

Research on the Art Creation Concept of Virtual Exhibition from the Perspective of Creators—Take the Hong Kong Art Development Council “Art Go Digital: a Tour Between Virtual and Reality” as an Example

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Keywords

Percussion; VR virtual reality; Arts concept; Grounded theory.

Abstract

The Gip percussion ensemble (GPE) is a non-profit music group registered in Hong Kong. This study focuses on GPE and explores the concept of virtual exhibition art creation from creator's perspective. As Hong Kong art development Council “Art Go Digital: A Tour Between Virtual and Reality” project as a case, using grounded theory summarized three creative ideas: the creator perspective of virtual creation self, infinite space development of own innovation, social value creation of superego service object. Provides a new perspective for cooperation between art groups and technology suppliers and other virtual art performance concept construction.

Research Article

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1. Introduction

Gip percussion ensemble is a Hong Kong registered non-profit music group founded in 2017 by Director Wing yip Chan. It combines elements of traditional Chinese music and Western percussion instruments while incorporating modern technological innovations to promote the development of percussion in Hong Kong. It provides many opportunities for young local musicians to participate. Since the Hong Kong government has listed technology and art as a new policy field, the “art + technology” innovation paradigm has received wide support and attention in Hong Kong (Ju 2025). The “Art Go Digital” funding program launched by the Hong Kong Arts Development Council provides GPE with more than HK \$300,000, enabling both artistic production and institutional sustainability, and to receive more policy endorsements in the field of innovative technology. This kind of cross-border cooperation project is unique in Hong Kong, producing a new creative concept of virtual percussion art in the process of the project (Liu, Qiu et al. 2019). This paper aims to analyze the actual operation of the creators integrating into the percussion theme VR exhibition and discuss the artistic creation concept of virtual exhibition through the analytical framework of HKADC’s “Art Go Digital: A Tour Between Virtual and Reality.”

2. Research Status

Virtual reality (VR) art collective have developed rapidly in recent years, through the synergistic integration of technological innovation and avant-garde artistic practices, thereby establishing a distinct market presence (Li, Wang et al. 2025). All kinds of virtual exhibitions and performances emerge in an endless stream, which are the forefront of modern art creation. Among them, the creative concept of combining science and technology and art is the core of group development, which lays the core competitiveness of organizational development. How to form a unique artistic creation concept combined with virtual technology has become a topic of concern to many emerging art groups and industry scholars (Liang 2008).

Chu (2018) argues that factors such as artistic concept production technology (technique), tool selection and aesthetic orientation determine the spatial category of artistic expression. The expressive scope of artistic creation transcends material applications confined to regional boundaries and the fulfillment of localized aesthetic-cultural paradigms, instead embracing diversification that spans from three-dimensional space to multi-dimensional virtual environments. The advent of virtual reality technology has further extended the expression space of art. Liu (2021) pointed out that the Third Media Era has engendered immersive media, and the characteristics of experience and co-creation have promoted the process of its theory and practice and its multi-level evolution in art exhibitions, and promoted the evolution of art exhibition form, exhibition mode, creative concept and communicative frameworks.

The virtualization of live art has become a trend, through AR, VR and other technological means to explore the new expression of artistic creation. In this context, numerous scholars have investigated the integration of virtual technologies within tangible artistic practices. Gao Yuting, for instance, examines teamLab’s internationally acclaimed artworks through an analysis of their “Digital Nature” and “World” series. The study reveals that these creations employ the concept of hyper-subjective space to construct virtually immersive multidimensional environments, the purpose is to break the boundaries of modern human brain—himself and the world, the world and others. Zhang and Dong (2019) started from the all-media communication environment, pointed out that the development of virtual reality and artificial intelligence on the creation of TV drama has rewritten the concept of artistic creation from the equipment level, the multi-screen transmission and the extension of the value chain of TV drama creation copyright, so that the creation of TV series into a new era. Liu Chun in Zhu Jiaqi’s China Dance Image Creation Practice Research (Zhu 2024), points out that dance image “crossover” is beyond the constraints of their own media inertia and good at performance method, instead through the technical media thinking concept, the pursuit of the latest aesthetic digital dance, using OpenAI released the first raw video model—SARO create a minute “a mirror”, realistic, imaginative dance scene. It can be seen that the integration of virtual reality into the concept of artistic creation is a new direction of artistic creation in the future. It is worth

analyzing the virtual art performance of “Art Go Digital: Attack Art Tour, A Virtual Real Scene Journey”, and putting forward a new concept of artistic creation based on the author’s own experience of the creator.

3. Research Method

The Grounded Theory is a qualitative research method, proposed by Barney Glaser and Anselm Strauss in 1967¹. The theory eschews a priori hypotheses or predetermined conclusions prior to data collection, but through iterative analysis of empirical data and progressive distillation of core categories. This research method is a process from large to small, from wide to fine, that is, researchers collect data extensively, summarize the core concepts that can best reflect the essence, and then summarize the core concepts to form the main categories (Zhu 2005).

As the initiator of the HKADC’s “Art Go Digital: A Tour Between Virtual and Reality” project, the author has a large number of first-hand data, including member interviews and operational records, along with other original materials, which are appropriate for grounded theory-based research. At the same time, as a successful model of virtual reality into artistic creation, the author deeply studies the artistic creation concept of HKADC’s “Art Go Digital: A Tour Between Virtual and Reality” from the creator’s perspective.

4. HKADC’s “Art Go Digital: A Tour Between Virtual and Reality” art creation concept analysis

4.1 Data Source

The case selected in this paper is HKADC’s “Art Go Digital: A Tour Between Virtual and Reality” project. The data sources include: documents related to project execution, archival records, interviews with members, text of direct observation records, participatory observation text and physical evidence. The data has multiple sources and are highly validated to conclude that 30,000 words of original data were collected.

Nvivo12 is a software tool to support qualitative research and mixed-methods research. It is designed to help users organize, analyze and refine unstructured or qualitative data. Figure 1 is the word cloud after analyzing raw data using Nvivo12 to assist coding and establish theoretical models.



Figure 1 Word Cloud of Artistic Creation Concept

4.2 Open-type Coding

When conducting open coding, researchers should try to shelve personal opinions and industry definitions, adopt an open-minded approach, refine collected data into concepts, and code them to establish relationships. Both the frequency and content of relevant concepts should be documented and retained. Through continuous disassembly, verification, comparison, conceptualization and categorical mining, the concepts and categories most meaningful to the research are finally identified. Based on the characteristics of the initial data, this study employs NVivo12 to encode raw data, extracting 180 concepts and 180

¹ Kathy Carmetz. Constructed grounded theory: a Practice guide for qualitative research [M]. Translation by Bian Guo. Chen Xiangming school. Chongqing: Chongqing University Press, 2009:57-69
Charmaz, K. (2006). Constructing grounded theory: A practical guide through qualitative analysis, sage.

corresponding categories that demonstrate inherent connections. Examples of open coding in this article are detailed in Table 1.

Table 1 Main category relation based on open-type encoding

NO.	Original data	Categorization(Initial coding)
A101	Think about how to make a Unforgettable arts experience(A1-1)	artistry
A102	Require high-quality demand of the film and music coordination(A1-2)	The pursuit of high-quality creation concept
A103	The creation of the performing arts is full of communication, understanding and cooperation (A1-3)	Give play to team unity, harmony, cooperation, to create a sound organization
A104	To arts' quality and innovation	The pursuit of high-quality creation concept
.....
A281	Promote social integration, especially in communities affected by the epidemic, such as family caregivers, restricted people, minorities, so that they can experience art and care at home(Z1-7)	Actively undertake social responsibilities

4.3 Association Coding

In open-type coding 180 under the premise of the concept category, the spindle type coding explores the logical relationships between categories. After rigorous analysis and detailed integration of the data, the 180 categories are summarized into 18 main categories. Each main category contains specific subcategories, and the corresponding concepts are defined accordingly.

Table 2 the association coding based on open-type coding

Fundamental category	Subcategory	Initial concept screening
High pursuit of the artistic aesthetic concept	artistry	about how to make audience unforgettable after listening to it (A1-1)
High pursuit of the artistic aesthetic concept	The pursuit of quality creation	For the film and the music of the synchronization of their own professional requirements are even higher(A1-2)
The concept of harmony	Give play to team unity, harmony, cooperation, to create a sound organization	The creation of the performing arts is full of communication, understanding and cooperation(A1-3)
Creative transformation concept of traditional culture	Percussion, Chinese Lingnan cultural inheritance	By connecting more different elements through percussion music, can continuously promote the reputation of Chinese and foreign cultural as art exchange center (A1-4)

.....
Science and technology integration technology development concept	Virtual fusion art	The possibility of breaking the boundary of science and technology and promoting the exchange and cooperation between science and technology and art, is the idea and principle of the vane of the suitcase percussion ensemble to lead the development of art(Z1-7)

4.4 Core coding

Searching for the core category that plays a key role is selective coding. The determination of the core category requires the researcher to be able to encompass other relevant main categories within the core category, so as to finally present the key parts of the research results. In this study, 10 core categories were extracted based on the content of the related categories, namely: emotional expression, cultural inheritance, innovative concept, aesthetic concept, surreal idea, science and technology concept, organizational concept, integration concept, moral concept and development concept. The core-type encoding extraction process is presented in Table 3.

Table 3 Core coding based on association coding

Core category	fundamental category
Feelings expression	Cultural integration
Cultural inheritance	Lingnan culture, percussion culture
Innovative ideas	Cross-regional communication, a new experience
Aesthetic concept	Emotional experience
Surreal ideas	Ideal implementation
Science and technology concept	Technology interaction
Organizational concept	Clear mission and grand vision
Core ideology	Community harmony, unity, core values,
Moral idea	Performance service, mental health, and audience experience
Development concept	Social development and personnel training

5. Model Construction

After open-type coding, Association coding, and core coding summarizes the HKADC' s “Art Go Digital: A Tour Between Virtual and Reality”, art concept model (Figure 2) was summarized. The model reflects the author's perspective on the “Id, Ego and Superego” virtual art creation concept.

According to the model, the artistic creation concept is divided into two parts: the left half consists of the creative idea of infinite space; while the right part comprises the creative idea of the “Id” and the virtual creation idea from the creator's perspective.

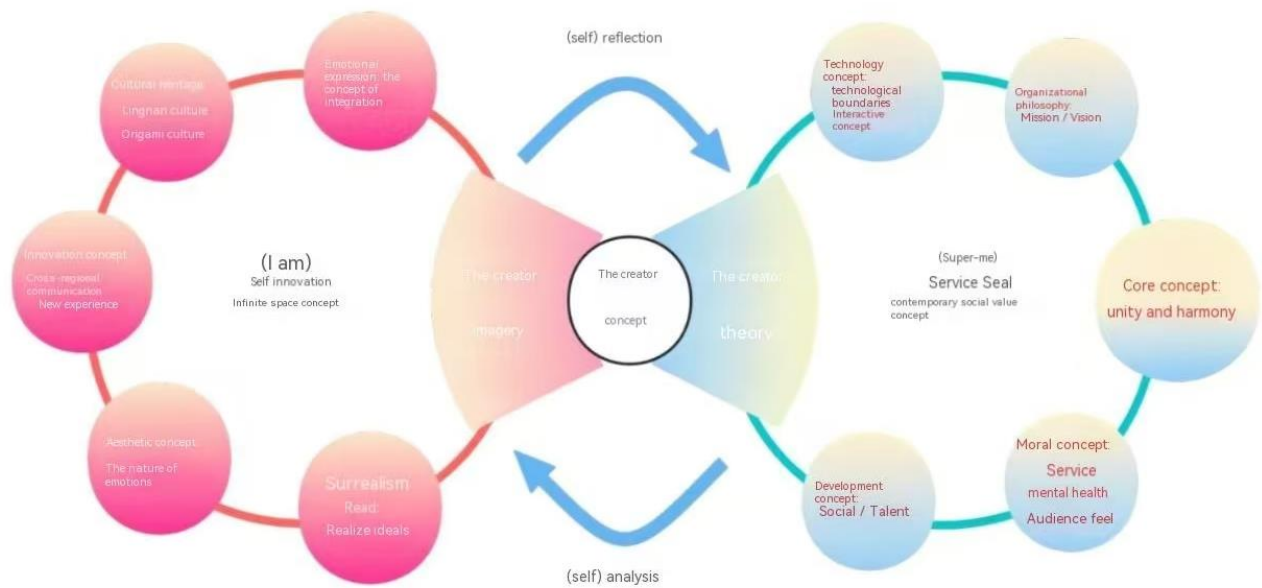


Figure 2 Concept model of art creation in virtual exhibition from the perspective of creators

6. The Concept of Virtual Exhibition Art Creation from the Perspective of the Creator

Before conducting a concrete analysis of the virtual exhibition art creation concept, we must first clarify that Freud explained the three subsystems of personality, namely “Id, Ego and Superego”: “Ego” is unconscious and irrational, aiming to fulfill inner desires and demands without any scruples; “Id” represents the “I” of social reality, which seeks to satisfy the demands of “Ego”, reflects conscience and inner morality, monitoring the expression of Id and self. “Superego” is the controller in the personality structure, governed by the principle of perfection, and belongs to the moral part of the personality structure. It resides at the highest level of the personality structure and represents the moral self, which is internalized through social norms, ethics, and values, with its formation being the result of socialization.

6.1 The Id-concept of Virtual Creation from the Perspective of the Creator

The creator’s perspective on virtual creation of Id concept, refers to the virtual exhibition art creation, the creator in meet the demand of “Ego” and “Superego” responsibility balance between “Id”. Specifically, this means that creators, during the artistic creation process, should possess independent thinking while also caring about social reality, including achieving a balance between science, technology, and art within the framework of the “Id.”

Hong Kong and Macao enjoy autonomy under the “one country, two systems” framework and serve as hubs for global festival culture convergence. Due to the complex connotations of festivals, the project integrates the collision and exchange between Chinese and Western cultures. In addition to percussion art, the project also includes original plot, Cantonese dubbing, Cantonese opera games and other Cantonese opera culture, aiming to help more cross-cultural artists integrate.

Besides, creators incorporate their personal emotional experiences and aesthetic concepts into the virtual exhibition, aiming to convey the creator’s inner world and emotional expression through art works. However, for technology supporters, how to use technology to help artists achieve high-quality artistic results is key to the success of virtual art performances. For example, in the HKADC’s “Art Go Digital: A Tour Between Virtual and Reality” project, the percussion art of Lingnan culture was reinterpreted through virtual technology. Creators need to convey the cultural connotation of percussion to the tech team, While letting the audience experience the technology, and appreciate the artistic nature of the percussion, thereby achieving the “self” balance between art and technology.

6.2 The Innovation Ego Concept of Infinite Space Expansion

The innovation Ego concept of infinite space expansion refers to the full release and expression of the original impulse and internal desires of the creators in the artistic creation of virtual exhibitions. This innovative idea emphasizes the breakthrough of traditional art forms and the exploration of new technologies, to realize the infinite possibilities of artistic expression. Under the guidance of this concept, creators are no longer limited by the limitations of physical space but create an artistic space beyond reality through virtual technology, enabling the audience to experience unprecedented artistic feelings. For example, in the HKADC's "Art Go Digital: A Tour Between Virtual and Reality" project, software is used to build VR immersive 360-degree game based on a scanned map of Hong Kong. A five-story virtual space is created, restoring the cultural and artistic heritage of Hong Kong's eastern district, allowing users to overlook landmarks such as Victoria Harbor, Causeway Bay, and other iconic locations from above. This project combines virtual live performances with percussion art, enabling more people to enjoy the beauty of percussion music and experience its fun without leaving home. In addition, the innovative concept of infinite space expansion also emphasizes the interaction between the creators and the audience. In the virtual exhibition, the audience is no longer a passive recipient but can actively participate in the process of artistic creation. Through interactive devices, they can communicate with artworks (Zhang 2018). In the VR immersive 360-degree virtual space, users can play percussion instruments in a virtual percussion room, providing an immersive tour experience. This allows them to freely move through the virtual performance, appreciate installation art and percussion art, and even influence the final form of the artwork (Gao, Li et al. 2024).

The innovative concept of using infinite space provides a new perspective and method for the art creation of virtual exhibitions. It encourages creators to break the rules, bravely explore and experiment, and thus create more attractive and influential works of art. Through the practice of this concept, artistic creation can not only better express the inner world of the creator, but also bring a richer and more profound experience to the audience (Gao 2015).

6.3 The Superego Concept of Social Value Creation

The concept of "Superego" as a service object for social value creation emphasizes that the creators place social responsibility and audience needs as the core in virtual exhibition art creation, and are striving to deliver positive social values and cultural concepts through artistic works. This idea highlights that artistic creation should not only satisfy individual desires for self-expression but also consider its impact and contribution to society. Under the guidance of this concept, the creators have integrated rich cultural elements and educational significance into the virtual exhibitions, aiming to inspire the audiences to think deeply through the artworks, and improve the cultural literacy and aesthetic abilities of the public. For example, in the HKADC's "Art Go Digital: A Tour Between Virtual and Reality" project, the historical and cultural scenes of Hong Kong are reproduced through virtual technology, enabling audiences to experience the rich cultural heritage and historical essence of Hong Kong.

In addition, this concept emphasizes the educational function of art works under the "Superego" service object framework for social value creation. In the virtual exhibitions, creators have designed an interactive education session to allow the audience to learn through gamified participation. For instance, an interactive Q&A session about Lingnan Cantonese opera culture enables audiences to understand and appreciate Lingnan culture while answering questions. This way of education not only enhances the audience's participation but also makes the art works have a broader social significance.

The concept of using "Superego" as a service object for social value creation provides a new direction and goal for the art creation of virtual exhibition. It encourages creators to pursue personal artistic expression while assuming social responsibilities and convey positive values and cultural concepts through artistic works, to create more value and significance for society. Through the practice of this concept, artistic creation can not only better serve the society and the audience, but also inject new vitality and impetus into the development of art itself (Rabiger 2013).

7. Conclusion

7.1 Balance the “id, ego and superego”

Creators should seek the balance between the id, ego and superego in the art creation of virtual exhibition. It should not only satisfy the “Id” of individual creative impulses and desires but also consider the social reality and moral conscience represented by the “Ego”. At the same time, it should assume social responsibilities and convey positive social values and cultural concepts of “Superego”. This balance reflects the harmony between science and technology and art, where creators and technology providers reach an ideological consensus (Man 2013).

7.2 Fusion with Technology and Art

Creators should make full use of modern scientific and technological means, such as virtual reality, augmented reality and artificial intelligence, to realize the deep integration of technology and art. By expanding the boundaries of artistic expression through technical means, they can create an immersive and interactive artistic experience, bringing unprecedented artistic enjoyment to audiences.

7.3 Pay Attention to Cultural Inheritance and Innovation

In the art creation of virtual exhibition, creators should not only pay attention to the inheritance and promotion of traditional art forms but also have the courage to explore and innovate to create artworks with contemporary characteristics. Through cross-border integration, cultural collision and exchange, to promote the diversified and international development of artistic creation.

7.4 Enhance the Audience’s Sense of Participation

In the virtual exhibitions, we should pay attention to the audience’s sense of participation and interaction. Through the design of interactive devices and gamification learning links, the audience can change from passive recipients to active participants and have in-depth interaction and communication with the art works, so as to improve the audience’s participation and satisfaction.

7.5 Focus on Social Responsibility and Educational Function

While pursuing personal artistic expression, creators should not forget to assume social responsibilities and convey positive values and cultural concepts through artistic works. By integrating rich cultural elements and educational significance into virtual exhibitions, they can inspire audiences to think, improve public cultural literacy and aesthetic ability, and create greater value and significance for society.

7.6 Continuous Exploration and Experimentation

Virtual exhibition art creation is a constantly developing field. The creators should keep an open mind and the spirit of continuous exploration and have the courage to try new ideas and methods. Through continuous practice and innovation, they can elevate virtual exhibition art creation to a higher level of development.

The future art creation of virtual exhibition should be based on balancing “Id, Ego and Superego”, while emphasizing the integration of technology and art, cultural inheritance and innovation, audience participation enhancement, and the fulfillment of social responsibility and educational functions. Through continuous exploration and experiment, constantly promote the development and innovation of virtual exhibition art creation.

8. Summary

In the HKADC’s “Art Go Digital: A Tour Between Virtual and Reality” project, the Hong Kong Art Foundation and GPE cooperated to successfully combine art and technology, bringing unprecedented artistic experience to the audience. This project not only showcases the practical achievements of art and technology in Hong Kong but also provides valuable experience and inspiration.

First, remarkable achievements have been made in technology applications. Through virtual reality technology, audiences can experience the historical and cultural scenes of Hong Kong and feel the visual

impact brought by Hong Kong landmarks such as Victoria Harbor and Causeway Bay. The application of this technology not only enhances the expressive power of the artworks but also provides a new way for audiences to engage with them. Audiences can freely place percussion instruments in the virtual space of a VR 360 game to experience an immersive tour. This innovative art form not only attracts more people to participate, but also broadens the boundary of artistic creation.

However, the HKADC's "Art Go Digital: A Tour Between Virtual and Reality" project also has some shortcomings. For example, in virtual exhibitions, the interaction between audiences and artworks still needs to be strengthened. While the project provides interactive devices and gamification learning sessions, there is still room for improvement in audience engagement and experience. In the future, creators can further optimize the interactive design to make audiences more deeply involved in the process of artistic creation.

In addition, the project should further strengthen in the aspect of social value transmission. Although the project has incorporated rich cultural elements and educational significance, how to more effectively convey positive social values and cultural ideas to the audience still needs further exploration and practice.

To sum up, the HKADC's "Art Go Digital: A Tour Between Virtual and Reality" project has made remarkable achievements in the practice of art and technology in Hong Kong, but it also has some shortcomings. In the future, we encourage the Hong Kong Arts Development Fund (HKADC) and performing groups to continue exploring and improving in technology application, artistic innovation, audience interaction, and social value transmission, so as to promote the sustainable development and innovation of virtual exhibition art creation.

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