

## Research on Image Expression and Text Aesthetics in Digital Media Age Based on Social Network

Ge Houyu

Cheongju University, 298, Daeseong-Ro, Cheongwon-Gu, Cheongju-Si, Chungcheongbuk-Do, 28503,  
Republic of Korea

### Abstract

*With the progress of the times and the development of science and technology, human society has entered the era of digital media. The success of digital media makes image representation more and more popular. The transformation of image culture caused by the huge historical thrust of the digital media revolution triggered the cultural and economic transition of social symbol production, and turned image production into the cultural law of material production and consumption. The development of social networks has improved the necessary technology and platform support for information transmission, and sharing social images has become a common and popular social behavior. Obviously, the internal reason is not only the fast, convenient and easy to edit characteristics of digital technology and media. In this paper, from the perspective of cultural value in the artistic expression of new visual images, the viewpoint of technical aesthetics and morphology is brought into the visual field of image representation and text aesthetic research. On the basis of studying visual aesthetics, the aesthetic production of visual cultural forms and images is expounded and demonstrated from the revolutionary development and change of technology.*

**Keywords:** Digital media, Social networks, Images, Text

### I . Introduction

With the rapid development of network technology and the popularity of mobile intelligent terminals, social network has become an important part of our life [1]. The development of social networks has improved the necessary technology and platform support for information transmission, and the sharing of social images has become a common and popular social behavior [2]. With more and more convenient communication terminals, we can receive all kinds of information and all kinds of virtual images anytime and anywhere. Digital technology is changing rapidly and has entered our real public and private life. It not only affects the way people watch, recognize and experience the world, subverts people's intuitive experience, but also rewrites the way art exists [3]. The visual culture with image as its basic form has become the main way to present art in the digital age. The essence of the digital age is the technological revolution. It promotes the rapid development of art production and consumption, and fundamentally changes the acceptance mode of human aesthetic activities and art creation. Diversity, efficiency and freedom seem to constitute the basic connotation of art development and survival in the digital age [4]. After the generalization of artistic aesthetics, many new artistic forms, new modes of production, new modes of communication, new ways of appreciation and new aesthetic categories have emerged. The image cultural turn formed by the huge historical thrust of the digital media revolution has triggered the cultural and economic transition of social symbol production, making image production a cultural law of material production and consumption [5]. Sorting out these problems and comparing and analyzing the changes will help us to further understand the influence of aesthetic generalization on art and aesthetics, and promote the healthy development of art [6].

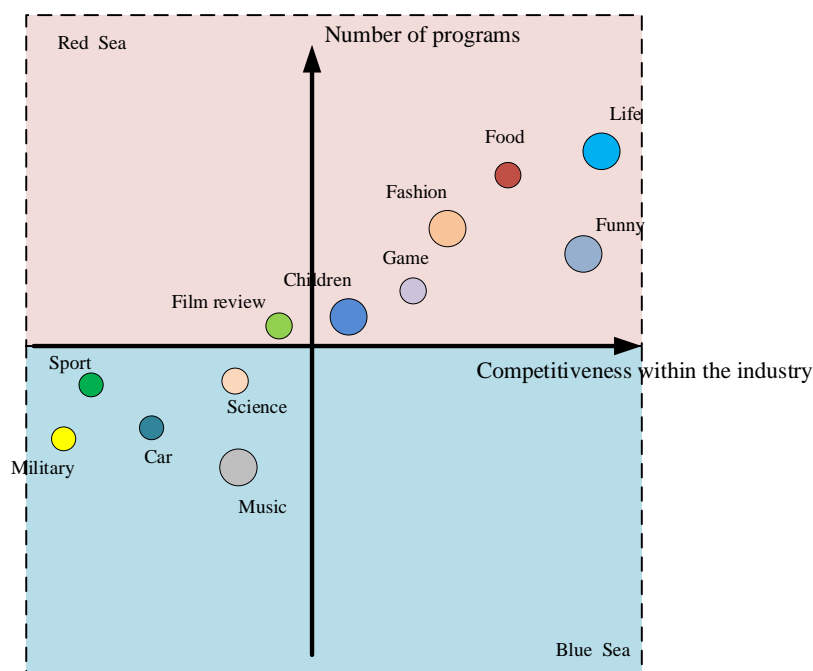
With the continuous development and progress of technology, social images in the image clarity, color richness and content interest are also constantly improving, people for the image of a higher level of emotional and aesthetic attributes began to have a further demand. People tend to share their psychological feelings with their relatives and friends, or enjoy the joy brought about by the high aesthetic quality of the image through the images obtained in

real time in life [7]. Different visual media have been studied separately, but now we need to interpret the post-modern globalization of vision as daily life. Critics of different disciplines, including art history, film, media studies and sociology, have begun to call this emerging field visual culture [8]. Image art is a kind of visual communication art, which belongs to a form of visual culture. With the development of the times, the technology is constantly updated, especially the digital technology. The visual expression techniques and visual media of image art are constantly updated, including multimedia art, which is gradually expressed in the visual impact, making full use of comprehensive means to move closer to imaging [9]. With the progress of science and technology and the development of the times, the society is changing with each passing day. With the popularization of digital media, many people sigh that we have entered the image society [10]. As a matter of fact, the cruel reality is in front of us, and image expression is gradually devouring the power of words. The resulting cultural fission and aesthetic transformation have become the most influential and prominent cultural events. It affects not only the cultural ecology of today's society, but also the cultural construction and civilization trend in the future.

## II. Digitalization and Diversification of Art Media

The art self-discipline theory constructed by modern enlightenment thought explains the basic ideas and value coordinates of modern aesthetic culture in which we live, but it makes art self-discipline have an ultimate stipulation that is beyond history, genuine and universal by means of essentialism. As a typical stage of postmodernism, the digital age is bound to dispel this ultimate stipulation. The reasons for the transformation of image culture should be explored from the "cultural economy" transition of social symbol production and the deep fission of the resulting cultural ideographic system, which is directly related to the huge historical thrust of the digital media revolution. Before the advent of the digital media era, people's methods of acquiring information and knowledge seem to have nothing but words and explanations by others [11]. In the era of digital media, people can use computers, televisions, mobile phones, etc. to achieve the original purpose and effect of reading words. Kant uses aesthetics to explain the attributes of art, and regards the aesthetic judgment on which art depends as an independent apriori opposite to pure rationality and practical rationality. Since Kant's aesthetics, with the rise of aestheticism, experimental art, critical theory and youth cultural movement, the concept of artistic self-discipline has been pushed to the realm of aesthetic ethics, and it is not too much to call it an aesthetic ideology.

In the Internet age, the threshold of content production is getting lower and lower, and users' demand for self-expression has been released. The vertical segmentation structure of short video industry is shown in Figure 1.

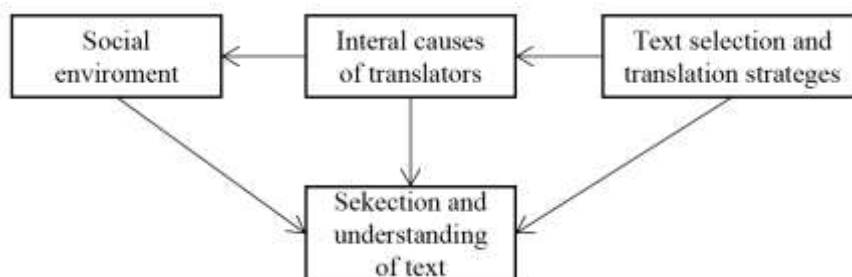


*Fig.1 Vertical Segmentation of the Short Video Industry*

Traditional paper media, radio, television and movies are rapidly developing towards digital audio, digital video and digital movies, which together with increasingly popular computer animation and virtual reality constitute a new generation of communication media. Digital media has integrated a variety of communication media, gradually replacing books and canvas, and becoming the most basic and important cultural communication media, breaking the one-dimensional communication of traditional art and the mode that audiences are forced to receive, resulting in the close integration of the performance, communication and experience of artistic works. In the digital context, art creators began to use digital technology as their creative means and network as their display platform to create art works. As a result, two new types of art emerged in the art world, namely, network art and digital art. Digital media technology has been involved in the artistic creation process and become a part of literature and art, at the same time, it has greatly accelerated the speed and breadth of information transmission. With the application and popularization of digital media, convenient collection, collation, preservation, processing, editing, reproduction and dissemination, the means of art communication has changed from static to dynamic, from single to multiple, and from two-dimensional to multi-dimensional.

### III. The Popularization Trend of Art Form

Up to now, there is no clear concept for the definition of network art. It is generally believed that network art mainly refers to the artistic works displayed and disseminated by means of computer internet, and also includes the information content distributed to the network after the traditional artistic works are electronically scanned or technically processed in other ways. The creative context can blur the boundaries of various art types, make various art types combine, integrate with each other, learn from each other's strong points, and create new art styles. Mass culture's control of cultural field brings to an end the art self-discipline theory which transcends the history and life world of city-state since the enlightenment era, and the aesthetics of life theory meets the sail raised by mass culture and breaks the division of social field [12]. Chinese culture is extensive and profound. Chinese characters have been combined with various rhetorical devices and writing skills, and the wonderful picture presented by them cannot be described by a few simple pictures or a film. We need to understand the mystery with our heart and imagination. If some kind of aesthetic judgment is mixed with the possessive desire for the existence and attributes of objects, it is equal to the consideration of interests. Then this kind of aesthetic judgment will have preference instead of pure aesthetic judgment. Kant provided a lot of theoretical support for the concept of aesthetic psychological distance in modern aesthetics. Figure 2 is a generalized model of Chinese character aesthetics under the background of aesthetic thought.



*Fig.2 Overview Model*

However, we have a clear understanding of digital art, which mainly refers to works of art created by means of computers or computer-related software, and does not include works of art created by traditional methods. In the digital artistic creation context, artistic works and even artists have been simplified. Since entering the post-industrial society, human symbol production has become the concept accumulation and image endorsement of material production. The images or images of brand symbols are not only the elements of commodity production, but also the objects of production and the marks of products, and the images themselves can produce more conditions and resources needed for this production. In the past, traditional artistic creation required long-term training of artistic skills and exquisite skills. However, with the application and popularization of digital technology, artistic creation became increasingly simple and low-end, and the traditional skills that needed to be

mastered over time and persistently were replaced by digital computer software. By using these digital software, everyone can produce artistic works only after a certain period of repetitive operation to improve their proficiency [13]. The value of a brand symbol goes far beyond its material level, but lies in its symbolic cultural connotation. Consumers' symbolic identity with images shows their own values and life tastes. Image production has become the cultural law of material production and consumption, and image proliferation has become the market law of economic value-added, which is the cultural and economic connotation of images.

#### IV. The Influence of Art Aesthetic Generalization

##### A. The Rapid Development of Image Ideography

Today's society is a fast-paced society, and people are busy working and studying for a better life in the future. People's patience gradually disappears in this fast-paced lifestyle, and people are more impetuous. Few people can really calm down and read a book to appreciate the beauty of words. Art subject usually refers to the creative knowers and practitioners who are formed in artistic activities and correspond to aesthetic objects. However, artistic subject has a certain subjectivity. Generally speaking, subjectivity is the self-conscious initiative, creativity, transcendence and other characteristics of the subject in the process of interaction with the object in order to get rid of constraints and meet the needs of the subject. What the network culture promotes is the display of personality and the expression of self-concept. It is popular and secular, which is incompatible with the traditional cultural concept, which inevitably affects the artistic creation, and then produces a new aesthetic taste [14]. It is no coincidence that a thing develops rapidly, because it has a powerful driving force behind it or can meet people's needs. In the era of digital media, people's cognitive style has changed rapidly, and the traditional aesthetic concept is no longer suitable for modern people's aesthetic standards. A new aesthetic concept has quietly infiltrated into modern people's consciousness with the help of the Internet.

In traditional art, the subject of art is often independent and closed, and its relationship with artistic works is almost one-to-one fixed. However, with the trend of art generalization, art presents diversified characteristics, and the artistic subject has changed from single to diverse, and the general public has also entered the artistic creation as the artistic creation subject. The data mining process in social network data analysis is shown in Figure 3.

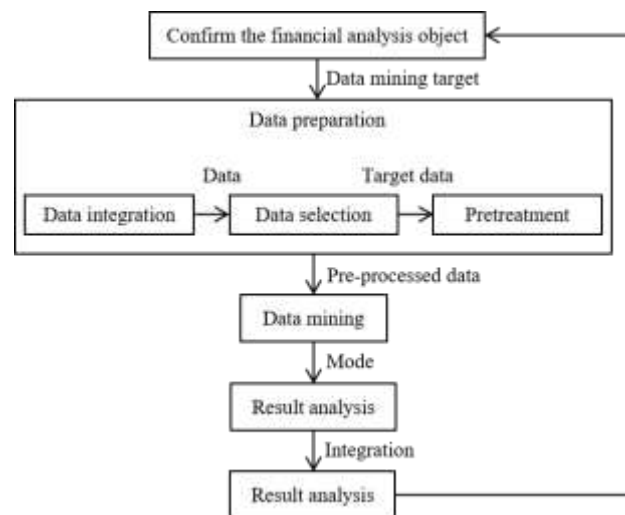


Fig.3 Data Mining Process in Social Network Data Analysis and Management

The Internet age is an era of publicizing individuality and showing self. The profound artistic thought beauty or true artistic techniques pursued by traditional artistic creation are gradually being replaced by the aesthetic taste of civilians and secularization and the “alternative” or unusual artistic expression. Technology and art tend to be integrated in the network age. On the other hand, the artistic creation in the new era seems to have the characteristics of congenital secularization and popularization, which is exactly what people pursue and the role

brought by the network [15]. In the digital context, as the main body of artistic creation, it is bound to suffer the impact of technology. The technical existence of the creative subject not only improves the artistic creation ability, but also brings a kind of risk. Fast-paced life wears away people's patience, and few people can calm down and read words. In this case, a lovely and eye-catching trademark and an interesting and cool advertisement can attract a large number of customers. The creative subjects of contemporary art have not had time to consider the artistic value of their works when creating, and they have already published so-called works, showing only the blind pursuit and catering and the pursuit of entertainment effects. Looking at the development of culture, we can see that whenever a kind of science and technology is widely used in folk, a new cultural concept can always be derived. The rapid development of the network has given birth to the network culture discussed by many scholars, and different cultural concepts have a great influence on the style of artistic creation.

### ***B. The Decline of Literal Expression***

Digital technology provides a wider and freer stage for art lovers, which makes the art form, creative subject, consumption mode and communication mode change. It is not only the change of media form, but also the extension of all media as human beings, which can provide new vision and new perception for transforming things. The art of aesthetic generalization becomes more and more mediocre, more and more popular, and it becomes more and more popular. In turn, the more popular it will lead to more mediocrity, more kitsch and a vicious circle. If you don't touch or participate, then the individual will be blocked by the popularity. Individuals can only be forced to participate in it to prove that they have not been eliminated by fashion and that they are in a certain group. It is precisely because of these characteristics that the symbolic consumption behavior of art becomes a reality. Compared with the image culture of audio-visual entertainment landscape, traditional writing arts such as poetry, novels, essays, plays, etc., together with their carriers such as books, newspapers, periodicals and other printed reading materials, are at a disadvantage in the media competition, are at the edge in the cultural market, and are in a downturn of "out of focus" in the attention choice of mass culture. The emergence of digital communication technology has completely subverted the dominance of characters in the media empire. The channels of artistic communication have turned to the Internet, and the means of artistic communication tend to be visualized and virtualized. Under the pressure of excessive information, authenticity, meaning and value have become "revelry" of signifier symbols. Visual debris and image illusion are full of daily life, and scenes and images no longer exist, instead, screens and networks are used.

If we want to establish the norms of aesthetic education, we must take theory as the guiding principle. Taking the statistical results of aesthetic education parameters as the research object, we deal with data clustering and information fusion. Table 1 shows the test results of indicators.

*Table 1 Evaluation Test Data*

Stage	1	2	3	4	5	6
Frequency	76.55	73.81	68.35	81.27	76.91	67.72
Accuracy	81.57	88.77	87.66	87.25	86.38	89.27

After obtaining the result of data clustering, evaluate the result of clustering from the two parts of purity and entropy. The purity of each cluster is expressed as:

$$purity_i = \max(p_{ij}) \quad (1)$$

$p_{ij}$  refers to the probability that a member instance in cluster  $i$  belongs to class  $j$ ,  $i, j = 1, 2, \dots, 10$  and  $i \neq j$ ,

$p_{ij} = \frac{m_{ij}}{m_i}$ . Where  $m_i$  is the number of all members in cluster  $i$ ,  $m_{ij}$  is the number of members in cluster  $i$  belonging to  $j$ , and the purity of the entire cluster division is:

$$purity = \sum_{i=1}^K \frac{m_i}{m} purity_i \quad (2)$$

$k$  is the number of clusters, and  $m$  is the number of members involved in the entire cluster member. The entropy of each cluster can be expressed as:

$$entropy_i = -\sum_{j=1}^L p_{ij} \log_2 p_{ij} \quad (3)$$

Among them,  $L$  is the number of classes, how many classes are in each cluster, and the entropy of the entire cluster is:

$$entropy = \sum_{i=1}^K \frac{m_i}{m} entropy_i \quad (4)$$

Generalization of art makes popular art truly realized, artistic creation diversified and popularized, circulation accelerated, commercial nature aggravated, etc., all of which determine that the aesthetic taste of works of art needs to cater to the general public. A large part of art acts as a good medicine for mass entertainment, or adjusts life, or increases life interest with aesthetic pleasure, or escapes from reality, or makes people forget the burden of life temporarily, and so on. Therefore, aesthetics has to escape from the traditional aesthetic way of elegant art and become secular and vulgar. The inevitable result of the shift of “reading pictures” is to squeeze the market space of text reading, shrink the reader camp of literature consumption, and cultivate new cultural consumers of image worship. The strong coverage and wide affinity of electronic media constantly entice the original literary writers and readers to flock to movies, television, computer networks and their derivatives such as CDs, DVDs, game software and even mobile phone text messages, etc. The rapid rise of online literature is the intermediary and inevitable result of the decline of words and visual turn. In the digital image industry in the digital age, the stipulation that technology comes first determines the production behavior. Image has its own logic, and its production, composition logic and internal characteristics are all the same, which is essentially a series of independent symbols. In the digital age, technological innovation has brought about the field reconstruction of cultural and artistic power. Mass culture, which is farther and farther away from art self-discipline, has redefined our cognition of art.

## V. Conclusions

With the rapid development of social networks, the number of social images is increasing dramatically. In the management and application of social images, the emotional and aesthetic value of images can not be ignored. The appearance of artistic aesthetic generalization makes aesthetic activities come out of the old art hall and step into every corner of real life. The appearance of aesthetic generalization is the inevitable result of the development of contemporary times, art theory and aesthetic theory. In the era of digital media, network digital represented by science and technology and artistic creation represented by perceptual thinking are closely combined, injecting more and more scientific elements into artistic works. Supported by powerful digital technology, artistic creation in the network era is developing towards the digitalization of creative tools, diversification of authors and immateriality of creative means, and is gradually forming a new aesthetic concept and standard. In today's society, the progress of science and technology, the fast-paced lifestyle and the demand of economic and social development make the image ideographic occupy a dominant position while the text ideographic gradually declines. Images express more three-dimensional, which can make people understand information more quickly and efficiently, and give people a great impact on vision. Words have connotations that images don't have, which

requires us to feel the quiet beauty with our heart and imagination.

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