Cross-media study of artistic images and texts of art based on big data

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Abstract. The emergence of a new media will lead to the transformation of art. In-depth discussion of the historical echoes between the evolution of communication media and art forms can clarify the communication perspective of art research. Media is not only the form of art but also the content of art. Media changes the process of art creation, dissemination and acceptance, presents different forms of artistic media expression, changes the ontological existence of art, and enables it to acquire more unique communication charm. Therefore, on the basis of understanding the development status of the art field in the era of big data, this paper deeply discusses the cross-media nature of art images and texts with big data technology as the core, so as to clarify the development trend of art texts in the new era.

Keywords: Big data; An artistic image; Text; Across mediated

1. Introduction

If you think of data as a computable record, it has a history as long as the human race itself, and its shape has changed with the information revolution. The information revolution marked by language allows people to think and deliberate on the basis of calculation, and finally forms the representation and speech of "psychological data". The information revolution marked by words paves the way for symbolization of data and accelerates the speed of data accumulation. The information revolution, marked by the printing press, standardized data and facilitated large-scale replication and sharing. The information revolution marked by electromagnetic wave has promoted the electronization of data. The actual processing and transmission range have exceeded the limitation of human senses. The information revolution marked by computer has really realized the development of data network. It not only uses online communication, sensing technology and other channels to generate continuously rising data information, but also uses faster speed to improve the ability to save data and process data. At present, the application of big data in the field of art is becoming more and more extensive. The analysis and investigation of massive data can help the work in the field of art become more accurate. For example, animation images, environmental art design, advertising images, etc., all need to understand the role of big data to improve the effect of art design.[1.2]

In essence, big data, as an existence form of information, will use a large amount of network information to complete the collection and sorting of data. Big data technology has the characteristics of diversity and timeliness in application. In the analysis of big data, it is necessary to sort out the relevant information, filter out the miscellaneous information data, and classify the information to obtain the valuable data results. Big data usually involves many different types of data information, whether social relations or business contacts, can be obtained in the big data analysis. But at the same time, because of the large amount of data, the information density of big data is relatively low, and relevant technologies need to be used for effective processing. Only in this way can the application value of big data be guaranteed. Therefore, this paper mainly studies the cross-media content of art images and texts with big data as the core.[3.4]

2. Method

2.1 Artistic Images

The invention and application of computer technology is an important manifestation of human scientific and technological progress. With the continuous improvement of modern Internet technology and computer application level, people's life and work have undergone great changes. The powerful computing, drawing, software production and other capabilities of the computer have played an important role in the field of art image. Based on the analysis of the structure diagram of art image design based on big data shown in Fig. 1 below, we can see that the specific application is reflected in the following two aspects:[5]
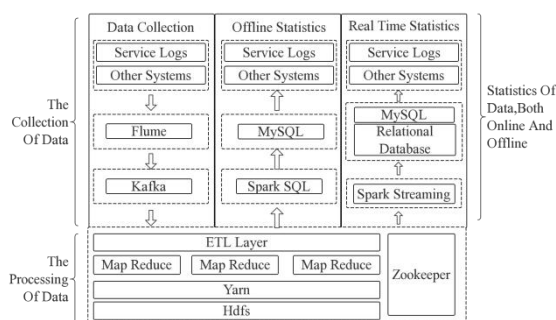

Figure 1.   Structure diagram of big data

On the one hand, digital image design. The application of computer technology has completely changed the form of traditional art images and created a better design environment and effective conditions for artists. Computer design, in addition to various artistic expression techniques and good artistic effects, will produce optimization effects on digital statistics and graphics processing. In the field of art, film production, graphic design, architectural design, exhibition art design, etc., all need to calculate and arrange key areas based on circular data after integrated analysis. In particular, there are more digital elements in the field of industry and architecture. Each image design content needs to comprehensively consider the availability of relevant indicators, such as elevation, foundation, beam width, etc. These design elements affect the engineering indicators and construction quality, and directly affect the rationality of the selection scheme in the planning and production. By using system calculation, analysis and distribution, we can accurately judge whether image design and data integration are related to scheme matching. The flowchart of digital image design is shown in Fig. 2 below[6.7]:
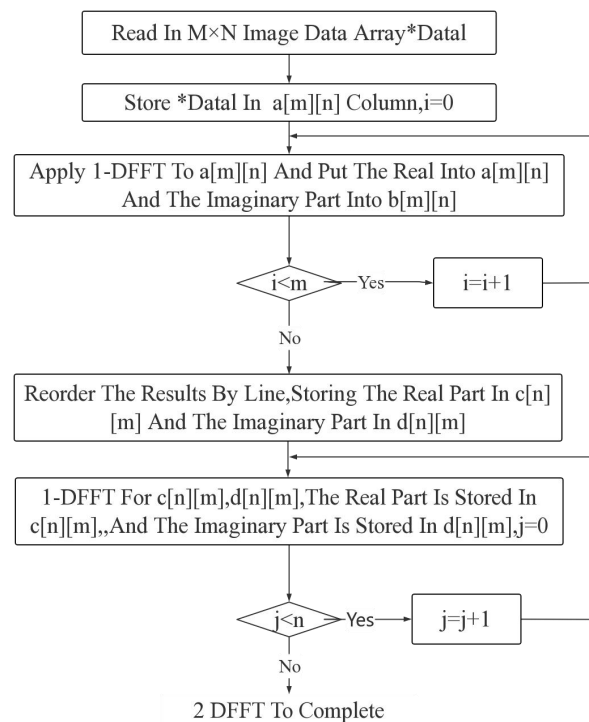
Figure 2.   Flowchart of digital image design

On the other hand, image processing methods. As a key part of art design, image processing is closely related to the presentation effect of works. This kind of image processing is the specific performance of the application of computer technology, in the field of art design image processing, the use of computer system to modify the external image information, can achieve the design of art image creation. In the artistic image design work, there are many problems in the traditional sense of image processing, such as the difficulty of processing and correction, can not be quickly added or modified. With the use of big data technology, artistic image processing becomes easier. The staff only needs to scan the information in the picture, copy it in the system, and borrow the image processing program to complete the processing and reconstruction process. At the same time, the computer image processing program will use a variety of software technology to operate, for example, Photoshop contains a variety of image processing functions, such as picture reproduction, picture inspection, size and specification adjustment, etc., can also be directly converted into hand-drawn drawings. The artistic image processing process is shown in Fig. 3 below:
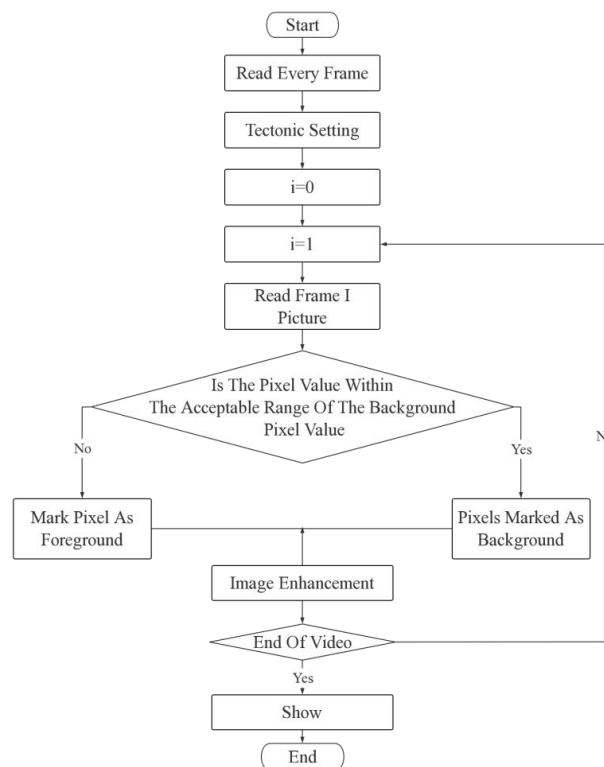
Figure 3.   Flow chart of art image processing

In the artistic image design, it pays more attention to strengthen the image display effect. In the application of image processing software, the image is imported to the computer platform for secondary creation, which can effectively improve the image reuse rate and ensure the final design presentation effect. In the environment of big data, the application of computer technology provides strong technical support for the development of the field of art image. Reasonable use of computer technology and effective operation according to the application needs of the field of art image can promote the steady improvement of the quality of art image design.[8.9]

2.2 Cross-media shift

In the analytical framework of modern art research, influenced by the four elements of art proposed by American art theorist Abrams, all works of art contain four contents. Firstly, they refer to works, secondly to artists, thirdly to the world, and finally to the viewers. Sociology scholars put forward a value-neutral position in their research, taking art as an activity, and discussing the cultural logic between art creators, recipients, social world and artistic products from the external perspective of the system. In the field of art society, art, as the content created collectively by artists and other actors in the art world, does not touch the whole society, but is based on a specific group composed of individuals in the social system. Recipients will be affected by the mediating effects of individual values, social status and social networks. The social world, composed of various norms, legal systems, social organizations and values, directly affects artists, art dissemination, distribution systems and cultural consumers, and thus shapes art. However, no matter from the perspective of internal research or external research, they have ignored the intermediary link between works and actors in the art world, works and the world. According to the analysis of Alexander's cultural diamond diagram shown in Fig. 4 below, this research system breaks the direct connection between art and society and criticizes the reflection and shaping orientation from the perspectives of production and consumption.[10]
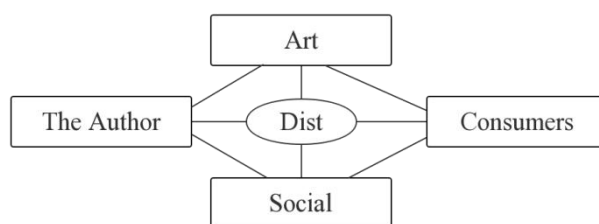
Figure 4.   Alexander's cultural diamond

Due to the carrier of artistic dissemination is medium, at the distributor is the art of art production and acceptance of the culture medium, so will the diamond distributor into the media in this picture, can get through the artist inner thinking and artistic creation of external access, can connect artist and the viewer, art production and art, art in the world of the intermediate links, Specific contents are shown in Fig. 5 below:
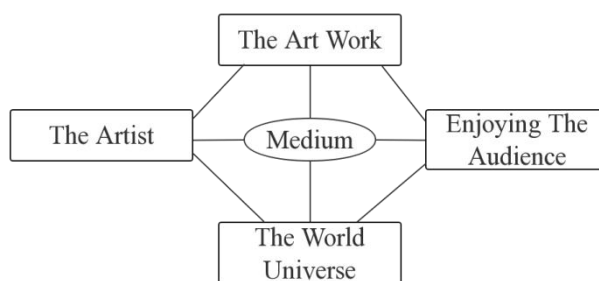

Figure 5.   The Five Elements theory of art

In the 1960 s, across the border from the art of impulse is regarded as an art trend, the diversity of the media and the digital trend directly affects the cultural practice and the significance of production, such as process art, performance art, new art reality, across different media practice and art of art mediated research complement each other, to jointly promote the art of cross media. First of all, cross-media refers to a spatial position between two entities or two media, which is mainly used to emphasize the dialectical relationship between media. The core problem is how to rationally apply the newly discovered methods. Secondly, compared with pure media, cross-media mainly breaks the hierarchical pure media, art view and unequal social structure, and enables art appreciation at different levels to integrate into the specific art space. Finally, by combining traditional art forms or media with cutting-edge creativity, more novel and exciting works can be created. At this time, cross-media belongs to a kind of art form, which involves the transfer and integration between two or more artistic media characteristics and artistic concepts.

3.   Result analysis

From the perspective of artistic images, the application characteristics of big data are mainly reflected in two aspects: on the one hand, it is more intelligent. With the continuous development of computer system, the level of intelligence has been improved, and the operation mode of manual design has been gradually replaced. In the field of artistic image design, the staff can use computer technology to improve the design accuracy and better present aesthetic images. For example, the use of computer technology to solve the repeated pattern or model design and other problems, can obtain higher design efficiency, simplify the overall image fluency, shorten the art design cycle; On the other hand, promote artistic innovation. The application of computer technology reflects the diversified technical advantages, especially the artistic innovation has achieved excellent results. Innovation as the basic condition of the value of art image design, only by constantly integrating new ideas, can the art design have a better effect. However, data technology allows image designers

to obtain sufficient reference, effectively judge the feasibility, and directly present the final data results while discovering the existing problems in the original design.

Art media, as the intermediary link connecting artists and viewers, art production and art acceptance, art and the world, is the core of art development, and jointly constructs coordinates of art practice and art research with artists, viewers, the world and art. In THE dual cultural context of image TURNING and CROSS-media turning, the cross-media research of art breaks the work-centered and literary-centered theories, accurately reveals the commonality among various arts, realizes the interdisciplinary integration of methodology, and provides an effective basis for the cross-media construction of art theory.

4. Conclusion

To sum up, in the era of big data research across mediated artistic images and text, can from the image into and across media into dual cultural context, it not only broke the works and the limitation of the literature in academic, and expand the research field of art theory, accurate interpretation of the unity and interaction between various kinds of art, It provides an effective basis for the cross-media construction of art theory in the new era. Therefore, when studying the cross-matchmaking of art image and text in our country, we should strengthen the training of professional technical talents, actively introduce advanced technical theory and learn from foreign research results of related topics to lay the foundation for the theory research and development of art in the new era.

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