Impact of Technological Advancements on the Perception and Appreciation of Traditional Chinese Ink Paintings

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Abstract: Following the entourage of artificial intelligence and big data, technology has rapidly developed, a phenomenon that has seen a rise in contradictions between the elements of humanities and technology. Technology, Chinese ink culture, and art are, in this case, facing significant challenges and conflicts on the global scene. With the objective of safeguarding, preserving, and appreciating traditional Chinese Ink paintings, this article focuses on technology's use in advancing these perceptions. The article uses ordinary technologies to understand the impact of different technological advancements in enhancing the perception and appreciation of traditional Chinese ink painting. As viewed in the findings of this study, Chinese ink painters and artists are often inclined towards the subjective design of their paintings. This factor distinguishes them from other realistic painters renowned for turning the tables during the Renaissance period. The Renaissance ink painters, as opposed to the Chinese painters, focused on the use of three-dimensional ink painting techniques to achieve great harmony in their pictures. However, given the introduction of technology in Chinese ink painting, findings reveal that Chinese ink painters need to rely more on modernistic technologies to pursue randomness, spontaneity, and contingency in the painting of different traditional aesthetic effects.
Keywords: Traditional Chinese Ink Painting, Technological Advancements, Cultural Perceptions.

1. INTRODUCTION

Traditional Chinese ink painting, remains an important and intangible element and cultural heritage of the people. The art of Chinese ink painting has a rich past spanning over 400 years. Chinese ink art serves as a means to depict the progress of traditional economics and politics and to mirror the advancement of Chinese history. This remains significant part in chronicling the growth, evolution and the culture of China. Irrespective of its form or artistic characteristics, Chinese ink painting has substantial historical significance in Chinese history. Hence, safeguarding Chinese ink

artworks is a very crucial undertaking. When compared to other creative forms like sculpture and structures, painting is more susceptible to deterioration. China has a rich history and culture that spans over five millennia. The collection documents China's historical and cultural heritage via the medium of Chinese ink paintings and sculptures. Preserving these ancient works of art is crucial to the ongoing transmission of Chinese history and culture. Written records serve as a means of transmitting historical and cultural knowledge. Nevertheless, the varying interpretations of characters across various age groups may significantly influence the portrayal of history and society. The art of Chinese ink paintings and from earlier times is a significant means of documenting and capturing traditional economics, politics, and people's lifestyles via visual representation. Art forms such as painting therefore embody the cultural achievements of modern society. The preservation of historical documents is directly linked to the enduring transmission of ancient Chinese culture. Nevertheless, due to ongoing progress and the passage of time, many works of art are prone to significant destruction (Li et al., 2010). The preservation methods used for safeguarding cultural artifacts vary throughout various periods. Preserving Chinese ink paintings is a greater challenge because of the susceptibility of Chinese ink paintings to technological advancement variables (Zhang et al., 2008).

Chinese ink painting paper and other media are susceptible to deterioration as a result of oxidation. Simultaneously, technology will also influence the preservation of Chinese art. As the industrial age progresses, a significant quantity of noxious and radioactive compounds will be generated in the atmosphere. These harmful elements will expedite the deterioration and destruction of Chinese artwork. The presence of sulfur compounds and other detrimental aspects in the atmosphere will accelerate the decline of Chinese artworks. Chinese ink art primarily depicts the prevailing economic and political trends of the time via its use of patterns, colors, and painting techniques(Zhen et al., 2017). Chinese ink paintings may describe people's living situations using patterns and colors. The degradation of the technology may often result in alterations in the hues of Chinese paintings, representing one of the most susceptible aspects to technological degradation. The surroundings had little influence on the form of Chinese ink painting; nevertheless, any harm inflicted upon this would impact this characteristic. With the advent of technology such as big data age and artificial intelligence, humans continue to encounter more interactions and influences between traditional and cultural artifacts

(Suleiman et al., 2022). The fast advancement of artificial intelligence poses new problems for global culture, science and technology, and art. The advancement of social civilization cannot be solely attributed to the negative consequences of science and technology. Human beings' aesthetic and internal cultural ideas play a crucial role in shaping the progress of society. Enhancing visual literacy may expedite and improve the development of civilization. For instance, the extensive chronicles of Chinese ink painting have given rise to significant disparities in artistic attributes and developmental trajectories owing to traditional preservation factors. These disparities together contribute to a diverse and vibrant realm of painting. Simultaneously, Chinese traditional ink paintings exhibit comparable characteristics to a certain degree, apart from a few shared features, which may be attributed to the universal principles governing the evolution of art (Zhang et al., 2020). The effect of technology on Chinese art is significant and nourishing. By examining the impact of Chinese ink painting, there is evidence of the impact of technology in spanning the scope of painting.

2. RELATED WORKS

2.1 History of Traditional Chinese Ink Painting

Chinese ink drawing, despite its diversity, has a rich cultural and philosophical past, making it a valued inheritance of Chinese culture. In comparison to other different elements of the Chinese artifacts and traditional culture, Chinese paintings are often shown and admired due to their performance and style. In an ever more globalized world, seeing this technology in this art style remains common, and there is a wide variety of interest in preserving these cultural traditions that might otherwise disappear. Before delving into the topic of Chinese painting, it is advisable for most beginners first to develop an understanding of this art form(Sigurdson et al., 2017). The unity and variety of traditional arts are emphasized via aesthetic appreciation and interaction. A profound and focused attention toward a visual input characterizes aesthetic engagement. When learning how to draw, it is more suitable to focus on developing aesthetic awareness to interest people in their first encounter with art. However, cultural diversity presents particular difficulties for international audiences(Ong & Jin, 2017). The elements as well as the structures of Chinese ink painting perception and appreciation provide a distinct approach that can enhance the experience of varied cross-cultural populations and audiences as depicted in Figure 1 below:

Figure 1: A Chinese Traditional Paint Depicting an Early Chinese Ink Painter

However, interaction design has significant potential to aid in conserving Chinese art, both inside China and beyond. Researchers commend on the use of interactive technology to enhance the display of traditional Chinese ink paintings and cultural artifacts, frequently by digitally enhancing them, to encourage more involvement and appreciation. This leads to an expansion of their potential viewership and the emergence of new kinds of cultural engagement. As a result of this significant change in design, several interactive cultural projects are being encouraged to spread the goals of traditional cultures. However, there needs to be more focus on understanding and engaging with the aesthetics of these cultural artifacts(Li et al., 2010). Through meticulous use of digital technology, it is feasible to augment cultural appreciation and improve the dissemination of information. Nevertheless, delving further into effectively promoting cross-cultural awareness and interaction with traditional Chinese art is vital. This research sought to investigate the influence of technology on enhancing the understanding and recognition of traditional Chinese ink painting.

2.2 Technological Advancement on Chinese Ink Paintings

As provided in the subsequent sections, Chinese ink drawing, despite its diversity, has a rich cultural and philosophical past, making it a valued inheritance of Chinese culture. In comparison to other different elements of Chinese traditional ink painting and culture, Chinese paintings are often shown and admired due to their performance and style. In an ever more globalized world, seeing this form of foreign art approach and style is common, and there is a wide variety of interest in preserving these cultural traditions that might otherwise disappear. Traditional Chinese ink

paintings' intricacy, variety, and unpredictability make the use of technology such as digital simulation systems highly demanding(Law, 2011). Specifically, the reliance on three-dimensional digital ink painting in the art poses a significant challenge especially in regards to simulation. Researching the effective presentation of ink-wash in Chinese painting and artistic effects, particularly those seen in big or tiny freehand ink paintings reveals that the use of varied technologies that include big data, artificial intelligence and computer programs is a precious element in the achievement of an effect 3D ink-paint rendering. Properly integrating and selecting ink paintings and elements are essential for effectively expressing the "hidden or potential" creative spirit in traditional Chinese ink paints(Zou, 2020). This art form encompasses various aspects, such as the depiction of flowers and birds, the rhythmic portrayal of landscapes, and the expressive rendering of portraits. These elements serve as manifestations of spirituality, making it imperative to carefully combine arts and science to convey this essence.

2.3 Significance of Technology on the Advancement and Appreciation of Chinese Ink Painting

Chinese ink painting primarily encompasses the attributes of patterns, colors, and forms. These characteristics are a large-scale visible representation. Consequently, evidence establishes the connection between various painting approaches that are done and managed manually may result in subjectivity. As seen, this may result in a specific level of error especially in the correlation existing between paintings and their authenticity. Chinese ink drawings' patterns, colors, and shapes are in this case transformed into various data formats using specific data processing technologies and techniques. After converting the attributes of the study participants into data, they may undergo appropriate quantitative analysis. Artificial intelligence technologies can effectively examine the quantitative connection between data sets. In addition, the use of graphics systems and card technology enables computer systems to execute a vast array of matrix operations. Artificial intelligence technology can facilitate individuals in executing a vast array of computations and identification tasks(Zhang et al., 2021). The correlation between technological authenticity on Chinese art entails a substantial amount of data for individuals. Depending only on manual ways to handle these laborious and extensive volumes of data would need a significant allocation of time as well as human resource. This constrains the scope of study on technological authenticity of Chinese art. Practically, this will include both geographical and temporal attributes, as

well as the impact of technological factors. Chinese ink art conservation scholars may use ACNN and GRU methods to address the correlation between technological advancement of Chinese ink paintings and preservation and appreciation. Both ACNN and GRU algorithms are equally known for enable handling parameters with higher data sets (Yokochi & Takeshi, 2005). This ensures the reliability of the investigation on the authenticity of the traditional Chinese ink paintings.

2.4 Integration of GRU and ACNN in the Advancement and Appreciation of Chinese Ink Painting

This research primarily examines the correlation between technological advancement and the authenticity and acceptance of Chinese traditional ink paintings, using artificial intelligence techniques for quantitative analysis. Simultaneously, it employs the ACNN as well as the GRU techniques in AI to help in the extraction of temporal as well as spatial attributes of different Chinese ink painting processes, patterns, forms, and colors. The evolution of Chinese ink art spans many centuries, resulting in significant variations in patterns and color qualities throughout various historical periods. The GRU approach is used to examine the correlation between the preservation of Chinese ink painting and technological advancement. The primary objective of the ACNN approach is to demonstrate the correlation between ecological preservation and three distinct attributes of Chinese painting. The input layer of ACNN will receive feature data about technological advancement. ACNN will extract elements related to the authenticity of technology on Chinese ink art (Shen & Fang, 2021). The collected output forms of data from the use of ACNN technology is inputted to an established GRU neural system and network. Initially, extracting the pertinent feature data about technological advancement is necessary to serve as the input data for ACNN. The ACNN approach and technology is a supervised learning algorithm that relies on matching labeled forms of data. The labeled forms of data consist of colors and different patterns of the Chinese ink paintings as well as three-characteristics of data of the forms and colors. This means that Chinese ink painting provides a visual representation that can be transformed into matrix data. The data must be categorized into three distinct qualities based on their extent. Once ACNN has retrieved the relevant features that are sent to a developed GRU system for further extraction of spatial and temporal characteristics(Ma & Tong, 2024). When two types of neural networks retrieve these feature data, they will establish the association between the three qualities of technological advancement

and the appreciation and perception of Chinese in paintings as provided in Figure 2 below.

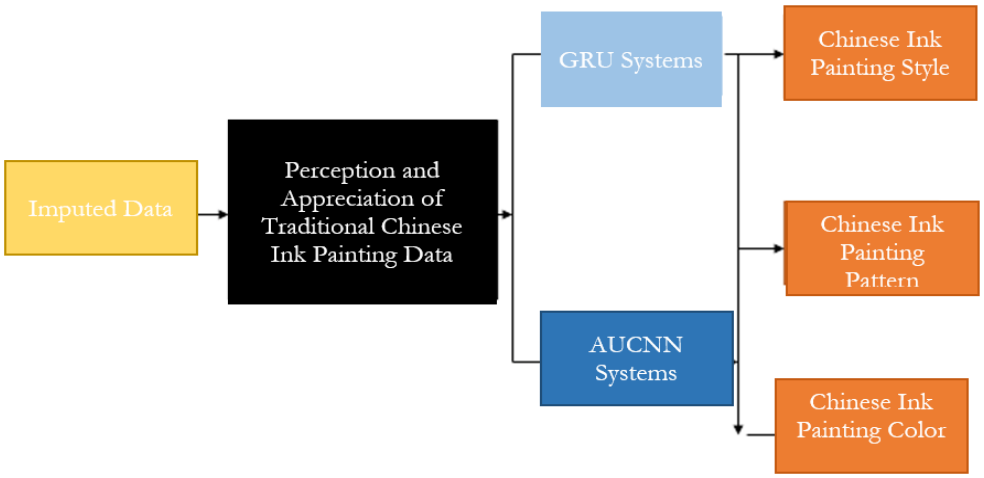

Figure 2: GRU and ACNN Design in Examining Technology on Chinese Ink Painting

The Convolutional Neural Network (CNN) is widely integrated approach and an extraction technique considered as a well-established method. Consequently, this technology is used through a well-developed and reliable CNN technology and algorithm. However, when dealing with research objects that involve more parameter operations, the use of CNN technology and methods will need greater specifications for the graphics card and computer RAM. Nevertheless, CNNs have the ability to decrease the parameter count in comparison of a connected and fully neural network. Nevertheless, CNN equally has a greater number of characteristics. This research utilizes a CNN variant neural network ACNN technology to minimize parameter computation throughout the operation phase(Li et al., 2021). When compared to the CNN approach, it is more effective in addressing the issue of handling a larger number of factors in Chinese ink painting perception and integrity study. The primary distinction that exists between the ACNN and the CNN is in the treatment of the art forms hidden layers and elements. The ACNN approach involves the presence of apertures in the filter. CNN therefore signifies a whole filter that is involved in a designed convolution method and procedure. The LSTM approach is a fundamental technique for extracting temporal features in a painting. LSTM has a greater number of parameters and necessitates a longer calculation time in comparison to the CNN approach. Extracting temporal aspects is necessary for studying preservation, perception and appreciation of the Chinese ink art. Nevertheless, the intricate designs and color characteristics of Chinese ink paintings include a substantial volume of data(Karayannis et al., 2014). Implementing the

LSTM approach would result in a higher use of graphics card resources. In practical engineering, the issue of high graphics card power consumption is more challenging. Thus, to minimize both time and computer resource use, this study employs the GRU form of the LSTM neural network. It decreases the computational workload for the same dataset as compared to the LSTM approach. GRU analyzes the temporal characteristics of the integrity features found in Chinese ink artwork. GRU has just two gate architectures, a feature that aids in minimizing the significant frequency of noise parameters(Karayannis, 2014). It equally helps in updating the gate while equally resetting the art forms structures.

3. MATERIALS AND METHODS

3.1 Methodology

The research primarily relied on the use of experience and collected interviews from a focus group in examining the impact of technological advancement on the perception and the appreciation of Chinese ink painting. Content was further designed in accordance of cultural perceptions and appreciation studies conducted in literature previously, an aspect that further integrated technology in exploring these factors. Participation of the groups involved introductory sessions that were primarily run with the objective of exploring the views of the focus groups in regards to their engagement with Chinese ink painting through technology. A sub-set of research participants were further incorporated in the interview to examine the elements of technology in Chinese ink painting.

3.2 Participant Recruitment

The research recruited 20 subjects to observe their experiences of Chinese ink painting and technology. The research participants were aged between 12 and 50 years from China and with an in-depth understanding of the concept of Chinese ink painting in the age of technological advancement. The participants were selected on the basis of their interests in technology in exploring Chinese ink painting. A section of the participants, 10 in number revealed that they had a close interaction with Chinese ink painting through technology. The research focused attention on the diverse analysis of the user's engagement with Chinese ink painting based on different age groups, the participants proficiencies as well as their valuable engagement with technology on Chinese ink painting.

3.3 Research Procedure

The research study arranged its participants into two groups during the workshop, an aspect that allowed them to engage with the traditional and the technological advancements of Chinese ink painting. During the process, a set of the participants interacted with Chinese ink painting technologies and websites while the other section drew focus on the traditional Chinese ink painting procedures. The participants in one of the cohorts were allowed to use different applications such as ACNN and GRU technologies to establish the impact of these prospects on Chinese ink painting. The research participants engaged with different art forms and how varied technologies that include ACNN and GRU technologies influence the outputs of these artifacts. Focus and attention was directed towards the preferences, appreciation, and differences of different Chinese ink paintings based on the use of traditional methods and technology. A user-experience form of interview was equally incorporated, an aspect that required two participants from each group to engage in the interview. The interview questions are in this case provided below:

Table 1: Interview Questions

Cohort 1	**Group Engagement**
Question 1	What is your experience with technological advancement on Chinese ink paintwork?
Question 2	What are the temporal connections of Chinese ink painting and integrity through the use of technology?
Question 3	Does the use of ACNN and the GRU technologies enhance Chinese ink Paintings?
Question 4	Do you have an appreciation and perception of the role of technological advancement in Chinese ink painting?

3.4 Data Analysis

A thematic approach of data analysis was used in the process. Through this, the initial codes were in this case refined and generated through an iterative process in coherence with the themes, efforts that helped in establishing the findings. The data collected from the interviews involved the analysis of the ink painting prototypes based on the use of ACNN and GRU. The research findings below therefore provide an analysis of the findings of the study.

4. FINDINGS AND DISCUSSION

4.1 Technological Advancement on Chinese Ink Painting

This study primarily employs technology such artificial intelligence (AI)

systems, ACNN (Artificial Convolutional Neural Network), and GRU (Gated Recurrent Unit) techniques to investigate the correlation between technological progress and the interpretation and admiration of Chinese ink paintings, including the analysis of colors and forms in Chinese paintings. This study aims to examine the correlation between technological advancement and perception or appreciation of Chinese ink paintings' integrity. The findings will contribute to effectively implementing measures to safeguard Chinese ink paintings' integrity within technological frameworks (Kang et al., 2023). According to the views of the research population, technological advancement plays a critical role in enhancing Chinese ink painting. The acquisition of knowledge and extraction of features using ACNN and GRU techniques need substantial datasets, serving as the foundational framework for neural network methodologies. To develop a more precise link, it is necessary to have a more exact dataset of perception and appreciation-related aspects, as well as the three qualities of integrity in Chinese ink painting. Consequently, our research gathered a substantial amount of pertinent material on the history of Chinese ink painting. This will guarantee the precision of the dataset. Simultaneously, the collected data on the perception and enjoyment of Chinese ink painting, which consists of three characteristics, will undergo data preprocessing. This is necessary due to the many discrepancies and missing data in the datasets throughout the data-collecting procedure. To statistically investigate the link between technological progress and the interpretation and admiration of Chinese ink paintings, statistical metrics are widely used in the assessment of the accuracy and efficiency of an ACNN as well as GRU technological systems in studying the integrity of Chinese painting. Initially, a solitary ACNN approach will be used to determine the precision of quantitative analysis in evaluating the integrity of Chinese ink painting and artworks.

4.2 Temporal Connections of Chinese Ink Painting and Integrity Based on Technology

This study investigates the temporal connections of Chinese ink painting and integrity through the use of technology. Figure 4 displays the mean forecast inaccuracies of pattern, color, and form characteristics in Chinese ink painting integrity investigations with a solitary ACNN technique. Table 2 depicts which reflects the chromatic errors affecting the attributes of Chinese art. These features embody the symbolic aspect of the authenticity of Chinese art. Secondly, they embody the characteristic essence of Chinese painting's integrity. According to the findings of this study, while a single form of ACNN approach can forecast the three attributes of Chinese

artworks' completeness, the numerical values of the prediction errors for these attributes are notably high (Jiang, 2018). In advancing the views of the respondents, the research further sought to establish an appropriate correlation between the integrity of Chinese ink paintings and technology. According to findings, among the three flaws affecting the integration of technology in Chinese ink painting, the most significant levels of error reported at 4.26%. This error specifically pertains to the prediction accuracy of the pattern features in Chinese ink painting. There is a strong correlation between the alteration in the distinctive features of Chinese ink painting and the passage of time. The prediction error's minimum value was likewise recorded at 3.26% as tabulated below This issue stems from the predictive inaccuracy in determining the color attributes of Chinese ink artwork through the use of traditional methods.

Table 2: Errors Determined in the Use of Traditional Technologies in Chinese Ink Paintings

Group	Error in Percentile (%)	Features of the Error
1	4.26%	Prediction inaccuracies of the pattern features of Chinese ink paintings due to the reliance on traditional painting methods
2	3.26%	Predictive inaccuracies in determining the color attributes of the Chinese ink paintings due to the lack of imaging technologies.
3	2.86%	Numerical incomplete accuracy in the prediction of symbolic aspects of Chinese ink paintings.

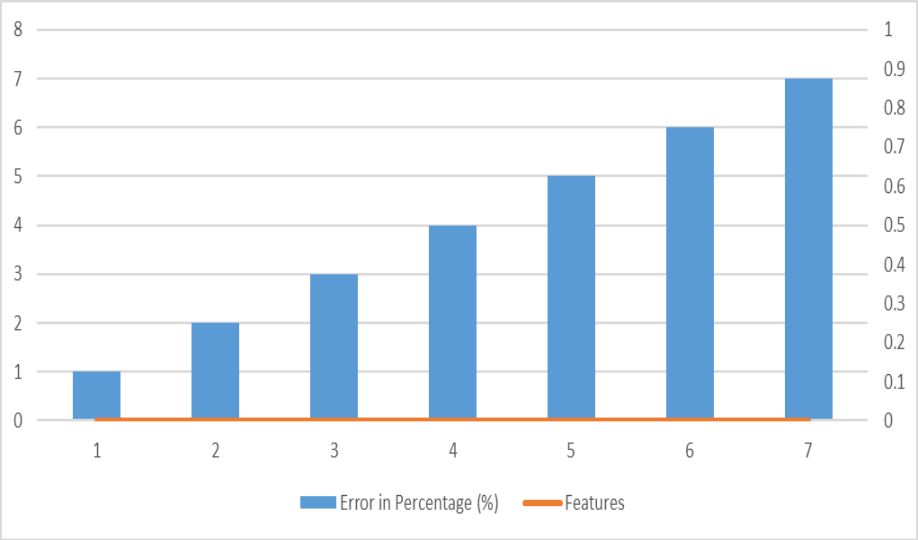

Figure 3: Predictive Errors of the Features of the Chinese Ink Painting Perception and Appreciation

This work incorporates the GRU approach to enhance the accuracy of AI technology in the prediction of the three forms and attributes of

perception and appreciation of Chinese ink painting. Figure 5 displays the mean prediction forms of error in the characteristics of Chinese ink painting integrity using ACNN as well as GRU technology and techniques. Figure 5 depicts the established prediction forms of error within each of the set of characteristics(Cheng, 2021). The left elements depict the discrepancy that exists between the established and predicted as well as actual values achieved using a single method and ACNN technique. The right one shows the disparity between the predicted and actual outcomes achieved using the ACNN and the established GRU technique. By doing so, it becomes more evident to assess the precision of ACNN and ACNN-GRU. Figure 5 illustrates a decrease in prediction errors for all three aspects of Chinese painting's integrity but with varying degrees of reduction. This demonstrates the superiority of GRU technology in forecasting the precision of characteristics associated with the authenticity of Chinese ink art, its appreciation and perceptions. This observation indicates a significant temporal connection in predicting features in Chinese art(Bennett et al., 2019). The prediction and established error within the patterns and aspects of Chinese ink painting completion decreased from 2.81% to 2.24%. The inaccuracy in the color fidelity of the Chinese ink painting through the use of technology as opposed to traditional methods was further reduced from 2.24% to 2.10%. The decrease in the degree of prediction error is advantageous for ACNN and GRU in precisely establishing the correlation between technological advancements and prediction on the three features and attributes of Chinese ink painting.

Figure 4: Predictive Errors in the Use of Technology on the Three Features of Chinese Ink Art

4.3 ACNN and the GRU Technologies in Enhancing Chinese Ink Painting

To enhance the precision of evaluating the performance of ACNN as well as the GRU technologies in forecasting of the established three elements and attributes of Chinese ink paintings, it was essential to conduct individual analyses of the prediction errors related to the patterns, forms, and colors of the paintings. Twenty-five distinct test sets were used to assess each characteristic. Figure 6 displays the discrepancy existing between the actualized and the predicted forms and values of the modeling characteristics of Chinese artworks(Zhou & Kang, 2023). The green region in Figure 6 corresponds to the data when the prediction forms of error of the modeled characteristics of Chinese painting form of completeness is limited to 2%. In general, out of the 30 data sets concerning the reliability of technology in Chinese ink paintings, the majority of the datasets have prediction errors that are below 2.4%. There are just two data sets that have an error of over 3%. The maximum forecast error exceeds 2.0%. Additionally, a limited number of Chinese paintings exist that have a prediction error of less than 1.4%. These findings demonstrate that the ACNN and GRU techniques may effectively and consistently forecast the design of the painting's characteristics of appreciation and perception. This may also enable academics to accurately investigate the correlation between technology on the authenticity of Chinese ink paintings.

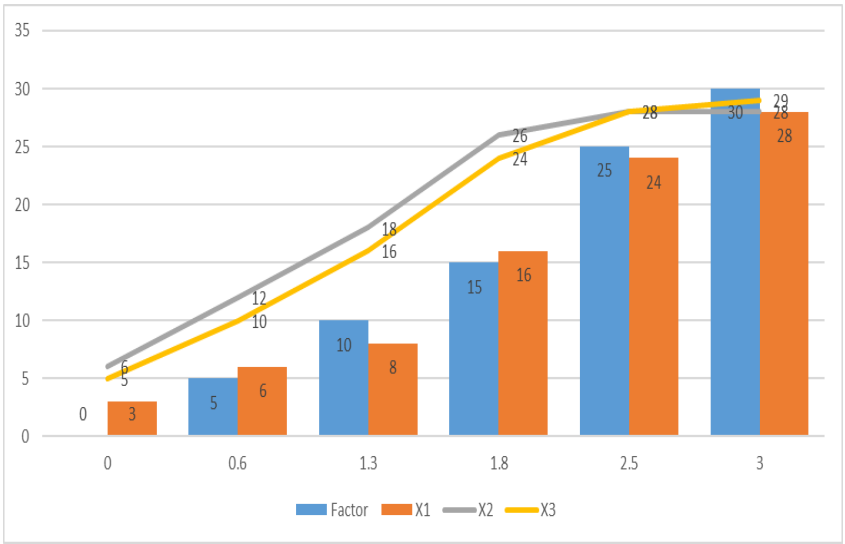

Figure 5: Predictive Errors in the Modeled Features of the Chinese Ink Paintings through Technology

The color attributes are a crucial component used in perceiving and appreciating Chinese ink painting. In other words, color remains vulnerable to technological advancement. Hence, establishing a precise correlation between the color attributes of Chinese paintings and ecological

conservation will facilitate researchers in effectively safeguarding the integrity of Chinese ink paintings' color features. Figure 6 below displays the approach of distribution of the collected, forecasted and observed forms of values from a set of color characteristics in the perception and enjoyment of Chinese ink painting. Color therefore depicts the discrepancy existing between the anticipated as well as an actual value of its attribute in Chinese ink painting. Additionally, this discrepancy is spread across 30 distinct data sets. Figure 7 demonstrates significant variations in the color schemes of Chinese paintings across various groups, resulting in noticeable fluctuations. ACNN and GRU have superior predictive capabilities in determining the evolving pattern of color features in Chinese ink painting, as well as the corresponding data values for various datasets.

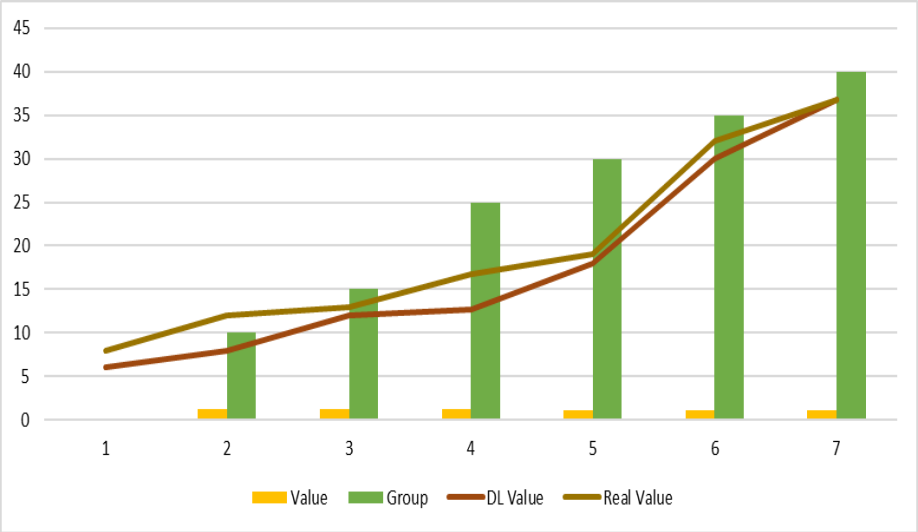

Figure 6: Distribution of the Actual and the Predicted Values of Chinese Ink Painting Color through Technology

4.4 Appreciation of Technology in Chinese Ink Painting

According to the findings of the study, the participants revealed that they appreciate Chinese ink painting based on several factors Based on the preceding description and study, it is evident that the pattern features of Chinese paintings exhibit significant discrepancies when compared to the color codes, thus forming an important element in Chinese ink paintings. This research showcased the predictive accuracy and efficiency of Chinese ink painting forms and pattern characteristics through the use of linear forms of correlation coefficients. Figure 7 below therefore displays the anticipated linear forms of correlation coefficients of the patterns as well as characteristics related to the perception and appreciation of Chinese ink paintings. The linear form of correlation coefficient often surpasses 0.95,

indicating a reasonably strong model. Figure 7 demonstrates that the established linear form of correlation coefficient seen of the patterns given values establishes that Chinese ink painting perception and appreciation has exceeded 1.87.

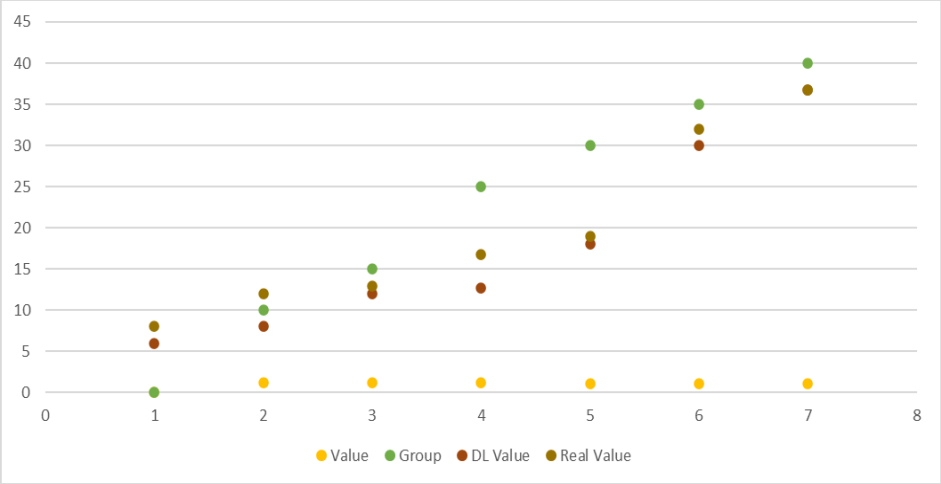

Figure 7: Linear Distribution and Correlation of the Features

The majority of the collected data points as seen in this case remain symmetrically distributed within each side of the painting's functions. These findings demonstrate that the use of technology such as the ACNN as well as the GRU technology and model remains effective element used in accurately determining the authenticity of technology on Chinese ink paintings perception and appreciation. Furthermore, ACNN-GRU demonstrates superior accuracy in forecasting the comprehensiveness of Chinese art pattern characteristics.

5. CONCLUSION

The evolution of Chinese ink forms of painting spans several years and serves as a testament to the advancements and transformations within traditional Chinese culture. Chinese ink forms of painting are a form of Chinese cultural and artistic expression. Chinese ink painting has been regarded as the quintessence of Chinese art throughout history. Hence, the use of technology in the investigation and preservation of Chinese ink painting remains imperative. This research uses ACNN as well as the GRU technologies and techniques such as AI to examine the precision of different pattern and color characteristics used in the assessment of the perception and appreciation of Chinese ink artwork. The GRU technology and model remains critical in capturing the connection between the perception and appreciation of Chinese paintings. Initially, evidence

establishes that this work examined the precision of a solitary ACNN primarily in forecasting the completion characteristics of Chinese ink paintings. The maximum forecast error was established at 3.64%. The minimum forecast error had a similarly of 2.4%. While researchers may use this error component, the magnitude of the mistake associated with this component is rather high. This continues to be a commendable and efficient means of demonstrating the connection between technology and the interpretation and admiration of Chinese ink painting. The use of the GRU approach resulted in a substantial reduction in prediction errors for the three aspects of perception and enjoyment of Chinese ink drawings. This demonstrates that the combination of ACNN and GRU technologies and methods is more suited for establishing the quantitative link between the three aspects of perception and enjoyment of Chinese ink painting. This study has significant practical relevance in directing the use of technical advancements for predicting and evaluating Chinese ink painting.

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