

The Influence of Cultural Locality on the Understanding of Visualization in System Operation

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ABSTRACT

Digital world brings about thoughts on system operation visualization, the degree of visualization greatly affects the difficulty of system operation. the operation process of easily understand can increase the popularity and inclusiveness of the system to some extent. Currently, the visualization of the system is more based on refined words and simple graphics or symbols. Its main purpose is to let users clarify and use the operation by intuitive “understanding”, It formed by previous and cultural etc. As Heidegger and Gadamer both say that this anticipatory projection of meaning underlies every act of understanding. In sensing a thing we sense it as something. And, “any act of understanding language involves an interplay of text context. The whole and the part give meaning to each other” (Snodgrass & Richard, 1997). Actually, this Theory commonly apply on the theoretical base of visualization in system operation, the “understanding” should be placed in the whole region, The region is the whole and the visualization language is the part. The area has a strong locality (Cooke, 1990) including conventional concept about the understanding. For example, the empirical influence brought by the “Pictographic” culture in China, they thinking of or seeing a shopping cart we they go online shopping, it must be equated with a symbol similar to a car. In the process of system operation, from left to right (from general to specific), from top to bottom (functional distribution to induction and balance), it is more of an intuitive thinking (Sun & Wang, 2003). however, it is indeed different in Europe, the guidance to system processes and information is more straight forward as their think. This paper mainly uses comparative research method to take China and Europe as examples to analyze the impact of visualization in system operation in system operation processes and symbol understanding due to the cultural locality.

Keywords: Cultural locality, Systemic operation, Understanding, Visualization, Cognition, Mode of thinking

INTRODUCTION

In this digital world, system operations are filled with every aspect of life. The degree of difficulty of the system operation is largely related to the inclusiveness and accessibility of the society. However, the “understanding” affects the degree of visualization of the system operation determines the degree of difficulty. The “understanding” should be placed in the whole region, the region is the whole and the visualization language is the part, and

the whole and the part give meaning to each other (Snodgrass and Coyne, 1996). The understanding of the part is influenced by the way of thinking, which is the cognitive activity of the human brain reflecting the external things. There are great differences between Chinese and Western thinking. Theoretically, the West is straight, while the Chinese mode of thinking is curved (Liu and Taschen, 2015) (see Figure 1), similar to a turbine line, which is an intuitive mode of thinking (Sun and Wang, 2002), which leads to different preferences and cognition for image thinking and abstract thinking. In addition, cognition is not a reflection in the subject's mind of the external world, but a process of world formation by means of language-mediated interaction between human and the external environment. And the logic of cognition includes the realization of the two most important actions that mediate the human attitude to the cognizing world: symbolization of the observed and giving of meaning to a symbol (Igor, 2023). Therefore, The localization of functional features in unconsciousness involves the necessity of applying visualization means, and the difference in cognition leads to the important reasons of Locality.

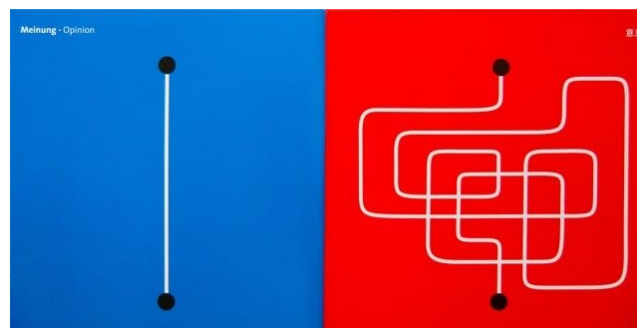


Figure 1: Chinese thinking (blue) vs western thinking (red) (Liu and Taschen, 2015).

Localism as a philosophical concept, emphasizing the importance and value of locality. Sociologist Rowland Robertson had firstly proposed “Glocalization” is a bidirectional process that is formed by “Global” and “Local” in 1992. From this, a fashionable trend that is ‘localization’ has developed, which is not a mechanical form, but a ‘Local’ with highly integrated content and art (see Figure 2). It can be regarded as an application of products or services that emphasize local characteristics and can be integrated into a specific culture or language area, accepting the experience that develops accordingly, And Localization is not only reflected in public art, but also in the visualization of system operations. The degree of visualization of system operations in different regions is closely related to the understanding formed by the local historical and cultural influences. In the study of Jorgensen and Stedman (2006), the sense of place is divided into place attachment, place dependence and place identity, which includes both cognitive and emotional components. On this basis, the discussion of thinking styles includes the cognition of symbols and the intuition of operational processes. As Heidegger and Gadamer both say that the

action of sensing a thing as something presupposes. Experience gives “it” a presupposition of understanding, so the same set of ‘Understanding’ systems is not applicable to system operations in different regions.



Figure 2: <Illuminated River>. (Tower Millennium Pier, Lower Thames Street, London EC3N 4DT, Thames Clippers, 2021).

The purpose of the current research is to evaluate the impact of cultural locality on the visualization of system operations. To this end, we designed a series of quantitative and qualitative studies to compare the impact of different intuitive cognitions of symbols and system processes in China and Europe on the visualization of system operations, specifically conducting study 1 and study 2. On the one hand, cultural locality affects the expansion of enterprises, and poor visualization of system operations affects the entry of users from other regional backgrounds. In Study 1, existing data from China and Europe (as of 2023) are used to compare and analyze the two versions of Amazon in China and European version, as well as analyze the reasons why Amazon was not acclimatized when entered China (only for the way of thinking in business operations).

On the other hand, cultural locality affects the degree of visualization of system operation, thus affecting the inclusiveness and accessibility of local society. Therefore, we compared the different intuitive presupposition about processes and symbols through specific symbols (see Table 1) to see how they affect the visualization of system operation due to different sense of place and thinking and the resulting different understandings in Study 2.

METHODOLOGY

Study 1

Comparison of China Amazon and European Amazon

Amazon is a shopping app that is quite popular in Europe. However, when it entered China, it had a strong “acclimatization” problem and even withdrew from the Chinese market in 2019 (Zhang, 2019). In China, there is a saying “When in Rome, do as the Romans do”, and the same applies to products or

services. The concept of glocalization proposed by Roland Robertson (1992) emphasizes that globalization is not a one-way cultural communication process, but a complex interaction with local culture.

On the Amazon platform, products play a core role and the concept of stores is not emphasized. This business model is just like the European linear and individual thinking, such as the European emphasis on heroes who have strongly personal abilities. It directly gives products to the users and a seller may only operate one or a few products. However, from the perspective of traditional culture, China pays attention to the image of the whole and the team. A product is equivalent to a team member, and pays attention to the store image and diversified display. This is related to the “Hehe culture” (Liu, 2018) advocated by China since ancient times. The first of ‘He’ of Hehe indicates harmony, peace, and balance. The second ‘He’ indicates convergence, unity, and cooperation. However, on the Chinese version of the Amazon app, not only is the locality of the business model insufficient, but secondly, the page layout and process have basically not changed.

Amazon vs Taobao: The Difference of Layout and System Process

Through the specific analysis of Taobao App and Amazon App, we can see the difference in intuitive thinking in the system operation process caused by cultural regionality. This study and analysis only focuses on the differences in regional culture, which leads to different preferences. Chinese traditional culture emphasizes the doctrine of the mean. Why should we talk about “middle”? Because “middle” means to keep things balanced, and this “middle” is also reflected in Taobao software. It follows the “dynamic balance” in the overall layout (see Figure 3). Whether it is up and down or left and right, it pays attention to a dynamic balance. In terms of functional layout, it is also from general to specific. It only gives a hint of the generally direction, and you can explore the specific content yourself. The picture display is more to create the overall store style and image. In terms of reading habits, it is influenced by the “vernacular movement”, from right to left to left to right, and the individual is modestly placed at the end. However, Amazon is completely different. The Amazon homepage directly displays products and emphasizes individualism.

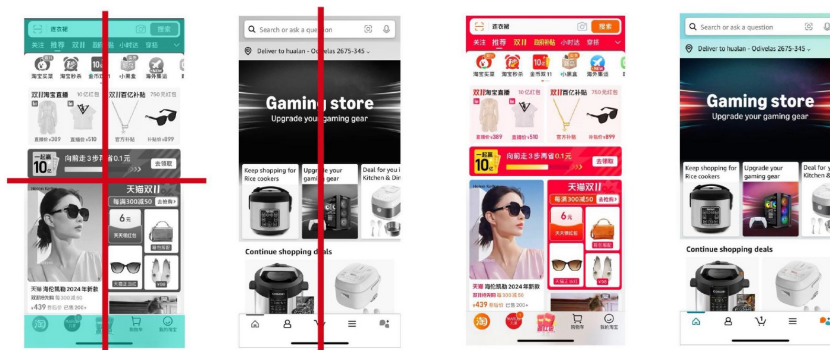


Figure 3: Taobao layout (1, 3) VS Amazon layout (2, 4) (2024).

Study 2

There is a huge difference between the understanding of symbols in China and Europe, which stems from different cultural backgrounds and the historical development process with great characteristics and differences between China and Europe. After all, the interface transmits information in a very limited space, so the content of things has to be highly refined, as Picasso's "The Metamorphosis of the Ox" (see Figure 4). The "given" always exists in relation to the subject and is either a meaning that must be expressed (it is necessary to find its sign, its name) or a sign that must be interpreted (it is necessary to find its meaning) (Igor, 2023).

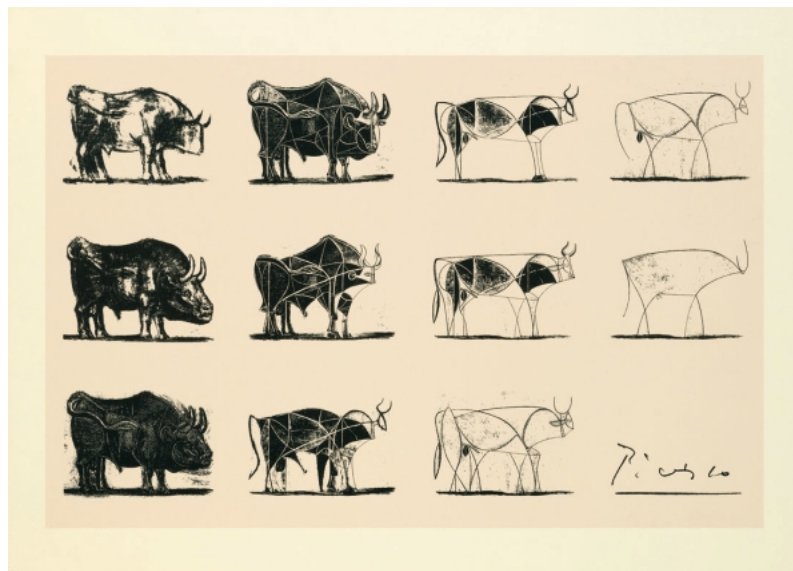









Figure 4: "Bull" series, Picasso (1945–1946).

China is influenced by the "pictographic culture". When it comes to understanding, the assumptions about understanding are that it is most similar to the shape of the text object, focusing on the reproduction of the "shape" to reflect the "meaning". However, the West emphasizes the direct expression of the "meaning". The subway signs in China is associated with the specific shape of the subway, while in Italy, they are more associated with the meaning of the subway, "Metro". In Taobao and Amazon, Taobao's selection and application of symbols also emphasizes the specific shape, such as chat, exaggerating the outer contour of the shape of the dialog box, while Europe pays more attention to the direct expression of the "meaning". Emoji is the world language of the digital world. According to statistics from the Unicode Consortium, 92% of online users use Emoji, and 77% of people also use Emoji at work. In this study, three representative and frequently used Emojis were selected, that are Smile, Loudly Crying Face, and Sweat. The different meanings of Emoji in the context of communication between Chinese and German netizens (see Table 1).

Table 1. Sample of the meaning of symbols (China VS European countries).

	China	Europe
<p><i>Subway</i> * China VS Italy</p>	 <p>The outlined look of subway in the tunnel</p>	 <p>The abbreviation of the word 'Metro'</p>
<p><i>Chat</i> * Taobao VS Amazon</p>	 <p>The reshape of Chat</p>	 <p>The scenario of conversation</p>
<p><i>Emoji</i> * China VS Germany</p>	<p>Speechless (Young people), Well, okay (Middle-aged and elderly people) Despair, grief, also means moving Speechless, embarrassed</p>	 Happiness, gratitude, contentment  Despair, grief, also means extreme laughter or uncontrollable laughter  Relief, nervousness before the challenge

CONCLUSION

The two studies verified that cultural regions affect the expansion of enterprises from the perspectives of thinking style and symbol understanding, in which the poor visualization of system operations affects the entry of users from other regional backgrounds. And cultural locality leads to different intuitive thinking in system operation processes. In this digital world, system operations must be rooted in regional culture, allowing users to feel “the sense of place” in the operation process, thereby driving user cognition and understanding to next step. When users enter a system, the specific symbols and layouts in it will be fragments of clues, and these partial information will eventually give users an understanding of the whole. Moreover, understanding is fluid, not static, and it is affected by parts, so the same set of system formulas are not applicable to the visualization of systems in different regions.

ACKNOWLEDGMENT

I would like to thank this era for giving me more possibilities in my studies and life, as well as the support of my parents, so that I could have the opportunity to continue my studies at the University of Lisbon. After several years of studying abroad, I also felt a great cultural collision and broadened my horizons.

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