

Implications of cultural differences between West and East on User Experience and Interaction Design

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2013-12-28

Abstract

Psychologists have until lately been rather likeminded when it comes to how the human brain is interpreting and processing different types of information. We react in certain ways when exposed to certain information but considering those reactions stem from experiments mainly conducted on Americans is not something that is considered to be of importance. Whereas these statements tend to hold true for many aspects, lately some studies executed on people from different countries with very different cultural background have investigated if those psychological rules indeed are applying on every individual being (Henrich, Heine, & Norenzayan, 2010).

When it comes to how Westerners and Easterners (especially Americans and Chinese) process information, remarkably enough plenty of differences were discovered. This thesis will discuss those differences and attempt to analyse whether or not those inequalities could be used to understand how we may adjust technical products when it comes to designing products, mainly focusing on interaction design and user experience.

It was found that there may be several relations to cultural background and that they might affect preference towards user interfaces. Even though the amount of participants lacked in some user groups, and more test subjects would be needed, some noticeable patterns were still discovered. It seems like a preference towards more interactivity and more complex and colourful design may be more appreciated by the typical Chinese user, while it seems like it's basically the opposite for the typical western user.

Keywords: *creativity, copycat culture, field-dependence, holism, reductionism.*

Sammanfattning

Psykologer har tills nyligen varit ganska samstämmiga om hur hjärnan tolkar och bearbetar information. När vi blir utsatta för en viss typ av händelse reagerar vi på ett visst sätt. Dessa slutsatser baserar sig emellertid ofta på experiment som gjorts på amerikaner, men man har inte reflekterat över om det kan ha betydelse för resultatet. Även om dessa undersökningar säkert kan säga en del om hur människor fungerar, så har man nyligen upprepat många av dessa experiment på människor från andra kulturer för att se om dessa psykologiska fenomen gäller generellt.

När det kommer till hur västerlänningar och österlänningar (speciellt amerikaner och kineser) bearbetar information, så märkte man att det faktiskt fanns en hel del skillnader. Den här uppsatsen kommer diskutera dessa skillnader och försöka analysera huruvida kunskap om dessa olikheter kan användas för att skapa en förståelse för hur tekniska produkter kan designas bättre, speciellt med fokus på interaktionsdesign och *user experience*.

Under arbetet framkom att det verkar finnas en del relationer mellan informationsbearbetning och kulturell bakgrund, och att dessa faktiskt kan påverka den personliga preferensen till ett specifikt användargränssnitt. Även om antalet deltagare i vissa av testets användargrupper var få, så uppträdde likväl ett par intressanta mönster. Bland annat verkade det som att en preferens mot mer interaktiv, komplex och färgglad design är att föredra i Kina, medan någon form av motsats till dessa tre attribut verkar gälla för den typiska västerländska användaren.

Acknowledgements

First of all I would like to thank Agneta Gulz and Magnus Haake for their weekly interesting feedback and Ideas. It has been a major help along the way! I would like to thank my girlfriend Yue Ding. If it weren't for her help in gathering Chinese volunteers, the Chinese version of the online test would probably not have been the same. I also want to thank Katharina Reinecke from Harvard School of Engineering who provided me with lots of interesting data from their online tests on Labyrinthwild.org. I would also like to thank my friend Ola Mårtensson for valuable input about the test and my friend Robin Larsson for his expert knowledge about China.

Table of Contents

ABSTRACT	I
SAMMANFATTNING	II
ACKNOWLEDGEMENTS	III
INTRODUCTION	1
Background	1
Purpose	2
METHODOLOGY	4
Personal knowledge	4
Literature studies	4
User study	5
HISTORY AND CULTURE/PSYCHOLOGY	6
History	6
Psychology	8
Creativity	13
Copycat Culture	15
User experience development progress	17
COMPARATIVE STUDY	19
Comparative study: <i>WhatsApp</i> against <i>WeChat</i>	20
Comparative study: <i>Sina Weibo</i> against <i>Twitter</i> – expert evaluation	24
Comparative study: <i>Sina Weibo</i> against <i>Twitter</i> – user study	27
CONCLUSION	39
REFERENCES	43
APPENDIX	44
TWITTER AND SINA WEIBO	44
Preference test questionnaire design	44

Figure 1: Illustration of Yin & Yang	7
Figure 2: Recall task.	12
Figure 3: Recognition task.	13
Figure 4: Differences between reductionism and holism.	14
Figure 5: WhatsApp home and texting screen.	20
Figure 6: WeChat home and texting screen.	20
Figure 7: Voice messaging in <i>WeChat</i> .	22
Figure 8: Homepage on <i>Sina Weibo</i> .	26
Figure 9: Home page on <i>Twitter</i> .	26
Figure 10: Random post on <i>Sina Weibo</i> .	27
Figure 11: Same as Figure 10, but with commenting selected.	27
Figure 14: Twitter: Design (West) - contrasting "service experience".	29
Figure 15: Sina Weibo: Design (West) - contrasting "service experience".	29
Figure 16: Twitter: Design (West) - contrasting "country".	29
Figure 17: Sina Weibo: Design (West) - contrasting "country".	29
Figure 20: Twitter: Design (China) - contrasting "service experience".	30
Figure 21: Sina Weibo: Design (China) - contrasting "service experience".	31
Figure 22: Twitter: Design (China) - contrasting "country".	31
Figure 23: Sina Weibo: Design (China) - contrasting "country".	31
Figure 26: Twitter: Ease of use (West) - contrasting "service experience".	33
Figure 27: Sina Weibo: Ease of use (West) – contrasting "service experience".	33
Figure 30: Twitter: Ease of use (China) – contrasting "service experience".	34
Figure 31: Sina Weibo: Ease of use (China) – contrasting "service experience".	34
Figure 32: Twitter: Ease of use (China) - contrasting "lived in other countries".	35
Figure 33: Sina Weibo: Ease of use (China) - contrasting "lived in other countries".	35
Figure 38: Sina Weibo: Trustworthiness (West) - contrasting "service experience".	36
Figure 39: Twitter: Trustworthiness (West) - contrasting "service experience".	37
Figure 40: Twitter: Trustworthiness (China) - contrasting "service experience".	37
Figure 41: Sina Weibo: Trustworthiness (China) - contrasting "service experience".	38
Figure 42: Complexity & Colourfulness Diagram 1	41
Figure 43: Complexity & Colourfulness Diagram 2	42
Figure 44: Index page of first impressions preference test.	44

Introduction

Background

“ISO 9241-210 (Ergonomics of human system interaction - Part 210, 2009) defines user experience as “a person’s perceptions and responses that result from the use or anticipated use of a product, system or service”. According to the ISO definition, user experience includes all the users’ emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviours and accomplishments that occur before, during and after use. The ISO also list three factors that influence user experience: system, user and the context of use.”

As seen above, *User Experience (UX)* is rather comprehensive and covers a lot of areas. One of the areas that UX focuses on is that of psychological responses. The human brain is remarkable when it comes to processing external information. Psychologists have throughout history been trying to better understand its complex nature and have proposed several rules on how the human brain handles different type of information. These have been more or less accepted as universal and not much thought has been given on whether different people may function differently due to different geographical and cultural backgrounds (Henrich, Heine, & Norenzayan, 2009). Psychologists have assumed that humans are humans with brains functioning the same, independently of background.

Lately however, there has been research which reveals another picture. Psychologist Richard Nisbett is among those who have discovered important differences between people from different cultures as to how they comprehend information. Nisbett is a distinguished professor of social psychology and has written several well-known books on the subject, e.g. *Culture and systems of thought: Holistic versus analytic cognition* (Nisbett, 2001), *Intelligence and how to get it: Why schools and cultures count* (Nisbett, 2009) and *The Geography of Thought: How Asians and Westerners Think Differently...and Why* (Nisbett, 2003).

In their journal paper *“The Weirdest People in the world”*, Joseph Henrich, Steven J. Heine, and Ara Norenzayan (2010) present studies which further elaborate on the conclusions of Nisbett and others. Their work is considered by some to imply a fundamental change in social psychology.

According to the paper by Henrich, Heine, & Norenzayan (2010), one could say that it all started back in 1995, when Henrich introduced “the ultimatum game” to the Machiguenga, a group of people living in the Amazon basin in

Peru. “The ultimatum game” consists of two players who both are anonymous to each other. The first player will be given an amount of money and will then have to offer a part of the money to the other player. The second player can then either accept or refuse the offer. The catch of the game is that the second player can accept or refuse, but if he refuses both players know that they will both go empty handed. These type of experiments, that usually have been conducted on North Americans, often revealed a 50-50 split. However, the experiments usually revealed an eagerness in “the second player” to punish “the first player” for offering uneven splits, even if that meant that they both had to pay for it, i.e. the game will end with both players getting nothing. The Machiguenga, however, didn’t seem to think in the same patterns as the Americans did. The offerings were usually very low and the refusals even so. “They just didn’t understand why anyone would sacrifice money to punish someone who had the good luck of getting to play the other role in the game.”

Henrich realized that what he just had observed could be very important for lots of areas in social science, particular economics and psychology. He knew that at heart of basically all research within these fields, there was an implicit assumption that there exist certain psychological traits that are common to all human beings. With his newfound knowledge, Henrich settled out to try his research on people and groups from other cultures all around the world and he found that results differed a lot between groups of people.

Now, to which extent is this knowledge relevant when it comes to interaction design? The simple answer is that there is little research within interaction design dealing with this question. The present thesis is an attempt to shed some light upon it by discussing some historical and cultural differences between the West and the East and conducting two experiments.

It should be noted that even though reference is primarily made to China in the comparisons between West and East, many times other eastern countries could be taken into account as well, especially countries as Japan and Korea. On the opponent side of the East–West dimension, US is the country usually representing as well as referred to when discussing western countries. European countries are usually regarded as more or less close to the US (West) way of thinking compared to that of China (East), as we also will see later.

Purpose

This part will contain information necessary to understand the argument of the thesis and a motivation describing why this thesis was written.

Only by reading the daily news, it is obvious that China is a country that takes up more and more space in news reporting all over the world.¹ While controlled completely by the Communist party in Beijing, the country's economy can be considered rather capitalistic. Some believe that approximately within a decade it's highly likely that China will become the world's largest economy. Accordingly, companies all over the world have observed and started to react upon the dramatic changes occurring on the international market. With an enormous amount of Chinese companies striving to expand globally, international relationships are rapidly increasing. Everyone wants to have a bite of the Chinese cake; if not in smaller cities where expansion is rapidly increasing, then in huge technology cities as Shanghai where extensive capitalistic features are easy to recognize. Lately, we have also seen an increase of foreign companies opening up R&D-departments and offices in order to more easily focus and expand within China, and to be able to do that it could also be important for foreign companies to be aware of cultural and geographical differences. It should also be noted that this is not only applicable to western companies striving for expanding on the Chinese market; similar changes are seen on other expanding markets around the world as the world more and more becomes a global market.

All in all, it is becoming clear that China and the Chinese market will be a significant actor on the future international market, and many foreign companies will sooner or later have to adapt to this scenario. In light of this, a greater understanding of cultural differences is necessary and there are several reasons why having a good grasp of cultural and geographical differences could be useful. This is also true the other way around; when China is expanding in other countries, what is it that they should think of in order to establish better and more stable business relationships?

In this thesis, the main focus will be on aspects of visual design features in digital interactive applications in West versus East (China) and how these features might differ depending on cultural and geographical differences. Hopefully, user interface designers might be able to use some of the reasoning and conclusions in this thesis when developing new user interfaces for different groups of people, or when they just want to better understand cultural differences between (in particular) West and East.

It should also be noted though that even if Chinese developers may find some use of the thesis, its main focus is towards Western companies with the aim of widening the cultural knowledge with its implications on user experience. This is foremost because it's written from a Western viewpoint (though with an

¹ These political and economic changes are reported in most national newspapers, but for a bit of more insight reports one can turn to widespread well renowned magazines like *The Economist*.

interest and experience of China) with most of its reasoning based on a Western discourse. Thus, the usefulness from a Chinese perspective will probably be on a more general level. Below are three of the major motives behind this thesis listed.

1. The first motive is that if companies had a better grasp of how to optimize their user interfaces, the user experience may improve and making the product more popular since it's more recognizable and optimized for different groups of people.
2. The second motive is that this type of specific knowledge may make the developers and designers aware of what features and design rules that go well together with certain groups.
3. The third motive is to contribute to the overall understanding of how different people interpret specific type of information and how they tend to process this information.

Methodology

This thesis is a synthesis of personal knowledge and experience, literature studies, and a user study.

Personal knowledge

A lot of the general and underlying information in this thesis is gained from the author's personal knowledge and experience as a student at the Information and Communication Technology Programme combined with the special China Profile offered at the Faculty of Engineering, Lund University. Travels in China and interaction with Chinese technology have furthermore added more experience as well as exposed many differences.

Literature studies

The first part of this master thesis project consisted of gathering information about the different cultures – especially in the light of recent findings of differences in how the human brain process information depending on culture and geographical background. In particular – as reported above – the book *The Geography of Thought: How Asians and Westerners Think Differently...and Why* (Nisbett, 2003) was studied thoroughly and has been of great benefit.

User study

The experimental part of this master's project consisted of a user study conducted as an online questionnaire (web survey). The basic idea was to create a test to investigate whether or not any specific design preferences existed between Western and Eastern cultures, or more specifically between the US and China. The web survey was executed by hosting a website from which the experiment and data collection was conducted. The web survey was based on images showing user interfaces accompanied by interactive Likert scales and fill-in forms. The collected data was saved in spreadsheet formats from which statistics later could be retrieved.

More thoroughly described, the images in the web survey were screenshots of three key areas on two different popular social networking sites. A presentation using an image slide was created using JavaScript allowing two pictures from each website to be shown at the same time to make the comparison more easy. The user can then switch between the three different key areas where two pictures from both social networking sites will be presented each time. The key areas were picked with focus on showing the most relevant part of the webpage services but also to try and display as much variety as possible regarding the offered interface design. Thus, while the user is conducting the test, the pictures will always be nearby for easy investigation whenever needed. Below the image slide is the survey, which is hosted by *Formsite* (www.Formsite.com), a company specialized in creating forms. They had the right amount of features needed to design the survey and present the result in an appropriate way.

Both the social services offer a Chinese and an English interface, but there are times when grammatical errors become very notable in for instance the English version of the Chinese social service. By splitting the test into two version, one entirely in English and one entirely in Chinese, the expectation was that we'll receive more trustworthy data that portrays the authentic way of thinking from both perspectives and where focus only lies on your own language. To contrast the data that I gathered from this test, data from another organisation in US will be used to see if some interesting patterns will emerge. At MIT (Massachusetts Institute of Technology), an organization called *Lab in the Wild* (labinthewild.org) is constantly conducting experiments about how different cultures interpret information. Some of the tests conducted there are focusing on some areas that this thesis also will discuss in the next section. But the main difference between their testing approaches is that they gather information from all over the world and thus all the tests preferably have to be in English. A comparison between their results and mine will be made later in the result part of the Comparison study.

History and Culture/Psychology

History

There are many factors that have come to form our societies of today. Here we will focus on some factors that may have an effect on how we process information. Nisbett (2003) argues that differences between western and eastern societies can be traced back to historical differences stemming from ancient Greece and China.

Ancient Greece

In his book, *The Geography of Thought*, Nisbett (2003) discusses how the ancient societies of Greece and China may have come to form what the societies look like today. Ancient Greece was an ever changing assembly of different people and city-states and when ancient Greece is referred to as the cradle of modern Western culture, this means in particular the period of classical Greece (the 5th and 4th centuries BC). During this period, there seem to have emerged an explicit interest and curiosity regarding nature – how the world worked and how it came to be, and many scientific and philosophical traditions (as well as cultural) stem from this period. Parallel to this, personal achievements and curiosity were encouraged. The “schools” of this time promoted learning out of inner motivation to learn more, in contrast to learning due to outer reasons such as the need of educated officials in the government of the state. Actually, “school” comes from a Greek word almost similar in pronunciation, meaning “leisure”, i.e. it was considered an opportunity to be put in school in order to freely pursue knowledge.

Modern reductionism and the approach of “divide & conquer” can also be traced back to this period of ancient Greece. In order to investigate and understand aspects of nature, one should analyse objects separately from each other and then classify these objects by different properties and attributes, thus putting them in different categories.

Furthermore, the modern emphasis of the individual in western societies is another notion that emerged in classical Greece. As a result of the idea that nature could be understood in terms of its separate objects, humans as well were seen only as a set of objects. Following this line of thought, a manner emerged to look upon humans as unique entities with their own personal abilities and goals.

These traits of individualism, reductionism and freedom of curiosity (and thought) may well be part of the cultural and scientific blooming during this period – but in spite of the success of this tradition, the existence of contradictions was (and still is) troublesome and elusive since it disrupts all

kind of rational models. For instance, the number zero was a matter not widely accepted in ancient Greece and late adopted from the Eastern cultural spheres, where different more holistic traditions were more successful in solving different problems indefinable to ancient Greece.

Ancient China

Ancient China certainly excelled in famous and important inventions, such as paper, gunpowder, porcelain, the magnetic compass, the wheelbarrow, and many more. Compared to ancient Greece, however, ancient China doesn't seem to have encompassed the same curiosity as evident in ancient Greece. Rather, ancient China was more driven by social and pragmatic reasons. Whereas one find epic battles and personal achievements painted on vases and other artefacts from ancient Greece, their counterparts in ancient China painted family dinners and social gatherings.

Ancient China was based on intriguing hierarchic and social structures. The society was divided into several groups or collectives, where family and the village were two of the most fundamental. Every person was part of different collectives and the family and village was in the centre. Progress as a human did not mean progress as an individual, but as a group. In ancient Chinese, harmony was valued above most things and thus, as a group, it was a central cultural idea that people should aim for the harmony of the group. The ideal was not, as in ancient Greece, a life where you could exercise your own personal goal and talents, but instead enjoying the plain rural life together with other people living in harmony. This way of thinking is also part of the central themes of *Confucianism*.

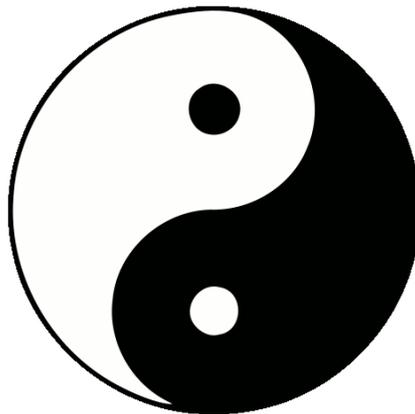


Figure 1: Illustration of Yin & Yang

Taoism was another major influence to ancient China with its holistic concept of “Yin & Yang” (see figure 1) and much more. Basically, Yin & Yang is about opposites and how they relate to each other. White, the Yang, can stand for active, positive, masculine, day, etc. Dark, the Yin, in turn can stand for passive, negative, feminine, night, etc. At the same time, Yin & Yang both

have some of its counterpart inside each other, which means that none of them is ever entirely Yin or Yang. As they always contain parts of the counterpart, if even so little, they always depend on each other and the truest Ying is when it has some of Yang in it – and vice versa.

The notion of Yin & Yang heavily influenced ancient China and its ways of thinking about and assessing problems. All matters should strive for a harmonic state in order to be in balance. If too much of Yin existed, it was expected that Yang would sooner or later come into the picture. One can think about this as a negation or contrast to the logic and unambiguous categorizations of ancient Greece.

As an example of the thinking of Ying & Yang, there is a very famous story known to most easterners even today. The story is about a farmer and his horse that runs away. The fact that everyone in the village knew that the horse was very important for the farmer's livelihood, neighbours and friends came to commiserate with him. "Who knows what is good or bad", the farmer said. A couple of days later the horse came back bringing a wild horse. The neighbours came to congratulate him but the farmer only said "who knows what is good or bad?" When his son was later riding the wild horse, he fell off and broke his leg. The neighbours once again came to commiserate when the farmer once again said the same thing. The story will usually go on and on until the audience gets tired. This is a way of thinking that is evident even in China of today, which we will see later.

Discussion

Could it be that the way ancient Greece categorized objects and looked at individual aspects and attributes may have formed the reductionistic way of looking on things prevalent in western societies of today? And could it, contrastingly, be that ancient China, with its strive for harmonic balance in everyday life and its reliance on Yin & Yang reasoning did look at matters (and still do) in a more general and dependent nature? Could it be that these characteristics have an impact also on modern Western and Eastern societies? This will be investigated further in the next part of the thesis.

Psychology

Until recent years, it has been perceived by many psychologists e.g. (Henrich, Heine, & Norenzayan, 2009) that the human brain basically worked in the same way independently of cultural background. However, as previously discussed, a new way of looking upon this phenomenon has been unveiled. Findings have also shown variations in areas such as memory, attention, visual perception, and spatial and moral reasoning. The following table is a way of trying to present relevant attributes related to this work of thesis.

Table 1: Cultural attributes and their possible relation to UX.

Attributes: West vs. China

Holism – Reductionism

Possible relation to UI-design

Is there a reason why interfaces in certain cases are considered as rather chaotic in East, whereas a minimalistic approach seems more likely in the West?

Notes/Quotes

One of the more simple reasons could be that throughout the years, the West has evolved from having rather disordered interfaces to getting more streamlined ones, and that in the East they are having the same evolving process but it's just that they are slightly lagging behind.

The other rather more interesting reason may be that Asians are more "Field-dependent" than westerners are and thus may appreciate a more complex interface.

Attributes: West vs. China

Individualism – Collectivism

Possible relation to UI-design

How does usability testing separate itself in West compared to what it looks like in the East? Could it be that marginally less people participates in usability testing, and for what reasons?

Is there any pattern to follow when designing for a "collective society"?

Notes/Quotes

"In contrast to the Asian practice of teaching children to blend harmoniously with others, some American children go to schools in which each child gets to be a 'VIP' for a day."

"An important business implication of the differences that exist between independent and interdependent societies is that advertising needs to be modified for particular cultural audiences."

"The further to the West a given country lies, the greater in general, that country's endorsement of independent values."

Attributes: West vs. China

Categorization – Non-Categorization

Possible relation to UI-design

...

Notes/Quotes

"Most importantly, the dispositions of objects are not necessarily stable for Easterners. In the West, a child who performs poorly in mathematics is likely to be regarded as having little math ability or perhaps even as being 'learning disabled'. In the East, such a child is viewed as needing to work harder, or perhaps her teacher should work harder, or maybe the setting for learning should be changed."

Attributes: West vs. China

Feminine – Masculine

Possible relation to UI-design

...

Notes/Quotes

Masculine cultures' values are competitiveness, assertiveness, materialism, ambition and power, whereas feminine cultures place more value on relationships and quality of life.

Attributes: West vs. China

Paleness – Colourfulness

Possible relation to UI-design

Just newly released experimental data has shown that colourfulness is appreciated vastly differently dependent on culture.

Notes/Quotes

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We are now going to look closer on a couple of attributes where it may be interesting to investigate whether a possible relation to how interfaces are created exists.

Categorization, reductionism and individualism are three attributes, which very much have influenced western culture all the way from, ancient Greece to modern Western societies. *Non-categorization, holism and collectivism* are the three opposite attributes, which greatly characterized ancient China and have influenced modern China.

We now know where some of these attributes stem from and we will continue to investigate them further in order to see their implications on modern Western and Chinese societies.

Hofstede's cultural dimensions theory

“Culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster.” – Geert Hofstede (geert-hofstede.com).

It is worth mentioning Hofstede's cultural dimensions theory because this was one of the first major attempts to quantify and measure cultural influence on social attitudes in different countries. When executing large-scale attitude surveys studies across the personnel research department of IBM Europe (which Hofstede founded in 1965), he compared the answers between different companies in over 40 different countries. He then found that there existed systematic differences in four main areas between cultures as seen below.

- *Power distance*: the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally.
- *Individualism*: the degree to which individuals are integrated into groups.
- *Uncertainty avoidance*: a society's tolerance for uncertainty and ambiguity.
- *Masculinity*: the distribution of emotional roles between the genders.

All these aspects are areas that should be heavily taken into account when looking upon how different cultures approach different type of problems. A

couple of these aspects, which I think are more relevant to the field of user experience, will be focused on a lot more down below.

Individualism and collectivism

We know now that the collectivistic formation of the Chinese society started already thousands of years ago and has formed itself to be what it is today. It seems like the Chinese society is still heavily depending on collective thoughts and to have good relations with many people is considered a necessity. This concept is also called “Guanxi”, the Chinese word for relations; the more people you know, the better the chances are to become something. But could a social aspect like this have any importance when it comes to the development process of a product? Nisbett (2003) writes about how important it is to think about the way a product will be received by its specific market. He found that the advertising in Eastern interdependent cultures could vary a lot from what it looked like in a Western independent culture. Slogans, for instance, often consisted of bringing a group together versus the individual progress. A couple of interesting slogans Nisbett described in his book comes from Korea and could say something like “We have a way of bringing people closer together” or “Ring out the news of business friendship that really works” (Nisbett, 2003, p. 132). As a contrast, phrases like “Make your way through the crowd” were popular in the US (ibid.). Experiments later carried out by advertising experts showed that collective advertisements indeed were more effective towards Easterners and vice versa.

When it comes to usability testing, this term is in some sense a rather new tool for the development process of a product. It has lately become a tremendously important aspect which in bigger projects, especially entirely new ones, seldom is overlooked. It’s possible that the usability testing part may also vary in collective societies where the belief might be that the group in total think the same and act the same – so why test the product on many different people when they most likely will act the same anyway? This is, however, only a speculation that might be relevant in very small Chinese companies that haven’t gone international. How widely used usability testing is in International Chinese companies is something I unfortunately haven’t had the opportunity to look into.

Holism, Reductionism and Categorization

One of the more interesting differences between West and China is the Chinese way of looking upon things in a holistic manner. In other words, Chinese tend to look at the picture as a whole, and are less likely to break it down to components and then separately analyse its parts, as a westerner more likely would do. The latter is a reductionistic approach to look at a problem and is very common in Western societies, as seen before.

A great example, among many, is an experiment conducted by Nisbett and his fellow students (Nisbett, 2003) where a couple of animated underwater vignettes were shown to a group of Westerners (Americans) and Asians (Japanese).

Recall Task

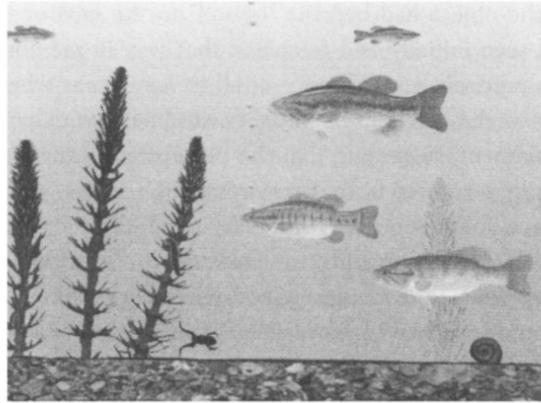


Figure 2: Recall task.

The pictures consisted of a fish as focal point, which was also bigger and brighter than all other objects (see figure 2). The background held lots of other objects such as rocks, bubbles, and other small animals, which appeared and then disappeared again.

The participants were given 20 seconds at two occasions to watch the scenes and when the time was up, the participants were asked to recall what they had seen in the pictures. Even though the American and Japanese students both made equal amount of references to the focal fish, 60 % more references were made to background objects by the Japanese students. The Japanese students also made more than twice as many references to relationships between objects in the background. So whereas American students tend to mostly relate to the fish in the picture and specific attributes around it, such as its colour etc., the Japanese students were keener to relate to things in the background and other details surrounding the fish.

As this experiment explored the ability to recall and retell objects from memory, further investigation were conducted by Nisbett and his students where they tried to investigate what type of objects that could be remembered and most importantly – how it was remembered (Nisbett, 2003). In this experiment, still pictures were shown to the students, half of which they had seen and half of which they had not seen before. Among the objects that had been seen before, some of them were shown in their original environment while some weren't. (An example can be seen in figure 3). The result showed that Japanese students tended to remember objects better when they were shown in their original context. It was then suggested by Nisbett that the

object had become “bound” to its environment and was as such also “bound in memory”. The American students weren’t affected by how the objects were presented (in the original or modified environment), suggesting that the perception of the object was fully separated from its environment.

Recognition Task

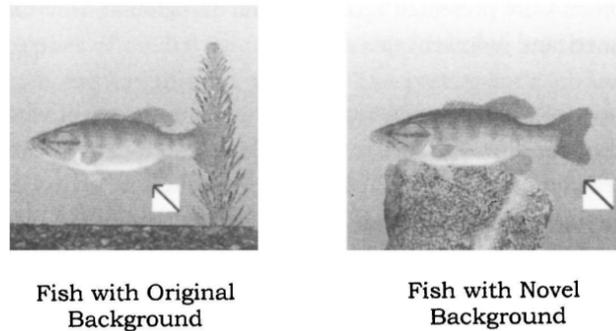


Figure 3: Recognition task.

Another interesting result worth mentioning comes from a website called *Labinthewild* (www.laginthewild.org). This is one of few companies I’ve found that is trying to investigate the same type of phenomenon as I’m trying to do in this thesis and they allowed me to use some of their data and we will look closer on some of their discoveries later on. For now, one of their many online tests was about judging people’s feelings when only given a picture of the subjects’ eyes. From the results it was found that if the Western participant had a tendency to think the subjects’ eyes expressed negative feelings, he would likely continue to think in the same way throughout the pictures, whereas if the typical Chinese participant had been choosing negative feelings for some time, there was a greater chance that he or she would sooner or later change his or her choices towards more positive feelings. This immediately got me thinking of the Yin & Yang (and the story of the wild horse) still being so prominent in the Chinese Society that it might affect the way Chinese people are thinking about progress and future appreciation of trends also in today’s society.

Creativity

The idea that Asian people are very industrious and hardworking is well spread in western countries. One can also notice that westerners are becoming slightly scared of the rise of Asia and its astounding economic growth. A common typical explanation to this has usually been that the Asian might be diligent and hardworking but when it comes to creativity and thinking “outside the box”, Western societies are much more successful. This can certainly be questioned, but nevertheless there might be some truth in this statement.

Many have argued that the educational system is one of the reasons for the lack of creativity in Chinese societies. The encouragement of thinking “outside the box” and “do your own analytic thinking” was mostly hindered by the collective society’s way of thinking. The focus on written and oral memorization (called rote-memorization), that is well established in the Chinese educational system – might have had the effect that Chinese were not as encouraged as Westerners to approach matters because of curiosity and interest, but instead to just learn what the system told them to (Ma & Kelly, 2009). This may have had limited the creative thinking and be one of the reasons why the Chinese are such industrious, obedient and hardworking. However, as China is opening up its borders for international communication and trade, some of the western ways of approaching education might become interesting for China. So while China is opening up its borders there might be more room – and interest – for the development of “creative minds”. This is why I think it’s not recommended to propose that the West don’t need to worry because we have all the creative minds over here.

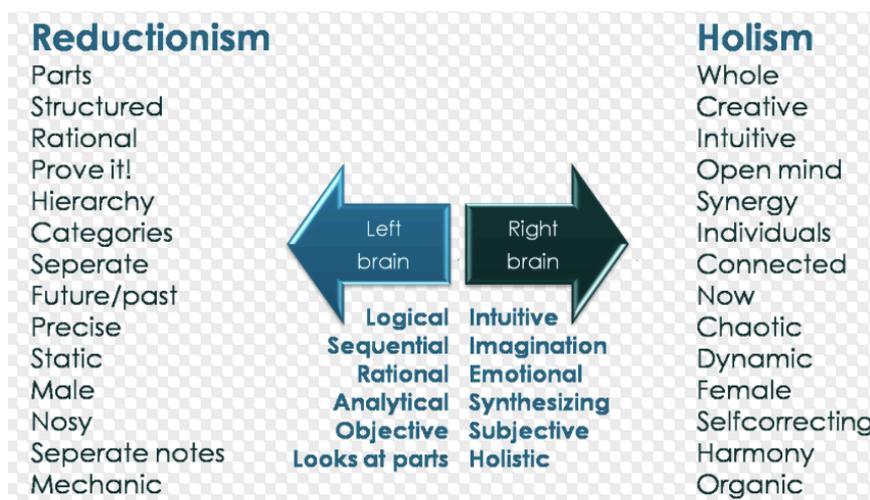


Figure 4: Differences between reductionism and holism.

Figure 4 depicts a table that appears at several forums on reductionism and/or holism found on the web.² While its details can be questioned, the overall pattern aligns with our discussion of reductionism vs. holism – and what is quite interesting about people thinking in a holistic way is that they usually also are considered very creative (figure 4). If this is the case – then why isn’t the Chinese society considered to be creative but instead the Western societies with their long tradition of reductionism? And even more interesting – if the reasons hindering the creative flow in the Chinese society could be overcome, then maybe they could develop even greater creative minds?

² E.g: <http://www.slideshare.net/teamhumanities/reductionism-vs-holism> and <http://holisticsecurity.wordpress.com/2008/06/13/what-is-holism/>

So what other obstacles and reasons might be behind the slow creativity growth in China? As we will see in the next section, the copycat culture seems to have quite some impact on the creativity aspects.

Copycat Culture

Copying and imitating products is a very interesting aspect that probably many relate to China when heard of. It's a word that has a rather negative clang to it, but if analysed further, a couple of positive aspects tread forward.

Introduction

Historically, if we look upon Europe, we'll notice that the Middle East was quite ahead technology wise around 1600 B.C. After that, European countries further to the north gradually imitated the advancements of the South and made their own alterations and improvements. For instance Mathematics, the alphabet, and architectural forms were all knowledge that was copied or adopted from Egypt. This, among other things, eventually led to Northern Europe leading the development, and has mostly been doing so ever since.

In this section, I'm first going to discuss the origins of the copycat culture and then move further on to see how this type of culture might be reflected on the market of digital products.

History

The Chinese culture separates itself rather boldly by not having an alphabet, which the majority of all languages have. Instead – by having a character symbolizing a word or part of a word – the Chinese language becomes a very complex and demanding one to learn. Westerners who try to learn the language tries to find shortcuts in order to more efficiently remember the characters and although there is some kind of a system to it, Chinese in its essence is still a language that requires an enormous effort to learn in the sense of memorizing. So how do the Chinese approach this problem? The old way of practising calligraphy essentially consisted of copying already written characters, presumably by a master of calligraphy, until proper or – in extreme cases – perfect level was achieved. The way of achieving this includes the art of different pressure from the pencil but also the order of every stroke written in a character. The pinyin phonetic system for transcribing the Mandarin pronunciations of Chinese characters into the Latin alphabet, which now facilitates learning, wasn't invented until recently (1950s). Consequently, copying and continuously doing so until perfectionism was realized, was considered the right way of doing it.

This, of course, required enormous patience and diligence. By having a system like this, one can speculate about patience and memory as areas that were both

tested and improved – and still are. In contrast, modern Western societies have many tools to help us remembering things such as phone numbers and other cumbersome information and thus, Westerners are not constantly practising memorization. Meanwhile, Chinese – in order to learn their language – have to constantly exercise their learning and memorization techniques. Because of the staggering amount of characters (now above 100,000), one is almost never considered to have grasped every character and as such there is always time over for practising and figuring out mind tricks to easier remember new and old characters. A speculation is that this leads to better memory handling and sorting of information, which eventually may lead to the ability to easier grasp new knowledge.

Shanzhai

The concept *Shanzhai* literarily means “mountain stronghold” and refers to the mountain stockades of regional bandits, which were far away from official control. The word is used about many aspects related to China’s copycat culture. The most common use is related to imitation of products and stems from the Cantonese slang where the word “Shanzhai factory” refers to a cheap and low-end family driven factory. As long as they made some profit from their products, however, the factory would eventually use this capital to improve their quality. That was the way it looked like when the concept was new. The situation today is a lot more different since this type of business has turned widely popular. Obviously, the quality varies, but nowadays you can find high quality Shanzhai-products competing with well-established brands, but still offered at a comparably lower price. The reason why Shanzhai became such a popular business was due to government regulations in China, which made it complicated for new companies to establish businesses, especially related to the official selling of cell-phones (Wessler, 2013).

The state of innovation today in Chinese companies is widely different depending on what companies look at. Because creative minds are treading forward more and more, companies (arguably the bigger ones) think for themselves and are striving to produce quality products, e.g. *Tencent* (some products of which will be looked closer upon later). Other companies are however stuck in the copycat culture and can sometimes go to very extreme degrees, at least by Western standards when it comes to copying and copyright. From my own experiences I know that this can be everything from just “Googling” a good design and copying it straight away – maybe with some alterations to colours, e.g. *RenRen* (人人) (www.renren.com) is a good example of a service in China that looks almost identical to Facebook when it comes to the user interface design.

Even though China has copyright laws much in the same sense as the laws in the US and Europe, the aspects of copying are far more widespread in China.

As this is a quite complex problem, I'm only going to mention that reasons such as difficulty to implement efficient anti-piracy laws on such a vast territory – as well as trade restrictions and censorship. Furthermore, regarding films, China's limit of only allowing 20 foreign films annually in movie theatres is certainly an important reason why dvd-copying is such a widespread problem in China (The Guardian, 2006, July 10).

Discussion

Just the same as Northern Europe once copied lots of the advancements in Southern Europe and Middle East, China has been doing the same for some time now. By constantly imitating a product, you will learn and discover the strengths and weaknesses of that product. By later mastering these aspects, one can take the next step and make own improvements and refinements. We've seen this way of imitating as a method to master the endless characters in the Chinese language, but the method also returns in other aspects of life when it comes to improving yourself. One example is the practise of Kong Fu. A Kong Fu expert said once that without practising the endless repetition of each and every movement until it was perfect, she would never have become as successful as she did. She also said that the monotonous repetition, which to many might seem painfully tiresome, was actually very self-awarding since every new movement revealed new experiences and sensations that she wasn't able to experience before. It wasn't until she completely mastered an act that she allowed herself to start experimenting with it; to use her own creativity and add that special touch to it, which then allowed her to become a world-class martial artist (Wessler, 2013).

I believe that one big difference is that China is aware of its competition in West and is constantly trying to imitate it because they see what type of products that are successful products in the west. Some companies will settle with the imitating aspect, but others and more bold companies are taking effective concepts from west and improve them even further. This is where interesting things happen. If they indeed manage to make a better product in its own sense, the Chinese have their superior speed and diligence, which can make for an even better product. It is also hard to compete with the Chinese on this area when it comes to pure manpower. Ultimately this might turn into a threat for western companies, but there are still lots of reasons why this could be a slow process. Two of them just happen to be the cultural and language boundaries, which stand for many misunderstandings.

User experience development progress

During the latest decade, the focus on designing better user interfaces has essentially exploded. As new interaction models become available, new requirements on interactivity emerges. When more complicated technology is

introduced in more and more everyday objects, the need for creative engineers and designers with the right knowledge becomes obvious.

User experience started out as something that mainly was important when designing interfaces for critical systems such as observation towers in airports, nuclear plants regulation systems, and other systems where misunderstanding, ineffective manoeuvring, or complicated structure all are to be absolutely avoided. When a system is dealing with human life there is no room for errors, thus it is obvious to anyone why a good interface is of such great importance.

Further on, when the computer era was emerging, well-designed user interfaces became necessary to open up the user group and allow people from any technical background to be able to utilize a computer with all its benefits. However, terms as “having a good interface” had not yet started to become popular and an interface was still just something that was necessary in order to navigate a system.

In the early years of 2000, digital products, for instance the iPod, started to also include esthetical design in contrary to only have functionality. Apple has been a company with specific focus on usability and has been conducting extensive usability testing before the release of a product. I believe that they were one of the companies that understood that in order for a product to be functional towards the user, a great user interface is necessary to make the customer, not just able to use the product, but also love the experience of using it.

Turning to the subject of apps in smart phones the “usability phenomenon”, as one can call it, has lately reached a very interesting level. The fact that the offering of similar services is quite equal has created a very competitive market. This leads to customers choosing the most functional and best-designed apps for the specific services they need. Here is where user interface design becomes noticeably important. What has been seen lately in the app market is the constant reappearance of similar services but offered in different packages. If you offer the same service and same functionality as the rivals, you will win the consumers if the interface is, not only intuitive and easy to use, but also appealing to the eye and feels good to use. The last aspect is something that many companies probably still forget to appreciate how important it could be. When something feels good to use, it also becomes fun to use and will increase the chance that the product will be appreciated and used again. Even if compromising with advanced functionality, the delight of using the product may still be more important for many users.

The user interface design development has come to a point where the design philosophy sometimes leans towards limiting functionality and focus on improving the basic functions with an intuitive and often minimalistic interface. This is a very popular trend and design pattern in Western societies

today. Actually, one important aspect of good UI design has always been to minimize the amount of available input and thus minimize possible errors, but the last decade we have seen this theory develop to more than just minimizing errors. Today people don't want to have cluttered interfaces with lots of options and lots of things going on at the same time. Some users just want an interface with enough functionality but with focus on a streamlined and minimalistic feel. Or is this aspect just something that is very popular in Western societies?

For instance, when comparing similar services in West and China, you'll notice that the minimalistic approach doesn't seem to be used to such an extent in China as it is in the West. Generally, in China the user is presented with a lot more options, the information available at the same time is usually a lot more abundant, and the use of colours are usually a bit more cheerful and vibrant. A simple answer to this could be that several decennia's ago western design (especially web design) could also look very cluttered, but that we in the West now have reached a certain level of understanding of what a good interface really should look like – and that this is something that the Chinese will get a better understanding of sooner or later. It could however also be that they have another – more profound – appreciation of what good design should look and feel like, i.e. that there is a deeper connection to holism and the other aspects that we previously have discussed.

So what type of creative thinking do we have in the East and how does it reflect itself in technology? We're mostly going to focus on comparing two very popular social networking websites, but first we're going to spend some time on looking at the app-segment where *WeChat* has become an interesting competitor in the text-messaging war. This app has literally exploded on the Chinese market and is slowly taking market shares all over the world.

Comparative study

In the **first part** of this comparative study we will analyse a couple of interfaces (West vs. East) and see how they relate to common established design principles. Especially we will focus on comparing typical layout between two similar services (*WhatsApp* vs. *WeChat*, see figure 5) and how some of the more important features are presented. Secondly, and most interestingly, we're going to investigate if the results can be related to cultural background and not just bad/good design.

In the **second part** we will conduct a preference test, in order to strengthen and better support observations made in part one. This test is however only conducted on the *Sina Weibo* part due to among other things lack of time.

Comparative study: *WhatsApp* against *WeChat*

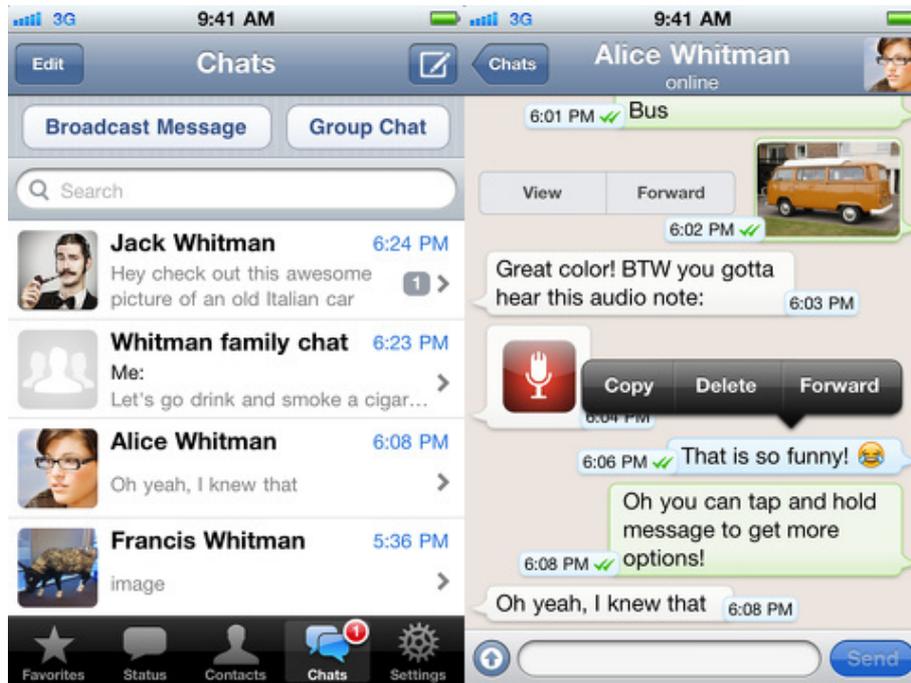


Figure 5: WhatsApp home and texting screen.

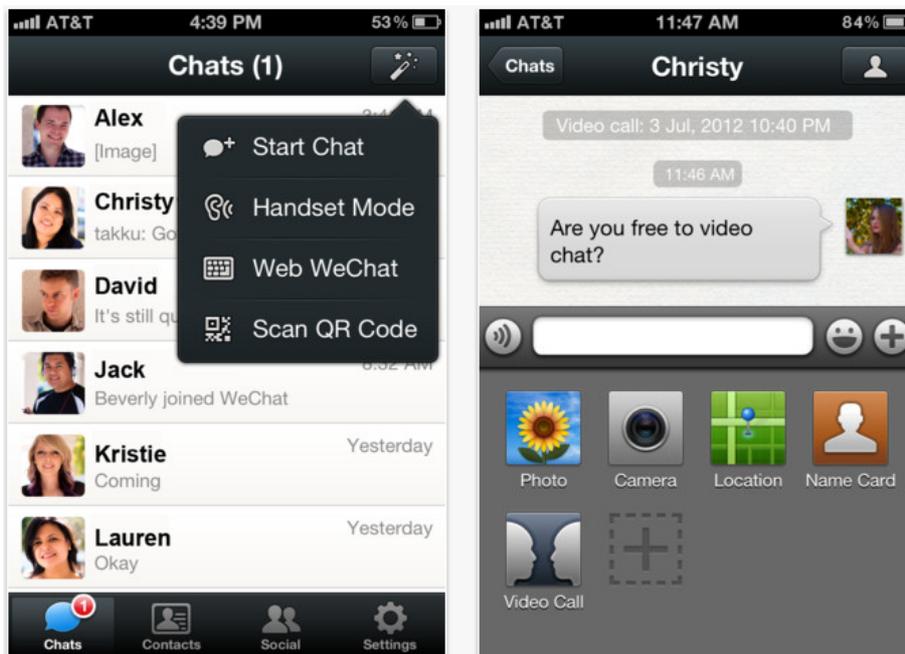


Figure 6: WeChat home and texting screen.

WhatsApp and *WeChat* (figure 5 & 6) are both very popular mobile communication services, with their basic focus on sending free text message over the Internet. *WeChat* actually started out as a voice-messaging service where the focus was on sending short voice messages for communication instead of text messages – but it also has a similar function for sending text

messages as WhatsApp. Therefore, it could be interesting to look at these two apps as well in order to see if there are some similarities with the comparison in the second part between *Weibo* and *Twitter*. This section will however not be as thorough as the other, and will rather focus on a couple of features that might be interesting and relevant for the purpose of the thesis.

Introduction

While WhatsApp is used all over the world and has around 350 million active users every month (and steadily growing), WeChat is steadily growing their user base, which is estimated to have over 400 million users by now. It wasn't that long ago when WeChat changed its name from *Weixin* to *WeChat*, a step in the progress of trying to make the app more globally appealing. It has since then started to spread across the world, for instance it is used in Indonesia, India, Mexico and the Middle East (Sabrina, 2013).

WeChat: features

With a first look on the two apps home screen interfaces one will actually not notice that big of a difference, as seen when comparing figure 5 and figure 6. So at least on the surface, the apps function in a similar fashion – but some of its features are different and also the way they work. The most notable different is that WeChat offers a wider range of features. Examples of the major ones are:

- *Moments*: a feature that works similar to a simplified *Instagram* that is mostly used for uploading pictures to share with everyone. The pictures can utilize different filters and can later be commented on by other users in your circles, i.e. other people who have added you as friend,
- *Look Around*: a feature where you can see other people using the app within a certain range,
- *Plug-ins*: the app is built around using plugins. The user can choose from a huge array of different types in order to add further features. An example of a plug-in is *Message in a bottle*, which is feature where you send out a message (voice or text) in a metaphoric glass bottle, that later a random person might pick up and reply to. You can also look for bottles by yourself and if someone just issued a message you might be lucky and receive it. You can then choose to reply the message and start a conversation.

The scope of features offered from WeChat is quite abundant. The way WeChat is offering this rather wide functionality is through the Plug-ins feature (as mentioned above). This is definitely an ambitious functionality in itself, which from a programming aspect seems rather complex. From a user experience perspective, it's a way of giving the user a choice of customization by letting them personally add the desired type of functionality.

One particular interesting feature is related to the UI (user interface) when sending a voice message in WeChat. From the very beginning, when this feature was introduced, I considered it to be designed in a very simple and straightforward fashion. This core feature hasn't changed much over time and in figure 7 you can see what it basically looks like now. When you want to send a voice message, you just tap and hold a button to record your message and when you then release the button the voice message will be sent. For some time the loss of functionality to regret what one said in the instance of recording it were present, as you were forced to send it as soon as you pushed the button. Soon though, an update came out that introduced a clever regret function. If you regretted what you said while talking you could just swipe the finger upwards where a symbol was flashing, indicating that the message would be deleted.

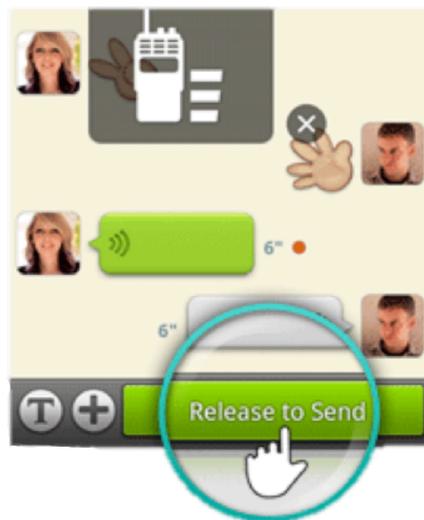


Figure 7: Voice messaging in *WeChat*.

WhatsApp: features

The WhatsApp features regarding texting is surprisingly similar to WeChat and not much interesting could be said about this – but when it comes to the voice messaging features there are some things worth mentioning.

When using WhatsApp voice feature, the following steps were required to send a voice message:

1. Tap the “more actions” button.
2. Tap the “voice message” button.
3. Start recording your message by tapping the “record” button.
4. When satisfied with the message tap the “stop” button.
5. Now you can listen to your message again if you want to, otherwise press the “send” button and the message will be sent.

In other words: the process of sending one voice message involved up to five taps on the screen.

What's interesting is that a couple of weeks ago (fall 2013) an update appeared where WhatsApp addressed this problem by offering practically the exact same user interface solution as WeChat.

Discussion

Regarding the voice-message feature, it is interesting to discuss its popularity around the world. In China, it seems to be a very popular feature (I've observed people using it everywhere) and it has totally replaced SMS-services for some people. I personally consider voice-messaging something between texting and calling. It can be really convenient, let's say, when you don't have the time to call your friend while leaving your apartment to tell him or her that you're on your way and at the same time it's too troublesome to start texting. By just quickly take out your smartphone and record a short message telling your friend when you will arrive is not very distracting and very convenient, granted that the feature is implemented nicely with the requirement of – as for example in this case – just one single tap-release action.

It's interesting why this feature doesn't seem that popular in the West – for instance Sweden (where I live). One of the reasons could of course be that it's a cultural difference between how we prefer to interact with our devices. Some Westerners would probably feel awkward standing in the middle of a crowd just talking some words into a phone. That's at least some of the concerns I've heard from people around me. Personally, however, I believe it's just a matter of time before the benefits of voice messaging tread forwards also in the West. Another possible reason to why voice messaging hasn't become that popular in the West could simply be because of the bad user interface (until recently) offered by the most popular text messaging app (WhatsApp).

One might argue that WhatsApp is mainly a text messaging app, but even if so is the case, the fact that it does offer a voice-messaging feature raises questions about its rather poorly design, to begin with.

Personally, I believe that the UI solution to the voice-messaging feature for WeChat is an example of excellent Chinese creativity. It is very likely something that WhatsApp copied straight away, and even though this type of copying is going on every day in this business, it is refreshing to see examples where West is actually copying East.

WeChat is getting more and more popular internationally and is becoming a serious competitor in the ongoing app-messaging war. WeChat and other text-messaging services have lately expanded their services and are trying to focus on games, stickers and other features to make their products more attractive on the market (Kuittinen, 2013). This is apparently a million dollar business that

many competitors, such as *KakaoTalk*, have discovered. WeChat is currently testing games on their platform as well and could use the revenues from this feature to more aggressively market their product internationally. WhatsApp seems to keep on focusing on offering a stable and secure text messaging service and doesn't seem to implement many new features. Could this yet again be because lots of Western users prefer having a streamlined service that focus on messaging and does it well, while Easterners wants more functionality in their applications? Well it definitely seems so, as both of the services are still growing tremendously, but time will tell!

Comparative study: *Sina Weibo* against *Twitter* – expert evaluation

Sina Weibo and *Twitter* are both *social media services*, where *Sina Weibo* sometimes is considered to also have some relations to *social networking*, e.g. Facebook. *Sina Weibo* started out as a way to introduce a social media service in China with similarities to *Twitter* as a consequence of the fact that *Twitter* is blocked in China. It developed fast and gathered huge interest all over China. By the third quarter of 2012, *Sina Weibo* had 400 million registered users and in the end of 2012 they had exceeded 500 million registered users to compare to *Twitter* also having about 500 million users. *Sina Weibo* is now the most popular micro-blogging website in China closely, followed by *Tencent Weibo*, another popular micro-blogging website rapidly growing (Ong, 2013).

Introduction

The basic concept of micro-blogs is that you “follow” people with interests similar to your own. By following someone, you'll continuously get his or her updates gathered in a stream on your “following-page” where you easily get an overview of all the news that are of interest for you. In other words, you'll build your own personal newspaper.

Sina Weibo started out as a service resembling *Twitter* in functionality, but soon adapted its own look and style and also its very own feature set. Whereas a Chinese website like *RenRen* is almost a straight copy of Facebook, and it seemingly continues to copy new features as Facebook announces them, *Sina Weibo* doesn't look anything like *Twitter* does today. Many might believe that *Sina Weibo* still only is a way of offering the same features as *Twitter* in a country where *Twitter* is not allowed, but the way its features separates itself from *Twitter* and the fact that *Sina* lately also started to offer an English version, should be reasons enough that we're having a service that is trying to go international and might very well – maybe sooner than later – increase its user base considerably.

So what are the major differences and similarities? Can we find typical cultural design nuances as discovered in the theory part? And if so – is there something to think about when designing like this?

Similarities and Differences

Most basic functions are the same when using Weibo and Twitter. There are among other features the “@-function”, the “#-function”, “reposting” and “commenting”. However, it is basically only these features that are similar between the two services.

Looking at the two interfaces, there are actually not that many similarities to be found. What may strike you first as a Western user when comparing Twitter and Sina Weibo next to each other, is that Twitter has a very minimalistic look and a rather streamlined interface. Twitter’s amount of buttons, text and other available inputs are less than what Sina Weibo offers. One reason could of course be that Sina Weibo offers more features, but looking closer you will notice that Twitter is purposely using a minimalistic approach, which – as we have discussed – is getting more and more popular in Western societies. We also have to take into account the fact that Sina Weibo offers a lot more features, which can lead to a (slightly) more cluttered interface. One could say it depends on how the developers choose to design the interface, and with Sina Weibo it straight up feels like there are a lot more things to interact with the moment you enter the home page.

Below are examples of some design aspects – commented from a Western design perspective (e.g. Shneiderman & Plaisant, 2005) – that seems to have influenced the interface of the two services.

Twitter

- + General minimalistic look → less available options which makes for less errors.
- + Text is used together with small intuitive icons → “double coding”.
- + Collapse menu when commenting → more immersive social experience.

Sina Weibo

- Many buttons are simply text with no “double coding” → could require more time and are less clear. (It’s however not obvious in this case due to Chinese characters in essence are pictograms resembling icons.)
- Two menus where sometimes the same type of functionality are offered at the same time → unnecessary information and clutter.

By western design rules, it clearly looks like Twitter would be the preferred choice to work with due to its minimalistic approach, which (theoretically) leads to less errors and more simple interaction. The two menus offering the same functionally on Weibo seems (personally) like something that hasn’t been thoroughly thought through when designed. But is Twitter necessarily a

winner when we let people from different cultures examine the interfaces and share their first impressions? That's what we are going to try to investigate with the online preference test coming next.



Figure 8: Homepage on Sina Weibo.

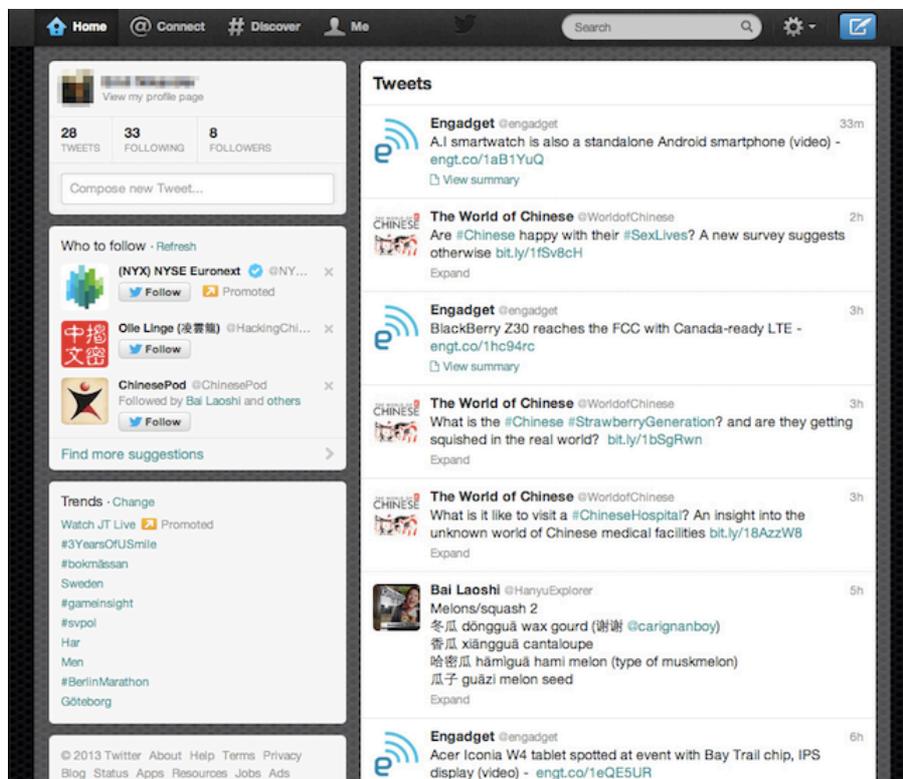


Figure 9: Home page on Twitter.



Figure 10: Random post on *Sina Weibo*.

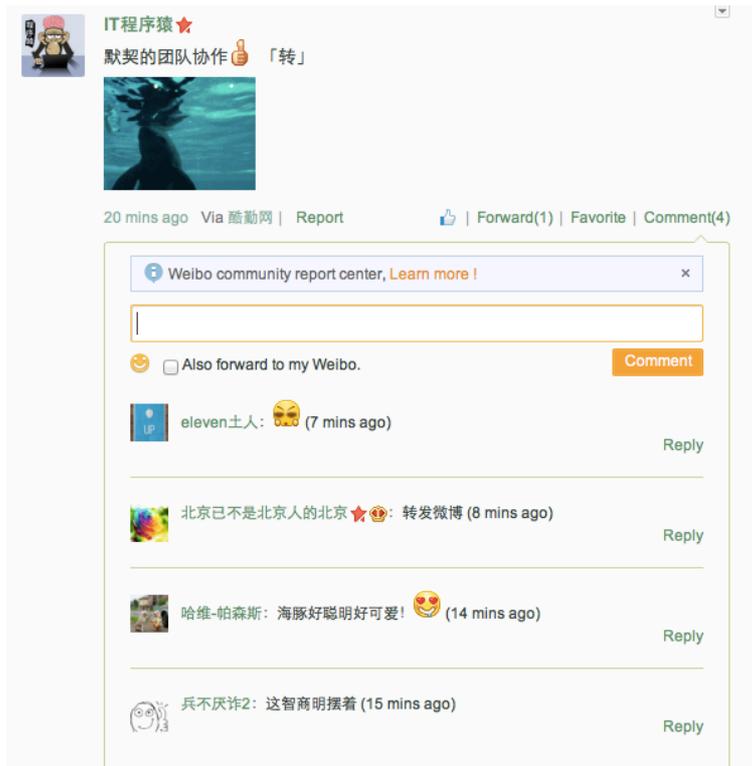


Figure 11: Same as Figure 10, but with commenting selected.

Comparative study: *Sina Weibo* against *Twitter* – user study

This user study is based on the presentation of screen shots from the two webpages (*Twitter* – *Sina Weibo*) in order to investigate the participant’s “first impressions”. The idea is that the test will be executed on both Westerners and Chinese. As a next step, the results will be compared with common user interface design principles to see if there is a contradictive pattern related to preferences between different cultures, i.e. the results from the first part of the user study.

Some simplified measurements have been taken regarding the choice of user groups. It has been taken for granted more or less that the technical background is not that important when we’re going to investigate these types

of interfaces. The major reason for this is simply that the user group mainly consists of younger, probably technically aware, people.

First impression test

The test will investigate if there are some “first impression” preferences related to cultural background. This test has been conducted by setting up a webpage online, which consists of an embedded form with questions about typical design preferences together with questions about the user’s background. These questions are all related to a couple of pictures that will be shown in the top of the webpage using an “image slider” (implemented with JavaScript). By setting up the test online, it will hopefully be possible to reach a larger public and thus be able to gather a lot more data. Consult the Appendix for information about the questions and design of the test, etc.

First impression test – results

In total there have been around 100 participators in the first impressions preference test, and it just happen to be around 50 participators in both versions of the test (Western and Chinese respectively).

Design (West): We start by looking at what the participators generally thought about the design of the two webpages. On all the pie-diagrams, the first number next to a slice of data is the score from 1 – 8, where 1 stands for “very bad” and 8 stands for “very good”. The number next to it shows how many participators that have chosen that particular score. As seen in figure 12 and 13, we see that the western group of participant seems to generally have a greater liking towards the design of Twitter.

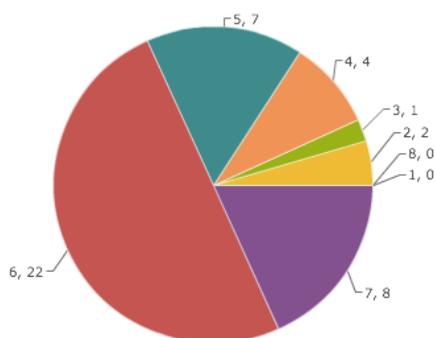


Figure 12: Twitter: Design (West)

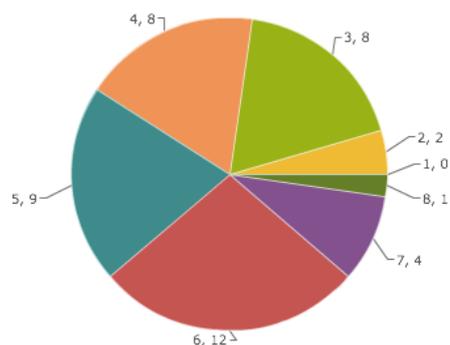


Figure 13: Sina Weibo: Design (West)



The bottom-end scores seems rather similar and it’s not until we start contrasting previous experience of the service (Twitter and/or Sina Weibo) with what the participators think about the design that some kind of pattern might appear. As seen in figure 14 and 15 it seems like the group of

participants that has used neither service tend to give drastically lower points to Weibo than to Twitter.

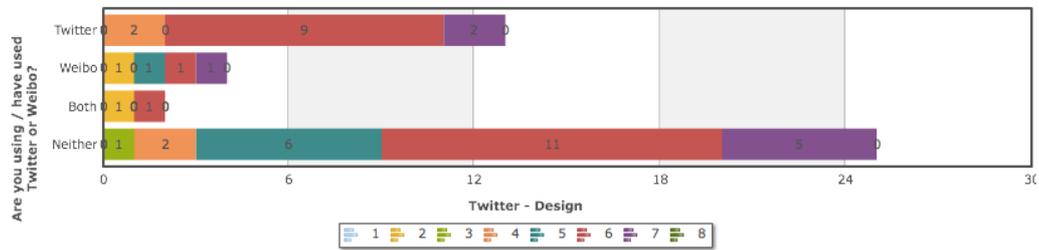


Figure 14: Twitter: Design (West) - contrasting "service experience".

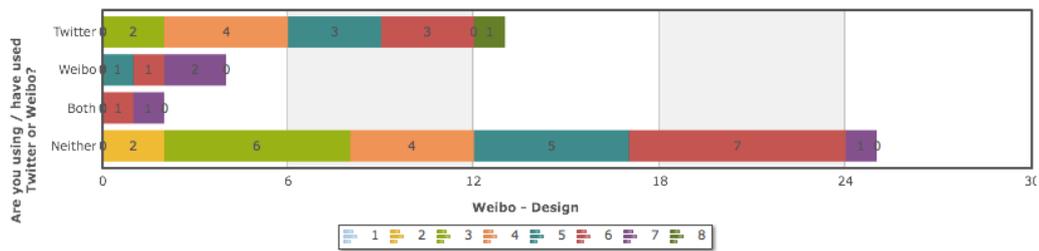


Figure 15: Sina Weibo: Design (West) - contrasting "service experience".

If we also contrast the aspect "lived in other countries" with what the participants think about the design, we'll notice another interesting pattern. As seen in figures 16 and 17, it looks like Westerners who have lived in other countries tend to appreciate the design of Weibo more compared to Westerners who haven't lived in other countries. It doesn't necessarily mean that they have lived in China and got influenced by their way of thinking, but it might still be possible that they got culturally influenced by something else than the modern Western standards of minimalism and simplicity.

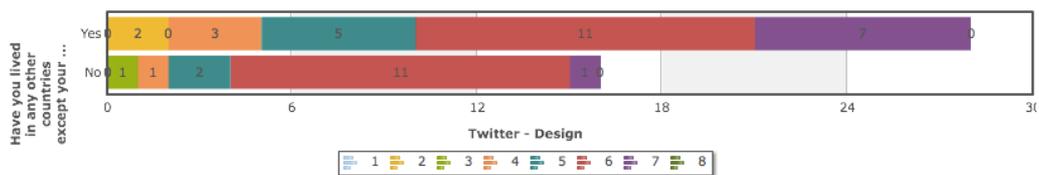


Figure 16: Twitter: Design (West) - contrasting "country".

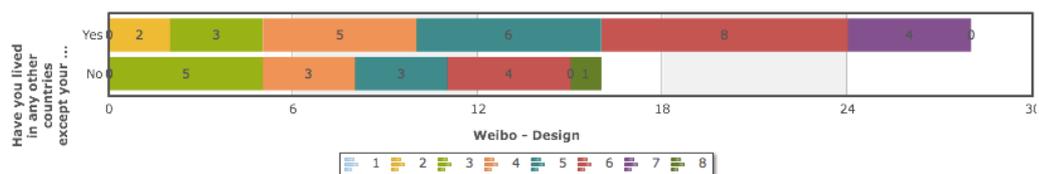


Figure 17: Sina Weibo: Design (West) - contrasting "country".

Below are two random comments taken from Western participants about design, where “clutterness” seems to be important:

“Twitter’s got somewhat boring and static content. Not using the entire desktop width. Too many navigation paths. Weibo is too cluttered. But takes better advantage of customizing, and using the width.”

“The distinguished borders in Twitter makes it look less cluttered compared to Weibo.”

Design (China): Below follows the results from the Chinese version of the test. It’s the same structure as before so the diagrams in Chinese can be compared with earlier diagrams.

When looking upon the Chinese figures it generally looks like Sina Weibo’s design is more popular but with Twitters design only lagging behind a little.

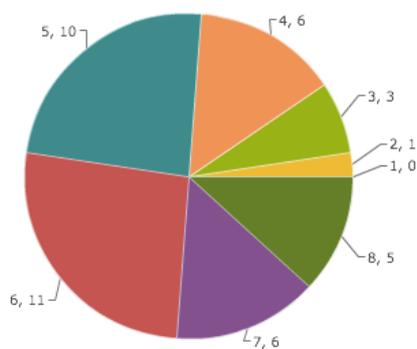


Figure 18: Twitter: Design (China)

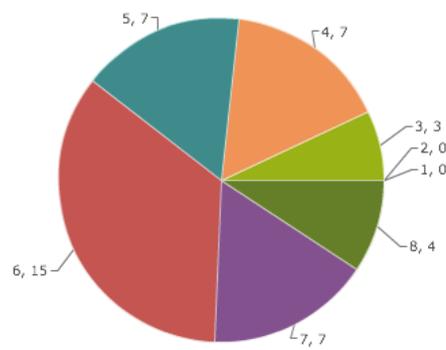
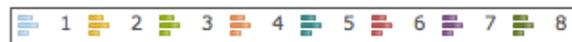


Figure 19: Sina Weibo: Design (China)



What looks rather disappointing, as seen in figure 20 and 21, is that when contrasting service experience with what the participants think about the design, the differences are not that noticeable. One problem is still that we don’t have a large user group of people using neither service. In other words, participants stating they have experience form both services tend to like Weibo just slightly more than Twitters design.

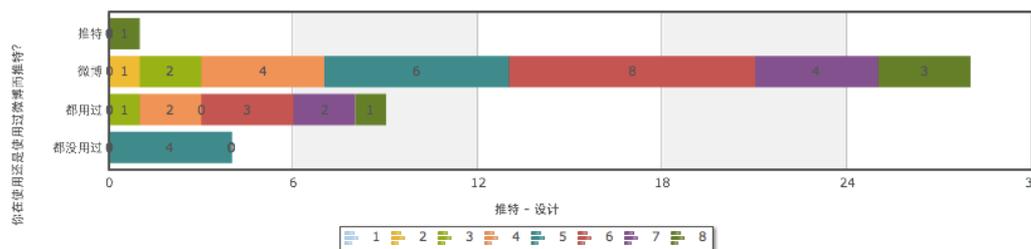


Figure 20: Twitter: Design (China) - contrasting “service experience”.

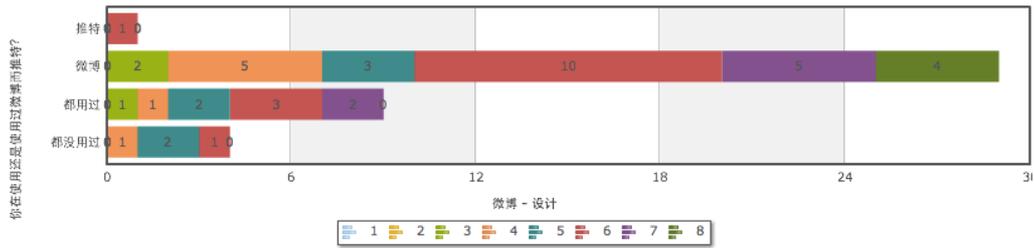


Figure 21: Sina Weibo: Design (China) - contrasting "service experience".

Also while looking on participants having experience living in other countries, as seen in figure 22 and 23, we see similar patterns as before. In other words, the factor of living in other countries doesn't seem to have any impact on what type of design they prefer. We will see, however, that there is a big difference between the appreciation of "design" and of "ease of use" when looking on Chinese participators not having lived in other countries.

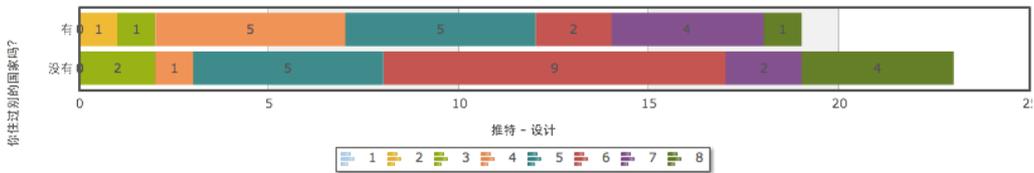


Figure 22: Twitter: Design (China) - contrasting "country".

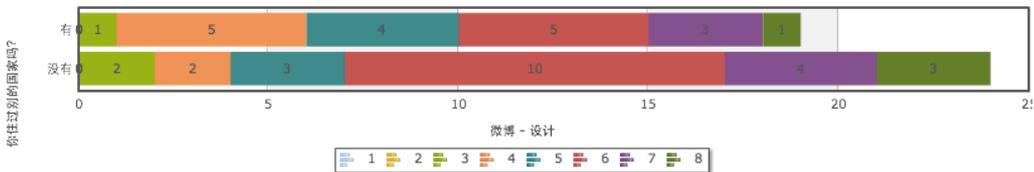


Figure 23: Sina Weibo: Design (China) - contrasting "country".

When looking on comments from Chinese participants, we'll notice that some of the participants seem to have some problems with the amount of advertisements offered on Weibo, and we also have one that preferred Twitter's design.

"Weibo has all kinds of advertisements."

"Twitter is very concise, I think personally that the way Twitter is designing how to integrate its advertisements are better than Weibo where lots of your attention will be drawn towards the advertisements."

"Twitter's design is more in order and its visual aspects are more modern and pleasing to the eye."

Ease of use (West): We will now look on what might be the most important results of the test. That is what kind of impressions the participator got from the screenshots when relating to "ease of use", basically, which website that

looks easier to use. In figure 24 and 25, the overall result from the Western test is presented when only looking upon the scores related to ease of use.

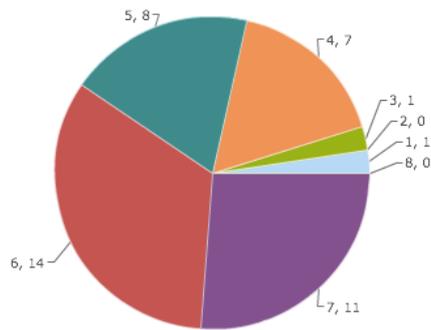


Figure 24: Twitter: Ease of use (West)

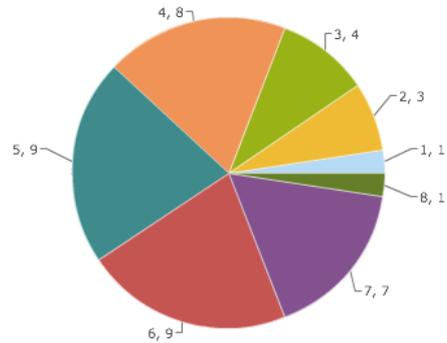
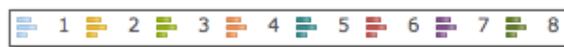


Figure 25: Sina Weibo: Ease of use (West)



In this case when looking upon Twitter’s answers, we see that score 5, 6 and 7 relates to a little more than $\frac{3}{4}$ of the total choices from the participants.

When looking on the same scores on Sina Weibo’s answers, we see that they relate to a little more than $\frac{1}{2}$ of the total answers. Most interesting, however, is the fact that the amount of people choosing top scores 6 and 7 are 14 respectively 11 for Twitter but only 9 and 7 for Weibo. So far it seems like Westerners in general appreciate Twitter more when it comes to its ease of use. But because these are the overall results and includes everyone who has done the test, no matter what kind of service experience they have got, these scores might be rather biased.

If we instead study figure 26 and 27 we’ll get a slightly different view. What’s notable here is that the amount of top scores of Sina Weibo and Twitter are actually rather similar. This could express that this group of Westerners, who haven’t used either service, tend to think both services looks rather easy to use. But what’s more interesting is that there are 6 people choosing the lowest score 2 and 3 on Weibo while there are no one choosing these scores on Twitter, suggesting that Weibo can also be seen as rather difficult to use in the eyes of people with no experience from either service.

Otherwise people already using Twitter tend to think Twitter is more easy to use than Weibo, which really doesn’t come as any surprise.

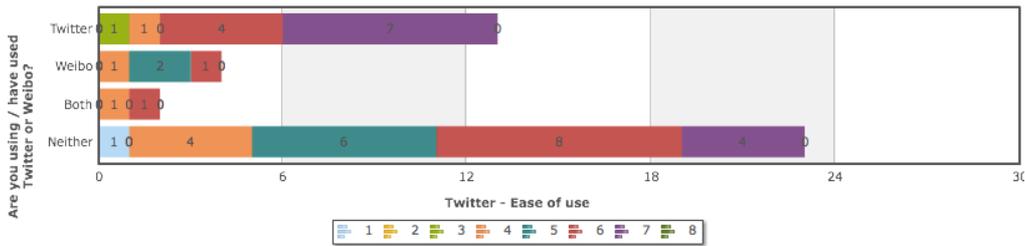


Figure 26: Twitter: Ease of use (West) - contrasting “service experience”.

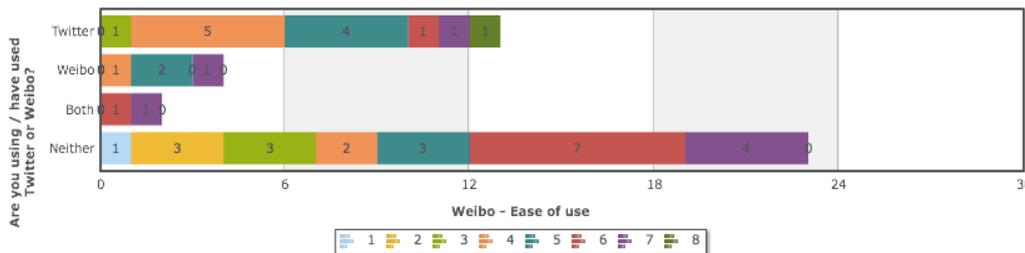


Figure 27: Sina Weibo: Ease of use (West) – contrasting “service experience”.

With the limited amount of data it’s not perfectly safe to say too much but it looks like that while some people actually enjoy the look of Sina Weibo, there are also quite a few people who think it looks complicated to use.

Some Western comments inserted from the test are more or less in coherence with what has been stated above:

“Weibo seems much more cluttered.”

“I know Twitter form inside out so it feels rather biased what I’m going to say, but it’s very easy to navigate with help of the top banner (or whatever it’s called) with buttons. Weibo also looks easy to navigate but it seems like there are too many buttons and links for my taste.”

“Twitters simplicity and purity of design makes it easy to use. I get the feeling that weibo is more difficult to get into and use, mainly because of the abundance of tabs.”

“To many links and buttons on Weibo.”

“Fairly similar but in Weibo it looks like it’s easier to discover content based on categories.”

“Twitter seems much more user friendly and less cluttered.”

“Since I’ve used Facebook, and Weibo looks a lot like it I think I’d have an easier time to understand and use Weibo (provided I could read Chinese).”

“Again, Twitter’s design seems more consistent, which should make their different functions easy to use since you recognize yourself wherever you go. For Weibo there seems to be a lot of things to click on and it seems they have more functions to use. This might result in a longer learning curve.”

Ease of use (China): As seen in figure 28 and 29, the Chinese version of the test seems to show that scores related to “ease of use” in general is slightly higher for Sina Weibo.

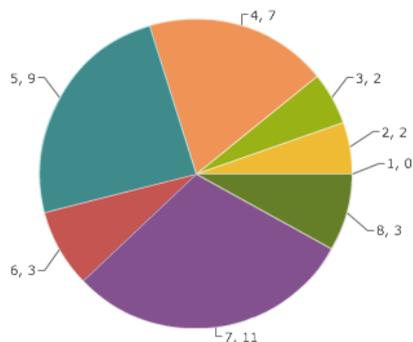


Figure 28: Twitter: Ease of use (China)

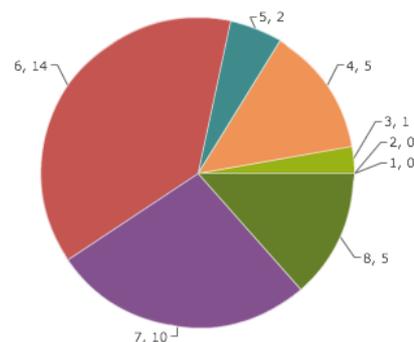


Figure 29: Sina Weibo: Ease of use (China)

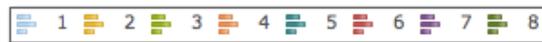


Figure 30 and 31, however, don’t resemble those of Twitter as the user group who hasn’t got any service experience at all are less than zero. Thus we basically only see the obvious patterns such as users of one service tend to find that service easier to use.

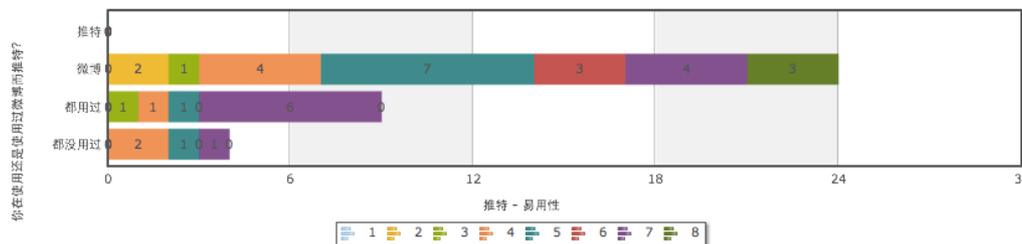


Figure 30: Twitter: Ease of use (China) – contrasting “service experience”.

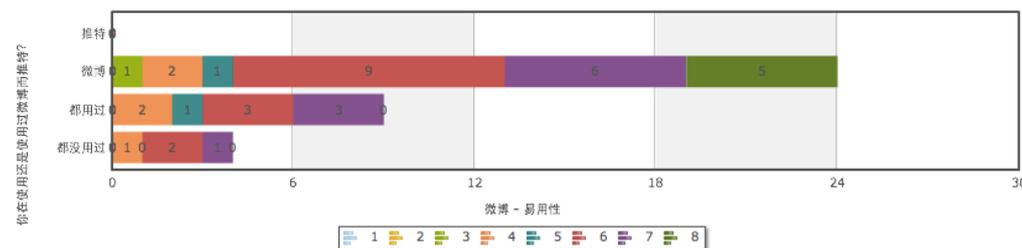


Figure 31: Sina Weibo: Ease of use (China) – contrasting “service experience”.

Where it becomes really interesting is when contrasting whether or not people “have lived in other countries” with “ease of use”. The results can be seen in figure 32 and 33.

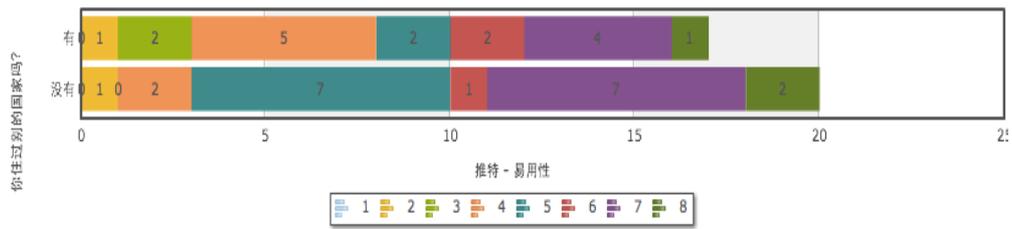


Figure 32: Twitter: Ease of use (China) - contrasting “lived in other countries”.

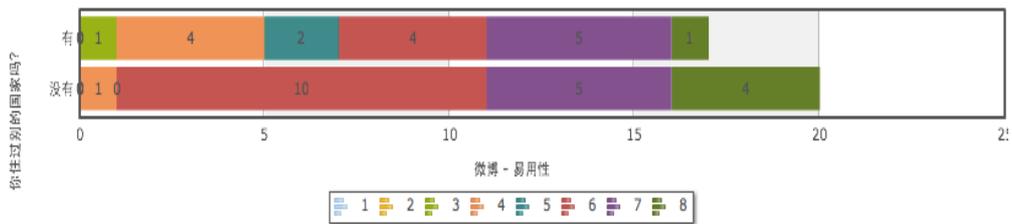


Figure 33: Sina Weibo: Ease of use (China) - contrasting “lived in other countries”.

What is interesting here is that the group of participants who haven’t lived in other countries, i.e. likely genuine Chinese and probably not affected by other cultures, tend to deliver quite higher scores towards Sina Weibo. For example we have 10 people giving score 6 while there is only 1 giving score 6 to Twitter. The highest score have 2 people more for Sina Weibo, but the second top score have 2 more towards Twitter. Comparing this to what the participants think about the two services when they have experience of “living in other countries” we see that the scores for Sina Weibo drops rather drastically while it’s just a small difference for Twitter, suggesting that they might have been influenced by other cultures and neutralised their opinions not finding Sina Weibo’s design that easy to use any more.

Some of my earlier theories about preference towards abundance of options and choice also reflect themselves in some of the comments from the Chinese participators:

“Weibo’s options are far more and convenient.”

“Ease of use is secondary, what’s important is that Chinese people think Twitter has too few interactive functions and that’s also why there are few Chinese Twitter users.”

“It’s easier to find correlating information relating to your interests on Weibo.”

“Weibo’s usage area is really big.”

Trustworthiness: When it comes to “trustworthiness” the figures are quite expressive. As you can see in figures 34-37 it doesn’t look like there is a big disparity between the results, but overall both Chinese and Westerners tend to rely more on Twitter.

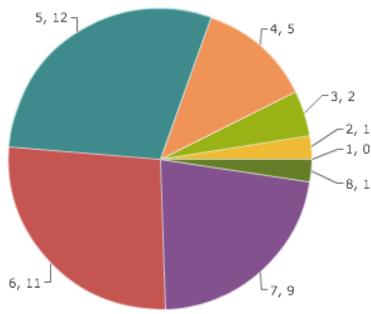


Figure 34: Twitter: Trustworthiness (West)

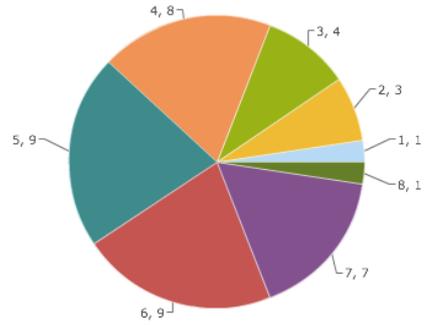


Figure 35: Sina Weibo: Trustworthiness (West)

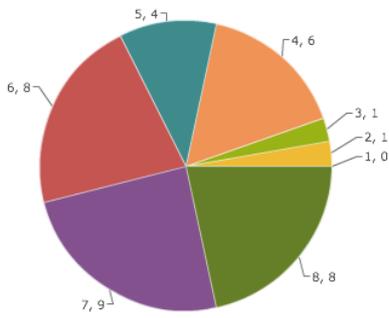


Figure 36: Twitter: Trustworthiness (China)

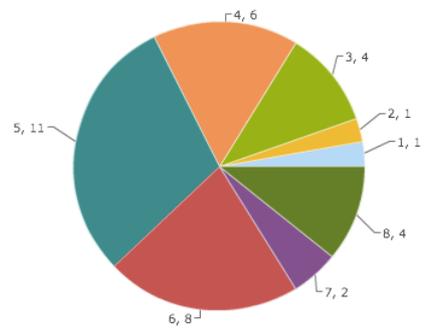
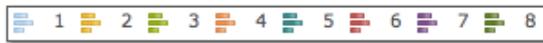


Figure 37: S. Weibo: Trustworthiness (China)



It becomes a lot more interesting when contrasting service experience with trustworthiness as can be seen in figures 38 and 49.

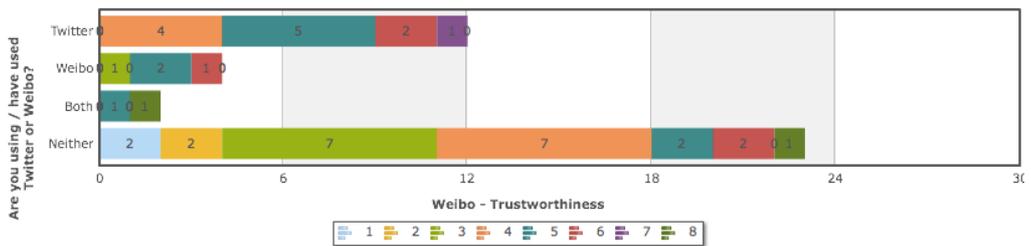


Figure 38: Sina Weibo: Trustworthiness (West) - contrasting "service experience".

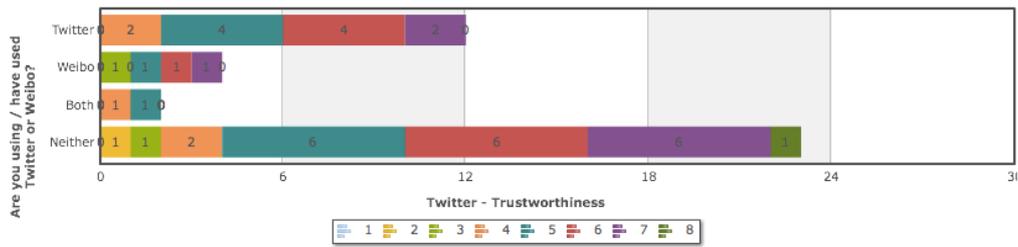


Figure 39: Twitter: Trustworthiness (West) - contrasting “service experience”.

It seems like Westerners are having quite a big distrust against Sina Weibo when we in figure 38 see 18 participants not using either services giving Sina Weibo rather low scores. Even though the majority of the answers linked trustworthiness to the design, which is very positive, there still seem to exist doubt. Some of these speculations can be reflected in some of the comments from the Western participants below:

The following are a couple of quotes from Westerners about trustworthiness:

“Chinese sites has a bad reputation and maybe I am a bit biased but Twitter feels a little bit safer to me.”

“There are many links that people posts that leads to many places and I do not spontaneously click random links. Twitter I know and as such I don’t have any problems with downloading file from the company Twitter. If I only would judge according to the screenshots, I also have to say Twitter because I believe the UI looks more structured and that is equal to trustworthy in my eyes.”

“Too much text/information gives a messy feeling or reminds me of sites with a lot of Internet advertisement, which I associate with ‘unsafely’.”

“The in-cohesive design and use of colours makes Weibo look a little less trustworthy.”

“Both sites look professional but I would not do any of the above examples only from a first impression. I would research the sites first etc. to see that they are safe. But they both look reliable from just a first impression.”

Looking on one of the quotes that stands out, it seems like colours and structured design may also be aspects that could matter for a Western user.

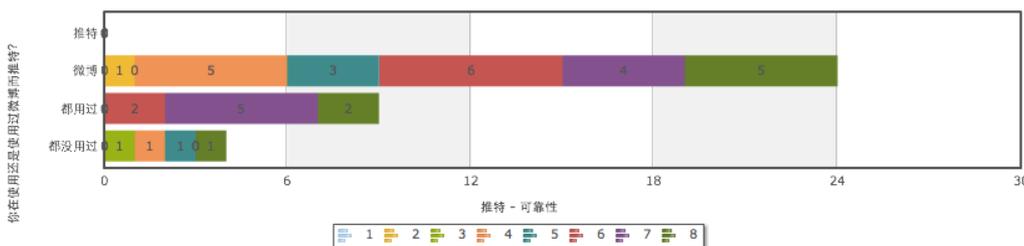


Figure 40: Twitter: Trustworthiness (China) - contrasting “service experience”.

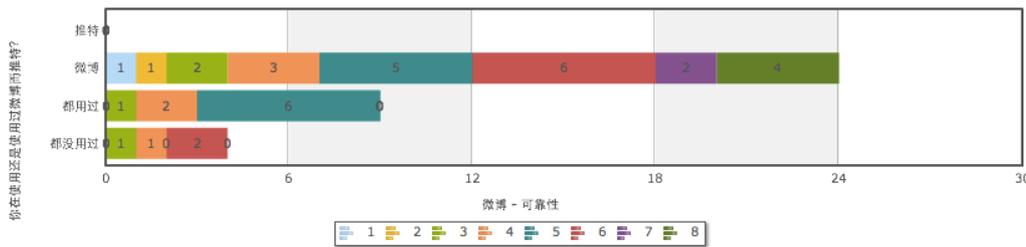


Figure 41: Sina Weibo: Trustworthiness (China) - contrasting "service experience".

When contrasting service experience with what the Chinese think about trustworthiness, we still have the problem that the number of participants not having used either services is too low. However, we can see that participants having used both services still tend to think Twitter is more reliable. The fact that Sina Weibo have very strict rules about what type of information the users are allowed to post and that government officials are constantly inspecting posts made by users could be a reason for some of the results here, which is reflected in one of the comments from Chinese participants:

"Weibo requires you to enter your personal ID in order to register, which is a reason why using Weibo doesn't feel relaxing."

Except the advertisement complaint reflected below, nothing that interesting was found among the Chinese comments about trustworthiness.

"Weibo has more spams, that's a sad part."

"Weibo's advertisements are too many."

Discussion

There are unfortunately many aspects that have to be taken into account when making some sort of conclusion, but mainly these three below should be thought of before concluding anything.

First of all, the test is just a first impressions test – but some people might confuse it with a real usability test. Even if there are tools to conduct usability tests online, it is rather hard to make it efficient and reliable. This test tries instead to investigate and see what type of reactions and feelings that can be gathered by just showing the test subject a couple of typical screenshots of what the user interface looks like. By doing so the hope is that at least some interesting user-patterns will emerge. The fact that the test only consists of pictures may let some people judge the design of the website based on their prior interactive experience with the service and not only based on the pictures showed in the test.

A more standardised usability test was considered in the beginning of the project, where gathering Western and Chinese participants and then conduct a more controlled usability test in a usability lab. However, the problem was that by gathering Chinese participants where I live would mean that they

already have been exposed to cultural differences as they are already living in another country. So to reach a “genuine” group of Chinese participants would almost be impossible.

Secondly, I only managed to gather 50 participators for each test. Even if some patterns were discovered, in some of the key areas the user group was too low to get any statistically valuable data. Specifically, I’m thinking of users who haven’t used either service and haven’t lived in other countries except China. This user group would belong to the most unbiased of them all but was unfortunately also the hardest group to reach.

Thirdly, the fact that we are starting out from two already known web-pages will most likely create some biased thinking, with the possible exception of the user group that hasn’t used any of the services before.

What also can be noted is that Sina Weibo isn’t only focusing on social media and is indeed offering quite a lot of different functions compared to Twitter, such as games and built in apps, and might thus have a slightly different user-base. But as a whole, I believe that we can still discuss what people may think about the overall design.

The most interesting result however, has to be when looking on ease of use and contrasting against what country the participant lived in. Only looking on the design section when contrasting against countries, the differences were not obvious, but there did indeed seem to be some kind of pattern when looking on contrasting against countries in the ease of use section. This could mean that the genuine Chinese participants can still appreciate Twitter’s design as well as Sina Weibo’s, but when it comes to ease of use they might prefer Sina Weibo’s user interface. Reasons such as abundance of features and options did indeed not scare the Chinese participants, but instead seem to have a very positive impact on their preference towards the webpage.

Conclusion

Finally we are going to summarize and closer investigate some of the more interesting patterns that strengthened some of my theories about the cultural impact on design preferences.

The *design* part of the test did look rather equal when looking only upon the charts. A closer look on the comments suggested that some people seemed to take the advertisements as a factor to count on when evaluating the design, which may be one reason why the preference levels were quite equal between the two services. However, I do believe that the major reason for the rather equal preferences might be that design in itself is a rather broad term and covers lots of areas.

There was, however, a rather substantial change in attitude when it came to *ease of use*. The general trend in the charts towards Sina Weibo being easier to use for Chinese people might not say that much because of the simple fact that Chinese people will obviously prefer their own service more. It became more interesting, however, by comparing Chinese participators that had experience of living in other countries to genuine Chinese participators. What we see is that genuine Chinese tend to think it's a lot easier to use Sina Weibo than Twitter – but when they have lived in other countries they tend to give Sina Weibo lower scores suggesting they think it's relatively less easy to use.

Contrasting this to the charts of the *design* part could imply that Chinese are very well likely to appreciate the simplistic design that Twitter uses, but when it comes to using a service, they prefer using the more complex one that Sina Weibo is offering. A comment from a Chinese stated that he or she believed that Chinese enjoy a more interactive website with more options, which in some ways apply to the psychological aspects that was investigated in earlier sections of this thesis. Looking at other apps and programs, the same pattern returns where you basically see a lot of interactivity and options stretching beyond the initial purpose of the service being offered in the same package. For instance, the mobile app of Sina Weibo includes features such as nearby Weibo posts and looking for people close by. These features are again offered in similar services such as *KongJian* and *WeChat*. *Kongjian* is a service similar to Facebook that is connected to *QQ*, which is the most popular chat-service in China. These are just some of the services I am aware of offering similar features. I guess that if some of the services were to exclude one of these features, they would not be considered as valuable or interesting even though the feature in itself doesn't seem to be vital for the products main purpose.

Figure 42 shows data, which a website called *Labinthewild* (www.labinthewild.org) gathered from one of their many online tests. This data comes from a very recent test they made about website complexity and colourfulness. Several thousand participants from all over the world took part in this test and the results can be seen in figure 42 and 43. Starting with the complexity part, the results showed a slight increase in complexity preference for China, especially when compared to European countries. My first reaction was that the difference wasn't really as expressive as I'd hoped for. This test however has its limitations because it is entirely in English so it's very likely that it's not the typical genuine Chinese person who will take this test. This can, as we've seen in our results earlier, have a substantial impact on the results. But even so we can still conclude that the complexity preferences still are slightly higher.

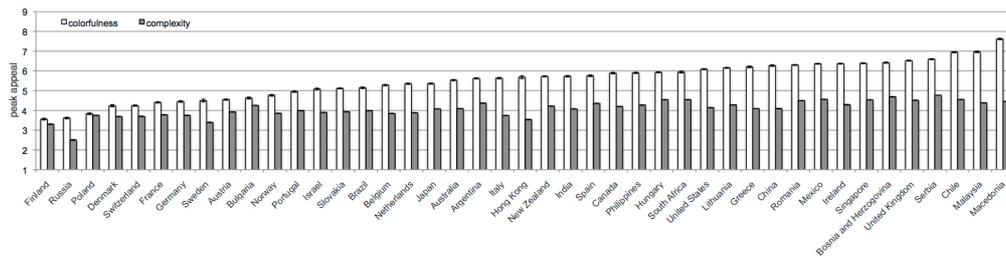


Figure 42: Complexity & Colourfulness Diagram 1

However, as seen in figure 42, the difference as to colour preference is a lot more remarkable than the preference towards complexity. When looking on major websites in China you will probably notice that this goes well together with the colourfulness data from this diagram. Websites feel generally more colourful in China compared to what they do in the West. And from my own experience, it's a common reaction from Chinese people that they think our webpages might look dull or boring. These patterns repeat themselves in other interesting forms. For instance, I talked with a seller on *Alibaba*, which is the Chinese version of *Ebay* and *Amazon*, some time ago. She said that lots of things that sold well in China didn't sell at all in other places and she suspected that it was related to colour. When she later showed me the specific merchandise I felt as if I could understand why because of its very vibrant colour scheme, which was everything but subtle. So choice of colours and colour schemes are other aspects to consider when designing for the Chinese market. What in West is seen as a subtle and clean colour palette is necessarily not considered the same in China, and might on the contrary be considered dull and boring.

Coming this far, I feel a bit unfortunate as that there are so many other things that I wanted to look into. Other services such as Chinese newspapers, which seem to offer difference in how categories are presented, and chatting services, such as QQ with its enormous amount of features compared with for instance Skype, are just several examples where patterns connected to what's been discussed in this thesis seem to exist.

To summarize I believe that Westerners may prefer having a more concentrated product offering one or several services, tuned and perfected in a simplified and intuitive package. This is so they can concentrate on specific actions and get down to business. Here I like to make a connection to what Nisbett and his colleagues (Nisbett, 2003) concluded in their experiments, i.e. the observation that Westerners tend to focus on one main part of a picture and very easily forget about the surroundings. They also seem to appreciate toned down colours and they don't want to get distracted by other things.

The Chinese on the other hand seem to enjoy interactivity and option for choice. More colours are also something that mostly seems positive. By delivering a product that don't just offer the essential features, but also

expanding and offer additional functionality not necessarily tied to the core purpose of the product, may give the Chinese a feeling of a more stimulating product offering more content and value. Again, the connection to Nisbett's (2003) experiments seem possible, suggesting that Chinese (or Asian) people tend to focus a lot more on the surroundings and can actually enjoy a more "crowded" interface where more things are going on at the same time.

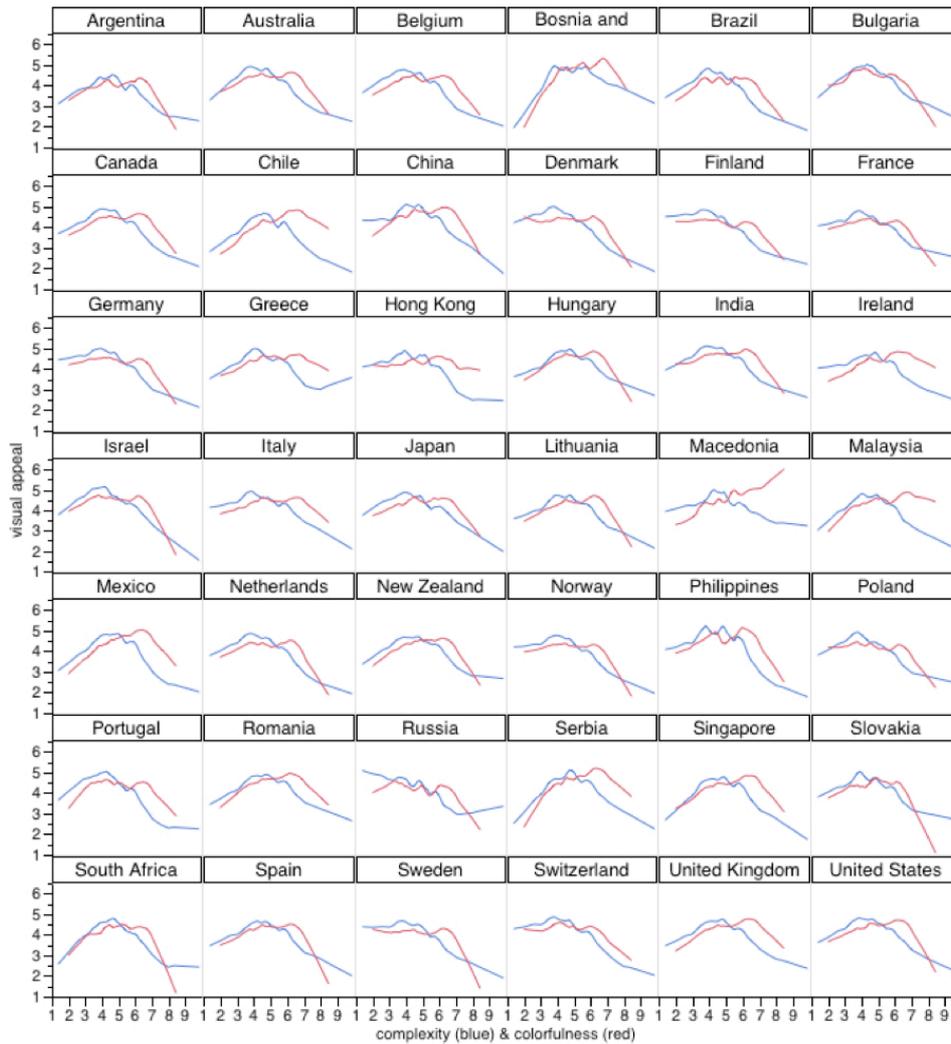


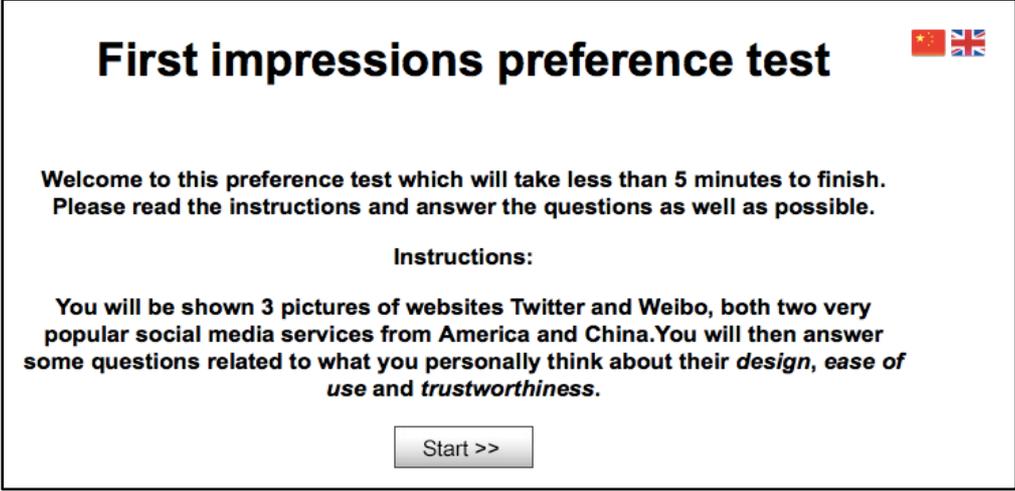
Figure 43: Complexity & Colourfulness Diagram 2

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Appendix

The different tests are presented here in the Appendix.



First impressions preference test 

Welcome to this preference test which will take less than 5 minutes to finish.
Please read the instructions and answer the questions as well as possible.

Instructions:

You will be shown 3 pictures of websites Twitter and Weibo, both two very popular social media services from America and China. You will then answer some questions related to what you personally think about their *design, ease of use and trustworthiness*.

Figure 44: Index page of first impressions preference test.

Twitter and Sina Weibo

For Twitter and Sina Weibo a preference test questionnaire has been constructed. The layout of the online test can be seen in figure 18 and figure 19. The test can also be reached online at “www.cwtesting”. The exact questions that were asked are the following:

Preference test questionnaire design

The basic layouts of the questionnaires are the following:

- Gender
- Age
- Native language
- Have you ever lived in other countries except your native country?
- Are you using / have used Twitter or Weibo?

Note: All the answers should be based on your first impressions of the above screen shots!

Question 1 – Design

Here you should answer according to what you think defines good design!

- Twitter – Design (choose from a scale from 1 – 8 where 1 is very bad and 8 is very good)
- Weibo – Design (choose from a scale from 1 – 8 where 1 is very bad and 8 is very good)
- Please motivate your choices related to design

Question 2 – Ease of use

Here you should answer according to what webpage you think looks most easy to understand and use!

- Twitter – Ease of use (choose from a scale from 1 – 8 where 1 is very bad and 8 is very good)
- Weibo – Ease of use (choose from a scale from 1 – 8 where 1 is very bad and 8 is very good)
- Please motivate your choices related to Ease of use

Question 3 – Trustworthiness

Here you should answer according to what you believe defines a safe website!

Examples of actions that can be safe/unsafe to execute:

- * Download a file
- * Register an account
- * Purchase something from the website
- Twitter – Trustworthiness (choose from a scale from 1 – 8 where 1 is very bad and 8 is very good)
- Weibo – Trustworthiness (choose from a scale from 1 – 8 where 1 is very bad and 8 is very good)
- Please motivate your choices related to Trustworthiness: