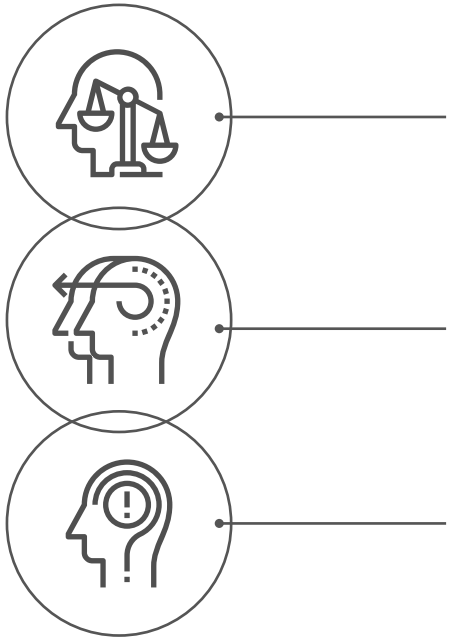
Xunan(Andy) Zhou
Portfolio

Persoanl Statement

I desire to become an outstanding Interaction Designer and create the products that cultivate the valuable pain points worth of solving in vertical field. This goal was inspired by my grandfather, who started a business in the Microcomputer industry at the age of 62 and cooperated with research institutions like Tsinghua University. I would create consistent profit for business and take the responsibility for society. In order to achieve my ambition, I dive deeply into the industry and academia.

My Ability



My Skill

01 Design

Adobe Ps+Ai+Id	●●●●●●●●●●	Flexible
Axure	●●●●●●●●●●	Flexible
H5+CSS	●●●●●●●●●●	Flexible
BootStrap	●●●●●●●●●●	Flexible
JavaScript	●●●●●○○○○○	Medium

02 Render

3DsMAX	●●●●●●●●●●	Flexible
Adobe Pr	●●●●●●●●●●	Flexible
MAYA	●●●●●○○○○○	Medium

03 Methodology

Systematical User-center Research
Visual Communication of User Interface
Data-Driven Analysis and Decision Making
Swift Design of Hi-fi Prototype
Piolot Test of Novel Theory
Flexible Front-end Development
Basic Understanding of Back-end Mechanism

Portfolio Content

Please watch the video
https://vimeo.com/249229653

At Glance

With an intention to raise the public's awareness and attention to pollution issues, P-Hunter, from different angles, converted original pollution monitoring data into targeted data visualization products that could satisfy the public's demand for knowledge about detecting pollution at different levels.

My role

This is a competition project for Soda Competition and Tianchi Visualization Competition. I worked as the UX designer and the front-end developer. I utilized Axure RP to build the webpage frame work, like the three main module based on personas, the layout of the button and visualization charts and etc. Hence my front-end development help the team to build user-oriented visualization systerm based on responsive bootstrap framework.

After obtaining relevant data, I determined the product orientation to improve public's awareness of pollution issues by using User-Centered Design methodology. Through a matching and screening between users' demand and data features, I divided different users' demand for data into three types. I also used my sketches to present disparate possibilities of interactive interfaces, which helped the team reach consensus in just one discussion. Moreover, I set good preparation for product development by drawing frameworks through AxureRP and thus developer could choose suitable visualized charts and designer could create visual communication of interface accordingly. The clear orientation and work division I made has enabled us to finish the product development in just three weeks.

P-Hunter

Data-Visualization
Pollution Discharge Monitor

Ali Global Data Visualization Competition
Global Merit Award (6/794)

SODA(Shanghai Open Data Apps) Competition
Seed Award (10/120)

Chinese Pollution Problems

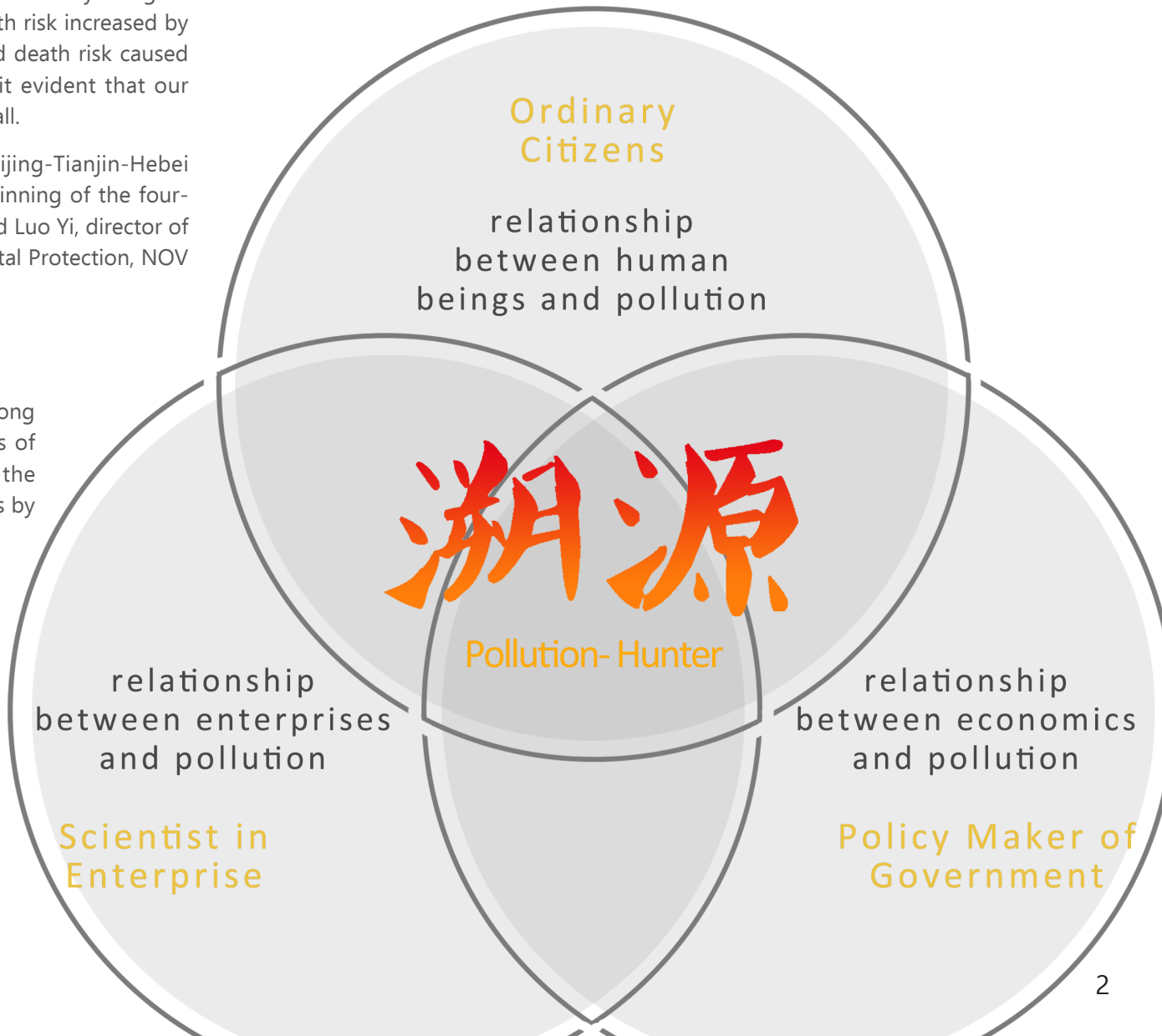
Data from World Health Organization (WHO) showed the safe level of PM2.5 was 10μg/m3. China adopted the widest PM2.5 limits of WHO as its standards: yearly average PM2.5 concentration was 35μg/m3 and daily average PM2.5 concentration was 75μg/m3.

It was revealed that death risk began to increase if PM2.5 concentration stayed higher than 10μg/m3. For every increase of 10μg/m3 in PM2.5, total death risk increased by 4%, death risk caused by heart and lung diseases rose by 6% and death risk caused by lung cancer grew by 8%. Analyzing such data, we can find it evident that our current environment is not suitable for human beings to live in at all.

The average PM2.5 concentration has reached 102μg/m3 in Beijing-Tianjin-Hebei Region with a population of 130 million, and this is just the beginning of the four-month heating season with frequent hazy days in North China, said Luo Yi, director of Department of Environmental Monitoring, Ministry of Environmental Protection, NOV 2016.

User-Centered Design

This product aims to raise awareness about pollutional issues among the public. Based on this target, I figured out different demands of different users on pollutional detection. Moreover, I classified the public into three groups in need for pollution monitoring products by understanding at different levels of pollution issues.



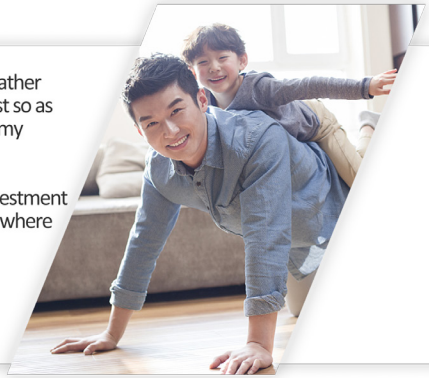
Persona

Through matching the data dimension provided by data set, data visualization was oriented. Pollutional information at three levels made up a pollution data visualization product based on user demand.

"I hope to get reliable news of weather condition and air pollution foredast so as to decide whether it's suitable for my family to go sports on weekends."

"I would like to take long-term investment such as Real Estates in the regions where haze is not that frustrating."

-- Alguo Li
(Father of two boys in Beijing City)

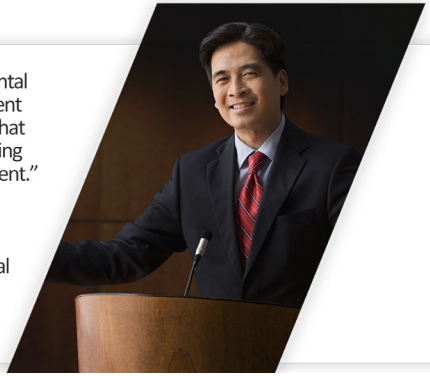


"I need to optimize the manufacuring process with the help of data anaylsis over abnormal discharge so as to minimize the governmental penalty on pollution discharge."

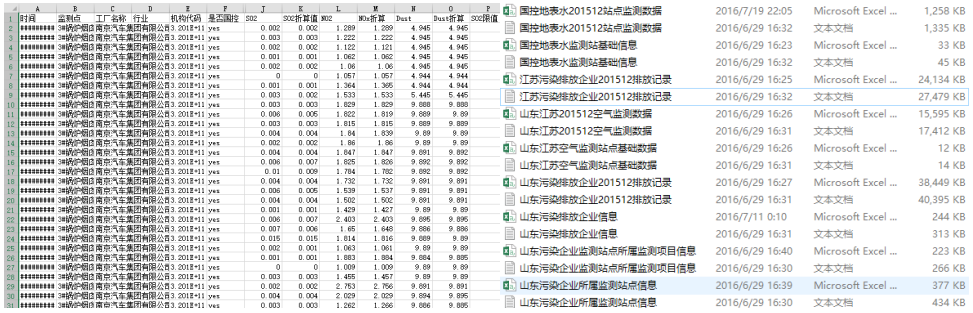
-- Wenyee Zhang
(Data Scientist of Nanjing Auto Mobile Group)

"In order to improve the govermental transprancy, I hope to clearly present the endeavour and achievement that government have done in controlling pollution and economy development."

-- Lei Wang
(Vice Director of Department of Sustainable Development, National Development and Reform Commission)



Data Characteristics & Data Cleaning



Original Data Set of Pollution Monitoring

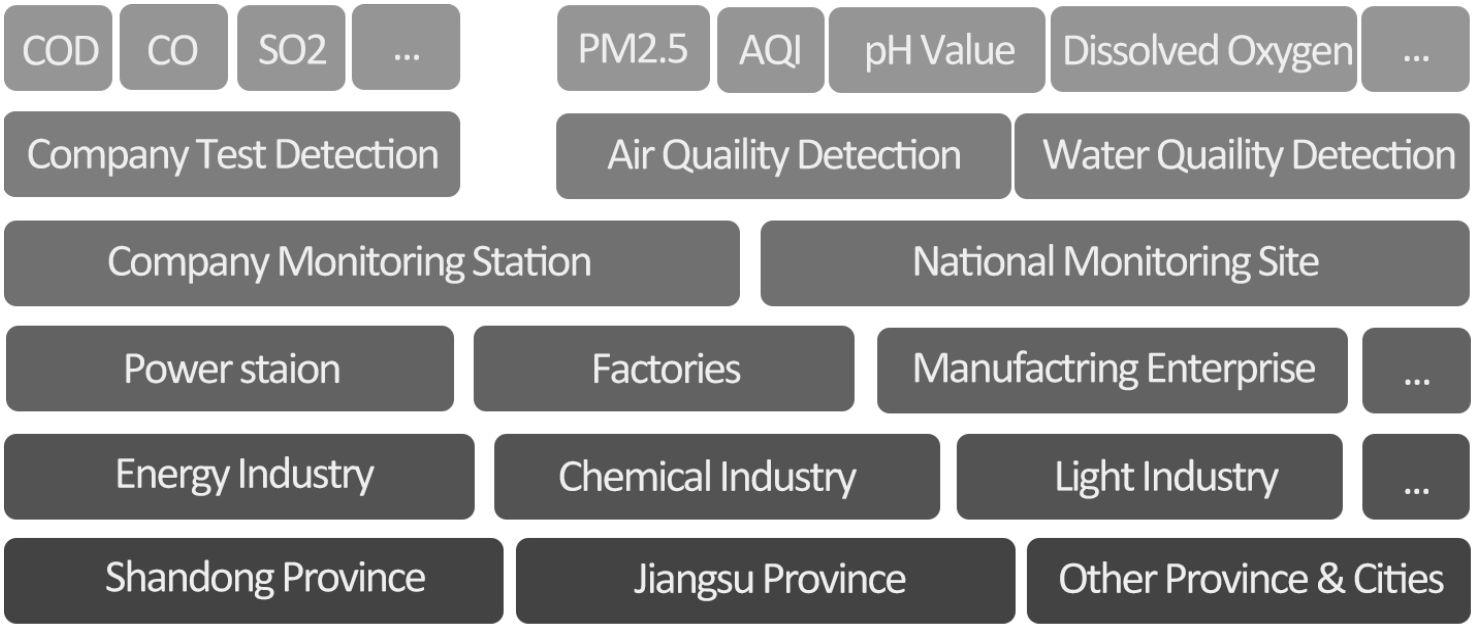
Use the linear dimensionality reduction to raise the space utilization of the web pages.

Complment the necessary data of Economy development so as to represent the extensive relationship related to pollution.

Invalid data and abnormal data were almost removed after I cleansed the original data by Excel. The original data had some noise such as incomplete data set, incompatible formats, and information deficiency. The data cleansing cut the data set by 15%. In order to satisfy specific users' requirements (the comparison between economy and pollution), I collected the GDP development data of Shandong Province between 2015 and 2016 later on.

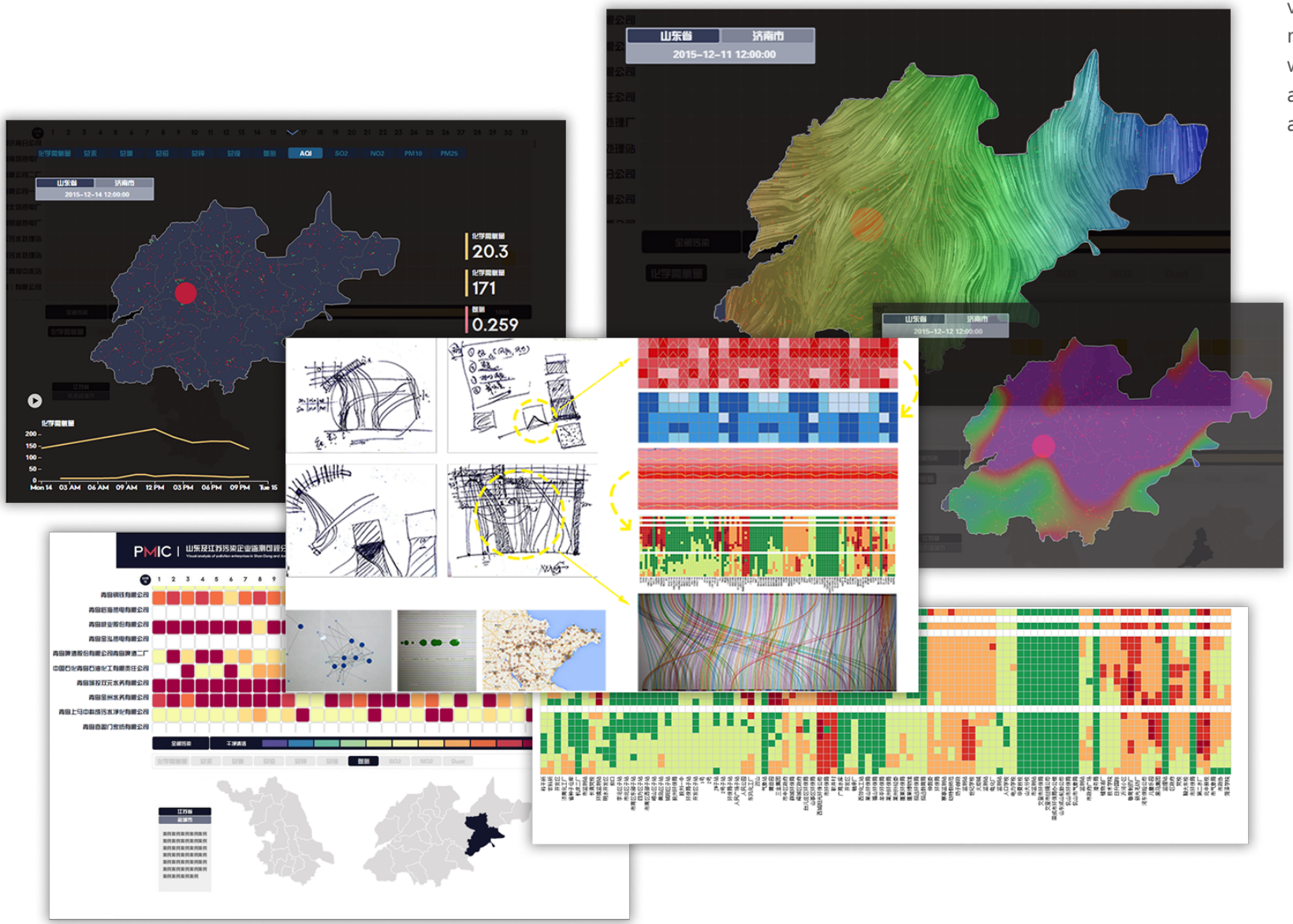
The data set involved 1366 pollutional enterprises from in Jiangsu Province and Shandong Province. They came from transportation industry, equipment manufacturing industry, power plant, textile industry, sewage treatment industry, chemical production industry, etc. Besides, the data were collected in 186 official pollution monitoring stations and 17 sewage monitoring stations.

Through characteristics of data set, time nodes in pollution monitoring, position data of monitoring stations, and pollutant detection details, one-dimensional data comparison can be conducted for various purposes(which is far away from enough for the goal), such as evaluating the reasonability of station location and recognizing the types of abnormal pollutants.



Data Hierarchy

Diverge and Data-Vis Sketches



In order to find the most suitable data-vis methods to present the data and meet the goals we set, I actively worked with the developer to find the most appropriate data visualizaiton charts and iterated many times.

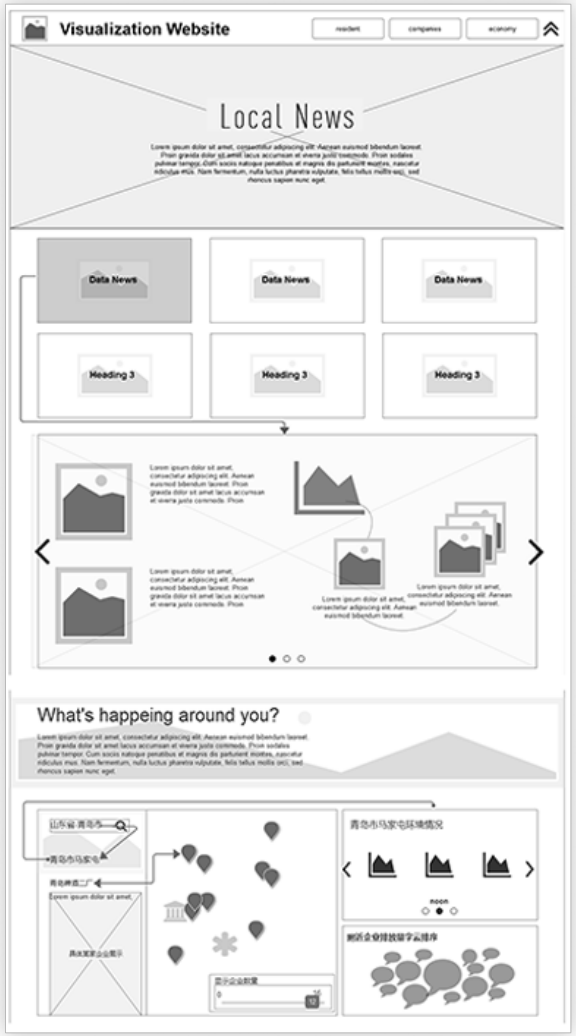
D3.Js(used for map and tree graph)

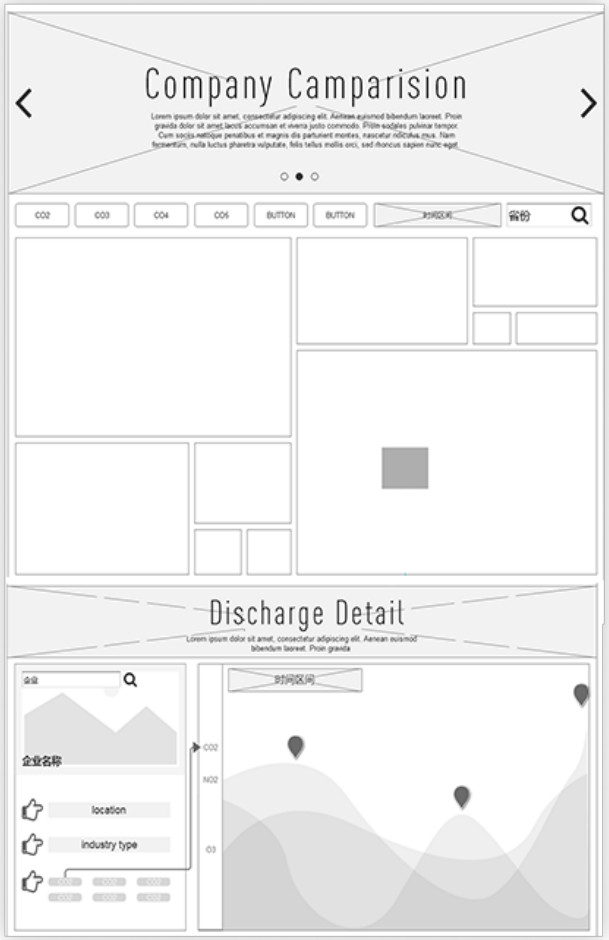
three.js (used for bar graph)

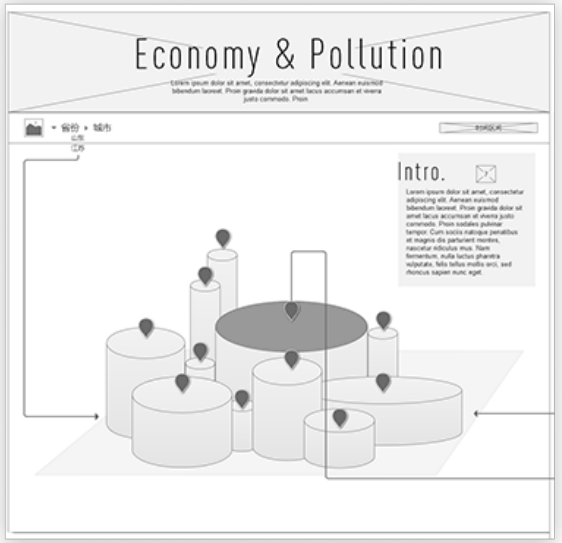
Design and Logic Framework

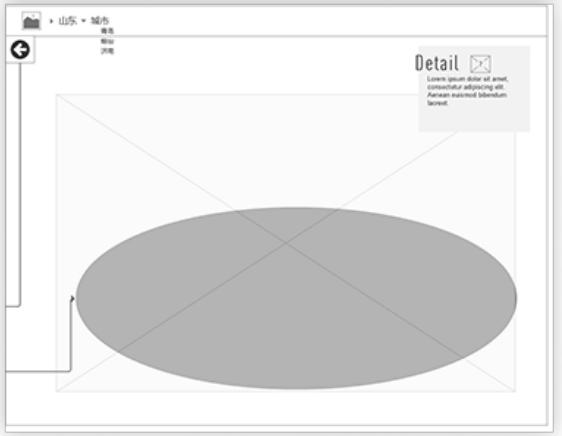
Through studying the visualization materials on D3.js and 3D.js, two data visualization resource websites, I made several visual diagrams of different types and embedded them into webpages. Thus, different possibilities were presented to the team, and then, an agreement was reached right after in short time. Furthermore, by AxureRP, I drew a wireframe diagram that served as a target for the programmers to focus on developing visual diagrams and provided a foundation based which the designers designed the visual system.

Framework
(Data news of pollution/ Trend of pollution/
Map graph of economy & pollution)









Homepage

Links of the three parts are integrated in the top bar as a whole. Related data news and data visualization diagrams are output after the keywords of cities, regions and enterprises are input by users. Users can also click the designed links and get redirected to any of the three parts to conduct personalistic operations.

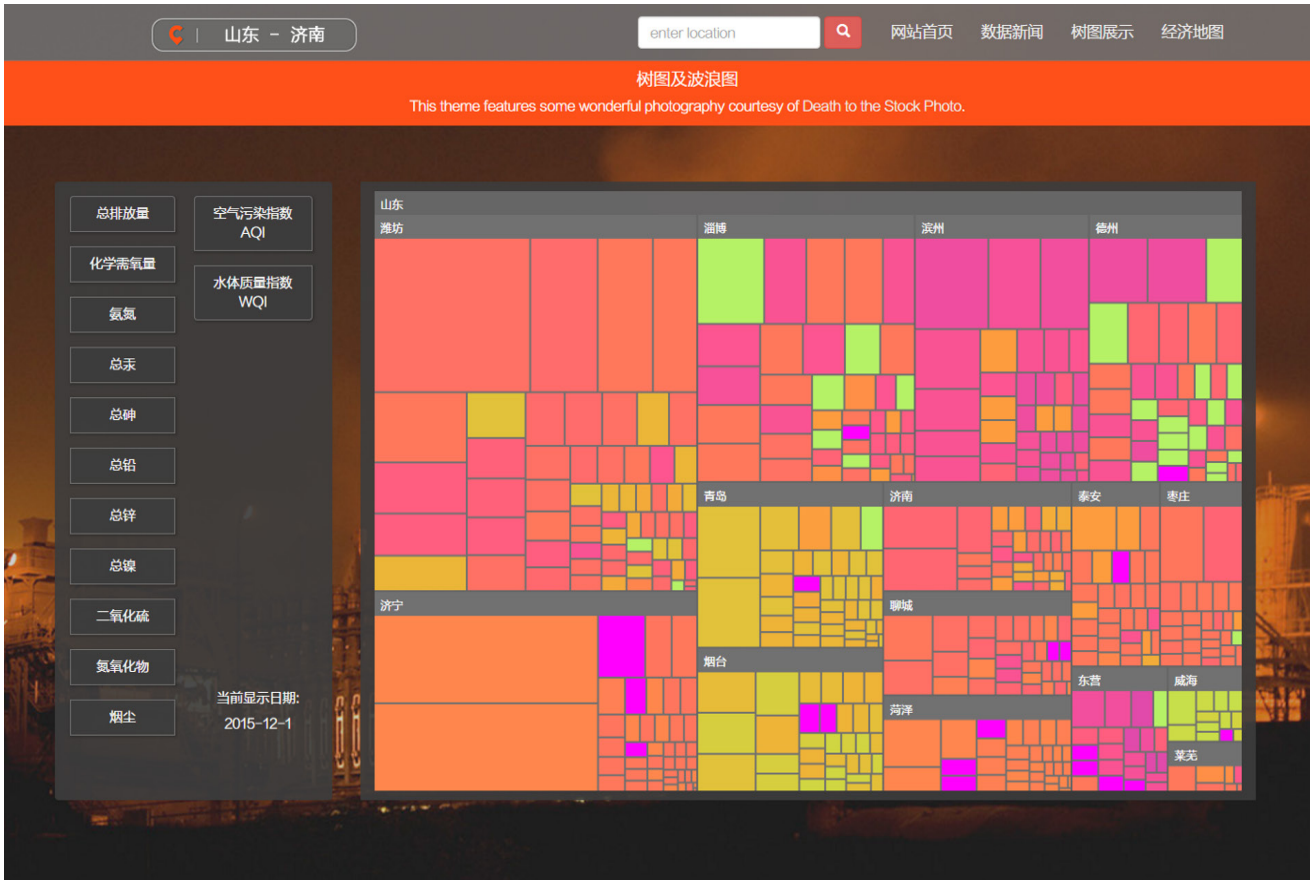
The Relationship between Citizens and Pollution

Abnormal pollution detection data at the user's location can be compared with historical data and then output data news to provide more pollution insights for citizens. For instance, this product can provide help for users in making decisions upon investing in real estate in different regions and cities.

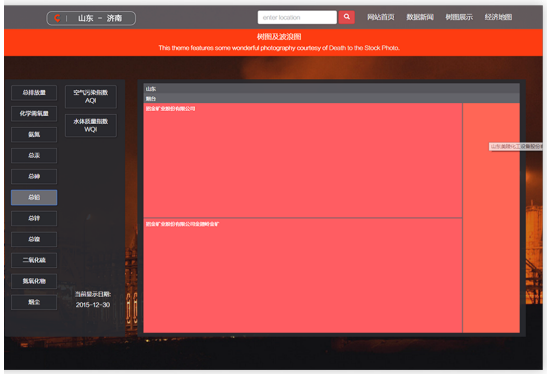
The map can visually present the pollution detection status around the users' site, such as wind direction, wind power, plants distribution and monitoring stations distribution.

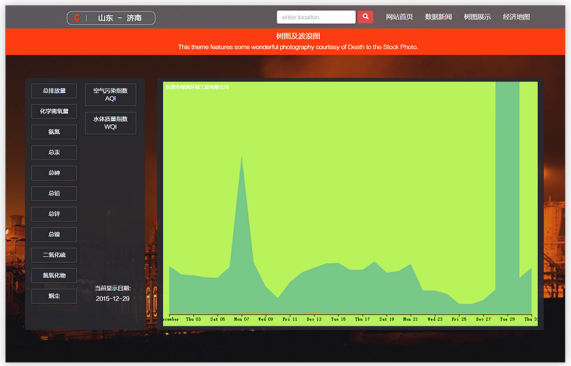
The Relationship between Enterprises and Pollution

Tree graph has big advantages over bubble diagram and bar graph in terms of indicating enterprises' pollutional trend. The integrated data of pollutant emission trend, total pollution amount, pollutional degree, and urban pollutional situation can be cross-compared and linked. While multi-dimensional data being presented, the webpage space can be as much utilized as possible.

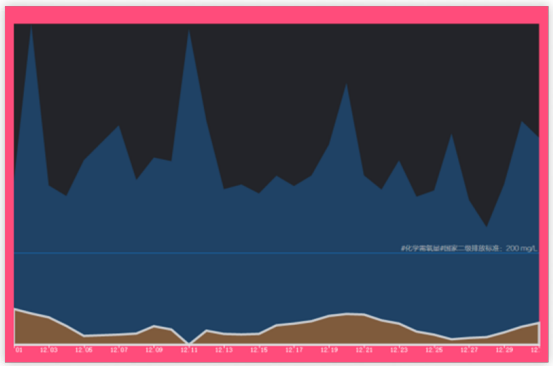


User click the color block and check the specific pollution discharge of certain enterprise

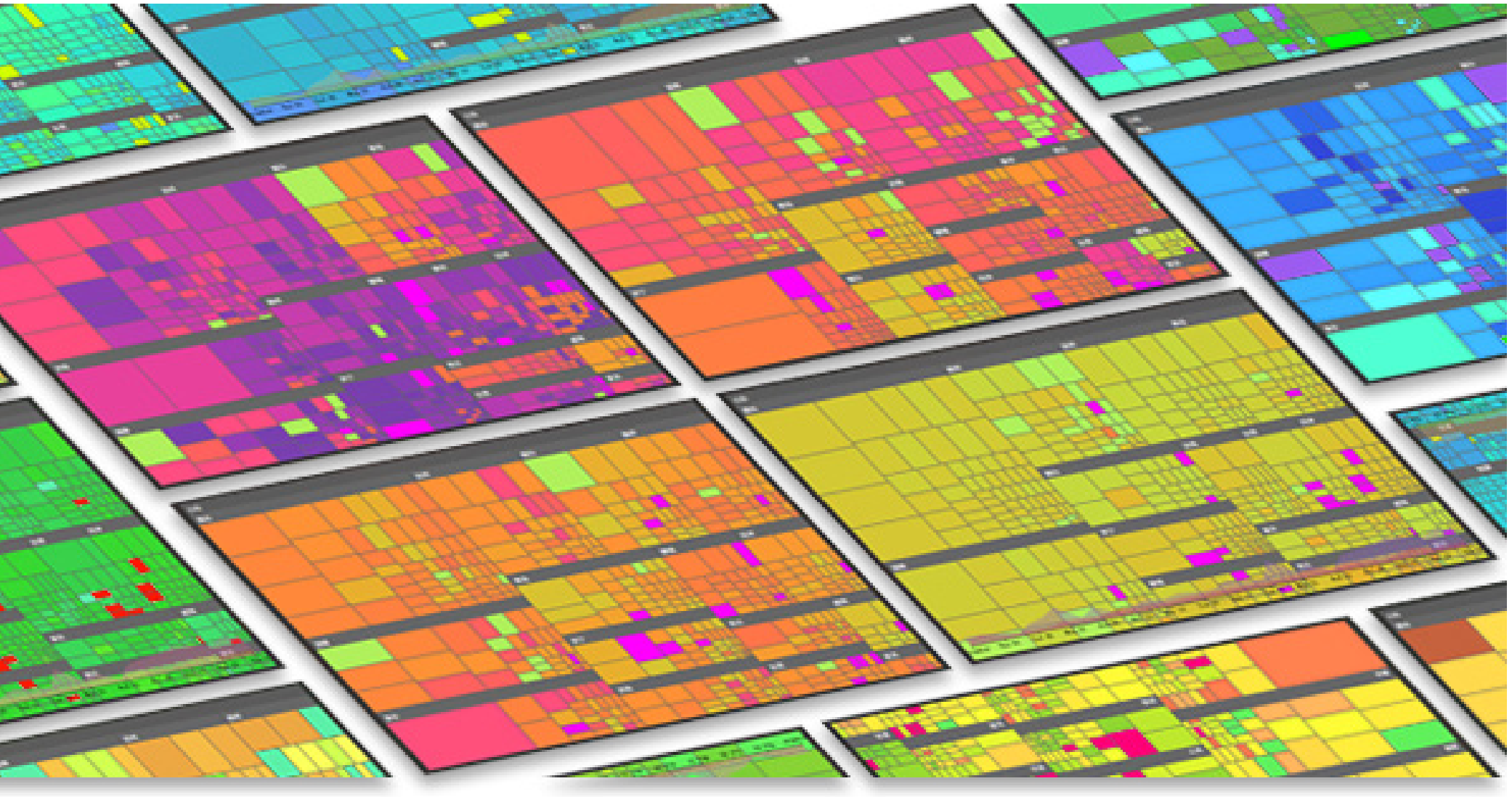




Specific pollution discharge in the enterprise



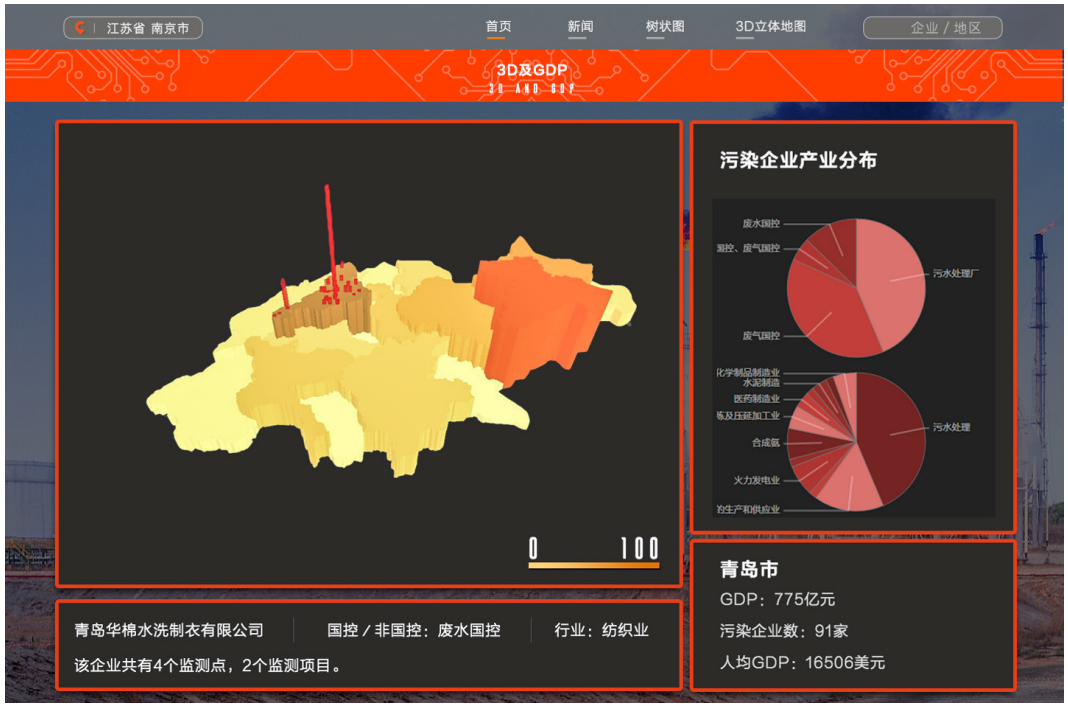
More than one terms of pollution discharge



By visually comparing monthly pollution data, it was found that most enterprises' pollutant emission amount reached top at the end of a month. The reason for this remained to be discovered by more research.

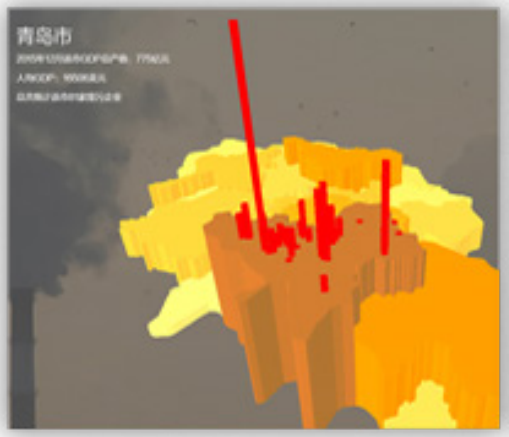
The Relationship between Economy and Pollution

One of data visualization's advantages, "vivid", was presented when the pollutional situation and economic development were cross-compared. In December, Qingdao City, with a GDP value of CNY 77.5 billion, had 81 pollutional enterprises, while Zibo City with a population of 3 million and a GDP value of CNY 33.4 billion is the place in which 108 pollutional enterprises are located in. It's evident that pollutional enterprises are intensively located and the pollution degree is severe in the northwest of Shandong Province.



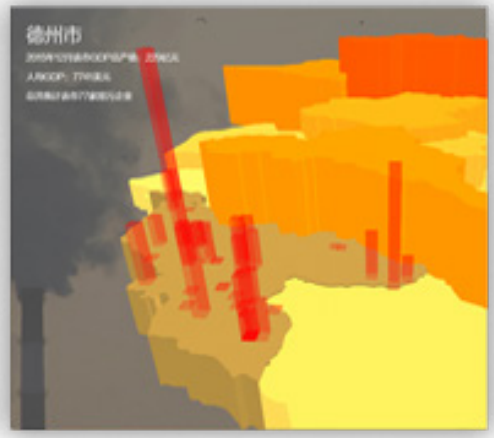
User click the color 3D Bar graph to check the specific relationship between Economy development and pollution discharge in one city

Through data comparison in industrial structure, we could recognize central and western cities' dependence on secondary industry and the development of eastern coastal cities in tertiary industry such as Qingdao. The above was clearly pictured by visual diagrams. Policies concerning economic structure adjustment and pollution control remain to be thought over and optimized by the government.

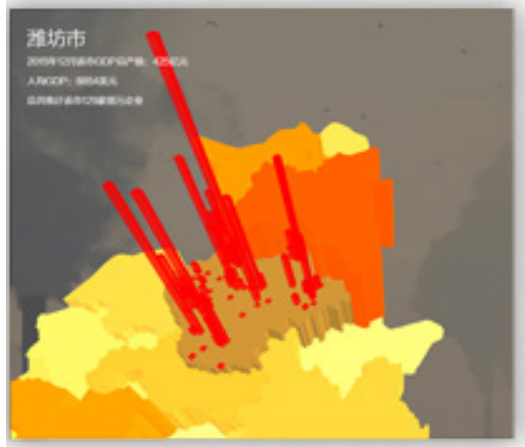


Qingdao City

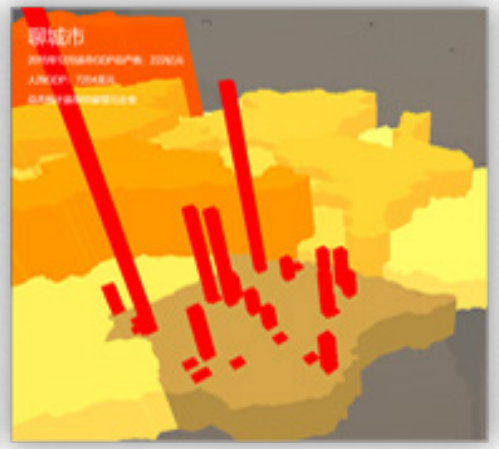
Zibo City



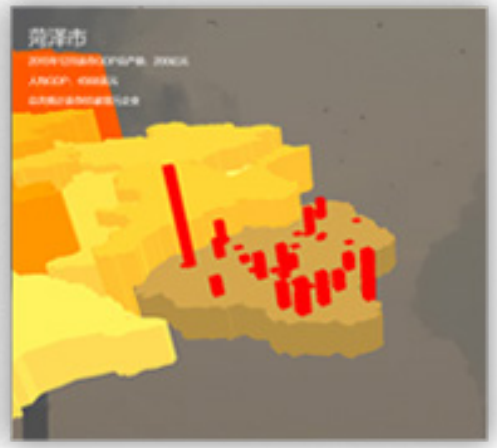
Dezhou City



Weifang City



Liaocheng City



Heze City

Digital Pilgrimage

An Interactive Installation for Popularization of Culture Heritage

At Glance

It's my individual work. I simulated Meditation, one of the most classic composition of Buddhist Culture, through the Brain Computer Interaction equipment from NeuroSky to create an experimental installation of art so as to popularize the culture of Buddhist. More importantly, I desire to explore new approaches in protecting the culture heritage and recreating the traditional culture through the novel interaction medium.

Popularization of Buddhist Culture

My interrogation of two insiders shows the consensus of Buddhists that it's inappropriate to communicate the lessons of Buddhist Sutras(the Buddhist doctrine), especially as an outsider. It would be less a tendency of unintelligence than a possibility of misleading. So, after the disucssion with my project supervisor, I decided to popularize the culture rather than teach the Buddhist principles and moral lessons.

"Buddhism is a kind of education systerm, every single person has his or her personal comprehension."

Baogang Zhou
Buddhist Compassion Relief Tzu Chi Foundation
Senior volunteer

"A true Buffhist doesn't care the environment."

Jianrong Hao
Cihui Buddhist College, Senior Director

The buddhists tend to take care of the internal feelings rather than the external environment.

One of the critical principles of the Buddism is meditation and the generation of wisdom.

The senior Buddhist have rasied the confidence of Buddhism so they don't need the help from outside (like your installation)but listen to their hearts inside.

The middle wall of Cave 3

Apasara

Hands of TATEA

Brahmara

Hand of Avalokitesvara Distributing Walth

Mahasi on the northern wall (retinue of TATEA)

Avalokkitesvara distributing wealth

Avalokkitesvara bestowing magic water

Boddhisttva on the southern side of the western wall

Vajradhra (guard of TATEA)

My supeversior introduce the research of Dunhuang Buddhist Fresco to me so as to set the foundation of content. These simple vivd gestures have abundant and intriguing stories. Eg. In the Cave3, the main topic are the thousand-armed and thousand- eyed Avalokkitesvara(TATEA). Being different from the earlier drawin and descripted TATEA which are traditional and religious. The TATEA in CAVE3, however, is more secularize and respond the era environment.

Brain Computer + Trackball

According to the research, the nontrauma equipment can now detect 4 types of wave when brain saty in different activities. Depart from the δ wave and Θ wave which occurred when people are sleeping, we can get two signal from people when they are awake. The α, when people are relaxed; the β wave when people are nervous or highly focus on something.

α

8--13Hz

Range among 50 μ V, mainly relfect human's situation when they are relaxed or awake

β

13--30Hz

Range among 50 μ V, mainly relfect human's situation when they are focus attention

Θ

4--8Hz

Range among 50 μ V, mainly relfect human's situation when they are in deep sleep

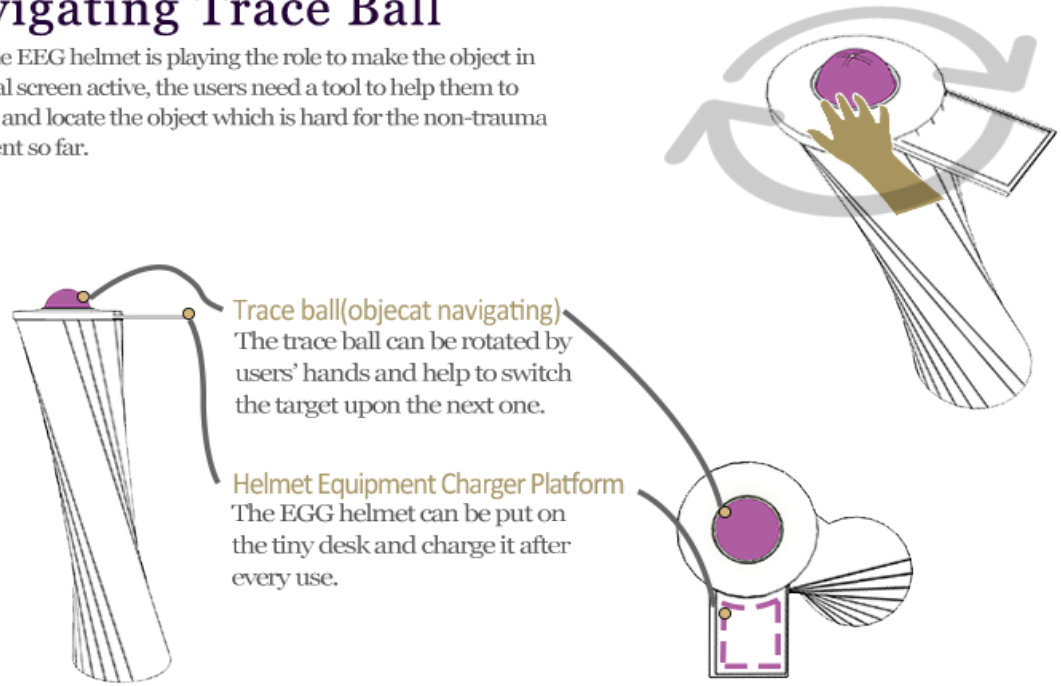
δ

1--3.5Hz

Range among 50 μ V, mainly relfect human's situation when they are falling deep sleep

Navigating Trace Ball

When the EEG helmet is playing the role to make the object in the digital screen active, the users need a tool to help them to navigate and locate the object which is hard for the non-trauma equipment so far.



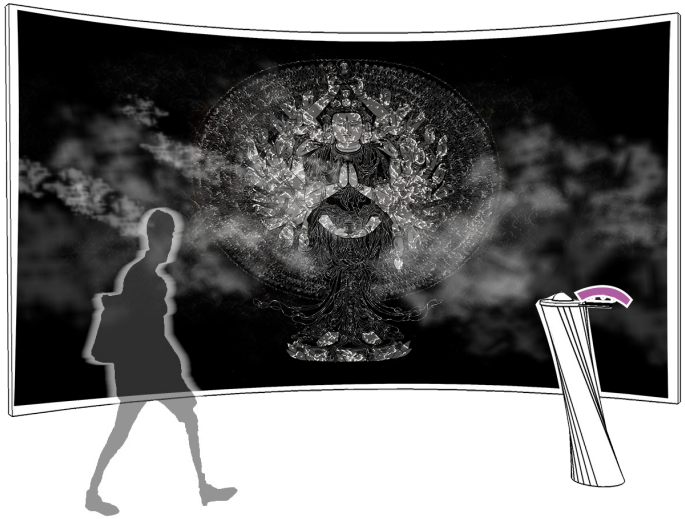
I sepecrate the opeartion of installation into two simple steps – selecting and activating.

The selecting hardware will help the user to locate and choose which object is his or her target easily.

The BCI device is supposed to play as a launch trigger, imitating meditating in the Buddhism culture.

PartA -- Innovate the Device

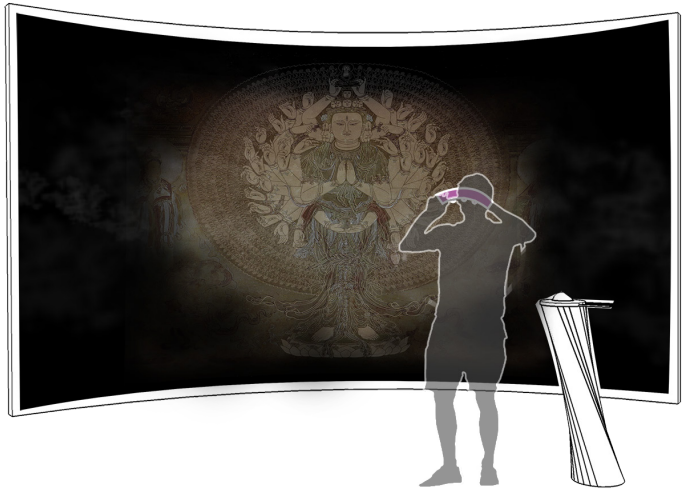
Because people has little access with the Brain Computer Interaction, this part is supposed to help the users to get familiar with the divce and an instant glance that how to use brain wave to interact with the virtual things.



Notice the Installation

·The image is blured by the fog special effect in the unactivated state.
·The visitor noticed the Trace Ball Device and EGG helmet put on it.

30 Hz
13 Hz
8 Hz
0 Hz

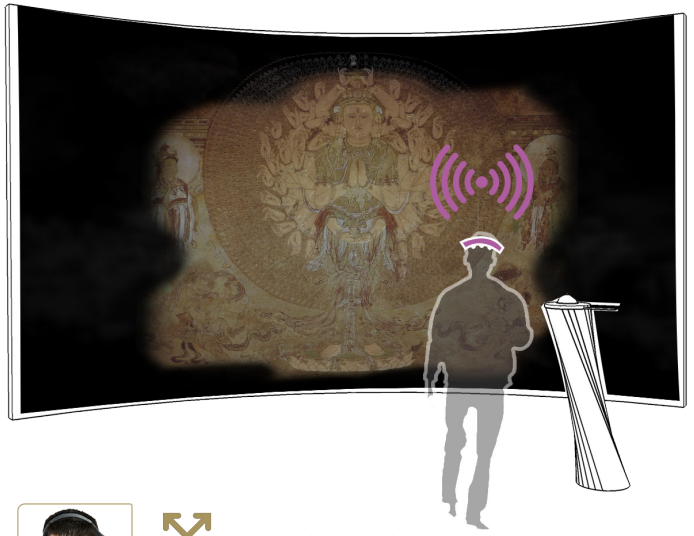


"Try to **Keep** thinking and **focus** on ceratin stuff"

Take upon

·Take upon the EGG helmet to set the initialization of the Device under guide.
·Practise your first time in Brain Computer Interaction.

30 Hz
13 Hz
8 Hz
0 Hz



The images will consequently expanded with the users' persistent brain wave signal

Focus

Keep focus on the object and the systerm will be sweitched on consequently

30 Hz
13 Hz
8 Hz
0 Hz

PartB -- Operate the Device

Because people has little access with the Brain Computer Interaction, this part is supposed to help the users to get familiar with the divce and a first fresh quick glance at how to use brain wave to interact with the virtual stuff.

Peplum

The dress will float up and down like being blowed up by breeze

Hand

The eyes will open slowly in the gradually shaking hands

Expression

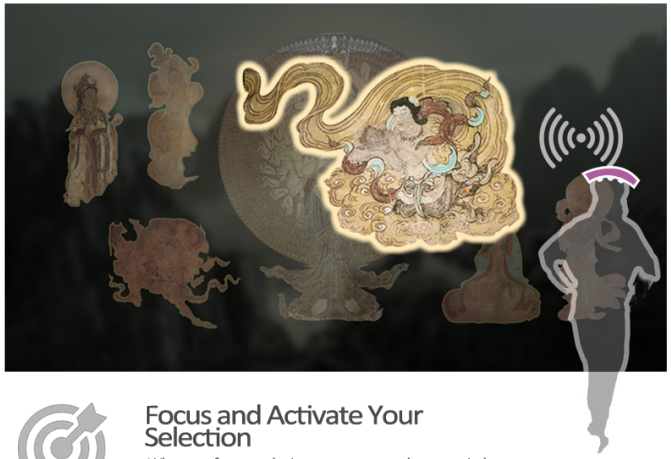
Avalokitesvara will gradually open his eyes and twinkle

The Activated Device

·The images and figures is floating in the screen and waiting to be selected by rotating the Trace Ball.

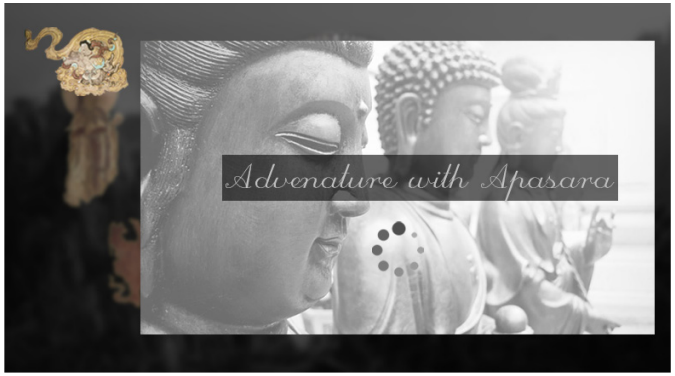
Chooce One

·You can rotate the Trace ball to switch the selection and the selected figure will shine mild warm light to feedback. .



Focus and Activate Your Selection

·When you focus on the images or try to make your mind nervous, the figure will be activated and hence enlarged in the process of moving toward the center of the screen gradually with your thinking.

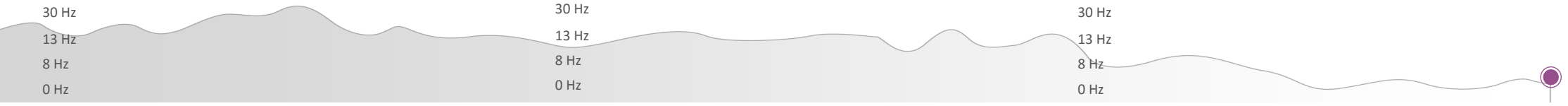


Enjoy Its Wisdom Story

·The video will be played automatically when detected signal reached 30Hz.

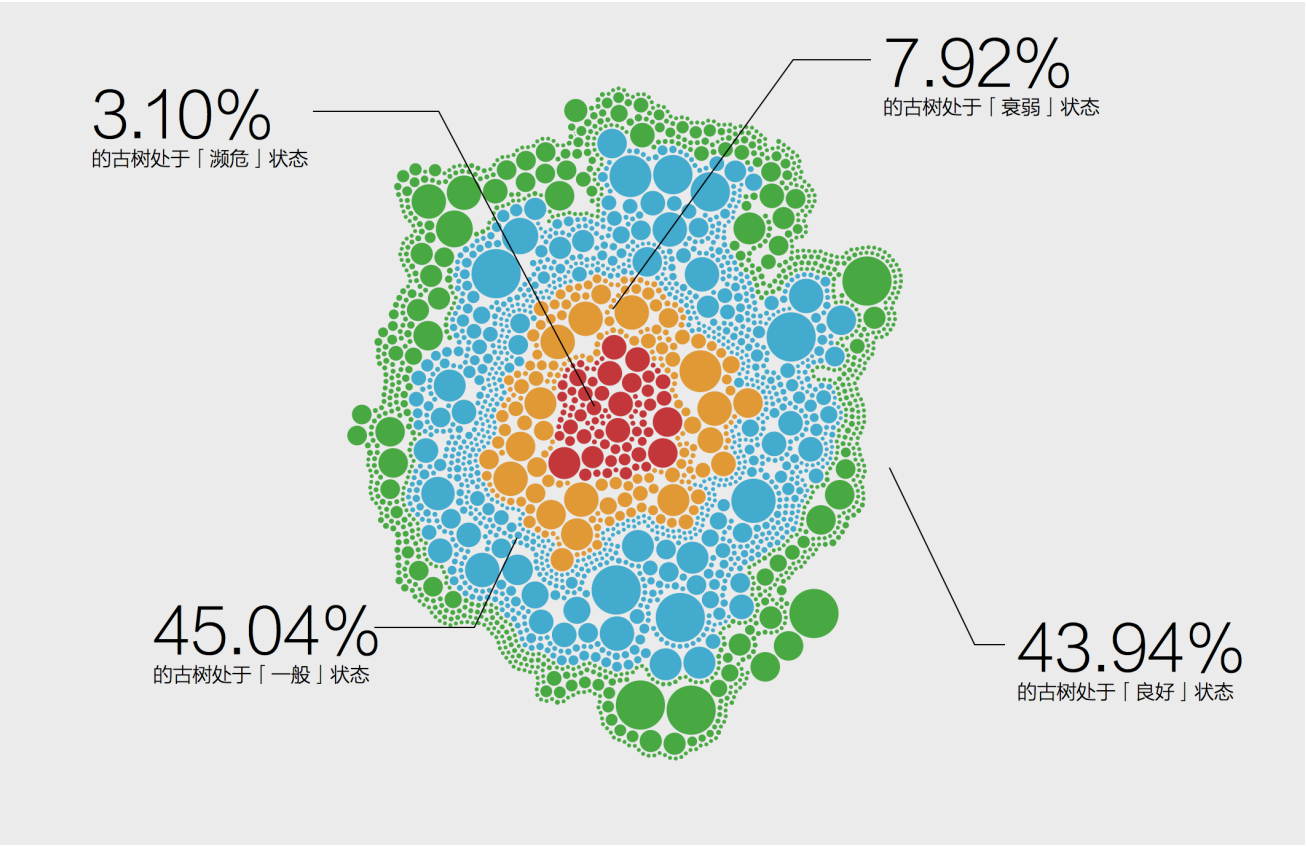
The Original Main Screen

·After the video, the screen will go back to the initial activated status.



Interior Rendering & My Mind

I realized the collaboration between different interactive approaches would enhance the communication of the content of the interactive installation. Since the fact that Electroencephalogram (EGG) is only capable to detect four distinctive signals, which is challenging for users to make sophisticated operation through this assistance. I thus use the tract-ball and motion sensing sensor such as Kinect to help the users in choosing the targets and use EGG to help the users in beginning the video playing. In a word, comprehensive interactive methods would be more corresponding to users' cognitive principles and be more echoing for the Meditation in the sense that people could get new experience without the dependence of external force.



China Vis 2016

Outstanding Poster Award (6/30)

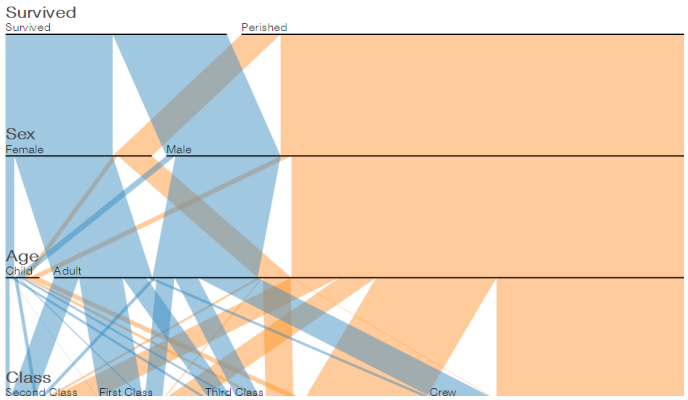
Shanghai Trees

Data Visualization of Shanghai Aged and Famous Trees

At Glance

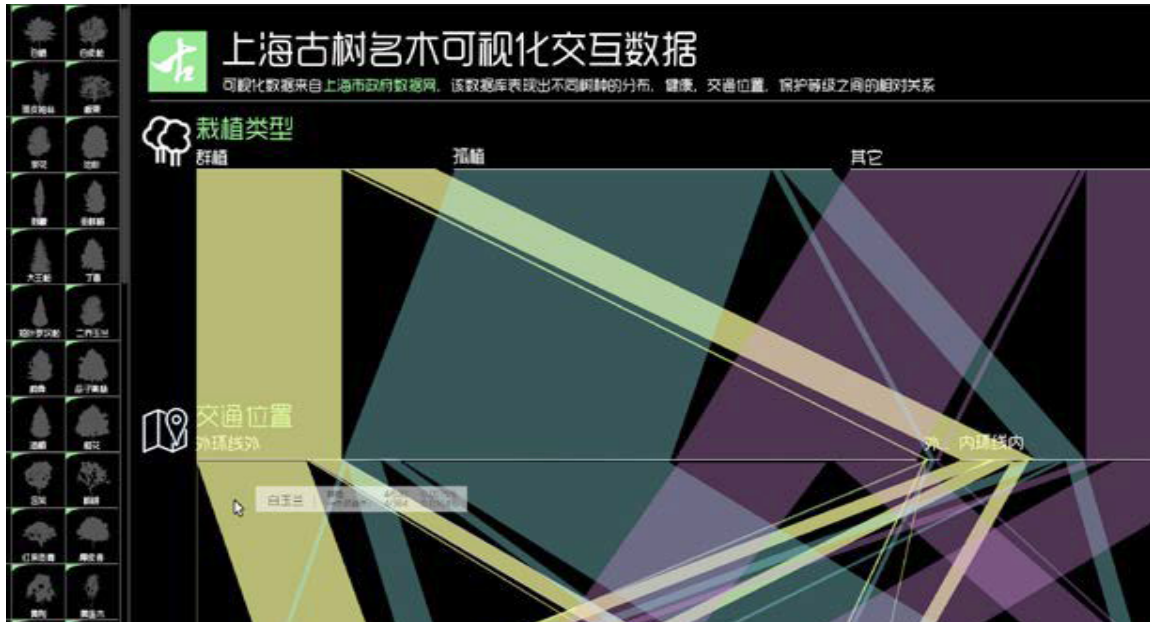
Based on Shanghai Municipal Government Open Data Database, I visualized the aged and famous trees in Shanghai through different perspectives and created a new connection between the citizens and government. Citizens will be capable to have a better understanding of their city's status quo. Also, the visualization of Open Data is helpful for the municipal governement in improving the governemtn transparency.

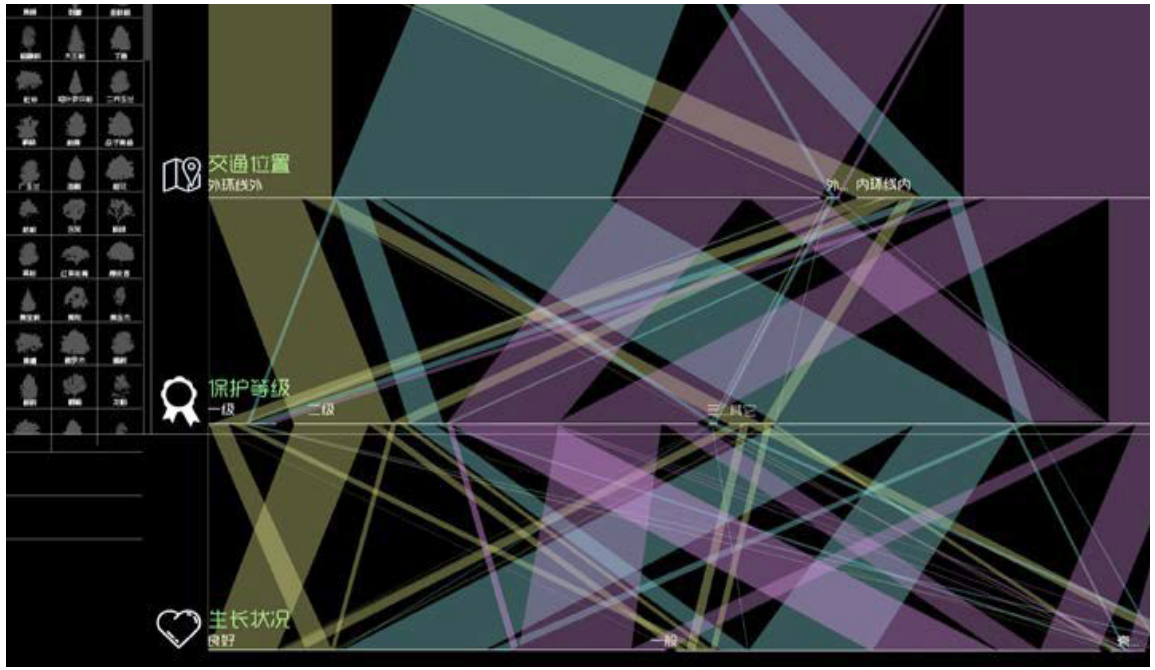
First Iteration



D3.js Templete

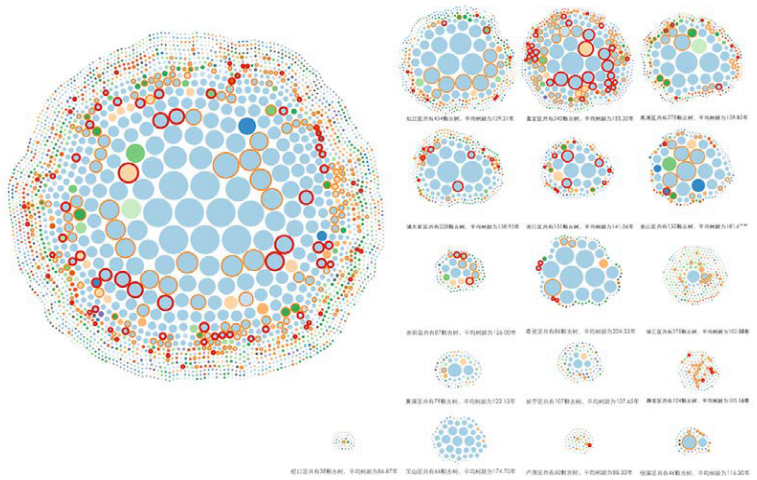
The shortage of Waterfall Graph is because of its scale. Watermap is a good and intriguing visualization graph when there is few data figures. However, it is helpless to present high dimentional data in this project.



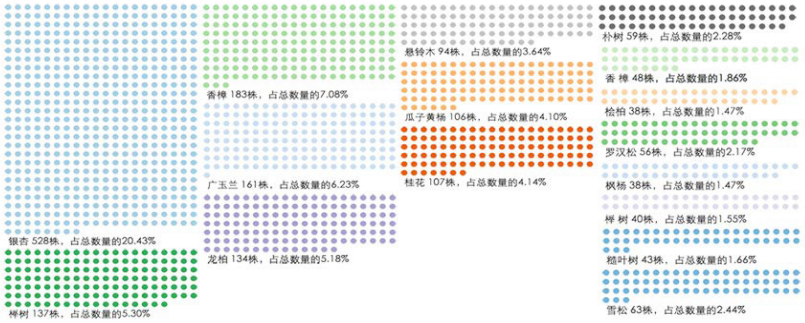


Second Iteration

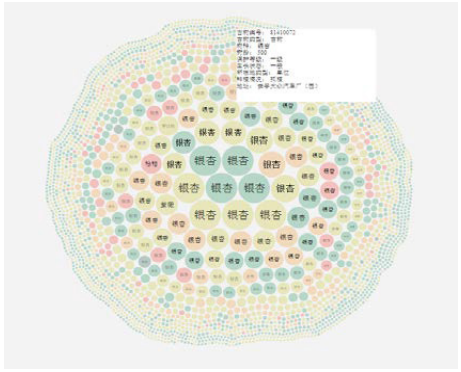
Bubble map has presented a better visualization of data, but it is still hard to display sophisticated data figures such as growth conditions and ages.



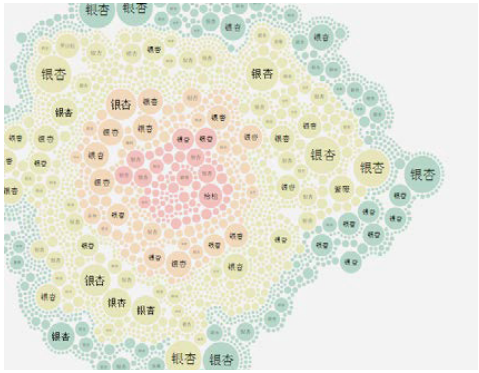
Clusted by city districtions



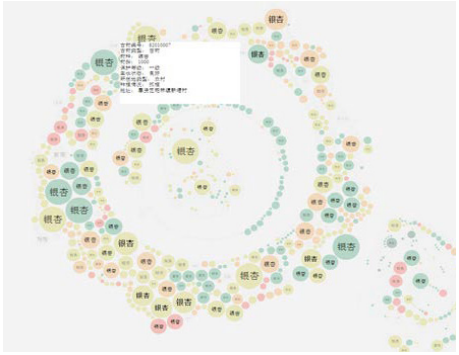
Clusted by species



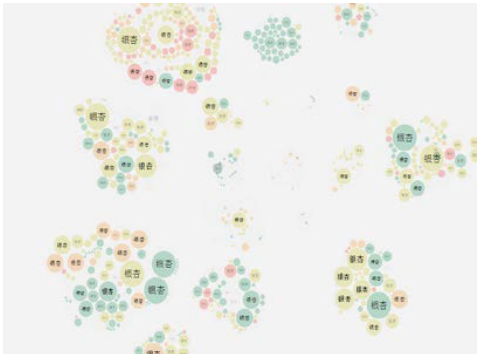
Trees age
(the bubble size represent its age)



Health Condition
(the bubble color represent its condition)

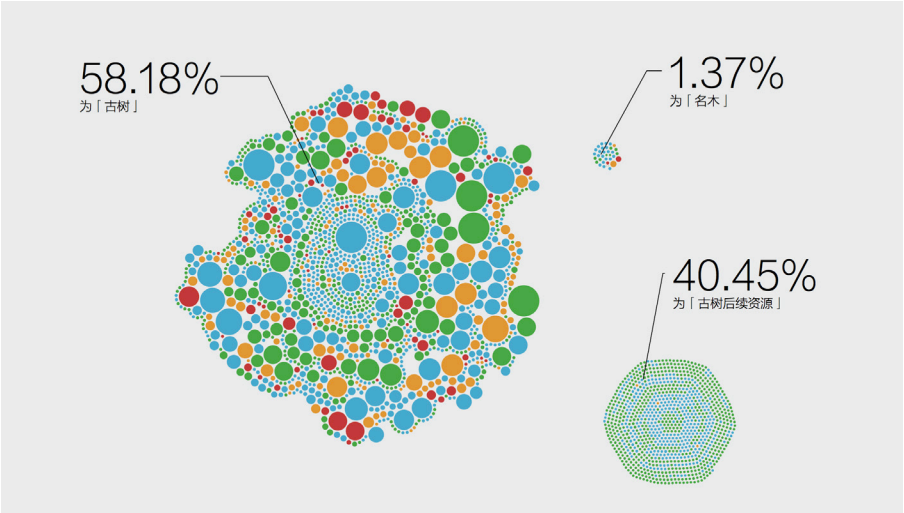


Traffic Distribution
(Downtown/Centre ring/ suburb)



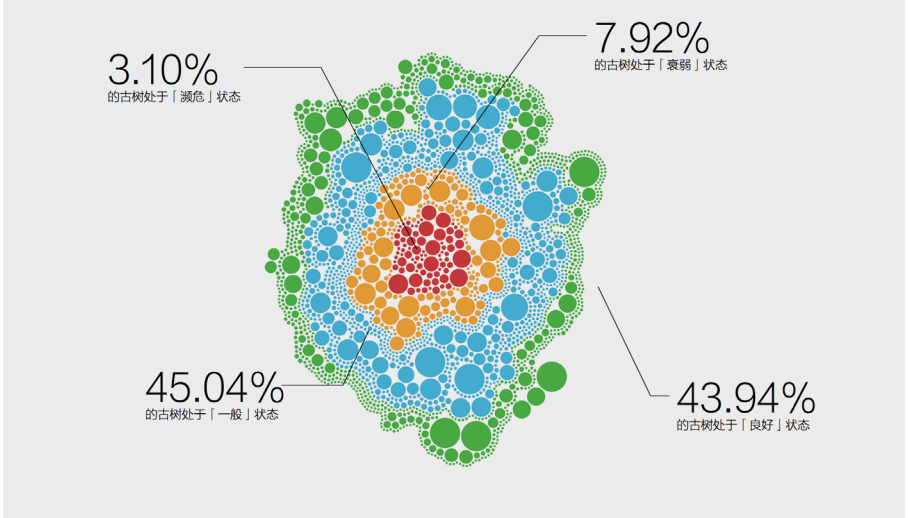
Number distribution in city distriction

Present



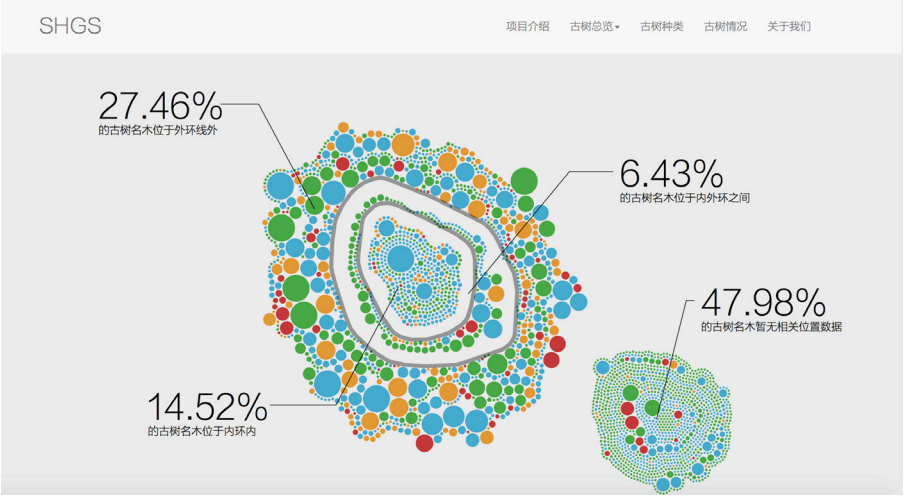
Trees Type(aged/rare/normal)

There are about 58.18% trees in Shanghai are Aged Trees, 40.45% are normal trees and 1.39% are rare trees.



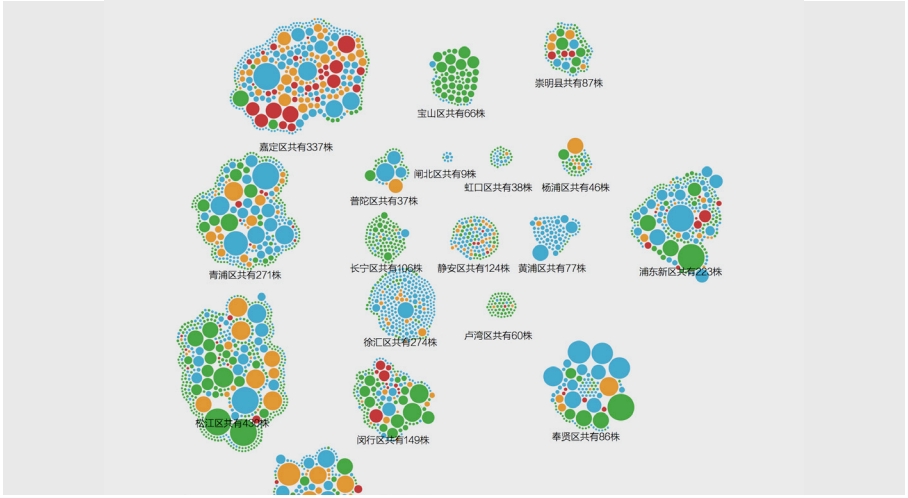
Health Condiction

The bubble color represents the tree's health condition, and the bubble size represents their age.



Traffic Distribution(Downtown/Centre ring/suburb)

There are 14.52% trees in Shanghai are located in downtown, 6.43% trees are located in Centre ring and 27.64% tress are are growing in suburb. However, there are 47.98% trees lost location data.



City Districtions

There are 18 districts in Shanghai, and Songjiang District contain the biggest quantity of trees. The trees in Jiading District having the worst health problem.

Chinglish

An E-Learning App for English Vocabulary Memorization Designed for Chinese Learner

At Glance

It's my individual work. I adopt a memorizing method that can image the pronunciation of English words with Chinese characters. Through improving the interest whilt learning, it would be easier for Chineses students to remember the words consistently. With the pattern of self-reporting review pattern, and the pattern of serial memorization by which related words can be remembered, the effeciency of words memorizing is going to be improved.

This app is designed to help Chinese students to take advantage of their mother tongue and the features of brain memory to promote vocabulary storage rapidly for advanced standardized exams (GRE and GMAT).

Research on Pain points in Vocabulary Memorizing

The pain points in the process of vocabulary memorization during the preparation for exams were discovered:

I always cram the vocabulary book 10 times or even more than 20 times to memorize the vocabulary mechanically.

Junior graduate students
from Computer Graphics

Schedule students is divided by different teaching areas and social activities that they cannot focus on the preparation of exams.

Activists
from the college students' union

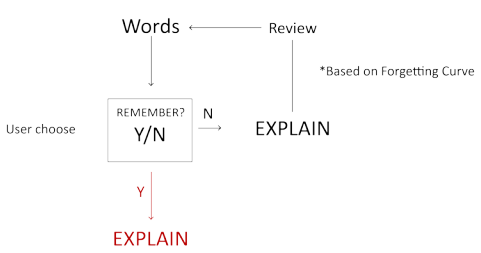
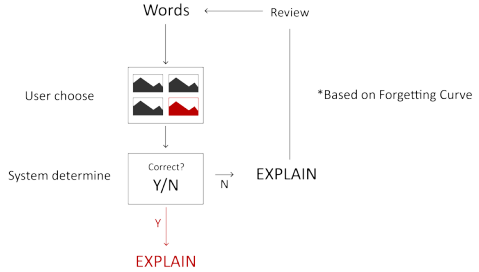
Time is spent on commuting, it is difficult for me to focus on the review of the vocabulary in a crowded and noisy surrounding, and most of the time, I have to do without a seat, so it will cost much more energy to memorizing the words.

Interns from Ernst Young

Research on Existing Products

The existing products in the market(on the right) spent a large volume of budget in employing professional editors to design the content of the words and knowledge and in purchasing the digital ID of the dictionaries such as Merrian-Webster.

Furthermore, these products just simply followed the principle of Memorizing Curve and unable to provide customized service for individual who has a different vocabulary accumulation and classification methods.

扇贝	Product	Baici Zhan
	Vocabulary Recitation Method	
Concise, clear, meticulous	Product Character	Interesting, impressive, humor
Notes, example sentences, card punching mechanism	Aiding Method	Words radio program, example sentences, card punching mechanism
Learning group(for mutual supervision)	Collaboration Method	Little games
Boring repeat Repeat of the grasped words Skip of the unfamiliar words	Shortage	Only remember the picture, but forget the meaning of the words  = Precipitation? sediment? pollution? effluent? drainage? ooze?

Research on Memorizing Mechanism

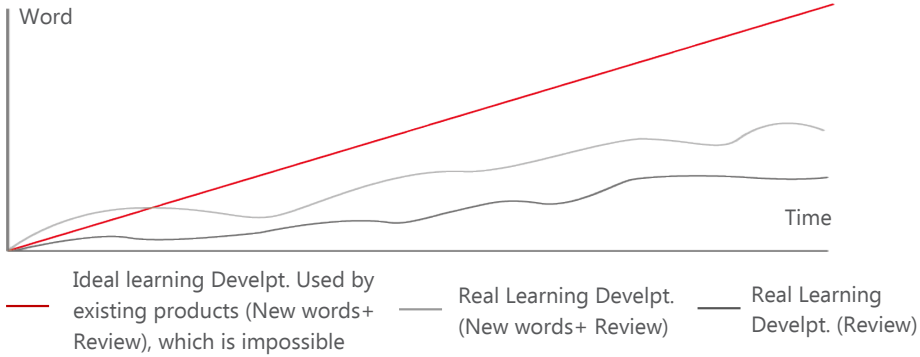
Major difficulties on the technical level of memorizing vocabularies discussed by the focus group:

1. Time for review of memorized vocabularies is insufficient and fragmented, so more energy is needed;

2. Time for review cannot be managed effectively, and with the large amount of words to be memorized, the former words tend to be forgotten when the latter are memorized;

3. Advanced vocabulary is difficult to be memorized;

4. Words of similar form, sound and synonyms are complex and plenty, which makes it difficult for individuals to memorize these word in series, and none of the existing Apps can meet this demand.



Cultural suboridation; Evangelical fervor; Measurement error; Ethnic Self-awarness; Orders of magnitutde; ...

virtulent
opulent
truculent
succulent
esculent
fradulent
turbulent

rife
rile
rite
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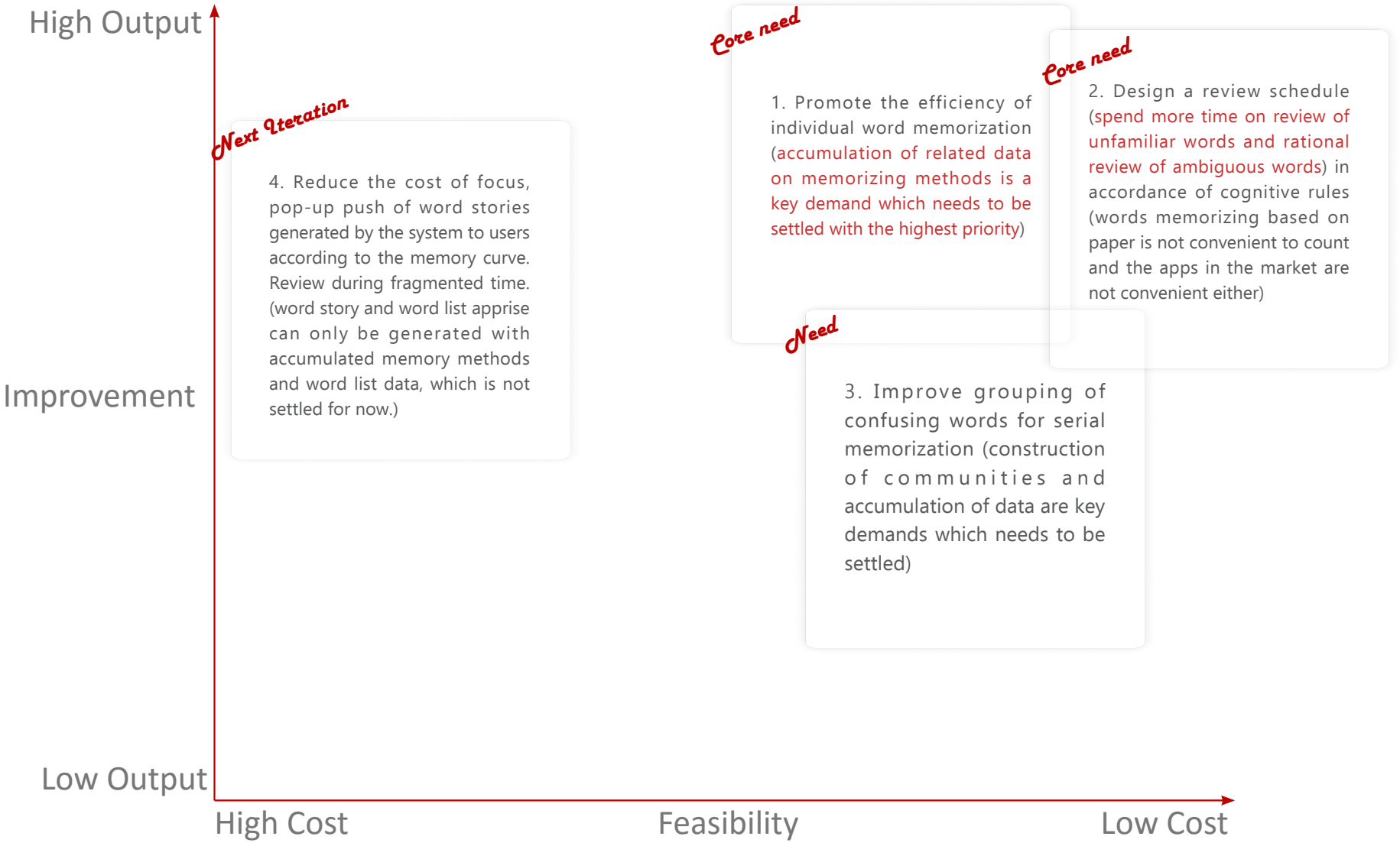
imperative
impertinent
impetuous

...

Selection and Summery of Pain Points:



Four Solutions

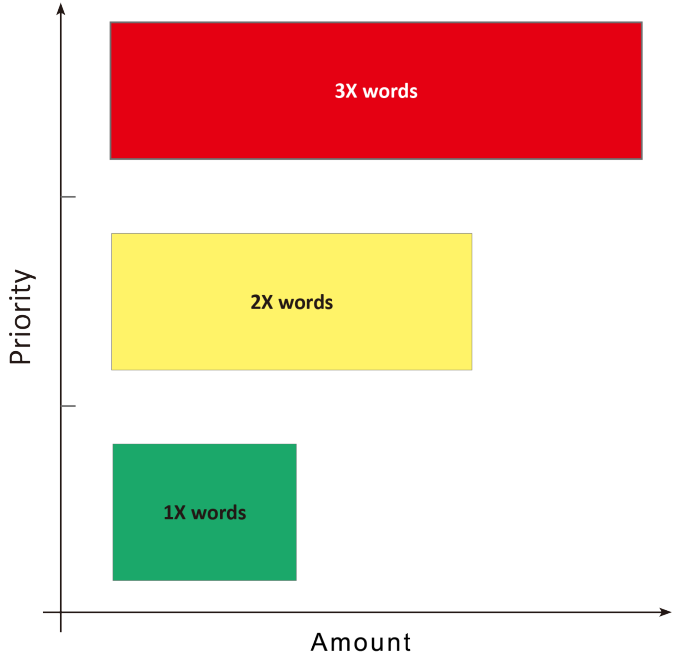
1-Review mechanism on one day (to offer a better daily review schedule)

1. The user sets the corresponding exam and daily word amount for vocabulary memorization
2. The user selects the familiarity for each word when it appears, i.e. familiar, ambiguous and unfamiliar.
3. A word labeled as unfamiliar initially will later appear repeatedly until it is labeled as ambiguous or familiar.
4. A word labeled as ambiguous initially will later appear repeatedly until it is labeled as ambiguous twice or labeled as familiar.
5. A word labeled as familiar initially will not appear on the same day.
6. At the end, words label as unfamiliar initially will be collected and reappear for memorization (review the words thoroughly).

2-Dynamic quantity for daily learning (solve the problem that words cannot be reviewed rationally due to the large quantity):

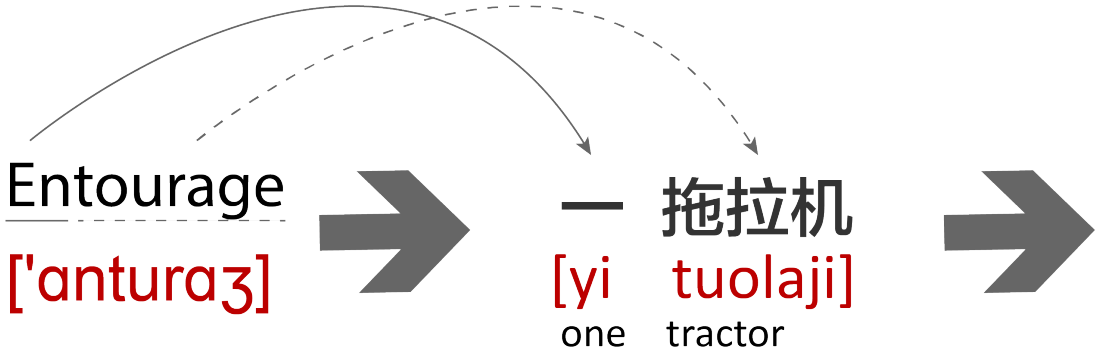
Learning quantity on each day is dynamic, daily word learning quantity set by the user-words need to be reviewed (unfamiliar words from yesterday +60% of ambiguous words +30% of familiar words)=new words need to be learned on each day.

It can only aggravate the memory burden to learn new words before remembering the words have not been properly learned, short term memory of the former words will be lost due to lack of review in the long term, if the amount of daily words to be learned is negative, which indicates lower efficiency of memorization of the user, the prompt frequency for word review will be increased (e.g. increase 1 or 2 times from twice per day based on the specific condition)



3-Imaging and Chinese character pictophonticization assisted memorization (solve the difficulty in memorizing advanced vocabulary):

Offer associative memory besides etyma and affix with imaging and Chinese character pictophonticization, the method used more frequently will ranked higher (easier to be seen), and the short memory for each word can be increased from 10 minutes to 12 hours. (Based on the 2 experiments conducted on 4 untrained subjects.)



The pronunciation in Englsih for a word can be also read by Chinese pronounciation, and bring interesting imagery to help remembering.

The Chinese pronunciation is easy for users to form a tiny interesting story related to the real meaning : servant, context, circumstance

Build a bridge between the picture and the meaning of the words through the words Chinese pronounciation and users' rich imagination. Different users may form different stories to remember a word.

3.1-Application of Memorizing Theory

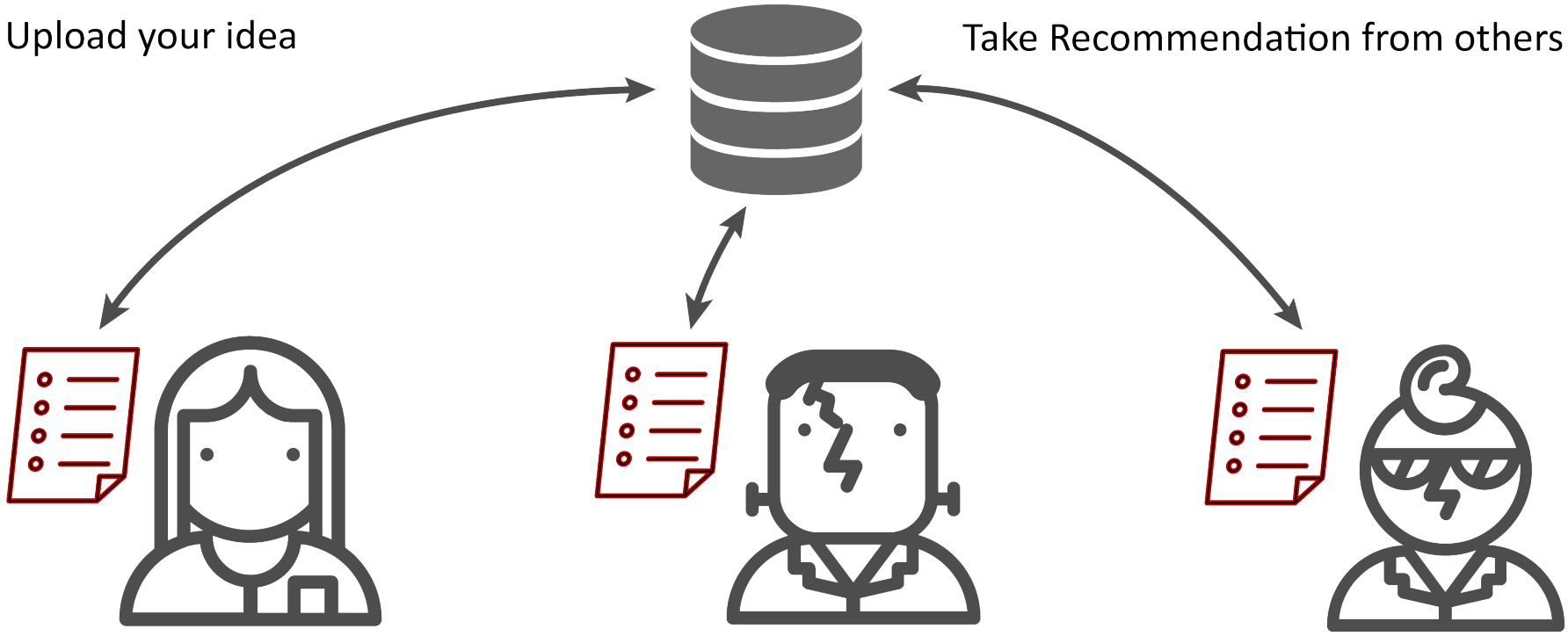
Joshua Foer, U.S. Memory Championship winner's Theory of memory, connect and memorize a group of numbers, words or objects without logic in a short time with imaging skill.
https://www.ted.com/talks/joshua_foer_feats_of_memory_anyone_can_do#t-787635

The tractor lead a team of servants to serve their landlord.

The tractor's oil leak polluted the circumstance.

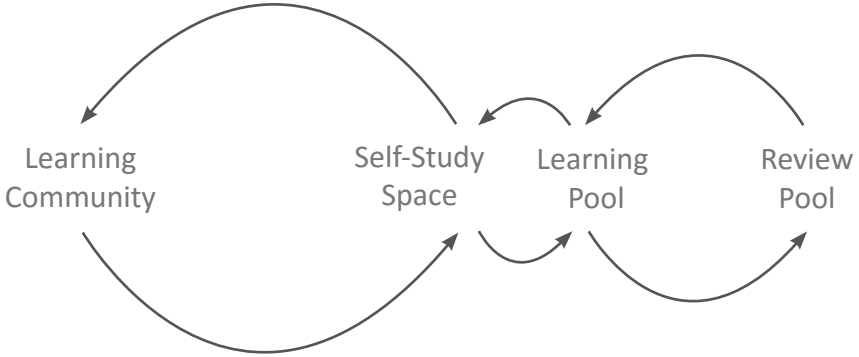
4-Grouping and serial memorization of vocabulary (solve the problem of abundant words of similar form and synonym):

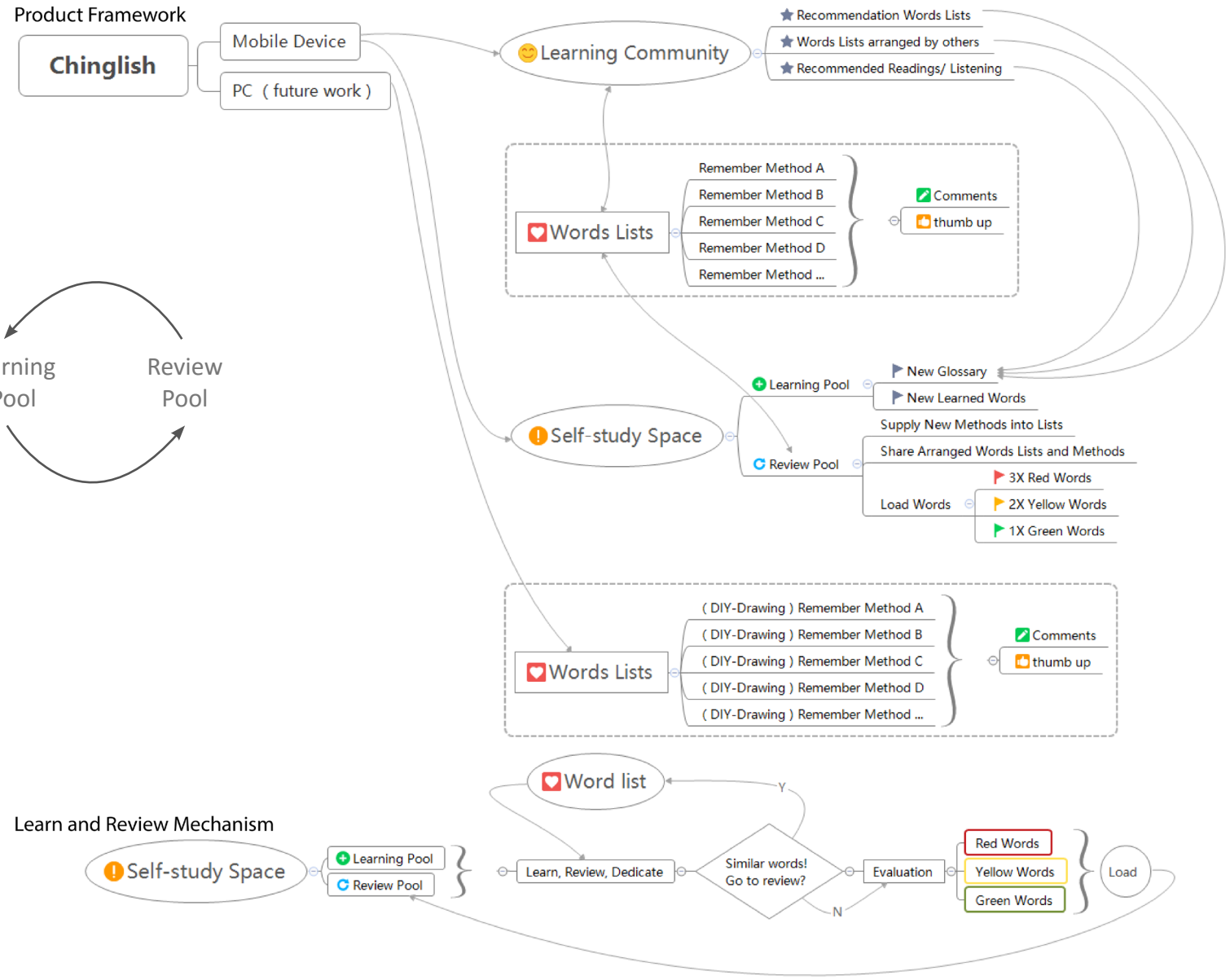
Words can be divided into groups based on etyma, affix, paraphrase, similar forms and sounds, users can upload and share word list grouping, skills and articles for vocabulary memorization with each other, each user can take what he or she need. Hot word lists the learner needs will be recommended to the user and added into the learning plan on that day.



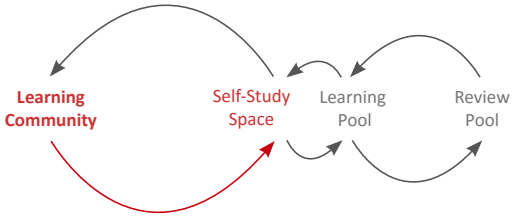
App's Logic Framework

APP is divided into two main parts -- the Learning Community and Self-study Space (Learning pool & Review Pool). Users can take the designed learning mechanism to sytematically learn whatever words they want in any methods they feel comfort and effective.

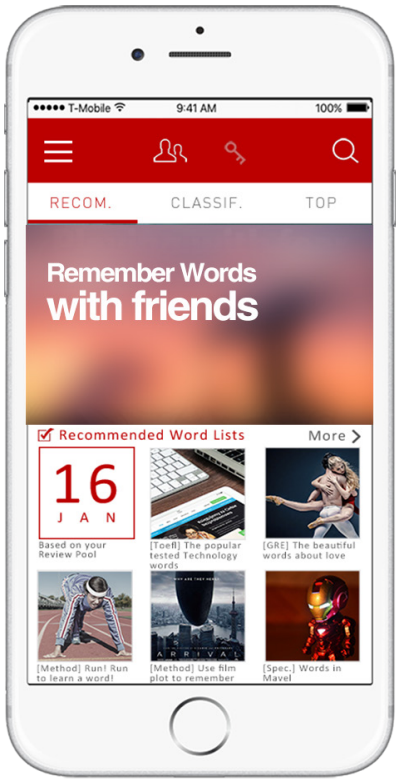




Learning Community

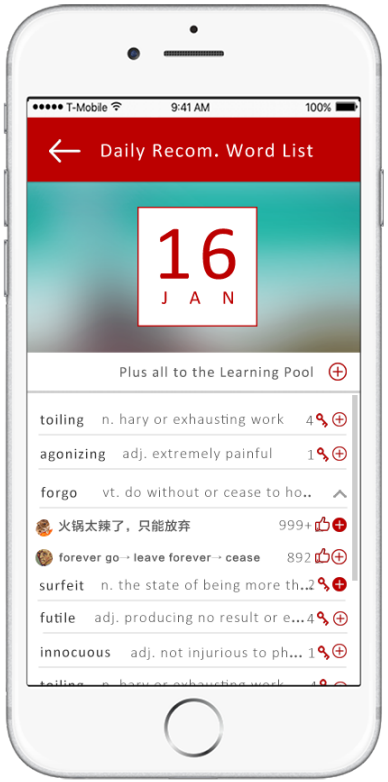


The homepage of App is the Learning Community in which learners can select the recommendations from the operation team, see the professional articlesand other relative news. Also the learners are able to choose the words lists summarized by other users they are interested in.

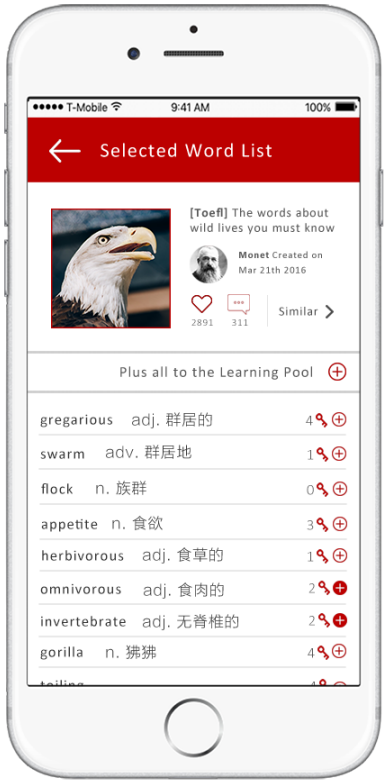


Home Page

Learner choose the lists they are interested in



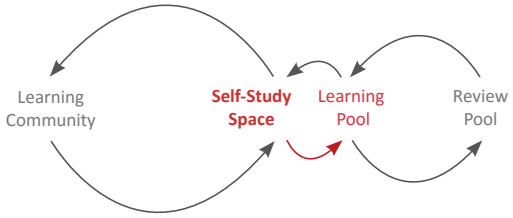
Recommended List



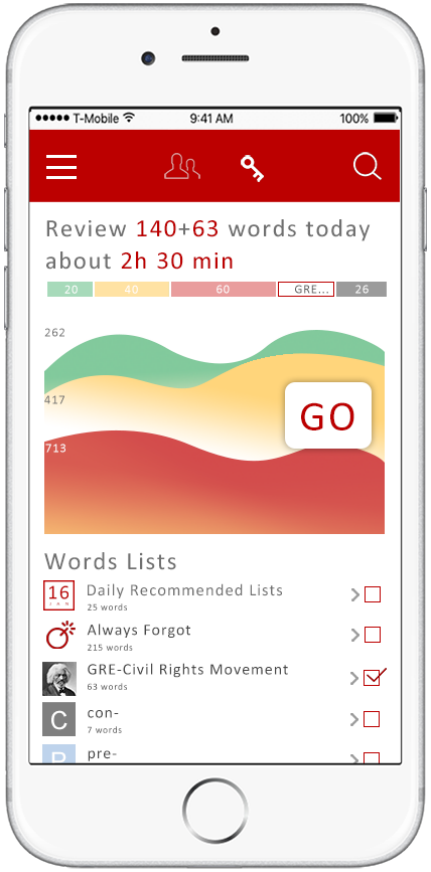
Specifc List

Browse different wordslists to save the words you need into Learning Pool. And learn other users' remembering methods if it is good for you as well.

Self-Study Space



During the test, user are capable to create word lists of etyma, affix, paraphrase, similar forms and sounds, and share/test them after a while.
The Learning Pool and Review Pool are connected and followed the daily-words-review mechanism.



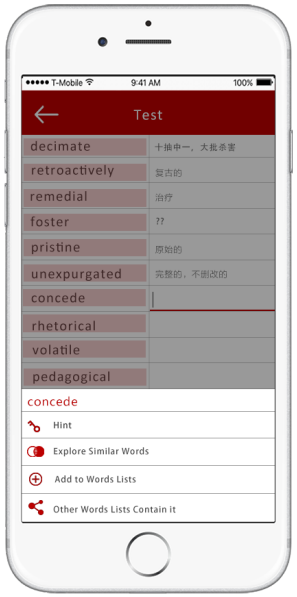
Words Selecting Pannel

In this part, user can add extra words lists in addtion to the planned schedule.

Memorize — Organize

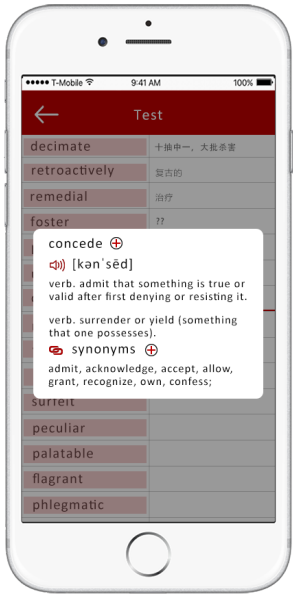
Begin

In order to help the learners to focus onall the test, App asked user not only to recall the meaning of the words, but also tyep them into the blank columns.



Panel

When a learner meet a word that has a similar etyma, affix, paraphrase, forms and sounds of his/her own vocabulary, he/she are capable to create a list of word about this group.

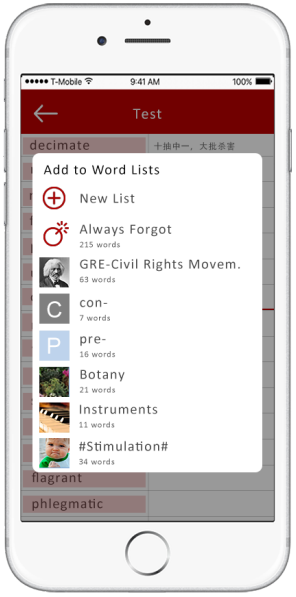


Hint

The meaning of the word, the synonyms, paraphrase of the word.

Relative words

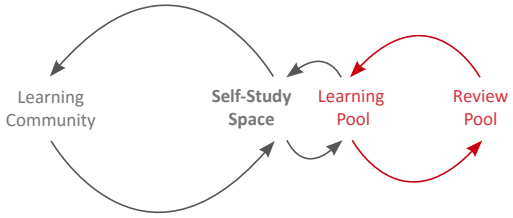
Learner would be able to group and save a list based on his/her own vocabulary.



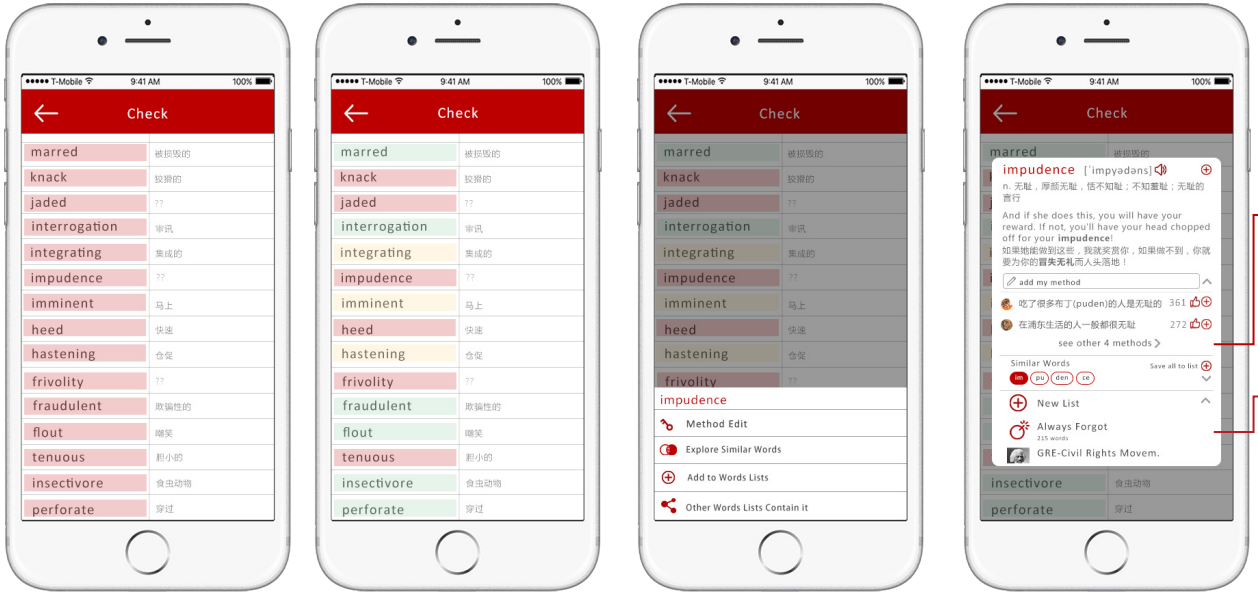
Word Lists

The words could be either saved into a existed list or a new one.

Save the Answer of Memorizing Test



DIY check the answer — Organize



DIY check

Familiar, Ambiguous, Unfamiliar

Learners label the priority of the words by themselves so as to avoid waste of time in memorizing the words of familiar and to raise the effecieincy of memorizing the most important words.

Deal with the words

Associate the word and edit the note of words memorizing.

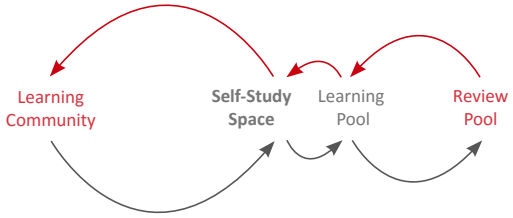
Note Edit Panel

Besides the basic meaning and example sentence, the learner can add individual graphical remebering methods. (the sketch pannel will be designed and provided for users in next iteration.

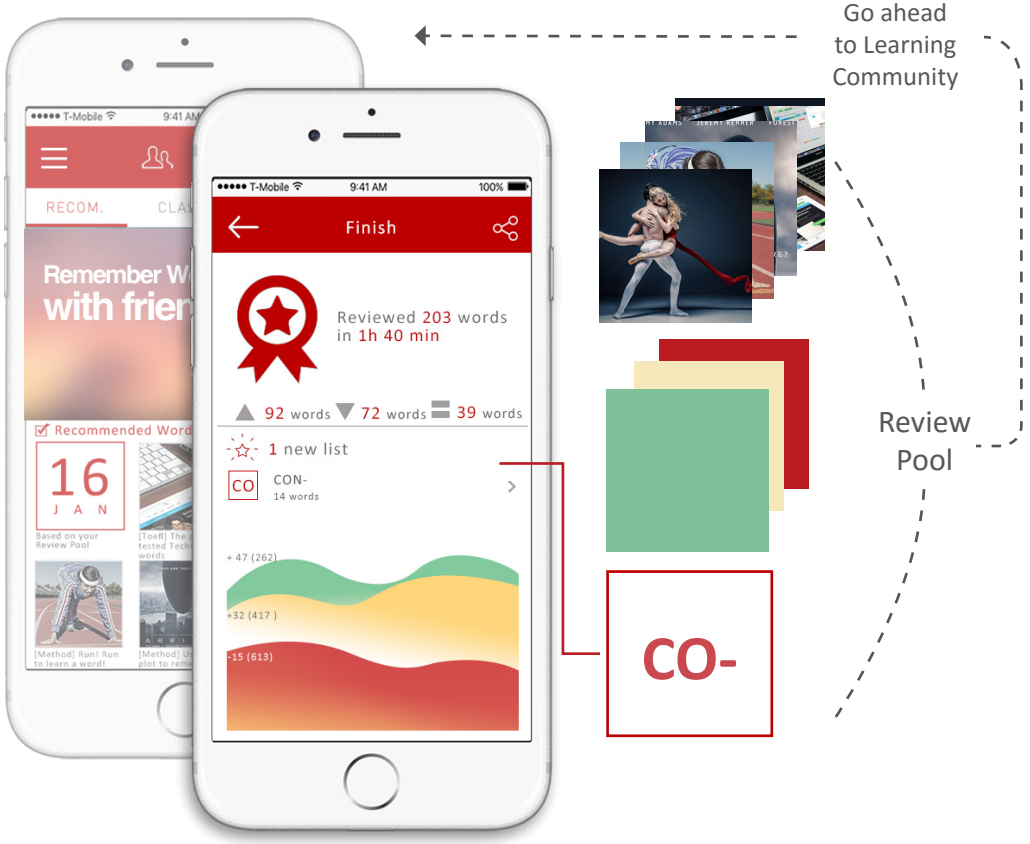
The learner can take the note of vocabulary memorizing shared by others or create his/her own.

Put the word into the word lists(if necessary)

Self-Study Space



Enjoy the accomplishment

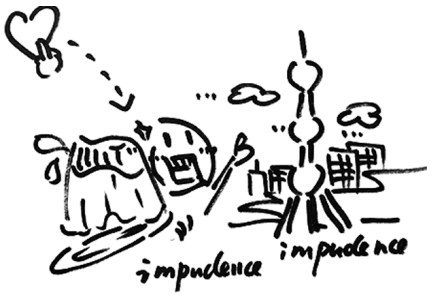


The finish panel will show the test performance and the lists leaner have saved from this test.

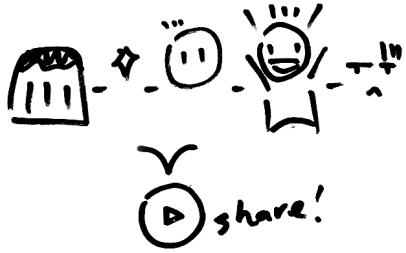
PC-End Interaction (Prospect iteration)

Most of students' original vocabulary stays in between 3000-5000 required by college entrance examination, which is nowhere near the 8000-15000 request for vocabulary of advanced exams. Theoretically, imaging memorization and crowdsourcing community can increase the efficiency of a single pass from 60 words/hour to 150+ words/hour by 250%. And the learning time will be scattered in the fragmented time of the students to minimize the effect on their overall working and researching time.

On PC, users DIY the pictures, pattern and icon to form a tiny story, which help themselves and others to remember the words in the comunnity



In the community, users are able to share notes, formed Gif, short passages to help both themselves and others to memorize the words



If anyone are able to draw the sketches as note of vocabulary memorzing quickly, the community would accumulate a exceptionally number of notes and contents consistently, through which increase the profit and attract prospect advertisers and education-service providers to this platform.

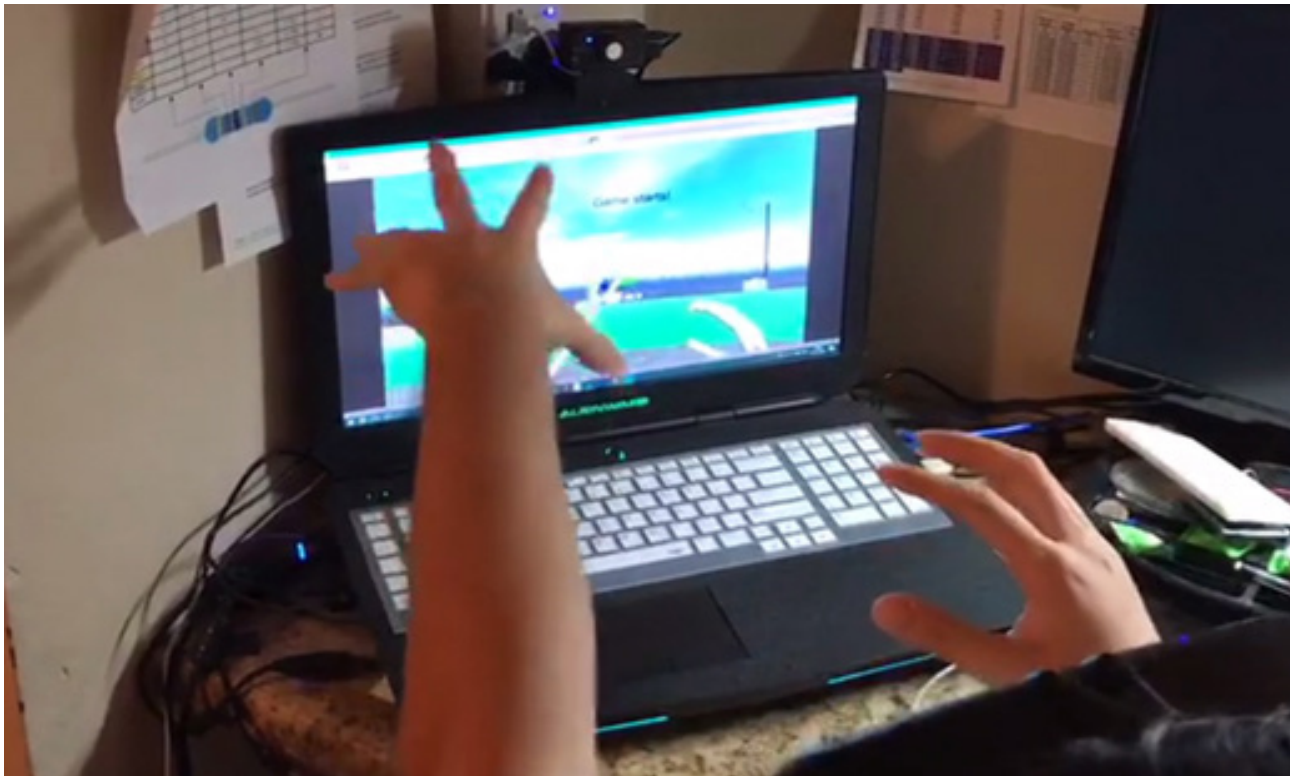
Everyone can draw, everyone can draw a stick figure of his or her own memorizing method conveniently.
https://www.youtube.com/watch?v=7TXEZ4tP06c

My Work

To further immerse myself in the edging human computer interaction practice, I visited the Haptic Lab of Purdue University. I am the first undergraduate student ever visit-researched in this lab and I am the only student who majored in design. It's challenging to collaborate with the developers who haven't trained by design thinking before.

To solve the poor experience of VR baseball training programs, I utilized my experiences in 3D modeling and swiftly learned the use of MAYA(a specific model development software for VR environment). I hence created a baseball stadium and install it into the VR environment to make the training experience more plausible. I learned that the design works are constrained by the technology margin and eager to access more disparate technologies. So I can understand what's the effectiveness of the technology and how to transfer the design into practical solution efficiently.

Please watch the video
https://vimeo.com/210759716

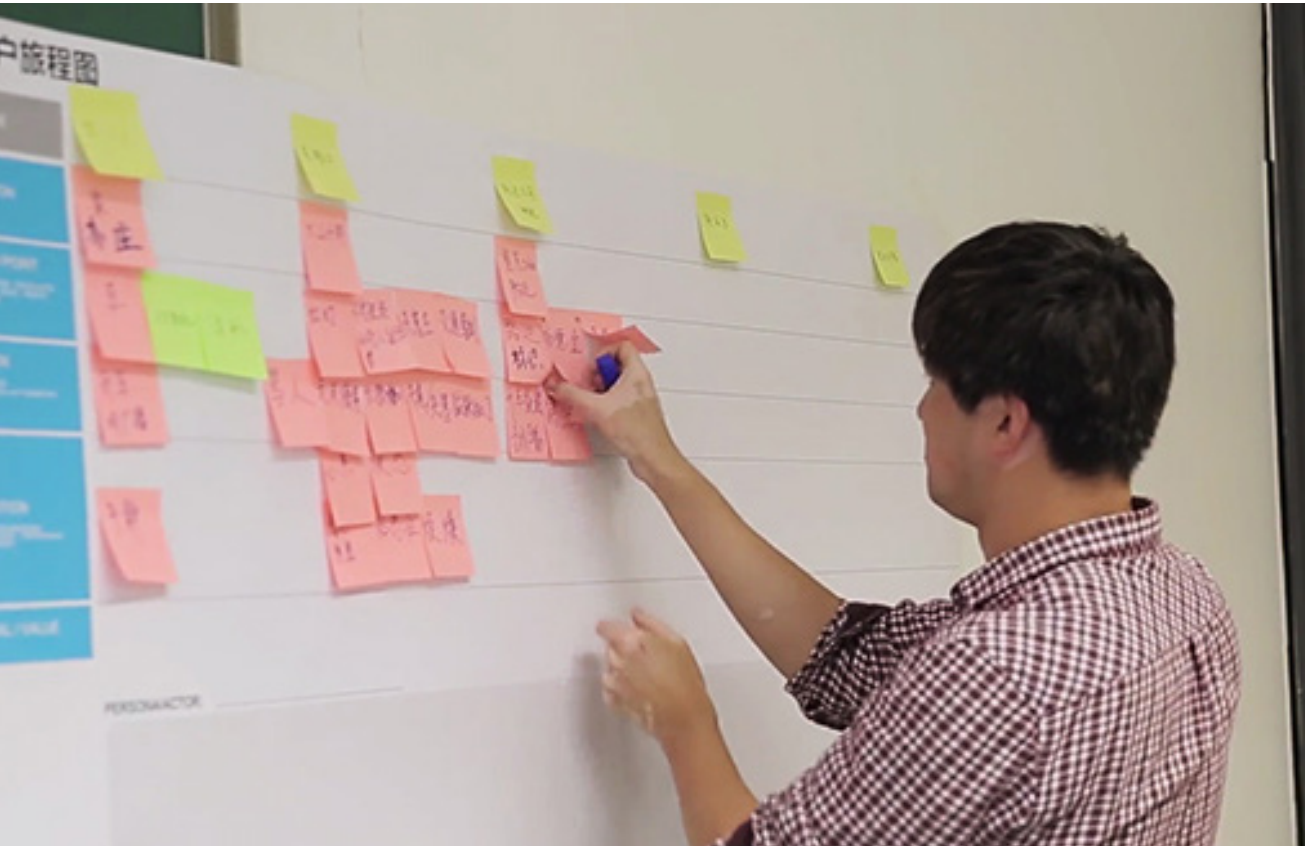


VR Baseball Training

An Assistance Designed for Improving Reaction Speed of Baseball Athelete Based on Virtual Reality

PURDUE UNIVERSITY

Haptic Interface Research Lab



清華大學 清华大学美术学院 服务设计研究所 DAIMLER

Daimler Workshop

A Design-Thinking Workshop Designed for Improving The Employees' Working Experience

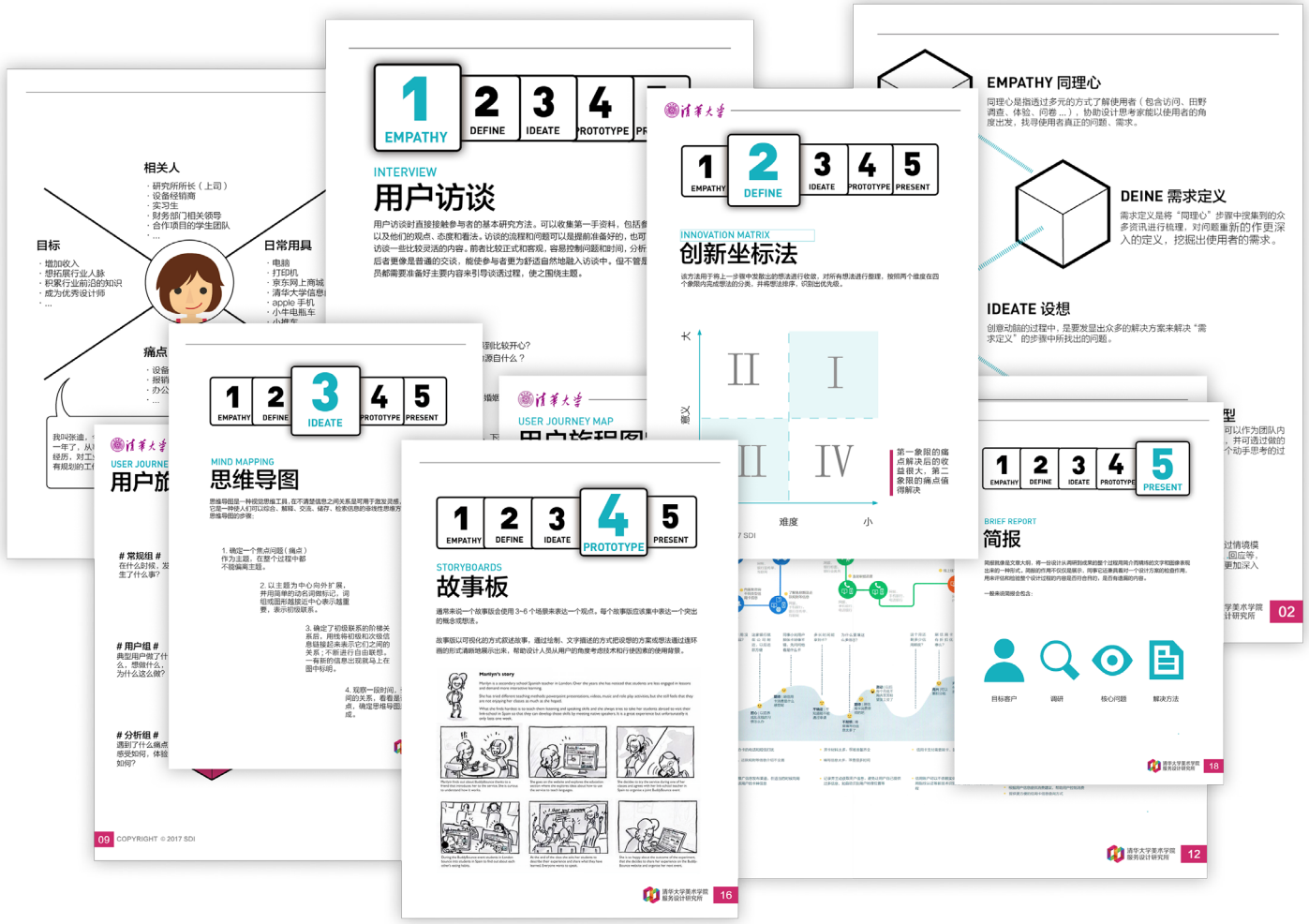
At Glance

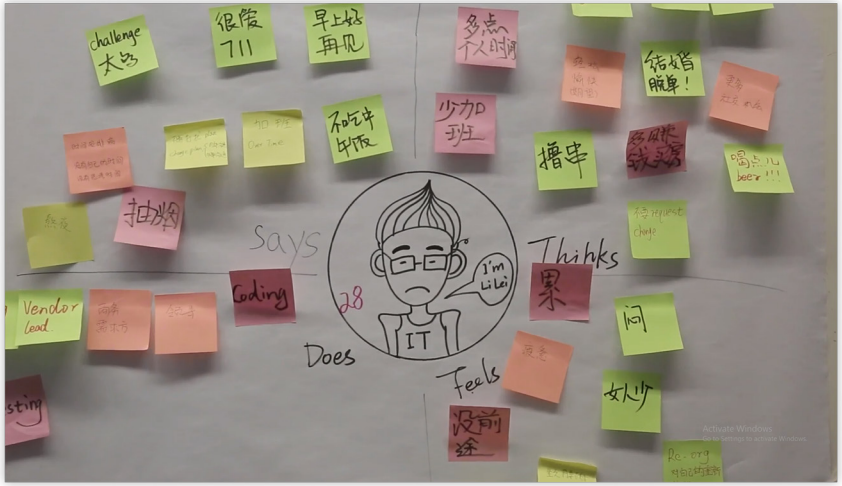
Daimler AG China invited Service Design Institution (SDI), Tsinghua University to launch a workshop for the employees who have yet recieved Design Training to find a solution that would ease their pressure in the work.

Please watch the video
https://vimeo.com/209170435

Design-Thinking Kits

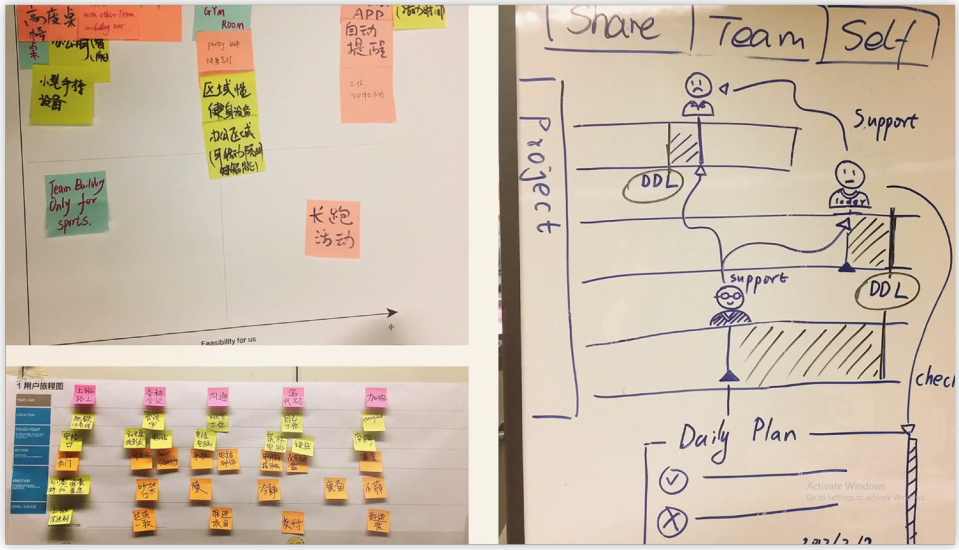
I used research tools to helped Daimler retail department employees to brainstorm their behavior, words, difficulty and emotional feeling to verify mutually in producing real user images: an IT retail department employee who was tortured by endless meetings and low working efficiency. After helped them to evaluated the painpoints which were most deserved to solved, I offered tools including paper module, Story Board and Lego to help them to demonstrate their own thoughts. It is foreseeable that the solutions would be adopted in corporate operation.

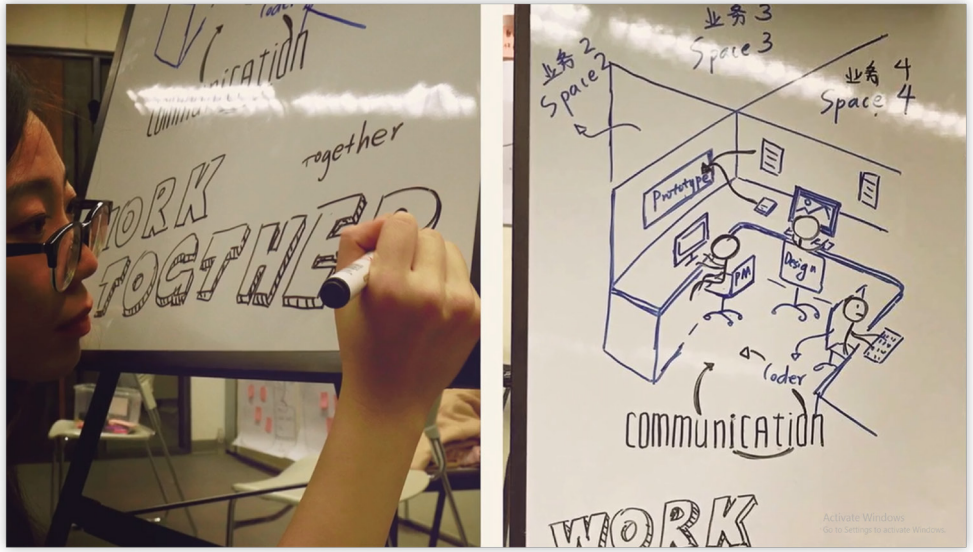




Real user images: an IT retail department employee who was tortured by endless meetings and low working efficiency.

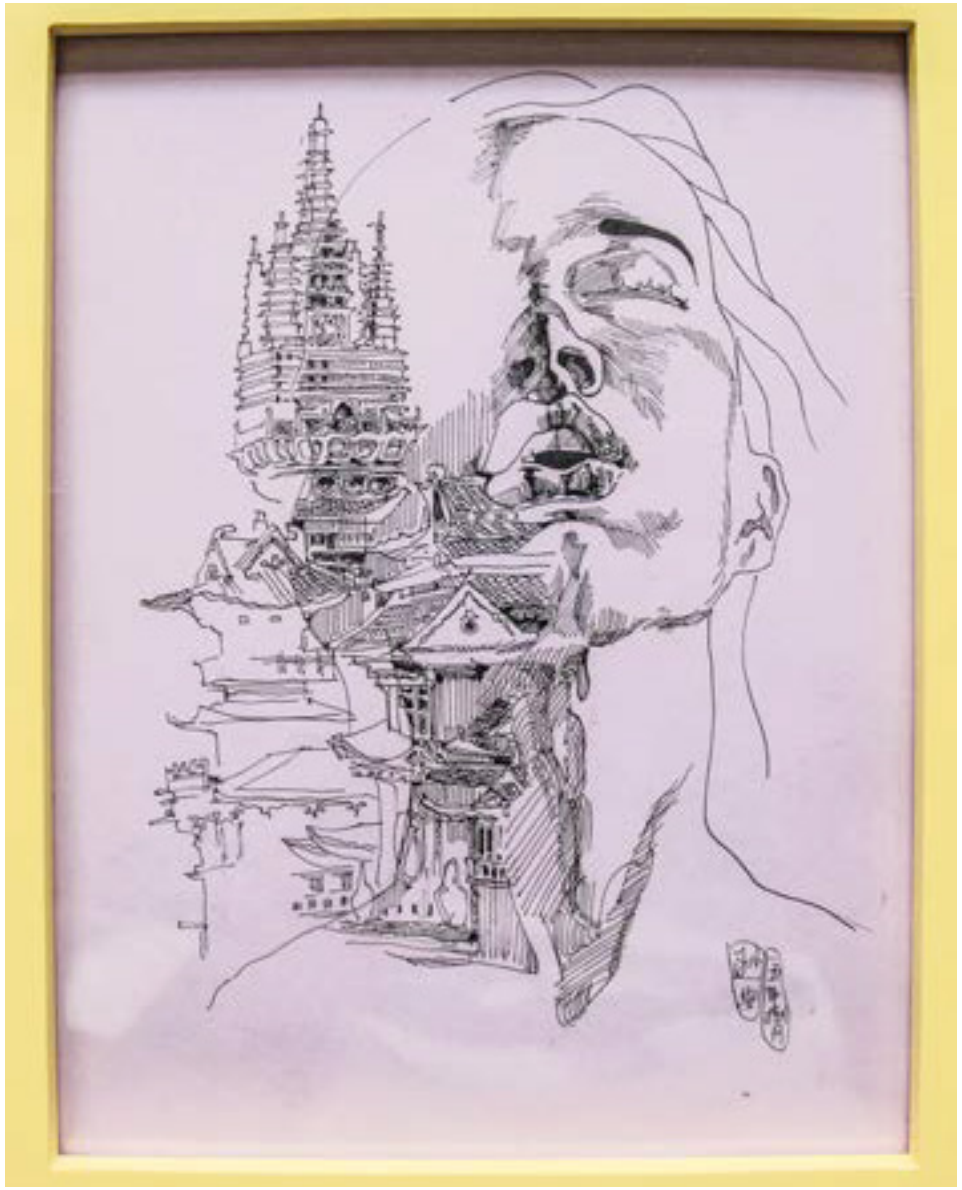
Employees used Lego and Story board to imagine the ideal working circumstances.

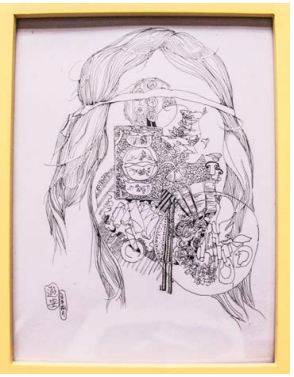


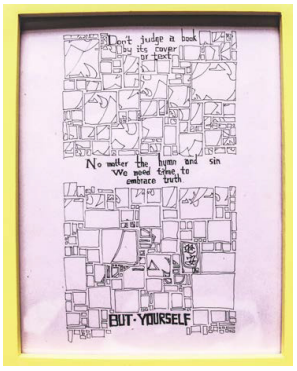


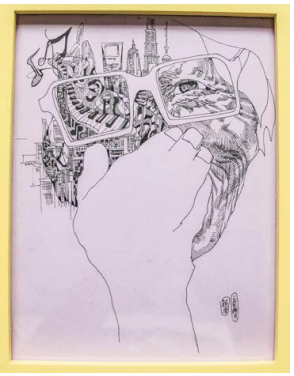
Open working environment with an LED screen to coordinate meeting time and PC-end applications to allocate tasks.

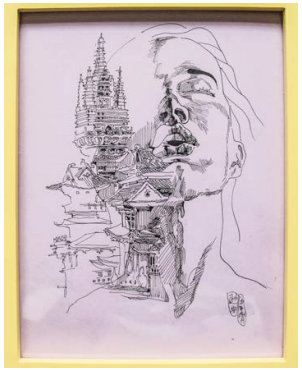
Visual Communication +






Don't judge a book by its cover or text
No matter the harm and sin We need time to embrace truth
BUT YOURSELF



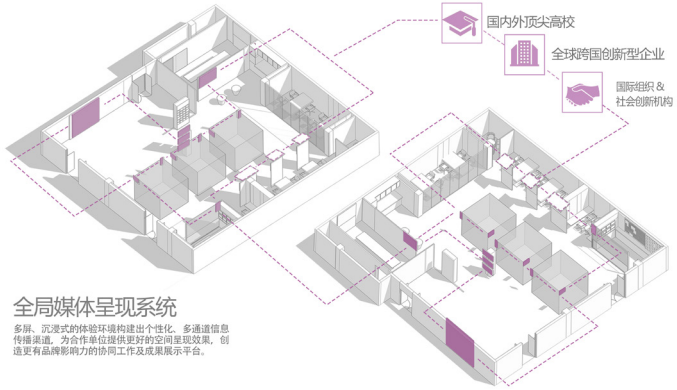


Interior Architecture

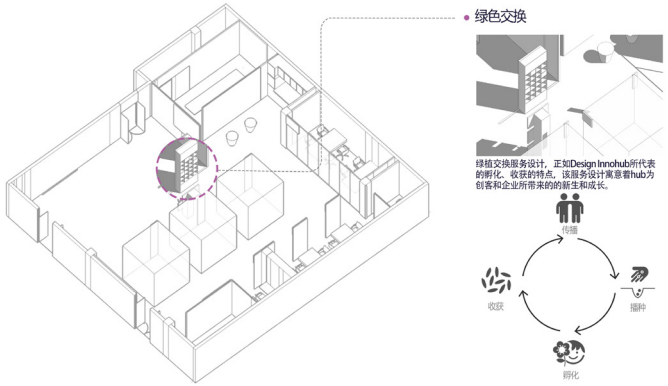
Museum Design

This is a space that prepared for the makers, designers and developers to collaborate and create together in Tsinghua University.

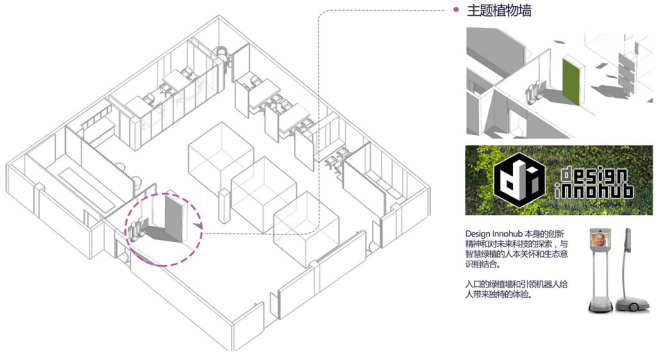
There is a lot of equipments and devices in this space for innovation and research. After a good understanding of these requirement, I visualized the space layout properly according to the hardware utilization.



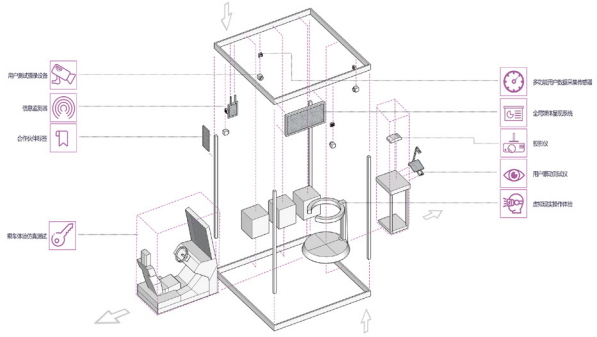
Synthetic Media System



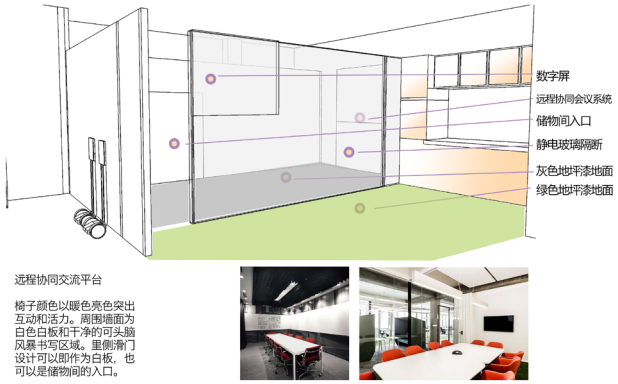
Plant Exchange (Service Design)



Theme Wall



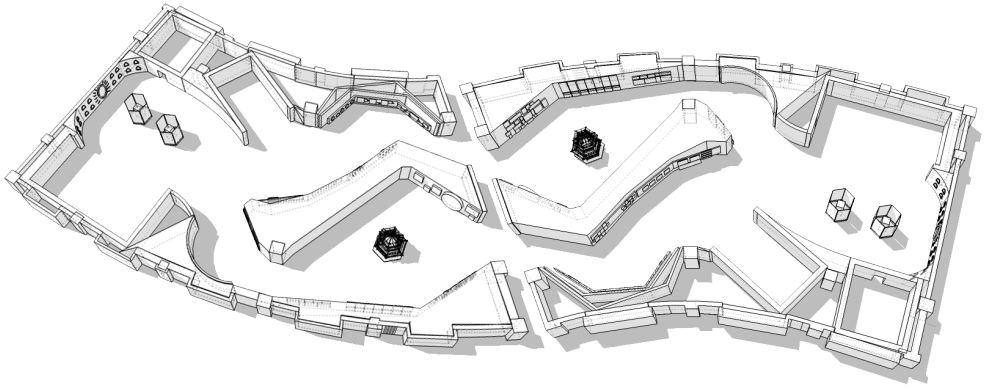
Multiple-function Cube(test and research)



Teleconference Room

Multiple-function Cube(test and research)

Museum Design



This Museum project was designed in my undergraduate. According to the 100th anniversary of Dunhuang Research Institution(Dunhuang region the greatest gathering place of Buddhism since Tang Dynasty A.D. 526). I designed this project with school mates so as to raise the public awareness of protection to the culture heritage.

The exhibition is divided into four sections: 1. Flash sight of Dunhuang, 2. Impression of Mogao Grotto, 3. Digital Mural and Grotto Restoration, 4. Excepted Builders


藏经洞


为他人说，其福甚多

Thanks

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