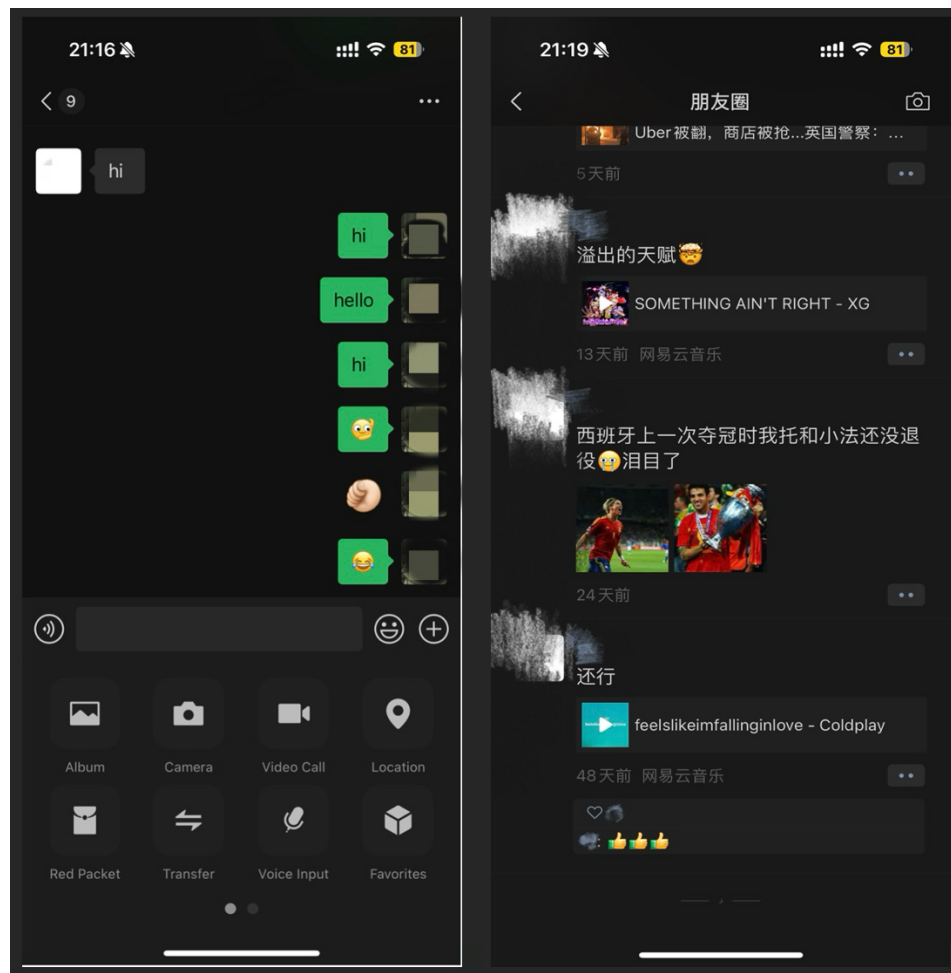


Image 1: Left: Screenshot of WeChat’s chatting interface.

Right: Screenshot of WeChat Moments, where users can share material and view/like/comment others’ posts

As WeChat friend network is an acquaintance-based network which is mostly structured upon one’s offline social life, many people see no needs to role-play online identities, because user’s posts and updates on WeChat platform can be directly tied to the image of their real identity in the eyes of their friends. For this reason, some scholars often view WeChat as a “serious” platform (Chen et al., 2019). The “seriousness” of

WeChat also manifests itself as it creates an occasion of co-presence of users, their parents and work superiors. As a result of this, people are more likely to think twice and share more positive content to their WeChat Moment (Sun and Suthers, 2024). Moreover, Chinese guanxi culture and mianzi (face) culture shaped Chinese people's use of WeChat. According to Ou and Lin (2023), within these social networks constructed upon Chinese guanxi culture, "WeChat is not just a reflection of 'networked individualism' that turns people away from solidary and densely-knit groups to fragmented and sparsely-knit networks, but the aggregation and recognition of multiple guanxi-based networks", users have to evaluate how their online behaviours might affect their guanxi with others with accordance to the protocols of guanxi and mianzi culture, and sometimes have to choose to behave appropriately over their free will. Furthermore, the protocols of guanxi and mianzi require people to at least respect, sometimes even become submissive to seniors or their work superiors (Yang, 1994). As WeChat offers users more than just friend-based connectivity, enabling the communication not only with close friends but also with a broader range of individuals from various relationships, including work-related acquaintances or potential customers, users have to constantly think about talking formally and professionally, as well as behaving appropriately on this mutual online space, just to prevent from offending anyone or ruining any possible chances of a business deal.

The use of emojis is a good example to see these considerations at play in WeChat conversations. Although using emojis in communications are popular across all age groups, research shows that WeChat users of different social groups tend to have distinctive views towards even the same emoji (Zhou, Hentschel and Kumar, 2017; Sun and Suthers, 2023; Wang, McVee and Ding, 2023). For example, the smiling-face emoji has two contrasting meanings between young people and senior users. For senior people, they perceive the smiling-face emoji as a gesture for friendliness and kindness, and they often use it at the end of sentence to express their warm concerns and gratitude for others. Especially in lots of occasions, they send such emoji along with the words to their children. However, many young people feel differently about this character, in their culture, instead of being a sign for closeness, the smiling-face emoji is used to

express dissent and refusal, with a scornful attitude (Zhou, Hentschel and Kumar, 2017). Another example is the “crying tears of joy” emoji, for some people, it means happiness or humour, while for some others, it represents joking or teasing (Wang, McVee and Ding, 2023). Because of such cultural contradictions in the use of Emojis by different people on WeChat, a concern for *guanxi* and *mianzi* becomes particularly important in online conversations with different people, one must consider others’ specific preferences or situations before using one emoji as they chat in order to avoid misunderstandings.

Apart from conversations, the seriousness and formality of WeChat also appear in the other two core functions, which are group chats and friend circle (Moments), as they are more occupied with others. Research has shown that WeChat reinforces power hierarchies in the work space (Tian, 2020; Sun and Suthers, 2024). Although WeChat does not have read receipts for messages, which might provide an excuse for late response, in the working group chat with the co-presence of both general employees and supervisors, the late respondents, especially to the message from supervisors, are still thought to be expressing dissent or disapproval (Sun and Suthers, 2024). For instance, in a group chat, peer pressure will fall on left-overs (those who did not respond immediately) when most members promptly replied to a message, even if it is out of working hours. The late respondents to supervisor’s messages will be regarded as “lazy” and disrespectful to their superiors.

The group chat function of WeChat provides a convenient space for virtual interaction, however, the distinctive characteristics of online interactions, including traceability of previous conversations and the expectation of uninterrupted online co-presence, created an environment where nearly all the employees’ behavioural history and conversation data became transparent to superiors, and thus placed every worker under permanent surveillance and observability (Tian, 2020). As claimed by Tian (2020), such environment for employee-employer interaction leads to very little room for forms of resistance or opportunities to express different thoughts, and, as a result, unable to protect themselves against job insecurity, employees retreat into submissive behaviours under the surveillance and peer pressure. Under these circumstances, the

use of WeChat at work reinforces workplace hierarchies, strengthening the power of superiors and weakening the rights of the inferiors, thereby sharpening workplace inequality, rather than eradicating it or weakening it through peer solidarity and the use of voice.

Surveillance also appears in the built-in mini-applications on WeChat, the outstanding examples are step count trackers and Health-codes. During the Covid-19 pandemic, the Chinese government issued Health codes on multiple platforms, most used ones are WeChat and Alipay, and the government made it compulsory for every citizen to register, everyone had to have their QR code scanned at every public venue as they arrived to leave a trackable digital “footprint”. Although such measure made indisputable contributions to successful pandemic control through keeping the movement of every potential patient on the radar, the health code function and movement tracking function on WeChat platform acted as the tool for constant surveillance by the government on citizens (Tai, Yu and He, 2021). Despite compulsory health codes being cancelled after the re-opening of the society in late 2022, scholars (Liang, 2020) have raised concerns over this technology and its similar kinds having a potential for broader use of surveillance purposes, as citizens on these platforms are under constant observation and datafication, harnessed by the platform and national policies. Another popular application with the similar “tracking” purpose is step count tracker, within the mini-app called “WeRun (Weixin Yundong)”. In the app there is a public ranking board, the board will automatically refresh and rank the daily step counts for each user, and the step counts and rankings are public accessible between WeChat friends (McKenna, Cai and Yoon, 2023). On the one hand senior citizens can use this function to perform mutual surveillance, monitoring the health updates of each other; On the other hand, a broader group of users can set goals for themselves for daily exercise and training. The effectiveness of this tracker might not require anyone doing the surveillance since in a panoptic fashion people will feel that they are constantly being watched by audiences, real and imagined, living in a dilemma between complete forced exercises against their plans or potentially lose the “race” against others in the overall ranking of their WeChat friends.

WeChat Moments, also called the “friend circle”, was initially designed for users to share fragments of their lives with friends, however, study shows that negative feelings and mental stress associated with this function also come along (McKenna, Cai and Yoon, 2023; Sun and Suthers, 2024). Zuo’s (2023) research on the popular content on WeChat Moments reveals that there has been a growing trend of “self-praise” in the posts in friend circle. In order to achieve a sense of self-accomplishment, many WeChat users adopt an expression called “Versailles Literature” for humblebrag, including the content of “*implicit self-praise, modified explicit self-praise, and self-praise through comments and replies*”, it also encompasses “bragging in a foreign language, creating false ‘question–answer’ or ‘compliment–response’ interactions and commenting to the adverts” (Zuo, 2023). Examples of these expressions can include: attaching a photo of the steering wheel inside a luxury sports car when making a post complaining of getting a traffic ticket; Deliberately using multiple languages in one sentence to implicitly bragging about multi-lingual skills; Or posting a series of carefully photoshopped selfies while self-commenting below ‘I look like an old man’.” The actions of modified implicit self-praise of this kind are perceived to be insincere by audiences, they tend to gain less likings and even receive more negative responses (Sezer, Gino and Norton, 2018; Guo and Ren, 2024).

Chinese guanxi culture is practiced online through likes and comments (Sun and Suthers, 2024). Despite these functions enable mental rewards for interpersonal relations, and rapports can be reinforced through frequent online interactions, some people felt obligated to meet friends’ expectations and were tired of the social pressure to reply to messages and making interactions (such as provide timely likes and comments) (McKenna, Cai and Yoon, 2023). Beyond this, there is also surveillance on Moments, under the influence of the imagined audiences including parents, employers, potential clients or even strangers (as my personal experience noted in My Positionality Chapter), the friend circle (Moments) is no longer a space where users can post freely, much more issues such as phrasing, content selection, personal privacy and more need to be considered.

While many scholars claimed through their research that WeChat is turning to a

“formal” and “serious” application because of the reasons discussed above, there are still evidence showing that WeChat can also be harnessed to nurture informal networks that are voluntary and grounded on affect (e.g. Chen et al., 2020; Zani, 2020; Zhang, Xu and Cheng, 2021). Since WeChat blurs the line between online and offline lives, including the interweaving of face-to-face co-presence and online mediated co-presence between people in communities (Ou and Lin, 2023), it particularly brings convenience for migrants to connect with each other in foreign places, especially on Moments and in group chats. In the research on the mutual emotional support and small business by Chinese mainland women in Taiwan, Zani(2020) finds that WeChat becomes a platform for these Chinese migrant women to form friendships virtually in a foreign place. These women established group chats to share daily lives and distribute homemade hometown speciality dishes to ease their homesick, loneliness and other emotions. In the meantime, their group chats also offer a space for them to start small business especially upon their shared cultural and diet habits such as selling homemade snacks.

Moreover, research shows that WeChat can be used to facilitate civil society (Tu, 2016). As Tu (2016) claims, WeChat provides a comfortable space for discussions, and on the platform, users can start small groups as alternative public spheres for constructing dialogues of various topics, even not popular ones including political opinions. Beyond this, WeChat Moments, public accounts or video accounts offer multiple options for online debates and popular protests in Chinese society, in spite of the increasingly strengthening internet censorship by the government. That is, these channels create new ways for ordinary people to be associated with one another to build solidarity, especially between the ones with shared belief.

WeChat’s advantage of promoting online solidarity also appear in healthcare and disease control. Given its high accessibility and large userbase, WeChat can effectively collect patient information to form a large database, providing data support for further optimization of the diagnosis and treatment, distributing health knowledge, and WeChat-based follow-up is also beneficial to establishing a good doctor-patient relationship (Chen et al., 2020). In addition, WeChat has become an important resource

in an ageing urban society, it provides a place for the elderly to exchange healthcare information, and to socialise with peers and the ones who have similar backgrounds (McKenna, Cai and Yoon, 2023). With mini-apps, users can monitor the health status of each other, such as making sure their friends are active through tracking their WeRun updates, and through news updates in subscription accounts, senior users can check for news about latest threats (diseases and more) then share the information to their peers; they can also express views on topical issues to obtain consensus and establish personal values in their community. The research also unveils that more online interactions between users increase their gratification of using this app (Zhang, Xu and Cheng, 2021).

Furthermore, WeChat has an indisputably transformational impact on the dissemination of information across China, particularly in news updates (Xu, 2022). It levels some of the knowledge inequalities between urban life and the life in rural area (Yan and Schroeder; 2019). In terms of how users of different backgrounds use this application, Yan and Schroeder (2019) found that WeChat fits the functionalities that people need for connecting families but also for an effective information resource. Migrant parents who come from rural area and work in cities especially consider WeChat as an important resource of modern knowledge also a scope to modernity and urban life, and they use this platform to maintain the connections with their left-behind children back at home. In the meantime, these parents can use WeChat to share fragments of modernity to their children, supplying them with the influence of a more advanced life (Yan and Schroeder, 2019).

Besides, WeChat has helped to recast old Chinese cultural norms and traditions in digital form, the most obvious instance of this are the WeChat Red Packets (WCRP). Chinese people have a long-lasting tradition to exchange Red Packets on Spring festival as a gesture for sending out best wishes. While physical co-presence is required in the old-fashioned way, WeChat enables another flexible option when people cannot meet each other, the process can be accomplished online with a virtual Red Bag which contains digitised money (Holmes, Balnaves and Wang, 2015). According to Xu (2021)'s research, young Chinese people widely accept this novel digital practice. The

cultural foundation behind WeChat Red Packet is still guanxi culture, same as the traditional custom, and WCRP is an effective practice to manage guanxi through giving and receiving. Guanxi culture necessitates reciprocity, WCRP speeds up and eliminates the risk of forgetfulness by offering “immediate reciprocity,” in which, instrumental guanxi may be generated and finished instantaneously within seconds, simply by a few clicks. Although social hierarchies and the comparison among people over the amount they received through Red Packets still exist, WCRP in the end preserves Chinese tradition and simplifies guanxi maintenance (Xu, 2021). Furthermore, as means of economic exchange, with the extended sociality and connectivity of the WeChat platform, WCRP offers an alternative way for economic activities under the regulation of Chinese government. Apart from acting as personalized gifts, WeChat’s payment system can serve other purposes, WCRP is also used in exchange of commodity, as a daily tool for digital payments (Holmes, Balnaves and Wang, 2015).

To summarise, the technological affordances of WeChat created an online space for the co-presence of users and their friends, people can extend their offline social and acquaintance networks to the online space and recreate their existing connections with others. The phenomena such as online communities and application like Red packets on WeChat show that, on this platform, Chinese people can connect with each other regardless of time and physical limitations, they can establish relationships, start small business, exchange money, make purchases and accomplish more tasks online. Besides, on this platform, practices of traditional Chinese values and etiquettes are well maintained and inherited by the younger generation. On the one hand, as concluded by scholars, a critical reason among others for the prevalence of WeChat platform is its close links and successful interpretation of Chinese culture and social habits (Negro, Balbi and Bory, 2020), and it is an example manifesting that the overall development of Chinese social media is in coherence with traditional Chinese values, it also contains within it several civil characteristics in the way its users communicate, socialise and form solidarity, which are all essential in a modern society (Holmes, Balnaves and Wang, 2015; Zani, 2020; Xu, 2021; McKenna, Cai and Yoon, 2023).

However, on the other hand, the “seriousness” and “formality” of WeChat are also to

a very large extent due to its inheritance of traditional Chinese values and etiquettes, exerting excessive mental burdens and restrictions on user's behaviours on the platform. The mediated 7*24 co-presence of various parties on WeChat, especially in working environment, put users under constant observation and scrutiny of their peers and superiors, it would also heavily affect the users' individual decision-making and behaviours. In such manner, with the technological advantages of WeChat, the influences outside one's private sphere, such as cultural manners and business protocols, colonise the user's individual autonomy over their private online time and space. Such contradicting two themes collaboratively exist in the WeChat environment, and in the following sections, I will elaborate with my fieldwork experiences on how users live and work with these two themes in practice.

2. From private sphere to public domain: my reflection on the conception shift in the use of WeChat

As a social media application, WeChat offers certain levels of privacy protection. Firstly, users can select through which methods they can be found and added as a friend. In WeChat's Chinese domestic version, in the setting called "Methods for Friending Me", there are three ways of finding one's WeChat account, namely: Mobile number, Weixin (WeChat) ID and QQ ID (Email address for Foreign Version); Also, there are three ways of adding someone as a friend on WeChat: Group Chat, My QR Code and Contact Card (digital name card). In these actions, "find" one's account means find their account page from all of WeChat's database, while "add" means add the target user to one's contact list. Users can tick/untick each option to suit their needs. After passing through the verification process of friending someone, the user also gets to select the permission of this particular friend, if set to "Chat only", then they are not permitted to view any content on the user's Moment (Tencent, 2024b). Furthermore, in Moments' settings, users can divide and label their contacts into groups, when they upload a post, they get to select which group can access the content and block the rest

(Tencent, 2024b). Moreover, in group chats, the administrator of the group can set the chat to be “invited only” or they can manually verify the details of each applicant to the group chat to make sure there is no unwanted intruder (Tencent, 2024b). In short, the privacy settings in WeChat offer some measure of protection for user’s privacy, and they work best to shield content from strangers, those not identified as friends.

By contrast, managing existing friends is much complicated than the binary decision for strangers (pass or not). Users would have to adjust settings individually with respect to each of their contacts, especially in their access to Moments. Although contacts can be divided into groups with labels, such as classmates, colleagues, relatives and more, which made the permission to view Moments adjustable concerning each group, adding or deleting members of each group still requires the user to check the full list of their contacts (if no identifiable alias is given) before manually locating their targets. This may be feasible if the list is short, but becomes troublesome when a list grows to over 500 contacts (I currently have 681 contacts, most of my friends have over 500). For this reason, as my WeChat contact list accumulates overtime, particularly since my fieldwork, I gave up on attempts to group all these new contacts, and have left them unlabeled. I imagine this is a common experience.

I used to use WeChat only within my family and school networks, only adding my real-world friends, relatives and classmates to the contact list. Since all my WeChat friends came from my close and trusted networks, I had very little worries about personal privacy or content selection. As I enjoy travelling I regularly posted photos of my trips. After I moved to the UK, I had more opportunities to travel to European countries and my WeChat friend circle became filled with scenery photographs. However, as I gradually added more acquaintances from my fieldwork, who were mostly insurance agents, my parents advised me to avoid posting too much of my life onto Moments, especially those photographs of foreign tourist attractions, as they thought my international education background may stimulate envious emotions and some others might perceive my posts as actions of bragging or showing off, even if that was not my intention. That the adjustment needed to be made by my own self-censure is meaningful. If I choose to label all these new acquaintances and colleagues as “Chat

only”, blocking them from accessing all my posts, they would likely feel slighted and looked down upon, which would surely undermine my relationship with them and impact my research.

This is my own encounter with the concern for imagined audiences alluded to in the previous section. As I discussed when reflecting on my positionality, I befriended several of my father’s friends to introduce myself and my research to them, in order to pave the way for my fieldwork. They were kept in my contact list after my fieldwork. These people are the acquaintances that I at least know of, by contrast to the potential clients from work that I added after my pitch at Noah who I know nothing about, I added these “clients” as friends only because they are friends of my supervisor so I had to maintain *guanxi* with them. Under the observation of these unwanted audiences, some even explicitly expressed their intention to “observe my personal development”, I felt genuinely uncomfortable sharing my life with these unfamiliar viewers. Therefore, starting from my first fieldwork, WeChat was lost to me as extension of my personal social life and became more of a working tool.

3. Peer presence, managerial control and marketing, a Swiss army knife for insurance

During my fieldwork at Noah, I observed the whole process of Noah’s interviews for new agents. Throughout each interview, the interviewers, as well-experienced insurance agents, paid special attention to the interviewee’s life experiences, communication skills, their ability to manage the social circle around them, their capacity to accept and comprehend new ideas and concepts, their understanding of the two key social media platforms namely WeChat and TikTok, and last but not least, their qualities in dealing with rejections from customers. In the 26 interviews that I observed, the oldest interviewee was 39 years old and the youngest was 25, with most of the participants aged between the interval of 34 to 37 years old, the majority of them were female. In addition, there were no fresh graduates from schools and more than half of

the interviewees had working experiences in the sales industry. One of the most asked questions by the interviewers, was the person's skills at managing group chats, it impressed me that more than a third of them had practical experiences in setting up and managing WeChat groups in their local communities for various purposes including exchanging used products and crowd-purchasing groceries. I was also surprised by how WeChat has been closely tied to the daily practice of insurance.

According to *the White Paper on the Growth and Professional Development of Insurance Marketers* published by Zhong'An Technology in 2020, instant messaging software such as WeChat has become the most frequent choice for insurance marketers to reach out to customers, it had by then, pre-pandemic, surpassed the traditional methods which included phone calls, emails and face-to-face appointments. The outbreak of COVID-19 supercharged this trend. Prior to the epidemic, WeChat was already the largest instant messaging software in China with over 1 billion active users (Tencent, 2020), and due to the restrictions of the pandemic, as it guaranteed reliable remote communications and its high popularity provided a client base with immense potential, WeChat became the essential platform for insurance agents to conduct their business. Therefore, in this section, I will demonstrate how Robin and Noah, the two companies that I observed, used WeChat as a tool for promoting insurance. I will start with a general "user's instruction" for using WeChat in insurance that I learnt from Robin and Noah to offer an introductory overview, then I will elaborate further details on their actions with respect to the three major features of WeChat platform namely Moments, Public accounts and Mini-programs.

Firstly, it is essential to understand why WeChat is a suitable place for effective insurer-client communication. On the agents' side, since WeChat friend can be added by various methods including by directly scanning a QR code (either face-to-face or from the code on any material), by searching phone numbers, or by clicking on the name card sent from a third person, they enable agents flexibility to expand their circle of influence. Moreover, apart from the basic utility of instant messaging, WeChat also incorporates other functions including Mini-programs, short videos (similar to Tik Tok), public accounts which allow posting longer articles to subscribers, and the most

essential one, WeChat Moments (friend circle) which enables the sharing of all the material/recent updates to all of the contacts. These multiple functions of the WeChat platform grant fruitful chances for insurers to vie for the attention of their clients. On the client's side, as WeChat ensures an adequate level of privacy, it properly suits the needs of its users in terms of self-protection. WeChat users' contact list is only visible to themselves, and one of the most fundamental settings of WeChat Moments is "*only visible to mutual friends*" (Wang, 2016), which implies that a user's likes, comments and further conversations under their friends' posts are only visible to the mutual friends of the two parties involved (the person who commented and the sharer of the post). Therefore, in the communication between clients and agents, such privacy assurances not only psychologically ease the worries of the clients commenting under the agents' posts, but also protects the conversation between clients and agents from being exposed to others apart from their mutual friends given that the agents may have thousands of WeChat contacts.

As I described earlier in this dissertation, at Robin I was only involved with auxiliary tasks, this meant I was never invited to any of their group chats, and so I did not have the chance to experience first-hand their use of WeChat in operations and management, so I will only discuss my observations on their agents' WeChat Moments and what they shared in conversations with me. By contrast, I was much more involved in the work at Noah, I was invited into their group chat for managing agents, and was charged to send daily updates of the job interviews mentioned above. For this reason, my discussion on the use of WeChat platform relies heavily on the Noah case, with my findings at Robin as complements to those insights.

On the business side, WeChat public accounts and the supporting mini-apps not only offer insurers an online space to send updates to clients, but also enable clients to manage their insurance policies on their smartphones. Many Chinese insurers have their own public accounts, clients can simply search the company name and subscribe to receive updates. The access of public accounts is simple on the client's side, if not deleted by the client after the first subscription, the entries are all allocated in the list of current chats that the client have, so acting like another "chat" option; when the client

deleted this entry, they can always find the account in “public account” section in their contact list and initiate a new chat. The chatting interface is neat, on the space where normally shows chatting history with contacts presents the regular information updates of this account (the content pushed to subscribers), and on the bottom line, client can either send their questions to the backstage of this account to wait for responses or choose self-service. The self-service options are more or less similar for many insurers’ accounts, apart from the most basic policy management functions, including “my current policies”, service centre for claim application, complaints submission, and other policy related services, each insurer also incorporates various specifically selected items from their offerings to recommend to their clients, as a form of online insurance “supermarket”. For example, as Robin relies on its insurance “ecosystem” to attract customers, they present the link to their ecosystem service on their account interface, linked to their ecosystem service web page where the highlights of their “full-life-circle” service from genetic testing, physical examination, to elderly-care facilities are all exhibited. For another example, Noah presented an online insurance “mall” to clients in their account interface, by clicking on the link, clients will be led to the virtual shopping space for medical insurance, personal elderly-care insurance, accident insurance and many other categories, accompanied by an online customer service team to aid their decisions.

Moreover, located above the service options, the subscription content is another effective approach for clients to catch up with the latest updates of the insurer. Both Robin and Noah post 3 to 4 sets of material every month, with 3 to 6 pieces of items in each set. There are approximately four types of content in their updates, including report on the company (such as monthly/annual reports, company’s awards and achievements, and operational data (e.g. total premium income)), advertisements of newly launched or best-selling insurance products, the company’s contributions in social responsibility aspects (e.g. how they helped in an event of natural disaster), and more fresh time-specified updates concerning each festival or holiday (e.g. special issue on Mother’s Day). In particular, the content of their fresh time-specified updates was not restricted within the topics of insurance or their policies, they also included information that can

be linked to a healthy and joyful lifestyle, from “health-preserving tips for summer” to advertisements of company-sponsored youth painting contest on International Children’s Day.

If we perceive public account as a window for clients to manage their policies and services with the insurance company, then Moments is where they meet and interact most frequently with each agent. Both Robin and Noah instructed their employees to have online profiles and promote the business on WeChat. My Robin and Noah tutors told me that normally the daily practice of marketing insurance online encompasses the following steps: firstly select material on public platforms, such as pieces of news which relate to insurance, short videos and articles about the company, or the information about their insurance products, then share the item to their Moments (friend circle) and to some group chats to activate the curiosity of customers. After reading the material, customers who are interested in the content will forward it to their friends, so the influence circle expands as viewers snowball. Crucially, all content travels with a QR code or the insurers’ contact information that can allow new customers to get in touch with the company to follow up on the material. However, despite that they follow similar action steps, Robin and Noah’s employees chose two distinctive appearances on Moments. Robin’s image was formal and affluent while Noah’s image was casual and humble. Beyond this, in terms of content selection to post on Moments, Robin aimed to express a wealthy and sophisticated metropolitan culture to their public, whereas Noah’s focus was more mundane and practical, predominantly with advertisements or messages on the benefits of their insurance policies.

In the course of my fieldwork, I added ten Robin district branch employees as my WeChat friends, and six of them were “Wai qin” who sold insurance policies. In China, lots of people tend to use more casual pictures like animation characters or scenery photos as their WeChat profile picture, but not Robin insurance agents. Their profile pictures were conspicuous because of a high level of formality and some appealing repetitions: their profile pictures commonly attempted to convey elitism and professionalism. The pictures were fairly simple, normally with a plain grey background, the figures were all in formal business suits, their upper body slightly

turned sideways but the face looking directly at the camera, and always with an ambiguous smile on their faces, as if Mona Lisa had put on a suit. In comparison, the profile picture for Noah's employees are much more diverse, out of 23 agents/ team leaders in my contact list, 12 used the similar formal style as Robin's, among them 10 were team leaders; for the rest, 4 used casual photos of themselves, and others used either animation characters or scenery photos. Although these formal profile pictures illustrated a sense of professionalism and made these agents highly recognisable in clients' contact list, one other outcome of these highly repetitive formal profile pictures is that, people creates a stereotype and tie these pictures up with the occupation of salespeople. Thus when clients come across these pictures when scrolling down their moments, they can easily foresee what to be expected in the following posts – insurance related content, some might get annoyed by these advertisements, some might choose to skip this piece and directly go for the next, since they are nothing interesting or related to the real friends. However, using other images could receive less defensive responses from the viewers, as they break up the stereotype and people can view them much like their regular friends.

Besides profile pictures, Noah has other approaches to declare and reinforce their job identity on WeChat. A common practice in their morning meetings or training programmes was that, the trainer or team leaders required their trainees to take photos of either the front page of the training slides or the classroom, then post it to their Moments with the caption of “Undertaking courses, leave a message and I will reply after class”. These captions are simple yet curiosity-provoking, it tempts the viewers to click on the photo and zoom in to find out what it is about, and when clients finally find out the content, they also get to know it is a post from an insurance agent. Sometimes these photos, especially the ones with front page of the new training slides, also act as previews for incoming products or events, which can help these agents' contacts to have a basic idea of what to be expected in the near future then make plans or start queries in advance.

After declaring the job identity on WeChat, the next problem is to engage active communication with contacts. According to Robin's district manager, for many

traditional agents, the most significant obstacle for selling insurance policies was not the lack of friends but the lack of opportunities to trigger conversations. WeChat as a messaging software offers no help to identify the likely clients from the contact list who might be seeking insurance and infer what were their product preferences. However, as noticed by industrial experts, WeChat Moments comes close to offering a solution to this problem, with the sharing of various material through Moments, agents are hoping to trigger interest that will offer opportunities for interactions with contacts (e.g. chatting in comments), agents can create and further refine the portraits for each client, and continue to push more targeted and accurate content to build on the interactions (Fudan University and Zhong'An Technology, 2021). Robin's agents usually share three to four items daily to their friend circle, typically with advice on how to live a healthy lifestyle. Instead of bluntly promoting insurance, their posts act as an exercise on trust making, being neutral, reliable, and friendly to customers, for instance, "what should you do to take care of your stomach? (The answers come from traditional Chinese medicine, such as drink barley tea or avoid staying up late)". Sometimes they also forward positive news about how their company benefitted society and fulfilled its social responsibility, for instance, "how Robin contributed to pandemic control (stories such as how their agents voluntarily help assort groceries during lockdown, and how Robin initiated 24-hour support line for clients dealing with their pandemic related claims)".

Compared to the much gentle while "not-specifically-targeted" posts by Robin, Noah's use of Moments were much practical and sales-targeted as much as self-advertisements. As my time at Noah fell in the last time window for selling the increasing-sum-assured insurance policy, these employees worked hard to sell more products in the last few weeks just to increase their revenue and income. Although the company did not issue any requirements on the least number of Moments updates each employee should reach per day, some even sent out more than 10 pieces a day, containing their own interpretations of the benefits of the product, forwarded content from public accounts promoting insurance, and one or two neutral "positive energy" posts. In order to promote this product, Noah's team leaders provided their agents with

various texts through the company's WeChat group on every morning meeting, and required them to post these texts to their WeChat Friend Circles. In particular, to avoid upsetting the customers, these texts were generally designed to be short, containing just a few lines with a few screenshots of the news, such as "the government requires all insurer to delist policy with 3.5% interest rate". The content of these texts was mostly about the advantages of Noah's 3.5% increasing-sum-assured life insurance product, informing customers that the company would soon stop selling the policy and encouraging customers to actively contact the agents for more information. I paste an example of one of the texts that they forwarded to me below:

*There is no "ample time to go",
There is only "cherishing the present",
A significant change is happening, we don't do hype, we are just informing you the
news.*

It is our responsibility to tell you, our valuable customers, about this.
[screenshot of the regulator's instructions on swapping the 3.5% increasing-sum-assured life insurance product]

Another common type of Noah's "gentle" advertisement for insurance is presented through short stories, for which I present as follow. These stories generally consist of three sections: a conversation between the agent and their clients/friends, a piece of quote by one character, and a concluding remark that links this story to a concept of insurance. I include two examples below (directly translated from Chinese):

Mia's post of her chat with a client:

*"I helped a friend with the self-service claim application during a meal.
My friend said: 'It is so great to have bought this insurance. Mia, have you noticed that I help my kid apply for claims two times every year, all because of pneumonia.' I recalled and it is true.
Setting a conclusion: Insurance is necessary, the cost for hospitalisation for once is equal to the premium for years."*

Lee's post of the story with her son:

"My oldest son has grown to become as tall as his mother, me, my sports sneakers are too tight for him, and he also gets so grown up that he wouldn't speak without talking against me even within a few sentences. He is also old enough to respond to my question about what he wants for a birthday gift as 'you can give our house to me, changing the houseowner's name to mine.'

Your mother work on risk planning, it is fine to leave the money to you and your sister, but definitely not in the form of changing the houseowner's name.

Attaching three pictures: one photo of the back view of her son; one picture saying insurance has two functions, hedging risks (for critical illness, accidents) and distributing resources (for children's education and elderly care); and one photo of Noah's leaflet for students' safety insurance."

These two stories, one about claim settlement and the learning afterwards, one about the thoughts of risk planning, represent the two common phases of clients' understanding of insurance, from the risk recognition stage beforehand to the compensation stage after the hazard happened. Compared to many other highly repetitive promoting material from subscription accounts which focused more on the product rather than the link with the real world or the agent's own genuine stories, such approach did the similar job but with a much more emotive manner. The foremost intention behind these posts was effective trust-making. Here, in a direct approach, through sharing their true life stories to Moments, agents illustrated the sense of honesty and sincerity which could be perceived by clients, the appeal of their post was then improved. Thus, clients can find themselves resonate with these stories as they indeed happened in real life, or at least they could find themselves relatable to the similar scenario, such as their children catching a disease or financing their kids' future, also, upon the existing trust they formed with the agents. It is through these ways that insurance marketing on Moments can be widely accepted by viewers, it is also the true story that can win over more consensus.

Furthermore, both Robin and Noah train their employees to ace in WeChat messaging

conversations with clients. At Robin, for the purpose of customer communication, a speech library is shared across the company through its digital training platform. Robin's agents are trained to choose the most appropriate tone and speech in each occasion for optimal results. In addition, through the continuous accumulation of real-time conversations, they can rapidly accumulate and iterate their library of language, and continuously refine the entire online business framework, thereby form a more effective personal digital insurance marketing model. Meanwhile at Noah, particularly on morning meetings, team leaders often exhibit best practice of customer communication using the screenshots of real interactions on WeChat to their trainees, they examine the conversation sentence by sentence with the audience to discuss the phrasing, the content and the tone. For instance, in the scenario of a leader's assistant sending messages to a VIP client, they wrote (I directly translate it into English):

“Greetings! Since you are the cherished VIP client of our manager, I am particularly reaching out to you today to invite you to our high-end wealth management salon on this Saturday. Our first intention is to invite you to listen to an update of our company Noah, it is our responsibility to take care of you thus it is our obligation to offer you such update;

Secondly, we currently have an insurance policy with dual accounts, A and B. Account A provides you with a fixed annual interest rate of 3.5% for your savings, the rate is written in your contract and will last for your whole life. Then account B provides you with a higher target annual interest rate of 4.3% for your money, the co-existence of these dual accounts ensures you with higher levels of stability, higher security and higher return. Since you are a devoted client of ours, I felt it particularly necessary and obligated to inform you of this.

Could you please spare one hour of your time this Saturday? I will book a ticket for you, and you can come and listen closely for a while. You can save some money here if you are interested, and if you currently do not have such plans, it is still a channel for you to obtain some information anyways.”

Since it is a written-form WeChat conversation after all, precision and concision are the keys for an effective communication, aiming at briefing the clients with accurate information while keeping the sentence short. The lecturers highly regarded this piece of notification to an important client, as it starts the message with a warm and refreshing tone, showing proper respect to the client while expressing their good intentions; afterwards, it introduces the features and highlights of their product with a simple and precise demonstration, then in the end, it concludes the invitation with politeness and exerts no pressure to the clients. This demonstrated the adequate attitude of customer communication that they required every trainee to sense, learn and imitate. Comparing this example with the other communications on Moments with non-VIP clients, it is noticeable that the posts on Moments are quite urgent in tone, demonstrating that there is not one tone and unified content, but several fit for various purposes and different levels of clients.

On the management side, WeChat enables team leaders to keep an active track on the performance of their team members, through group chats, mini-programs or moments. In both Robin and Noah, there are many gatherings including early morning meetings, team meetings and short talks. Despite such intensive agenda of meetings, face-to-face meetups are still less trackable compared to online records for team leaders to timely manage the workload and the precise progress of their members. Firstly, simply from WeChat's contact list, agents can count how many new contacts they add every day, team leaders are able to monitor the progress of the whole team numerically. Secondly, WeChat's chatting history can record how agents add those contacts, how they communicate with customers, whether the communication is professional or unprofessional, then after targeted discussions within teams, they will learn about how the phrasing and tone should be improved. Thirdly, customers' response to moments posts can help to determine whether to push product recommendations, whether customers like the recommendations and their preference about the content, and more. In summary, using a Robin's local manager's words to conclude, "These functions allow team leaders to keep the business on track."

In the practice for team management, for Noah's team leaders, some posts on

Moments are straightforward advertisements, which are meant to be viewed by clients, but there are also some posts with twofold meanings, both for clients and implicitly, for motivating their team members. Mr. Gu normally send his first Moments update of everyday at around 7 am in the morning, even if not necessarily about insurance, it served as a reminder to his colleagues to start a fresh day of devoted work. Furthermore, in the last window for promoting the 3.5% increasing sum-assured life insurance policy, many Noah’s team leaders and branch managers actively updated newly-sold policies to their Moments. As WeChat only allows 9 images in one piece of moment update, they normally posted pictures of congratulatory messages in a 3*3 landscape. (example shown below) All pictures were in Red background, with words in gold/red/white saying: “warm congratulations to starred manager X for signing a policy with a total premium of xxxx yuan!” On the one hand, these photos were a presentation to clients showing how popular their product was on the market, calling on them to catch the last chance. On the other hand, from the perspective of their team members, these messages were pushing them to pitch this product to more WeChat users, pressuring them to work harder.



Image 2: Screenshot of Mr Gu’s Moment post of congratulatory message

Besides Moments, Noah also used group chats in the management of agents. In their use of group chats, Noah not only encouraged peer competitions, they even worshiped them. Here I present two examples for illustration, the first happened in the interviews

of new agents. In order to evoke and maintain the enthusiasm of each existing agent for recommending more participants to the recruitment process, Noah's manager told me to keep sending updates of each interview to their WeChat group everyday with introductions for each participant and compliments on their wise choice of coming to Noah. I was responsible for composing these messages, I was required to adapt to a format, and every piece of my composition had to go through the examination of my supervisor before being allowed to be sent out.

The heading of every message was designed with a catchy phrase to not only attract the attentions of everyone in the group chat but also lure the readers' curiosity to continue reading the following content. The format is translated below:

[The Excellence Project at Noah

An Excellent participant we have here]

-----A brief Introduction of Today's new interviewees]

For the content, I always started with the name and age of the participant, and most importantly, the name of their recommender and the operational group that they belonged to. As for the following text, for the interviews with someone who can clearly expressed themselves and their intentions, I chose to use a longer paragraph. For example:

[Miss Liu, a post-95 generation,

Recommender: Mr Chen from Operational District One

She graduated from a musical school, and after graduation, she continued to devote herself to the garden of art. And in the ex-curricular classes that she held for kids, through the language of music, she managed to bring happiness, joy and power to countless kids and their families. However, with the growth of her business and her personal development, she started to realise that compared to the spiritual safe and sound that can be brought by music, it is also much more important to bring steady and firm support, especially in financial ways, to her friends and family, so that their joyful lives will not be interrupted by accidents. For this reason, she started to walk out of the

circle that she used to live in and bravely began to explore the world of insurance. Now, with a kind heart, she decided to join Noah.]

In this case, the group chat became an arena in which peer competitions and superior's surveillance among its members took place. Although these messages were all about describing the highlights of each interviewee, from the first sentence introducing the names, these interviewees were directly linked up with their recommender, an existing group member of the operational chat where I sent these messages to. In this form of reporting, the behaviours of each interviewee, after my depiction and my supervisor's examination, were presented in front of all members in the group chat, when other members examined the competence and proficiency of these interviewees, these recommenders were also put under scrutiny by their peers in terms of their ability to sense talent and prepare them for the job. On one hand, it created an implicit peer competition within this group of agents over who recommended the best participant and who won the highest admission rate. On the other hand, since there were also higher levels of managers in the chat who set high expectations towards the recruitment, the surveillance over employees' working efforts and outcome were intensified here, from the constant updates of messages counting how many interviewees each group member brought here, to the assessment of the content reporting each participants' behaviour. Recommending as many proper participants to this interview became an evaluation task for these agents by their superior. As a result, incompetent applicants will not only disappoint the superiors, but also undermine their recommenders' image in front of their peers in the same group chat.

The second example of Noah's management of employees through group chat happened in the marketing campaign for the increasing-sum-assured policy. In addition to copying lines to Friend Circle, Noah's team leaders also asked their agents to continuously invite customers to each of their offline product presentations, and required them to use a queuing format in the WeChat group to inform all colleagues of how many customers they had invited to a particular pitch, not only to evaluate the performance of these team members but also to push them to be more enthusiastic under

the watch of peer competition. Then after the presentation was completed and a new contract was signed, they would also post a congratulatory message in a standardised format to the company's WeChat group so that the agent who just signed a deal could receive the appreciation from the rest of their colleagues. They specifically address their following agents as "pal" to express a sense of rapport. The format of such a message is shown below.

[An example of the queuing message (screenshot pasted below):

The presentation at XX hotel this Saturday by Mr A, please queue up below:

1. A invited 1 person.
2. B invited 2 people.
3.

Everyone, send invitation, let's move!]



Image 3: Screenshot of queuing message

[An example of their congratulatory message (screenshot pasted below):

Rocket emoji*, the report from June, *Rocket emoji

Several heart and flower emoji

Trophy emoji* Warm congratulations, *Trophy emoji

XX District Branch

Our teacher (a commonly used title to show respect) Mr. A

Signed a huge deal after today's presentation,

XX product with the premium of: ...

Money Bag emoji

Everyone can obtain a huge deal and huge reward!

And we will meet each other at the top this glorious June!]



Image 4: Screenshot of congratulatory message

Both examples illustrate that Noah actively encouraged peer competitions and

advocate it in every aspect of their daily practice. The group chat in case two fulfilled the same function as the first case, fostering the peer comparison and surveillance among its members, the only difference was that, in the second case, the comparisons and peer pressure appeared much more directly and explicitly. Compared to the first case of interviews where only the names of recommender were mentioned before each summary while viewers had to pay extra attention to count the numbers of interviewees, here in case two of invitations to seminars, each agent's names, their guest numbers were put closely together deliberately for exhibition and comparison side by side. Furthermore, these pieces of very expressive and well-decorated congratulations were used as gold medals, to be awarded to the most hard-working members. Through such long bulk of messages, managers set the "sales champions" as role models and pushed them to be worshiped by everyone, at the same time, pushing everyone else to work harder to win over such an honour.

In this section, I discussed with examples how WeChat's functions can be used in a formal working scenario in Chinese insurance companies, especially for customer communication and managerial control, the features that I particularly focused on were one-to-one Chat, Public accounts, Profile pictures, Moments and group chat. Both Robin and Noah have established phrase banks for online interactions, and Noah in particular, train their employees through analysing samples sentence by sentence, in order to achieve the best result. Then comes Moments, on the business side, as one of the most used function for almost every WeChat user, becomes a ground for agents to share their lives and promote insurance, to create chances of interactions with clients. Robin's agents tended to post more affluent and neutral content to form a metropolitan appearance, whereas Noah's employees inclined to explicitly promote insurance more, either through directly presenting the financial benefits of their products or by a much softer tone sharing their true life stories first and explaining the benefits of insurance later. On the management side, Moments also become a place where team leaders update posts about the progress of tasks, with the purposes of stimulating the enthusiasm of their team members, and in the same time, pushing their inferior to work harder for every fresh work day.

Here, in this business and managerial scenario, I argue that mediated co-presence on WeChat intensifies pressure on employees. Apart from Moments, the group chat feature on WeChat also creates managerial pressure. There are evidences showing that Noah advocates peer competition, their belief manifests itself in their use of group chat in operations. The affordance of group chat enables a constant co-presence of every group member, including managers and ordinary employees, internal communication was made convenient. However, on the other hand, with such augmented co-presence, the group chat function generates implicit and explicit peer competition, every group member is living under constant surveillance not only from their managers due to hierarchical power relations, but also from their peers who can exert pressure as well. In my analysis, in Noah's practice of using group chats for recruitments and general operations, peer competition appears everywhere and intensifies itself after every response or additional message to the chat. Along with the reinforced work surveillance, chatting in a group becomes stressful in some contexts for Noah's employees.

With that in mind, it is still worth notifying that WeChat as a platform is mediator, it empowers its users by offering them multiple capacities. In the hands of employers, it intensifies surveillance and power hierarchies for managerial purposes; Meanwhile in the hands of agents, it helps to establish professional identity and trust with their clients. The examples above are only one glimpse of the affordances of WeChat, beyond the benefits in product promotion and the stressful effect in team management, WeChat plays more roles in practice. In the following section, I will present another scenario for the use of WeChat, with its same technological features, but lead to a different direction.

4. Moving a community online, the “Good Neighbour” project

In previous section, I discussed how Noah and Robin used WeChat for managing employees and recording work progress, some of its efficacy was achieved by surveillance and peer pressure enabled by the technological affordances of the platform.

As prior research has noted, the blurring of the boundary of online and offline presence creates a mediated constant co-presence for people, WeChat reinforces hierarchies and power dynamics in the workplace, but the WeChat also sustains other types of relationship, like self-help and solidarity, allowing people to reach to one another once in need. In this section, I pay close attention to a campaign by Noah called “The Good Neighbour,” where insurance professionals stepped out into an unusual role as civic workers, organising their near communities. I will elaborate on how trust, solidarity and friendship can be created and reinforced with the interweaving efforts from both online and offline actions, in which WeChat played an indispensable role.

Due to China’s unique urban development plans and the habits of urban residents, the most common form of residential community in Chinese cities is “xiao qu”. The direct translation of this Chinese term is “little district”, which is similar to neighbourhood, only that “xiao qu” is more concentrated, and residents live in tall buildings. Normally within the radius of 1 to 2 km around these “xiao qu”, there are usually schools, hospitals, supermarkets and other infrastructure intended to create some measure of self-sufficiency. In my “xiao qu”, for example, there are currently over 5,000 households living in flats inside several blocks of buildings each with around 20 storeys, the residents are of a large range of ages, from primary school students to retired senior citizens. With so many residents of various ages, there are many needs that arise in their daily lives, such as community management, housekeeping, and the purchase of daily food and groceries.

For insurers, apart from visiting existing clients to maintain the relationships, another important objective for them is to make new clients. Thus, since thousands of “potential clients” are here awaiting to be connected, these “xiao qu” seem to have immense potential in the eyes of insurers. Seeing the huge amount of residents’ needs in each neighbourhood, after conducting several in-depth investigations of the local market in Xi’an, Mr Gu and Noah’s managers thought that by helping with these needs, their agents can better reach out to the community, build up good friendships with each resident and eventually turn them into potential insurance clients. Therefore, In order to connect with their clients and build up trust, Noah developed the campaign of the

“Good Neighbours of China”, hoping that each of his agent will be a “good neighbour” in their community who is eager to help each household, as one member of the community rather than a foreign professional looking to make money. In Mr. Gu’s words, *“service comes first and trust will follow, we have to help with the problems which happen within the last kilometre around the residents’ homes”*.

In terms of the content, the “Good Neighbours of China” campaign seeks to achieve their objective through both online and offline modes that also cross over with each other. For the online mode, in the midst of the covid epidemic, the WeChat group chats led by the agents have proved to be a great help in maintaining existing customers and expanding the company’s reach, they can also attract potential customers through the remote contact and other functions like group purchasing (“tuan gou” in Chinese) activities. Meanwhile the offline model is mainly based on organising various community events (such as small sports events, fundraisers and day-trips) to strengthen the bonds and friendship between the agents as a part of the community and the other residents. Mr Gu, as an insurance practitioner who has worked in the Xi’an market for more than 20 years, summed it up for me:

“In the social environment of Xi’an, neither an entirely online nor an entirely offline mode can fully establish a strong bond of trust and friendship with customers. Through online activities, we can make more people know about our company and our agents, but we need more offline interactions to make them understand more about us and become friends with us. Only by connecting these two models into a full cycle can finally complete the image of a good neighbour that we initially designed.”

In fact, my tutor at Noah, Mia, told me that this project has been in prototype form since 2013 and is now in its fourth iteration. She divided the project’s development into several stages. In the first generation of the concept, their agents were told to set up two or three WeChat groups for their communities (each group chat has a maximum capacity of 500 people), which were deliberately named without the influence of the insurance company, usually as “the group chat for residents in community A” or “the

group chat for exchanging used products in community A”, and the members of these groups did not necessarily have to be their insurance customers. Then, in order to attract local residents to join in the group, they used to offer gifts such as glass cleaner and some household groceries to those who joined the group, they also sent WeChat Red Packets to the group asking for each member to forward this chat to their friends. On the second stage, they began to share links of their company’s charity initiatives or articles about health and insurance to the group chats, and also to introduce offline activities organized by their company (Noah) to the group to attract participants; and, in order to maintain the rapport of the group, they would also organise regular weekend activities within the community, which were usually day-trips where each participant pays a fee of around 50 RMB (in their words, to hire the bus and purchase one-time travel insurance), lunch is excluded, but the condition of the bus was always adequate. Sometimes, several agents would choose to share the receipt or transaction history to service providers to their group chats, just to clarify the legitimacy of the charge. Agents and participants all told me that these activities were very effective in bringing the people in the community closer to each other.

Later, at the end of 2019, the third phase of the project began. As the covid outbreak started, cities entered lockdowns and only a few people with special licenses (such as doctors, nurses, policemen and other alike civil workers) were allowed to go out, and many people turned anxious because of the shortage of food supplies and the reduced opportunities to go out. In this situation, some of Noah’s agents took advantage of the few opportunities they had and used the company’s and their personal resources to contact a number of suppliers of groceries and perishable goods, and acted as a bridge between these suppliers and the community: each member of the community could post their needs for groceries through the group chat, and these agents would then collect the requests and contact the suppliers on behalf of the community to buy in bulk. In these group purchasing (“tuan gou” in Chinese) events, each household’s needs were collected once a day, and the goods they ordered were delivered to their doorstep in about two to three days, depending on availability. During this phase, many residents who initially refused to join in the group chat at the beginning changed their minds and

were recommended into the group by their neighbours, and this good neighbour campaign operated by these agents gained more recognition.

Researchers have found that online group purchasing as an electronic commerce practice appears in many countries, and a number of east Asian companies has adopted it as their business model (Kauffman, Lai and Ho, 2010). Noah's agents and their group chats were not the only people and space that offered such service to the community, many other people who were either initially shop owners or with some personal product resources also started their own group chats on WeChat for the same purpose. As far as I know, by now, there are at least 5 popular group chats with group purchasing features in our "xiao qu", I am in 4 of them, all groups are operating at its near-full capacity (with at least 410 members in each with some repetitions like myself). During the pandemic lockdown there were many, possibly ten groups, after the end of lockdown half have been dismissed and only the most popular ones remained until now. There was indeed competition among groups, but since different groups had their own advantages such as special food resources or discounts, many people joined multiple groups for a wider range of options. A dynamic community shopping scheme was then formed.

In many group chats of our neighbourhood, at very early stages, most group purchasing activities were completed manually by each initiator. The initiator firstly posted the available items to the chat, then everyone else added their demands (how many items they needed) in queue to form a list, (in a similar manner as how Noah's agents form queues that I illustrated earlier) then the initiator would calculate the total amount, collect the money (mostly through exchanging WeChat Red Packets), and then send them all to the seller. One day or two days later, after the items arrived, the initiator would remind everyone to collect their goods, or help deliver some orders if necessary. Afterwards, since around late 2020, with much integrated mini-apps, the process upgraded to a nearly fully automatic mode in some chats. In some groups which were specifically started for group purchasing purposes, the initiators now use a WeChat mini-program called "kuai tuan tuan" (fast group purchase), where users can log in with their WeChat credentials and virtually join in the check-out queue simply with several

clicks on the link sent by the initiator. In the product information page of this mini-app, customers can follow the initiator, review the descriptions/photos of the product, check product reviews by other clients, select product options, join in the group purchase, and then make payments and select delivery method. With the help of this mini-program, the initiators no longer need to send long paragraphs of product advertisements that may annoy some people, they only share the link of the product to the chat with several photos, after clients receive the products they ordered, some may also upload the photos with their comments on the quality, then the initiator would see if it was satisfactory or issue refunds if necessary. I paste the screenshots for mini-app links and the user interface for joining in the purchase below. All communications are conducted in a fast manner.

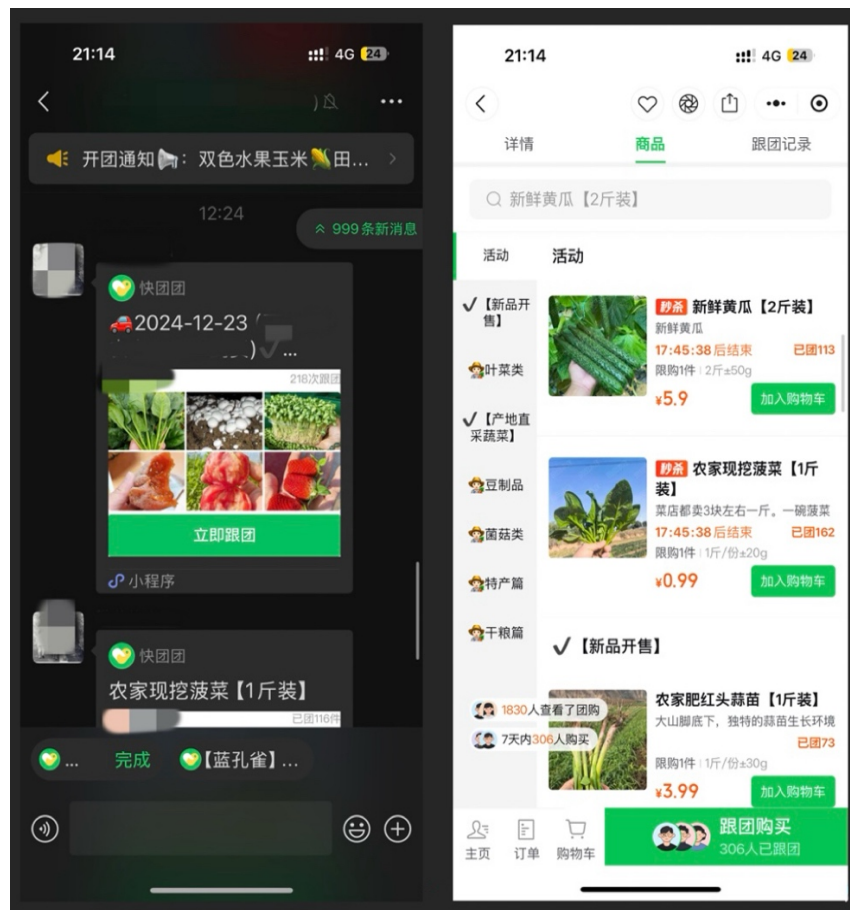


Image 5: Screenshots for a group purchasing mini-app on WeChat.

Left: Screenshot of how the organiser share links into the group chat.

Right: the user interface of the mini-app, user can click on the green button by each item to “add into shopping cart (direct translation from Chinese)”, then click on the

green button below to “follow the group and make the purchase (direct translation from Chinese)”

Whereas, for Noah, team leaders did not require every agent to use such mini program in their chats, so some still stayed in the original manual mode if they preferred so. As these agents were not professional sellers from the beginning, and their chats suits multiple purposes in which group purchasing events are only an element, such decision is understandable. Although the use of these mini-apps boosted the efficiency for fast feedback, they nevertheless became inefficient for agents now because they removed more chances of direct contact with the members of the chat, clients felt less of the efforts of agents, in terms of writing, organising, working for them. Therefore, with that being said, staying in the relatively primitive approach for group purchasing did not fade away Noah’s core intention with these events, through creating such chances for interactions, these agents’ core mission has always been winning over their neighbours’ trust.

Research shows that trust and satisfaction are the two determinant factors in client’s intentions to repeat a purchase in online group purchasing events, where satisfaction has a strong effect on trust (Hsu, Chang and Chuang, 2015). Neighbours’ trust on the group purchasing events and agents themselves need to be accumulated through multiple satisfactory trials, these agents’ behaviours in the face of unexpected errors are also important in the accumulation of trust. Mia once shared with me a story of her making a mistake. One time she organised a group purchase of grapes, she initially thought they were packed 2 kilograms each portion hence she told so to her 57 neighbours who participated in the activity, and charged them with the price of 2 kilograms worth, everyone was happy with quality after receiving the fruit. However, on the next day when she revisited the seller, they told her that the grapes were in fact packed with 1.5 kilograms each portion, that was when she discovered she made a huge mistake on charging more from her neighbours. A day had passed since all the customers received their grapes but no one weighted them at home and reported the error to her. She was touched by the trust of her neighbours and immediately contacted

the 57 people one by one to send apologies and arrange refunds. Through the screenshots that Mia showed me, everyone expressed their respect and gratitude for her honesty and the timely solution. As a result, rather than undermine the trusting relationship between her and her neighbours, her mistake inadvertently made the tie even stronger. Therefore, I can argue that these group purchasing arrangements are trust-building machinery. In these practices, the money need to be paid in advance, before obtaining the goods. Thus the group purchasing event requires clients entering in a kind of transaction with the agents, although not for insurance and not in a huge amount of fortune, they establish trust with agents before getting their groceries, and the trust grows with every satisfactory trials and feedback. In the end, clients have already given agents money before even considering buying a policy from them.

As one of the most popular events in the group chats, these purchasing activities were retained after the end of lockdowns. These events in the community's WeChat groups helped people to overcome the lockdown era when supplies were scarce, and for a new period of time after the re-opening of the society, the range of products available to each group chat expanded. The group-purchase service helps many people by offering the chance to buy the local snacks in our city or even some foreign products, a wide variety of products can all be included as long as someone in the neighbourhood has resources for acquiring them. As the mass production and transportation networks for products gradually restores, now, people get used to the discounted price and the convenience of having their orders delivered. Furthermore, people could also receive timely offerings in some particular occasions, domestic medical equipment such as oximeters for testing at home were once made available for a period of time in Winter, when people could easily catch cold or pneumonia. Through these devices, people can check their health conditions on a regular basis, so that they can detect any abnormal signs in their health at an early phase and then go to hospital if necessary.

When group members wish to show gratitude to others for their help, they sometimes send WeChat Red Packets, in this way, the ritual of sending Red Packets is retained in an online form. Sending Red Packets as one of the core traditions in Chinese culture, plays an essential role in the maintenance of guanxi (Holmes, Balnaves and Wang, 2015;

Xu, 2021). In WeChat groups, people explicitly send out Red Packets to everyone following such implicit ritual of guanxi maintenance, the idea here is not about the amount inside, rather a friendly and respectful gesture. Red Packets can be used to express layers of emotions in multiple occasions, such as asking for favour, expressing gratitude, sending out best wishes, showing kindness and closeness, and just a tool for making payments. In practice, just after starting the group, agents sent out Red Packets asking for members to forward the chat to their friends; When agents tried to send out a reminder for an incoming event, they sent Red Packets to gently alert every group member; When someone wanted to send an advertisement to the chat, they sent Red Packets for showing respect to the members as well as apologising for any inconvenience occurred. That is, mutual respect is vital in maintaining the rapport in group chats, and WeChat Red Packet achieves such objective with fair flexibility and simplicity.

Afterwards, around 2021, the “Good Neighbour” campaign underwent its fourth iteration. As the relationships between the members of each group evolved over the years, these groups changed from an agent-led group chat for the purpose of promoting the company and group purchasing activities to a mutual platform for the community to exchange information and resources with each other, and the agents were only there to maintain a basic order. For example, a resident in our neighbourhood once promoted some products from his own shop to the group chat, the Noah agent in the group, named “group owner- contact me if you need insurance”, firstly sent “thumbs up” emojis to show support, then posted a message saying “*everyone in our chat should be careful when making choices*” as a reminder. After another group member double-checked the authenticity of the seller’s address information (to make sure he is genuinely our neighbour), the seller somewhat felt quite embarrassed and responded with an awkward emoji, in this occasion, the agent added again to clarify with “*It was just a kindly reminder, there is nothing else. If everyone can get benefits and help through this group chat, that would be perfect.*” The atmosphere became much friendlier after this comment, and more members began to contact the seller in the chat for more information. In this way, with the help of this agent, a possible quarrel was avoided,

every group member received the precautionary notice, and both the seller and other group members obtained what they needed. In multiple examples like this, Noah's agents managed to reinforce their trustworthiness and credibility in the group, and made local residents respect and appreciate their efforts in maintaining a harmonious atmosphere. With such respect and appreciation, more people may be willing to participate in community events organised by the agent and maintain a positive attitude towards Noah's insurance products.

In the examples I mentioned above about Noah's agents interacting with their neighbours, they rarely present the information about the "Good Neighbour of China" project and Noah insurance company directly to their neighbours in the community, but they do reveal some of this information at certain events to promote their project and the company, such as fundraising events or day-trips. In the province where we live, there is a region in the mountains that is economically underdeveloped, in this region, many families live in extreme poverty and their children lack clothes and books. Therefore, the Noah agent in our neighbourhood organised several fundraising events for these children in the mountains, calling on families in our "xiao qu" to donate some clothes and books. They used the name "Good Neighbours of China" when organising the event and mentioned in the publicity material that the event was organised by Noah insurance company. Later, to make the whole event more transparent and to reassure all the residents, the agent shared photos of the local children receiving their donations to the neighbourhood's group chats after the goods were delivered. By organising these events, these Noah agents have both strengthened the pride and mutual recognition of the residents in our neighbourhood, and have succeeded in implicitly promoting Noah's sense of social responsibility, as well as reinforcing these residents' kindness and trust towards Noah.

I once took part in a short day-trip organised by Mia, my tutor at Noah. Since it was summer, Mia took the advice of many children in the group and chose a riverside resort near Xi'an as our destination, each person paid 50 RMB for the bus and insurance for this trip. Before the trip began, I was curious to see how she interacted with her community. I knew from Mr. Gu that she stood out among agents for the revenue she

brought in from running her “Good Neighbour” campaign, despite the fact that she was only in her early 30s. At 7: 30am on the day of the event, the bus we hired arrived at the entrance of our district and half an hour later everyone arrived. As Mia had asked me to be the photographer, I brought my new camera and a special prime lens for portraits, to get better pictures of the participants to the trip. At the beginning, Mia introduced me to everyone, proudly saying that I was the photographer who would take pictures of the group for free, and I was very cooperative by showing everyone my camera, a Nikon flagship professional camera, reassuring them that I would definitely help them record the beautiful moments of their families.

In addition to four Noah’s employees, including myself, there were 24 residents from Mia’s neighbourhood in our group, which consisted of six families with children, and not all of them were Noah’s insurance customers. The children were all in primary school and at their most adventurous age, each with their swimming trunks on already and ready to play. After the two hour drive we arrived at our destination, and when we got out of the bus, Mia asked me to take a picture of all the participants, they were all holding the “Good Neighbour of China” banner and smiling happily. After the photo session, Mia took out a large bag of toys from the bus that she had already prepared, which immediately caught the attention of the children: she prepared a large bag of toy water guns for these families to choose from for free. After the children were satisfied with their choices, Mia announced the time for us to reassemble and return home, and then let everyone go free.

My colleagues and I chatted as we slowly wandered along the creek. After walking for a while we met another day-trip group organised by Noah’s agents from another community and we greeted each other. Whenever we met families in our group on the way, Mia asked me to take some photos for them, which she collected and sent to each member on WeChat later, and then we received many compliments about my photos, perhaps it was also because I was very patient in finding the best angles and guiding them to have different poses. I asked Mia on the way how she managed to make friends with so many people in such a short period of time in this relatively new neighbourhood, and she replied:

“Everyone wants to make friends with their neighbours, especially in a new neighbourhood like ours where we don’t know each other and the children don’t even have a playmate, so they want to make friends with their neighbours. We organise these activities so that the children can have a chance to play together and the parents can meet each other more often and become more familiar with each other. We as agents are also residents in this neighbourhood, we all think in the same way, and we don’t just talk about insurance, we treat each other with sincerity and care for each other as we do now, thus our relationship naturally becomes closer.”

Later on we slowly walked to a shallow beach where many families had gathered to play with water guns as the water was shallow but clear. When the children saw Mia, they asked her to join them and even started spraying water at her with their water guns, and she joined the party without any hesitation, meanwhile I continued to capture their best moments with my camera. Gradually, I realised that Mia has different ways of dealing with adults and children respectively. When she organised the trips, she was very thoughtful and did her best to take care of all the families, like a very experienced travel organiser; but now when she was playing with these children, I found that she could also fit in perfectly with them, playing with them and their parents without any burden, as if they had been friends for many years. In the afternoon, by 4pm, everyone was tired and we all gathered around the bus for the ride home. On the bus, Mia shifted back to her well-experienced, considerate self, bringing out snacks and bread for everyone in case they were hungry after a long day of fun. It is through this thoughtfulness and considerate attitudes that Mia has gained the trust of others as a member of the community and has become good friends with everyone around her. And eventually, with this friendship, Mia confidently told me: *“Since we are good friends, I will be the first person they will think of when they want to purchase insurance policies.”*

Mia always ranked very high in Noah’s monthly rankings of agents’ performances. Therefore, I thought that she, as one of the top performers in the Good Neighbour of

China campaign, must have found an effective way to market life insurance, especially their increasing sum assured policy, in conjunction with the community work that earned her the friendship with neighbours, so I asked her on WeChat about her understanding of insurance marketing and how it could be combined with the core idea of the “Good Neighbour”.

She responded with several long messages, starting with emphasising the role of trust here:

“The issue of trust is most important here. Do you mind if your friend works in insurance business, you don’t, right? All my neighbours know the door number of my flat, I am a friend to them, so naturally, they will accept my occupation. In their conception, I am just their neighbour, a girl they like, and a friendly auntie of their children. Whatever I do, I was just doing my work, and they will naturally feel that, if the product is just what they need, they can come to me, in the meantime to support my work as well. So in the end, when you do everything you promised, they will trust you. For example, at the current stage if I want to arrange an event, everyone has already been familiar with all the processes, when I stand up there talking to them about some stuff for the need of the company, they even voluntarily take photos or videos and send it back to me.”

Then she wrote:

“95% of my clients are my neighbours, and 5% are referrals from my neighbours! Because I run a lot of group activities, people trust me and like me more after each successful events. I seldomly talk about insurance, but through the activities, I tend to screen out some people and focus more on the ones that have the potential to become my clients. Then to my potential clients, I will talk about the importance of mandatory savings, for example, no matter what you have to do, you should save the money first. If you have spare money you can save more, if you have less money then just save less, but you should definitely save money for future!

Sometimes I will ask people in jest, do you want to save money? Generally there will be two kinds of answers, one is that I don’t have any spare money recently, then I will say that you should work harder to earn more money, and then save some for yourself!

And the other is that how can you save money? Then I will recommend our product to them and invite them to our office for a chat! I will also just show them the fact that the reward of purchasing our product is higher than simply putting the money into banks! In short, my way of selling insurance may not be the same as what others do, I mainly find the right person, who is mostly my neighbour, and then with the infinite trust that my neighbours endowed me with, the only problem left here is now just the problem of whether save money or not, after all, the interest rates of our product is just higher than anywhere else!”

In conclusion, WeChat group chats enable people to help each other when someone is in need, and their friendship can be strengthened afterwards. For Noah’s agents, group chats offered the precious opportunity for them to establish and foster the relationship between themselves and the neighbours in their community. From initiating group purchasing activities to organising events, to voluntarily helping each other, and to reminding group members of hazards, by means of these activities, community members can see these agents’ efforts in building the mutual trust and friendship in their neighbourhood. The group chat also follows the behaviour patterns of traditional Chinese *guanxi*, through exchanging red packets and other relevant interactions, the communication between each group member are also structured upon considerations of *guanxi* maintenance, and the technological affordance of WeChat expanded the capacity of *guanxi*-maintaining measures in practice in this case. Because of the technological affordance of group chat, people can achieve a mediated co-presence. Not only it reduced the barriers in interactions due to physical distance and constraints, but it also made exchanging goods and resources possible especially in lockdowns. Through the publicity and trackability of group chats, agents can share and report the progress of their events, such as fundraising or day trips which concerns a fair amount of money. Such sharing and reporting will increase the trustworthiness and credibility of these agents, as clients can see their fund, especially donations, have been used in the designated place, also implying that, clients can further trust their fund at Noah insurance would be processed safely.

Furthermore, as users' WeChat network itself is structured upon their actual offline social networks where contacts had existing basic understandings of each other, because of the authenticity and the extended sociality of this platform, the previously complete offline *guanxi* can also be established and cultivated through online interactions in group chats. Afterwards, through the repetition of the cycle (organising events online- neighbours enjoying the event offline- agents reporting updates online), Noah's agents constantly strengthen their image and identity as one of the neighbour in the community. In the end, just as what Mia said, their occupation as an insurance agent becomes not special anymore in the eyes of their neighbours. The neighbours will prioritise their identity as a trustworthy friend instead. Thus, when these potential clients are in need of insurance products, they will directly come to these agents with the thought of reciprocity and helping friends.

Moreover, when Mr Gu introduced me to their community group purchasing events, he proudly elaborated:

“As one of the largest state-owned insurance enterprises in China, our company should take on more social responsibilities. When the city entered lockdown due to the pandemic, everyone was trapped at home and could not buy fresh meat and vegetables, so our agents, as a part of the company, should also contribute to their community to solve such difficulties for everyone. In this era, everyone is responding to the government's call, doctors and nurses are saving everyone's lives in hospitals and ordinary people can stay at home to stop the spread of the virus, we can't be as useful as the doctors, but at least we can help to fill everyone's food baskets, which is also an act of contributing to the society and patriotism.”

Although the idea of community group purchasing events was not invented by them, in introducing such events to their group chat for helping each household buy essential supplies especially in lockdown period, Noah's agents not only wanted to attract more customers and maintain the solidarity of the group chat, but more importantly, they sought to make their own contribution to society through such model of community mutual support. In the current Chinese society of individualisation of risks, especially due to the shift of elderly care responsibilities from the government to individuals, these

practices of group chats manifest a sense of collectivistic mutual support against an overall trend of individualisation. As research shows, senior people use WeChat group chats to chat with their peers, exchanging experiences of disease control and recovery, also fighting against loneliness and supporting each other in life, the platform has already played an essential role in people's social life (McKenna, Cai and Yoon, 2023). Thus, in the aging Chinese society where multiple risks are individualised down to each household, a "Good Neighbour" in each community is needed, and a collectivistic mutual help platform like WeChat group chats will also become increasingly significant.

5. Discussion

This chapter presents an analysis on how WeChat influences the practice of modern Chinese insurance and how Chinese insurers make use of the WeChat platform to conduct business, the discussion was constructed upon my fieldwork at two Chinese insurers named Robin and Noah. The evidence in this chapter shows that features of WeChat imbricated with multiple layers and aspects of insurance practice. As I have illustrated, the multiple functionalities of WeChat, in particular Moments, Group chat, public account and mini-app, had already penetrated into most life occasions of its users, thus they also become the major channels that insurance companies use to reach out to both their employees and clients.

In existing literature, there is an ongoing discussion about the impacts of WeChat on its users. Based on a constant co-presence among WeChat users that is achieved by the technological affordance of this platform, some scholars focus on the political aspect of it, such as power dynamics, arguing that WeChat can be a tool for reinforcing surveillance and supervision; while some others look at the social perspectives, such as how the technological affordances of this platform can nurture and facilitate interpersonal relationships without physical constraints. Both the two aspects, the political one and social one, stand out in my analysis on the contemporary insurance

practice. In Chinese insurance, WeChat is a management tool, a civic tool, a marketing tool and a connection tool. For the internal management of the company, insurers use this platform to administrate the progress and working efforts of their employees through surveillance and peer pressure. Particularly in group chats, with the mediated co-presence enabled by the affordance of such technology, agents were put in the online space where their progress and efforts were shown explicitly to their peers for comparison, and the best performing individuals would be regarded as role models and receive praise in public.

On the contrary to the stressful characteristics, insurers' use of WeChat on customer communication was more about trust making and creating co-presence. WeChat Moments is where users share their live to friends, also where agents at both Robin and Noah reinforce their job identity and broadcast the idea of insurance. Although the two companies focused on different aspects, Robin on affluent and subtle culture while Noah on practical and straightforward presentations, they all intended to become the "kind and trustworthy friend" to their current/potential clients. Moreover, specifically for Noah, as running Group chats is one of the essential approaches to achieve their image of "Good Neighbours" in community, they also spent numerous time and efforts in their community's group chats trying to not only solve their neighbours' daily problems including grocery group purchasing, but also engage them with many offline face-to-face events where neighbours' trust towards them and the rapports between neighbours can be facilitated. In this way, as my informants suggested, with the trust they establish with their neighbours, discussing insurance with them becomes much easier and acceptable.

My findings support that Chinese guanxi culture appears on WeChat platform, and such guanxi was mostly not freshly generated on the platform but inherited from the offline social connections between its users. As WeChat network was mostly structured upon one's real-world friends and contacts network, when the network moves online by technology, the existing power hierarchies and affection dynamics follow the pace and even reinforce themselves online, in which WeChat Red Packet can facilitate the progress. On one hand, in the examples of Noah's management practice, technologies

extend the reach of superiors, the constant mediated co-presence empowers team leaders to supervise their inferiors anytime and anywhere, also allows members to compete with each other in any moment. On the other hand, in creating the group chats for their neighbourhood, Noah's agents started from one-to-one offline conversations and finally achieved to duplicate the social network of hundreds of neighbours onto the online space within the group chat. When offline interactions were restricted in special times, because of the constant online co-presence on the WeChat platform, the *guanxi* and friendships between each group members were preserved even reinforced through mutual support and exchanging gifts such as groceries, or WeChat Red Packets.

Apart from the augmented capabilities and utilities because of WeChat's technological affordances, the examples that I presented above, and my personal experience on shifting WeChat from a personal social media software to a work tool, indicate that the wide application of WeChat in both private and public sphere resulted in a colonization of users' personal life. It can be seen as a side effect of constant co-presence. In particular, professional life colonises casual life, and group life colonises individual life. For agents, to ensure a timely response to the enquires of their clients, many of them choose to friend clients and superiors with their frequently used WeChat account, then their individual space becomes less private with these audiences, they have to think twice before posting any content; When being required by their superiors to use their personal WeChat account for work, agents need to change their profile pictures, as well as share advertisements or promotion materials to their Moments, regardless of their thoughts; When being instructed by their leaders to respond to clients' requests and superiors' calls anytime, the classification of working hours is blurred, that is, both Moments and group chats put agents under a 24-hour supervision. The instances above all demonstrate the loss of private online space due to the invasion and impacts from professional life. Moreover, beyond that one's WeChat Moments are required to be publicly accessible, in agents' working groups, their individual achievements and efforts are also used for explicit comparisons, their progress on each task are as well reported to the group to be viewed by everyone, that were practices of how group life colonises personal life.

Along with the effect of impacting personal life in some aspects, from a different angle, WeChat instead helps to create and re-construct territories of online space without taking over users' personal space. In the creation of neighbourhood's group chats, Noah's agents added hundreds of neighbours to the group, accomplished in reprinting a part of the existing offline social network online. In each group chat, every members are not necessarily friends with each other, they may not even know others' names, they only join in the same group because of living in the same neighbourhood. As WeChat can forbid strangers from accessing one's Moments, Many individuals choose not to friend unfamiliar people in order to protect their own privacy. When many community members co-present in the same group, a balance is achieved between friending friendly neighbours and screening out the unwanted guests. Users can initiate chats with any neighbour within the group chat and then decide whether it is necessary to friend each other and complete the conversation in private. Such re-constructed online territory not only preserves ones' opportunities to chat with neighbours for help or other purposes, but also grants them with the advantages to protect their privacy meanwhile make friends safely as they wanted.

In addition, my findings also demonstrate that WeChat as a platform facilitates a civil Chinese society. Again, the platform achieves such accomplishment through its technological affordances. Firstly, WeChat helps to preserve traditional Chinese culture, particularly in the daily conversations among group members. When neighbours interact with each other and establish relationships, their friendship is constructed upon consensus of mutual respect and strengthened by the willingness of reciprocity for others' help, thus it is appropriate to view the interactions of such form as a practice of traditional Chinese *guanxi*. As research indicates, Chinese interpersonal *guanxi* is normally maintained by reciprocity, and it is important to acknowledge others' favours and timely express gratitude for the help (e.g. Yang, 1994; Chang, 2010). The traditional principle is preserved on WeChat platform, as WeChat Red Packet grants instant and direct fulfillment of appreciation. In my ethnographic experience in community group chats, when asking for favour or expressing gratitude, group members often send out WeChat Red Packets as a representative gesture, and in many similar cases, such digital

Red Packets have become one of the most frequently used choice for the maintenance of guanxi and rapport between individuals in the modern way while preserving the conventional spirit. Secondly, WeChat enables free and friendly online interactions. Especially during city lockdowns because of Covid-19, when each group member was restricted in their apartments, the group chat offered them a place to have conversations, update news, and most importantly, exchange resources for groceries. After the lockdown, the group chat then became a place for members to share their lives, seek help and discuss various topics. In many ways, WeChat platform provides users with a place to share life with each other, and group chats give members a room to have discussions with people of their similar kind.

And Last but not least, as shown by Noah's "Good Neighbour" campaign, WeChat assisted Noah's employees to achieve the course of patriotism and social responsibilities as Chinese citizens and employees in a State-Owned Enterprise. The Chinese government particularly advocates State-Owned-Enterprises to stand up against social problems and call out each individual to make their own contributions (Jin et al., 2022), thus as I quoted earlier sections of this chapter, Mr. Gu and his colleagues answered to the government's call and voluntarily utilized their existing resources to supply for their neighbours' needs regarding food. The multiple functions of group chats and mini-apps on WeChat made the contacts and distributions of resources much accessible and clearer, thus practically, the technological affordances of WeChat significantly reduced the workload for each agent. With all that being said, WeChat can be helpful as well in this much individualized Chinese society, where the modern risks of longevity become individualized down to each household. In urban communities where residents from different regions co-exist, neighbours were initially unfamiliar with each other, WeChat links everyone up, and people structure an online network of community where members can establish and reinforce relationships, also, each member can help one another if any trouble occurs. With such collectivistic campaigns on WeChat, the constant co-presence of users, and multiple technological affordances of the platform, WeChat will continue to play an essential role in the everyday life of each community, and much broader, the operation of contemporary

Chinese society.

Chapter 7: Conclusion

In this thesis, drawing on the ethnographic fieldwork in two Chinese insurance companies, I present my research on the social construction of risk in modern long-life China. When technologies come into play in modern insurance industry, with the socially and culturally constructed risks, I further discuss how new technologies reshape the practice of insurance marketing and how individuals, both insurance agents and clients, live in the life of risks and insurance in the current social environment. My conclusions are in twofold, respectively on the social construction of risk and the impacts of technologies on modern life with insurance, I will first separately elaborate on them in detail, then connect them together later in the text.

In its history of development, traditional life insurance industry grew with marketing death (e.g. Zelizer, 1979; Chan, 2012). In *Morals and Market*, Viviana Zelizer (1979) claims that in low-income American families, the working family members used to purchase life insurance policies against their accident death, so that the widows and orphans can receive an extent of financial protection. And because of the connections between “accident death” and “financial compensation”, insurance has always been linked with unethical and unwanted “blood money” that makes people uncomfortable. However, My assessment on Chinese insurers’ communication strategies for the increasing-sum-assured whole-life insurance policies and genetic testing services show that Chinese insurers are marketing the risks of *late* death, instead of *early* death, in the aging society. More importantly, they are trying to connect people’s understanding of insurance with desirable benefits such as stable income, comfortable retirement life and a joyful family atmosphere.

By doing this, Chinese insurers are constructing a notion of modern risk in the aging society, and they particularly took in traditional Chinese cultural and social influences led by familial duties: the filial piety to elders and the responsibility to children. I argue that in the contemporary context, Chinese insurers are selling insurance based on the perceptions of such socially and culturally constructed complex risks, both financial

and moral ones, looking at modern risks that also lead to moral failure rather than the risks solely about financial loss. Their constructed and advertised modern risks have multiple layers: they objectively exist, the harm can be understood, while having the cultural impacts which are rather unquantifiable.

Normally, in the insurance practice of communicating with clients, insurance agents begin with following the traditional insurance approach for conceptualizing risks, with monetary representations of benefits, returns and loss of policies. Besides, they used graphs, questionnaires, and *paper technologies* (Jardine, 2017) (such as “the ruler of life”) to illustrate the passing of time and potential outcomes of retirement with or without insurance, hence to justify the need for insurance coverage. Further to the traditional approach, the application of modern biological technologies enables insurers to offer genetic testings to clients, also claiming to clients that some of these health risks can be prevented with precautionary measures. Although in China, the China Banking and Insurance Regulatory Commission (2019) forbids insurers from using testing reports in underwriting policies, presented with agents’ interpretations of clients’ risk levels, the reports still become a scientifically compelling statement in convincing individuals about their own health risks, especially propensity for cancer, thus push them towards a favourable decision regarding seeking for support and insurance.

Beyond adults, the effects of genetic testings also appear in younger age groups. If we view thinking about retirement life as considering the senior, then on the other side of the age spectrum comes the young generation, their future is equally important to a family. Thus to provide support for parents’ anxieties about their children’s education and future, since these technologies can make the evaluation of future more accessible and understandable, some Chinese insurers added genetic talent testing to their offerings as the assistance for choosing a suitable path of development for children. In this way, to add up to the ground layer of numerical representations of risks and harm, Chinese insurers adopted the notion of familial duties in the process of risk construction for a second layer. The risk of financial loss in the conventional sense then becomes the risk of being irresponsible to family and ancestors in which financial loss is only a part of the harm, a broader moral failure also stands out. Traditional moral values require

individuals to take good care of both their parents and their offspring, failing to do so will put people under criticism from the society as “bu xiao zi sun (unfilial descendants)” (e.g. Zhang, 2011; Yang, 2012; Zheng, 2023), so the risk here is a moral one.

As I have illustrated in chapters 4 and 5, Chinese insurers interpret the impacts of risks on family in both classic and contemporary sense, and for the understanding of multiple generations. For example, for senior clients with children and grandchildren, they choose to persuade clients not to become the burden to the family, and buy insurance as adopting another child who can provide stable financial contribution to the family (as in chapter 4); for clients of working age with young children and old parents, insurers not only demonstrate the previous idea, but also emphasize the uncertainties of clients’ future and their children’s future due to the highly competitive social environment, raising the awareness of responsibilities to parents and children (as in chapter 5); and for clients who only entered society, they would use moral requirements of filial piety to warn clients to take good care of their parents which can in a way be achieved through buying insurance and related services for them (also as in chapter 4 and 5). That said, in this modern long-life era, Chinese insurers are not only pitching to public about the risk of financial loss, rather, to a broader sense, they are selling insurance policies based on the awareness of complex also culturally constructed risks of financial and moral failure.

In practice, for convincing clients of the need for insurance, apart from raising their awareness of risks, insurers also want to know more about their clients, including their lifestyle, habits, in order to push more accurate product recommendations. As suggested by scholars and industrial experts, insurers have deployed several technologies aiming to know clients better, and a major focus is to enable insurers/agents to live with clients on an everyday basis through trackers and wearable devices (e.g. Blasimme, Vayena and Van Hoyweghen, 2019; Nayak and Bhattacharyya, 2020; Tanninen, 2020; Meyers and Hoyweghen, 2020; Sadowski, 2023). With WeChat, one of the largest Chinese social media platform, insurers and clients can coexist in a mutual social circle, insurers, especially agents can insert themselves into clients’ life, just through their smartphones. This brings out the other core theme of my thesis, which is the concept of “co-presence”.

In my argument, the idea of co-presence has four dimensions, respectively are the co-presence of risk and clients, the co-presence of agents and clients, the co-presence of insurance and clients, and the co-presence of local neighbours. The first dimension is developed from the existing sociological theories of risk, such as Risk Society (Beck, 1992), indicating that the clients are constantly co-presenting with risks in their lives, such as health risks, social risks and financial risks. In people's lives, some risks are noticeable while some are not, people need the knowledge to perceive the risks, and one need to take precautionary actions to reduce the impact of risks on their individual life. Simultaneously, in this background of recognizing the existence of risks, with the help of social media, which mostly is WeChat in my study, we have the second dimension, the co-presence of insurance agents and clients. On the WeChat platform, both agents and their clients are equal users, they can post fragments of their lives, share materials and contents, and initiate interactions through likes, comments and chats, there is plenty of time and chances for them to become online acquaintances. Besides, the sharing of information between agents and clients has two directions: from group/private chats and WeChat Moments, clients know more of the agents, these insurance agents become lively and colourful individuals who also have lives, rather than the stereotyped lifeless salespeople whose only target is to take money from people; also backwards, by viewing the lifestyle, habits and more stories that clients post on their own WeChat Moments, insurance agents get to know more of each client, especially regarding their potential preferences of insurance policies.

Furthermore, in a much practical aspect of customer relations, it is essential for agents to stay close with clients and build a good relationship with them. In my positionality chapter I have discussed the principals of establishing and maintaining *guanxi* with others, which indicate that *guanxi* can be built and referred between individuals, the initial two participants can introduce others into the relationship thus the *guanxi* network expands; in the meantime, *guanxi* maintenance relies on reciprocity, for the constructive interactions for the network, individuals need to respect the efforts of others and try their best to reciprocate the favour from their friends. Moreover, the building and maintenance of *guanxi* need not be restricted to face-to-face interactions,

thus in the modern era, guanxi networks can be expanded and strengthened online, such as on social media platforms. In the WeChat chapter, I show that insurers have been able to construct new, close, relationships with clients thanks to the wide adoption of WeChat. In each agents' local neighbourhood, although the relationships were initiated between agents and clients through face-to-face interactions, from neighbours, agents constructed WeChat group chats and with the referral of their existing contacts and group members, managed to absorb hundreds of residents into the group chat, thus the group becomes an online network of the community where neighbours can grow relationship, trust, and affections with each other. Then in between of everyday contacts, insurance agents perform the role of a good neighbour who are kind and supportive, reliable and trustworthy, and always willing to help, thus a trusting relationship is formed, neighbours gradually accept agent as their friend and one member of the community. That is, on WeChat, clients become a part of agents' lives, and agents also become a part of clients' lives.

The first two dimensions of co-presence that I summarized above enable the construction of the two that follow, the co-presence of insurance and clients, and the co-presence of local neighbours. For the former one, as one of the daily routine, insurance agents post various content to their WeChat Moments (friend circle), through posting lived stories of others and professional practice such as settling claims and knowledge about health, agents prime the idea that people live with risks into clients' understanding of the world; and through the updates of corporate training sessions, promotive material of latest insurance products/services, and many other insurance/health-related events, these agents create a direct channel that fully exposes clients to the life of insurance, thus the co-presence of insurance and clients is formed. Under such daily influence of insurance, also from the educational and informative material shared by the agents, the ideas of risks, insurance and health penetrate into the much granular aspects of clients' lives, they can learn the knowledge of a healthy lifestyle, and gradually shape their attitudes of life based on those suggestions.

Last but not least, here comes the fourth dimension of the idea of "co-presence", the co-presence of local neighbours. As I have illustrated in chapter 6, the WeChat platform

creates a constant co-presence among its users, within the insurance company it intensifies power dynamics and supervisions, while in the local communities, it makes its users coexisting in an online relationship network which is a replica of that in the real world. As several scholars have discussed, in modern society there is a trend of individualization of people in the society, people tend to live the life of their own, relatively staying away from the collective (Beck, 1992). Also, in China, study shows that due to the rapid urban development, immigration of population and the modern while individualized housing arrangements, in urban neighbourhoods and communities (“xiaoqu” in Chinese), neighbours are often unfamiliar with each other, let alone help one another in trouble (Chan, 2012). Thus, there is normally no effective informal mutual community support system in the urban neighbourhood, and individuals are increasingly vulnerable in the face of risks, the reality in COVID-19 pandemic proved this claim. Whereas according to my findings, the group chats of local community that these insurance agents built with WeChat, rendering the idea of “co-presence of local neighbours”, to an extent cover such gap.

I therefore argue that a co-presence of local neighbours in these agents’ WeChat groups and their “good neighbour” project is an accommodation of people’s need for mutual support in the contemporary society, where persists an increased vulnerability of individuals due to the lack of informal mutual support schemes. Within this good neighbour system, people co-present with their neighbours and protect each other as a collective against the harms of risks from outside. My findings in the online group purchasing events during Covid lockdowns to a great extent support my argument, it is the most appropriate evidence of how group members can share goods and resources in the time of a crisis to help each other overcome the profound impacts of a modern risk which one cannot accomplish individually. The forming of this online group even suits the overall trend of individualization, as it does not necessitate frequent offline face-to-face interactions to build up relationships. In this online community, people constantly co-present with each other without physical restrictions, so the communication is always live and continuous, and the evidence in chapter 6 also shows that people can enhance the rapport within the group anytime through everyday

conversations, such as exchanging small favours. Furthermore, as the group chat is constructed by each resident who physically lives within the same neighbourhood, each group member's online identity is also matched to the real world, which means that other members can relate to the real person with their online presence. This not only enhance the trust between each other but more importantly, also enable others to locate the one in need in the real world then realise the wish to help. Beyond this, selling insurance becomes easier when agents are part of the community, because agents are accepted as members of the neighbourhood, as friends, people in this online mutual-support community can then recognize buying insurance from them as "helping friends."

Overall, my research casts a light on the socio-cultures and techno-cultures of contemporary China within that critical industry, the insurance industry, whose job is to secure our uncertain future. And I hereby conclude that, the two of my key arguments above, the culturally constructed understanding of risks and the system of co-presence among citizens, agents, insurance and risks, are the result of negotiations and accommodation between social actors and forces, such actors include urban residents, insurers and the government while the forces concern people's needs, cultural customs, legal requirements, and financial considerations. To mitigate the impacts from risks of aging society and individualisation on Chinese people, in the face of longevity which is able to change family structure and bring excessive costs, for urban residents, insurers constructed the understanding of such risks in the Chinese way with Chinese moral values, so that they can earn much deep resonance with their audience, hence to convince them of the need for insurance. Meanwhile, in the everyday interaction with clients, with the technological affordances of WeChat, agents insert themselves into clients' daily lives, also constantly propagate the perceptions of the modern constructed risks and insurance into the granular aspects of clients' life, as a result, people can feel closer and more vivid of the life of risks and insurance, as well as change to a healthy lifestyle if necessary.

From my findings discussed above, the idea of individualization is not salient. Rather, in my research, technologies are bringing people together, creating constant interactions in life and enabling constant co-presence. Inside each household, genetic testing helps

to bring family members together by making people aware of what flows within the blood of their family, strengthening family bonds and the understanding of family responsibility. When households live together and form communities, WeChat links up individuals to form collectives and helps each individual protect each other for a common good. Alongside the support of governmental social security and medical care systems which provide help in cases of disease and retirement, the neighbourhood mutual support scheme started by insurance agents can serve as the supplement in the everyday lives of each community member, and this scheme can take actions at any time.

In both individual and collective aspects, the role of insurance companies stands out. Insurance agents, as the actors who belong to both insurers and local communities, who help individuals construct collectives, are at a pivotal position. Thus in this sense, the dual identities and responsibilities require agents to possess an adequate range of skills and have an increasingly diverse job where insurance is but a small part: they need to take the role as the “good friend” who maintain the group chats, organize activities in their districts, pass on health information, sell insurance policies, promote genetic tests, and more. Therefore, insurance companies need to design tailored professional trainings to meet such expectations.

Nevertheless, there are still several limitations in my study. First, as I have discussed in positionality chapter, I had limited accessibility in my fieldwork, especially in Robin. I did not have the chance to personally observe and experience the life of Robin’s agents outside the main office, therefore the information about their company and practices of marketing insurance that I obtained mostly came from their own words. I could not tell clients’ genuinely reactions towards Robin’s services without interacting with them in person, this has restricted my analysis on fieldwork notes. Second, further to the first point, although I had more access in Noah, I still spent most of the time with the agents and did not have many conversations with their clients. Although my observations of them in seminars, weekend trips and group chats suggested that these clients were generally satisfied with Noah’s arrangements, they may express clearer feedback in one-to-one conversations, I did not have many of these conversations directly with

Noah's clients, so this also became a limitation in my analysis.

Third, in my fieldwork, I only focused on agents' communications with clients without the transaction of premium, so this study lacks for a direct connection with the action of purchasing insurance itself. Even if I observed and analysed several pitching practices for insurance policy, I did not experience all the money transactions that happened afterwards. As Cheris Chan (2009) points out, the dyadic money transactions happening between insurance agents and clients also manifest cultural settings and social relations such as trust and *guanxi*, adding the analysis in this aspect will notably complete my discussion on the connections between insurance and Chinese cultural practices. Fourth, I only conducted my participant observation in economically developed region. Despite my study shows that differences do exist in the daily insurance practices in these two cities, both cities that I chose were deemed as "advanced" cities in China, the local people live in an appropriate standard and have the basic understandings of insurance. How do the residents in less developed region perceive modern risks? How do they think of commercial insurance and its functions? These questions need to be further investigated, and they might bring out a set of varying answers.

Given the intensifying trend of aging in the society, and as already stated in previous chapters, the predicted failure of the national pension fund, commercial insurance is gradually gaining more importance in securing people's pleasant individual retirement life and enjoyable family life. Also in Chinese insurance industry, as the market is dominated by state owned enterprises, the government wishes these major state-owned companies can lead the rest for the course of national good. These giant financial institutions, as required by the national government, ought to take the social responsibilities when the government and society are in need. Insurance agents such as those in Noah, as members of these State-Owned Enterprises, are expected to fulfil the national duties and social responsibilities as well. In China, regardless of private or state-owned backgrounds, insurers used to stand up against natural disasters and global pandemics, and this time, in the face of aging society and diverse modern risks, the insurance industry also need to take actions. Drawing on the ethnographic evidence in

both private and state-owned insurance companies, my thesis focuses on the cultural construction of contemporary risks and an accommodation among social actors and forces to the problem of individuals' increasing vulnerability in the current risk society, in future, research can keep exploring other possibilities around this issue.

Reference List:

Actuaries Institute (2017). *Genetics – a Testing Time for Insurers?* Sydney: Actuaries Institute.

Al-Dmour, H., Masa'deh, R., Salman, A., Abuhashesh, M. and Al-Dmour, R. (2020). Influence of Social Media Platforms on Public Health Protection against the COVID-19 Pandemic via the Mediating Effects of Public Health Awareness and Behavioral Changes: Integrated Model. *Journal of Medical Internet Research*, [online] 22(8), p.e19996. doi:<https://doi.org/10.2196/19996>.

Allianz Life Insurance Company of North America (2016). *Rethinking What's Ahead in Retirement*. Allianz Life Insurance Company.

Amaglobeli, D., Gaspar, V. and Dabla-Norris, E. (2020). *GETTING OLDER BUT NOT POORER*. International Monetary Fund.

Appenzeller, S., Balling, R., Barisic, N., Baulac, S., Caglayan, H., Craiu, D., De Jonghe, P., Depienne, C., Dimova, P., Djémié, T., Gormley, P., Guerrini, R., Helbig, I., Hjalgrim, H., Hoffman-Zacharska, D., Jähn, J., Klein, K., Koeleman, B., Komarek, V. and Krause, R. (2014). De Novo Mutations in Synaptic Transmission Genes Including DNM1 Cause Epileptic Encephalopathies. *The American Journal of Human Genetics*, 95(4), pp.360–370. doi:<https://doi.org/10.1016/j.ajhg.2014.08.013>.

Arda, B. (2015). The Construction of a New Sociality through Social Media: the Case of the Gezi Uprising in Turkey. *Conjunctions. Transdisciplinary Journal of Cultural Participation*, 2(1), pp.72–99. doi:<https://doi.org/10.7146/tjcp.v2i1.22271>.

Armond, C.D. (2018). *In the Insurance Technology revolution, It's Now 'Power to the People'*. [online] Insurance Blog | Accenture. Available at: <https://insuranceblog.accenture.com/in-the-insurance-technology-revolution-its-now-power-to-the-people> [Accessed 5 Dec. 2024].

Au, L. (2021). Testing the Talented child: Direct-to-consumer Genetic Talent Tests in China. *Public Understanding of Science*, 31(2), p.096366252110519.
doi:<https://doi.org/10.1177/09636625211051964>.

Ayling, P. (2021). International Education and the Pursuit of ‘Western’ capitals: middle-class Nigerian Fathers’ Strategies of Class Reproduction. *British Journal of Sociology of Education*, 42(4), pp.460–474.
doi:<https://doi.org/10.1080/01425692.2021.1886906>.

Babbie, E. (2013). *The Practice of Social Research*. 13th ed. Cengage Learning.

Balasubramanian, R., Libarikian, A. and McElhaney, D. (2021). *Insurance 2030--The Impact of AI on the Future of Insurance*. [online] McKinsey & Company. Available at: <https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance> [Accessed 10 Dec. 2024].

Bank of China (2023). 中国银行网站_金融市场_存/贷款利率_人民币存款利率 (*Deposit Interest Rate*). [online] www.boc.cn. Available at: <https://www.boc.cn/fimarkets/lilv/fd31/> [Accessed 27 Dec. 2023].

Barry, L. and Charpentier, A. (2020). Personalization as a promise: Can Big Data Change the Practice of insurance? *Big Data & Society*, 7(1), p.205395172093514.
doi:<https://doi.org/10.1177/2053951720935143>.

Beck, U. (1992). *Risk society: Towards a New Modernity*. London: Sage Publications.

Beijing institute of FinTech (2020). *2020 Insurance Technology Insights Report*. Beijing Institute of FinTech.

Berkman, S. (2024). The Best Fitness Trackers. *The New York Times*. [online] Available at: <https://www.nytimes.com/wirecutter/reviews/the-best-fitness-trackers/> [Accessed 5 Jan. 2025].

- Bian, Y. (2001). Guanxi Capital and Social Eating in Chinese Cities: Theoretical Models and Empirical Analyses. In: *Social Capital*. Routledge.
- Bicker, L. (2024). Anxious Gen Z is reshaping the Chinese dream(焦虑的 Z 世代正在重塑‘中国梦’). *BBC News*. [online] Available at: <https://www.bbc.com/zhongwen/simp/chinese-news-67881163>.
- Blasimme, A., Vayena, E. and Van Hoyweghen, I. (2019). Big Data, Precision Medicine and Private insurance: a Delicate Balancing Act. *Big Data & Society*, 6(1), p.205395171983011. doi:<https://doi.org/10.1177/2053951719830111>.
- Bo, S. and Wang, H. (2014). Analysis on the Social Security System of ‘Five Insurances and One fund’ in China (浅析我国"五险一金"的社会保障制度). *Management & Technology of SME* (中小企业管理与科技), 1. doi:<https://doi.org/10.3969/j.issn.1673-1069.2014.01.075>.
- Borders, B. (2009). *A Brief History of Social Media*. [online] SCRIBD. Available at: <https://www.scribd.com/document/76840944/A-Brief-History-of-Social-Media-Oleh-Brett-Borders-Upload-by-Abdul-Murad-Abd-Hamid> [Accessed 31 May 2024].
- Borscheid, P. and Haueter, N.V. (2012). *World Insurance : the Evolution of a Global Risk Network*. Oxford: Oxford University Press.
- Bouk, D.B. (2015). *How Our Days Became Numbered : Risk and the Rise of the Statistical Individual*. Chicago ; London: University of Chicago Press.
- Bourdieu, P. (2002). The Forms of Capital. In Readings in Economic Sociology, N.W. Biggart (Ed.). <https://doi-org.libproxy.ucl.ac.uk/10.1002/9780470755679.ch15>
- Burke, W. (2002). Genetic Testing. *New England Journal of Medicine*, 347(23), pp.1867–1875. doi:<https://doi.org/10.1056/nejmoa012113>.

- Burt, R.S. and Burzynska, K. (2017). Chinese Entrepreneurs, Social Networks, and Guanxi. *Management and Organization Review*, [online] 13(2), pp.221–260.
doi:<https://doi.org/10.1017/mor.2017.6>.
- Cahill, E., Lewis, L.M., Barg, F.K. and Bogner, H.R. (2009). ‘You Don’t Want to Burden Them’. *Journal of Family Nursing*, [online] 15(3), pp.295–317.
doi:<https://doi.org/10.1177/1074840709337247>.
- Carter, M.A. (2001). Ethical Aspects of Genetic Testing. *Biological Research for Nursing*, 3(1), pp.24–32. doi:<https://doi.org/10.1177/109980040100300104>.
- CASS Institute Of Linguistics, Dictionary Editing Room (2016). *Modern Chinese Dictionary (Xiandai Hanyu cidian)*. Beijing: Shang Wu Yin Shu Guan.
- Castells, M. (2010). *The Rise of the Network Society*. Oxford, UK: Wiley-Blackwell.
doi:<https://doi.org/10.1002/9781444319514>.
- Cevolini, A. and Esposito, E. (2020). From Pool to profile: Social Consequences of Algorithmic Prediction in Insurance. *Big Data & Society*, 7(2), p.205395172093922.
doi:<https://doi.org/10.1177/2053951720939228>.
- Chambers, D. (2016). Networked intimacy: Algorithmic Friendship and Scalable Sociality. *European Journal of Communication*, 32(1), pp.26–36.
doi:<https://doi.org/10.1177/0267323116682792>.
- Chan, C. (2009). Invigorating the Content in Social Embeddedness: an Ethnography of Life Insurance Transactions in China. *American Journal of Sociology*, 115(3), pp.712–754. doi:<https://doi.org/10.1086/603532>.
- Chan, C.S. (2012). *Marketing Death: Culture and the Making of a Life Insurance Market in China*. Oxford University Press.
doi:<https://doi.org/10.1093/acprof:oso/9780195394078.001.0001>.

Chan, K.-W. and Chan, S.-M. (2008). Emotional Autonomy versus Susceptibility to Peer Pressure. *Research in Education*, 79(1), pp.38–52.

doi:<https://doi.org/10.7227/rie.79.4>.

Chang, K.-C. (2011). A Path to Understanding Guanxi in China's Transitional Economy: Variations on Network Behavior. *Sociological Theory*, 29(4), pp.315–339.

doi:<https://doi.org/10.1111/j.1467-9558.2011.01401.x>.

Chang, X. (2010). *Guanxi or Li Shang wanglai?: Reciprocity, Social Support Networks, & Social Creativity in a Chinese Village*. Airiti Press.

Chen, Q. and Song, Z. (2013). 城市化将如何应对老龄化?——从中国城乡人口流动到养老基金平衡的视角 (How Will Urbanization Respond to aging? from the Perspective of China's rural-urban Population Mobility to Pension Fund balance). *Journal of Financial Research*, 6, pp.1–15.

Chen, X. (2003). A Comment on the Flow of Talents and the Benefits of Studying abroad(人才流动与留学效益之评说). *China Scholars Abroad*, 7, pp.18–19.

Chen, X., Sun, M., Wu, D. and Song, X.Y. (2019). Information-Sharing Behavior on WeChat Moments: the Role of Anonymity, Familiarity, and Intrinsic Motivation. *Frontiers in Psychology*, 10. doi:<https://doi.org/10.3389/fpsyg.2019.02540>.

Chen, X., Zhou, X., Li, H., Li, J. and Jiang, H. (2020). The Value of WeChat Application in Chronic Diseases Management in China. *Computer Methods and Programs in Biomedicine*, 196, p.105710.

doi:<https://doi.org/10.1016/j.cmpb.2020.105710>.

Chen, X.-P. and Chen, C.C. (2004). On the Intricacies of the Chinese Guanxi: a Process Model of Guanxi Development. *Asia Pacific Journal of Management*, 21(3), pp.305–324. doi:<https://doi.org/10.1023/b:apjm.0000036465.19102.d5>.

- Chen, Y., Mao, Z. and Qiu, J.L. (2018). *Super-sticky WeChat and Chinese Society*. Bingley, Uk: Emerald Publishing Limited.
- Cheng, L. and Brown, K. (2009). *Berkshire Encyclopedia of China : Modern and Historic Views of the world's Newest and Oldest Global Power /Berkshire Encyclopedia of China : Modern and Historic Views of the world's Newest and Oldest Global Power*. Great Barrington, Massachusetts: Berkshire Pub. Group.
- China Academy of Social Sciences (2019). *中国养老金精算报告 2019-2050 (China Pension Actuarial Report 2019-2050)*. China Academy of Social Sciences.
- China Banking and Insurance Regulatory Commission (2019). *The Instructions for Managing Health Insurance (健康保险管理办法)*.
- China Banking and Insurance Regulatory Commission (2020). *Instructions on Promoting the Development of Commercial Insurance in Social Services*.
- China Banking and Insurance Regulatory Commission (2021a). *The Major Supervision Index Data of The Banking and Insurance Industries for The Forth Quarter of 2020*. [online] CBIRC. Available at: <https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=966704&itemId=915&generaltype=0> [Accessed 9 Dec. 2021].
- China Banking and Insurance Regulatory Commission (2021b). *The Major Supervision Index Data of The Banking and Insurance Industries for The Second Quarter of 2021*. [online] CBIRC. Available at: <https://www.cbirc.gov.cn/cn/view/pages/ItemDetail.html?docId=1001081&itemId=915&generaltype=0> [Accessed 9 Dec. 2021].
- China Construction Bank (2023). *中国建设银行-城乡居民存款挂牌利率 (Deposit interest Rate)*. [online] www3.ccb.com. Available at: <http://www3.ccb.com/chn/personal/interestv3/rmbdeposit.shtml> [Accessed 27 Dec. 2023].

China Development Research Foundation (2018). *The Research Report of China's Commercial Health Insurance*. China Development Research Foundation.

China News (2014). *Summarising Slogans for the University Entrance exams: 'as Long as You Will Not Die from Studying hard, You Need to Study until Your Last breath'* (盘点高考冲刺标语: 只要学不死, 就往死里学). [online]

Chinanews.com.cn. Available at: <https://www.chinanews.com.cn/sh/2014/05-19/6183194.shtml> [Accessed 25 Oct. 2024].

Chong, K. (2018). *Best Practice : Management Consulting and the Ethics of Financialization in China*. Durham: Duke University Press.

Chow, G.C. (2004). Economic Reform and Growth in China. *Annals of Economics and Finance*, 5, pp.127–152.

Chu, W. (2016). *AFC Ajax Look to fine-tune Personalised Nutrition as Club Prepare for New Season*. [online] [nutraingredients.com](https://www.nutraingredients.com/Article/2016/07/12/AFC-Ajax-look-to-fine-tune-personalised-nutrition-as-club-prepare-for-new-season). Available at: <https://www.nutraingredients.com/Article/2016/07/12/AFC-Ajax-look-to-fine-tune-personalised-nutrition-as-club-prepare-for-new-season> [Accessed 29 Aug. 2024].

Chu, Z., Wang, Q., Lai, F. and Collins, B.J. (2019). Managing interdependence: Using Guanxi to Cope with Supply Chain Dependency. *Journal of Business Research*, 103, pp.620–631. doi:<https://doi.org/10.1016/j.jbusres.2017.11.035>.

Cinelli, M., Morales, G.D.F., Galeazzi, A., Quattrociocchi, W. and Starnini, M. (2021). The Echo Chamber Effect on Social Media. *Proceedings of the National Academy of Sciences*, 118(9), pp.1–8. doi:<https://doi.org/10.1073/pnas.2023301118>.

Claes, L., Del-Favero, J., Ceulemans, B., Lagae, L., Van Broeckhoven, C. and De Jonghe, P. (2001). De Novo Mutations in the Sodium-Channel Gene SCN1A Cause Severe Myoclonic Epilepsy of Infancy. *The American Journal of Human Genetics*, 68(6), pp.1327–1332. doi:<https://doi.org/10.1086/320609>.

- Collier, S.J. (2008). Enacting catastrophe: preparedness, insurance, Budgetary Rationalization. *Economy and Society*, 37(2), pp.224–250.
doi:<https://doi.org/10.1080/03085140801933280>.
- Colombo, E., Leonini, L. and Rebughini, P. (2018). A Generational attitude: Young Adults Facing the Economic Crisis in Milan. *Journal of Modern Italian Studies*, 23(1), pp.61–74. doi:<https://doi.org/10.1080/1354571x.2017.1409532>.
- Constantinides, E. and Zinck Stagno, M.C. (2011). Potential of the Social Media as Instruments of Higher Education marketing: a Segmentation Study. *Journal of Marketing for Higher Education*, 21(1), pp.7–24.
doi:<https://doi.org/10.1080/08841241.2011.573593>.
- Cook, N.G.W. (1976). Seismicity Associated with Mining. *Engineering Geology*, 10(2-4), pp.99–122. doi:[https://doi.org/10.1016/0013-7952\(76\)90015-6](https://doi.org/10.1016/0013-7952(76)90015-6).
- Davies, H., Leung, T.K.P., Luk, S.T.K. and Wong, Y. (1995). The Benefits of ‘Guanxi’: the Value of Relationships in Developing the Chinese Market. *Industrial Marketing Management*, 24(3), pp.207–214. doi:[https://doi.org/10.1016/0019-8501\(94\)00079-c](https://doi.org/10.1016/0019-8501(94)00079-c).
- Davis-Friedmann, D. (1983). *Long Lives : Chinese Elderly and the Communist Revolution*. Cambridge, Mass: Harvard University Press.
- Department for Work and Pensions UK (2006). *Security in retirement: Towards a New Pensions System Presented to Parliament by the Secretary of State for Work and Pensions by Command of Her Majesty May 2006 Cm 6841 £27.00*. Department for Work and Pensions UK.
- Dorfman, M.S. (2013). *Introduction to Risk Management and Insurance*. Boston: Pearson.

- Du, J. (2019). 《中国养老金精算报告 2019-2050》发布 (*China's Pension Actuarial Report 2019-2050 Was released*). [online] www.rmzxb.com.cn. Available at: <https://www.rmzxb.com.cn/c/2019-04-10/2326784.shtml> [Accessed 28 Dec. 2023].
- Du, L. and Wang, M. (2020). Genetic Privacy and Data Protection: a Review of Chinese Direct-to-Consumer Genetic Test Services. *Frontiers in Genetics*, 11. doi:<https://doi.org/10.3389/fgene.2020.00416>.
- Du, P. (2023). 中国人口老龄化现状与社会保障体系发展 (The Status Quo of Population Aging and the Development of the Social Security System in China). *社会保障评论* (*Chinese Social Security Review*), 7(2).
- Du, P., Zhai, Z. and Chen, W. (2005). The one-hundred-year Trend of the Development of China's Aging Population (中国人口老龄化百年发展趋势). *Population Research* (人口研究), 29(6). doi:<https://doi.org/10.3969/j.issn.1000-6087.2005.06.018>.
- Edosomwan, S., Prakasan, S.K., Kouame, D., Watson, J. and Seymour, T. (2011). The History of Social Media and Its Impact on Business. *The Journal of Applied Management and Entrepreneurship*, 16(3), pp.79–91.
- Eikermann, S., Hajj, J. and Peterson, M. (2008). Opinion piece: Web 2.0: Profiting from the Threat. *Journal of Direct, Data and Digital Marketing Practice*, 9(3), pp.293–295. doi:<https://doi.org/10.1057/palgrave.dddmp.4350094>.
- Ekberg, M. (2007). The Parameters of the Risk Society. *Current Sociology*, 55(3), pp.343–366. doi:<https://doi.org/10.1177/0011392107076080>.
- Evans, J.P., Skrzynia, C. and Burke, W. (2001). The Complexities of Predictive Genetic Testing. *BMJ*, [online] 322(7293), pp.1052–1056. doi:<https://doi.org/10.1136/bmj.322.7293.1052>.

- Ewald, F. (1991). Insurance and Risk. In: G. Burchell, C. Gordon and P. Miller, eds., *The Foucault Effect: Studies in Governmentality*. The University of Chicago Press.
- Fan, F. (2007). East Asian STS: Fox or Hedgehog? *East Asian Science, Technology and Society: an International Journal*, 1(2), pp.243–247.
doi:<https://doi.org/10.1215/s12280-007-9019-0>.
- Fan, Y. (2002). Questioning guanxi: definition, Classification and Implications. *International Business Review*, 11(5), pp.543–561.
- Fei, X. (1939). *Peasant Life in China : a Field Study of Country Life in the Yangtze Valley*. London: Routledge & Kegan Paul.
- Fei, X. (1998). *乡土中国：生育制度* (*From the Soil: fertility regimes*). Peking University Press.
- Fiammenghi, C., Loredana Covolo, Vanoncini, A., Umberto Gelatti and Elisabetta Ceretti (2024). Institutional health communication and social media: Exploring Italian hospitals' use of social media pages. *Digital Health*, 10.
doi:<https://doi.org/10.1177/20552076241245921>.
- Fischer, E. and Reuber, A.R. (2011). Social Interaction via New Social media: (How) Can Interactions on Twitter Affect Effectual Thinking and behavior? *Journal of Business Venturing*, 26(1), pp.1–18.
doi:<https://doi.org/10.1016/j.jbusvent.2010.09.002>.
- Flemmen, M.P., Toft, M., Andersen, P.L., Hansen, M.N. and Ljunggren, J. (2017). Forms of Capital and Modes of Closure in Upper Class Reproduction. *Sociology*, 51(6), pp.1277–1298. doi:<https://doi.org/10.1177/0038038517706325>.
- Fried, L.P., Wong, J.E.L. and Dzau, V. (2022). A Global Roadmap to Seize the Opportunities of Healthy Longevity. *Nature Aging*, [online] 2(12), pp.1080–1083.
doi:<https://doi.org/10.1038/s43587-022-00332-7>.

Fu, D. (2007). How Far Can East Asian STS Go?: a Position Paper. *East Asian Science, Technology and Society*, 1(1), pp.1–14. doi:<https://doi.org/10.1215/s12280-007-9000-y>.

Fudan University and Zhong'An Technology (2021). *Wisdom Must Win: the 2021 White Paper of Digital Marketing in Insurance*. Zhong'An Technology.

Gannon, P. and Villiers, C. (1999). Genetic Testing and Employee Protection. *Medical Law International*, 4(1), pp.39–57. doi:<https://doi.org/10.1177/096853329900400103>.

Geelen, E., Horstman, K., Marcelis, C.L., Doevendans, P.A. and Van Hoyweghen, I. (2012). Unravelling Fears of Genetic discrimination: an Exploratory Study of Dutch HCM Families in an Era of Genetic non-discrimination Acts. *European Journal of Human Genetics*, 20(10), pp.1018–1023. doi:<https://doi.org/10.1038/ejhg.2012.53>.

Geertz, C. (2008). Thick Description: Toward an Interpretive Theory of Culture. In: T. Oaks and P.L. Price, eds., *The Cultural Geography Reader*. Routledge.

General Office of the State Council of the People's Republic of China (2014). *Opinions of the General Office of the State Council on Accelerating the Development of Commercial Health Insurance (国务院办公厅关于加快发展商业健康保险的若干意见)*. [online] www.gov.cn. Available at: https://www.gov.cn/zhengce/content/2014-11/17/content_9210.htm [Accessed 10 Dec. 2024].

Gobo, G. and Molle, A. (2016). *Doing Ethnography*. United Kingdom: SAGE Publications.

Gold, T., Guthrie, D. and Wank, D.L. (2002). *Social Networks in China : institutions, culture, and the Changing Nature of Guanxi*. Cambridge, Uk: Cambridge University Press.

- Graham, S.A. and Fisher, S.E. (2013). Decoding the Genetics of Speech and Language. *Current Opinion in Neurobiology*, [online] 23(1), pp.43–51.
doi:<https://doi.org/10.1016/j.conb.2012.11.006>.
- Gregersen, P.K., Kowalsky, E., Kohn, N. and Marvin, E.W. (2001). Early Childhood Music Education and Predisposition to Absolute pitch: Teasing Apart Genes and Environment. *American Journal of Medical Genetics*, 98(3), pp.280–282.
doi:[https://doi.org/10.1002/1096-8628\(20010122\)98:3%3C280::AID-AJMG1083%3E3.0.CO;2-6](https://doi.org/10.1002/1096-8628(20010122)98:3%3C280::AID-AJMG1083%3E3.0.CO;2-6).
- Grömping, M. (2014). ‘Echo Chambers’: Partisan Facebook Groups during the 2014 Thai Election. *Asia Pacific Media Educator*, 24(1), pp.39–59.
doi:<https://doi.org/10.1177/1326365x14539185>.
- Grosse, S.D. and Khoury, M.J. (2006). What Is the Clinical Utility of Genetic testing? *Genetics in Medicine*, [online] 8(7), pp.448–450.
doi:<https://doi.org/10.1097/01.gim.0000227935.26763.c6>.
- Gui, T. (2016). ‘Devalued’ Daughters versus ‘Appreciated’ Sons: Gender Inequality in China’s Parent-Organized Matchmaking Markets. *Journal of Family Issues*, 38(13), pp.1923–1948. doi:<https://doi.org/10.1177/0192513x16680012>.
- Gui, T. (2022). Coping with Parental Pressure to Get Married: Perspectives from Chinese ‘Leftover Women’. *Journal of Family Issues*, 44(8), pp.2118–2137.
doi:<https://doi.org/10.1177/0192513x211071053>.
- Guo, Y. and Ren, W. (2024). Responses to self-praise on Chinese Social Media. *Discourse & communication*, 18(3), pp.351–369.
doi:<https://doi.org/10.1177/17504813231222591>.
- Guthrie, D. (1998). The Declining Significance of Guanxi in China’s Economic Transition. *The China Quarterly*, 154, p.254.
doi:<https://doi.org/10.1017/s0305741000002034>.

- Hadley, M. and McNamara, D. (2020). Genetic Testing in sport: Considerations for Young Athletes. *Alternative Law Journal*, 45(4), pp.303–308.
doi:<https://doi.org/10.1177/1037969x20956260>.
- Han, G. and Zhai, Y. (2022). Risk Society and the Politics of Food Safety Problems in China. *Japanese Journal of Political Science*, 23(1), pp.73–87.
doi:<https://doi.org/10.1017/s1468109921000372>.
- Hao, L., Wan, F., Ma, N. and Wang, Y. (2018). Analysis of the Development of WeChat Mini Program. *Journal of Physics: Conference Series*, 1087(6), p.062040.
doi:<https://doi.org/10.1088/1742-6596/1087/6/062040>.
- Hao, S. (2023). *Historical and Cultural origins--on Communist Party of China Central Commission for Discipline Inspection (历史文化源流——中央纪委国家监委网站)*. [online] Communist Party of China Central Commission for Discipline Inspection. Available at:
https://www.ccdi.gov.cn/specialn/lswwhy/202302/t20230217_247294.html [Accessed 5 Dec. 2024].
- Hart, S.A. (2016). Precision Education Initiative: Moving toward Personalized Education. *Mind, Brain, and Education*, 10(4), pp.209–211.
doi:<https://doi.org/10.1111/mbe.12109>.
- Harwit, E. (2016). WeChat: Social and Political Development of China's Dominant Messaging App. *Chinese Journal of Communication*, 10(3), pp.312–327.
doi:<https://doi.org/10.1080/17544750.2016.1213757>.
- He, G., Mol, A.P.J., Zhang, L. and Lu, Y. (2012). Nuclear Power in China after Fukushima: Understanding Public knowledge, attitudes, and Trust. *Journal of Risk Research*, 17(4), pp.435–451. doi:<https://doi.org/10.1080/13669877.2012.726251>.

- Helmond, A., Nieborg, D.B. and van der Vlist, F.N. (2019). Facebook's evolution: Development of a platform-as-infrastructure. *Internet Histories*, [online] 3(2), pp.123–146. doi:<https://doi.org/10.1080/24701475.2019.1593667>.
- Ho, K.Z. (2009). *Liquidated : an Ethnography of Wall Street*. Durham: Duke University Press.
- Holdsworth, W.S. (1917). The Early History of the Contract of Insurance. *Columbia Law Review*, 17(2), pp.85–113. doi:<https://doi.org/10.2307/1111672>.
- Holleran, M. (2018). The 'lost Generation' of the 2008 crisis: Generational Memory and Conflict in Spain. *Journal of Sociology*, 55(3). doi:<https://doi.org/10.1177/1440783318817907>.
- Holmes, K., Balnaves, M. and Wang, Y. (2015). Red Bags and WeChat (Wēixìn): Online Collectivism during Massive Chinese Cultural Events. *Global Media Journal Australia Edition*, 9(1).
- Holtzman, N.A. and Watson, M.S. eds., (1997). *Promoting Safe and Effective Genetic Testing in the United States*. National Human Genome Research Institute.
- Hsu, M.-H., Chang, C.-M. and Chuang, L.-W. (2015). Understanding the Determinants of Online Repeat Purchase Intention and Moderating Role of habit: the Case of Online group-buying in Taiwan. *International Journal of Information Management*, 35(1), pp.45–56. doi:<https://doi.org/10.1016/j.ijinfomgt.2014.09.002>.
- Huang, R. (2008). 人口老龄化趋势下的中国城镇养老保险制度研究 (*Research on China's Urban Pension Insurance System under the Trend of Population Ageing*). PhD Thesis.
- Huang, Y. and Miao, W. (2020). Re-domesticating Social Media When It Becomes disruptive: Evidence from China's 'super App' WeChat. *Mobile Media &*

Communication, 9(2), p.205015792094076.

doi:<https://doi.org/10.1177/2050157920940765>.

Huize Insurance (2015). *Zhiyinbao: China's First Internet genetic-testing Insurance Program*. [online] Huize.com. Available at: <https://xuexi.huize.com/study/detail-182531.html> [Accessed 17 Oct. 2021].

Huize Insurance (2017). *The Collaboration of Insurance and genetic-testing Institutions*. [online] Huize.com. Available at: <https://xuexi.huize.com/study/detail-177166.html> [Accessed 17 Oct. 2021].

Huize Insurance (2018). *Technology May Has Become a New Driving Force for the Development of Insurance Industry*. [online] Huize Insurance. Available at: <https://xuexi.huize.com/study/detail-298371.html> [Accessed 1 Sep. 2021].

ICBC (2023). *中国工商银行中国网站-金融信息频道-存贷款利率栏目 (Deposit Interest Rate)*. [online] www.icbc.com.cn. Available at: <https://www.icbc.com.cn/column/1438058341686722587.html> [Accessed 27 Dec. 2023].

Ikels, C. (1983). *Aging and Adaptation*. Hamden, Conn. : Archon Books.

iResearch (2019). *White Paper for Direct-To-Customer Genetic Testing Industry (消费基因检测行业白皮书)*. iResearch Inc.

Jardine, B. (2017). State of the field: Paper Tools. *Studies in History and Philosophy of Science Part a*, 64, pp.53–63. doi:<https://doi.org/10.1016/j.shpsa.2017.07.004>.

Jasanoff, S. (2004). The Idiom of co-production. In: S. Jasanoff, ed., *States of Knowledge: the co-production of Science and Social Order*. Routledge.

Jin, X., Xu, L., Xin, Y. and Adhikari, A. (2022). Political Governance in China's state-owned Enterprises. *China Journal of Accounting Research*, 15(2), p.100236. doi:<https://doi.org/10.1016/j.cjar.2022.100236>.

- Kalachikov, S., Evgrafov, O., Ross, B., Winawer, M., Barker-Cummings, C., Boneschi, F.M., Choi, C., Morozov, P., Das, K., Teplitskaya, E., Yu, A., Cayanis, E., Penchaszadeh, G., Kottmann, A.H., Pedley, T.A., Hauser, W.A., Ottman, R. and Gilliam, T.C. (2002). Mutations in LGI1 Cause autosomal-dominant Partial Epilepsy with Auditory Features. *Nature Genetics*, 30(3), pp.335–341. doi:<https://doi.org/10.1038/ng832>.
- Kane, P. and Choi, C.Y. (1999). China's One Child Family Policy. *BMJ*, 319(7215), pp.992–994. doi:<https://doi.org/10.1136/bmj.319.7215.992>.
- Kaplan, A.M. and Haenlein, M. (2010). Users of the world, unite! the Challenges and Opportunities of Social Media. *Business Horizons*, 53(1), pp.59–68.
- Karsten, S.G. (1988). China's Approach to Social Market Economics: the Chinese Variant of Market Socialism Seeks to Escape from the Difficulties of Central Command Planning. *American Journal of Economics and Sociology*, 47(2), pp.129–148. doi:<https://doi.org/10.1111/j.1536-7150.1988.tb02018.x>.
- Katt, Peter.C. (2015). History of Cash Value Life Insurance and Implications for Existing Policies. *Journal of Financial Planning*, 28, pp.33–34.
- Kauffman, R.J., Lai, H. and Ho, C.-T. (2010). Incentive mechanisms, Fairness and Participation in Online group-buying Auctions. *Electronic Commerce Research and Applications*, 9(3), pp.249–262. doi:<https://doi.org/10.1016/j.elerap.2008.11.009>.
- Keays, D. (2000). Genetic Testing and insurance: When Is Discrimination justified? *Monash Bioethics Review*, 19(4), pp.S79–S88. doi:<https://doi.org/10.1007/bf03351249>.
- Khanday, A.M.U.D., Rabani, S.T., Khan, Q.R. and Malik, S.H. (2022). Detecting Twitter Hate Speech in COVID-19 Era Using Machine Learning and Ensemble Learning Techniques. *International Journal of Information Management Data Insights*, 2(2), p.100120. doi:<https://doi.org/10.1016/j.jjime.2022.100120>.

Kipnis, A.B. (1997). *Producing Guanxi : sentiment, self, and Subculture in a North China Village*. Durham, Nc: Duke University Press.

Klonoff, D.C. (2014). Precision Medicine for Managing Diabetes. *Journal of Diabetes Science and Technology*, 9(1), pp.3–7.
doi:<https://doi.org/10.1177/1932296814563643>.

Klonoff, D.C., Florez, J.C., German, M. and Fleming, A. (2020). The Need for Precision Medicine to Be Applied to Diabetes. *Journal of Diabetes Science and Technology*, p.193229681989429. doi:<https://doi.org/10.1177/1932296819894295>.

Kobakhidze, M.N., Ma, Y. and Tsaloukidis, A. (2023). Tiger Parenting beyond Cultural Essentialism: Discourses of Class, Culture, and Competition in Hong Kong. *ECNU review of education*, 7(3). doi:<https://doi.org/10.1177/20965311231198252>.

Korenich, L., Lascu, D., Manrai, L. and Manrai, A. (2013). Social Media: Past, present, and Future. In: L. Moutinho, E. Bigné and A.K. Manrai, eds., *The Routledge Companion to the Future of Marketing*. Routledge.

KPMG (2019). *InsurTech: Infrastructure for New Insurance*. KPMG.

Kuan, T. (2015). *Love's Uncertainty: The Politics and Ethics of Child Rearing in Contemporary China*. University of California Press.
doi:<https://doi.org/10.1525/9780520959361>.

Kyung-Sup, C. (2017). China as a Complex Risk Society. *Temporalités*, (26).
doi:<https://doi.org/10.4000/temporalites.3810>.

Lee, C.K. (2002). From the Specter of Mao to the Spirit of the law: Labor Insurgency in China. *Theory and Society*, 31(2), pp.189–228.
doi:<https://doi.org/10.1023/a:1015083610306>.

Leeder, J.S. and Spielberg, S.P. (2009). Personalized Medicine: Reality and Reality Checks. *Annals of Pharmacotherapy*, 43(5), pp.963–966.
doi:<https://doi.org/10.1345/aph.1m065>.

Leenes, R. (2010). Context Is Everything Sociality and Privacy in Online Social Network Sites. *IFIP Advances in Information and Communication Technology*, pp.48–65. doi:https://doi.org/10.1007/978-3-642-14282-6_4.

Légaré, J. (2015). Population Aging: Economic and Social Consequences. *International Encyclopedia of the Social & Behavioral Sciences*, [online] pp.540–544. doi:<https://doi.org/10.1016/b978-0-08-097086-8.34041-7>.

Lerman, C., Croyle, R.T., Tercyak, K.P. and Hamann, H. (2002). Genetic testing: Psychological Aspects and Implications. *Journal of Consulting and Clinical Psychology*, [online] 70(3), pp.784–797. doi:<https://doi.org/10.1037//0022-006x.70.3.784>.

Li, B. (2019). 2.66 Working People Supporting One Retired person, the National Pension Will Run out before the Post 80s generation's retirement? State response: Please Rest Assured (2.66 个人养1 个人 没等80 后退休养老金就会花光? 国家回应: 请放心 财经_中国网). [online] finance.china.com.cn. Available at: <http://finance.china.com.cn/news/20190424/4962232.shtml?from=yd zx> [Accessed 26 Oct. 2023].

Li, J. (2024). Genetic testing for talent should not be taken seriously (天赋基因检测切莫当真). *Wen Zhai Bao (文摘报)*. [online] Available at: https://epaper.gmw.cn/wzb/html/2024-08/28/nw.D110000wzb_20240828_2-08.htm?div=-1 [Accessed 30 Aug. 2024].

Li, X. (2023). *Zhongkao, Not Gaokao, Now the Make-or-Break Exam, Parents Say*. [online] SixthTone. Available at: <https://www.sixthtone.com/news/1013176> [Accessed 8 Dec. 2024].

- Li, Z. (2020). Guanxi. *Encyclopedia of Business and Professional Ethics*, pp.1–5.
doi:https://doi.org/10.1007/978-3-319-23514-1_187-1.
- Li, Z. and Lu, X. (2018). Reflections on STS in Mainland China: a Historical Review. *East Asian Science, Technology and Society: an International Journal*, 12(2), pp.185–196. doi:<https://doi.org/10.1215/18752160-6577904>.
- Liang, F. (2020). COVID-19 and Health Code: How Digital Platforms Tackle the Pandemic in China. *Social Media + Society*, [online] 6(3).
doi:<https://doi.org/10.1177/2056305120947657>.
- Lin, B. (2010). The Basic Trend of the Transformation of Elderly Care Mode and the Choice of Elderly Care Mode in Our country(养老模式转变的基本趋势及我国养老模式的选择). *Guangxi Shehui Kexue*, 5, pp.124–127.
- Liu, J. (2015). *Study Shows Chinese Students Spend Three Hours on Homework per Day - China - Chinadaily.com.cn*. [online] Chinadaily.com.cn. Available at: https://www.chinadaily.com.cn/china/2015-11/26/content_22520832.htm [Accessed 25 Oct. 2024].
- Liu, Ji. (2010). *人口老龄化背景下完善我国城镇养老保障制度研究 (Study on Perfecting the Urban Pension Security System under the Background of Ageing Population)*. Dissertation.
- Liu, S. (2019). *Will the National Pension Run out in 2035? Is It a Panic or a reality? (2035 年养老金将耗尽？是制造恐慌还是现实)？*. [online] www.guancha.cn. Available at: https://www.guancha.cn/liusiyuan/2019_07_19_510058.shtml [Accessed 26 Oct. 2023].
- Liu, Y. (2008). 博士群体遭遇“30 不立”尴尬 (The doctors encountered with the embarrassment of having achieved nothing by 30 years old). *人民论坛 (People's Tribune)*, 1, p.35.

Louria, D.B. (2005). Extraordinary Longevity: Individual and Societal Issues. *Journal of the American Geriatrics Society*, 53(9s), pp.S317–S319.
doi:<https://doi.org/10.1111/j.1532-5415.2005.53499.x>.

Lovett, S., Simmons, L.C. and Kali, R. (1999). Guanxi versus the Market: Ethics and Efficiency. *Journal of International Business Studies*, 30(2), pp.231–247.
doi:<https://doi.org/10.1057/palgrave.jibs.8490068>.

Lupton, D. (2016). The Diverse Domains of Quantified selves: self-tracking Modes and Dataveillance. *Economy and Society*, 45(1), pp.101–122.
doi:<https://doi.org/10.1080/03085147.2016.1143726>.

Lupton, D. (2023). *Risk*. 3rd ed. London: Routledge.
doi:<https://doi.org/10.4324/9781003316299>.

Lv, Z. (1992). 对‘养儿防老—返哺’观的社会学思考(Sociological Thinking on the Concept of Raising Children for Old age). *西华大学学报（哲学社会科学版）* (*Journal of Xihua University (Philosophy and Social Sciences)*), 1, pp.44–49.

Lyng, S. (1990). Edgework: a Social Psychological Analysis of Voluntary Risk Taking. *American Journal of Sociology*, 95(4), pp.851–886.
doi:<https://doi.org/10.1086/229379>.

Lyng, S. (2008). Edgework, Risk, and Uncertainty. In: J.O. Zinn, ed., *Social Theories of Risk and Uncertainty: an Introduction*. Blackwell Publishing.

MacLeod, H., Demo, E., Honeywell, C. and Rutberg, J. (2013). Genetic Counselors: an Important Resource for Families following a Young Sudden Cardiac Death. *Academic Forensic Pathology*, 3(2), pp.183–190.
doi:<https://doi.org/10.23907/2013.023>.

Mannette, R. (2021). Navigating a World of genes: a Conceptual Analysis of Gene fetishism, geneticization, Genetic Exceptionalism and Genetic Essentialism.

European Journal of Medical Genetics, 64(8), p.104232.

doi:<https://doi.org/10.1016/j.ejmg.2021.104232>.

Mao, C. (1998). Discussing the Development and Countermeasures of the Rural Elderly Care Model in China from the Traditional Family Support (从传统的家庭养老谈我国农村养老模式的发展与对策). *Jiangsu Shehui Kexue*, 1, pp.150–153.

Marwick, A.E. and boyd, danah (2014). Networked privacy: How Teenagers Negotiate Context in Social Media. *New Media & Society*, 16(7), pp.1051–1067.

Master, F. (2024). China's Top Health Body Urges marriage, Childbirth at 'appropriate ages'. *Reuters*. [online] 13 Sep. Available at: <https://www.reuters.com/world/china/chinas-top-health-body-urges-marriage-childbirth-appropriate-ages-2024-09-13/> [Accessed 25 Dec. 2024].

McCrea, E.M., Lee, D.K., Sissung, T.M. and Figg, W.D. (2018). Precision Medicine Applications in Prostate Cancer. *Therapeutic Advances in Medical Oncology*, [online] 10, p.175883591877692. doi:<https://doi.org/10.1177/1758835918776920>.

McFall, L., Meyers, G. and Hoyweghen, I.V. (2020). Editorial: the Personalisation of insurance: Data, Behaviour and Innovation. *Big Data & Society*, 7(2), p.205395172097370. doi:<https://doi.org/10.1177/2053951720973707>.

McFall, L. and Moor, L. (2018). Who, or what, Is Insurtech personalizing?: persons, Prices and the Historical Classifications of Risk. *Distinktion: Journal of Social Theory*, 19(2), pp.193–213. doi:<https://doi.org/10.1080/1600910x.2018.1503609>.

McIntyre, K.E. (2014). The Evolution of Social Media from 1969 to 2013: a Change in Competition and a Trend toward Complementary, Niche Sites. *The Journal of Social Media in Society*, 2(3).

McKenna, B., Cai, W. and Yoon, H. (2023). Chinese Older adults' Social Media use: a Study of WeChat from a Social Practice Perspective. *Information Technology & People*. doi:<https://doi.org/10.1108/itp-10-2022-0787>.

McNamee, M.J., Müller, A., van Hilvoorde, I. and Holm, S. (2009). Genetic Testing and Sports Medicine Ethics. *Sports Medicine*, 39(5), pp.339–344.
doi:<https://doi.org/10.2165/00007256-200939050-00001>.

Mertanen, K., Vainio, S. and Brunila, K. (2021). Educating for the future? Mapping the Emerging Lines of Precision Education Governance. *Policy Futures in Education*, p.147821032110499. doi:<https://doi.org/10.1177/14782103211049914>.

Meyers, G. and Hoyweghen, I.V. (2020). 'Happy failures': Experimentation with behaviour-based Personalisation in Car Insurance. *Big Data & Society*, 7(1), p.205395172091465. doi:<https://doi.org/10.1177/2053951720914650>.

Ministry of Ecology and Environment of People's Republic of China (2020). *2020 China Ecological and Environmental Status Report*. Ministry of Ecology and Environment of the People's Republic of China.

Ministry of Science and Technology of the People's Republic of China (2023). *Rules for the Implementation of Regulations on the Management of Human Genetic Resources*.

Murphy, J., Hill, C. and Dean, E. (2013). Social media, sociality, and Survey Research. In: *Social media, sociality, and Survey Research*.
doi:<https://doi.org/10.1002/9781118751534.ch1>.

Murthy, D. and Lewis, J.P. (2014). Social Media, Collaboration, and Scientific Organizations. *American Behavioral Scientist*, 59(1), pp.149–171.
doi:<https://doi.org/10.1177/0002764214540504>.

Nagai, K., Tanaka, M., Marcon, A.R., Shineha, R., Tokunaga, K., Caulfield, T. and Takezawa, Y. (2023). Comparing direct-to-consumer Genetic Testing Services in English, Japanese, and Chinese Websites. *Anthropological Science*, 131(1), pp.3–13. doi:<https://doi.org/10.1537/ase.220905>.

National Bureau of Statistics (2021). 第七次全国人口普查公报解读 (*Interpretation of the Seventh National Census Bulletin*) . [online] www.stats.gov.cn. Available at: https://www.stats.gov.cn/sj/sjjd/202302/t20230202_1896484.html [Accessed 25 Dec. 2023].

National Bureau of Statistics (2023). 人口老龄化及其衡量标准是什么 (*What Is Population Ageing and How It Is measured*)d. [online] www.stats.gov.cn. Available at: https://www.stats.gov.cn/zs/tjws/tjbz/202301/t20230101_1903949.html#:~:text=%E5%9B%BD%E9%99%85%E4%B8%8A%E9%80%9A%E5%B8%B8%E7%94%A8%E8%80%81%E5%B9%B4 [Accessed 25 Dec. 2023].

National Bureau of Statistics of China (1999). *China Statistical Yearbook 1999*. [online] China Statistics Press. Available at: <https://www.stats.gov.cn/yearbook/indexC.htm>.

National Bureau of Statistics of China (2023). *China Statistical Yearbook 2023*. [online] China Statistics Press. Available at: <https://www.stats.gov.cn/sj/ndsj/2023/indexch.htm>.

National Bureau of Statistics of China (2024). 中华人民共和国2023年国民经济和社会发展统计公报 (*Statistical Bulletin of the People's Republic of China on National Economic and Social Development for 2023*). [online] www.stats.gov.cn. Available at: https://www.stats.gov.cn/sj/zxfb/202402/t20240228_1947915.html.

National Cancer Institute (2022). *Accidents at Nuclear Power Plants and Cancer Risk*. [online] National Cancer Institute. Available at: <https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/nuclear-accidents-fact-sheet> [Accessed 10 Dec. 2024].

National Council for Social Security Fund of China (2023). *全国社会保障基金理事会社保基金年度报告(2022 年度) (National Council for Social Security Fund Social Security Fund Annual Report 2022)*. [online] www.ssf.gov.cn. Available at: <https://www.ssf.gov.cn/portal/xxgk/fdzdgknr/cwbg/sbjjndbg/webinfo/2023/09/1697471208931405.htm> [Accessed 21 Dec. 2023].

National Development and Reform Commission (2021). *The Key to Raise residents' Willingness to Consume Is 'the Two increases' (扩大居民消费的关键是‘两提’)*. [online] www.ndrc.gov.cn. Available at: https://www.ndrc.gov.cn/xxgk/jd/wsdwhfz/202107/t20210701_1285233.html [Accessed 26 Oct. 2023].

National Development and Reform Commission (2012). *Advice for Promoting Urban and Rural Critical Illness Insurance (六部门关于开展城乡居民大病保险工作的指导意见)*. [online] www.gov.cn. Available at: https://www.gov.cn/gzdt/2012-08/31/content_2214223.htm [Accessed 10 Dec. 2024].

National Financial Regulatory Administration (2024). *The List of Registered Insurance Institutions until December 2023 (保险机构法人名单 (截至 2023 年 12 月末))*. [online] [Cbirc.gov.cn](http://www.cbirc.gov.cn). Available at: <https://www.cbirc.gov.cn/cn/view/pages/governmentDetail.html?docId=1160638&itemId=863&generaltype=1> [Accessed 5 Jan. 2025].

National Government of People's Republic of China (2021). *The 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Outline of the long-range Goals for 2035*. National Government of People's Republic of China.

National Health Commission for the People's Republic of China (2018). *The National Health Development Statistics Bulletin 2017* (2017 年我国卫生健康事业发展统计公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s10743/201806/44e3cdfel1fa4c7f928c879d435b6a18.shtml> [Accessed 5 Jan. 2025].

National Health Commission for the People's Republic of China (2019). *The National Health Development Statistics Bulletin 2018* (2018 年我国卫生健康事业发展统计公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s10748/201905/9b8d52727cf346049de8acce25ffcbdd0.shtml> [Accessed 5 Jan. 2025].

National Health Commission for the People's Republic of China (2020). *The National Health Development Statistics Bulletin 2019* (2019 年我国卫生健康事业发展统计公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s10748/202006/ebfe31f24cc145b198dd730603ec4442.shtml> [Accessed 5 Jan. 2025].

National Health Commission for the People's Republic of China (2021). *The National Health Development Statistics Bulletin 2020* (2020 年我国卫生健康事业发展统计公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s10743/202107/af8a9c98453c4d9593e07895ae0493c8.shtml> [Accessed 5 Jan. 2025].

National Health Commission for the People's Republic of China (2022). *The National Health Development Statistics Bulletin 2021* (2021 年我国卫生健康事业发展统计公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s3586s/202207/51b55216c2154332a660157abf28b09d.shtml> [Accessed 5 Jan. 2025].

National Health Commission for the People's Republic of China (2023). *The National Health Development Statistics Bulletin 2022* (2022 年我国卫生健康事业发展统计公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s3586s/202307/51b55216c2154332a660157abf28b09d.shtml> [Accessed 5 Jan. 2025].

公报). [online] nhc.gov.cn. Available at:
<http://www.nhc.gov.cn/guihuaxxs/s3585u/202309/6707c48f2a2b420fbfb739c393fcca92.shtml> [Accessed 5 Jan. 2025].

National Human Genome Research Institute (2010). *The ELSI Working Group*. [online] Genome.gov. Available at: <https://www.genome.gov/10001787/elsi-working-group> [Accessed 20 Aug. 2024].

Naujoks, H., Singh, H., Judah, M. and Stumbles, P. (2019). *Making the Most of Asia-Pacific's Insurance Boom*. [online] Bain & Company. Available at:
<https://www.bain.com/insights/making-the-most-of-asia-pacifics-insurance-boom/>
[Accessed 2 Jan. 2025].

Nayak, B. and Bhattacharyya, S.S. (2020). The Changing Narrative in the Health Insurance Industry: Wearables Technology in Health Insurance Products and Services for the COVID-19 World. *Journal of Health Management*, 22(4), pp.550–558.
doi:<https://doi.org/10.1177/0972063420983112>.

Negro, G., Balbi, G. and Bory, P. (2020). The Path to WeChat: How Tencent's Culture Shaped the Most Popular Chinese app, 1998–2011. *Global Media and Communication*, 16(2), pp.208–226. doi:<https://doi.org/10.1177/1742766520923008>.

Nelson, A. and Robinson, J.H. (2014). The Social Life of DTC Genetics: the Case of 23andMe. In: D.L. Kleinman and K. Moore, eds., *Routledge Handbook of Science, Technology, and Society*. Routledge.

New York Life (2024). *Whole Life Insurance with Cash value*. [online] www.newyorklife.com. Available at: <https://www.newyorklife.com/articles/cash-value-life-insurance> [Accessed 20 Jan. 2024].

New York State Department of Financial Services (2024). *Types of Policies*. [online] Department of Financial Services. Available at:

https://www.dfs.ny.gov/consumers/life_insurance/types_of_policies [Accessed 26 Apr. 2024].

Newbury, D.F. and Monaco, A.P. (2010). Genetic Advances in the Study of Speech and Language Disorders. *Neuron*, 68(2), pp.309–320.
doi:<https://doi.org/10.1016/j.neuron.2010.10.001>.

NHS (2021). *Huntington's Disease*. [online] NHS. Available at:
<https://www.nhs.uk/conditions/Huntingtons-disease/>.

Norton, E.C. (2016). Health and Long-Term Care. *Handbook of the Economics of Population Aging*, 1, pp.951–989. doi:<https://doi.org/10.1016/bs.hespa.2016.06.001>.

O'Malley, P. (2008). Governmentality and Risk. In: J.O. Zinn, ed., *Social Theories of Risk and Uncertainty: an Introduction*. Blackwell Publishing.

Office of the leading group of the state council for the seventh national population census (2020). *China Population Census Yearbook 2020*. China Statistics Press.

Oh, S.-H., Lee, S.Y. and Han, C. (2020). The Effects of Social Media Use on Preventive Behaviors during Infectious Disease Outbreaks: the Mediating Role of Self-relevant Emotions and Public Risk Perception. *Health Communication*, 36(8), pp.1–10. doi:<https://doi.org/10.1080/10410236.2020.1724639>.

Oikkonen, J., Huang, Y., Onkamo, P., Ukkola-Vuoti, L., Raijas, P., Karma, K., Vieland, V.J. and Järvelä, I. (2014). A genome-wide Linkage and Association Study of Musical Aptitude Identifies Loci Containing Genes Related to Inner Ear Development and Neurocognitive Functions. *Molecular Psychiatry*, 20(2), pp.275–282. doi:<https://doi.org/10.1038/mp.2014.8>.

Ou, C. and Lin, Z. (2023). Co-presence, dysco-presence, and disco-presence: Navigating WeChat in Chinese Acquaintance Networks. *New Media & Society*,

p.146144482311685-146144482311685.

doi:<https://doi.org/10.1177/14614448231168566>.

Ouiridi, M.E., El Ouiridi, A., Segers, J. and Henderickx, E. (2014). Social Media Conceptualization and Taxonomy. *Journal of Creative Communications*, 9(2), pp.107–126. doi:<https://doi.org/10.1177/0973258614528608>.

Oxford English Dictionary (2024a). ‘risk (n)’. In: *Oxford English Dictionary*. [online] Available at: https://www.oed.com/dictionary/risk_n?tab=meaning_and_use#25069752 [Accessed 5 Nov. 2024].

Oxford English Dictionary (2024b). cash-value. In: *Oxford English Dictionary*. [online] doi:<https://doi.org/10.1093/OED//7586530927>.

Park, H., Lee, S., Kim, H.-J., Ju, Y.S., Shin, J.-Y., Hong, D., von Grotthuss, M., Lee, D.-S., Park, C., Kim, J.H., Kim, B., Yoo, Y.J., Cho, S.-I., Sung, J., Lee, C., Kim, J.-I. and Seo, J.-S. (2012). Comprehensive Genomic Analyses associate UGT8 variants with Musical Ability in a Mongolian Population. *Journal of Medical Genetics*, 49(12), pp.747–752. doi:<https://doi.org/10.1136/jmedgenet-2012-101209>.

Parthasarathy, S. (2004). Regulating Risk: Defining Genetic Privacy in the United States and Britain. *Science, Technology, & Human Values*, 29(3), pp.332–352. doi:<https://doi.org/10.1177/0162243904264485>.

Peterson, S.K. (2005). The Role of the Family in Genetic Testing: Theoretical Perspectives, Current Knowledge, and Future Directions. *Health Education & Behavior*, 32(5), pp.627–639. doi:<https://doi.org/10.1177/1090198105278751>.

Plantin, J.-C. and de Seta, G. (2019). WeChat as infrastructure: the techno-nationalist Shaping of Chinese Digital Platforms. *Chinese Journal of Communication*, 12(3), pp.1–17.

Poduri, A. (2017). When Should Genetic Testing Be Performed in Epilepsy Patients? *Epilepsy Currents*, [online] 17(1), pp.16–22. doi:<https://doi.org/10.5698/1535-7511-17.1.16>.

Population and Family Planning Law of the People's Republic of China.

Qianzhan Industrial Research Institute (2020). *Analysis of the Status of China's Insurance Industry in 2020*. [online] Available at: https://www.sohu.com/a/390846593_473133 [Accessed 9 Dec. 2021].

Qi, D. and Liu, H. (2003). The Value Theory of Studying Abroad (出国留学教育价值论). *Journal of Northeast Normal University*, 4.

Qi, X. (2013). Guanxi, Social Capital Theory and beyond: toward a Globalized Social Science. *The British Journal of Sociology*, 64(2), pp.308–324. doi:<https://doi.org/10.1111/1468-4446.12019>.

Qiao, X. (2024). Aging in China: Past , Present and Future. *社会政策研究 (Social Policy Research)* , 1, pp.47–63. doi:<https://doi.org/10.19506/j.cnki.cn10-1428/d.2024.01.001>.

Quan, Z.X. (1991). Urbanisation in China. *Urban Studies*, [online] 28(1), pp.41–51. Available at: <https://www.jstor.org/stable/43192421>.

Quattrociocchi, W., Scala, A. and Sunstein, C.R. (2016). Echo Chambers on Facebook. *SSRN Electronic Journal*. doi:<https://doi.org/10.2139/ssrn.2795110>.

Rabeharisoa, V. and Callon, M. (2004). Patients and Scientists in French Muscular Dystrophy Research. In: S. Jasanoff, ed., *Statements of Knowledge: the co-production of Science and Social Orderal Order*. Routledge.

Ren, H. (2015). *The Middle Class in Neoliberal China : Governing risk, life-building, and Themed Spaces*. London: Routledge.

- Ren, Z. and Zhejiang Economic and Information Centre (2023). *Where Have the Money gone: Why Do Citizens save Money for Precautionary purposes(钱去哪了: 居民为何预防性储蓄)*. [online] zjic.zj.gov.cn. Available at: https://zjic.zj.gov.cn/zkdt/rdzx/202305/t20230529_9708227.shtml [Accessed 26 Oct. 2023].
- Renn, O. (1992). Concepts of Risk : a Classification. doi:<https://doi.org/10.18419/opus-7248>.
- Rosa, E.A. (1998). Metatheoretical Foundations for post-normal Risk. *Journal of Risk Research*, 1(1), pp.15–44. doi:<https://doi.org/10.1080/136698798377303>.
- Rothstein, M.A. (2018). Time to End the Use of Genetic Test Results in Life Insurance Underwriting. *The Journal of Law, Medicine & Ethics*, 46(3), pp.794–801. doi:<https://doi.org/10.1177/1073110518804243>.
- Ruan, J. (2018). *Guanxi, Social Capital and School Choice in China the Rise of Ritual Capital*. Cham Springer International Publishing Palgrave Macmillan.
- Sadowski, J. (2023). Total Life insurance: Logics of Anticipatory Control and Actuarial Governance in Insurance Technology. *Social Studies of Science*, 54(2). doi:<https://doi.org/10.1177/03063127231186437>.
- Sajithra, K. and Patil, R. (2013). Social Media – History and Components. *Journal of Business and Management*, 7(1), pp.69–74. doi:<https://doi.org/10.9790/487x-0716974>.
- Schroeder, W.K. (2016). Leveraging Social Media in #FamilyNursing Practice. *Journal of Family Nursing*, 23(1), pp.55–72. doi:<https://doi.org/10.1177/1074840716684228>.
- Scott, A.J. (2021a). The Longevity Economy. *The Lancet Healthy Longevity*, [online] 2(12), pp.e828–e835. doi:[https://doi.org/10.1016/S2666-7568\(21\)00250-6](https://doi.org/10.1016/S2666-7568(21)00250-6).

- Scott, A.J. (2021b). The Longevity Society. *The Lancet Healthy Longevity*, 2(12), pp.e820–e827. doi:[https://doi.org/10.1016/s2666-7568\(21\)00247-6](https://doi.org/10.1016/s2666-7568(21)00247-6).
- Sezer, O., Gino, F. and Norton, M.I. (2018). Humblebragging: a Distinct—and ineffective—self-presentation strategy. *Journal of Personality and Social Psychology*, 114(1), pp.52–74. doi:<https://doi.org/10.1037/pspi0000108>.
- Shaw, J.S. and Bassi, K.L. (2001). Lay Attitudes toward Genetic Testing for Susceptibility to Inherited Diseases. *Journal of Health Psychology*, 6(4), pp.405–423. doi:<https://doi.org/10.1177/135910530100600404>.
- Sheng, X. and Settles, B.H. (2006). Intergenerational Relationships and Elderly Care in China. *Current Sociology*, [online] 54(2), pp.293–313. doi:<https://doi.org/10.1177/0011392106056747>.
- Shi, K. and Zhang, C. (2017). 明清徽州家训中的孝道教育 (Filial Piety Education in Huizhou Family Training in Ming and Qing dynasties). *湖北经济学院学报 (人文社会科学版)* (*Journal of Hubei University of Economics (Humanities and Social Sciences)*), 14(6), pp.121–123.
- Shi, Z. (2016). Does the Number of Children Matter to the Happiness of Their parents? *The Journal of Chinese Sociology*, 3(1). doi:<https://doi.org/10.1186/s40711-016-0031-4>.
- Sina (2018). *The Founder of MoBike Cashed out 1.5 billion: Your Peer Is Abandoning you* (摩拜创始人胡玮炜套现 15 亿：你的同龄人正在抛弃你). [online] Sina.cn. Available at: <https://tech.sina.cn/i/gn/2018-04-05/detail-ifyuwqez5368035.d.html?sid=222714> [Accessed 10 Sep. 2022].
- Smith, R. and Raithatha, N. (2006). Why Disclosure of Genetic Tests for Health Insurance Should Be Voluntary. *Journal of Health Services Research & Policy*, 11(3), pp.184–186. doi:<https://doi.org/10.1258/135581906777641730>.

Sohu (2018). *One Year after Graduating from a 985 university, I Couldn't Afford to Cure My cold (985 毕业一年后, 我连治感冒的钱都没有)*. [online] Sohu.com. Available at: https://www.sohu.com/a/240542734_100139297 [Accessed 10 Sep. 2022].

Song, J. (2001). Overview of Research on Elderly Care Problems in Rural Area (农村养老问题研究综述). *人口研究 (Population Research)*, 25(6). doi:<https://doi.org/10.3969/j.issn.1000-6087.2001.06.018>.

Spohr, D. (2017). Fake News and Ideological polarization: Filter Bubbles and Selective Exposure on Social Media. *Business Information Review*, 34(3), pp.150–160. doi:<https://doi.org/10.1177/0266382117722446>.

State Council of the People's Republic of China (2009). *State Council's Opinions for Deepening the Healthcare Reform (中共中央国务院关于深化医药卫生体制改革的意见)*. [online] www.gov.cn. Available at: https://www.gov.cn/jrzq/2009-04/06/content_1278721.htm [Accessed 10 Dec. 2024].

State Council of the People's Republic of China (2013). *Several Opinions of the State Council on Promoting the Development of the Healthcare Sector (国务院关于促进健康服务业发展的若干意见)*. [online] www.gov.cn. Available at: https://www.gov.cn/zwggk/2013-10/14/content_2506399.htm [Accessed 10 Dec. 2024].

State Council of the People's Republic of China (2016). *The Outlines for the 'Healthy China 2030' Initiative ('健康中国 2030'规划纲要)*. [online] www.gov.cn. Available at: https://www.gov.cn/zhengce/2016-10/25/content_5124174.htm [Accessed 6 Nov. 2023].

Stein, M., Vincent-Höper, S., Schümann, M. and Gregersen, S. (2020). Beyond Mistreatment at the Relationship Level: Abusive Supervision and Illegitimate Tasks.

International Journal of Environmental Research and Public Health, 17(8), p.2722.
doi:<https://doi.org/10.3390/ijerph17082722>.

Steinlein, O.K., Mulley, J.C., Propping, P., Wallace, R.H., Phillips, H.A., Sutherland, G.R., Scheffer, I.E. and Berkovic, S.F. (1995). A Missense Mutation in the Neuronal Nicotinic Acetylcholine Receptor $\alpha 4$ Subunit Is Associated with Autosomal Dominant Nocturnal Frontal Lobe Epilepsy. *Nature Genetics*, 11(2), pp.201–203.
doi:<https://doi.org/10.1038/ng1095-201>.

Suby, C. (2013). Social Media in Health Care: Benefits, Concerns, and Guidelines for Use. *Creative Nursing*, 19(3), pp.140–147. doi:<https://doi.org/10.1891/1078-4535.19.3.140>.

Sun, S. (2019). Between Personalized and Racialized Precision medicine: a Relative Resources Perspective. *International Sociology*, 35(1), pp.90–110.
doi:<https://doi.org/10.1177/0268580919885292>.

Sun, Y. and Suthers, D. (2024). WeChat Culture in Transition: Navigating Platform, User, and Tradition. In: *Proceedings of the 57th Hawaii International Conference on System Sciences*. The 57th Hawaii International Conference on System Sciences.

Sun, Y. and Suthers, D.D. (2023). From Affordances to Cultural affordances: an Analytic Framework for Tracing the Dynamic Interaction among technology, People and Culture. *Cultures of science*, 6(2), pp.235–249.
doi:<https://doi.org/10.1177/20966083231176863>.

Swiss Re (2017). *Personalised Genetic Testing and Its Impact to Insurance*. Zurich: Swiss Re.

Swiss Re (2024). *Sigma 5/2024: Global Economic and Insurance Market Outlook 2025-26*. [online] <http://www.swissre.com/institute/research/sigma-research/sigma-2024-05-global-economic-insurance-outlook-growth-geopolitics.html>. Available at:

<https://www.swissre.com/institute/research/sigma-research/sigma-2024-05-global-economic-insurance-outlook-growth-geopolitics.html> [Accessed 5 Jan. 2025].

Swiss Re Centre for Global Dialogue (2017). *Seeing the future? How Genetic Testing Will Impact Life Insurance*. Rüşchlikon: Swiss Re Centre for Global Dialogue.

Swiss Re Corporate History (2013). *A History of Insurance in China*. Swiss Reinsurance Company.

Tai, Z., Yu, X. and He, B. (2021). Locked down through Virtual disconnect: Navigating Life by Staying on/off the Health QR Code during COVID-19 in China. *Convergence: the International Journal of Research into New Media Technologies*, 27(6), p.135485652110471. doi:<https://doi.org/10.1177/13548565211047157>.

Tan, Y.T., McPherson, G.E., Peretz, I., Berkovic, S.F. and Wilson, S.J. (2014). The Genetic Basis of Music Ability. *Frontiers in Psychology*, 5. doi:<https://doi.org/10.3389/fpsyg.2014.00658>.

Tanninen, M. (2020). Contested technology: Social Scientific Perspectives of behaviour-based Insurance. *Big Data & Society*, 7(2), p.205395172094253. doi:<https://doi.org/10.1177/2053951720942536>.

Tao, W. (2020). *Strengthening the Concern for Risk is the Major Principle of How the Party Governs the Country* (增强忧患意识是党治国理政的重大原则). [online] Communist Party of China Central Commission for Discipline Inspection. Available at: https://www.ccdi.gov.cn/llxx/202308/t20230824_286726.html [Accessed 5 Dec. 2024].

Taprial, V. and Kanwar, P. (2012). *Understanding Social Media*. Bookboon.

Task Force on Genetic Information and Insurance (1994). *Genetic Information and Health Insurance Report of the Task Force on Genetic Information and Insurance*. [online] National Human Genome Research Institute. National Human Genome

Research Institute. Available at: <https://www.genome.gov/10001750/genetic-information-and-insurance-task-force-report> [Accessed 8 Oct. 2024].

Tencent (2020). *2020 Annual Report*. [online] *Financial Reports*. Tencent. Available at: <https://www.tencent.com/zh-cn/investors/financial-reports.html>.

Tencent (2023). *2023 Annual Report*. [online] *Financial Reports*. Tencent. Available at: <https://www.tencent.com/en-us/investors/financial-reports.html>.

Tencent (2024a). *Milestones*. [online] www.tencent.com. Available at: <https://www.tencent.com/en-us/about.html#about-con-3>.

Tencent (2024b). *Tencent Customer Service - WeChat (腾讯客服-微信专区)*. [online] Tencent Customer Service. Available at: https://kf.qq.com/product/weixin.html#hid=hot_faq [Accessed 27 Jun. 2024].

Theusch, E. and Gitschier, J. (2011). Absolute Pitch Twin Study and Segregation Analysis. *Twin Research and Human Genetics*, 14(2), pp.173–178. doi:<https://doi.org/10.1375/twin.14.2.173>.

Thiers, P. (2003). Risk Society Comes to China: SARS, Transparency and Public Accountability. *Asian Perspective*, 27(2), pp.241–251. doi:<https://doi.org/10.1353/apr.2003.0026>.

Tian, X. (2020). An Interactional Space of Permanent Observability: WeChat and Reinforcing the Power Hierarchy in Chinese Workplaces. *Sociological Forum*, 36(1). doi:<https://doi.org/10.1111/socf.12662>.

Tsui, M. (1989). Changes in Chinese Urban Family Structure. *Journal of Marriage and the Family*, 51(3), p.737. doi:<https://doi.org/10.2307/352172>.

Tu, F. (2016). WeChat and Civil Society in China. *Communication and the Public*, 1(3), pp.343–350. doi:<https://doi.org/10.1177/2057047316667518>.

Tuo, G. (2020). *Insurance (保险学)*. 9th ed. Capital University of Economics and Business Press.

Ulbricht, L. and von Grafenstein, M. (2016). Big data: Big Power shifts? *Internet Policy Review*, 5(1). doi:<https://doi.org/10.14763/2016.1.406>.

United Nations Population Fund (2016). *Demographic Dividend*. [online] www.unfpa.org. Available at: <https://www.unfpa.org/demographic-dividend#readmore-expand> [Accessed 6 Jan. 2025].

van Dijck, J. (2011). Facebook as a Tool for Producing Sociality and Connectivity. *Television & New Media*, 13(2), pp.160–176.
doi:<https://doi.org/10.1177/1527476411415291>.

Veeramah, K.R., Johnstone, L., Karafet, T.M., Wolf, D., Sprissler, R., Salogiannis, J., Barth-Maron, A., Greenberg, M.E., Stuhlmann, T., Weinert, S., Jentsch, T.J., Pazzi, M., Restifo, L.L., Talwar, D., Erickson, R.P. and Hammer, M.F. (2013). Exome Sequencing Reveals New Causal Mutations in Children with Epileptic Encephalopathies. *Epilepsia*, 54(7), pp.1270–1281.
doi:<https://doi.org/10.1111/epi.12201>.

Vitality (2024). *Life Insurance for High-Risk Occupations Guide* | Vitality. [online] Vitality. Available at: <https://www.vitality.co.uk/life-insurance/guides/high-risk-occupations/> [Accessed 7 Dec. 2024].

Wallace, R.H., Scheffer, I.E., Barnett, S., Richards, M., Dibbens, L., Desai, R.R., Lerman-Sagie, T., Lev, D., Mazarib, A., Brand, N., Ben-Zeev, B., Goikhman, I., Singh, R., Kremmidiotis, G., Gardner, A., Sutherland, G.R., George, A.L., Mulley, J.C. and Berkovic, S.F. (2001). Neuronal Sodium-Channel $\alpha 1$ -Subunit Mutations in Generalized Epilepsy with Febrile Seizures plus. *The American Journal of Human Genetics*, [online] 68(4), pp.859–865. doi:<https://doi.org/10.1086/319516>.

- Wang, F. (2021). *The Chinese young man struggling between 'rolling' in and 'lying flat'* ('内卷'与'躺平'之间挣扎的中国年轻人). [online] BBC News. Available at: <https://www.bbc.com/zhongwen/simp/chinese-news-57304453>.
- Wang, M., McVee, M. and Ding, J. (2023). '这个真的不好说.' (It Is Hard to Say): Positioning, Graphicons, and Culture: a Multimodal Discourse Analysis of a WeChat Discussion. *SAGE open*, 13(4). doi:<https://doi.org/10.1177/21582440231193346>.
- Wang, Q., Chen, W., Zhao, X. and Zhang, M. (2023). Research on Policy Text Analysis of Ethical Regulation of Genetic Testing in China: Based on the Perspective of Policy Tools. *Medicine and Philosophy (医学与哲学)*, 44(10). doi:<https://doi.org/DOI%EF%BC%9A10.12014/j.issn.1002-0772.2023.10.03>.
- Wang, X. (2016). *Social Media in Industrial China*. London: Ucl Press.
- Wang, X., Huang, Y.-H.C. and Zhang, M.M. (2022). Framing Matters but varies: a Semantic Network Analysis of Media Representations of post-Fukushima Food Imports across Three Chinese Societies. *Global Health Promotion*, 29(3), p.175797592110731. doi:<https://doi.org/10.1177/17579759211073180>.
- Wang, Y. (2017). 老年人'养儿防老'观念的影响因素分析——基于中国老年社会追踪调查数据 (The analysis of the influencing factors of the elderly's idea of raising children for old age -- based on the data of the Chinese elderly social Tracking survey). *The World of Survey and Research*, 1, pp.11–17.
- White, G. (1987). The Politics of Economic Reform in Chinese Industry: the Introduction of the Labour Contract System. *The China Quarterly*, 111, pp.365–389. doi:<https://doi.org/10.1017/s0305741000050955>.
- White, V.B., Walsh, K.K., Foss, K.S., Amacker-North, L., Lenarcic, S., Mcneely, L. and White, R.L. (2018). Genetic Testing for Hereditary Breast Cancer: The Decision to Decline. *The American Surgeon*, 84(1), pp.154–160. doi:<https://doi.org/10.1177/000313481808400139>.

- Whitman, M.V., Halbesleben, J.R.B. and Shanine, K.K. (2013). Psychological Entitlement and Abusive Supervision. *Health Care Management Review*, 38(3), pp.248–257. doi:<https://doi.org/10.1097/hmr.0b013e3182678fe7>.
- World Health Organisation (2023a). *China Data* | *World Health Organisation*. [online] World Health Organisation. Available at: <https://data.who.int/countries/156> [Accessed 21 Dec. 2023].
- World Health Organisation (2023b). *GHE: Life Expectancy and Healthy Life Expectancy*. [online] World Health Organisation . Available at: <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates/ghe-life-expectancy-and-healthy-life-expectancy#:~:text=Globally%2C%20life%20expectancy%20has%20increased> [Accessed 25 Dec. 2023].
- World Health Organization (2010). *Ageing: Global Population*. [online] www.who.int. Available at: <https://www.who.int/news-room/questions-and-answers/item/population-ageing>.
- World Nuclear Association (2024). *Chernobyl Accident 1986*. [online] world-nuclear.org. Available at: <https://world-nuclear.org/information-library/safety-and-security/safety-of-plants/chernobyl-accident> [Accessed 20 Dec. 2024].
- Wu, W.-K. and Chiu, S.W. (2016). The Impact of Guanxi Positioning on the Quality of Manufacturer–retailer Channel relationships: Evidence from Taiwanese SMEs. *Journal of Business Research*, 69(9), pp.3398–3405. doi:<https://doi.org/10.1016/j.jbusres.2016.02.004>.
- Xiang, B. (2005). *Transcending Boundaries : Zhejiangcun : the Story of a Migrant Village in Beijing*. Leiden ; Boston: Brill.
- Xiaotong Fei (1992). *From the Soil*. University of California Press.

- Xinhua Net (2017). *China to Promote Development of Commercial Pension Insurance - Xinhua | English.news.cn*. [online] www.xinhuanet.com. Available at: http://www.xinhuanet.com/english/2017-07/04/c_136417102.htm.
- Xu, V.W. (2022). WeChat and the Sharing of News in Networked China. *Digital Journalism*, pp.1–23. doi:<https://doi.org/10.1080/21670811.2022.2053335>.
- Xu, Y. (Aveva) (2021). The ‘Lucky Money’ That Started It All—The Reinvention of the Ancient Tradition ‘Red Packet’ in Digital Times. *Social Media + Society*, 7(3), p.205630512110416. doi:<https://doi.org/10.1177/20563051211041643>.
- Yan, P. and Schroeder, R. (2019). Variations in the Adoption and Use of Mobile Social Apps in Everyday Lives in Urban and Rural China. *Mobile Media & Communication*, 8(3), p.205015791988471. doi:<https://doi.org/10.1177/2050157919884718>.
- Yan, Y. (1996). *The Flow of Gifts : Reciprocity and Social Networks in a Chinese Village*. Stanford, Calif.: Stanford Univ. Press.
- Yan, Y. (2012). Food Safety and Social Risk in Contemporary China. *The Journal of Asian Studies*, [online] 71(3), pp.705–729. doi:<https://doi.org/10.1017/s0021911812000678>.
- Yang, D. and Wang, Q. (2000). From Economic Globalization to Educational Internationalization. *Journal of Hebei University(Philosophy and Social Science)*, 4.
- Yang, H. (2021). 传统家庭养老向居家养老的转变 (The Transformation from Traditional family-based Elderly Care to home-based care). *经济研究导刊 (Economic Research Guide)*, 35, pp.60–63.
- Yang, J. (2015). *Unknotting the Heart*. Cornell University Press.
- Yang, J. and Zhao, X. (2021). Does All Work and No Play Make Elite students? Evidence from the China Education Panel Survey. *International Journal of*

Educational Development, 80, p.102321.

doi:<https://doi.org/10.1016/j.ijedudev.2020.102321>.

Yang, M.M. (2002). The Resilience of Guanxi and Its New Deployments: a Critique of Some New Guanxi Scholarship. *The China Quarterly*, 170.

doi:<https://doi.org/10.1017/s000944390200027x>.

Yang, M.M.-H. (1994). *Gifts, Favors, and Banquets the Art of Social Relationships in China*. [online] Cornell University Press. Available at:

<http://www.jstor.org/stable/10.7591/j.ctt1ht4xt4>.

Yang, W. (2010). 儒家孝道与中国老龄化问题 (Confucian Filial Piety and the Aging Problem in China). *船山学刊* (*Chuanshan Journal*), 3, pp.204–206.

Yang, X. (2019). *The Young Generations Fear to Read Physical Examination Reports (90 后不敢看体检报告：谁在损害年轻人的健康)*. [online] People's Daily.

Available at: <https://www.peopleapp.com/column/30036812717-500001862278>

[Accessed 6 Jan. 2025].

Yang, Y. and Lv, J. (2012). 儒家孝道观与老龄社会 (Confucian view of filial piety and aging society). *河北大学学报 (哲学社会科学版)* (*Journal of Hebei University (Philosophy and Social Science)*), 37(3).

Yates, D. and Paquette, S. (2011). Emergency Knowledge Management and Social Media technologies: a Case Study of the 2010 Haitian Earthquake. *International Journal of Information Management*, 31(1), pp.6–13.

doi:<https://doi.org/10.1016/j.ijinfomgt.2010.10.001>.

Ye, H. (2019). *Will the National Pension Run out by 2035? the Ministry of Human Resources and Social Security responses: It Can Ensure That It Can Be Issued in Full on Time for a Long Time (2035 年养老金将要用光？人力资源社会保障部回应：能够保证长期按时足额发放_中国政府网)*. [online] www.gov.cn. Available at:

https://www.gov.cn/xinwen/2019-04/23/content_5385533.htm [Accessed 26 Oct. 2023].

Yeh, K.-H., Yi, C.-C., Tsao, W.-C. and Wan, P.-S. (2013). Filial Piety in Contemporary Chinese societies: a Comparative Study of Taiwan, Hong Kong, and China. *International Sociology*, 28(3), pp.277–296.
doi:<https://doi.org/10.1177/0268580913484345>.

Yen, D.A., Barnes, B.R. and Wang, C.L. (2011). The Measurement of guanxi: Introducing the GRX Scale. *Industrial Marketing Management*, 40(1), pp.97–108.
doi:<https://doi.org/10.1016/j.indmarman.2010.09.014>.

Yoo, W., Oh, S.H. and Kim, T. (2023). The Effect of Social Media on Preventive Behavioural Intention during the COVID-19 Pandemic: Mediating Roles of Interpersonal Communication, Social Media Expression and Knowledge. *Journal of Creative Communications*, 18(2), pp.166–182.
doi:<https://doi.org/10.1177/09732586231166115>.

Youth Select Committee 2024 (2024). *The Impact of the Cost of Living Crisis on Young People*. [online] UK Parliament. Available at:
<https://publications.parliament.uk/pa/cm5804/cmselect/cm youth/cost-living-crisis-young-people/report.html> [Accessed 14 May 2024].

Yuan, C. and Jiang, Y. (2015). Factors Affecting the Demand for Insurance in China. *Applied Economics*, 47(45), pp.4855–4867.
doi:<https://doi.org/10.1080/00036846.2015.1037437>.

Yuan, Y. (2001). Weakening Family Support for the Elderly in China. *Chinese Sociology & Anthropology*, 34(1), pp.26–34. doi:<https://doi.org/10.2753/csa0009-4625340126>.

Zaloom, C. (2006). *Out of the Pits : Traders and Technology from Chicago to London*. Chicago, Il Etc.: University of Chicago Press.

- Zani, B. (2020). WeChat, We sell, We feel: Chinese Women's Emotional Petit Capitalism. *International Journal of Cultural Studies*, 23(5), pp.803–820.
doi:<https://doi.org/10.1177/1367877920923360>.
- Zelizer, V.A. (1979). *Morals and Markets. the Development of Life Insurance in the United States*. Columbia University Press eBooks. Columbia University Press.
doi:<https://doi.org/10.7312/zeli92046>.
- Zhang, J.Y. (2017). Cosmopolitan Risk Community in a bowl: a Case Study of China's Good Food Movement. *Journal of Risk Research*, 21(1), pp.68–82.
doi:<https://doi.org/10.1080/13669877.2017.1351473>.
- Zhang, X. (2011). 我国养老模式转变过程中孝道传承的作用 (The Role of Filial Piety in the Process of the Transformation of China's Elderly Care model). *学术交流 (Academic Exchange)*, 9, pp.51–54.
- Zhang, X., Liu, J., Sopper, C., Wang, J.-H., Yau, Y. and Scott, J.C. (2024). What Is Supportive Parenting? Perspectives from Chinese Immigrant Caregivers with Low-Income Living in the Greater Boston Area. *Journal of Cross-Cultural Psychology*, 55(4), pp.386–408. doi:<https://doi.org/10.1177/00220221241245442>.
- Zhang, X., Xu, X. and Cheng, J. (2021). WeChatting for Health: What Motivates Older Adult Engagement with Health Information. *Healthcare*, 9(6), p.751.
doi:<https://doi.org/10.3390/healthcare9060751>.
- Zhang, X. and Xu, Y. (2013). 当前中国人焦虑之怪现状 (The strange state of Chinese anxiety) . *People's Digest (人民文摘)*, 5.
- Zheng, X. (2023). *The Book of Rites with comments (礼记注)* . The Commercial Press (商务印书馆) .
- Zhong'An Technology (2020). *The White Paper on the Growth and Professional Development of Insurance Marketers*. Zhong'An Technology.

- Zhou, R., Hentschel, J. and Kumar, N. (2017). Goodbye Text, Hello Emoji. *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems* . [online] doi:<https://doi.org/10.1145/3025453.3025800>.
- Zhou, Y. (2017). *Yanli Zhou: the Current Applications and Future Outlook of Insurance Technology*. [online] Tsinghua Financial Review. Available at: <http://www.thfr.com.cn/post.php?id=73967> [Accessed 24 Sep. 2021].
- Zhu, H. (2019). 成家立业”对城市青年幸福感的 影响研究：基于生命历程的视角 (A Study on the Influence of Setting up a Family and Starting a career on the well-being of Urban youth: a Perspective Based on Life course). *中国青年研究 (China Youth Study)*, 11, pp.61–67.
- Zinn, J.O. (2008). *Social Theories of Risk and Uncertainty : an Introduction*. Malden, Ma: Blackwell Publishing.
- Zuo, B. (2023). ‘Versailles Literature’ on WeChat Moments – Humblebragging with Digital Technologies. *Discourse & Communication*, p.175048132311648-175048132311648. doi: <https://doi.org/10.1177/17504813231164854>.