## 【Data Story】 The Guide of Chinese Hot Pot in Shanghai

In Shanghai, many people will choose to eat hot pot with friends and colleagues in the spare time. It is because people have different tastes of eating; however, hot pot, as a highly inclusive dish, can be the perfect choice for meeting the needs of different groups of people.

Consequently, we want to explore the reason why people love hot pot and what is the magic of hot pot. We decide to collect data of hotpot in Shanghai for illustrating the guide of hot pot, which helps people choose the right hot pot satisfied their tastes.

### The history of hotpot

First and foremost, we use google to collect the history of hot pot. Hot pot - is the most famous dish in China. Hot pot consisting of a simmering metal pot of stock at the center of the dining table. While the hot pot is kept simmering, ingredients are placed into the pot and are cooked at the table. Typical hot pot dishes include thinly sliced meat, leaf vegetables, mushrooms, wontons, egg dumplings, and seafood. The cooked food is usually eaten with a dipping sauce. Hot pot meals are usually eaten in the winter during supper time.

The Chinese hot pot has a history of more than 1,700 years. Hot pot seems to have originated in Mongolia where the main ingredient was meat, usually beef, mutton or horse. It then spread to southern China during the Tang Dynasty and was further established during the Mongolian Yuan Dynasty. In time, regional variations developed with different ingredients such as seafood. By the Qing Dynasty (AD 1644 to 1912), the hot pot became popular throughout most of China. Today in many modern homes, particularly in the big cities, the traditional coal-heated steamboat or hot pot has been replaced by electric, gas or induction cooker versions.Because hot pot styles change so much from region to region, many different ingredients are used.

The hot pot developed gradually, adapting to historical introduction of vessels, social demands and ingredients, just like China's dietary development. For instance, it was impossible to have spicy hot pot before huajiao (pricklyash peel) and chili peppers were introduced to China. During the Three Kingdoms period, Emperor Wendi of Wei noted the "Five-Section Vessel" which could be used to cook different foods at the same time. This vessel is similar to today's "2 in 1 Hot Pot." In the Southern and Northern Dynasties, bronze was the most common vessel, which gradually evolved into today's hot pot.

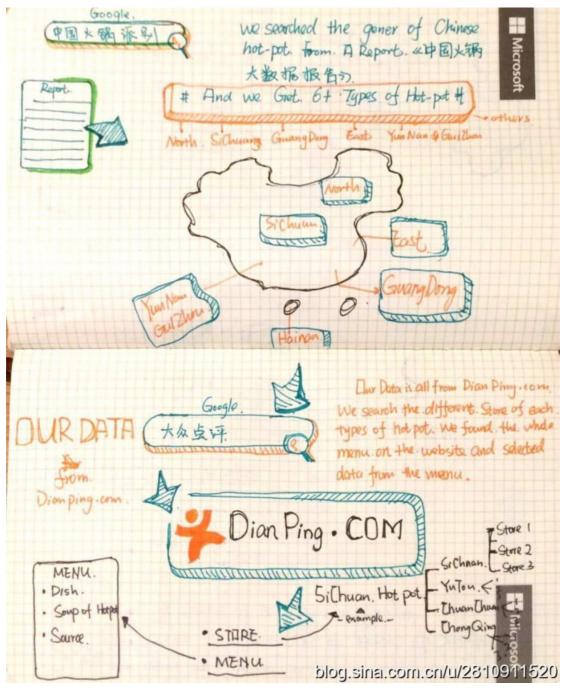
Furthermore, based on this information, we defined that there are 6 genres of hot pot in Chinese, such as North, Sichuan, Guangdong, Yunnan & Guizhou, East and Hainan by reading a report entitled "2015 Chinese Hot Pot Big Data" online, which helps us a lot. It was released by Meituan and Dianping research institute in 2015.

We only focus on hot pot in Shanghai. And we have 4 aspects of data to collect after discussion.

- The flavor of soup
- The number of store
- The percentage of dishes

### • The types of sauce

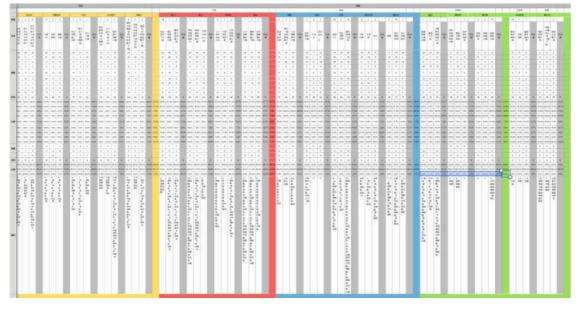
Here are 2 websites provide basic data for us. One is www.xiaomishu.com, other one is www.dianping.com. We study all the menus uploaded on these 2 websites and we also collect data by counting the numbers of store and types of dishes.



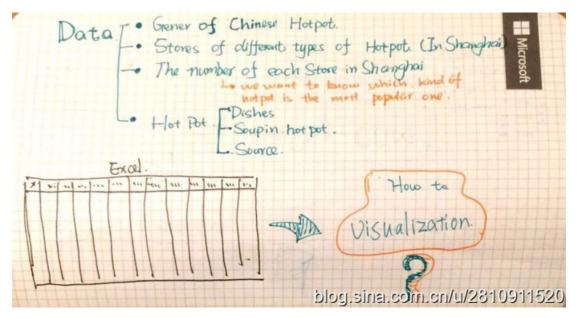
MA	四川石東下火锅		2.情报章) 〒全村県:09.30 至次日52.00 ムーロニーロボ 11 名 17 条章		Sin a		The second se	
		Trate	1.M. F	BITCHOT		1.4	2.0	
		· SAA	C			*25.00	1 7	*****
	10000	RATER	A 91		4 5 8	4 59 50	5 5	¥12.00
			BAR.	A.粗.	4 1	*****		*13.00
and the second					牛杂大拼桌	*15.00	# h	*12.00
	1000		53 Br. 3					#13.00
5.0		2.4 2.4	and the second		at the second		1 1 0	+15.00
	23.24	a.m. #29.00	4.8	2.2. 2.8	Sector 10		2 11 10	#15.00
	<b>车接入银</b>			*16.00			发口物质	¥15.00
			10 H H	*16.00	and the second sec	and the second		¥15.60
	NOTAPE.	+m_ # 20.00 mmm # 78.00	N 45 D	¥ 20.00	國原年九 首相九子 + + + + + + + +	# 25.00 # 39.00		815.00
100		NAR 888.00		* [5.58	RHA7	# 58.00	天下京前+++++	415.00
	THE PARTY OF	10 Mara # 39 .00		* 28.00	A & B & A ++++	845.05		415.00
	8.84	NAM #78.00		+ 28.00	8 8 A	**42.00	Contraction of the second	*18.00
			1	8.25.20		945.00	ш п	w18-00
	WHI-BRG WHI	M## X79.00	ME 10 10 10 11	+29.65	U B	**5.00	<b>其非红果</b> 种	* 15.00
		*** *\$8.00	81 85 30	832.00	潜火器作			#18.00
0.0			大刀爾片	#32.00			HRHE	+25.00
	100		MMT	* 32.50	20		H H	+18.00
<b></b>	1		法的罪名	¥36.00	ALC: NO.		02.70	
1000	and the second second		M 10 4 10 ***	+ 23.00			CALSE ST.	
Contraction of the			BHNAN	*39.00	the second second		A R	
1.0		***** *8.00	电数上上图++++	+31.00 C.7		wiano		- 100 m
	#	and the second second second	##00# ····	¥28.55	2 2 2 2	* 18.00	植药炒菜	94.00
	8	¥ 8.00	年共上上署	*38.00		*18.00	R H H R	+1.00
		**.04	內里將牛肚	¥ 28.00		#16.00 C	志家菁昌语 红信与九温++++	412.00
100 B	-		H H T	*** 00		¥20.00	12 M H H	*18.00
1000 B	THE REAL				来 针 箱	423.00		122.00
	1 CP				松黄黄粉丝++++	* 22.00	H R H H	10 K H H
100 M 100 M 100 M		2 4 8 8 	Sec.		RAPA		带城山田香品+++	1 10.00
10	老. 数 ****	+14.00	and the second second	the second second	and the second second		青红山级青楼***	* 43,02
	At	* 42.00	4.0		all'		·····································	**1.30
	業務****	* 45 00		* 25.25	A DOCTOR OF			
	毛田	* 40.00		***.00		1.4 2.8	*****	
	日間	# 25 CR	半工单内卷+++	*98.00	111			
	M 10	* 25.00	2 11 12 4	* 42.00		*13.00		
		* 42 00	全线影影寺 ***	+10.00		#75.05		
		¥ 49.00	<b>夏花花</b> 年	* 55.05	N A A	*14.00		
	年前 ***	+10.00	飞展年月+++			w18.00	CIL SPOR	1
	1.1	*45.00	43498				and redeater first	So attac
A CONTRACTOR OF							and the second second	Non and

To sum up, we investigate 57 stores in Shanghai, they belong to 6 genres of hot pot. We collect the data of the preceding 4 aspects from these stores.

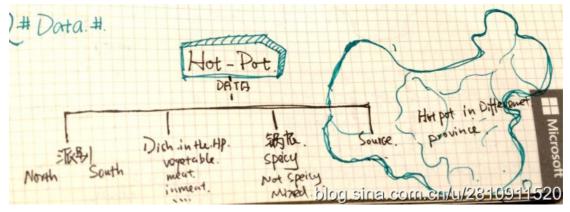
After 1 week data collection, we have the dataset by using Numbers. Therefore, we have the rough table. Each color represents each genre of hot pot. And we make some calculations for the average value and percentage, etc.



From this step, we discuss what format we want to visulize the data. Here are some initial sketches for visualizing our data:

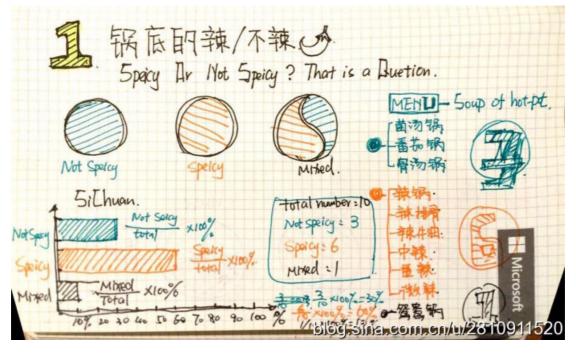


We know that people have diverse tastes in eating hotpot, some people love spicy hot pot; however, some people are vegetarian. So we decide to present a guide for different people. We hope this guide helps them choose their favourite hot pot.



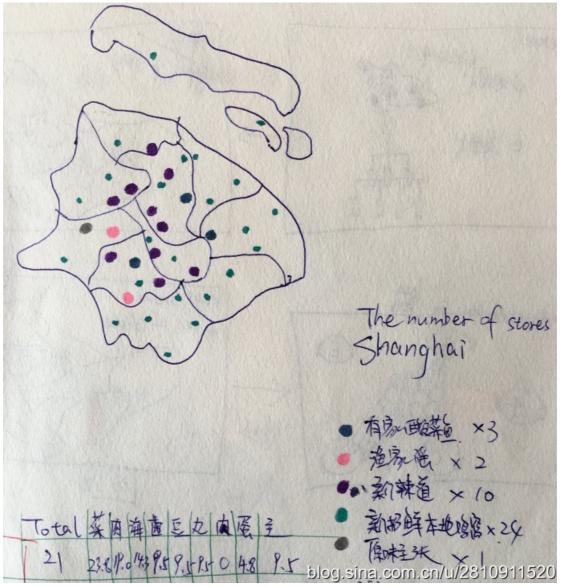
### 1. The flavour of soup

We found that there are 3 general flavours of soup, which are spicy, not spicy and mixed (half spicy and half not spicy). We decide visulize the percentage of different soup in Shanghai because we know that different people have different needs. We try some formats in the following sketches:



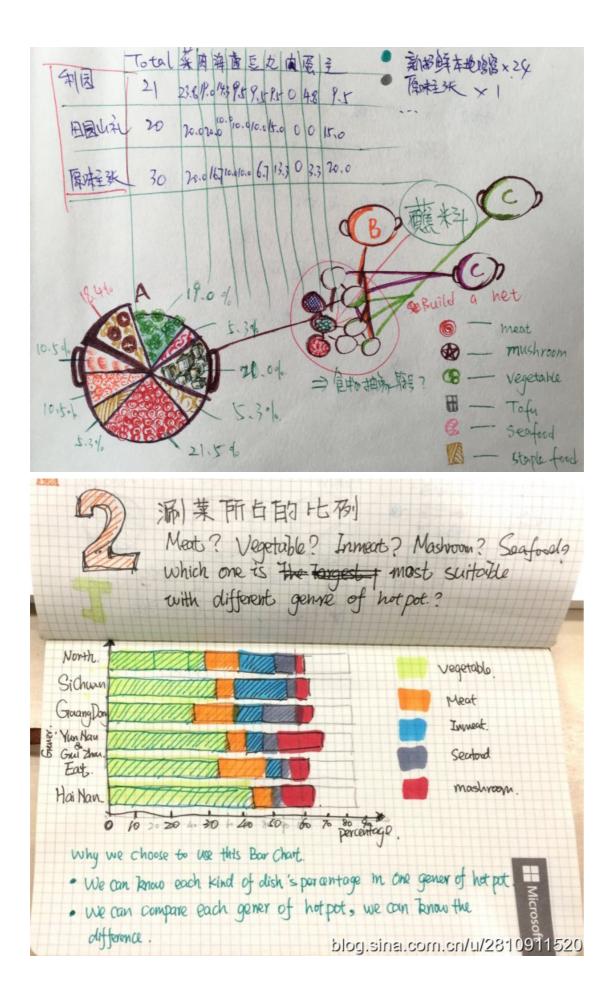
### 2. The number of store

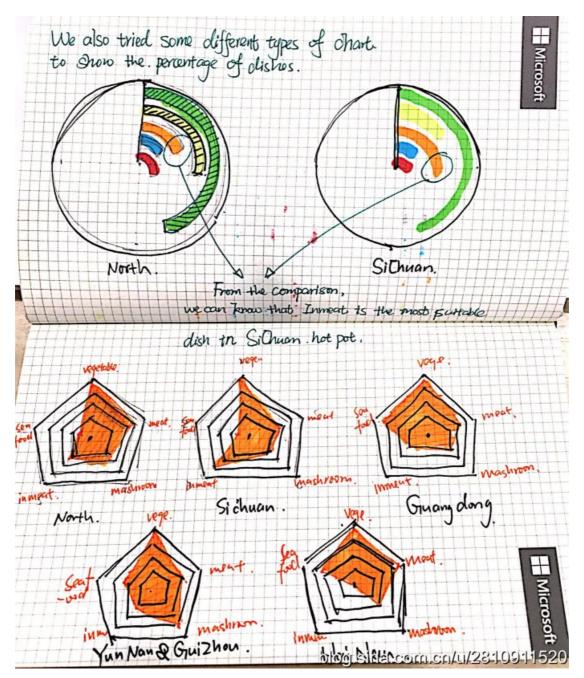
In this step, we discuss the format of showing stores in Shanghai. The namebrand have good reputation and more stores, which demonstrates the popularity of store. We hope to visualize this data for providing more choices for people. In this graph, different spots are different stores. We hope people can see the popularity from the density of different spots. And how many stores this brand have, we draw how many same color spots in this Shanghai map.



### 3. The percentage of dishes

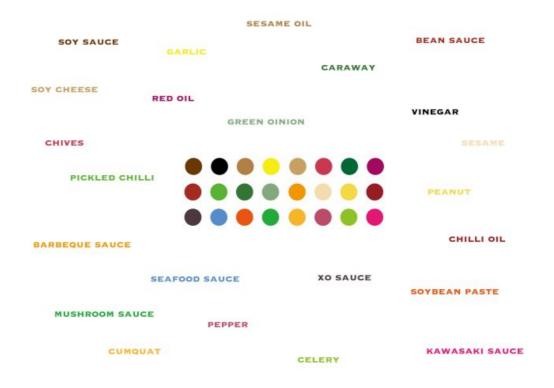
As we know, there are loads of dishes can be chosen when people eating hot pot. We want to define that the popularity of dishes in different hot pot. Take Sichuan hot pot as an example, the inmeats occupy the main proportion of dishes. So this section presents the significant percentage of dishes in each genre of hot pot. People can decide what genre of hot pot they want to eat by selecting their favourite dishes. We try pie chart at first; however, the types of dish are more than 6. After discussing with our professor, we finally use the following bar chart. So that people can see the comparison clearly.



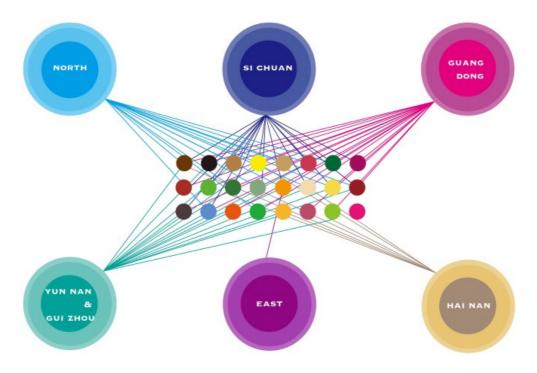


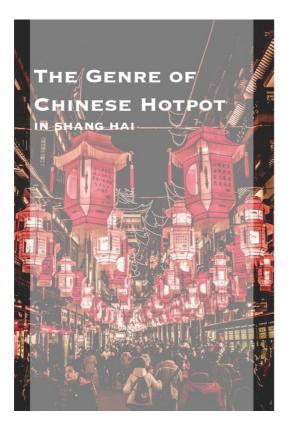
4. The types of sauce

Each genre of hot pot has the special ingredients of sauce. It plays an important role in hot pot due to the various flavours. In summary, there are 24 types of sauce in Chinese hot pot in Shanghai. And we use different color to express these sauces.



And we use lines to build the connections between hot pots with sauces. However, this format is pretty massy in the center due to the overlapped information.



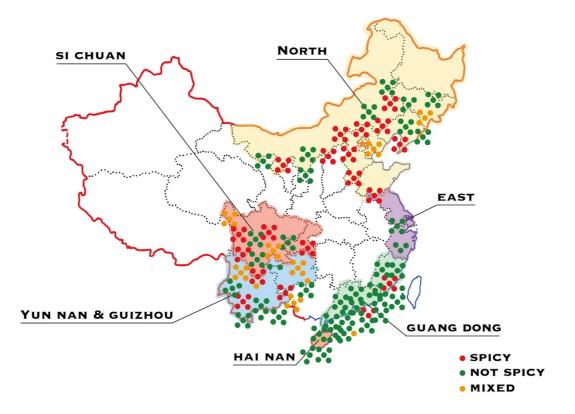


## THE DATA

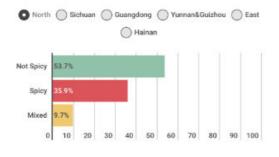
- THE FLAVOUR OF SOUP
- THE NUMBER OF STORE
- THE PERCENTAGE OF DISHES
- THE TYPE OF SAUCE



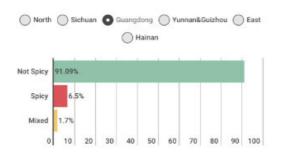




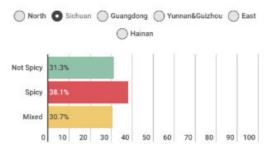
## The flavour of soup



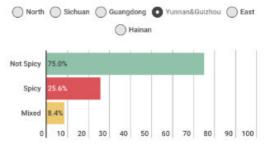
### The flavour of soup



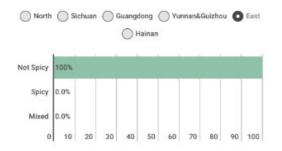
## The flavour of soup



## The flavour of soup

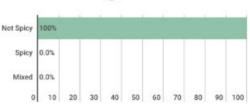


## The flavour of soup



## The flavour of soup





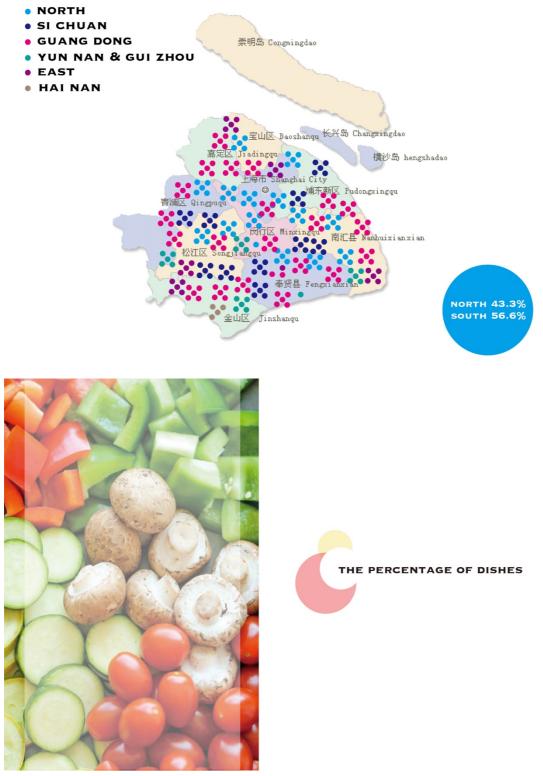
## Click to check the dynamic diagram

https://infogr.am/a5e4b8c7-1a68-4d13-a701-5dc69c10cdb8 This link is available too:

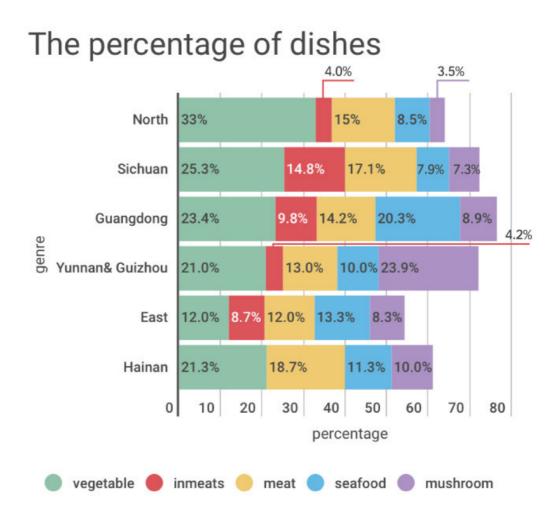
 $http://v.youku.com/v\_show/id\_XMTU3NTA1OTYzNg==.html$ 

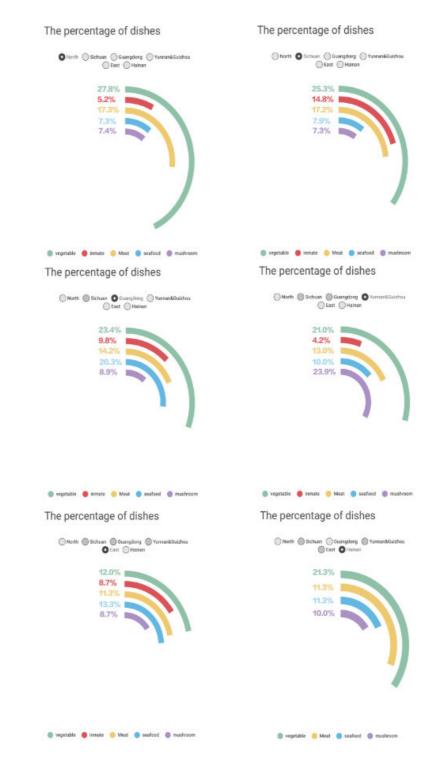






We use online tool called **Infogr.am** to visualize this part. We use diverse format and try to discribe the percentage of dishes in each genre. Additionally, we visualize the preference of dishes when consumers eating hot pot.





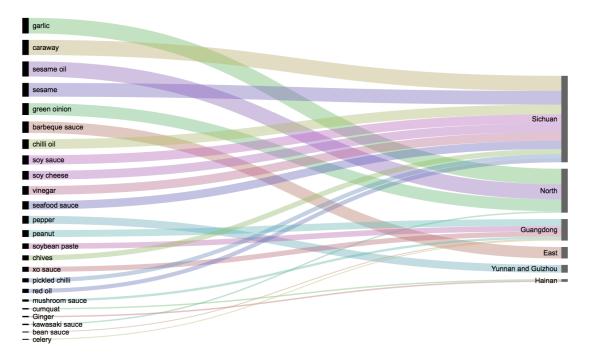
### Click to check the dynamic diagram

https://infogr.am/a5e4b8c7-1a68-4d13-a701-5dc69c10cdb8 This link is available too: http://v.youku.com/v\_show/id\_XMTU3NTA2MzIyMA==.html





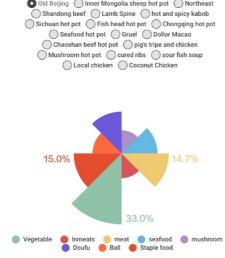
Therefore, we accept the suggestion from our professor-using RAW to create this datavis. Alluvial diagrams, the format we chosen, allow to represent flows and to see correlations between categorical dimensions, visually linking to the number of elements sharing the same categories. Overall, we can clearly see the correlations of sauce in each genre of hot pot. If people who avoid certain food because of illness, they can avoid this type of sauce or this genre of hot pot. Moreover, they can make better decision depend on their preferences.



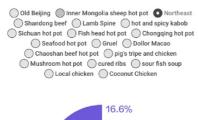
After trying diverse formats and discussing with professor, we conduct the visualization.

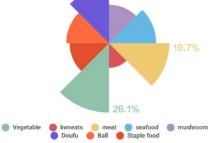
### The preference of dishes in different genres

Old Beijing Olnner Mongolia sheep hot pot ONortheast

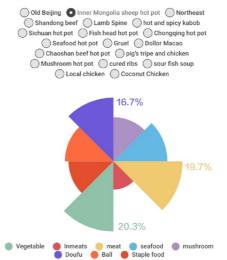


### The preference of dishes in different genres

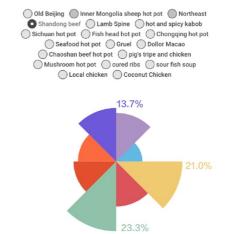




### The preference of dishes in different genres



### The preference of dishes in different genres

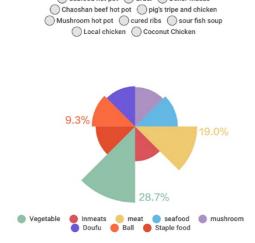


Inmeats
 meat
 seafood
 Doufu
 Ball
 Staple food

Vegetable

meat 🔵 seafood 🛑 mushroom

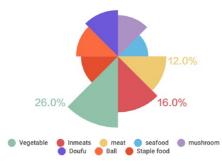
# The preference of dishes in different genres



Old Beijing Olnner Mongolia sheep hot pot Northeast Shandong beef Lamb Spine Ohot and spicy kabob Sichuan hot pot Fish head hot pot Chongqing hot pot Seafood hot pot Gruel Obolior Macao

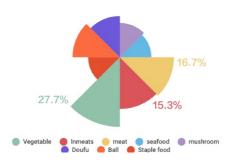
# The preference of dishes in different genres





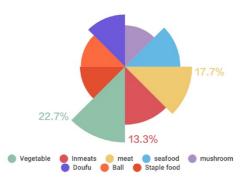
# The preference of dishes in different genres





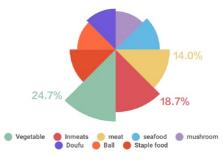
# The preference of dishes in different genres

Old Beijing ◯ Inner Mongolia sheep hot pot ◯ Northeast Shandong beef ◯ Lamb Spine ◯ hot and spicy kabob Sichuan hot pot ◯ Fish head hot pot ◯ Chongqing hot pot Chaoshan beef hot pot ◯ pig's tripe and chicken Mushroom hot pot ◯ cured ribs ◯ sour fish soup Local chicken ◯ Coconut Chicken



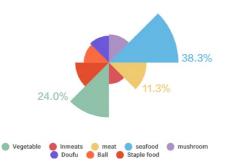
# The preference of dishes in different genres

Old Beijing ◯ Inner Mongolia sheep hot pot ◯ Northeast Shandong beef ◯ Lamb Spine ◯ hot and spicy kabob Sichuan hot pot ◯ Fish head hot pot ◯ Chongqing hot pot Chaoshan beef hot pot ◯ pig's tripe and chicken Chaoshan beef hot pot ◯ cured ribs ◯ sour fish soup Local chicken ◯ Coconut Chicken

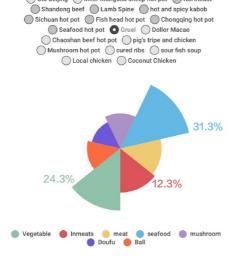


### The preference of dishes in different genres





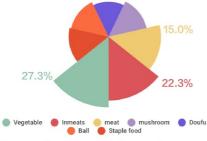
### The preference of dishes in different genres



Old Beijing Inner Mongolia sheep hot pot Northeast

### The preference of dishes in different genres





#### The preference of dishes in different genres

Old Beijing Inner Mongolia sheep hot pot Northeast 

 Old beijing
 Uinter Mongola sneep hot pot
 Northeast

 Shandong beef
 Lamb Spine
 Oh tand spicy kabob

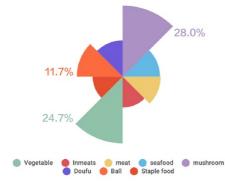
 Sichuan hot pot
 Fish head hot pot
 Chongqing hot pot

 Seafood hot pot
 Gruel
 Dollor Macao

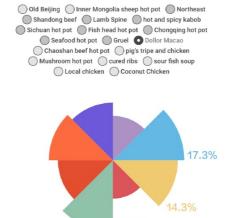
 Chaoshan beef hot pot
 pig's tripe and chicken

 Mushroom hot pot
 Ocured ribs
 Sour fish soup

OLocal chicken OCoconut Chicken



### The preference of dishes in different genres

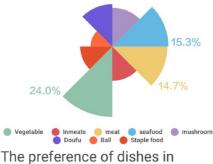


17.3%

## Inmeats meat seafood mushroom Doufu Ball Staple food The preference of dishes in different genres

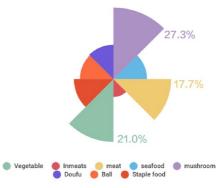
Vegetable





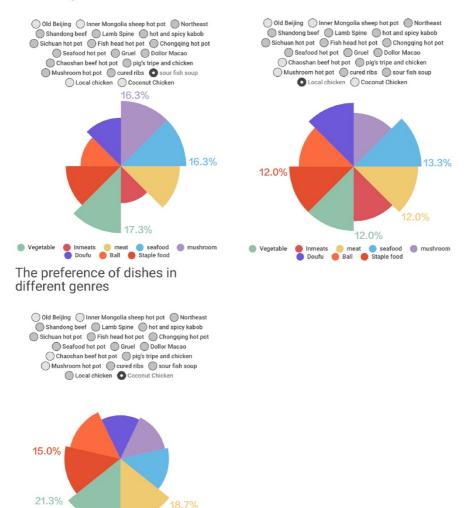
### different genres

Old Beijing Inner Mongolia sheep hot pot Northeast Old Beijing ○ Inner Mongolia sheep hot pot ○ Northeast
 Shandong beef ○ Lamb Spine ○ hot and spicy kabob
 Sichuan hot pot ○ Fish head hot pot ○ Chongqing hot pot
 Seafood hot pot ○ Gruel ○ Dollor Macao
 Chaoshan beef hot pot ○ pig's tripe and chicken
 Mushroom hot pot ○ cured ribs ○ sour fish soup
 Local chicken ○ Coconut Chicken



## The preference of dishes in different genres

## The preference of dishes in different genres



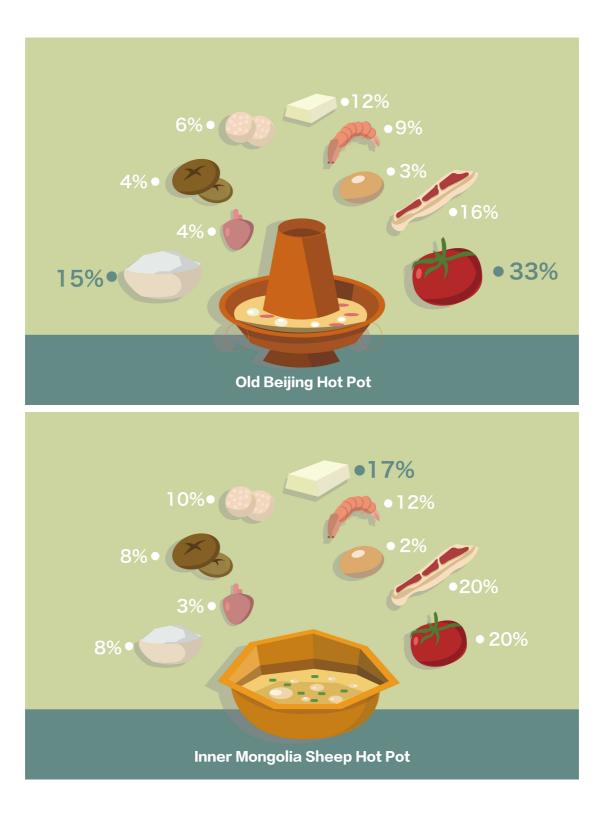
The following pictures are the preference of dishes in different genres, the whole size of the pie chart represents data base. And we list the percentage of top 3 popular dishes in each pie chart. It is much easier to read.

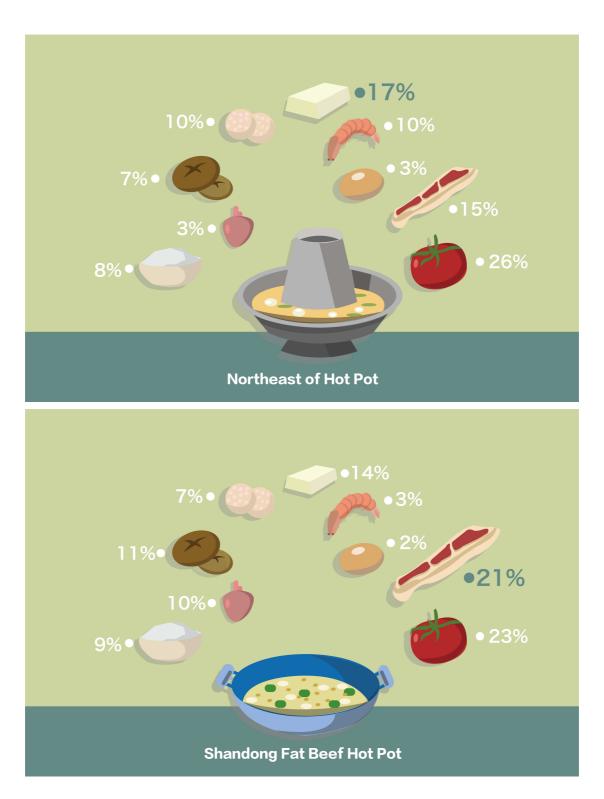
### Click to check the dynamic diagram

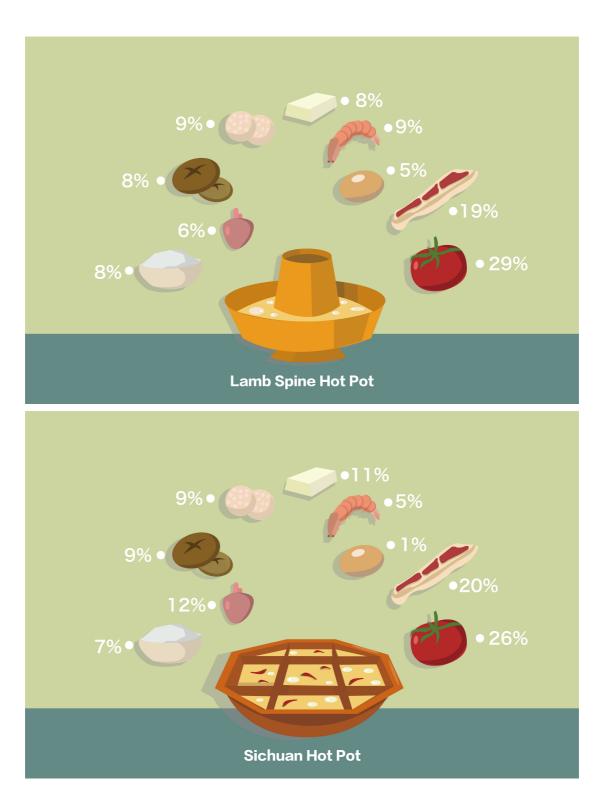
Vegetable

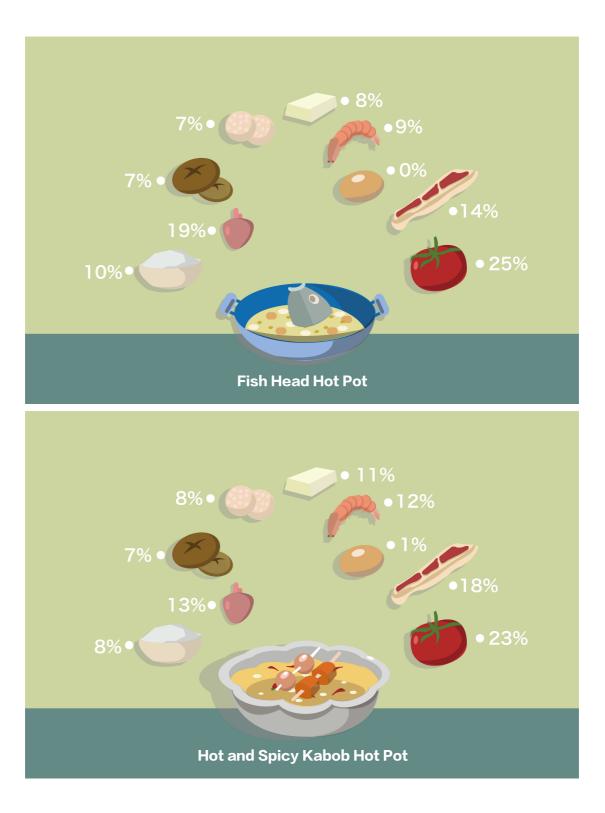
https://infogr.am/a5e4b8c7-1a68-4d13-a701-5dc69c10cdb8 Next step, we design this vivid version for our audiences.

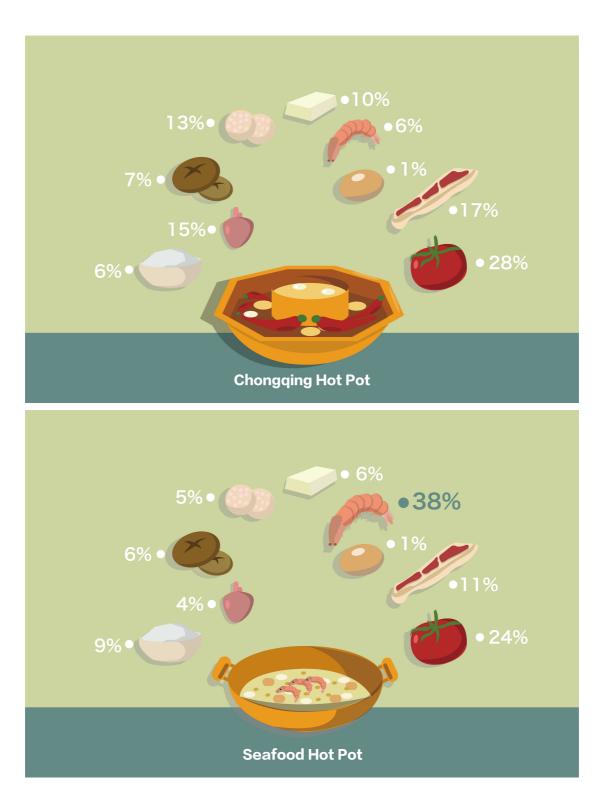
meat seafood mushroom Doufu Ball Staple food

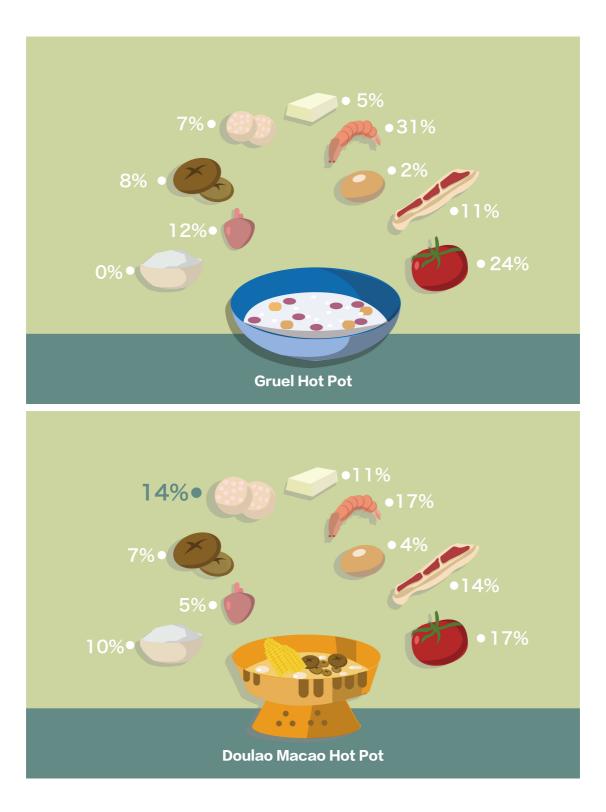


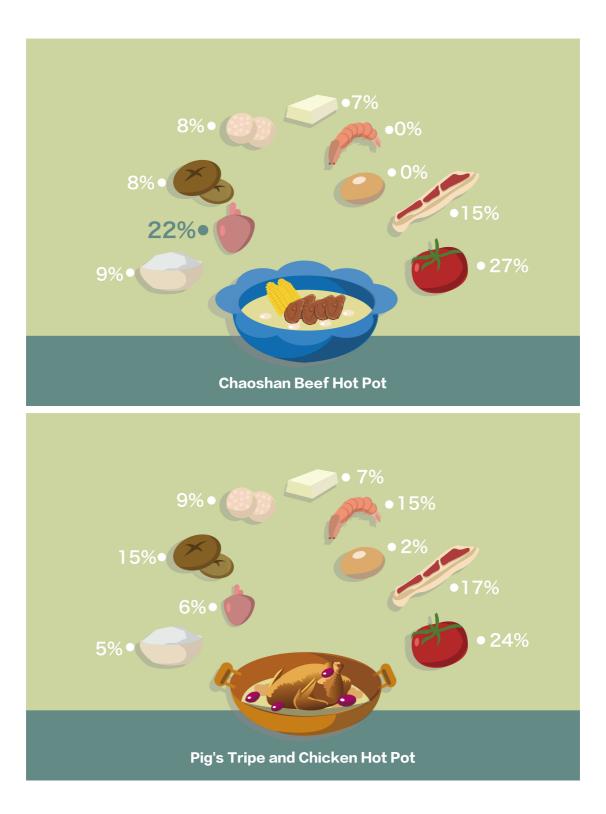


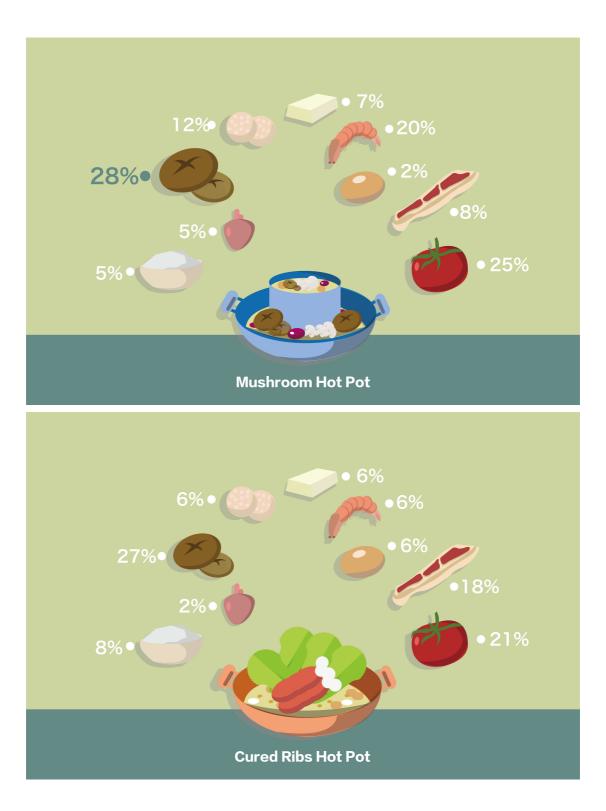


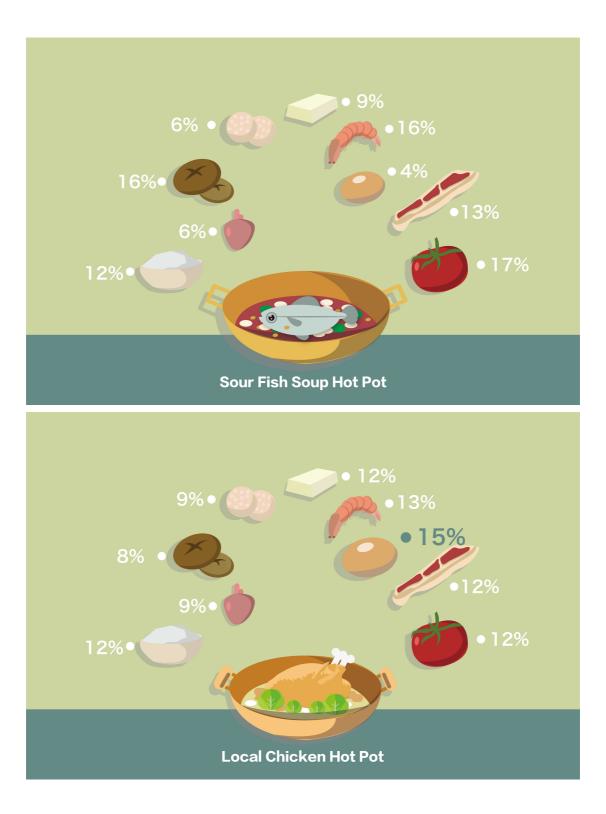


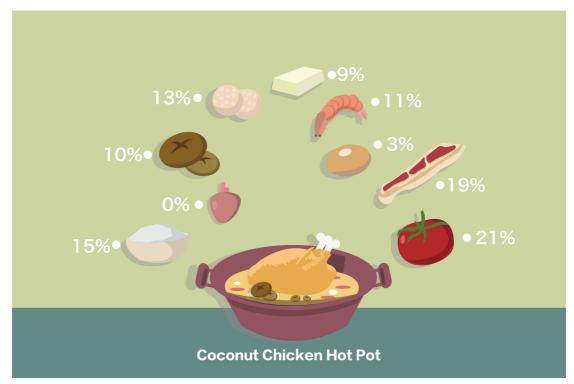








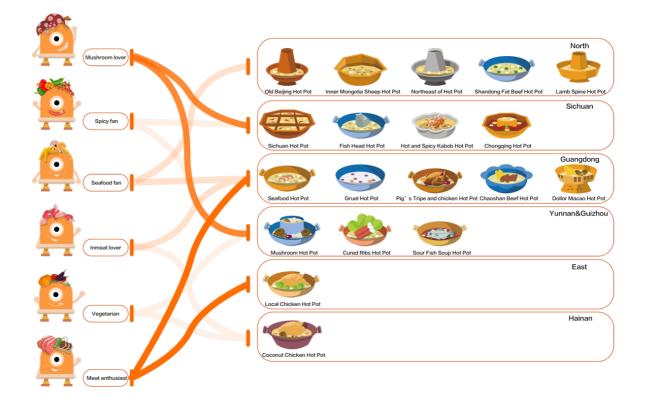




### The Guide of Chinese Hot Pot in Shanghai

In the end, we plan to make guide of hot pot in Shanghai. The following graphic design is the final outcome. It provides the significant data of all the hot pots, which explains the most popular flavours and special dishes in each genre of hot pot. People can choose their favourite hot pot by checking this guide. Moreover, we create 6 avatars aiming different hot pots for helping people choose the most suitable hot pot in daily life.





### Team members:

ZHENG Lu 1533281 YOU Fangzhou 1533288 XU Chen 1533301 WANG Zhili 1533308