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THE ROLE OF NUMBERS IN THE CHINESE CYBERCULTURE

Natalia A. Akhrenova (a)*, Maria N. Dubinina (b)
*Corresponding author

(a) State Educational Institution of Higher Education of Moscow Region «State University of Humanities and Social Studies», Kolomna, Russia, nakhrenova@mail.ru
(b) State Educational Institution of Higher Education of Moscow Region «State University of Humanities and Social Studies», Kolomna, Russia, maria_solomatina@mail.ru

Abstract

The paper touches upon the problem of the growing influence of numbers on modern cultures and languages. Among which the Chinese language gives the most vivid examples of such an integration. The article reveals that the Chinese language in the cyber-space does not only experience the effects of digitalization, but also observes the excessive introduction of numbers in traditionally humanitarian spheres of life like interpersonal communication, thus creating a digital metalanguage used in different layers of the Internet. The paper contains a brief overview of the use of numbers in the global Internet communications. The authors come to a conclusion that the prevailing method of forming digital codes in different languages is based on consonance or homonymy, or visual similarity of numbers and letters. The paper puts forward the idea that the Chinese language possess great potential for linguistic creativity based on the mixing of semantic codes, especially, in on-line communication.

Keywords: Cyberculture, digital, digital code, digital metalanguage, number combination, on-line communication

1. Introduction

Digits are considered the key symbols of any modern culture. Everything is measured today; even our intelligence has a measurable numeric equivalent - an intelligence quotient (IQ). Digits compose the modern cyberspace and represent the essence of the Internet and modern technologies. That allows us to draw parallels between machines and people. Thus, Gary Small and Gigi Vorgan in their book "Brain online. People in the Internet age" state that our brain acts in digital mode, and signals sent by our brain are equal to computers binary number system, that is the language of 1 and 0 (Small & Vorgan, 2011). Today we talk more about digitalization when our mind and body experience gradual imperceptible alterations, so that our society is divided into "digital natives" and "digital immigrants". Digitalization means "the use of communication networks and telecom-communication of high-speed channels based on not analogue principles of information transfer, but on those using binary code" (Vasilyeva & Grigoriev, 2020, p. 21). So, digits help to optimize different fields of our lives, in particular to optimize the increasing amount of information.

Thus, the use of digits in written speech, creating digital codes is becoming one of the trends in the development of the lexical system of a language under the influence of the Internet communication. Numbers can be used both in combination with letters, or in the traditional way, as an only number combination. The practice of using number combinations by network users from different countries determines the relevance of this study. The peculiarity of digital codes is that their decoding is largely determined by some extralinguistic factors.

2. Problem Statement

Digits and their combinations have attracted people since ancient times. So, numerology stirred up interest in symbolism and the influence of numbers on the fate of a person and the way it predetermines a person's character. Many numbers are endowed with a hidden or sacred meaning. Luck can depend on the floor we live on, the number of flowers we get for our birthday, our social status can be shown by the numbers on the license plate of our car.

Letters convenient for a person hid the digital essence of the Internet space. However, gradually digits have become carriers of information, a way of communication and a trend of speech behaviour in the Internet communication. The use of digital codes is due to the features and needs of communication on the network, namely instantaneity, simplicity and economy, the potential for creativity. Number combinations are not static. As it is noted, "digital designations can vary in terms of expression, acquire more than one meaning, undergo transposition" (Rubanova, 2021, p. 122).

Speaking about the use of numbers in the Chinese language we cannot but mention that it developed a special digital metalanguage that exists in cyberspace and on-line communication (Nelyubova et al., 2021).

3. Research Questions

Taking into consideration the above-mentioned arguments, we aim at putting forward the following research question whether digits have become a trend for virtual culture of the cyber-space of China and accelerated the appearance of digital metalanguage for the need of functioning in on-line space

4. Purpose of the Study

The purpose of the study is to investigate the role of digits in virtual reality of China as well as to analyse the ways digital codes are created and used in Internet communication and functioning in the Chinese segment of the global network.

5. Research Methods

The material of our study was digital codes selected by the continuous sampling method; the primary methods of linguistic research chosen for the cited examples are component, comparative and structural analysis.

6. Findings

6.1. Digits in global Internet communication

Globalization and expansion of the English language, as the inseparable part of political and economic dominance, have manifested themselves in lexical unification, and in huge wave of Anglicisms into all modern languages, even oriental ones (Ye & Deng, 2020). However, each ethnic group of people has its unique culture code reflected in traditions, customs and deeper linguistic levels like intertextual relations, phraseology etc. (Malyuga et al., 2018). Therefore, it can be stated that we are subjected to the use of numbers and symbols meaningful for our culture.

Identifying global tendencies in numbers use, we can say that English has great potential for the formation of expressions with digital component. The first method is based on consonance or homonymy. Among such examples, the following are often found: "to" - 2, "for" - 4. Secondly, the number can indicate the number of letters in the words (143 - "I love you"). Thirdly, letters can be replaced by numbers according to their order in the alphabet. For example, 9nnovation is the same as innovation, where letter I is the 9th letter in the alphabet. This method is traditional for encryption. As the fourth tendency, we can highlight cases of replacing the letters of the alphabet sequence number. This method is highly frequent in the so-called leet speak (Did you 533 that? where the verb see is encoded with numbers 533). For the purposes of leet codifying special on-line engines are used, that makes it easier for those unfamiliar with these type of slang. Speaking about the fifth prominent tendency we must mention that the already known digital codes can be borrowed from languages of computer programmers: "information" – 411, "error" - 404 (Rubanova, 2021).

In Spanish we can face with the global trend of mixing the semantic codes when digits and even mathematical symbols are used instead of individual syllables or words, but still in combination with the alphabetic symbols (letters). For example, 100pre – siempre (always), a2 – adiós (bye) (Ivlieva, 2022).

In French, the use of letter and digit combination is based on the iconographic principle, so that users rely on similarity in the appearance between alphabetic characters and numbers. For instance, the digit 1 can be used to replace the indefinite article: un / une: 1peu loin; or can be used to replace nasal vowels: bien - bi1, b1. The other example when the digit can replace the letter combination is the use of the digit 8 instead of ui(t). For example, tout de suite - tt d s8t; bonne nuit-bn8 (Melikov, 2017).

In German a lot of borrowings from English can be observed, though some unique German number codes can be produced. For example, gn8 – Gute Nacht (Good night).

Many sounds of the Arabic language have no analogues in other languages, and it is quite difficult to accurately convey their pronunciation in Latin without using special characters. Thus, digits replace some Arabic letters that resemble them in shape. For example, the digit 7 is used as it resembles the Arabic letter "ha" (the 6th letter of the Arabic alphabet) and is now used as a graphical equivalent of voiceless fricative [h] (Blinov, 2013).

The Russian language is not so friendly for the adoption of the number code. The most popular ways to use numbers are those based on the principle of similar spelling and consonance. For example, the letter "ч" can be replaced with the number 4. Also the examples when a number replaces part of a word can be rare, for example, "опять" - о5 (again).

Considering that numbers and their combinations have penetrated into Internet communication in different cultures, the need for further research is evident. The findings confirm that in most cases digits are used to replace letters and sounds. Moreover, the meaning of these numbers can undergo changes. Give an example of English combination 411: originally singling out "information", now it has obtained the meaning of talk, speech and gossip (The Online Slang Dictionary, 2022). Thus, the use of digits in each language demands comprehensive analysis and implementation of cultural approach.

6.2. Digits in Chinese culture

Due to the cultural and political peculiarities and differences of China digital codes received a wide popularity in on-line communication. Their first appearance is marked in the early years of the Internet in China, when people communicated via such a device as pager. This happened due to the fact that originally the gadgets and their soft were not adopted to the Chinese characters and used only letters and fonts of the European alphabets. The most part of the Chinese started searching for the similarity in sound of numbers and words. Later on, this type of writing was used as a secret code to escape moderation of the officials. That's how the Martian language (火星文) appeared. The Martian language can include several elements and their combinations: traditional and simplified Chinese characters, with the possibility of both splitting characters into separate graphemes, and combining characters into one whole; pinyin; alphabets of other languages; numbers; symbols; punctuation marks.

Considering numbers, from ancient times till today there have been a tendency to assign meaning to them. On the one hand, symbolic concepts such as number meanings are fixed in culture. For example, according to Yin-yang philosophy, even numbers are feminine (阴数), whereas odd numbers are

masculine (阳数). On the other hand, these concepts are inevitably found in the language. In the Chinese language digits appear in different contexts.

First, a considerable number of idioms (成语) or set expressions include numbers. This confirms that numbers play a crucial role in understanding and evaluating reality, as quite often the meanings of these expressions are not connected with quantity. Gurevich and Voitsekhovich (2020) state that: "one may get an impression that Eastern thinking, trying to rationalize and simplify statement, gives it a number designation to reach a certain sample" (p. 138). For example, digit 3 is included in such idioms as 三思而行 (sānsī ér xíng) – to think over many times; 三长两短 (sāncháng liǎngduǎn) – unforeseen disasters or accidents; unexpected misfortune, 不三不四 (bùsān bùsì) – neither fish nor fowl; 三番五次 (sānfān wǔcì) – time and again, many times; 一而再，再而三 (yī ér zài, zài ér sān) – again and again; 举一反三 (jǔ yī fǎn sān) – draw inferences about other cases from one instance; 一问三不知 (yī wèn sān bù zhī) – not knowing a thing.

Second, Chinese believe in lucky and unlucky numbers. Thus, digits 6 and 8 are quite often seen as lucky numbers. For example, number 6 is found in expression六六大顺 (liùliù dàshùn) – everything goes well, while number 8 (bā) is a homophone to character 发 (fā) from发财 (fācái) – to make a fortune. The other number 4 is associated with death, so that Chinese people try to avoid to live on floors with this number, or to have phone numbers with this digit.

Third, dates of the calendar can obtain some meaning due to numbers. For example, 11月11日 or the 11th of November is celebrated as 单人节 (bachelor's day); 5月20日 or the 20th of May is a homophone to digital combination 520 我爱你 (wǒ ài nǐ) - I love you. That's why on this date Chinese people celebrate 网络情人节 (Internet Valentine's Day).

Fourth, due to the spread of modern means of communication Chinese people have an opportunity to send digital "red envelopes" with a certain amount of money. This amount turns out to be very symbolic and even has acquired its own term, i.e. 红包吉利数字 (hóngbāo jílì shùzì) – red envelope auspicious numbers. For example, friends or relatives can send you a digital envelope with 1.68 RMB, 16.8 RMB or even 168RMB, and this sum will be interpreted as 一路发 (yīlù fā) – "fortune street", due to the fact that the phrase is a homophone to digital combination 168. The sum may depend on a holiday date：for Christmas Chinese can send 12.25 RMB; for Qixi Festival (七夕节) 0,77 RMB or 7,77 RMB, as this traditional holiday is celebrated on 7th day of 7th month on the Chinese lunisolar calendar.

Finally, digits are widespread in the Internet communication, where users create semiotically complicated texts, and digits are regarded as a means of creolization. On the one hand, digits help to create emoticons: 6_6 – looking down; >3< 一to kiss; (*ˉ3ˉ)╭一 to blow the air-kiss to someone. On the other hand, the number codes in Chinese known as 数字密码 or 数字谐音词语 are widely used. The creation of a numerical code in Chinese is based on consonance: 596 (我走了, wǒ zǒu le). Moreover, in Chinese it is also possible to find a combination of letters and numbers, characters and numbers: 啤酒 - P9. It is worth noting that the number is not tied to one character, its use may be due to various factors. For example, the number 5 can be used to replace 我 (587 我不介意 wǒ bù jièyì – I don't mind) or it can be used to replace 福 (82475 被爱就是幸福 bèi ài jiù shì xìng fú – to be loved is happiness). Nowadays

this cipher is widely employed in romantic correspondence, that is why the most part of numeric messages are about love. Let's illustrate codes with some more examples: 02825 – 你爱不爱我? – Do you love me?;

04551一你是我唯一 – You're the only one I have; 0487 – 你是白痴 – you're an idiot; 1930 – 依旧想你 – miss you; 587 – 我抱歉 – forgive me; 70885 – 请你帮助我– help me, please; 729 – 去喝酒 – Come on, let's have a drink; 687 – 对不起 – I'm sorry. According to the Chinese researcher Fu Yifei, the digital code can be based not only on consonance with Putonghua, but also on consonance in dialects, which increases the number of digital codes (Fu Yifei, 2013).

6.3. Digital domain names

Since the birth of the Internet, English has been the main language. Then over time, the involvement of users from different countries and nations makes this space become more diverse. Historically, domain names have been named from Latin letters and numbers. But in China due to the uniqueness of the cyber space formed by the Great Chinese Firewall and hard moderation, this tendency was broken rather quickly.

Today, 9 million domain names are made up of numbers only. This is more than 3% of the total number of domains. This strategy has traditionally been used by many taxi companies, indicating a phone number. But if for many cultures the numbers represent exactly the marketing strategy, for China it is a way to demonstrate the main strategies of communication industry development plan, i.e. to develop character and digital domains.

A study on counting the number of digital domains and their analysis was conducted by Domains Index (Domain Index, URL). Here are some of the results of this study:

1) The number of digital domains detects an increase.

2) The number of digital domains in the new domain zones exceeds the number of digital domains in the old zones.

3) More digital domains are in the .COM zone.

4) In terms of the number of digital domains, .CN is the leader among national zones.

5) According to 2016 data, popular domains consist of 3-4 digits. The longest domains are 63 digits long.

Moreover, there exist different principles of decoding the meaning of digital domains. For example, in .RU zone there are such domains as https:// 66.ru (Yekaterinburg platform), https://161.ru (Rostov-na-Donu platform). To decode why exactly these numbers are used the user is supposed to know automobile codes of Russia regions. As for Chinese virtual space, the analysis data confirms one of the obvious tendencies of the Chinese Internet space – the appeal to characters and numbers. And if character domains are a phenomenon of the last few years, then digital domains have appeared a long time ago. This is due to several reasons. The figures are very close and understandable to the Chinese. Secondly, the Chinese put a certain meaning into the numbers. Decoding of domain names meaning relies mainly on homonymy. For example, the 哇咕哇咕 leather goods store is located on the website 51wagu.com, where 51 can be decoded as 我要 – "I want". The same logic can be found with the domain name 51job.com

that is decoded as "I want a job". Another well-known example is Alibaba's Wholesale Purchasing Network at 1688.com. The numbers 1688 are accordant to the name of the company 阿里巴巴 (ā lǐ bā bā).

7. Conclusion

The use of digits has reached enormous proportions, digital codes are actively used in on-line communication and under its influence this tendency shifted to off-line communication. Moreover, numbers in virtual space are a certain kind of codes, and they can only be decoded if they have information determined by the culture and language of the speaker, since they have a national and linguistic identity. The prevailing method of forming digital codes in different languages is based on consonance or homonymy, or visual similarity of numbers and letters. Therefore, as it can be seen from the examples cited in the article above in on-line communication in China there exists a digital metalanguage with fixed meaningful combinations of characters, which are not familiar and quite difficult to decipher for the European communicators and users.

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