

A Journey to the West

DESIGNING FOR CROSS-CULTURAL APPLICATION TO HIGHER EDUCATION

Xinran Lu



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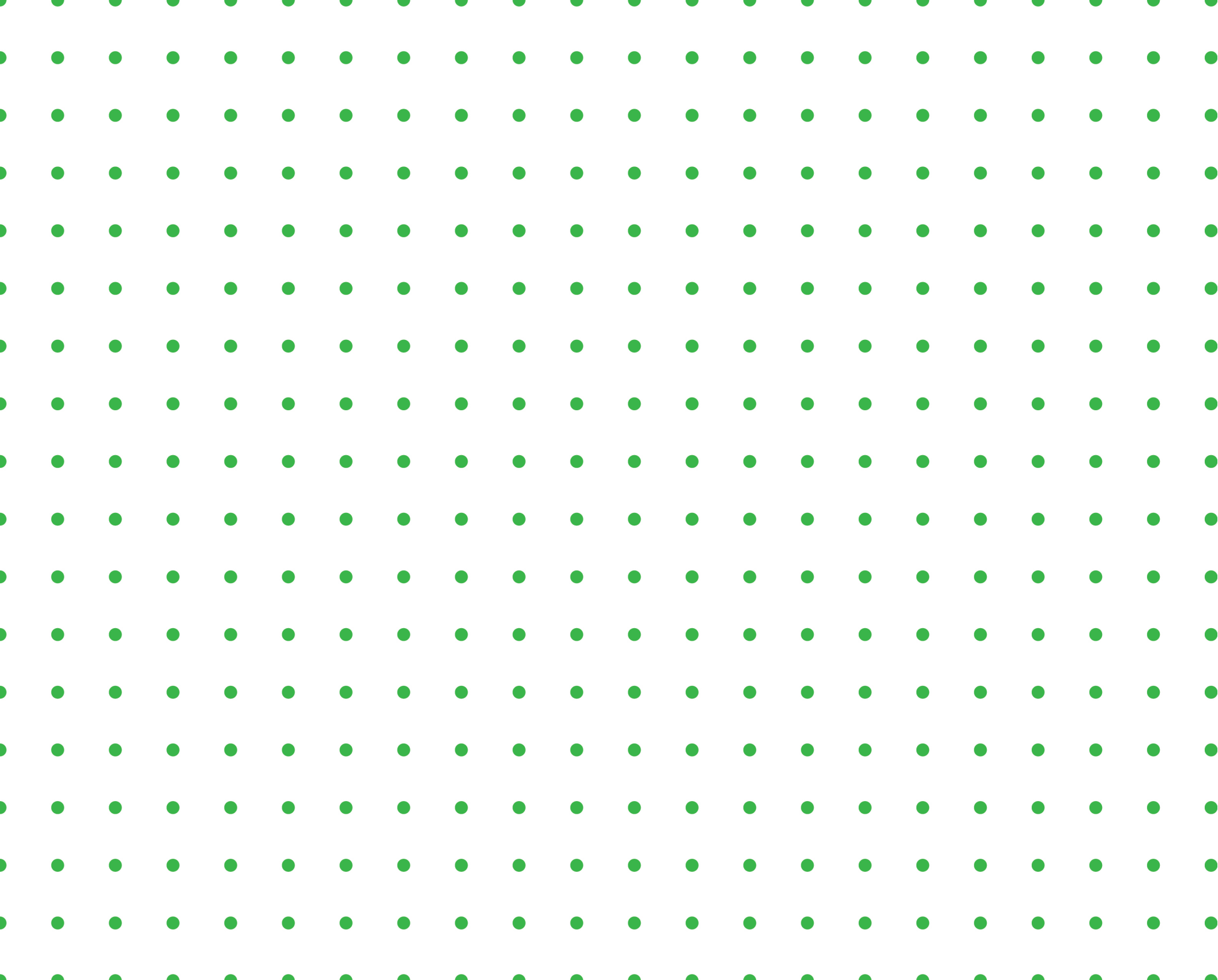
A thesis submitted to the School of Design, Carnegie Mellon University,
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Xinran Lu
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ABSTRACT

What are international prospective students’ perceptions of American universities and colleges when they apply for studying abroad? What are the common concerns that they have during the application process? This thesis aims to help international students overcome the cultural differences between their home education system and the American higher education system when applying for graduate programs in the United States. Through the course of synthesizing the findings from current literature on international student recruitment in the American higher education, user research, and participatory design, a service system is designed that guides international students towards a more motivated attitude when applying abroad, and provides a system of tools that supports their decision-making process.



1. PROJECT DEFINITION

INTRODUCTION

For the first year of my life at Carnegie Mellon University in the United States as an international student, every day had been an adventure. I started learning new things not only in classrooms, but also in my daily life. I have heard many life stories from my fellow Chinese students who are currently studying in the United States, and whether those stories are positive or negative, “unexpected” is a word that many of them mentioned. Looking back at my own experience, I realized how many decisions I made back then were based on stereotypes and pure chance. I got interested in the application process. How is it changing the lives of so many international students? How did other international students make their decisions on where was the place to start their “new life”? What might have been some of their concerns when applying? I was curious to start inspecting these questions through the lens of design.

The goal of my thesis was to understand international students’ application process when applying for graduate programs in the US, and design a tool or an infrastructure that would help make applying and their preparations a better experience. At each of the stages of my research, I answered questions I had raised previously, restated these questions, or raised new questions.

INITIAL HUNCHES

What could be the explanations of the differences between the international applicant's expectations and the realities?
Was it physical distance or language barrier that affected the communication?

What were the needs of international students in particular during the application process compared to American students?

EXPLORATORY RESEARCH

How can we facilitate the sharing of accurate information during the application process?

How can we encourage and facilitate the communication between international prospective students and current students/alumni?

Is there an affordable way for an international prospective student to experience a “visit” to a school? What would be the key activities in this visiting experience?

How can we help international students understand better what a program, a school, and a cultural environment can offer?

GENERATIVE RESEARCH

How might we help these students learn what it means for them to study abroad through the process of applying?

IDEATION & PROTOTYPING

What would be the tools inside this ideal toolbox in realizing my goal?

How might the service be implemented and supported in different countries?

SCOPE & LIMITATIONS

Definition of “international students/applicants”

In the research and designs of this thesis project, I only looked at international students from other countries applying to schools in the US, which means that American students applying to schools in other countries were not included. I also mainly looked at students pursuing or applying for a graduate level degree. I did not focus on an undergraduate level degree because students seeking graduate level studies tend to make more independent decisions when they plan their future study, living environment, financial ability, and career path. I started my research by examining the experiences of international students from different countries in America, Europe, and Asia. As I continued with my research, the research findings led me to focusing only on audiences from China, India, Korea, and Japan. In my final designs, I used Chinese students’ application experiences as examples for my service design, and I discussed the feasibility of designing a similar service system for the other three countries.

Other stakeholders

This thesis took an approach that centered on international students, instead of other stakeholders such as the schools or the parents. The final designs were mostly based on the needs of the international applicants, but took account of other stakeholders especially the school admissions personnel and Office of International Education, and education departments of the government when I explained the structure and feasibility of the service.

SIGNIFICANCE OF STUDYING THIS TOPIC

For international students

The application process for international prospective students can be mysterious and stressful. When standardized tests, extracurricular activities, and other kinds of evaluations required for college admission can be prepared for, finding the right school that a student can fit into, learn from, and aid his or her performance in a future career can take a lot of effort and still not pay off. Helping international prospective students understand the application process and the work and life at a university before they decide to apply or attend the school becomes crucial in finding something that is right for them on an individual level.

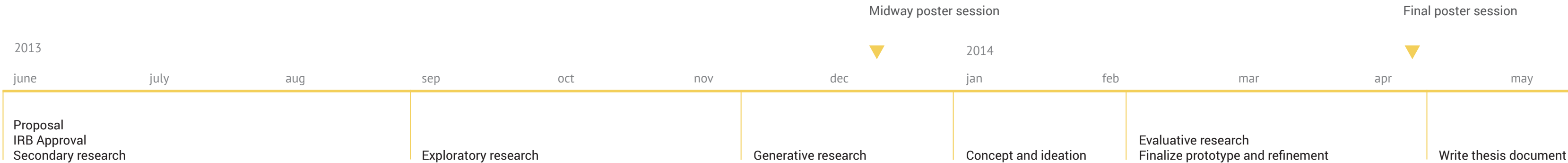
For schools

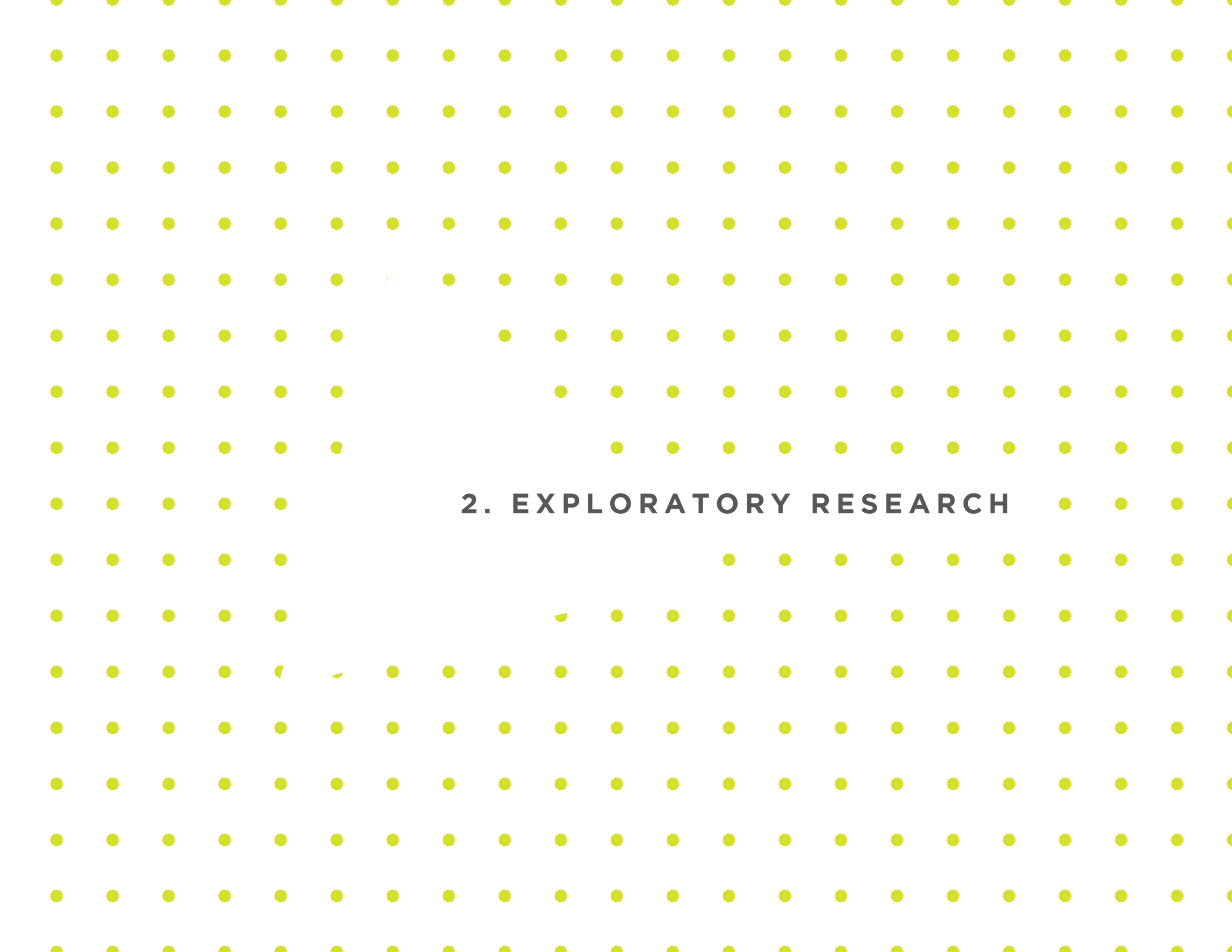
With international applicants who have clear goals and understand the cultural environment that American universities and colleges are in helps the school recruit scholars who can really contribute wholeheartedly to the school during their time studying and working there. Further, studying this topic can help universities and colleges see the application experience from an international applicant’s perspective, and better understand their concerns and start to see what these concerns reflect about the schools.

For governments

The number of international students studying in US graduate programs is increasing every year. International students are playing a critical role in sustaining higher education programs in the US, especially in science, technology, engineering and mathematics (STEM). To continue this quality exchange of knowledge between countries, it is important for the governments to better facilitate the processes this exchange is based on. This thesis addresses existing problems of the application process for international students, and proposes a solution that calls for the support of both the US government and the government of the country where the student came from.

PROCESS TIMELINE





2. EXPLORATORY RESEARCH

RELEVANT WORK

I began my explorations by looking at a broad range of work: from research and design projects to current infrastructures around international education. Following is a review of selected works that helped me move forward with my thesis.

¹ Bernier, J. L., et al. "The services a university website should offer." *Information Society and Education: Monitoring a Revolution. Education Society Series 9.3 (2002): 1746-1750.*

² Hidayanto, Achmad Nizar, Fanny Rofalina, and Putu Wuri Handayani. "INFLUENCE OF PERCEIVED QUALITY OF UNIVERSITY OFFICIAL WEBSITE TO PERCEIVED QUALITY OF UNIVERSITY EDUCATION AND ENROLLMENT INTENTION." (2012).

Related school facilities and services

1. University websites

The official websites of universities and colleges are often the first places international students go to for information and application instructions. I looked at research on designing the contents and navigation of these websites to learn what has already been proven to be effective and ineffective in communicating information to prospective students. However, I did not focus on the use of the website for other viewers such as job seekers, faculty and current students, and other organizations.

Bernier's paper discussed the static and dynamic sections of university websites, and the importance of identifying the profile of the visitor to determine the action he or she is allowed to make or surface the relevant content to this specific visitor.¹ My interviews with international students later in this thesis implied that many websites are not identifying the profile of visitors very well, making gathering information about programs a hassle for many applicants.

In Hidayanto's paper, a model was proposed about investigating "how the quality of a university website acts as a signal of quality of university education as commercial service".² He concluded with emphasizing on the quality of university website because it eventually affects the enrollment of prospective students. In my interviews, I found similar expressions from international students, but as more and more resources become easily accessible with people's adaptation to the Internet, prospective students are also starting to seek out and value other kinds of information resources about universities. Technology is now able to bring people closer to each other regardless of geolocation, and international students place a great value in the comments of current students and alumni who used to be out of reach. Facilitating this organic conversation and building this community improves the multi-dimensional communication of information, and can greatly help students make more thoughtful decisions for themselves.

Can we use the idea of campus visits to solicit the expectation of applicants and the needs implied by these expectations?

³ CampusTours. (n.d.). Retrieved from <http://campustours.com>

⁴ Magolda, Peter M. "The campus tour: Ritual and community in higher education." *Anthropology & Education Quarterly* 31.1 (2000): 24-46.

How might we take advantage of the OIE as a touchpoint of the service to provide students with accredited help?

2. Campus visits

Many universities offer campus visits as a chance for prospective students to experience the life at this school first-hand. In recent years, researchers and organizations have been making efforts to improve the application experience for students using newer technology. The current largest provider of virtual and video tour and interactive map services to the academic markets is CampusTours, a builder of multimedia tours and interactive campus maps founded in 1997 by Christopher Carson in Pittsburgh³. Many universities now have these interactive maps available online incorporating maps, navigation interactions, and videos of the physical environment.

Peter Magolda studied the campus tours as a ritual, and how it communicates the "complex nature of campus communities" to prospective students.⁴ "The tour is one of many formal rituals that transmit the institution's political, social, environmental, and cultural expectations and norms for prospective members." These works both emphasized the efforts put into the design and the analysis of campus visits.

3. Office of International Education

The Office of International Education (OIE) is a regular part of the Department of Student Affairs at universities in the US. It facilitates study abroad for both international students attending US universities and current students hoping to study in other countries. By examining the OIE services at Carnegie Mellon University and the George Washington University as examples, I found their effective services for international students are limited to immigration/visa issues. Applicants, I discovered, tend to actively seek help from current students or program coordinators for academic and social consultations. However, I also found a large variety of services and resources tailored to current students wanting to study abroad. For example, advising students regarding programs and options, and advisory members available to talk to prospective study abroad students about their experiences abroad. Can we scale some of these services to a platform where all international students can easily access?

Existing study abroad services and resources

1. US News & World Report – America’s Best Colleges

US News & World Report is an American news magazine published from Washington, D.C. since the 1930s.⁵ It is known for an annual ranking of colleges and graduate schools. Their college and university rankings continue to be extremely popular, and most applicants (both local and international) take it as a reference for evaluating colleges and universities when applying. There have been several significant events in criticizing this college ranking system. Kevin Carey of Education Sector argued “U.S. News and World Report’s college rankings system is merely a list of criteria that mirrors the superficial characteristics of elite colleges and universities.” He also suggested that “there are more important characteristics parents and students should research to select colleges, such as how well students are learning and how likely students are to earn a degree.”⁶ From my interviews with international students and US students, all of them referenced this ranking when selecting programs to apply to and attend. Some international students even made their decision mainly based on this ranking. I was intrigued to find out the reasoning behind their decision-making, and how they looked for the “other important characteristics” of schools and programs as international students.

2. Online communities

Online blogs and forums are platforms with content mostly generated by the users. Therefore, the contents generated on study abroad forums become a rich place for me to study the needs of international students as well as the interactions between members within this community. I chose a few online forums and went through the contents, and asked my interviewees to talk about their experiences using these online forums. I found the variety of topics on the forums were extremely thorough, and there were very involved members in these communities, but my participants pointed out that they only browsed through the contents briefly because they could rarely see complete pictures of others’ experiences. Things they found really helpful were thorough and well-written instructions or personal experiences, and private conversations with other users who had some kind of commonality with them—alumni, applying to the same programs, studied in the same region etc. The three online communities I examined were: International Students Forum, Gter, and 1Point3Acres.com.

⁵ U.S. News & World Report. (n.d.). Retrieved from <http://www.usnews.com>

⁶ Catlin, Jon. (2009, Dec 6). The Value of U.S. News Rankings. Retrieved from <http://collegereviewbyj-cat.blogspot.com/2009/12/value-of-us-news-rankings.html>

3. Study abroad agencies

There are many study abroad agencies that provide consultation and other services around the higher education application process and visa application process for a fee to students who want to study abroad. China has one of the most developed markets for these agencies. Some of these agencies collaborate with universities in China and abroad to provide their services. Through talking with Chinese students who have used this kind of service, I was able to identify some of the problems within the system. For instance, some agencies gave the applicants very little control over their application process; some advertised their services by guaranteeing admission to at least one school, giving applicants a false sense of security. On the other hand, I also found interesting trends in this industry: For example, ChaseFuture is a recent consulting platform focused on study abroad admissions based in Shanghai, China.⁷ ChaseFuture’s mentorship model claims to emphasize one-on-one consultation, and aims to lead applicants to finding a good match rather than a program with good name. Their values align with my understanding of how we should guide the applicants throughout their application process.

⁷ ChaseFuture. (n.d.). Retrieved from <http://www.chasefuture.com/en/>

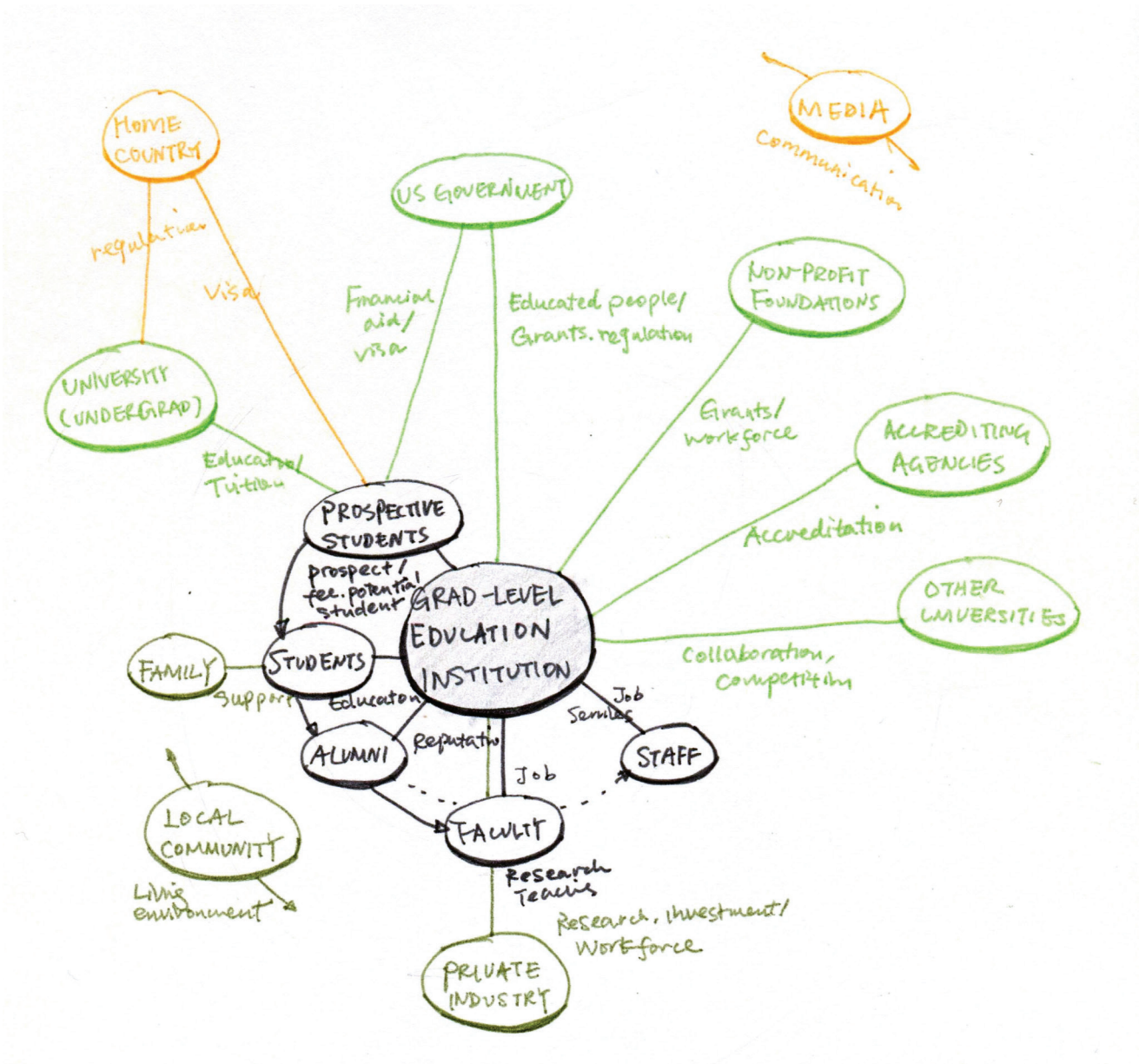
“I did a lot less work than I would have if I applied on my own, but I still had to constantly worry about it. I wish I had checked in more often and pushed them harder during the process, because I think I could have gotten into a better program if my materials showed who I am better.”

– Marketing student from China who applied through a study abroad agency

STAKEHOLDERS MAP

Having examined different kinds of work, I felt the need to map out the stakeholders and their relationships with each other in my topic area—in order to identify key stakeholders, and the potential needs of these key stakeholders.

I mapped out stakeholders on individual and organizational levels. The connections in the map show the value exchange between each of the stakeholders. Through making this map, I sorted out the relationships among the stakeholders, and produced a palette of possible areas to work on for myself. This later also became a guideline for my ideation, because it reminded me of what were the things to consider when I was designing for a certain stakeholder, and how it could affect the other stakeholders.



Stakeholders map of international graduate-level education.

INTERVIEWS

Talking to key stakeholders was the next step of my exploratory research. I designed interview questions for three different audiences:

- International applicants
- US applicants
- Professors and coordinators

International applicants

Set-up and methods:
The interviews were one-on-one sessions conducted face to face with participants in Pittsburgh, and over video calls with participants who were not residing in Pittsburgh during the time of the interviews. The participants were all international students now studying in the US or having graduated from a graduate program in the US.

First, the participants were asked to give a brief introduction about them focusing on their academic backgrounds.





Next, they were asked general questions about their motivation supporting their studying abroad, and plans for the future. They were asked to list some of the things in their life now that they never would have expected when they were applying.

Finally, they were asked to think about their application experience when applying for graduate programs in the US, and map activities and tasks they had completed at the time onto a timeline that I provided them with. Then, they were asked to answer the following questions:
What were some of the resources you utilized to obtain information? Were they useful?
What were some of the criteria for choosing which schools to apply/attend?
What was the most difficult part for you?
If you could change anything about your application experience, what would it be?

There were 12 participants for these interviews.

Gender:		Home country:		Current residence:		Current field of study:	
Male	▲▲▲▲▲	China	▲▲▲▲▲	Pennsylvania	▲▲▲▲▲	Design	▲▲▲▲
Female	▲▲▲▲▲	Taiwan	▲	New York/China	▲	Mechanical Engineering	▲▲
		Korea	▲	Iowa	▲	Rhetoric	▲
		Japan	▲	Washington, D.C.	▲	Marketing	▲
		India	▲	Colorado	▲	Education Management	▲
		Egypt	▲	California	▲	Global Communication	▲
		Mexico	▲			Biomedical Engineering	▲
						Electrical Engineering	▲

There were 2 participants for these interviews.

Gender:	Home country:	Current residence:	Current field of study:
Male 	United States 	Pennsylvania 	Design 
Female			Mechanical Engineering

“When I visited, I could tell if I liked the people and the atmosphere there. The people I met and talked with really made a difference with my final decisions.”

– Design student from US

Findings:
There were commonalities among their processes such as the total time spent on the process, most difficult part of the process, and most useful resources, etc. The whole process typically took about a year from initial information gathering to final decision-making on which school to attend. The most difficult parts of the process were “finding a program that is suitable for me”, “writing the personal statement”, and “waiting for a reply after submitting the application”. A number of applicants also mentioned preparing for GRE and language tests took up a lot of time, but they think based on their results of application, many schools were not valuing the scores as much as they used to. They said that they would be more efficient with the process if they were to do it again. Among most useful resources, talking with other applicants and current students stood out among other resources. The ranking of schools was also something people turn to when they did not know where to start or have too many programs to look at. There was a much wider range of motivations and criteria for choosing a program to attend. This varied according to each individual applicant.

American applicants

Set-up and methods:
To compare the application experiences of international students and American students, I also did two interviews with participants born and raised in the US. These participants also attended undergraduate studies in American universities. The components of the interviews were the same as those with international students.

Findings:
The length of the process was approximately same as that of international students. One thing that stood out was how much they relied on people they knew for information regarding which program to choose to apply to. They were able to take advantage of consulting with their colleagues who were or knew alumni from some graduate programs, as well as campus visits, during which they attended classes and talk with current students to get information. These resources seemed to be more accessible to them than to international applicants.

“I wish the the applicants would do their homework more thoroughly. I get the feeling that they are looking for more reassurance than information, because often times the information is already there on the website.”

– Program coordinator at CMU

“Every year I get these emails from foreign applicants talking about themselves and their research and asking me to ‘admit them as a student’ very directly. I don’t think they understand that I, as a faculty member cannot just admit a student.”

– Faculty member at CMU

There were 5 participants for these interviews.

Professors and coordinators

Set-up and methods:
These interviews were one-on-one, face-to-face interviews conducted on the campus of Carnegie Mellon University (CMU). The interview consisted of a brief introduction to my research topic and the following questions:

What was your responsibility as the...?
What questions from prospective students did you get when admission first began?
Was there any difference between the questions coming from US applicants and those coming from international applicants?
On visitor day, what was your impression on what the students got from it? Do international students come for visitor day?
As the students started getting their offer letters, what questions did you get then?

One of the interviews included a full explanation about the admissions process at CMU, and additional questions regarding the process. This was to help me view the process from the point of the school or reviewing committee.

Findings:
There was an incoherence between the applicants’ concerns and the impressions they made on the contacts (professors and coordinators) at the schools they applied to. For instance, while many student participants expressed the efforts they put into finding information about each program they were interested in, the participants from the programs thought there were many occasions that it seemed like the applicant had not looked at any of the information available online. This triggered my interest in finding out the reasons behind this incoherence.

Gender:	Department at CMU:
Male 	School of Design 
Female 	Department of English 
	OIE 

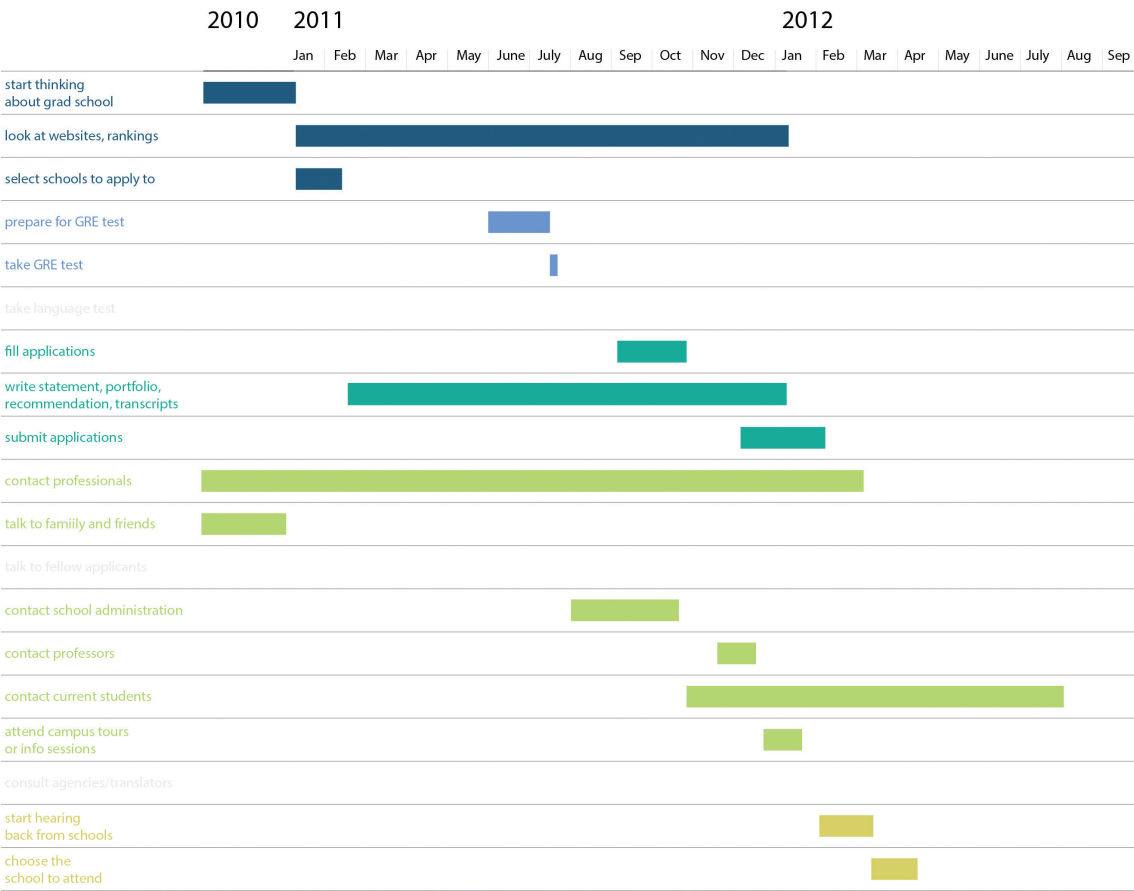
Other findings based on all the interviews

1. Differences between international applicants and US applicants:

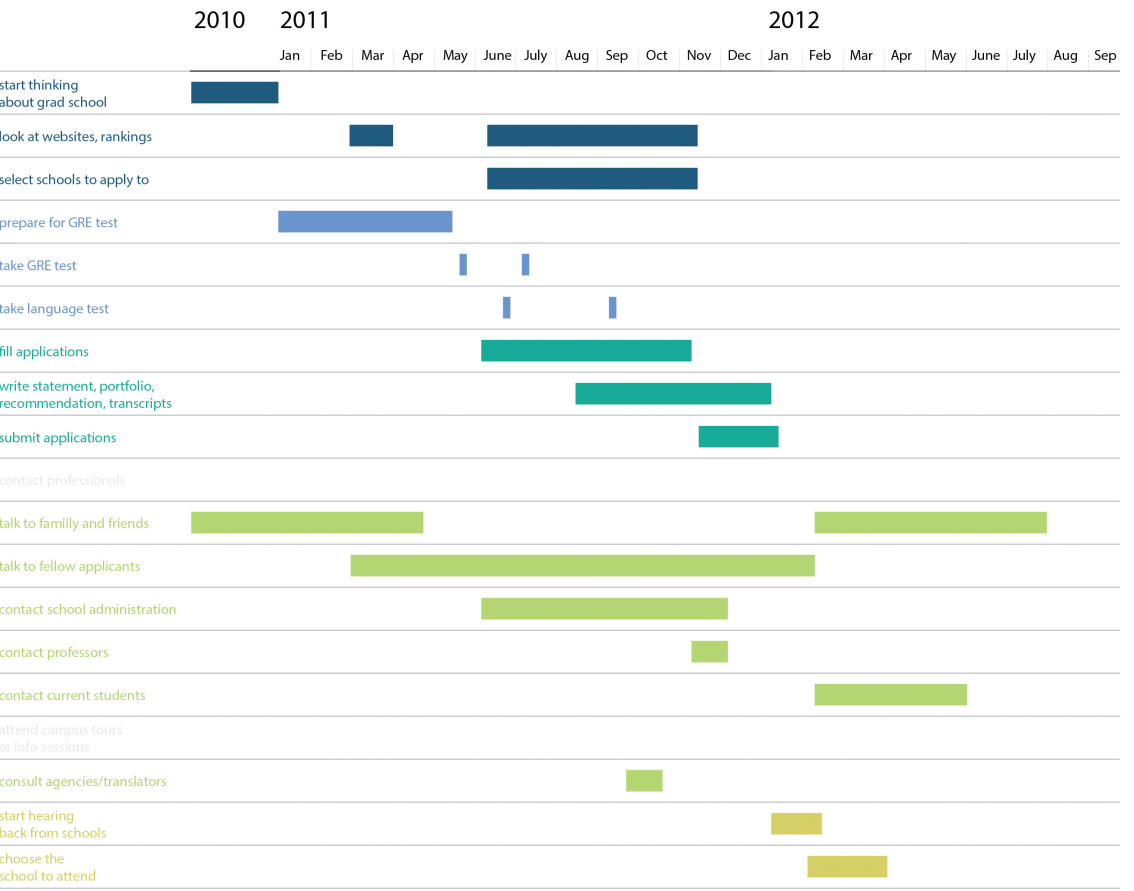
During these interview sessions, my participants each created a journey map of their application experience. I synthesized the commonalities and produced a comparison of two journey maps:

- The journey map of American applicants
- The journey map of international applicants from a few of the Asian countries.

Journey map of American applicants



Journey map of international applicants from China, Korea, Japan, and India



While US applicants tend to decide early on which schools they want to apply to then start preparing their applications, most of the participants from the Asian countries submit applications to schools throughout their process, and a the list of schools they apply to finalize towards the end of their process.

The participants from Asian countries on average spend substantially more time on taking the GRE test and language test, and some of them take the tests multiple times in order to score the minimum requirement. There are many professional language centers in China, Korea, and Japan that provides 1–3 months’ training courses to prepare students for these tests. A majority of the local students pay for these courses before taking the tests. This service as part of many language-training businesses is very mature, and there is not something as systematic and mature for other parts of the application process. This to a certain extent singles out test-taking from the rest of the application process. Applicants from these countries subconsciously gives test-taking more importance.

2. Different kinds of applicants

How the participants talked about their application experiences and other things regarding studying abroad started to help me them into different kinds of applicants. This was not reflected in their different fields of study, but more in the different cultural environments that they came from and their past academic and professional experiences. For example, students with no previous work experience tend to see the result of their studying abroad as finding a decent job in the US, while students who have been working for a few years consider studying abroad as a life experience they cherish or an opportunity of self development. Another example is that the three participants from Taiwan, Egypt, and Mexico were focused on a few programs they were interested about, while the other participants all applied to more than 10 different programs. The difference between these two groups of participants was the former were more informed by others already studying in their pursued field of study, and this was influenced by both the cultures where they came from and their personal experiences.

“As long as people are motivated, they can take in a lot of information. However, sometimes they are not looking at the “right” information. Applying is a journey of people finding and positioning themselves. Some people get frustrated, and they naturally compare their results with others’. They easily conclude that they are not suited to study something or not good at something way too quickly.”

– Journalism student from China

“I worried too much about getting admitted, and did not spend enough time finding what is most suitable for me. We often shape ourselves to become what the school seems to be looking for, and lose track of who we actually are.”

– Engineering student from Japan

“I didn’t know what I wanted to do, so I applied to study abroad like everyone else did. I thought I would get better jobs when I return with a diploma from the United States.”

– Engineering student from China

SURVEY

Having had interviews with 12 international applicants in detail, I understood a lot about their process and the thoughts and concerns involved. I sent out an online survey to get a larger number of respondents, and see if the problems and concerns identified can be scaled.

There were 27 respondants to this survey.

Set-up and methods:
The survey was set up online and shared on social networks, and consisted of 12 questions. The questions were similar to those in the interviews.

Summary of findings:
The responses gathered mostly corresponded to the interviews. Some of the previous findings were amplified, such as the reliance on rankings of schools and programs and the high appraisals of campus visits and current students as effective information resources. This particular piece of finding also led me to my next exploratory research activity, because it was interesting to see the high expectations of campus visits while most international students had never been to one due to the physical distance and high financial costs of traveling.

Home country:		Current residence:		Current field of study:	
China	▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲▲	Pennsylvania	▲▲▲▲▲▲▲▲▲▲	Mechanical Engineering	▲▲▲▲▲▲▲
Korea	▲▲▲▲▲	California	▲▲▲▲▲▲	Computer Science	▲▲▲▲
India	▲▲▲▲	New York	▲▲▲▲	Design	▲▲▲▲
France	▲	Illinois	▲▲▲	Civil Engineering	▲▲
Kenya	▲	Washington, D.C.	▲▲	Electrical Engineering	▲
Mexico	▲	Texas	▲	Global Communication	▲
Turkey	▲	Florida	▲	Public Management	▲
Singapore	▲	Iowa	▲	Education	▲
Belgium	▲	Massachusetts	▲	Accounting	▲
		Washington			

VISITOR DAY

I sat in on a visitor day at School of Design, CMU to get an idea of what were some of the visit activities. I observed how prospective students interacted with professors and current students in different contexts, such as casual lunch, info session, class sit-in, etc.

*Visitor day at School of Design, CMU
Nov 4, 2013*

*9:00am–10:00am
Breakfast & info session
Name tags and breakfast
Introduction by head of graduate program
Q&A session with two professors
Self introductions of prospective students*

*10:00am–11:30am
Seminar class*

*11:30am–1:30pm
Lunch with the current graduate students*

*1:30pm–4:30pm
Studio class*

Set-up and methods:
There were 12 prospective students that came for this visitor day, and among them 2 were international students but currently studying in the US. I observed the activities throughout the day, and casually chatted with some of the prospective students.

Summary of findings:
Having seen how prospective students interact with the current students, professors, and even the main building and studio space, they re-emphasized the potential role a visitor day can play in an applicant’s application experience. Most visitors had prepared questions to ask the current students. Seeing the studio space and most recent student work brought them one step closer to visualizing their future if they were to attend this program. Visitors who had been to other visitor days also mentioned how the visitor day was organized left them different impressions of the different schools as well. Generally it was difficult for international students to attend visitor days, but there might be an opportunity to incorporate the highlights of visitor days in other ways to help international students get to know the programs better.

I also got to know the two international prospective students that came to the visitor day, and they became potential participants for my next steps of research.



Prospective attending visitor day at School of Design, CMU.

SUMMARY

After my exploratory research, I ended up with the following questions as my possible directions for my generative research:

How might we facilitate the sharing of accurate information during the application process?

How might we encourage and facilitate the communication between international prospective students and current students or alumni?

Is there an affordable way for an international prospective student to experience a “visit” to a graduate school? What would the key activities be in this experience?

How might we help international students better understand what a program, a school, and a cultural environment can offer?



3. GENERATIVE RESEARCH



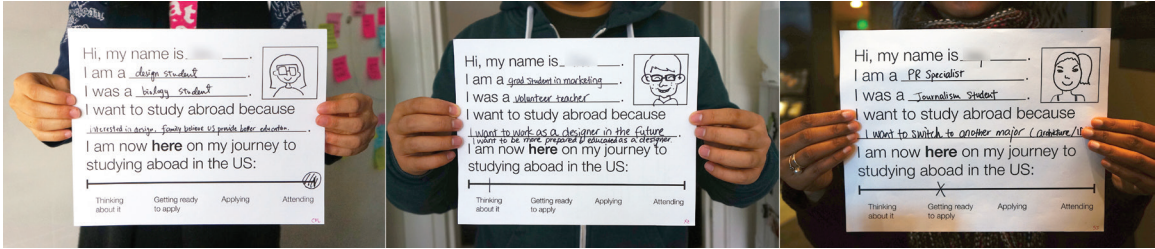
3. GENERATIVE RESEARCH

OVERVIEW

In the generative research phase, I used methods in participatory design using a series of activities, materials, and prompts to have the participants of my study create artifacts that express their innate needs during their application process. There are four pieces to my design of the participatory design session:

- Recap of my research
- Word association
- My ideal campus visit
- I wish there was a...

There were 9 respondents to these activities.



Three participatory design participants and their first exercise.

Gender:		Home country:		Current field of study:	
Male	▲▲▲▲	China	▲▲▲▲▲	Design	▲▲▲
Female	▲▲▲▲▲	Taiwan	▲	Marketing	▲▲
		Korea	▲	Communications	▲
		Japan	▲	Journalism	▲
		Singapore	▲	Biomedical Engineering	▲
				Mechanical Engineering	▲

Previous study abroad experience:		Current stage of application:	
No experience	▲▲▲▲▲	Attending	▲▲▲▲▲
Exchange student	▲▲	Applying	▲▲
Full time student	▲▲	Thinking about it	▲▲

RECAP

Goal: This warm-up activity’s goal was to help the participants revisit my research topic and the content of the interviews they did with me during exploratory research.

How did it work: The participants were asked to fill in a sheet with information on their backgrounds and key drivers of studying abroad in the US.

Findings: This gave me a chance to learn more about the participants’ understanding of studying abroad as they start to talk about their own experiences and general thoughts on the subject.

Caricatures of participants
(All of the sketches in the Generative Research section were drawn by the participants.)

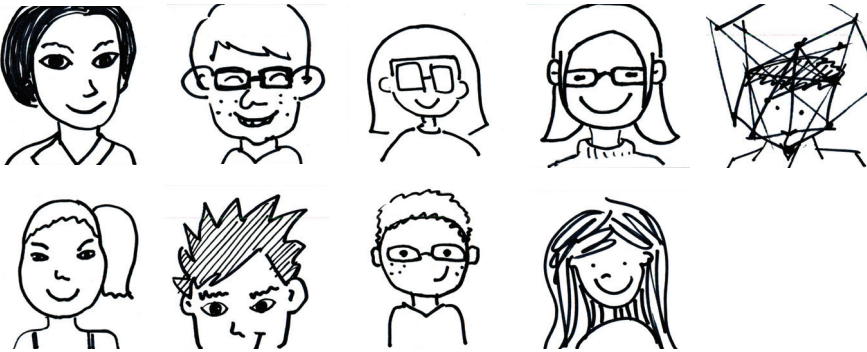
Hi, my name is_____.

I am a _____.

I was a _____.

I want to study abroad because _____.

I am now **here** on my journey to studying abroad in the US:



WORD ASSOCIATION

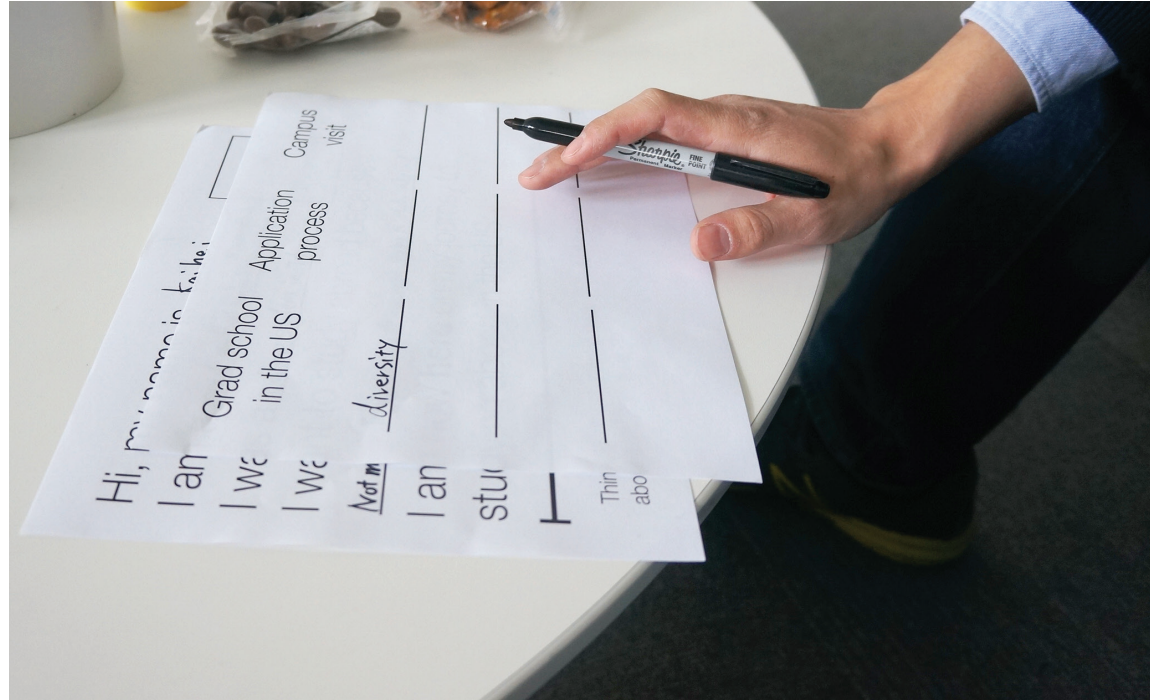
Goal: The goal of this activity was to gain an understanding of how the participants see the application process and generally studying in the US.

How did it work: In this quick exercise, participants were asked to write down the first three words they associated with each of the phrases I provided. The three phrases were: “graduate school in the US”, “application process”, and “campus visit”.

Findings: There were both positive and negative expressions towards all of the three phrases. As the participants talked through why they wrote down those particular words or phrases, they uncovered their thoughts towards these phrases.

"I am always going back and forth with practical problems such as the course requirements, and my interest and plans for the future. This ends up to be very time-consuming and hard to organize."

– Journalism student from China



One participant working on the word association.

“Graduate school in the US”

The participants expressed their wishes and expectations about the campus, the study environment, and their futures. At the same time, there is a strong sense of unfamiliarity among the answers. Many participants wrote down phrases such as “hard to choose” and “mysterious”. In their explanations, they said that it was difficult for them to imagine what student life was like in the US based on the information available on school websites, and it was hard to compare the programs and schools on scales other than the rankings.

EXPENSIVE x5
PRESTIGIOUS x3
HEAVY COURSE LOAD x2
COMPETITIVE x2
STRONG RESEARCH
STATE OF THE ART
BEAUTIFUL CAMPUS
CAREER CHANGE
DIVERSITY
STRUGGLING
TOO MANY
HARD TO CHOOSE
UNFAMILIAR
MYSTERIOUS
GRE
SHORT-TERM STUDY

“Application process”

Words associated to this phrase were almost all negative or neutral. Some of the top expressions were: “long-term process” and “complicated”. People found the process challenging and unclear because of the large number of steps within the process and the complexity of each step. They said that without any guidance, it was hard to see how many steps there were and plan for each step. They also identified information coming from current students and fellow applicants were the most helpful out of all the available information sources. One reason was that they trust the information coming from these sources more than from online student forums or study abroad agencies. Another reason was that they found the interaction of talking with others helped them think and sort out their priorities.

LONG-TERM PROCESS x3
COMPLICATED x2
TOO MUCH TO HANDLE x2
CHALLENGING x2
AGENCY x2
TIME CONSUMING
FULL OF DOUBT
MANY STEPS
BORING
TOO MANY FORMS TO FILL
DEADLINES
UNCLEAR
MYSTERIOUS
LONG WAITING

"Campus visit"

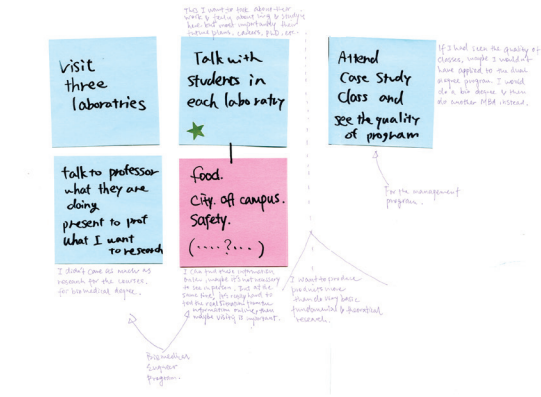
The words associated with “campus visit” fell into positive and negative evenly. While most participants considered it a privilege of local applicants and were interested in going on a campus visit, there were also some questions about the authenticity and effectiveness of what they could get out of a visit. After viewing the campus visit information pages of different universities, the participants considered some activities to only show what the schools or programs want them to see, and cannot form a complete picture of the actual experience of the life on campus.

IMPOSSIBLE x3
EXPENSIVE x2
THOROUGH UNDERSTANDING x2
AWKWARD x2
UNREALISTIC x2
EXCITING
GOOD FOR ME
HELPFUL
TALKING WITH PROFESSOR
HAPPY
NICE
PRIVILEGED
PREPARATION
PRETENTIOUS
UNORGANIZED
TROUBLESOME
NOT SURE I WILL GET-
WHAT I WANT TO KNOW
WHAT IS IT?

MY IDEAL CAMPUS VISIT

Goal: This activity aimed to understand what international applicants want to know about a program in the US, why they want to know a certain piece of information, and how they want to get that piece of information if they had access to physically being on campus.

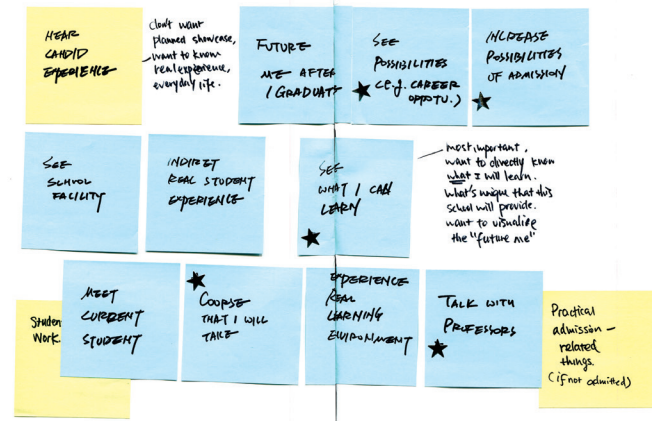
How did it work: Having defined their understanding of a “campus visit” or “visitor day” at a college in the previous activity, participants then were asked to plan their ideal campus visit. They were provided with a number of activities to choose from to put together their ideal campus visit, but they could also create their own activities. Next, they were asked to pick 2-3 activities from their plan that they consider to be the most important and explain why.



“My ideal visit” by participant from Japan.

Findings: The top three activities that were listed and considered important were– “casual talk with current students”, “see student work”, “studio/lab/building tour with a current student guide”.

Participants stated that from these activities they could really get a sense of what it was like to study at a certain university in a certain program. They felt that the interaction with students is something they do not have a substitute for right now. They could rather easily reach out to faculty members and staff online or through email because they were more accessible, and there is a higher possibility of reply, while directly contacting a current student is much harder. Another interesting finding was that participants found information obtained from a current student, especially an international student from the same country as the participant, is more trustworthy and easier to understand. In other words, they felt they could connect with these people a lot more than the staff at administration office or simply information online. Activities such as info session and campus tour hosted or guided by someone other than the current students were considered marketing approaches planned by the school to a certain extent.



“My ideal visit” by participant from Korea.

“I think visiting can help me see what exactly will I learn by attending this school/program. I can then really see what is unique about it, and visualize the future me inside this environment.”

– Design student from Korea

I WISH THERE WAS A...

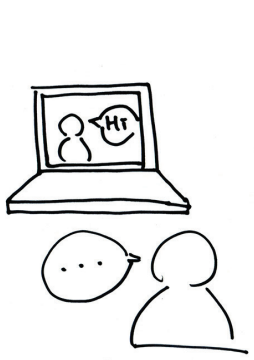
Goal: This exercise was designed to see which directions I could go based on which concepts people felt would be most useful to them in their application process.

How did it work: Participants were asked to fill out three exercise sheets with the prompt “I wish there was a...that could...” describing what tool, feature, or activities they wish they had or would have in their application process that would help them in what specific way. Then they were asked to explain with a diagram, drawing, or list of functions to specify more on how they would design this tool.

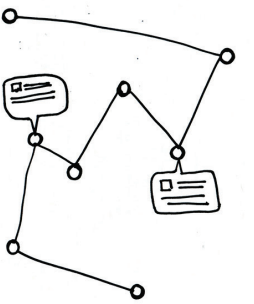
Findings: I categorized the 27 ideas into 5 categories.

“I wish there was a platform where we could easily and clearly see what the alumni worked on in school, and where they ended up after graduating–basically who they were both academically and professionally. This way I could tell if I fit into this group of people.”

– Marketing student from China



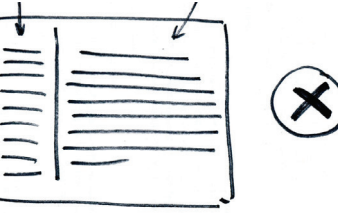
1. Communication or relationship building with current students (4 ideas): This category aligned with the need of connecting with current students from the previous exercise. In this category, participants sketched concepts such as online conversations and Q&A sessions.



2. Virtual visit/experience (6 ideas): This category consisted of concepts such as virtual tours, live stream of classes, and “vlogs” (video blogs) made by students. Participants expressed the need of more interactive and customizable ways of learning about the programs.



3. Guidance and projection of future self (6 ideas): As the participants were sketching, they again expressed the uncertainty and doubts they had or was feeling in the beginning of applying. This category consisted more need statements and imaginary wishes and fewer mature concept ideas.



4. Clearer communication on university websites (5 ideas): This category consisted of ideas on how university websites can be improved by incorporating videos, clearer information hierarchy, etc.



5. Access more course descriptions and student work (6 ideas): The six ideas in this category all focused on the need of seeing detailed course description or student work so that the applicants could get a clearer idea of what it would be like to study in a program.

SUMMARY

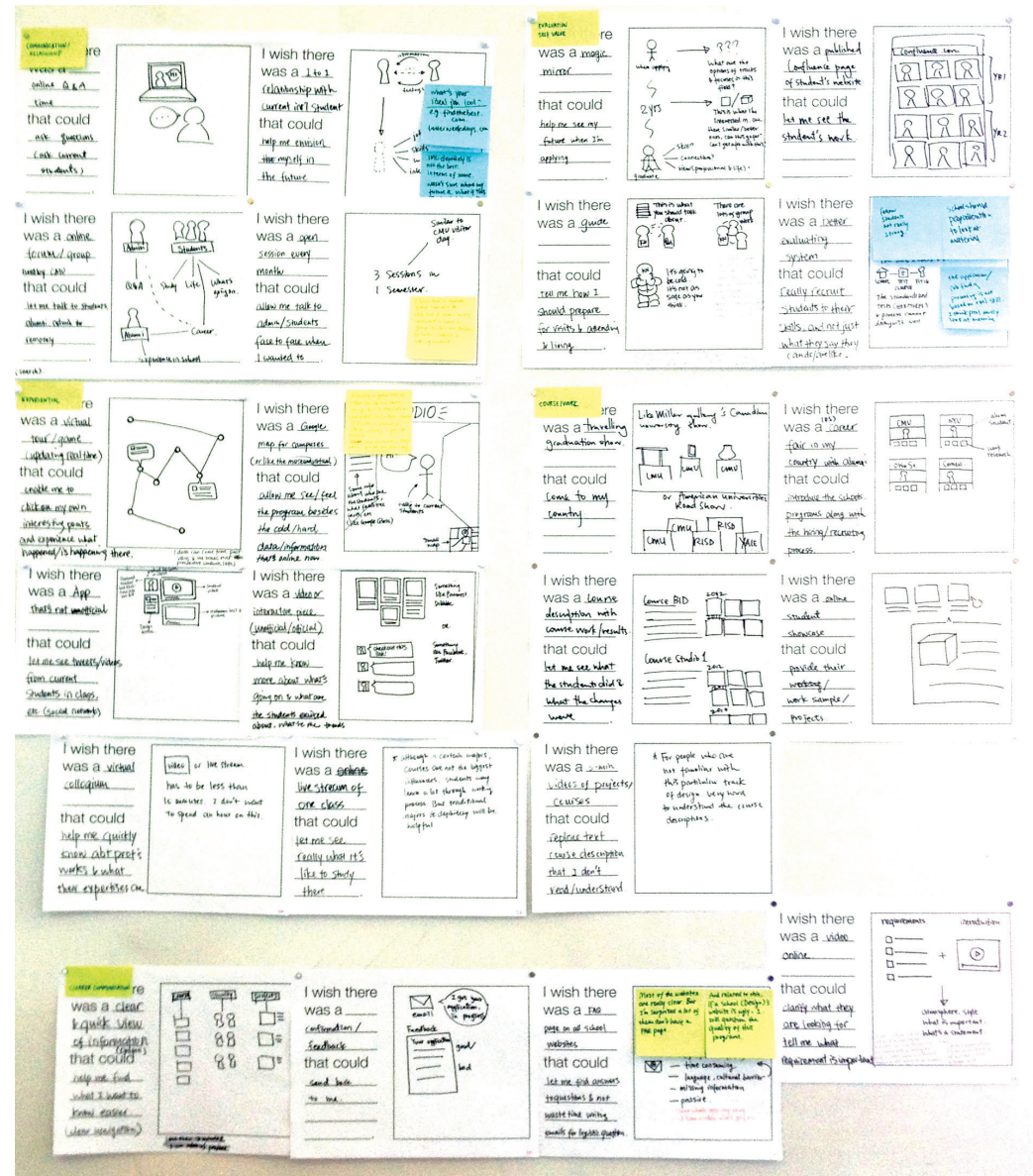
Synthesizing what I found from generative research and referencing the application experience map from my exploratory research, the concerns expressed by international students sit closely within the first three stages of the application process. I tried to dig a little deeper from the participants' statements of need or concerns. What might have caused these concerns? I went over my notes from both exploratory research interviews with applicants and the participatory design sessions in generative research, I found students from China, India, Korea, and Japan were similar in three key points.

Design implication 1

The cultural commonalities between China, Korea, Japan and India were very interesting, and became a guideline for my next steps of design. I narrowed down my target audience to applicants from these countries instead of all international applicants.

Design implication 2

Many applicants were in fact very motivated about applying, but their motivations weaken as they get lost in the process. How might we design something that both takes advantage of that initial motivation and keeps it growing through the process? Connecting with and learning from other applicants and current students might be the key to answering this question.



Synthesis of the “I wish there was a…” ideas generated by participants.

Following trends

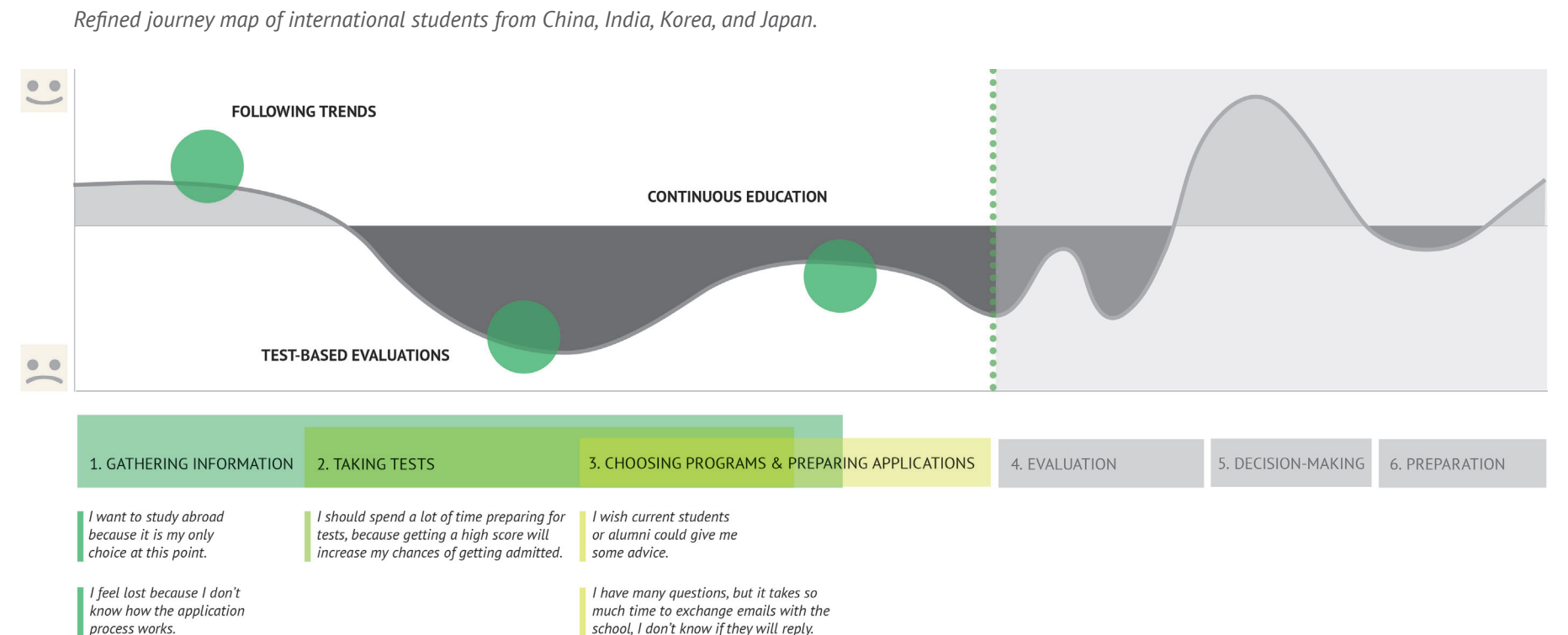
Coming from countries with very high percentages of students studying abroad after they graduate from undergraduate level studies, many students decided to study abroad because they were following the trend. Without understanding what it really meant for them, they dived blindly into the process feeling lost and confused.

Test-based evaluation

Under the influence of the education system and cultures, these students were raised in an environment where they were evaluated mostly based on standardized test scores. They had never put together an application package before. Many applicants from these countries spent more time on tests and pay less attention to the other items in the application package.

Continuous education

Students from these countries tend to continue to graduate-level studies closely following their undergraduate studies. The lack of work experience impeded them from really understanding what a pursuit into a specific field at grad level really means. They did not have experienced and professional contacts that could guide them towards choosing a program that really would fit their plans for the future.



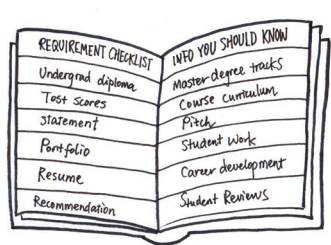
4. CONCEPT IDEATION

PRELIMINARY CONCEPTS

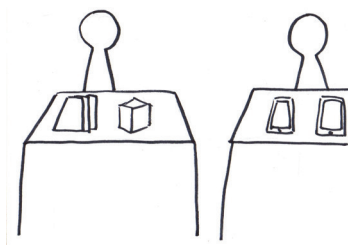
The generative research sessions gave me a solid place to start my ideation. At this point, I had 9 different concepts, and I needed to clarify the direction I was taking instead of trying to address all of the needs that came up.

From the five potential ideation areas my participatory research participants generated, I started to understand more where those ideas came from, and I thought it was important to design for the needs driving those ideas, and not simply pick an idea and make something out of it. Again, the five areas were:

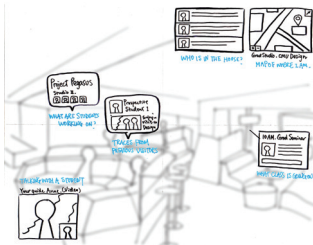
- 1. Communication or relationship building with current students
- 2. Virtual visit/experience
- 3. Guidance and projection of future self
- 4. Clearer communication on university websites
- 5. Access course descriptions and student work



Concept 1: Beginner's guide



Concept 2: University fair



Concept 3: Virtual tour

Among these, areas 1, 2, 4, and 5 were about the medium of communication, while area 3 was the only one that really was about needs in the application process on a higher level. Moreover, what I found from previous research all pointed towards the doubts and uncertainty about an applicant, the school, or study abroad in the US in general during the initial stages of the application process. It was even more interesting for me to slowly unveil the cultural differences behind these doubts and uncertainty as I was talking with international students as well as US local students and faculty members. So I decided to focus on—

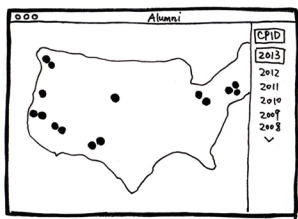
providing guidance to international students and helping them better understand studying and applying abroad, and learn about themselves through the journey of applying.

This did not mean that the other ideas were meaningless and should go to waste. Areas 1, 2, 4, and 5 gave me material to work with when designing the guide. The findings of relationships between student and applicant became critical guidelines for my design. While I could fix one communication problem on a university's website or even one university website's design, it was hard to curate the guidelines for university website designs. Having similar websites would probably generate even more communication problems. Designing a platform that could facilitate the applicants' learning about the application process and exchanging self-generated information would provide support at a much larger scale and allow more freedom of the media they choose to use or find more effective.

TESTING OF CONCEPTS

With that said, I refined and narrowed down my 9 sketches of concepts to 4 scenarios, and created 3-frame storyboards for each scenario to help my users better put themselves into the scenario and give feedback on the ideas.

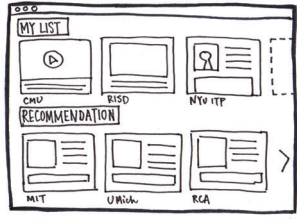
St-up and methods:
First, I asked the students participating in this testing to explain their thoughts towards each scenario by answering the following questions:
Would you use the tool in the scenario?
Why do you think this is useful? Or why do you think you wouldn't use this?
How would you improve it?
Then I asked them to think about at which stage would they use these, map the scenarios onto their journey map, and explain why a tool fits into a certain stage.



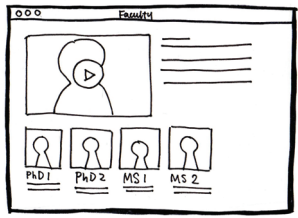
Concept 4: Alumni map



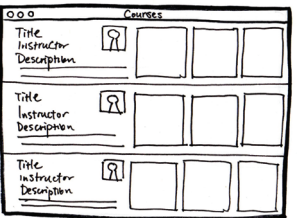
Concept 5: Student reviews



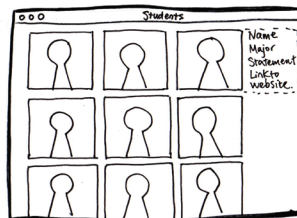
Concept 6: Follow updates



Concept 7: Video colloquium



Concept 8: Course exhibit



Concept 9: Student info guideline

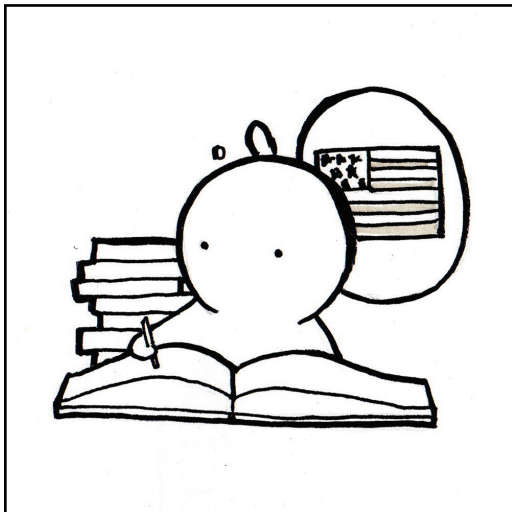
There were 5 participants for this testing.

Gender:		Home country:		Current field of study:	
Male	▲▲▲	China	▲▲▲	Design	▲▲
Female	▲▲	Korea	▲	Biomedical Engineering	▲
		Japan	▲	Journalism	▲
				Marketing	▲

Scenario 1: Receiving stories in a weekly newsletter

The tool in this scenario was a newsletter that contains stories about the application experience of previous candidates as well as the work and life experience of current students. This scenario got good feedback on the content, and participants were interested to know more about how the stories would be told. They mapped this scenario to the first stage of application and some even before that: at the stage of only starting to think about studying abroad. One participant pointed out to keep this function but explore other forms of conveying the information.

Useful

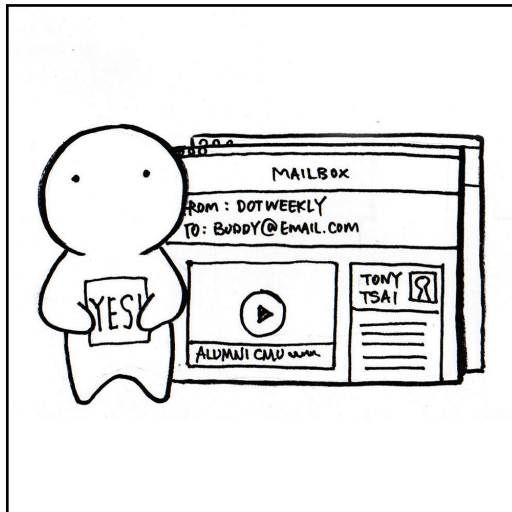


1. Buddy is a Junior at Awesome University. Recently, he has been thinking about studying abroad in the United States like some of his friends.

His friend recommends a weekly newsletter to him to sign up for since he has just started thinking about it. The newsletter sends him featured videos and articles telling stories about the experiences of international students from his country.



2. When Buddy signs up for the newsletter, he is asked to answer a few questions about his academic background and interests, so that he can receive information most relevant to him.

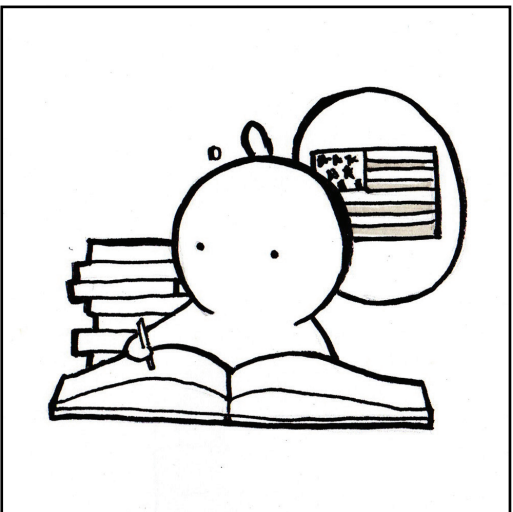


3. After reading about the application experience and the life of other international students from his country, Buddy found that many of their goals and current status align with his goals and expectations of his future. He decides to prepare for the application process of studying abroad.

Scenario 2: Online planner

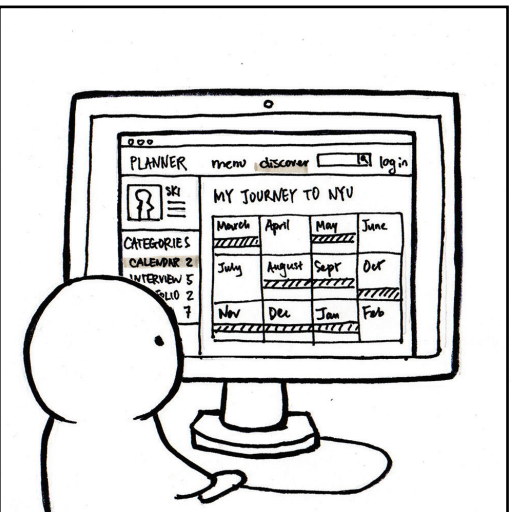
The tool in this scenario was an online planner that helped applicants plan their application journey and organize their information gathered and tasks to handle. It also encouraged applicants to exchange information and learn from each other. This tool was mapped onto all of the stages of the application experience. There were some constructive discussions on (1) what are some of the gadgets? (2) Are there people who prefer doing their planning on paper instead of on a computer? (3) There exists competition between applicants to a certain extent, and what are the things that applicants are willing or unwilling to share with each other?

Very useful

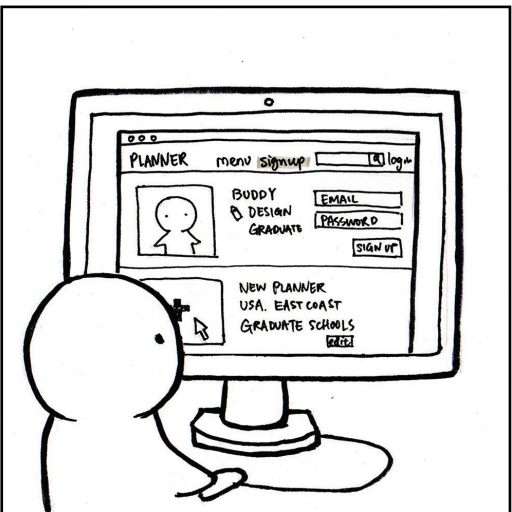


1. Buddy is a Junior at Awesome University. Recently, he has been thinking about studying abroad in the United States like some of his friends.

His friend Ski recommends an online planner to him, where he can put together his plans for his application process. Ski gives the link to his own planner to Buddy for him to look around.



2. In Ski's planner, Buddy discovers categories such as calendars, interview experiences, and guides to putting together a portfolio. Some of these he finds really helpful. After looking around in Ski's planner, Buddy browses through some other planners made by students in the same major as him from last year.

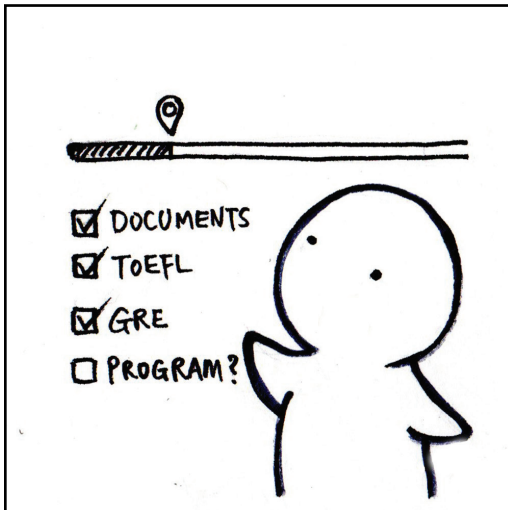


3. Buddy decides to start putting together his own planner, so he signs up for the service for free. By adding tags, content relevant to his application direction will surface in his "discover" panel. After reading these content, he has a much clearer sense of the application process. He starts his planner with a calendar. Later, he makes public his planner so others can also benefit from his content.

Scenario 3: Following programs online

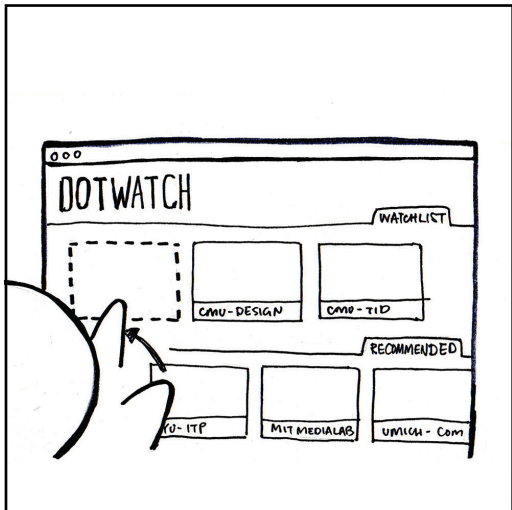
The tool in this scenario is a website that grabs information from official university websites, and keeps all the information in one place. An applicant can choose to follow specific programs' updates, and overtime make better decisions on which programs to apply to. This tool was considered somewhat useful when gathering information and putting together applications. The participants also pointed out many problems about it, for instance, is it feasible to grab information from official websites, and how detailed, up-to-date, and useful would the "official" information be to applicants?

Somewhat useful



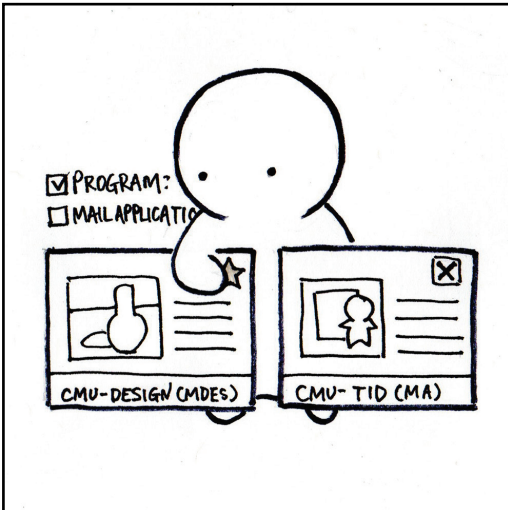
1. Buddy now is half-way through the preparation part of applying to grad schools. He has gathered his academic documents and took the language and entrance tests. However, he still has little idea about which programs he wants to apply to. After consulting the education rankings of universities, he found little information other than hard solid facts.

Buddy would like to know more about the goings-on in his field of interest.



2. He comes across a website called Dot Watch, where information are grabbed from official websites of universities, and displayed as updating of snippets. The information include featured professors, videos of student work, etc.

After a quick sign-up, he searches some of the high ranking programs in design and added to his watchlist. He drags a few interesting-looking programs from recommendation into his list as well.



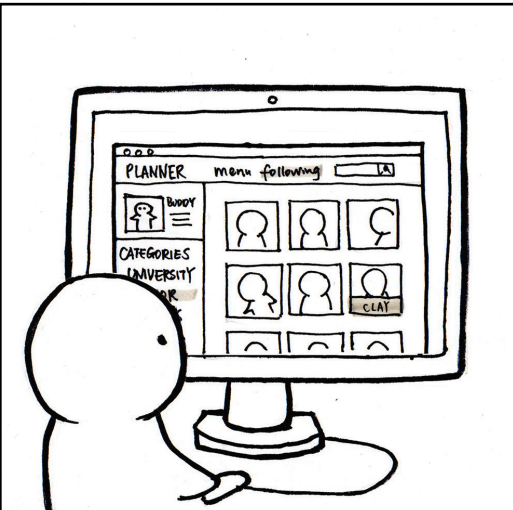
3. After following on the goings-on in the programs in his watchlist for a month or so, he has seen a range of events, research topics, and student course projects.

Now he has a much clearer idea of which programs he really has interest in. So he starred the ones he decided to apply to to keep following the news. Having been in the know, it is much easier now to write his personal statement for these programs.

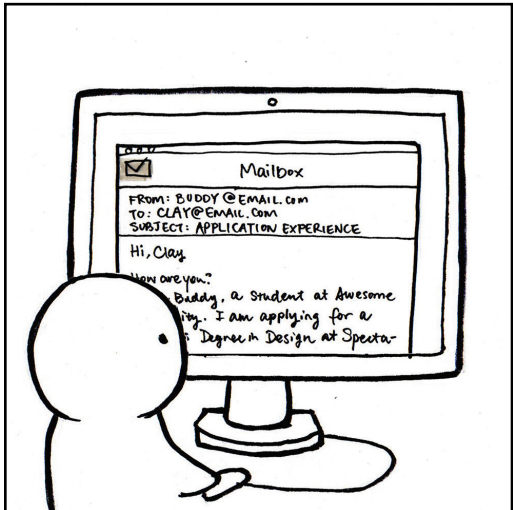
Scenario 4: Connecting with a current student

This scenario proposes a platform where current students' contact information would be organized in one place and available to applicants, so that the applicants could reach out to current students and ask for help easily. This scenario was considered very useful in the stages of "preparing applications", "decision-making", and "preparing for attending". The participants suggested this could be the second half of the second scenario. There were some suggestions on how to surface the most relevant contacts, and introducing the role of a student ambassador who would be happy to receive emails instead of having every student's contact available.

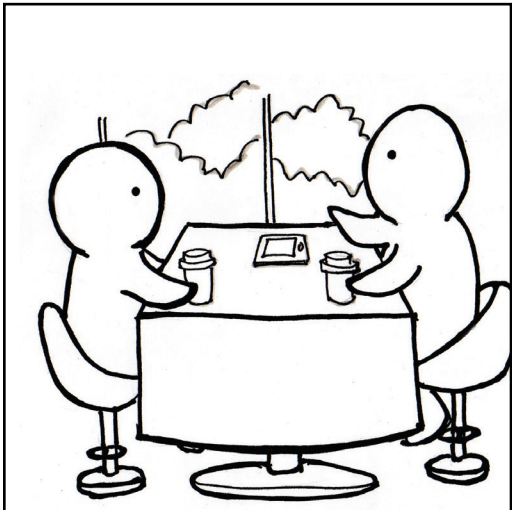
Useful



1. Buddy is putting together applications for the three graduate programs he decided to apply to. He comes across some questions during his process of applying to Program A. After emailing back and forth with school administration office, he found he still isn't quite sure if he has what the school is looking for.



2. He has been reading the application experience from an international alumnus of Program A. He finds Clay's contact information, and he decides to email him and chat with him. Clay replies to his email, and by coincidence he is travelling in Buddy's home city at the time. Clay and Buddy agrees to have coffee together.



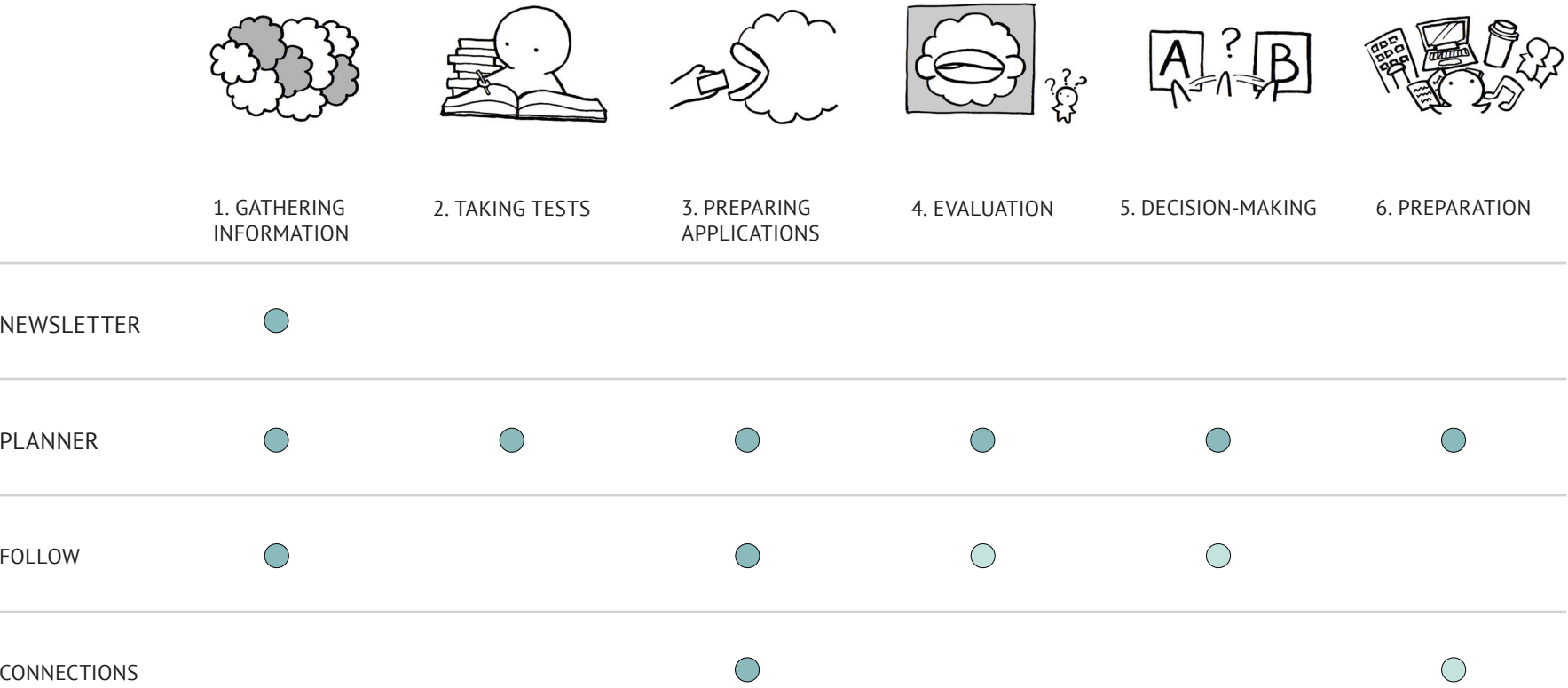
3. Clay is really nice and shows Buddy a lot of work he did in school besides chatting about the application process. After seeing his work Buddy has a much clearer idea of what he wants to emphasize in his application.

SUMMARY

At this point I felt like I had all the pieces of the puzzle at hand, but they were still not forming a picture. I went back to my key findings and my goal of this design. I questioned if I was actually addressing the cultural differences in education between countries like China, Korea, Japan, and India, and the United States. I also questioned if these individual tools on their own can really help students with starting their journey of studying abroad.

Next, I will discuss how I answered these questions with my design, and where my final concept ended up.

Synthesis of which stages each scenario could be applied to





5. PROTOTYPING & EVALUATION

DESIGNING A SERVICE

In order to string the pieces together into a cohesive design, I decided to design a service by providing a framework to describe the service, and prototyping 3 main touchpoints within it.

Context for design

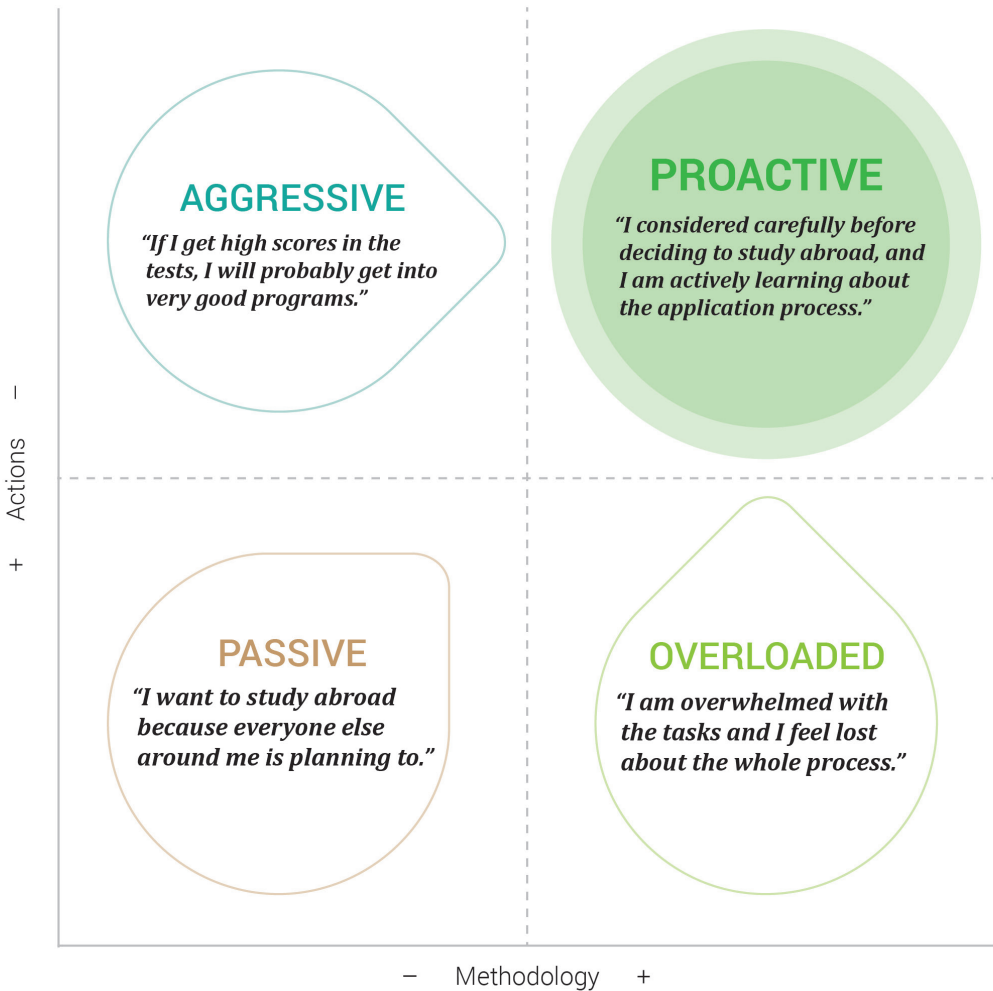
Considering the large scale of my design, I revisited my target audience one more time. Although I found that applicants from China, Korea, Japan, and India were similar in some key aspects, they were still different in many ways: overall education quality, number of international students, other cultural influencers, etc. I did not think the design would be something that is “one size fits all”, but instead it should be able to capture some of the key commonalities among this particular group of international applicants.

I focused on applicants brought up in China for my detailed designs, and discuss the possibilities of my service design extending to applicants in other countries after I explain my designs.

I chose China because China has been the country with the largest number of international students enrolled in US graduate programs for recent years, and I personally know the Chinese culture very well compared to the other countries I was looking at. So to clarify, my target audience for my final design is applicants brought up in China who were seeking graduate level studies in the United States. I propose a service called Green Trails to address the needs of the target audience. Next I will explain how this service would work.

Service provider

The service provider of Green Trails China is a non-profit organization with the support of the Chinese government. Supported by the Chinese Ministry of Education, the distribution of guiding material at all public universities in China becomes easier. This also increases the credibility of the information provided throughout the designs. The non-profit organization would be a group of people and facilities dedicated to managing the service and continuously updating the information and tools provided by the service.

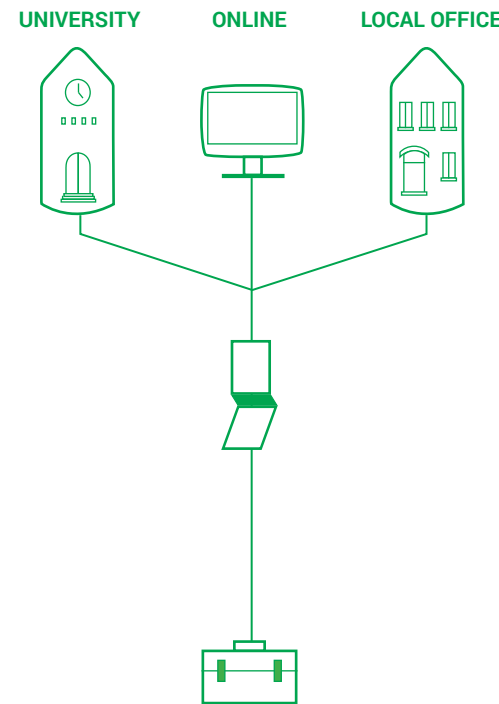


Target audience breakdown.

Service user

I broke down the typical users of the service into 3 categories. The goal of this service is to have these three types of applicants become more proactive in both their actions and methodology of moving forward.

1. Passive
These students decide to study abroad only to follow the trend instead of considering what they want. These students are low in both the effort they put into applying and the methodology they use when applying.
2. Aggressive
Used to an education system where they are evaluated mostly on standardized test scores, these students start their journey from taking tests. These students are often aggressive in achieving high scores, but they know little about the other things that the reviewing committee values.
3. Overloaded
These students lack knowledge about a specific field of study so they feel lost about the whole process and handling the tasks. They do not know how to start, but they are active to learn and are willing to think everything through before making a decision of which programs to apply to.

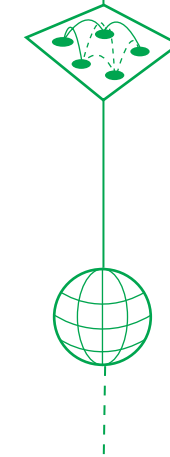


Service touchpoints:

There are three key touchpoints within this service.

1. The entry point to Green Trails is a brochure available at the Office of International Education at a university and Green Trails' local offices. The brochure shows a suggested timeline for the application process and gives a brief overview of the required tasks for application. This gives an applicant an introduction to the entire process, and allows an applicant to slow down before making a decision to studying abroad simply because everyone else is doing so. It also prompts the applicant to review his or her top drivers to study abroad and top criteria when selecting programs to apply to. Asking an applicant to go through these items reminds him or her to consider again why studying abroad would be the best option, and set goals accordingly. With the number of students seeking graduate studies in the US growing exponentially, it is easy for new undergraduates in China to jump into the application process before thinking it through. The design of this touchpoint guides these students to being aware of other options available to them, and learning more about the cultures, requirements, and other criteria they consider important to determine the feasibility of studying abroad for them individually.

2. The second touchpoint is a series of digital and analog tools such as stories of previous applicants, calendar, and personal notebook, which help applicants process and filter helpful information, and prioritize their tasks at hand. This touchpoint is accessed only as a registered user of Green Trails. With this touchpoint, an applicant learns how to apply, which can lead to better decision-making and better application results. Many applicants fear the process because they knew little about how the process works and cannot see the whole picture. Being used to evaluations based only on standardized tests, when they see there are so many more pieces to the application package, some of them feel overwhelmed, and some of them focus on taking the GRE and language tests, and pay little attention to the other pieces. These tools encourage the applicants to learn what applying to US schools really is about and how to prepare for each of the required items. They also support the applicants with not only resources but also ways to organize and filter information.



3. The third touchpoint is a student ambassador program. Utilizing the alumni network, students can learn from the people who are connected with them now, as well as student ambassadors who are already studying abroad and even already graduated. My research found that the exchange of information becomes much more effective when the applicant feels trust towards the person providing help. The person providing help also feels really rewarding through this process. Chinese students try very hard to connect with people from their undergraduate university and help each other with the application process, and with universities supplying the data of study abroad graduates every year makes the building of these relationships much easier. The tools (not including the paper calendar) in the second touchpoint and the third touchpoint are based on an online platform provided by Green Trails.

These three touchpoints form a complete application process with guidance and support. However, every applicant is a different mix of the three types I summarized, and not every piece of the service would apply to everyone. So an applicant can choose which parts of the service to access according to whether or not that part applies to them.

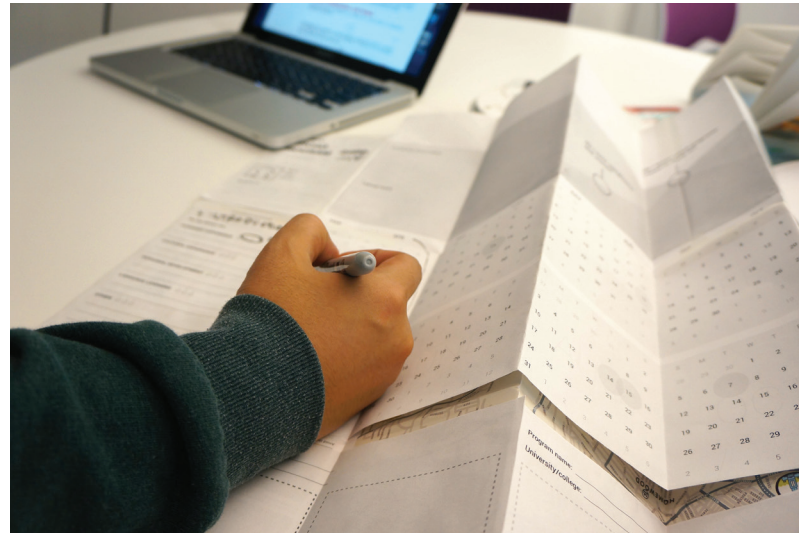
TESTING PROTOTYPES

I prototyped in low fidelity the artifacts in each touchpoint in order to communicate what the service looks like to the users. For user testing of the prototypes, I chose 6 applicants from China at different stages of their application process. I tested both the contents and interactions of the designs.

Touchpoint 1–Brochure

Participants: two applicants who were still just thinking about applying

Test results: The overall concept of a brochure got good feedback, and people liked the idea of having it on the wall as a paper calendar and use it for the second touchpoint. I took out the part of program cards, because it was considered too early to have for this touchpoint and the information on the cards duplicates the function of the tools in the second touchpoint. I revised the overall layout and folding of the brochure.




User testing of paper prototype.


01

Basic information
of the applicant

STUDY ABROAD PROGRAM

Visit us at studyabroad.gov





Name: _____

Major: _____

School: _____

Applying for:

02

*Motivation for
studying abroad*

My top drivers are:

ACADEMIC EXPERIENCE ☐ ☐ ☐ ☐

CULTURAL EXPERIENCE ☐ ☐ ☐ ☐

PERSONAL DEVELOPMENT ☐ ☐ ☐ ☐

LANGUAGE LEARNING ☐ ☐ ☐ ☐

OTHER ☐ ☐ ☐ ☐

03

Top criteria for choosing programs

My top criteria are:

COURSES/TEACHING ☐ ☐ ☐ ☐

RESEARCH RESOURCES ☐ ☐ ☐ ☐

CAREER OPPORTUNITIES ☐ ☐ ☐ ☐

LIVING ENVIRONMENT ☐ ☐ ☐ ☐

SOCIAL ENVIRONMENT ☐ ☐ ☐ ☐

PRATICALITY ☐ ☐ ☐ ☐

FINANCE ☐ ☐ ☐ ☐

OTHERS ☐ ☐ ☐ ☐

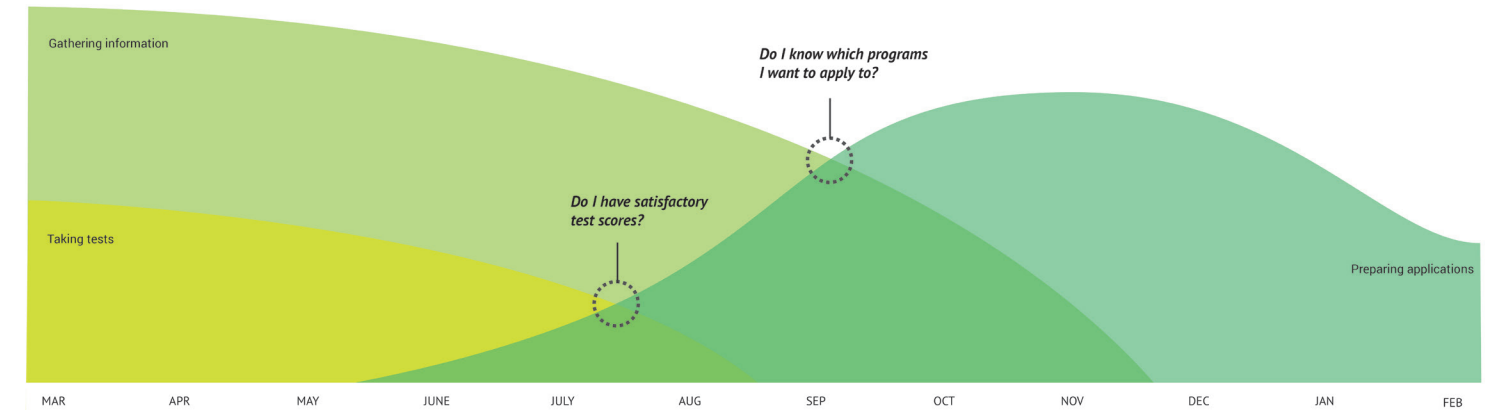
04

Information boxes
for common tasks

STATEMENT OF PURPOSE	OFFICIAL TRANSCRIPTS	RECOMMENDATION LETTER	PORTFOLIO/RESUME
----------------------	----------------------	-----------------------	------------------

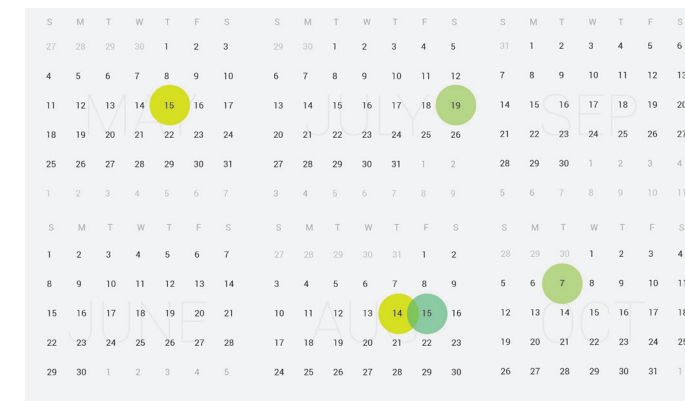
05

*Suggested timeline
for the process*



06

Large calendar for detailed tasks and deadlines



07

Replacable cards
for comparing
programs

Program name: _____

University/college: _____



Touchpoint 2—Application toolkit

Participants: two applicants who had just started their application processes

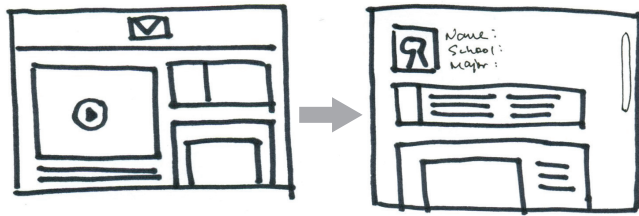
Test results: Out of the 9 tools I proposed, people picked out 5 of them that were most useful. I combined some of the functions and added details to the wireframes. I prototyped the key pages of a website with these tools and resources.

The final digital tools were:

- a feed of featured stories
- notes and comparisons
- digital timeline
- discover (following fellow applicants)
- analogue calendar from the brochure

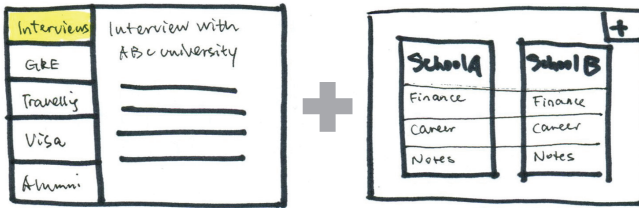
01

The content of weekly newsletter was incorporated into the feed of stories.



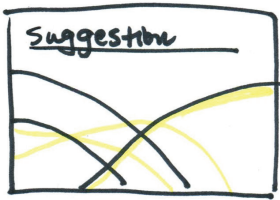
02

The comparison cards became a function that is part of the notebook.



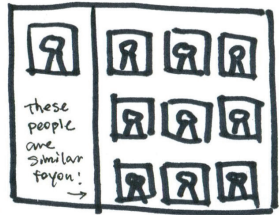
03

Digital timeline gives suggestions based on an applicant's process.



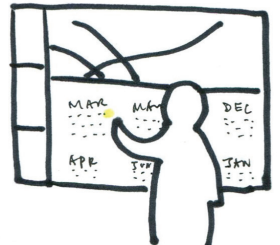
04

Discover finds alumni or other connections for an applicant.



05

The brochure in touchpoint 1 also functions as a wall calendar.



Touchpoint 3—Student ambassadors

Participants: two applicants who had just finished their application process

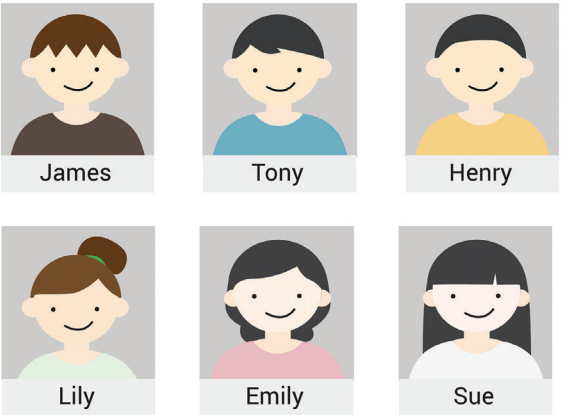
Test results: From the feedback for this touchpoint, I added an example of how an applicant after getting admitted can become an ambassador and the responsibilities of ambassadors in my final scenarios of use to better explain the concept.

I prototyped the following items:

- surfacing ambassadors according to an applicant's filters of education background and projected fields of study
- a name card showing the education tracks, areas of expertise, and contact information of a student ambassador

01

Surfacing ambassadors

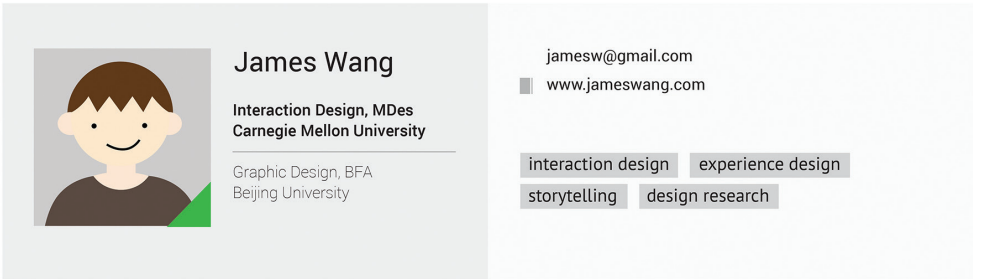


Tags:

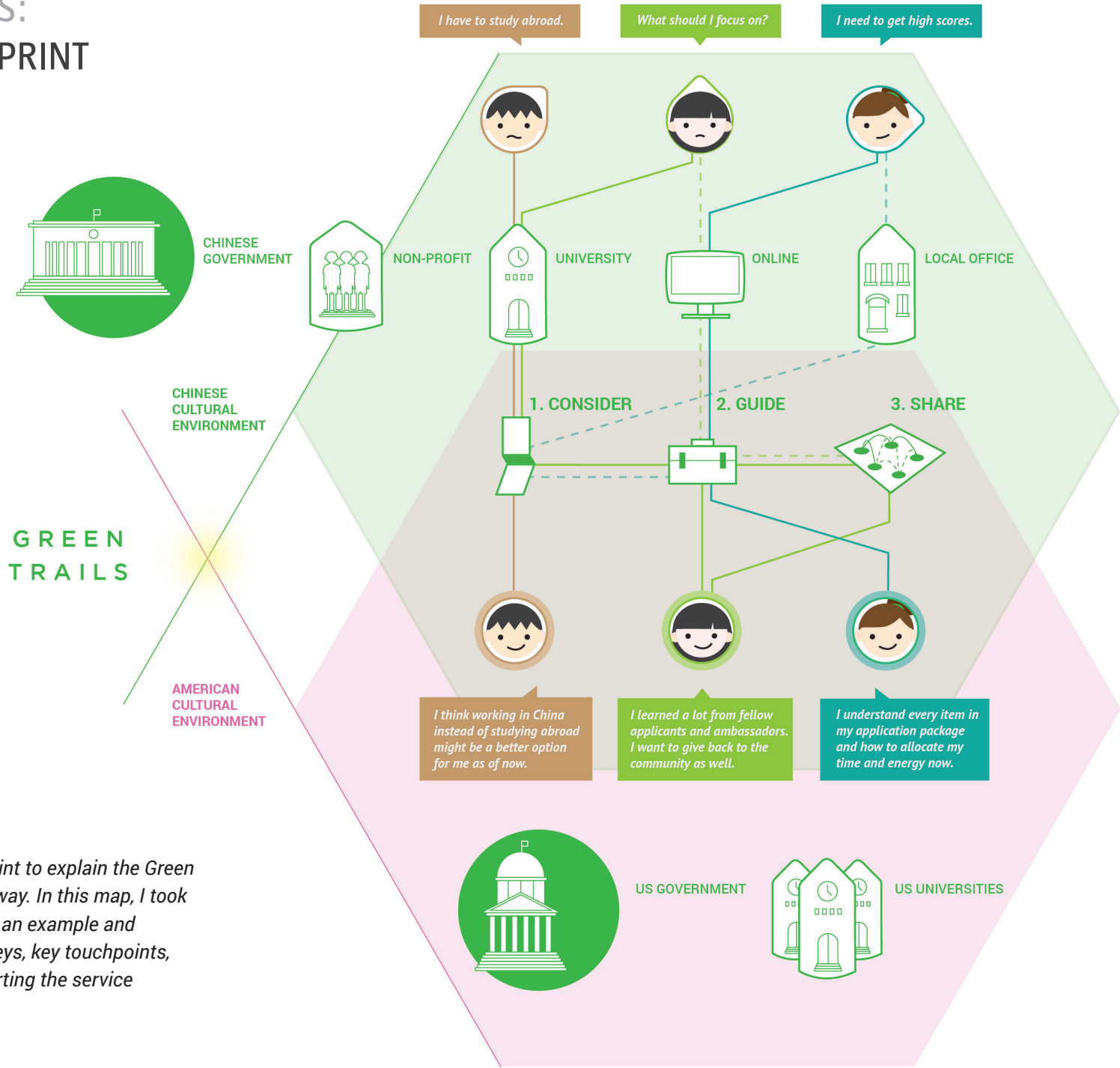
Beijing University Master's

02

Ambassador namecard



FINAL DESIGNS:
SERVICE BLUEPRINT



I created a service blueprint to explain the Green Trails system in a visual way. In this map, I took applicants from China as an example and illustrated the user journeys, key touchpoints, and infrastructure supporting the service

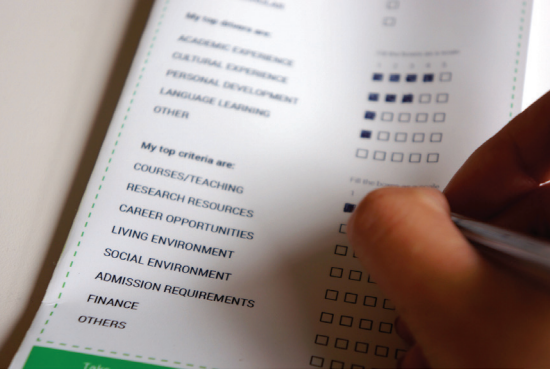
FINAL DESIGNS:
USER SCENARIOS

To contextualize the design, I developed three user scenarios of the Green Trails China service around the three personas representing the typical users I identified earlier. The scenarios illustrate how the service would fit into the lives of the applicants, and how the artifacts in key touchpoints would be used. They also describe users' interactions with these artifacts.

SCENARIO 1 – CONSIDER



1. Joe has been thinking about studying abroad. He visits the Office of International Education (OIE) at his university to find more information. He receives the Green Trails brochure there.



2. He fills in his top drivers of studying abroad and the criteria for choosing schools to attend. This lets him go over his motivations and priorities when applying.



3. The brochure, when unfolded, also gives Joe an overview of the critical points in studying abroad and applying. After viewing this, he decides that it is still a little early to apply for studying abroad, and he continues to the next step to learn more if this would be a good option for him.



PASSIVE

"I want to study abroad because everyone else around me is planning to."

Joe Lee 李乔
Electrical Engineer Student
Junior year
Experience with studying abroad: none



AGGRESSIVE

"If I get high scores in the tests, I will probably get into very good programs."

Yen Fang 方媛
Junior Account Manager
Bachelor's Degree in Public Relations
Experience with studying abroad:
exchange student for one semester



OVERLOADED

"I am overwhelmed with the tasks and I feel lost about the whole process."

Alice Wang 王艾莉
Communication Design Student
Senior year
Experience with studying abroad: none

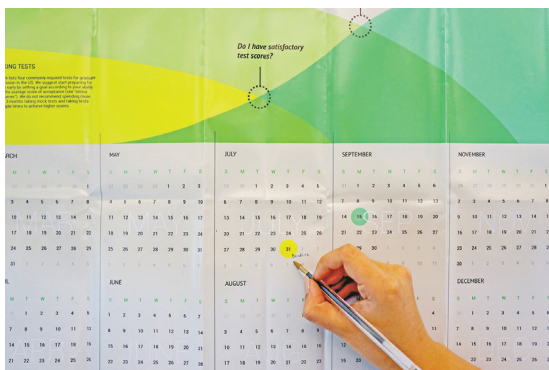
SCENARIO 2 – GUIDE



1. Yen wants to go back to school after having worked for two years. She hopes to study abroad in the US. She got a brochure at Green Trail's local office. She accesses the online features of the service by digitalizing the form she filled out.

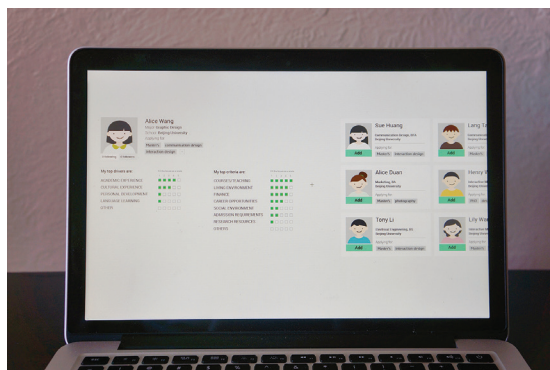


2. Using the tools online, Yen learns to organize her notes and starts to form her own views on available information. She also discovers a lot more to learn about the life in the US, and graduate program admissions. She decides to narrow down her choices, and put more energy into her personal statement to articulate her goals and skills.

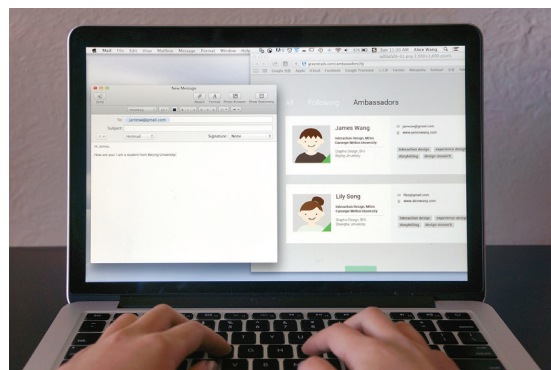


3. Meanwhile, she chooses to keep track of her tasks and deadlines in paper form on her brochure. She hangs the laid out brochure as a large calendar on her wall beside her desk.

SCENARIO 3 – SHARE



1. Alice has been using Green Trails for a while. She found alumni also applying or have already applied to programs in the US on the Green Trails online platform. They exchange information regularly about studying and living in the US.



2. She finds a student ambassador on Green Trails' discover page. James is currently studying at a program she is interested in. She writes to him and asks about what it is like there. James, as an ambassador, returns her email happily, and gives her some tips on applying to this program.



3. Alice gets admitted to that program with the help from James and other connections she made on Green Trails. She decides to join the ambassador program to give back to the community, and she fills out an online questionnaire for becoming an ambassador. She then receives an ambassador's badge and more detailed information on her role and responsibilities.

FINAL DESIGNS:

BROCHURE

In this section, I explain the overall design of the brochure and the functionalities of each section. The reader should refer to the scenarios in the previous section for interactions with the physical object.

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

US

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS CHINA

Discover, fathom, succeed
a guide to studying abroad

GREEN TRAILS 2015

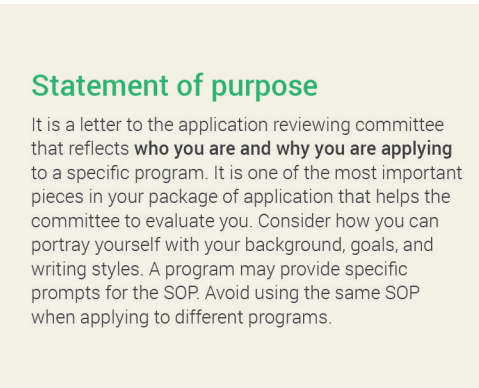
discover, fathom, succeed
a guide to studying abroad

Here I am using a English version of the Green Trails China brochure facing studying abroad in the US as an example. I also prototyped brochures in the Chinese language, and facing students who plan to pursue graduate studies in other countries.



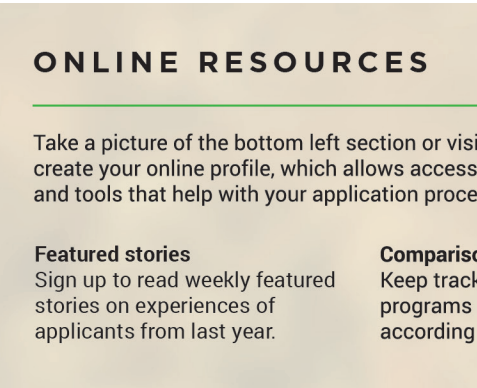
1. COVER

The cover designs vary according to the home country's official language and the destination country of study.



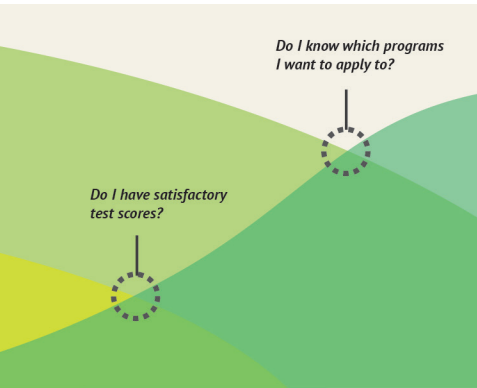
4. TASKS

Near top of the spreaded brochure list common tasks in the application process, and gives brief guidelines on how to complete these tasks.



2. MORE INFORMATION

This section provides applicants with basic instructions on how to use the brochure, and introduces more tools online.



5. TIMELINE

The timeline shows the approximate length of the entire process. It suggests how much time to spend on the three main categories of preparations.

My top drivers are:

Fill the boxes as a scale

1 2 3 4 5

ACADEMIC EXPERIENCE

CULTURAL EXPERIENCE

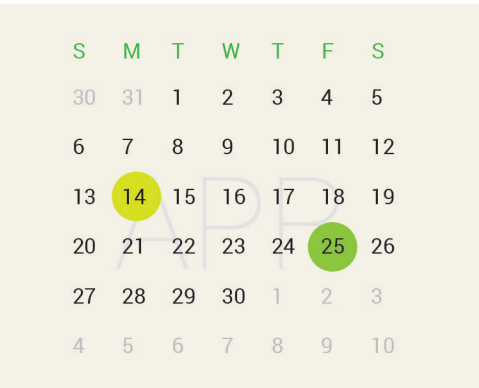
PERSONAL DEVELOPMENT

LANGUAGE LEARNING

OTHER

3. FORM

This form gives applicants a place to start their personalized journeys. It also serves as a second entry point to the online services.

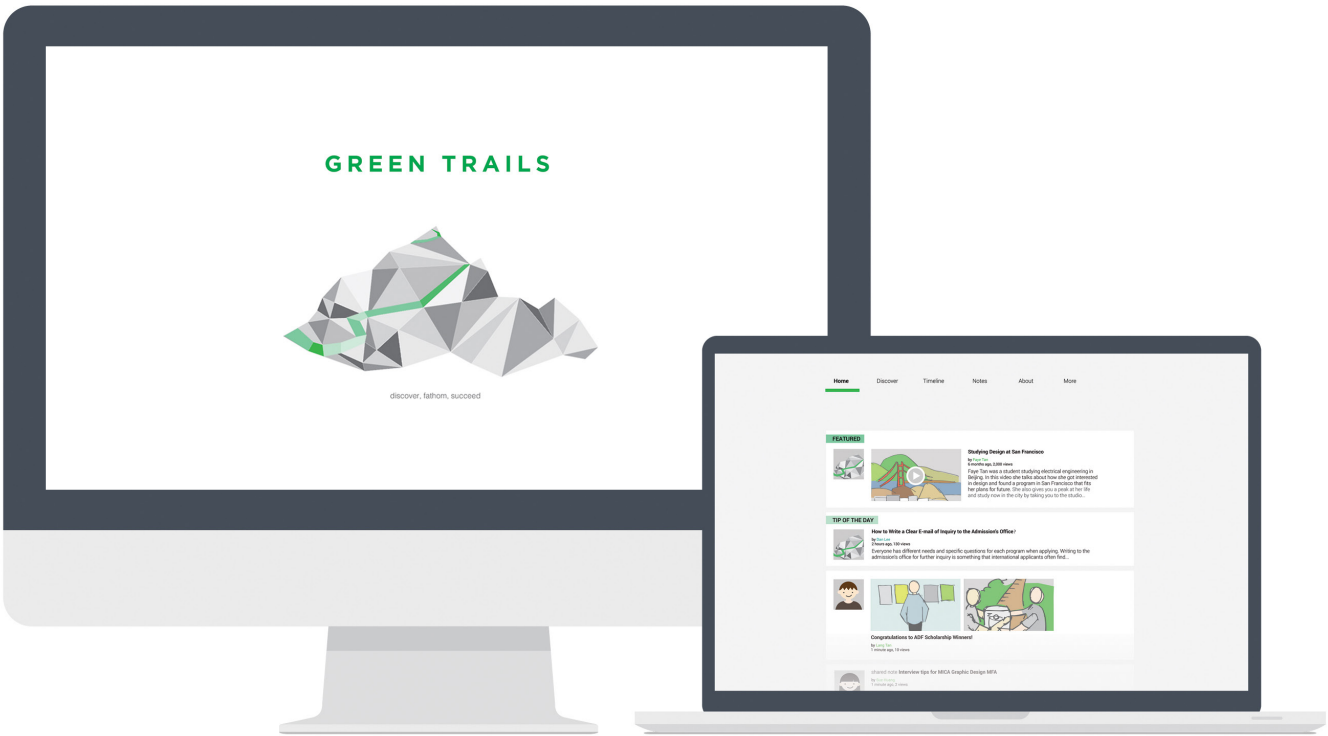


6. CALENDAR

Applicants can use the calendar mapped to the timeline and provided stickers to track their progress and note important dates.

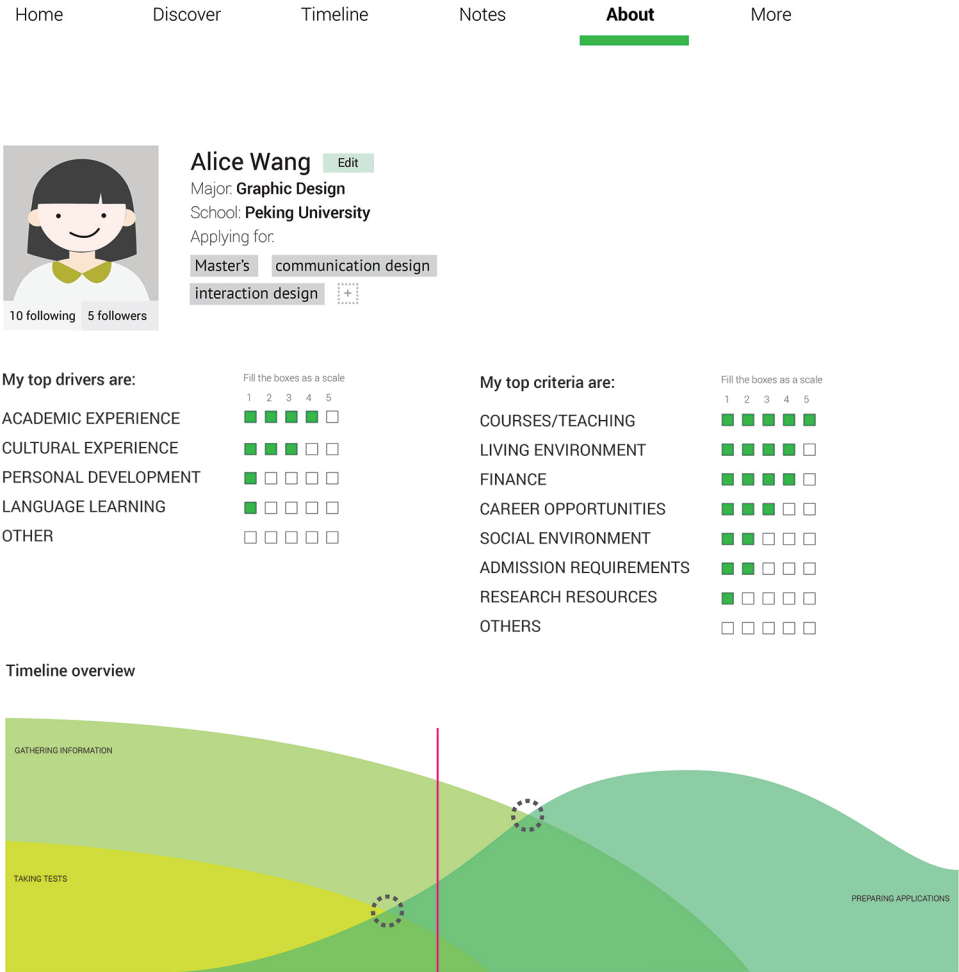
FINAL DESIGNS: ONLINE PLATFORM

This section shows the final designs of the suggested features of the online platform. The designs aim to serve as a guideline of the functionalities of the tools rather than a fully established website. Therefore, I focused on the idea of the tools more than visual design and navigations of the website.



1. APPLICANT PROFILE

The profile page allows an applicant to set up, view, and edit an overview of her personal goals and criteria. She can also set which information is public to others on this page.





2. DAILY FEATURES

An applicant receives every day a featured story of application experience from previous years, and a featured tip of the day related to the application, such as how to complete a tasks, or how to communicate with a school. The content is based on the applicant’s academic background needs and interests. The feed on the home page also includes the content created or shared by the people she follows in the community.

HomeDiscoverTimelineNotesAboutMore

FEATURED






Studying Design at San Francisco

by Faye Tan

6 months ago, 2,000 views

Faye Tan was a student studying electrical engineering in Beijing. In this video she talks about how she got interested in design and found a program in San Francisco that fits her plans for future. She also gives you a peak at her life and study now in the city by taking you to the studio...

TIP OF THE DAY





How to Write a Clear E-mail of Inquiry to the Admission's Office?


by Dan Lee

2 hours ago, 130 views

Everyone has different needs and specific questions for each program when applying. Writing to the admission's office for further inquiry is something that international applicants often find...








Congratulations to ADF Scholarship Winners!

by Lang Tan

1 minute ago, 10 views



shared note Interview tips for MICA Graphic Design MFA

by Sue Huang


1 minute ago, 2 views

3. DISCOVER

This tool surfaces the people connected with an applicant in some way. For example, it finds people who comes from the same university, or are pursuing a similar field of study.

When connected with someone, the applicant is allowed to view his or her shared notes.

HomeDiscoverTimelineNotesAboutMore



Add


Sue Huang

Communication Design, BFA
Peking University

Applying for:
Master'sinteraction design

COURSES

Links to [course outlines](#) at 10 design programs in America.
1 day ago



Add


Alice Duan

Marketing, BA
Peking University

Applying for:
Master'sphotography

CAREER

OPT application experience and tutorial. This provides an understanding of what happens when you graduate and start looking...
1 day ago



Add


Tony Li

Electrical Engineering, BS
Peking University

Applying for:
Master'sinteraction design

CAREER

Interview experiences with Apple. [Shared article.](#)
2 days ago



Add


Lang Tan

Communication Design, BFA
Peking University

Applying for:
Master'sart and design

LIVING

Transportation in San Francisco and apartment/realtor lists.
Today



Add


Henry Wu

Interactive Media, BA
Beijing University of Technology

Applying for:
PhDdesigntechnology

RESEARCH

My outline of email asking about research possibilities with a professor at MSU.
Today



Add

Lily Wang

Interactive Media, BA
Beijing University of Technology

Applying for:
Master'sadvertising

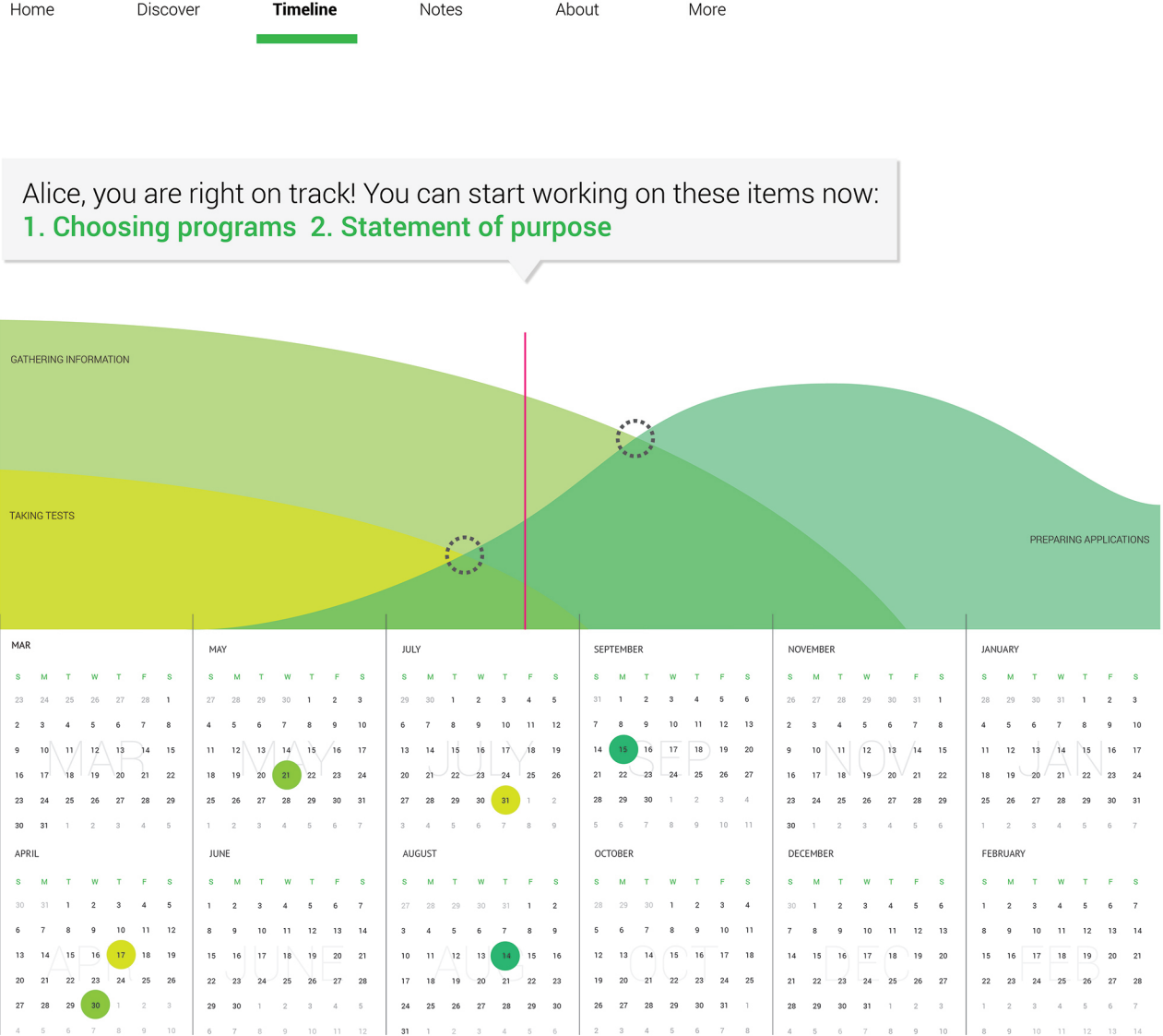
SOCIAL

6 [diagrams](#) of Chinese and American cultural differences.
1 day ago

4. TIMELINE

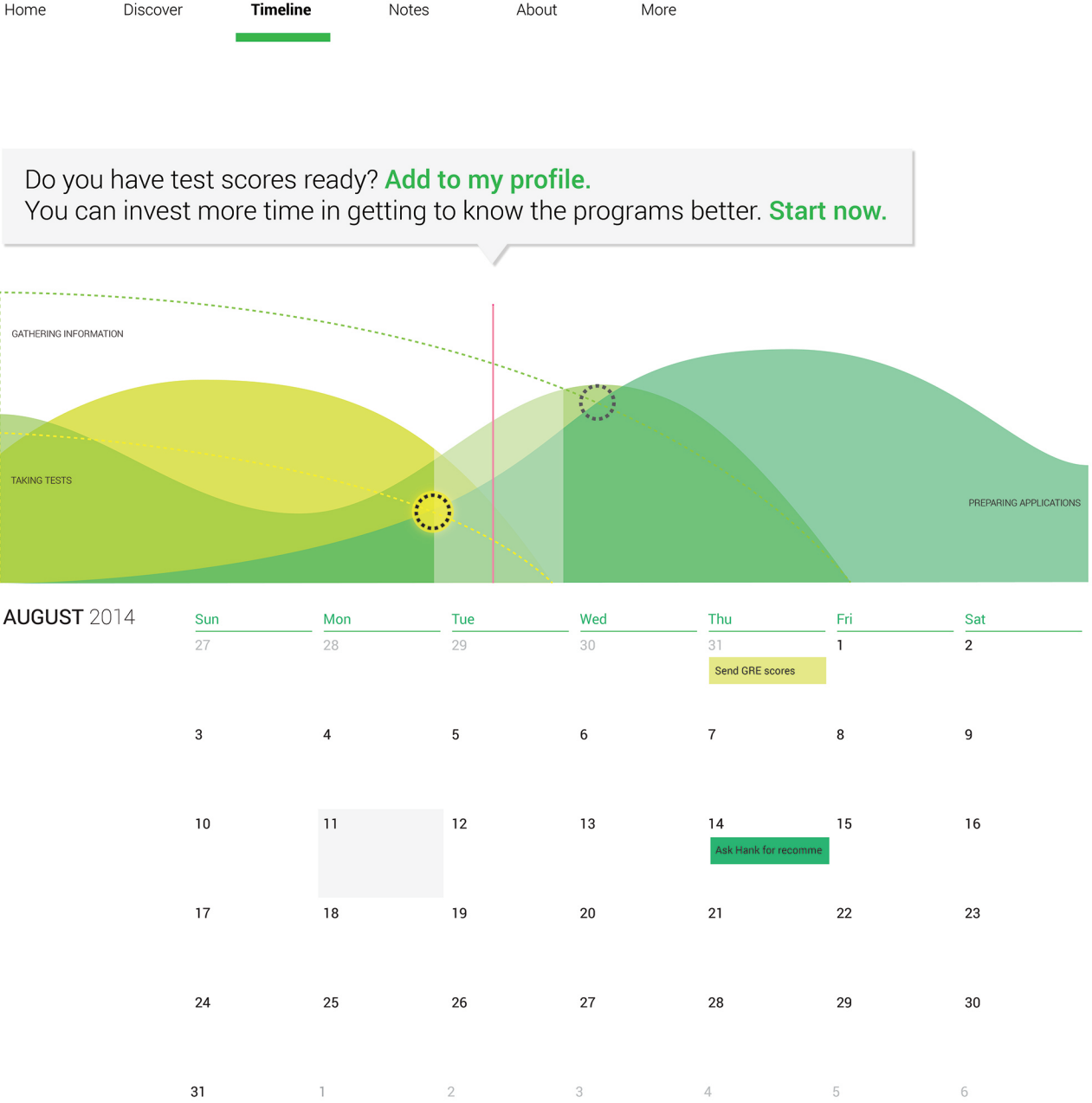
The timeline tool functions similarly to the one in the brochure. It allows an applicant to plan ahead and manage her time and tasks online.

This example shows a calendar in macro view under the timeline.



It analyzes the time an applicant spend on different categories of content, and produces a personal timeline. It then compares the personal timeline with the suggested timeline to make suggestions and help her keep on track.

This example shows a calendar in monthly view under the timeline.



5. NOTES AND COMPARISON

Notes allows an applicant to keep all notes produced during the process in one place. An applicant can create content, upload files, share other users’ contents, or share content from other websites. She can also organize her notes by tagging topics and prioritize using her customized priorities from the profile page.

HomeDiscoverTimeline**Notes**AboutMore

Alice's notes: **programs**

Interaction Design, MDes

Carnegie Mellon University

Link to **course outlines**. Search for full descriptions of courses.

1 day ago5 more notes

Jamie's recommendation of article: **Pittsburgh Chinese stores**.

3 days ago1 more note

Living cost in Pittsburgh: Apartment \$400-600 monthly...

3 days ago6 more notes

Graphic Design, MFA

Maryland Institute College of Art

Link to **course outlines**. Search for full descriptions of courses.

Today1 more note

Jamie's recommendation of article: **Pittsburgh Chinese stores**.

Today1 more note

Communications Design, MS

Pratt Institute

Link to **course descriptions**. Link to **student work showcase...**

5 days ago5 more notes

New York City things to do: Brooklyn

2 days ago3 more note

Pratt Institute Graduate Cost of Attendance 2014-2015

10 days ago2 more notes

Integrated Media, MFA

California Institute of Arts

Link to **course outlines**. Search for full descriptions of courses.

1 day ago4 more notes

Living cost in Pittsburgh: Apartment \$400-600 monthly...

1 day ago2 more notes

Interaction Design, MA

California College of the Arts

Link to **course outlines**. Search for full descriptions of courses.

Today1 more note

Jamie's recommendation of article: **Pittsburgh Chinese stores**.

Today0 more note

Living cost in Pittsburgh: Apartment \$400-600 monthly...

Today0 more notes

Interaction Design, MFA

School of Visual Arts

New York City things to do: Brooklyn

10 days ago3 more note

Pratt Institute Graduate Cost of Attendance 2014-2015

12 days ago2 more notes

74

Using the comparison feature, an applicant can compare two programs at a time. This feature pulls information available on the programs’ official websites and display it side by side with an applicant’s own notes tagged with the name of the program.

HomeDiscoverTimeline**Notes**AboutMore

Alice's notes: **programs**

Interaction Design, MDes

Carnegie Mellon University

COURSES/TEACHING

Designing for Interactions


Multiple introductory projects in interaction design, capitalizing on student diversity of past design experience and utilizing skills being developed in parallel ixd and cxd labs, targeted at designing for services with a business emphasis, and designing for social innovation with a policy emphasis.

More courses

Link to **course outlines**. Search for full descriptions

1 day ago

LIVING ENVIRONMENT



Campus location

Within 1 mile
Carnegie Museums of Pittsburgh
Carnegie Library of Pittsburgh
Schenley Park
Phipps Conservatory and Botanical Gardens

Within 3 miles
University of Pittsburgh
Downtown Pittsburgh

Jamie's recommendation of article: **Pittsburgh Chinese stores**.

3 days ago

FINANCE

Total Estimate

\$57,616

Expand full list

Tuition: \$36,000
Activity Fee: \$198
Health Insurance: \$1,090
Transportation Fee: \$120
Technology Fee: \$370

Living cost in Pittsburgh: Apartment \$400-600 monthly

Neighbourhoods - Shadyside...

3 days ago

CAREER

SOCIAL ENVIRONMENT

Communications Design, MFA

Pratt Institute

COURSES/TEACHING

Visual Communications I

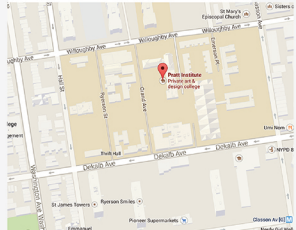
This course offers a disciplined, systematic approach to concept development and the problem-solving process applied to graphic design. Use of the grid system, figure and ground relationships, typography, and symbolism are covered in relationship to setting priorities and utilizing information. Students are engaged in a wide range of assignments in order to apply design principles and broaden creative experiences.

More courses

Link to **course descriptions**. Link to **student work show...**

5 days ago

LIVING ENVIRONMENT



Campus location

Within 1 mile
Pratt Institute Historic District
FortGreene Park

Within 3 miles
Downtown Brooklyn
Lower Manhattan
Midtown Manhattan

New York City things to do: Brooklyn

2 days ago

Apply for on campus housing

3 days ago

FINANCE

Total Estimate

\$63,364

Expand full list

Tuition: \$26,720
Activity Fee: \$906
Technology Fee: \$600
Room: \$16,672
Books/supplies: \$1,750

Pratt Institute Graduate Cost of Attendance 2014-2015

10 days ago

CAREER

SOCIAL ENVIRONMENT


75

FINAL DESIGNS: STUDENT AMBASSADORS

The student ambassadors program is designed to help international applicants learn about studying abroad and learn from past application experience by connecting with alumni from the programs of their interests. The sections shows the designs of the online ambassador name card, and how it works explained through the diagram on the right. The reader can also refer to Scenario 3 in “Final Designs: User Scenarios” to see how it works.

Green Trails Ambassador Program [Learn more](#)


Here is a list of student ambassadors at universities you are interested in:




James Wang

Interaction Design, MDes
Carnegie Mellon University

Graphic Design, BFA
Peking University

 jamesw@gmail.com


 www.jameswang.com

interaction design

experience design

storytelling


design research




Lily Song

Interaction Design, MDes
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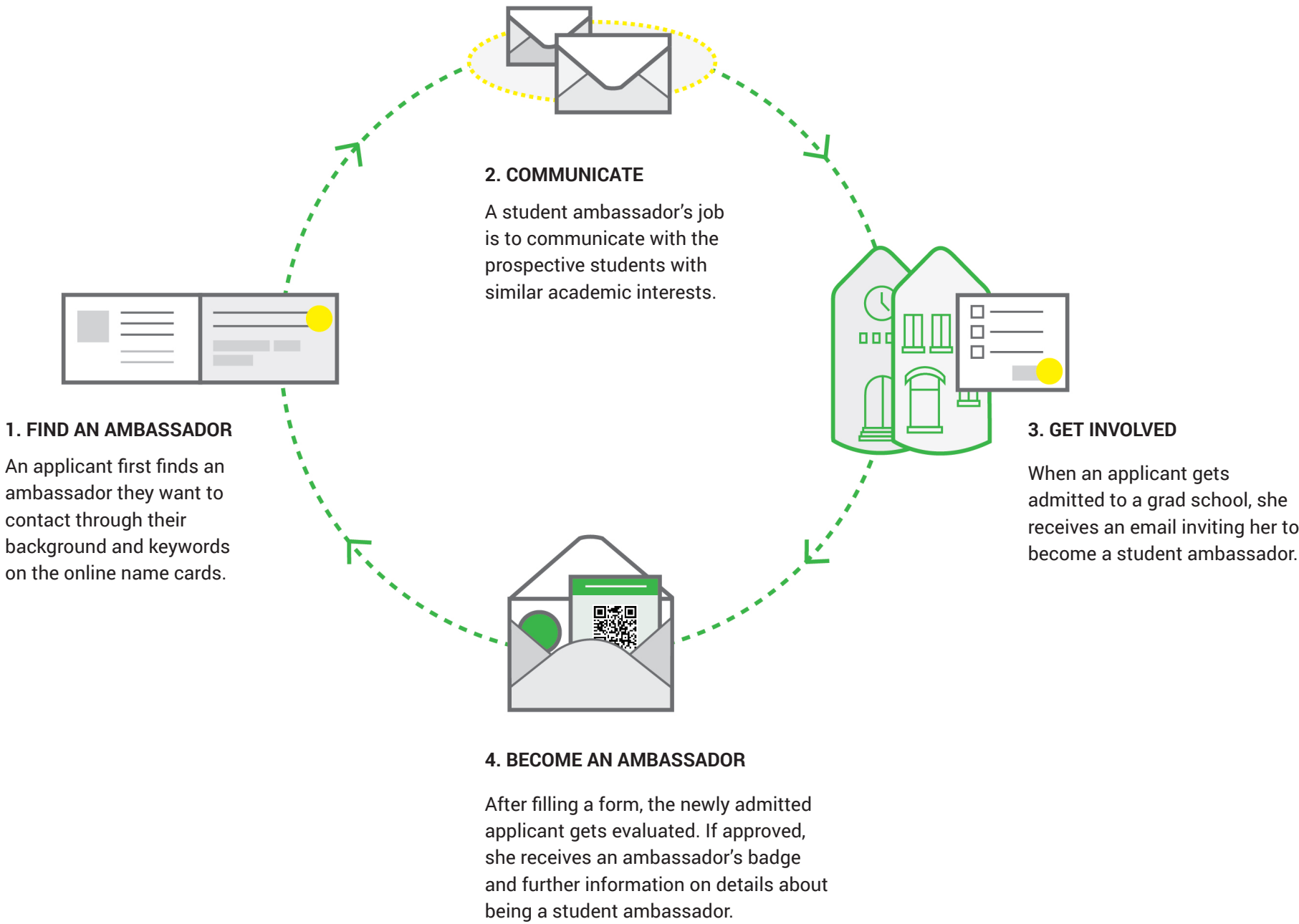
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interactive media

experience design

installations

sculpture



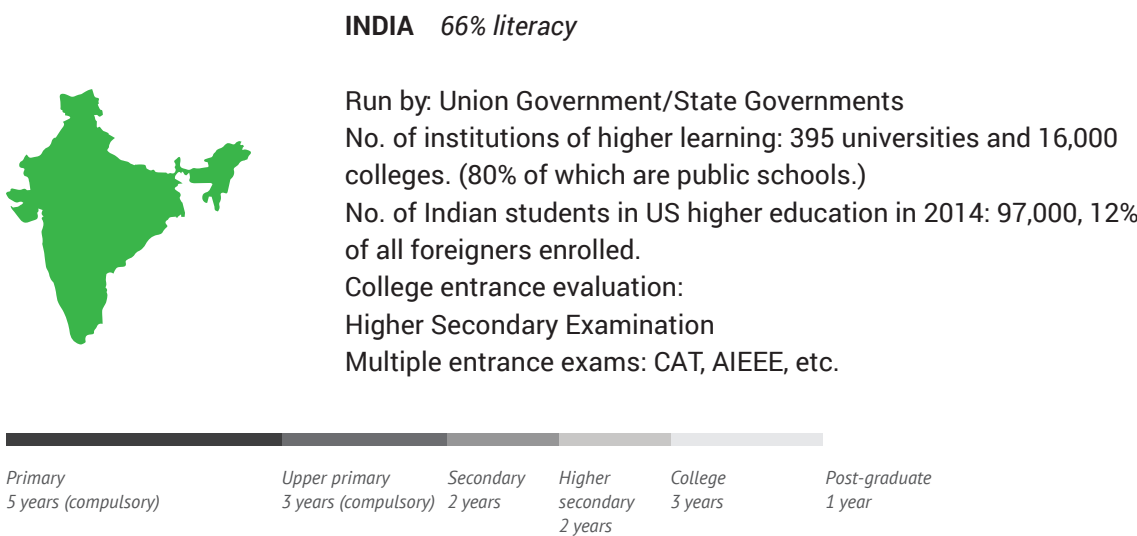
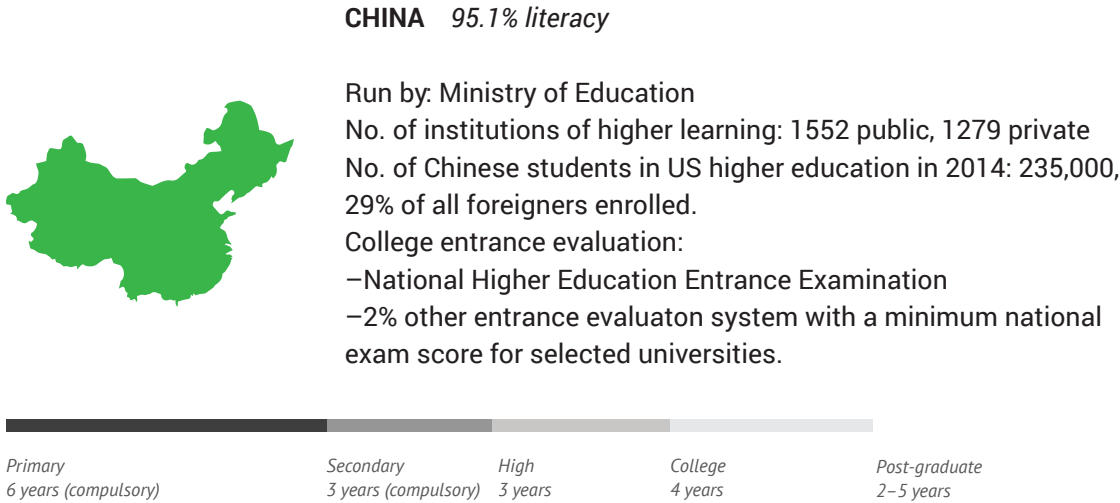
FINAL DESIGNS:
FURTHER DISCUSSION

Looking more broadly at the students from other countries, I ask, “Will this service work in all of the four countries I began my ideation with?”. I researched the history and structure of the education systems of India, Korea, and Japan, and I identified some of the specific challenges and questions with designing a similar service in these countries.

Data sources:
University World News
www.universityworldnews.com
Open Doors Data
www.iie.org/Research-and-Publications/Open-Doors/Data

What would be an appropriate point to introduce the service? And what would the timeline look like?

India has a great number of higher education institutions, thus a great number of graduates every year as the result. The job market becomes extremely competitive, which can leave students very little time to consider and prepare for studying abroad.

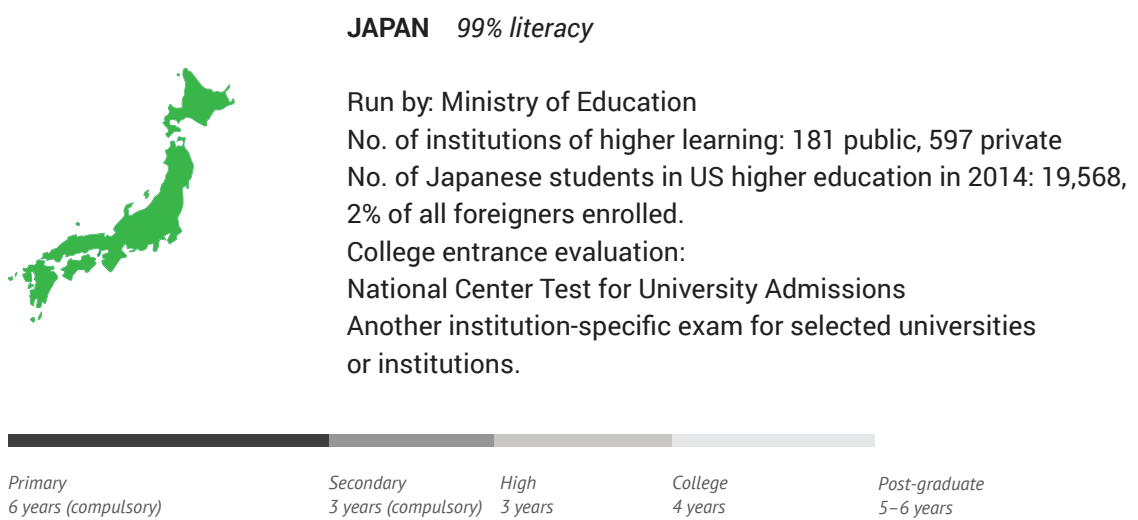
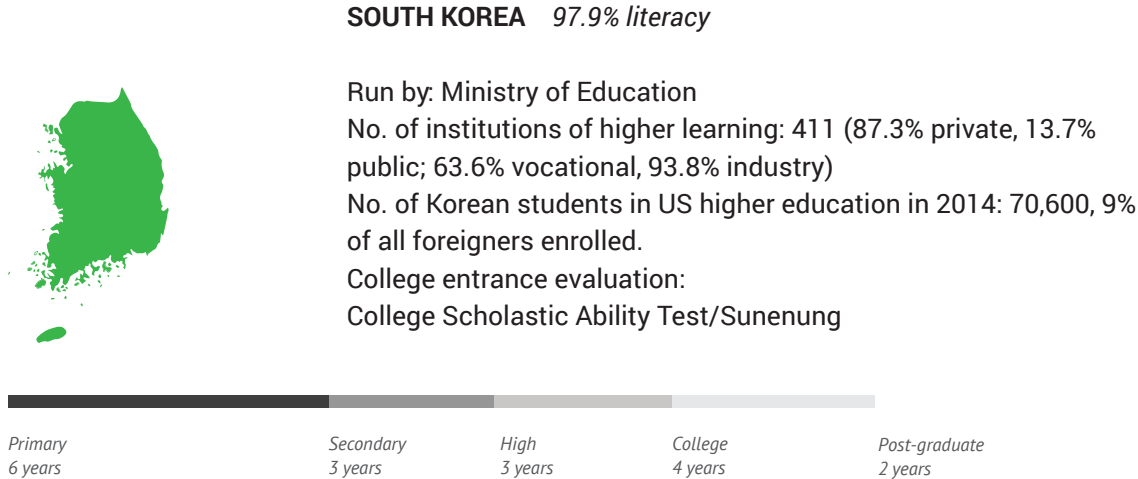


How to set the entry point to the service that would distinguish from other study abroad services?

Korea is a democratic country, and there are many more private institutions than public institutions across the country. It would be necessary to make some changes regarding the method of distribution of the artifacts. Differentiating Green Trails with other study abroad agencies would be critical to setting the entry point in the private institutions.

How might we effectively develop an alumni network?

Japan currently has a rather small number of international students in the US, which makes building the alumni network more difficult. However, Japanese students have the same need of connecting with current students when they are applying. It might be wise to start introducing the service to Japanese students studying in Europe first.



CONCLUSIONS

The goal of my thesis was to understand international students' application process to the graduate programs in the US, and design an infrastructure that would help make the application process a better experience for this audience. I implemented various design research methods to dig deeper into international students' unique needs. The design research activities I found most insightful were: interviewing international students, American students, and faculty and staff members, participatory design sessions with international applicants and students, and speed dating my initial concepts with the same international audience. Through these research activities, I found commonalities influenced by the cultural backgrounds among international students from China, India, Korea, and Japan, which greatly influenced my final design.

My final design followed the idea of a service designed to provide international students with guidance and facilitate their communication with fellow applicants and alumni. The concept of designing this service came from my understanding of the cultural differences that exist between international students from the four countries I mentioned, and the cultural environment in the US. The service is really a platform that introduces the international prospective students to the application process and supports the activities that they find helpful. It does not limit the audience to the specific four countries I mentioned, or the three service touchpoints I prototyped. I am using a particular group of audience and their needs as an example to propose this idea because my researches with them are more thorough. Therefore, my final designs are delivered in the form of a service guideline with examples of artifacts and user scenarios.

In this era of globalization, people are traveling around the world every day. There are people who are "international" in every corner of the world, and these people all experience overcoming of cultural shock whether they are studying, working, or simply travelling. I sincerely hope my thesis go beyond the limits of international students and their application process, and be of inspiration to researchers and designers who are actively working on understanding and helping people who are starting their life in a new place.

REFLECTIONS

I started this thesis with my curiosity about the possible explanations of the differences between the international applicants' expectations when they were applying, and the realities they experience after they started their studying abroad. This has been a deeply personal journey for me as an international student studying in the US myself. There were many ups and downs studying this topic for the past year, but I am glad that I was able continue down the path and conclude my thesis with the service design of Green Trails.

Reflecting on my entire design process, I consider the outcomes of this thesis not only the final service design, but also the new questions that came up as I went further with my research and designs. I am extremely happy to have gotten feedback from the international applicants who attended my final poster session. Their comments saying that they really wanted to see Green Trails implemented in real life and use the tools I prototyped was the best evaluation and recognition of my work I could hope for.

Through working on this thesis project, I realized the importance of research in design. I was able to learn so much from the students, professors, and other personnel whose everyday work relates to my study. I think communicating with a real audience, whether directly or through designed exercises, is something irreplaceable when practicing design. My participants were not mere test subjects who helped disaffirm or confirm my thoughts and ideas, but inspiring people who helped me see things I did not see and gave me motivation to move forward.

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