

Finding the Gap

A thesis submitted to the School of Design, Carnegie Mellon University, for the degree of Master of Design in Communication Planning and Information Design.

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Abstract

The intention of this thesis is to examine the experiences of international master's students from China during their time at Carnegie Mellon University. Over the course of a year I researched the different challenges this community faces and the current methods they use to solve their cultural issues. My research included silent and participant observations, literature reviews and questionnaires, but the most successful findings came after a series of in-depth interviews with Chinese students. There are several offices at Carnegie Mellon that can help international students solve specific cultural issues, but in every case, a student or professor must identify the problem before it is addressed.

During my research I found that cultural problems are many times mistaken as language issues or personality differences. In order to address the problem differently, I decided to find ways to get Americans and Chinese students to interact more successfully, but in the end I redirected my solution to help ease communication during current interactions. With the aid of speech to text technology similar to applications like Dragon Dictation by Nuance, this assistant allows Chinese graduate students to keep up with fast paced group meetings by showing a live transcription of the event along with options for translation assistance, bookmarking and slang conversions.

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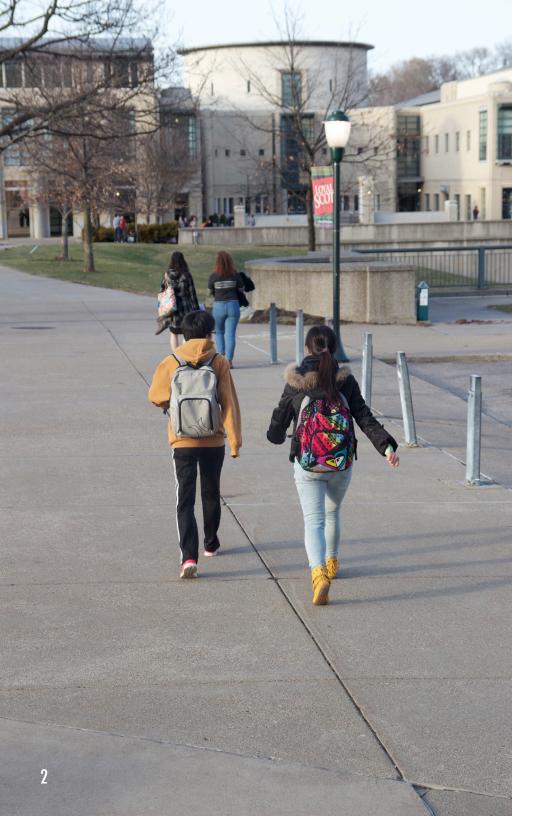
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Introduction

All new international graduate students at CMU are required to attend the Graduate Student Orientation before the start of their first semester. During the orientation in 2011, the students gathered in the University center and were given tips on immigration paperwork, settling into life in Pittsburgh. They were also given some pointers on American Culture. During this particular orientation, the students were told that most Americans like to smell flowers. The speaker continued and said, "Yes it might seem pretentious of us, but we like to smell good." A week later, an international classmate of mine told me about this event, and asked me, very genuinely, if floral scents are an integral part of American culture. I didn't quite know how to respond. I didn't understand the objective of the original message. Later in my research, I found out that this statement was intended to politely warn some international students about the offensiveness of strong body odor. The audience, however, did not receive the information.



There seemed to be two parts to this situation: The American in charge of the message, according to his/her own cultural rules, could not address the topic of body odor directly. As an American myself, I can only image bringing up the subject of body odor might be accusatory and offensive. On the other hand, the audience being addressed was from over 30 countries, so how could one make sure each graduate received the message in a way that was comfortable to him or her? In that same orientation, the students were asked to stand up when their country's name was called. The speaker called out "Taiwan" making the Chinese shifts uncomfortably their seats. Later I learned that according to some Chinese, Taiwan is not recognized as a separate country.

If comments like these were taking place during the first orientation, what other challenges lay ahead for International students during their academic studies? Who is responsible for this gap? Who are the stakeholders that support or challenge these situations? It was then I decided to investigate the cultural communication challenges for International students on Campus.

My first step was to help surface the meaning of this ambiguous term "culture"? Culture can manifest itself in language, behavior, appearance and person-to-person interaction. A word, a gesture or an offering can separate the interpretation of a communication from the original intent. It can refer to a characteristic of a region of the globe, or a dynamic within a small office. Cultural situations can be as small as two businesses trying solidify a relationship, or as large as two continents addressing global warming. Laungani refers to it as a sense of oneness among heterogeneity. (p.31) When cross-cultural communication fails, a harmless message can be a source of shame, anger and ignorance.



How did I want to parcel this in terms of international students? In John Hooker's Culture & Negotiation class at Tepper, he broke down the particularities of culture based on the work of Geert Hofstede and his cultural dimensions theory. In his book Culture's Consequence, Hofstede identified 5 dimensions present in every culture: Power Distance, Uncertainty Avoidance, Individualism vs. Collectivism, Masculinity vs. Femininity, Long term vs. Short term orientation (p.29)

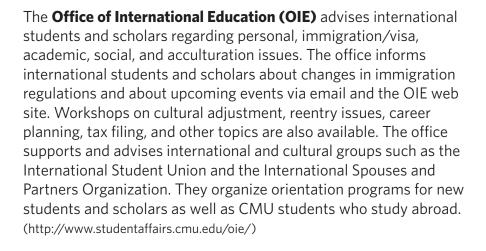
In 1978, Edward T. Hall created a complimentary theory where a culture can be looked at on a spectrum from High Context to Low Context. In a high context culture, the authority of the culture rests within a person and not with the law. (Hall 175) As a result of such a heavy personal emphasis, there are stronger power distances between hierarchal relationships like teacher/student boss/employee. Behavior norms for the culture are enforced by shame. If someone acts against cultural norms in a relationship- based culture, they are expected to feel bad about who you are as a person.

It manifests with loss of face, humiliation, and punishment on the spot. In High context cultures, words and word choice are important because people do not pay as much attention to written rules and communication is indirect. Relationships are more important than objective data. (O'Hara-Devereaux 230)

With just these rubrics to help break apart the way groups of people solve problems, it was easy to see how students from high context cultures might be challenged when trying to navigate the low context culture of CMU.

Current Solutions

So how did these differences addressed at CMU? If the culture at this university is rule based, would it be enough to offer rule based methods of assistance to students from low context cultures? This seemed to be the general approach to services already offered to international studetns. Below is a list of the immediate resources available at Carnegie Mellon.



The **Eberly Center** provides support for graduate student teaching and can help students develop teaching statements and teaching portfolios. They have periodic workshops throughout the semester offered to all graduate students. (http://www.cmu.edu/teaching/eberly/)

Public Communication for Researchers is a professional development program that teaches communication skills to graduate students in fields of research. (http://www.cmu.edu/student-org/pcr/)



The **Career and Professional development Center** offers help specifically with career preparation, resumes and cover letters, networking and interview preparation. http://www.cmu.edu/career/

The **Global Communication Center** is a brand new center that offers one-on-one tutoring and workshops for any student at any level from any academic discipline; Tutors provide students with support on their written, oral, and visual communication projects in any course. http://www.cmu.edu/gcc/

The Intercultural Communication Center supports non-native English speakers in developing fluency in speaking, reading, and writing. They offer many seminars and workshops throughout the year to support non-native English language speakers. http://www.cmu.edu/icc/

The **Office of Student Activities** has approximately 40 activity groups with a Multicultural theme. Groups include: Asian Students Association, Indian Graduate Student Association and many more. http://www.studentaffairs.cmu.edu/studentactivities



First Exploration

Once I had a clear idea of the official services at CMU, it was time to reach out to international students. I sent a questionnaire to all the International Master's students of the Entertainment Technology Center, Tepper Business School and the Design school. In the surveys I asked what the pain points were for their student experiences in America. Many said there weren't any, or that they didn't know of any so early in their studies. The other commonality was that most of the students completed their work in student groups that contained internationals and American students. Besides those two points, the subjective answers to questions were drastically different. How could this be?

I knew there were cultural communication problems because I had been witnessing some of them while observing a class as a TA. At this point, I had also met with a few professors about the cross-cultural issues they were witnessing during class. One professor mentioned a situation where a Korean student started to cry because she did know how to critique another classmate's work in front of a class. I had also met with Peggy Heidish, the head of the Intercultural Communication Center. She described several uncomfortable cultural situations where her office had to intervene. If the problems of international students were being identified by others, why could the students not identify the problems themselves?

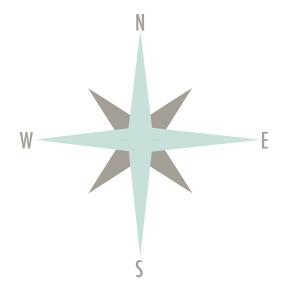
Second Exploration

I needed a different approach. I created five mock cultural miscommunication scenarios that reflected these specific situations. I also small bits of information I had witnessed while observing classes. Here is an example of one of the questions:

"It is the first day of school at Carnegie Mellon. Your first class is at 10Am. You enter the class and sit down. The professor arrives, takes attendance, and begins explaining how he plans to conduct the course. As he continues he speaks faster and faster. It is really hard for you to understand anything he says, but you think he might have said something about a paper due for the next class. You check the syllabus and you don't see anything. What do you do?"

I received detailed answers from eleven students and the responses were almost as varied as the first round of questions. I found while each student had a different way to solve the cultural problems, none of them resorted to solutions offered on campus. That got me curious. With so many ways to support student challenges, why were these services not being used?

At the end of the first semester, I proposed the design solution to the gap between students and CMU facilities does not involve creating another product, like a class or workshop, but changing the rhetorical strategies used to address cross-cultural issues. These strategies do not necessarily have to use language. In some cases, language use might be part of the problem.



Redirecting the Research

Hofstede believes that global solutions to organization and management problems do not exist. (Culture's Consequences p.373) As I had recently discovered, the diverse answers to the questions in both rounds of surveys were almost as diverse as the students themselves. I decided to narrow my focus to the study of one culture on campus. According to the Office of International Education's statistics, the largest graduate student population comes from China. ("Fall Statistics 2012", 2-4) The second largest population comes from India. While China and India are both significantly different from the United States, I chose to explore the challenge of Chinese students because students were less familiar with American culture. This is also a national trend. "By the end of the last decade the number of Chinese students abroad made up the largest group of international students in the USA (surpassing those from India) and during the next decade this group will become the world's largest floating student population. "(Henze, 90)

Understanding Chinese Students

Before asking questions to this specific group, I took a step back and started observing the behavior of Chinese students in the class where I was a Teaching Assistant. In passing conversation, a Chinese student mentioned that the readings assigned by the professor were very Western-centric. She had a hard time understanding the larger theories implied by the western text. In another case, one Chinese student was a bit resentful of the Western focus in what was supposed to be a neutral class.

I began to interview students, but this time I proceeded more carefully. During my first one-on-one interview with a Chinese student, I deliberately did not plan an agenda. For most of the time, we did not purposefully discuss the subject of cross-cultural communication. The organic conversations usually started off with small histories on how a student came to CMU. From there, most students were eager to tell me about their families. They were proud of the sacrifices made by those back home to get them to America. I was not allowed to be a passive part of the conversation. In order to make participants more comfortable, I opened up about my own family. It was easy to see that the identity of Chinese students is very much wrapped up in the community from which they came. After these first round of interviews I started learning more about the concept of face.

"It is implicitly assumed that maintaining the group's well-being is the best guarantee for the individual (Ho, 1978a:2). The individual is not "inner-directed" at all but controlled by a need for not losing face. "Face"- a literal translation of the Chinese word Lien and Mien-tsu- "is lost when the individual, either through his action or that of people closely related to him, fails to meet essential requirements places upon him by virtue of the social position he occupies." (Ho, 867)

It was only during second and third interviews with the same people when I began to find deep observations about Chinese cross-cultural challenges. The concept of "face" became abundantly clear. Chinese students were uncomfortable when asked to acknowledge a cultural challenge. They wanted to appear informed capable of handling any situation by themselves. Admitting uncertainty or criticizing the university experience would be a bad reflection on them.

Besides the private interviews with students from the school of Computer Science and Mechanical Engineering and Design, I also provided individual tutoring to four Chinese students in the class to which I was a teaching assistant. I met with one student periodically throughout the semester because she found it difficult to keep up with the teacher's language pace. Another student told me she was not used to responding to teachers in classrooms so she wasn't exactly sure of what to say. Fortunately this class was not graded on participation, which is not the case for all classes. One of the biggest surprises was how one Chinese student was unfamiliar with the idea of taking notes in class. Later during my interviews, I discovered that regardless of what happens in a classroom, a Chinese student could be very successful in school if he or she gets a high score on the standard exams. There is very little emphasis put on how a professor interprets information. This class, however, heavily depended on lectures to elucidate concepts given in the reading. "I didn't understand why everyone around me was writing things down while the professor was talking!" she said. I tried to train this student, but like anything else, taking successful notes and remembering important points is a skill developed over many years here in America. Adding the language difficulty on top of this made the classroom dynamic for this particular lecture class a larger challenge. I also found, that I had to ask several times to see if the students needed any help. I got the best feedback if the questions were asked informally and in person. When that same help was addressed to the larger group, I nobody responded.

Most of the other student questions were centered on language difficulties. In every case, the Chinese students received the information about the syllabus and the assignments clearly. They simply needed emotional reassurance that they were doing the right thing. This was echoed exactly when I interviewed the coordinator of Graduate studies in the Mechanical Engineering department: Christopher Hertz. He said that during the first few weeks of school, all of his international students come to him to make sure they were proceeding in the right direction. The majority of the help he provides was simple reassurance. "I could tell the students were becoming acclimated to CMU culture when they stopped coming to my office twice a day to make sure they were doing the right thing."

American Students

Unlike their Chinese counterparts, it was relatively easy to extract the pain points Americans felt when dealing with Chinese students. Most expressed trouble when starting a conversation with a Chinese classmate. There weren't sure what to talk about, and didn't understand how to "joke" with Chinese students. They also felt left out and sometimes repelled by Chinese students who congregate in groups. Many American's did not know what much about China in general, but were honest about their naiveté. For those who hadn't been exposed to interactions with Chinese people, their main connection with the culture was the American version of Chinese food.

CSSA

It is impossible to investigate the experience of Chinese students on campus without looking at The Chinese student Scholar Association or CSSA. This organization is the largest graduate student association on campus. I asked to meet with the president, and when I showed up there were eight more Chinese students all eager and curious to talk to me. "We don't have that much exposure to Americans, so we are very excited about this opportunity" They proceeded to explain to me the particulars of the organization, the challenges, and the relationship CSSA has to the rest of campus.

CSSA serves three purposes: 1. They provide support and an immediate community for new Chinese students arriving at CMU.

2. They partner with local Chinese restaurants and other Chinese groups to host two large Chinese festivals: The Spring Festival and the Autumn festival. 3. They maintain relationships with Alumni and host small networking events or information sessions.

Professors

New Professors at CMU are not trained to deal with the particular problems international students. This used to be part of the orientation, but it was taken out in recent years. Many were not aware of any workshops or seminars offered by CMU during the year. There was one situation where a professor had to deal with a cultural problem, but didn't have the resources to understand it, so she handled it before she realized that it was a cultural issue.

Carnegie Mellon attracts a significant amount of international faculty as well as students. The ICC admitted that several international faculty members had problems with CMU's approach to learning. In large power distance situations, according to Hofstede, "the educational process is teacher centered: teachers outline the intellectual paths to be followed. Teachers can never be publicly contradicted or criticized" (Culture's Consequences, 100). These international professors came to the ICC because they didn't understand why it was their responsibility to make sure the students were learning. One professor told Heidish: "It is my job to give them the material, it is their job to make sure they understand it." This attitude seems contradictory the general classroom values promoted at CMU, but as I learned through my earlier surveys, I wanted to maintain the narrow focus of Chinese Graduate Students as my primary user group.

Research Findings

Culture, Language and Personality

During my research, I found that unless they are professionally trained, most stakeholders surrounding Chinese master's students have a difficult time separating culture, language and personality when diagnosing a problem. For example, a Chinese student remained silent while he waited for other members of his group to ask his opinion. One American group member attributed his silence to being shy. Another member assumed it was a language problem. Additionally, cultural challenges might be harder or easier to address depending on one's personality. For example, in most CMU classes, students are encouraged to ask questions and challenge the professor. Someone with an outgoing personality will have an easier time adapting to this cultural difference. Among the limited number of studies on Chinese students in the United States, Sun and Chen (1999) identified three dimensions of difficulties experienced by Mainland Chinese students in the U.S. They were: language ability, cultural awareness, and academic achievements. Specifically, the major obstacles in the academic and social life of Chinese students included lack of English proficiency, cultural differences, and unfamiliarity with the American classroom environment and university facilities. (Yuan 143)

Trust

My largest lesson during the research process was that Chinese Students approach problems and conflict in a very different ways. At the beginning of my research, I began asking students to identify problems first. This is a very rule-based way to approach a situation.

Internal Resolution

The support network among Chinese students is very strong, but even the leaders of such organizations like the CSSA find it difficult to invite participation to their campus-wide activities by non-Chinese students.

Models from research

Levels of Intimacy

The research lead me to two large models by which I could more clearly understand the population: First, when describing relationships with Americans, the Chinese were able to categorize them by levels of intimacy. On the first level was the casual encounter a Chinese student might have with an American student in class. Here, the relationship does not develop beyond learning a name or the program that he or she is in. Once the conversation ends, the relationship between the American and Chinese student does not progress further. The second type of relationship is one where the Chinese student and American student are forced to work together to complete an assignment. For a period of time, they might meet every day, work at each other's houses, or meet for meals, but all encounters are for the sake of the project. There might even be a celebratory "wrap" meeting. Chinese students described this to me as a friendship that is "still on the surface." The third level of intimacy is when a Chinese student and American student truly become friends. In this case, there is no outside force like a program or project that makes the friendship beneficial. This third level, according to Chinese students and some American students in the exploratory surveys, is very difficult to achieve.

Receiving American Culture

The other guide that emerged from my research was the intention behind Chinese students and their motivation to study at CMU. As per the discussions, I found there are three types of students: First one I will call the Open Learner. This is someone who has decided to study at CMU because they had a genuine interest in America. Many of these students hope to get jobs in the US at the end of their studies. They are excited to learn about American culture, they are usually outgoing, and actively seek out American friends. The second type of student I will call the Polite Visitor. This student is more comfortable living among other Chinese students, and has no pressing interest in discovering American culture during their graduate career. This student usually wants to return to China once his/her studies are complete. The third, and most interesting group, is the Shy but curious. While this student is genuinely curious about Americans and the United states, they are either too busy or too hesitant to seek friends or resources in the unfamiliar territory. For example, one research subject told me that he felt more comfortable playing basketball with his Chinese friends than reaching out to the American team. If an American happened to be in the gym at the same time, they gladly invite him to play, but it is only a consequence of being somewhere at the same time. Getting Americans involved in advance is not typical behavior. Based on these personality traits as well as the research I did on American Students, I created three personas:

Personas

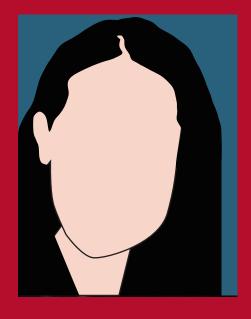


Bowei is from Shanghai and is currently studying mechanical engineering. Back in China, he had a reputation of being a disruption to his classes, because he would always question the teachers about the concepts that were taught. Lucky for him, the opinions of teachers did not count as much as his test scores, and so he continued to succeed despite his disruptive behavior. He was excited to learn upon his arrival to America that here, it is rewarded to speak up during lessons. While he is open and eager to get to know Americans, the majority of his classmates are Chinese

and because of its convenience, he has relied on CSSA for most of his connections. He came to the US hoping to get better English skills, but his classes are overwhelmingly Chinese. Mechanical Engineering is a lot of work, so his social circle consists mainly of his Chinese classmates.

Because he is typically shy, he became a member of CSSA to meet more people. It was easier and more convenient than approaching other students alone. Although he doesn't help plan the large events during the year, he does play basketball with a bunch of other members once or twice a week.

Recently, he was put in a group project with three American students. At first, he thought his language skills were good enough, but soon he realized that it was hard to keep up. "Its not their fault" he said of his American classmates "I just need to get better at my English". After a few weeks of not responding during the meetings, his classmates started to get angry. He finds that his English is not improving, and with a full schedule of classes, it is difficult to make time for this.



Pengxuan, or as Americans know her, Katie, is excited to be studying in the US. She is getting her MISM (Masters in Information systems Management) and she would like to look for work in the US once her program is over.

She arrived on campus and had no problem meeting other Chinese students in her program, but she thought at first that the Americans were a bit "unfriendly", especially other American girls. She didn't really know what to say to them to start a conversation. She goes out of her way to attend the social events hosted by her American classmates, and is now starting to learn about American pop culture.



Jenna is a Graduate student in the School of Design at CMU. She didn't have much exposure to Chinese students before CMU, and was overwhelmed when she got here with the amount of international students.

While she gets along fine with them in class, she sees no reason to get to know any of them closely, since it is such a pain to cross that language barrier.

Recently, in a group project, she became angry and frustrated when a Chinese student did not contribute his share to the project. She tried to clarify things with him repeatedly, but nothing seemed to be getting through.

"There are no efforts by the school that I know of to help american students be more sensitive to international students. All of the focus seems to be on acclimated the international students instead of making us Americans a part of the process as well.



Bin is a student in computer science, and although he worked for a few years in China, he knows a Master's degree from CMU will help him get a higher position when he returns. He was able to get a good TOEFL score, but his conversational English skills are very low. That doesn't' really matter though, because several of his professors are international as well. If he does have a problem, he will always ask a Chinese friend for help. He sometimes jokes that he is learning more Turkish phrases than American phrases. Thanks to CSSA, he found an apartment and can navigate around the surrounding CMU neighborhoods without any trouble. Every week, his friend gives him a ride to the Chinese grocery in Southside. Five of his fellow Chinese students bought a "family plan" cell phone service, and his landlord has dealt with international students many times in the past. Many social gatherings with friends involve meeting for potluck meals or going to local Chinese restaurants.

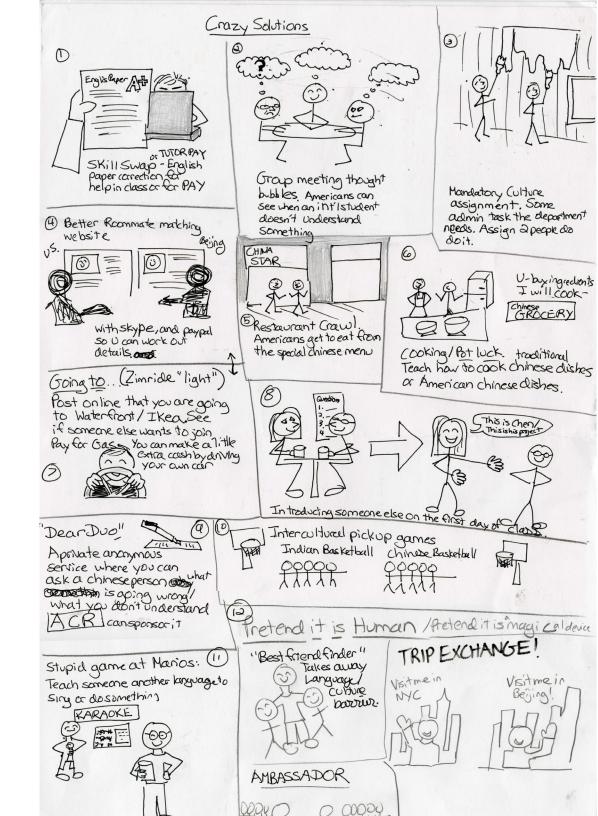
Territory Map





Using the research

To Chinese students, studying in the United States "involves more than simply taking classes;" they also need to "adapt or adjust to a socio-cultural system which is different from their own" (WenliYuan 142) When I set out to find a design solution, I knew that I had to address cross-cultural problems in a way CMU has not yet explored. Cultural problems can manifest themselves at different points during acculturation and are highly dependent on the parties involved and the environment where it takes place. So how do you address a problem that many people themselves cannot diagnose? The solution had to somehow "trick" students by having the two cultures mingle without addressing culture at first. I looked at the territory map and tried to design solutions around the areas that were already challenges. I wanted to make sure the solution did not take students away from their busy graduate studies and ask them to participate in something extraneous.



First Service Design Explorations



Student Group vs. Student Group

There are other large cultural organizations on campus besides CSSA. For example: The Indian Graduate Student Organization (IGSA) hosts a variety of activities such as cricket games. One service design or event design would involve student teams playing each other. This might foster more cross-cultural physical interactions without the burden of language proficiency. For example, on CSSA



Trip Exchange

While living in the US it is common for international students to be curious about visiting nearby cities. The larger break in between semesters offers longer travel opportunities. This service design would trade accommodations and local tours for both travelers during the appropriate breaks.

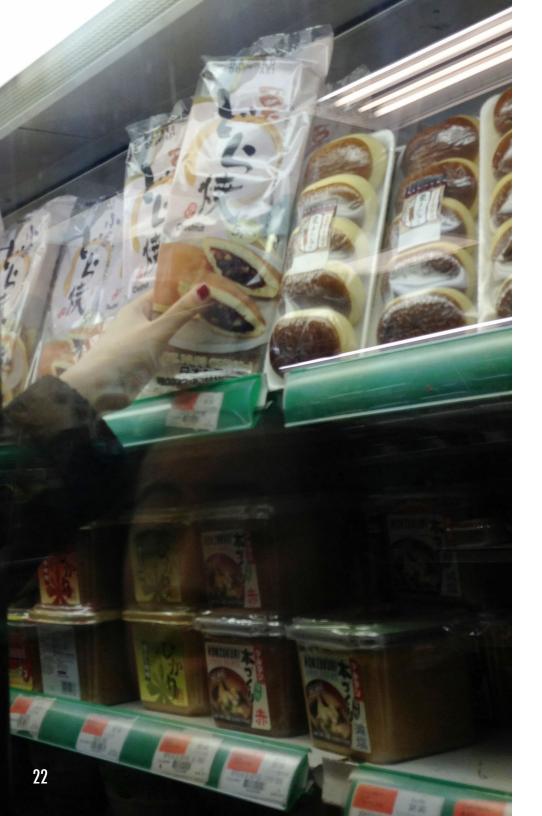


Finding a Roomate

One of the largest challenges for Chinese students is finding housing once they reach campus. During orientation in their home country, students It is more convenient for Americans to visit Pittsburgh beforehand or communicate with leasing agents to investigate details since several companies do not want to rent apartments to international students before they arrive in Pittsburgh. As of now Chinese students stay in temporary housing when they

first arrive, and use CSSA as the primary way to connect with potential roommates in the same situation. When interviewing Chris Hertz of CMU's mechanical engineering department, he confirmed this fact. "The majority of the time, I feel like I am acting like an agent, because the biggest concern during the first few weeks of being her in Pittsburgh is finding housing. If there was an incentive for Americans and Chinese graduate students to find housing together, there might be a stronger interaction between the two communicate.

In the end, I decided not to explore this service further because it would address stakeholders that are already willing to participate in American Activities. While there may be subsidiary contacts formed, my primary targeted group should students like Bowei. One Chinese student gave me the following feedback: "At the end of the day, I just want to come home and speak Chinese, I am tired of speaking English."



Second Service Design Explorations

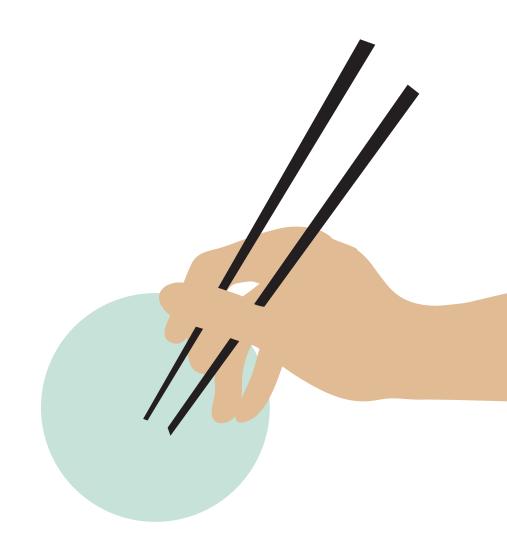
Food is a very big part of Chinese culture. One interviewee said, "Many of my Chinese friends feel uncomfortable going out for drinks to socialize with Americans. They don't understand that just because you are invited to a bar doesn't necessarily mean you have to drink alcohol. It is more popular to have pot luck dinners to socialize." I saw this manifest myself during the design department's Chinese New Year celebration. To celebrate the Chinese New year, all of the graduate students of Chinese heritage gathered together and made traditional Chinese dishes for their other classmates. Although there were social events that occurred every week, this one celebration was the only one that successfully involved all Chinese graduate students. Could this activity be carried out more than once a year? I decided to investigate how Chinese students and American students could form relationships over food.

Among the other questions in my survey, I asked American students if they enjoy Chinese cuisine. Granted, many of them were only familiar with the American version of Chinese cuisine, but the responses were unanimously positive. They explained the specific dishes they enjoyed and in some cases, the restaurants in town they preferred.

Chinese Food near Campus.

When I met with the head of CSSA, I inquired about how CSSA provides support for food for new students. CSSA made a map that displays all of the locations around CMU where one can get Chinese cuisine in areas surrounding CMU. In addition, they give CSSA students information about Chinese friendly supermarkets. Many of the Chinese restaurants offer discounts to CSSA members as an additional incentive. I decided to attend two local restaurants with Chinese friends to see if the experience was any different. At one restaurant, China Star in Squirrel Hill, there is a separate menu for customers who are interested in authentic Chinese cuisine. To get the menu, one must specifically ask for it. Without a Chinese friend to guide me, it would have been very difficult for me to understand the unfamiliar dishes.

The second restaurant I tried was Rose Tea café on Craig Street. I went at their most popular time: 1pm. When I arrived, I was one of only three white people in the entire café. While waiting for a table, I heard no English conversation. Again, I was with a Chinese "ambassador" who showed me how to read the menu. The waiter addressed my meal companion first in Chinese before addressing me in English. The menu, like before, was in Chinese and English and the dishes were traditional and indecipherable from the English names alone. The waiter was accommodating but it was clear the experience would have been much more challenging if I wasn't accompanied by a Chinese counterpart.





Based on these investigations, I began to get curious about the idea of a food crawl to bring Chinese and American students together. Many of the Chinese restaurants (unlike supermarkets) are in walking distance from campus. What if CSSA could use its relationships with restaurants to create a food crawl event, where students travel from place to place, sampling the signature dishes at each restaurant? In other cities, food crawls or food tours are ways to not only sample the cuisines but learn to navigate the neighborhood. For example, http://burghfoodtour.com/ offers tours of 5 historic Pittsburgh Neighborhoods through local food.

If this was brought to CMU, American students could help the Chinese students navigate the area while the Chinese students can help Americans try different unfamiliar foods. It would help both groups understand the geography around CMU neighborhoods and boost revenue for local businesses. It seemed like a triple win. The challenge was, what would be the initial incentive to get these groups to commit? I needed to figure out how to match the students with each other without force or the burden of an extra obligation.

Challenge

If the event was hosted by CSSA, I didn't want a repeat of the unsuccessful advertising campaign of the Spring and Autumn Festivals. Unlike undergraduate students, Master's students do not have required mandatory activities. All students, regardless of culture, need to eat. All students are interested in food but want to explore food on their own times. To meet up with a student you don't know, when assigned by an outside party was both a risk and a burden. Like the apartment situation, if a food crawl was not on an individual level, but happened in larger groups, there would be a risk that the Chinese students would gravitate toward each other.

Cooking together

I decided to take a closer cue from my original observations and see if I could arrange something around preparing the food instead of just eating it. My original hypothesis is that preparing would involve both American and Chinese students in a physical activity, and would therefore alleviate the burden of language and vocabulary. It would involve teamwork and a polite amount of intimacy. Like other activities, from the research I knew that this one had to be done in small groups. If the group was larger than four, the same partitioning might occur. I saw this happen at the Chinese New year party. I planned an event with two Chinese students. Our plan was to take an afternoon and make a batch of traditional Chinese dumplings that are very common in both of the student's families.

To get the correct ingredients, we went to the largest Asian Market in Pittsburgh – Lotus Foods in the Strip district. I had never been there before, and as an American I was overwhelmed and confused when I walked inside. There were vegetables there I had never seen, and the majority of foods were canned and labeled in another language. I clearly needed my friend to help me navigate the supermarket to understand what the foods were, and how to find our needed ingredients. The grocery store itself is a large and efficient organization. Unlike american grocery stores, women were cutting tofu for sale in the produce section, and there were several parts of animals, I had never seen sold at Giant Eagle or Whole Foods. Again, I did not hear anybody speaking English. The process of bagging vegetables, using a shopping cart and selecting items was the same as any American store. When I went to the register to pay, the cashier started speaking Chinese to me until she looked up and realized I was





not Chinese. She laughed and apologized and proceeded to tell me the total in very broken English.

After that, I welcomed the two Chinese students to my house as a place to cook this meal. We followed a Chinese version of the dumpling recipe and I learned that most Chinese recipes do not measure ingredient amounts. It was up to us to do the estimation. The slicing and mixing of ingredients required utensils I didn't have, and so we had to compensate.

The preparation itself took one hour and contrary to my original hypothesis, it was extremely language intensive. In order to coordinate jobs in the kitchen, we needed to delegate, estimate, and describe kitchen activities. This was difficult for the student who was not familiar with English, but also difficult for me. As much as I wanted to help, there were certain preparations that were easier to discuss between the two Chinese students. One activity, which did not require a lot of conversation, was when I learned how to fold dumplings. This took a lot of work and a lot of practice on my part, but in the end I was able to mimic the hand movements of my Chinese counterparts. The Chinese students laughed and appreciated my mistakes. It made the process much slower, but more enjoyable. Afterwards, I was left with meals for the next two days, a messy kitchen, but a delightful and intimate bonding experience with Chinese students. I now feel more comfortable shopping at the Chinese grocery store with new vegetables and preparing dumplings on my own.

This activity required the most time, attention and commitment but it also created an initial intimate bond that one CSSA student told me was missing from all of her Chinese/American interactions. For example, one student was studying to get her US driving permit, and I agreed to help her practice while we ran errands together. Also, both Chinese students were curious about cooking an American dish and so the following week, I happily taught them both how to cook lasagna. While traveling, one of the students bought me a gift and we now speak on a regular basis. I cannot say for certain what the secret was to forming bonds that resulted in additional interactions. Like I said before, I believe it is a combination of personality, language skill and cultural comfort, but the willingness of both parties during the initial activity was definitely an integral part of the process.

In conclusion, this activity was the most successful at creating that level of intimacy between Chinese and American students that I had been seeking from the beginning. I feel comfortable asking questions to my new Chinese friends, and I believe they feel comfortable asking my advice in return. The question remains on how to replicate this experience on a larger scale. The reason that this worked is because both parties were willing to make a large sacrifice. It also helped that my grant covered the costs of groceries. Requirements for this service design would be preparation utensils, a large kitchen space, travel ability, money for food, and comfort with making mistakes, no fear of asking questions. I invited lots of Chinese students and some American students to participate, but others could not find the time.

I also learned an important lesson about "saving face". A few of the Chinese students said they would like to come, but did not let me know that they were unable to attend. I had to make contact with them and ask them to actively confirm or decline the invitation, because all confirmations were given to me verbally.

Third Exploration and Final Design

I decided to redirect my solution completely. Instead of creating a situation where Chinese students and American students were forced to interact in a new activity, I chose to address situations where the two groups of students already come into contact: academic group projects. This space would address the shy but curious archetype as well as the middle level of intimacy described in the research conclusion section.

Regardless of their positive academic performance, English is still a barrier for most Chinese students. English education in China mainly relies on written tests to evaluate students' performance with less emphasis on speaking and listening skills. Hence, many Chinese students didn't feel confident to speak English in class. (Yuan 152)

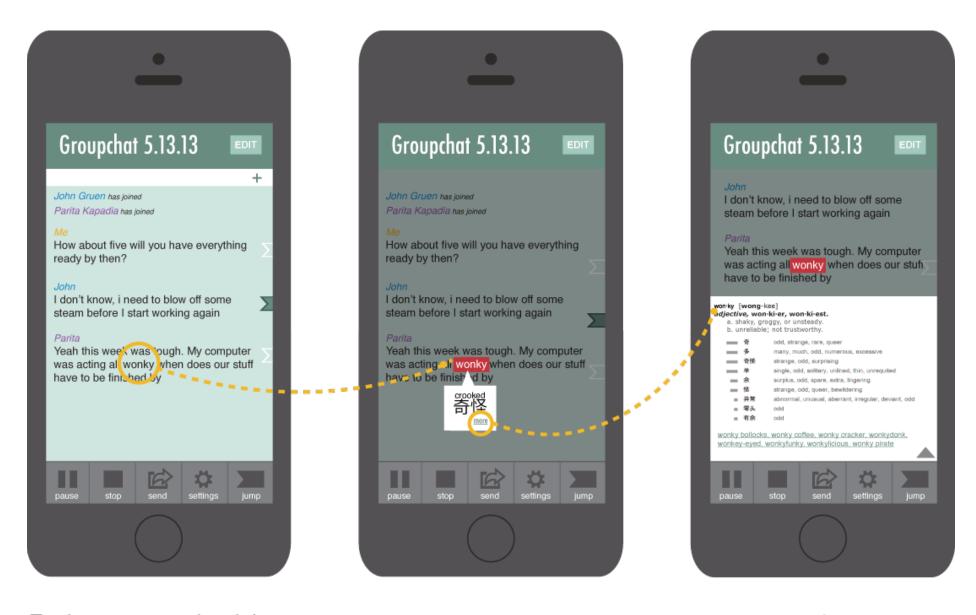
Since English deficiency is a major obstacle for Chinese students studying in North America, Huang (2006) analyzed the academic listening challenges of Chinese students at an American university. He found that Chinese participants were most confident about their reading ability and grammar, which might explain why they achieved high scores on TOEFL (Test of English as a Foreign Language). Their weakest areas were speaking and listening skills. Chinese students were also not very confident about their pronunciation, vocabulary and writing skills. (Yuan 142)



During my research, I found that many Chinese students were extremely hesitant to interrupt their American peers and ask for help with language problems. On member said "If I don't understand what is going on, I sit back quietly. I often get mad at myself for not having better English skills." Here, the concept of face is revealed yet again. Culturally, it is not acceptable to pause a meeting and ask for clarification. The student blamed herself for a lack of skill, and put the group speed before her own needs as an individual.

I decided to make a solution that would help Chinese students solve problematic situations on their own, as close to the moment of cultural confusion as possible. Using speech to text technology similar to that found in applications like Dragon Dictation, this assistant, Groupchats, allows Chinese graduate students to keep up with fast paced meetings by showing a live transcription of the event along with options for translation assistance, meeting flags and slang conversions.

This app is intended to help both Chinese and Americans. By solving the problem while it is happening. Chinese students will have to look down at their phone in order to clarify something. If an American notices a Chinese student using the app frequently, my hope is that they will be inclined to ask what is unclear, and the dialogue will finally start.



Each group member joins the conversation and their voice is converted from speech to text. Short definitions and fast translations pop up when the user touches a word or phrase The short definition can be expanded to a larger explanation, including alternative meanings and list of common phrases.



























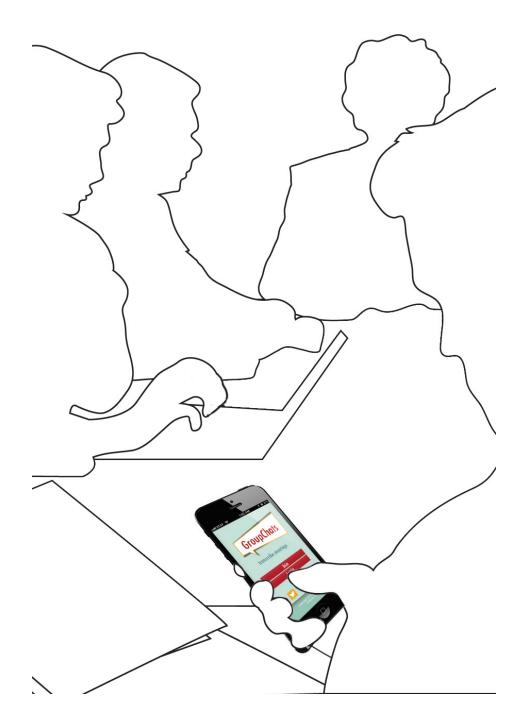




Prototype and Feedback

In order to check the validity of my design, I created a clickable wireframe in keynote and transferred it to my iPhone. I handed my phone to potential users, and asked them to navigate the app. Although the feedback I received was positive, I wish I could have tested this application in a more specific situation. For example, I would have liked to set up a scripted meeting between four people. Three of them would be Americans and the fourth would be a Chinese student who would possess a phone with the application open and ready. As the Americans started speaking to each other, I would have their conversation appear on Chinese student's phone. I would study how many times during the conversation the Chinese student needed the application, and I would have gotten reactions from the Americans about whether the use of the application promoted conversation or whether it alienated the Chinese student even further.

I would have also liked more exposure to engineers so I could learn about the possibilities and limitation of Speech-To-Text technology. While I was introduced to Dragon Dictation and M*Modal transcription services through users in the medical field, I still need to understand the details of this technology before proposing it as a solution for a group situation.



One of the largest lessons of this project is that no matter how much I would like to claim I am a neutral party observing behavior, I must acknowledge the lens through which I look at the world. Laungani says "it is necessary to confront one's own underlying motivations, including one's own stereotypes and prejudices, openly and honestly." (p.29) I have to become more comfortable with changing directions, and if research doesn't present results I expected, I have learned to get curious instead of frustrated.

Conclusion

So after all this research, do I know how to solve the 'problem' of body odor? I don't but, that is because I now see that Body odor by itself was not a problem to be solved. Through this process I learned the importance of the communication mechanism when addressing uncomfortable issues. Now, would suggest a different rhetorical approach. Perhaps it might be best to show all the international students that the speaker is just as vulnerable as the students. I would make the speaker aware of the discomfort he/she is causing. If it were me, I would say: "What I am about to tell you might be impolite and in some cases offensive. If I offend you, I apologize in advance. I am telling you this because I don't want a situation like this to be an issue in each of your education paths. Many professors have complained that some international students do not pay attention to their personal body odor. In America, if someone sweats often and does not shower often, we recognize the scent and it can be, to avoid this, we recommend showering daily, or every other day or wearing deodorant to in between those showers to mask the odor."

In his book Culture's consequences, Hofstede asks, "Can a school create values that are not already there, or can it unwitt

ngly reinforce what already exists in a given society?" (p.100) I think CMU has the power to foster both. While students may enter this new cultural experience with assumptions from their home culture, CMU can foster a survival in the new environment without alienation due to unfamiliarity. To address these issues, as I learned the hard way, takes a significant amount of time and care to establish relationships before understanding the vulnerabilities of the International student population which in this case, was Chinese Graduate students.

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