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A New Method for Helping Chinese People Who Are Facing Retirement to Exert Greater Control over Their Financial Resources

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Abstract

In China, personal financial advisers are not common. Chinese people who are facing retirement have a difficult time to plan for their retirement. This causes a very serious problem in China: many older Chinese do not have enough money in retirement. Therefore, my goal is to help Chinese people that are facing retirement without a detailed financial plan. In order to do so, I've conducted research to understand the long-term goals of those Chinese people. As a qualitative research approach, I've created three probes to explore the problems they are facing and the reasons why existing solutions do not work in China. In addition, I've explored various ways in which they might exert greater control over their financial resources. My design goal is to provide personalized advice with the assistance of various user interface concepts.

A NEW METHOD FOR HELPING CHINESE PEOPLE WHO ARE FACING RETIREMENT TO EXERT GREATER CONTROL OVER THEIR FINANCIAL RESOURCES

by

Xuanmu Yan

B.A., Purdue University, 2014

Master's Thesis

Submitted in partial fulfillment of the requirement for the degree of

Master of Fine Arts in Collaborative Design

Syracuse University

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1. Introduction

While researching various publications that discuss the topic of aging and society, I found that in China many individuals who are facing retirement have not created a detailed financial plan for their future. In China many only begin to consider their retirement a few years before they reach the average retirement age. Although they often desire to plan for the future to live comfortably in retirement, they may be at a loss concerning how to create a plan and lack patterns and examples to consult. (Luo He, 4) Without an adequate retirement plan, many Chinese people are not able to make progress in how they manage their financial resources. Hence, they may make faulty decisions with their investments, leading, in some case, to financial ruin, poverty, and bankruptcy.

My goal in this paper is to discover a new method to help Chinese people who are facing retirement gain access to the tools they need to better manage their financial resources. This thesis will focus on those Chinese people who have a certain amount of saving and want to plan for their retirements. For this purpose, I have organized my paper into five main sections. In the first section, I will touch on the importance of this problem, as well as the complications it entails. Included in the literature review, I will show how the literature that talks about the situation in China and the policies or the Chinese government will change people's retirement lives. In section two, I will explore how Chinese people currently go about their retirement planning. Over the course of my research, I have realized that the ways in which Chinese people are planning for their retirement may, in fact, be the route of the problem. Therefore, I have examined how Americans and Japanese people plan for their retirement. Comparing the difference between the Japanese and American methods for

retirement planning with those of the Chinese helped to illuminate the inadequacies of Chinese methods. In the following two sections I provide several models of smart phone interface concepts that interviewees could choose from. Mr. Li is a Chinese business man living in New York City and interesting in my thesis. He is one of my most important interviewees gave me many helpful suggestions and feedback. As I mentioned before, I randomly ask many people in China, America and Japan to do the questionnaire, Mr. Li is one of those people can he give me contact information for future feedbacks. The feedback then leads to a greater understanding of various needs and requirements. Designing a solution that will meet the individual needs of numerous interviewees is crucial. Hence, I conclude my paper by presenting a design solution that will help a range of Chinese people to gain greater control over their financial future. I also discuss the limitations of my design solution and provide several possible options for ways of dealing with these limitations in the future.

2. The Chinese People Are Facing Many Problems in Retirement

There is a famous joke in China: a person talks with his friend: "Do you know what the most painful thing in the world is?" His friend says: "No, what's that?" "It's dying without spending all of your saving." His friend asks him back: "You know, there is something that's painful than that? It's not dying after spending all of your money." Therefore, Chinese people are trying to assure that they have enough saving for a comfortable retirement until late stages or life. The traditional Chinese concept for late life security is to "Bring up sons to support parents in their old age." However, this traditional concept is subtly changing in our daily life. Those retired Chinese people realized that most of them cannot have a comfortable life

without the support from their children. Their pension and other retirement income will fall short of what they need. (Luo He, 7) The Chinese system differs from how the American system where people pay for social security; Chinese people pay for "Five forms of social insurance and one housing fund" (Wang xiaojian, 2) when they are working, which includes endowment insurance, medical insurance, unemployment insurance, industrial injury insurance, maternity insurance and housing accumulation funds. Endowment insurance should be the most important insurance for retired Chinese people in their daily life. However, the "Opinion Survey of Endowment Insurance in 2016" shows that many Chinese citizens think there are problems with endowment insurance that need to be solved. In 2016, the amount of money people can get from the endowment insurance increased by 6.5%. This should be a good thing. However, the fact is this increase rate will decrease every year. In 2006, the amount of money people can receive increased by 23.7%, in 2010 it increased by 15.5% and in 2016 it only increase by 6.5%, even lower than the increase ratio of GDP. The price of commodities increased faster than the annuity, which makes the lives of retired people harder and harder. The most important problem is that some retired people pass away before they receive all of their endowment insurance. The report from the "Ministry of Human Resources and Social Security of the Republic of China" in 2015 shows that the average retire age in China is 57 years old and the "World Health Statistics" shows the average lifespan in China is 74 for men and 77 for women as of 2015. If Chinese citizens earn a higher wage, they are required to pay more for endowment insurance. They will usually recoup all of the money when they at about 90 years old, however they do not usually reach this advanced age. Chinese citizens feel that this is a very unreasonable policy that

adversely impacts their retirement life. (Wang xiaojian, 3)

Those Chinese people that are facing retirement realize the situation is changing which is different from the situation that once existed between them and their parents. Therefore, they need a detailed plan for their retirement and help with the management of their financial resources. The question is, do they know how to do it and where they can find help? "52% of pre-retirees and 44% of retirees consult a financial planner or adviser according to a new report, Understanding and Managing the Risks of Retirement, from the Society of Actuaries (SOA), which discusses the findings of their Retirement Risk Survey conducted in 2013. The report highlights a variety of concerns faced by both pre-and post-retirees, including concerns about health care, long-term care, inflation, and running out of money in retirement. With roughly 96% of pre-retirees and 89% of retirees responding that they are concerned to some degree about their long-term financial future in retirement, it is troubling that only about 50% of people meet with a financial adviser." (Jamie Hopkins, 1) About half of American people have personal advisors when they begin to work for helping them control their financial resources. For the Chinese people, they usually believe that financial advisors are used for those big companies or the people who have their own business. (Long Chen, 5) "Personal Financial Advisor" is not a common thing in the daily life and a lot of Chinese white collar workers do not even know about them. Also, the "Report of Inauguration Situation in 2014" from the "Ministry of Human Resources and Social Security of the Republic of China" said that "China is facing a lack of financial advisors. There are more than 75,000 vacant positions for financial advisors now." They also had "Opinion Survey of Financial Advisor" in 2015 and the report from the survey shows there are about 78% of

those people who are facing retirement want to have a financial advisor help them with their retirement strategy. More than 50% of these people still want the financial advisors to help them even though they must pay for the service. I understand that clients do not understand the job category of a financial advisor, and that may be one of the reasons some clients do not want to pay for the service. However, I also think this is why it is so important that Chinese citizens know more about financial advisors and begin to rely on their help.

The Chinese government understands that their citizens are having a hard time after retirement and the number of this group of people keeps increasing with each passing year. The government has come up with a series of policies to remit and solve this problem. One of the most important policies is the "Policy of Postponed Retirement". It was raised in 2015 and will be implemented in 2016. The Chinese government is trying to postpone the age of retirement a little bit every year until 2045, at which time the retirement age will become 65 years old. This is an effective way to remit the pressure of providing for the aged, but what about the unemployed? The report of "China Statistical Abstract in 2013" shows that in 2012, the unemployment rate in China is 4.1% and there are 9.17 million people without a job. This data is only for citizens living in the cities; there are still a lot of people living in the rural areas such as farmers that are not counted in the survey. Therefore, we are not able to judge if they are unemployed. "In China, the unemployment and unstable labor market makes it too easy for uneducated labors to slip into poverty. Superficially, it seems the developed countries have the same problem. However, there are lots of unemployed people who have not reached the age of retirement in China. Also, the National social security system does not provide a sufficient safeguard. Therefore Chinese people who lose their capacity to work will also lose

their source of income." This policy has limitations because it is not able to affect a permanent cure.

The government also tries to solve the problem from the traditional concept of "Bring up sons to support parents in their old age." Therefore, the government cancelled the "one child policy" in 2015 which has been a law for 35 years. The government hopes that more than one adult child can help their retired parents to apportion the economic pressure in the future. However, this makes the "One child policy" deal with the various pressures of living. "Because of this policy, the pressure of providing for the parents of the adult child without brothers and sisters increases after they are married." (Wu Jing, 2) If the "one child policy" was not canceled, this couple will usually have one child. Therefore, the income from this couple needs to support their daily lifestyle, their only child, and four elders. Now that the policy has been canceled, if a couple does not want to have the same situation as their parents, they need to have more children, which lead to increased costs. The result leaves almost all the economic pressure focused on the couple, and therefore they have no choice. I am the only child in my family. I can always hear my parents talk about the "one child policy". They understand that this policy can help inhibit the population in China, but they told me that our generation will face many new problems that they will never need to worry. Usually, Chinese people have a huge family, they can support each other and live together. This policy changes this family structure in China and cause many social problems just like labor shortages and so on. My parents think that after the retirement, they will lose most of their income. They do not think that one child who just graduated from the collage can support the daily use for two or more elders, they think it is necessary to keep investment to support their retirement. This

situation informs my understanding of those Chinese people who are facing retirement can somehow gain access to better help and greater control over their financial resources. This is not only beneficial to them, but also helps their children to live with fewer burdens. However, it is not so easy to help them because this is such a complicated situation for every individual. I realize that if I am looking to help Chinese people with their retirement planning, my interviewees will be people who have stable jobs and a certain amount of savings. Therefore, I could more effectively focus my design concept by aiming at those Chinese people. At the last they can make better use of financial planning resources for their retirement and their families will be through it my help.

3. The Preparatory Work for Retirement in China

To achieve my final goal, I conducted research to help me understand my interviewees and inform my design process. My first thought was to understand what Chinese people are currently doing for their retirement savings. Based on their current practice, it is possible that I may find the inadequacy and design opportunity through my research.

Based on the current situation in China, I wanted to know what kind of investments Chinese people are purchasing. I realize that saving and life expectancy are both variables. Therefore, the key thing is how those people make adjustments between these two things and maintain a relative balance. To conduct this research, I have created a story in order to test people's view about their personal finances and long term savings as follows:

The story is: "Imagine you are about to relocate to a new city, and in order to do so you must cross a vast desert. You don't know how large the desert is and how long it will take you

to cross it. However, there are numerous variables along the way. You have a set amount of cash to buy food, now you have three choices: The first choice is the camel. You can rent camels to help carry your food, but you also need to feed them during the journey. The second choice is the guide. You can hire an experienced guide to assist you in locating stop-over points. However, guides are not always trustworthy and they have been known to take people's money only to leave them stranded. The last choice is you can join-up with others to make journey as a group. This seems to be a good choice, but those groups may turn on you and take your food and cash. Speaking with friends, you've been told your destination is a beautiful city where food and water are abundant yet expensive. Due to the exchange rate, the people living there will gladly double your cash. It's been suggested that upon arrival you should finish your remaining food and water in order to maximize your savings." After explaining the basic story, I then gave my interviewees additional information about each option, for example "different guides charge different fees, but no one can say the more expensive guides are more dependable than the cheaper guides." This kind of detailed information usually affects their decisions and their answers. After giving them the background information, I ask them to answer my question: "With the trip about to begin, you are now faced with a choice. What percentage of your budget will you spend (on what) in order to make this trip? Next, we talk about how you made your decisions." In fact, my main purpose is to understand how they made their decisions, what points did they focus on and what is the most important thing they care about while making the decision. I believe this information helped me understand the reasons that have created the current situation with retirement in China.

The questions I asked helped me to roughly determine what kind of investor my interviewee is at the beginning. Is the person a conservative investor or an aggressive investor? After I have a basic understanding about their investment tendencies, I begin to ask how they view different options in different areas they might consider investable. The camel is the lowest risk option, much like saving money in the bank. However, because of inflation and very low rate of interest, people are not able to make money from their saving for their daily use. Just like the camel cannot help you in locating stop-over points or find water in the desert, it is just a resource carrier. Hiring an experienced guide has higher risk than the camel, but it also gives you the possibility for a higher return rate. If you make the right choice and hire a good guide, you do not even need to worry about the food and water. This is just like the investment: how people choose the experienced guide is similar to how people choose an investment advisor for their financial future. A good investment can keep a family have a very good life for a long time. Therefore, when people are facing these choices or opportunities, that affect their future life, they will compare the benefits with the risks and think very carefully about all the possible elements of their investments. The reason I asked how they made their decisions is due to the fact that I wanted to know the details about how they invest in their daily lives. Lastly, I give them an option to join with others and work as a group. This is similar to making investment, as part of a club. Where a group of people have the same or similar financial goals, and then they invest together. This pattern of investment is getting more and more infrequent because the crisis of confidence between people is a really serious problem in modern China. (Yongnian Zhen, 3) When it comes to money, betrayal and fraud are not unusual. I know of various investments that are like private funds,

a group of people ask you to invest and make a promise as to the rate of return. Through my research, I hope to understand how people determine what a real investment is, or what a fraud is; what information is necessary for those people before they invest, and how to build trust between a financial advisor and their clients.

I interviewed 65 Chinese people, 6 of them were face to face interviews and 59 of them filler out a questionnaire. Eighteen of these Chinese people are living in the US and 47 of them currently live in China. Twenty of my interviewees are under 30 years old, and 41 of them are between 30 and 60 years old and only 4 of them are above 60 years old. Based on interviewing different people in different age groups, I was able to study the differences in their investment strategies. Similar to the result of the desert story people who are under 30 years old choose to use about 50% of the cash to buy food and rent a camel. This group of people makes conservative choices because they do not know how to do risk estimation. In China, parents usually give their children economic support during college. That means people do not need to worry about money before they are 25 years old. Even with students that have just graduated from college, their parents will continue paying for their rent for several years to reduce their economic pressure. In Chinese culture, purchasing a house when couples marry is a prerequisite. However, how can young couples who are just stepping into the work space pay for a house? Therefore, their parents often pay for the "down payment" which is 30% of the total price. When interviewer the group of people under 30 years old, they would answer my questions very fast. They did not think about the risk because they do not have the experience to calculate the risk before making a purchase of this magnitude.

With regards to the desert story, numbers people between 30 and 60 years of age used

less than 50% of their funds to buy food. Some of them choose to rent a camel and guides and half of them joined with others. These results show they made different decisions based on all kinds of reasons: personal experience, benefit and risk calculation, trust in others so on. They understood they have to manage their money "now" because they know they will lose most of their income after retirement. My research also shows they are thinking about independence when they are making financial choices. Some of my interviewees said they want to be independent, and not have to rely on their children or become their "burden". I think this pattern is changing from the traditional Chinese concept in which parents live with their children when they lose independence, to "be independent and do not become a burden to their family." Based on this premise, some of them selected the lower benefit option with lower risk. They understand that their main purpose is not making as much money as possible; it is enjoying their retirement and taking care of their grandchildren.

For those interviewees above 60, some of them are less interested in how much money they can make, however some of them are still interested in making money because they do not need to care as much about their grandchildren and they want to do something to pass the time. These elder interviewees feel that technology can help them invest, and they really want to learn about these emerging tools. However, because they are not in touch with the latest technological trends, many have a hard time using either a computer or a smart phone.

After collecting all of the information, I also interviewed 4 Americans and 3 Japanese who are currently living in the United State. I wanted to find out the difference in retirement planning between China, Japan and the United State because I think the difference could be the key informing my final design solution. I choose Japan because Japanese people are the

facing a very large number of aging people. They have a very low birth rate and a lot of elders need to be cared for in their society. I was interested in how both the Japanese and American peoples plan for their retirement. The result of my research suggests that they begin to plan to manage their financial resources at a very earlier age. They met with their personal financial advisor and talk with their financial planning. (Miyamoto Mayu, 1) Therefore, they can change their financial plan step by step depend on each stage of their lives. This is a very smooth process, so people have enough preparation for the transition to retirement. Different from China, Japan and America are developed countries, their public welfare and policies are more wholesome than China.

Based on all the information I collected the conclusion from my first probe shows that most people in China are looking to increase their wealth while lowering their financial risk. When we discussed the topic of "burden", they do not wish to be a financial burden to their family. In essence, their goal is to give back to society. They also believe that technology can help them to be "informed investors" much like a power wheelchair offers greater mobility for people with disabilities. Therefore, the underlying goal is independence. However, access to financial planning is a major concern. They need to consider their financial situation and make the best choices for their situation. If presented with the right options, I believe they will gladly embrace new ways to control their financial resources.

4. The Missing Link for Chinese Retirement Planning

After finding out what Chinese people facing retirement are doing, I realized that there are many missing points in finding ways to help them. One of the key points is the personal

financial advisor. Lack of personal financial advisors has been the status for a long time in China. Therefore, Chinese people need to change their concept of this occupation and try to understand how financial advisors can help them reach their financial goals. Because we do not have enough personal financial advisors and people do not even understand how they can be helped (Mo Qingrong, 3), I want to find out ways to change this mindset. Therefore, I have asked myself is there anything similar to a personal financial advisor that would be accepted.

In the US and Japan, financial advisors usually ask their clients to fill out a standard form so that they can understand basic information about their clients and how they view their long term goals. My professor Don Carr told me: "By having their clients answer these questions, they hope to speed up the process in that they would want to know these things about anyone they work with. After collecting all the necessary information, financial advisors will talk with the clients, analyze the financial situations and so on." I found that these conversations also include a considerable amount of personal information about the client. This information points to how their clients usually invest and manage their financial resources. Based on different people and the different goals of their clients, financial advisors will set up a detailed plan for their clients to reach their goals. During my research, I realized that communication is one of the most important aspects of the entire system. How people communicate with the financial advisors will affect the decisions and plans.

Also, in America some people decide to place their trust in a financial expert, which is a huge different from Chinese people. "If American people feel that they are not getting the financial returns that they should, they will either contact their advisors to ask for their

suggestions, or they might decide to transfer their savings and work with another person. Based on the way the system currently works, it is unlikely that individual will transfer their retirement savings away from a financial professional and then decide to make their own investment decisions." (Daniel Cassidy, 23) This makes me think back to my internship last summer in Beijing, China. As part of my job, I worked with software that helped our clients to choose and trade stocks. As I mentioned before, different from the United States, Chinese investors do not usually ask for advice from others in helping purchase and trade stocks. There is not currently a system in place for entrusting others to do that task, this makes people feel that it's almost impossible to guard against fraud and betrayal. People in the stock market either need to go to the securities trading center to do their business, or use computers to trade online. Therefore, they need a good software program to help them choose which stock is the best and when will the best time to buy or sell their stocks. By comparison, I realize that this is very similar to the work of financial advisors here in America. The difference is that people share the information with personal financial advisors face to face in America. In Chinese, people share and get advice from other people through automated computer software.

In my summer job, I worked in the marketing and planning department helping my company to make future plans and strategy. I also was required to communicate with other departments to make sure they were following the plan. The people working in the marketing and planning department needed to communicate with the sales department, program department and other departments. We talked with each other to find the best way for popularizing and selling our products. We needed to find information from the market and

ask our analysts to analyze data. After receiving the results, we spoke with the programmers to modify the data. Based on these results, we thought about how to tell the people in the sales department so that they would know how to communicate with our clients. There are lots of things that happened during these steps and it's interesting to see how we can design promotional materials based on all of the information at our disposal.

On the surface, Chinese people that investment by themselves are usually individual investors. However, in my opinion there are a group of "financial advisors" supporting those investors when they are planning their investments. (Mo Qingrong, 9) This observation provides me a good example about how I might help those Chinese people who are facing retirement to exert greater control over their financial resources. After I analyzed all of the information and research, I also found that there are some limitations to this system. First of all, the system is only used for the stock market. As we know, the stock market is very hard or even impossible to forecast. By their nature, markets are unstable and the prices of stocks are constantly changing. Even financial experts cannot insure that they will make money from a "bear market." Too many factors show that the stock market is not a good choice for long-term investments in China. Secondly, not everyone in the stock market will choose to use investment trading software. There are limitations with every user group. For me, I cannot force all Chinese people facing retirement to invest in stocks and save money for their retirement. From a technology stand point, there are limitations to all devices. Computers are great devices for developing any software and there are lots of functions that would be easier accomplished on a computer than on other devices. The problem is that investors that go to the securities trading center can do their business there, and they do not bring their computer

with them.

Thinking about all the limitations of financial trading software, my plan was to create a system that can help Chinese people plan for their retirement. However, I first needed to find out what the necessary things that should be in this system are, and how best tp bring these planning tools to the public.

Therefore, I interviewed Nicholas M. Jackson who is the financial advisor of Chase Bank in Syracuse. We talked about the investments in Chase that he typically introduces to his clients. He told me that their clients hold their investments for one year or even longer. There are some investments which do not require investors to put their money into them for a certain time. Investors could take their money out from the investment anytime they want; this means that their money will not be fixed in one place. Jackson told me they will show different investments for their clients based on the different situations and money amounts. However, his experience has shown him that many clients prefer to invest in "liquid investments" with even fewer benefits, but not all of those are settled investments. He then showed me the "Federated Strategic Value Dividend Managed Account Portfolio" (see Figure. 1) which is usually showed to his clients. He told me that clients usually care about the rate of return first. At the same time, he also tells his clients about how well Chase did in the previous years. He gave me an example of how he explains the investment using data to support his financial advices. I think this is a good way to build trust by showing clients evidence that makes this advice credible.

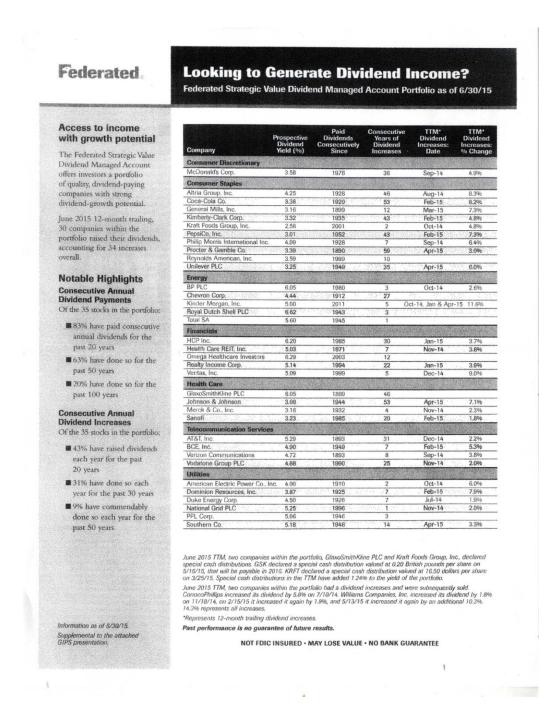


Figure. 1. "Federated Strategic Value Dividend Managed Account Portfolio"

Through my research I also looked for financial products in America that help people manage their financial resources. I wanted to see if there are some good products that may bring me some good ideas about solving financial planning challenges. As a company, Fidelity has very good products for retirement planning. They also have a website and their applications run on iPad, iPhone and multiple platforms, which I think is very good. The

Fidelity website asks users to type in a large amount of personal information. The more details the user offers, the better the results. (See Figure. 2)

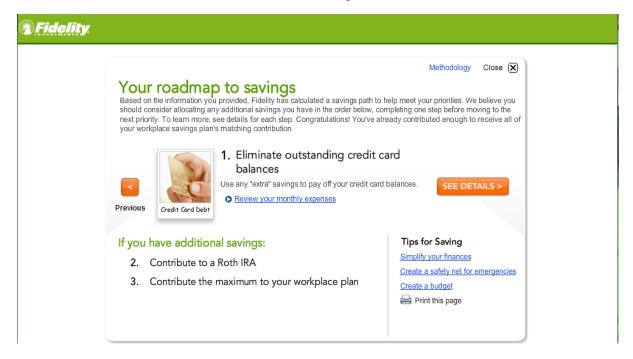


Figure. 2. Retirement Advice from Fidelity. (Fidelity, Retirement Planning)

I think it usually shows "what you need to do" instead of "how you can do it." I understand maybe that this is because the system calculates the results. They have a telephone number on the website that says: "Please connect us if you have any questions." One more thing I found is if users want to use their advanced planning tools, they must login first. Sometimes, before the users understand the system, they visit the website to ask for advice. At this point, they are not looking for a way to invest or make money. At this moment, I feel that privacy is necessary. After the users receive advice and they begin to trust the system, they help them control their financial resources. At this point, the website can ask for additional privacy information just like social security number, personal financial information and so on. As a user, I believe this way may be easier to accept.

After understanding the necessary functions of the system, my next step was to interview

my potential users about how they might prefer using my system. Therefore, I created prototypes for the iPad, iPad mini, iPhone and laptop. I then brought them to solicit feedback from my interviewees. (See Figure. 3)

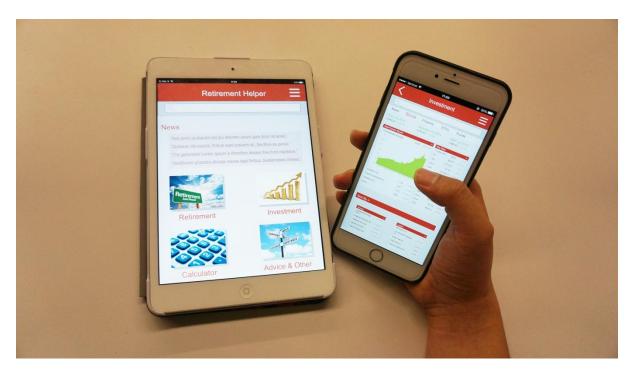


Figure. 3. iPad mini and iPhone Prototypes

Before I asked them which prototype they would prefer to use, I explained the basic approach to my system. I told them about the functions I wanted to have incorporated in the system: such as retirement planning, expenditure calculation, financial advice, investment management and so on. I asked them to explain what problems are difficult to plan for their lives. I understand that in China, the most important problem is not enough money in retirement. Therefore, wealth management and investment advice are the most important parts of my system. However, now I want to know more detailed information about my interviewees. How might they want to view the information they need.

I interviewed four Chinese people that are all between 45 to 55 years old. Two of them are living in China and two of them are living in United Stated. The two who are living in

China prefer to have more advice regarding investment management. They told me it is hard to compare different investments and making choices, because they are not financial professionals. Sometimes they have money for investments, however they do not know which investment is the best choice. Usually they go to the bank and ask the financial advisors there. The problem is these people in bank are different from the personal financial advisors here in in the United States. Their goal is to sell their financial products which are their companies' investments. They will tell you to choose the best investment in their bank based on how much money you want to invest. However, they often do not understand your financial situation and compared with helping you to choose the best investment for your situation. Therefore, my interviewees told me that sometimes they do not even know if the investment is really going to help them. Based on information and data which they have collected, there seems to be a number of investments that are good. However, they have a hard time considering how those investments fit their own situation. If they make a mistake, that means they could choose investments that are not good for them. Therefore, they will even lose money from the investment. This scenario suggests that I could show them all the choices of the investments they are interesting in, and help them to analyze their options

When considering the devices, they want to use, my two interviewees who are living in China both mentioned that they prefer to use their smart phones and personal computers. Not everyone has an iPad, but everyone has a cellphone. Some people that I interviewed mentioned that they have an iPad, however they do not usually use it because they think it is not a good device for them to manage their financial resources. Also, they told me often people buy an iPad for fun at home. They do not usually bring it out, which could mean that

their iPad can only connect to a wireless network. If they are at home, they prefer to use their personal computer instead of iPad out of habit. However, they think that a financial planning application on smartphone could be a good choice because people carry their smartphone everywhere. If they can set up the alerts to tell them the news about their investments as soon as possible, a smartphone could help them to manage their financial resources wherever they are. Two other Chinese interviewees currently living in the United Stated also thought that showing the system on iPhone would be a good choice. Not only because of convenience, but also because they can share the advice with their family. Based on this feedback, I made the decision to design an application for helping Chinese people in retirement planning and investment management. That will run on a smart phone as the primary platform, in that the main problem I want to solve in China is not enough money in retirement, I will focus on how I can help to have better control their financial resources. Therefore, my next step is to find out how they want to view their financial information.

5. Application Interface Map

"If you are thinking and designing as a client's stand, you can make you products really work for your client." One of my interviewees Mr. Lu said: "If people do not like your designs, no matter how good you believe your products are, they will not use it." This really reminds me how I should design the interface of my application. I remember a story which is about the path design in Disneyland: "Walter Gropius is one of the famous designers in the world and he is designing for the path way for Disneyland. The date of opening is coming soon, but he still has no plan about the path way between each scenic spots. One day he found

a vineyard without any guard. There are many cars stopped there and he saw a sign beside the vineyard. It said one old lady own this vineyard, but she is too old to manage it. Therefore, she asks visitors to put 5 dollars into the little box under the sign, and then people can get into the yard and gather the grapes by themselves. The amazing thing is her grapes sell very fast and well in that area. The way she gives people freedom to make their own choice enlightened Gropius. Walter Gropius goes back to Disneyland and asks workers to grow the grass everywhere. He opens Disneyland half year earlier and asks visitors to step on the grass to make many traces. In the next year, Walter Gropius asks workers follow those traces to make the path way and he design the best pathway for Disneyland." (The Best Pathway, Wen Yan) Therefore, instead of I design the interface and ask my interviewees to give me feedback, I want to let them design their own interface by themselves.

Everyone invests for different reasons. They make investment decisions based on the various forms of information they receive. Conversations with friends and family, financial planners, stock brokers, the latest financial news and reports on market shifts. All of these factors can have an impact on investment decisions. Therefore, I created a research probe that has allowed me to gain important insights into how various individuals view investing and saving to meet their short and long-term goals. These factors may change their minds during making decisions. This test helps me to understand what will be the most important reasons and information for the investors and how they view the information. (See Figure. 4)



Figure. 4: User Testing: Goals for savings and investment strategies

The character in the center of the map represents the user. I created 13 elements for my interviewees and they can place those elements on the map. The elements closer to the center means they are more important to the users. There are 3 colors of the elements because I ask them to place the elements in two rounds. I give them the two purple elements and all the dark green elements in the first round and ask them to place these elemests on the map based on the importantce they think when they are planning for retirement. Before I told them these elements represent the things before they invest, I ask them to explain what they think of each element and how important these elements will be for them. During the interview we will talk about what they think of the relationship between these elements and how these factors will

affect their decision on investment. Usually they will talk about their goal and some experience they have, related to the map they show me, that becomes very helpful information for my design. After that I will let them leave those elements on the map and give them the light green elements and ask them to do de same thing as round one. After told them the light green elements represents the investments, my questions becomes what kind of investment you usually do? In that investments experts often suggest creating a diversified portfolio to balance your investments and reduce risk, what information do you think you would need to decide between the various options? Past performance, greater knowledge about the company, investment ratings from a respected source? Some questions like these related to the investmens can help me understand their characters as an investor and their investement custom. I bring this map with my interview and ask four Chinese people to place those icons on the map. By asking them those questions I realized that their answers are so different in various people and they always share their personal opinions and stories with me during the interview.

Mr, Li is a 56 years-old Chinese man Living in New York City and has his own business. He has 2 children and one is married, one is still in college. Mr. Li believes family is the most important for him, every inverestment should think about how it will effect his family menbers. "Investment is not just about the benefit, I usually focus on the the duration of investment first." Talking about the "time" elements I gave him, Mr. Li told me that instead of invest the long period, high benefit project, he likes the short period, low benefit project. He believe this makes his capital more flexible. If he needs to make any change as soon as possible, those investments will not become his impediments. One thing he

think it is important for him is his hobby. Traveling is his hobby and he always travel with his wife. He believes this is important to his family and traveling usually cost a certain money from his inverstments. He thinks after the retirement, people have more time to do their own things. Hobbies become more important than before in their lives. Therefore, the cost form hobby will also increase. Because Mr. Li is living in New York City, he usually manage his investment between one to two mouth. Talk with his financial advisor and make some change if the investment is not going so well. He also understands there is no personal financial advisors in China, and he thinks it is necessary to bring this into the Chinese market. (See Figure. 5)



Figure. 5. Map created by Mr, Li.

One of my other inteviewees is Mr. Wu. He is a 62 years old man liveing in China. He is a doctor and still working in a famous hospital, living with his wife and has a daughter. His daughter was married few years ago and not living in the same city with him. When I was

interviewing him he give me many good advice and informations about the investements in China.(See Figure. 6)



Figure. 6 Map created by Mr, Wu.

Mr. Wu wants to use less time to invest and stay with family longer. He thinks the preparatory work of investment is necessary and important. "I do not want to worry about my money every minute." Mr. Wu told me: "Retirement life in not about invest and making money, it is the time for you to stay with family and the things you love. I do not want to check my investment every month because I do the necessary work before the investments." We also talk about the investments in China and he told me Chinese people like to choose something that is able to "touch" or "see", just like the real estate, gold, and silver and so on. Different from the fund and national debt, the "real things" make Chinese people feel safety

during the investments. He does not know where to "safety" comes from and he feels confused. When I asked him to give me some examples about the preparatory work for the investments, he told me that China is a developing country, there are lots of investments can make money, and they are all related with the government policies. This is what he really wants to know before the investment.

Ms. Feng is the only lady I interviewed by using my map. She is a 53 years-old Chinese woman and living in Guangzhou, China. She is working in China Telecom and planning for retirement. She living with her husband and has a 26 years old son. Interview with her makes me understand she has many different ideas and opinions from others I have interviewed before.

Mr. Feng told me: "Health is the most important thing for me and my family. My husband and I are getting old and I know the health situation will become bad." Therefore, she hopes she will have enough money for the future if her health situation getting and bad she needs someone to take good care of her. "I do not want to become the burden of my family. I know my son will be very busy after working. He may not have time to take good care of me all the day." Talking about the investments she is doing right now, she told me she is a stock investor. As a stock investor, Ms. Feng likes to spend a little time every work day to manage her stock trading. Ms. Feng thinks she is a contradictory person: she wants to depend on her son when she gets old, but she also does not want to disturb her son's life all the time. Even she did not say it, but I can understand she cares her family so much. Even when she was talking about her investments, she mentioned a lot about how those investments will affect her family. (See Figure. 7)



Figure. 7. Map created by Ms. Feng

My last interviewee is Mr. Du who is a Ph.D. student in Syracuse University. He is 28 years old. Study in aging and society, and doing the research about the "left-behind aging population" in China.

He believes that time will be the first thing he compares with other options, because in different periods of his life, he usually makes different decisions of investments. Mr. Du told me he is learning about investment. Now lots of time his financial advisor can helps him and that will be much easier for him to make decisions. When we were talking about the necessary information for him to compare those investment options, he had many experience to share. "Diversified portfolio is very complicated. I need much information about the projects like how they are doing before and so on. When I was talking with the advisors, they

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know what the most important thing investors usually care is." (See Figure. 8)

Figure. 8. Map created by Mr. Du

I understand that all of my interviewees are different from each other. They have distinct investment customs and orientations. They search for different information before the investment and manage their investments by different period, in different ways. In fact, everyone is unique. Therefore, I have to have the unique interface of my application for every individual user.

6. Final Design Solution: Future Plan

My final goal is to create a very convenient tool to help those Chinese people who are facing retirement have a better retirement plan. I gathered valuable information from all the

written texts and my interviewees during such a long research period. All of these experiences guided me towards my final goal. As I mentioned before, personal financial advisors are not such a common thing and that makes me think it is very important to create a system similar to their roles. My idea is not only replacing the personal financial advisors in China, but also creating a system that has more excellent functions. Giving my users financial advisors could only be the first step. I want my system to help take my users through their successive steps until they reach their final goals. At the same time, my system should be user-friendly because I understand every user is unique. I need to build a product that makes them feel this product is a natural fit for their needs. Based on these ideas, I create my final design, and I call it Future Plan.

Future Plan is an application on iPhone with various functions. Its main function is helping Chinese people who are facing retirement making a detailed and personalized retirement plan. As time goes on, the economic environment in the market and the financial situation of the users may be changed. Future Plan will also adjust the retirement plans to make them perfectly accord with the needs of my users. After showing the detailed plans for them, they may keep using Future Plan and ask it for advice and potential options for investments. Therefore, the application can offer them a "one button" solution and make them never worried about their financial problems after retirement any more.

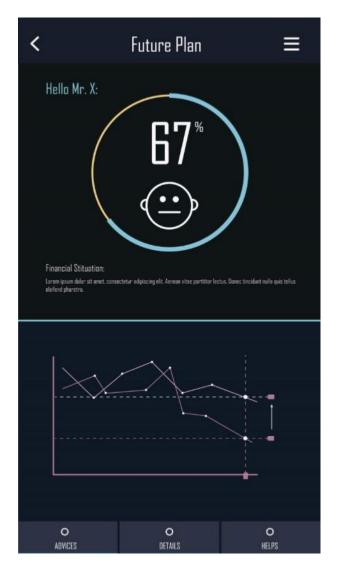


Figure. 9. Personal financial situation evaluation

I will explain the function about retirement planning in Future Plan in this section. First of all, if I want the retirement plans which are made by this application perfectly accord with the requirements from my users. I have to ask them to input some of their personal information. Also, I will make the promise to not share their information with anyone else without their permission. (I may talk about the family support planning later. Therefore, I will share some of their personal information with specific family members if I have the permissions from my users.) After collecting the necessary information and final goal of their retirement lives, I show them a comprehensive analysis of their financial situations on the

screen. I choose to use a dark background and light text or images to make it have a very high contrast. Users will be easier to focus on the information and distinguish their importance. I use white as the color for the title and light blue for those detail text. Because white is a very eye-catching color on a black or dark background. Light blue will be a downy color for people to read the information. The font and size for different information should be different. I keep modifying them on my iPhone and show to some of my interviewees for feedback to help me improve the interface. However, I realized that everyone has different reading habits, it is impossible to make everyone like the same text font and size. Therefore, I make the font and size of the text variable. For those people who cannot read the small text or do not like the font, they may increase the size and change any fonts which existing in their iPhones.

Because I start by giving them a score and a smiley face. Then I tell them what the comprehensive level of their financial situation is and compare it with their final goals. Next, I say how many steps they need to work on. Instead of showing a paragraph of text, I hope I can tell their financial situation in a visualized way. That makes me choose to use the scores, charts and icons. Usually, people will feel the pressure when they see the lower score or depressed face. I hope these can remind my users to make some changes to reach their goals. (See Figure. 9)

On the same screen, I will also give them a chart to tell them the process of the retirement plans. By using the sliding block on the bottom which represent the time, and the sliding block on the right hand side which represent the money, my users can adjust their expectation anytime they want. At the same time, the charts will also make relevant changes and users can view different financial advice and investment options by click the "advice"

button.

After the users have a reasonable understanding of their retirement plans, Future Plan will give them investment advice based on their investment experience and preferences. It will compare with most of the finance products on the market and give my users the best few options. For those users who like to invest by themselves and control everything, after Future Plan approves the best options, it will also show all the information that users may want to know. For example: announcement, risk assessment of these investments, product and company portfolios, earning performance and so on. After comparing with various data of those investments, Future Plan will highlight the different parameter from the comparison and let the users make their own choices. For those users who have not been especially keen to invest, Future Plan will work on the correlation calculation and data analysis to show them many great investments directly. It will also explain the necessary and important data about the process and the results. This will help my users to understand the investment and make their own choices better and easier.

Talking about the personalized interface, I have to mention that the interface of Future Plan for every user is unique. There is no best, only the optimal. I believe every user can choose the most suitable interface. Based on the operating frequency and activity of users, I create different interface for all different kinds of users. By using those four people I have interviewed with my probe three as an example, I place them from high activity to low activity of investment. The order is Miss. Feng, Mr. Li, Mr. Du and Mr. Wu. The interviews show me that Miss. Feng manages her stock investment every day. Even she spends a little time every day to check the stock price. I do not want my interface to show her the same

message again and again when she opens the Future Plan. Therefore, instead of showing Miss Feng's retirement plan and score at very beginning on the interface, it will guide her directly to the personal financial management interface. At the top will be the trade advice of today's stock market, and also give her the detail data analysis, related news and such information to help her make the best choice for investments on the bottom.

Mr. Wu does not want to care about his money every minute and he has been invested the real estate for few years. He does not check his investments for several weeks, even a few months. Therefore, the interface of Mr. Wu's and Miss. Feng's will be distinctly different. Every time Mr. Wu turns on the Future Plan again after a certain period, it will show him a periodical assessment and score for the investments that have been done during this period. This helps Mr. Wu to understand the achievements of the investments and make some changes easier. Mr. Wu hopes someone can take care of those tiny pieces of information about his investment, so he just needs to make significant decisions. Therefore, Future Plan will give him detailed plans about the adjustments of his investment directly. At the same time, it also shows the risk evaluation based on the housing price and related government policies. This will help Mr. Wu follow the advice to adjust his investments. Hence, he could avoid the risk and reach his final goal. By continuing to use Future Plan, it will keep improving the interface for each user. However, I realize not every user wants to change their interface all the time. Some of them may want to decide what the interface look like on their own. Therefore, I make all the elements on the screen movable. Just like moving the applications on iPhone, keep touching the elements in Future Plan for 3 seconds and then users can move it to anywhere they want. This helps users to view any information first based

on their preference.

When I was interviewing Mr. Li, he asked me a very serious question about Future Plan: "How can I trust the advice that Future Plan gives me?" I am happy he asked this as it is a question I feel is very important. First of all, I will add real human factors into my application to make users feel that they are talking with a real person. It is impossible to show all the information to our users on one screen. For those possible problems which users may face, giving them answers and helping them solve the problems are necessary. Therefore, there is a question mark on the top right hand side of the interface for questions. After clicking the question mark, we provide two choices: make a phone call or chat talk. For those simple questions just like how to use the Future Plan or how to set up their personal financial advice, chat talk will be faster and easier to use. Just like texting your friends, chat talk will send the feedback and answers in a very short time. For those users who have very complicated problems, like questions about the advice from our advisors and data veracity, they may call our services by clicking the button on the screen. We will provide professional personnel to explain our advice to them, help those users understand our product better and build the trust between users and us. Also, instead of showing our financial advice in a popup window, Future Plan will show a real human face with the advice. I hope to build positive customer relationships in any ways I can see the level of reliable customer service as a great method of doing so.

Secondly is the "Online Class" section. Future Plan provides a short live telecast once a week to analyze the market and investment tendency in different investment orientations. For example, the "Online Class" for stock market will analyze the price tendency and give users

advice to adjust their stocks. By showing and analyzing the data and information, I will guide and tell users how to make the right choice in the market. Different from American people, Chinese people invest in stocks without asking experienced person to take over it. Therefore, after the "Online Class" we can let the users compare with the advice and the information they have heard. Hence, they will understand where the advice come from and build the trust of our Product.

The reliance on family members is irreplaceable. Therefore, I want to bring this relationship into Future Plan. It will help us to build the trust between the product and users easier and effectively. Users can add their family members from the interface, and it does not matter if the family members are using Future Plan or not. Users can share any information and advice they want for asking for feedback or suggestions. After sharing and discussing the advice from Future Plan with family members, I believe that family members will give more direct recommendations and opinions. At the same time, users can contact with our service if there are any questions. This will help us to build the relationship between the families instead of a single user. If the advice from Future Plan can get the general consent of the family members, it will be more reliable and easier to accept. Thus, we can achieve our goal of building trust.

7. Limitation and Future Improvements

Future Plan is not designed for every Chinese person who is facing retirement. As I mentioned before, it is for those Chinese people who have financial stability and savings to gain better control over their financial resources. It can help people to select and manage their

investments. Personal financial advisors can give people advice regarding any situation, but they cannot help people as much with data collection and analysis of information for investments. In the future, I hope to explore ways to make Future Plan a better financial tool. I hope to help all Chinese people to manage their financial resources from teenagers to the elderly. I hope to enable better lives for those people facing poverty by using what resources they have at their disposal. I believe this will be possible in the near future.

Appendixes



Figure. 1. Poster of the final show

Works Cited

Jackson et al. Personal Interview on page 10.

Muramatus Homura, Miyamoto Mayu, Yamada Nano, Personal Interview on Page 10.

Nicholas M. Jackson, Personal Interview on Page 15.

Fidelity Retirement Planning website. https://www.fidelity.com/retirement-planning/overview

Luo He, "Pension Industry Development Report of China in 2013" September 2013. Web.

Long Chen, "Report of Accounting Industry Trends in 2014" April, 2014. Web.

Wang Xiaojian, "I don't want the five social insurance and one housing fund." August 2015.

Web.

Zhu Ming, "Opinion Survey of Endowment Insurance in 2016." Feb. 2016. Web.

Yongnian Zhen, "The Serious crisis of confidence in Chinese society" Oct, 2015. Web.

Miyamoto Mayu, "Things need to be changed for Japanese young people" Feb. 2013. Web.

World Health Organization, "World Health Statistics", Oct. 2015. Web.

Ministry of Human Resources and Social Security of the Republic of China, "Report of retirement situation in China." Oct. 2015. Web.

Jamie Hopkins, "Not Enough People Have Financial Advisors and New Research Shows
They Should" Aug 28, 2014, Web.

Mo Qingrong, "Poverty in old and Social Assistance", Chinese People Daily, Dec, 2014.

Web.

Ministry of Human Resources and Social Security of the Republic of China, "Report of Inauguration Situation in 2014." Nov. 2014. Web

Wang Wenbo, Zhong Shouyang, National Bureau of Statistics of the People's Republic of

China, "China Statistical Abstract in 2013." May, 2013. Web.

Wu Jing, "The one-child family endowment survey." June, 2015. Web.

Wen Yang, "The Best Pathway". Jiangsu Education Press, 2006. Print.

Daniel Cassidy. "A Manager's Guide to Strategic Retirement Plan Management." May, 2006.

Print.

Matthew X. Smith, Don Ezra, Bob Collie, "The Retirement Plan Solution: The Reinvention of Defined Contribution." June 29, 2009. Print.

General Accounting Office, Washington, DC. Div. of Human Resources. "An Aging Society:

Meeting the Needs of the Elderly While Responding to Rising Federal Costs." Print.

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Collaborative Design in Master of Fine Arts

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Bachelor of Science in Mathematics with Computer Science (MACS)

Minor: Asian Studies, Japanese

Class Related Projects:

Pressure Ulcers project:

- Work on qualitative research and data collection for pressure ulcers.
- 🗷 Design the product called "Sacral Soother" to prevent pressure Ulcers.
- ©3 Collect and analyze the test data from the Sacral Soother, report to the group and making improvement.
- Create a 27 pages booklet to introduce the product.

Nursing Home project:

- Interview with many elders above 65 years old in the nursing home to collect information, data and problems for their daily health.
- Analyze the data, bring the stakeholders together and help those organizations creating more effective solutions to support those elders.

ADA Ramp project:

- © Doing research and data collection for 3 different groups.
- Giving suggesting and data support for all 3 groups for the ADA Ramp.

New York Food Bank project:

- As a designer in a 7 people group to design a delivery and storage system for the New York Food Bank.
- 🖙 Doing the research, design and draft the delivery system for the Food Bank.
- cs Create a 65 pages booklet for the whole research and system of the design.

Job Experience:

Eksigent Technology LLC.

Intern 5/2012-7/2012

- A Help to design the new type of carry-on insulin syringe.
- Help to organize and analyze the data from the product test, find out the defect and improve the product.

Playerab Technology Corporation of China Intern 6/2013-7/2013

- © Design the layout and UI for their app.
- Help to design the characters for their new mobile game.

Beijing Compass Technology Development Co. Intern 6/2015-8/2015

- Work in the department of marketing scheming, organize and analyze the user data.
- Base on the data and feedback from all other departments, establishing the operation plan and marketing strategies.

Based Skills:

- S Familiar with C, Java, programming environment.
- 13 Photoshop, AI, SAI, etc.
- G Journey Maps, Eras Map, Frame works, Analogous Models and etc.