

Digital Project

by Ruoheng Du

“Love once begun, will never end.”

— *The Peony Pavilion* (Trans. Yuanchong Xu)



This project is based on an essay from *Perspectives on the Humanities* course. It re-creates the essay into an interactive project and presents in a somewhat non-linear way.

Explore this project by clicking on the **BLUE** words.

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Kunqu Opera under the Digital Age

The purpose of this essay is to first **find out how China and the West have utilized different forms of digital technology** to promote Kunqu Opera in different ways, so as to discover **where China can further take use of such technology** and **contribute to Kunqu Opera's preservation**.

Methodology

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Works Cited

This essay mainly uses the following 3 methods:



- **Analytical Model: Horizon of Expectations**
- **Data Analysis**
- **Case Studies**



Horizon of expectations refers to reader's **potential aesthetic expectation for the work** due to their **accumulated aesthetic experience in the past**.

More specifically, as **Jauss** interprets, "the new text evokes for the reader (listener) the horizon of expectations and rules familiar from earlier texts, which are then varied, corrected, altered, or even just reproduced" (23). In other words, even if readers are unaware of their expectations, it is critical to **reconstruct the readers' horizon of expectations in order for the work to be recognized**. This theory applies to both readers and literary works, as well as audiences and artistic works.

Thus, evaluating whether employing digital technology in Kunqu Opera meets audience's horizon of expectations has become an important analytical part in this essay.



What is Kunqu Opera?

Kunqu Opera encapsulates various forms of art, including literature, music, dance and so on.

Due to its artistic value and cultural significance, on May 18, 2001, Kunqu Opera was selected as one of the 19 “Masterpieces of the Oral and Intangible Heritage of Humanity” by UNESCO in the first batch.

More Info about [Kunqu Opera's History](#)

More Info about [Kunqu Opera's Current Situation](#)



History of Kunqu Opera

Chinese traditional Kunqu Opera has evolved from the **local tone of Kunshan** in the **Ming Dynasty** and subsequently came to **dominate Chinese theater from the late Ming Dynasty to the Early Qing Dynasty.**

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History of Kunqu Opera

Its **popularity** peaked as a result of its **tactful tone** and **delicate performances**.

- It originated from the combination of Kunshan local music and Wu dialect by dramatist Gu Jian.
- On the basis of this local tune, another dramatist Wei Liangfu brought together the strengths of different tunes from the south and the north and developed Kunqu Opera's artistic potential.

With various wonderful plots, the time spent in the theater seems like a dream that allows the audience to witness the splendor and loneliness of the dynasties and the touching love stories.

It has also gone through **a low period** during the prosperity of Peking Opera when **people lost interest** in it and it **almost disappeared** on the stage of Chinese opera.

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History of Kunqu Opera

Nowadays, as technology advances, **a variety of entertainment emerge** in front of people, vying for their limited time. Correspondingly, people pay less attention to Kunqu Opera's performance and inheritance. The **lack of audience interest** and **low attendance rate** in the theater burden the development of Kunqu Opera. It is facing a **precarious situation** once again in modern times and needs to **fight for survival**.

Continue to [Kunqu Opera's Current Situation](#)

Continue to [Digital Age](#)

Kunqu Opera's Current Situation

PART 1. The **overall market** of opera performance

PART 2. **Kunqu Opera's situation** under the current low tide of opera market

Kunqu Opera's Current Situation - Part I

The **overall market** of opera performance is **relatively small** nowadays.

This essay takes the **overall economic scale** as a representation to examine the market of opera performance.

Besides, due to the lack of detailed data for 2019, this essay will use that from **2018** to analyze the opera market.

In 2018, the **performance box office revenue of professional theaters**, the venues where opera performances often take place, achieved **7,961 million yuan**, accounting for **43.69%** of the overall performance market economic scale of 18,221 million yuan in revenue.

Figure 1 in Graph Link: <https://ruoheng-digital-project-site.mystrikingly.com>

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Overall economic scale is an index of economic size.

Kunqu Opera's Current Situation - Part I

To be more specific, **among all** professional theater performance, **opera has the smallest market size.**

As shown in the graph below, there are six categories in general: modern drama, opera, concerts and musicals, dance, Quyi (Chinese folk art) and acrobatics, and children drama.

What is worth mentioning in the distribution data is that the **box office of opera** in 2018 only reached **806 million** and accounted for **10.12%** of all the performance revenue of 7,961 million yuan in professional theater.

Compared with modern drama, the **box office revenue of modern drama was 3.25 times that of opera**. This indicates that opera market was the **lowest** among all the performances and opera is indeed **facing challenges** in its development.

Figure 2 in Graph Link: <https://ruoheng-digital-project-site.mystrikingly.com>

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Kunqu Opera's Current Situation - Part I

As for the number of sessions, there were **15,700 sessions** that belong to **opera** in 2018, accounting for **15.47%** of all the 101,500 sessions that took place in professional theater.

Compared with modern drama again, **the number of sessions of modern drama** was only **1.11 times that of opera**.

Figure 3 in Graph Link: <https://ruoheng-digital-project-site.mystrikingly.com>

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Kunqu Opera's Current Situation - Part I

The **difference in box office revenue and number of sessions** between modern drama and opera in 2018 indicates that **though opera has many sessions of performance, the low box office revenue could only be explained by its lower ticket price and attendance rate.**

This shows that **the current state of the whole opera market is challenging** and audience does not have much interest in opera.

[Continue](#)

Kunqu Opera's Current Situation - Part II

To examine **the popularity and the corresponding trend of different operas**, this essay takes **Baidu Index** as a relative standard.

This essay will use “**Opera**”, “**Kunqu Opera**”, and “**Peking Opera**” as keywords and compare their popularity trend by Baidu Index.

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Baidu is one of the largest search engines in China, and to a certain extent, the search trend from Baidu Index can reflect the people's attention to the searched keywords in China.

Kunqu Opera's Current Situation - Part II

As Baidu Index supports, within the nationwide, the **search index of “Opera” and “Peking Opera”** are **higher than that of “Kunqu Opera”** at **every point** from May 16, 2021 to September 29, 2021.

This indicates that Kunqu Opera is searched less and it has **received less attention** from the audience than other operas such as Peking Opera, which proves that **Kunqu Opera is in a survival challenge nowadays in China.**

Figure 4 in Graph Link: <https://ruoheng-digital-project-site.mystrikingly.com>

Continue to [Digital Age](#)

Continue to [History of Kunqu Opera](#)



What is Digital Age?

The digital age here refers to the period of time that various forms of digital technology emerge and attract people's interests.

Digital technology is commonly defined as **electronic platforms** that **process**, **store**, and **present** data in the form of **digital tools**.

People could use digital technology to receive and transmit the information that is of interest to them.

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Digital Technology in China

Part 1. Chinese audiences have **a rather high level of digital technology exposure**, with **online videos and live streaming** being particularly popular.

PART 2. The younger generation is **more interested in digital technology**.

Digital Technology in China - Part I

With rapid development of digital technology nowadays, **the extent to which digital technology contributes** to the preservation of Kunqu Opera is closely related to **people's overall exposure to digital technology**.

This essay will use **Internet penetration rate** to examine this degree of exposure.

As China Internet Network Information Center (CNNIC) reveals, of about **1400 million** people in China, as of June 2021, the **netizen size** in China has reached **1.01 billion**, and the Internet penetration rate has reached **71.6%** (17-25).

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Internet penetration rate refers to the percentage of the total population that can access the Internet in a specific area, which can be taken as one of the indicators for people's degree of exposure to digital technology.

Digital Technology in China - Part I

In particular, for **online videos**, as of June 2021, the **number of users** has reached **944 million**, accounting for **93.4%** of the total Internet users.

Among the subcategories from online videos, the **number of users** of **short video clips** has reached **888 million**, accounting for **87.8%** of the total netizens.

For **live streaming**, as of June 2021, the **number of users** has reached **638 million**, accounting for **63.1%** of the total netizens (17-25).

The above data demonstrates that generally speaking, Chinese audiences have a **relatively high degree of exposure to digital technology**, among which people **pay particular attention to online videos and live streaming**.

Such a high degree of attention provides support for the later analysis with regard to the effectiveness of using digital technology in Kunqu Opera to spread and develop.

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Digital Technology in China - Part II

In addition to the Internet penetration rate, it's critical to obtain the **age distribution** of the audience's exposure to digital technology, which is of great significance for investigating the future trend of using of digital technology in Kunqu Opera.

As discussed above, this essay will use **Baidu Index** to reveal the sensitivity of people of different ages to digital technology. Unfortunately, Baidu Index fails to record the statistic of the exact word "digital technology" as the keyword. So, this time "**digital media**", which often substitutes "digital technology" in Chinese, is selected as an alternative to reveal people's interest in digital technology from different ages.

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Digital Technology in China - Part II

As Baidu Index shows, from 1 Sep. 2021 to 30 Sep. 2021, **among all Baidu users**, about 9.69% are people **younger than 19 years old**, and 38.89% of these young people pay attention to “digital media”, which makes **TGI index reach 401.4** and far exceed the average. And 28.78% of all Baidu users are **in the age range from 20 to 29** and 41.45% of the users in this age range care about “digital media”, which makes **TGI index reach 144.03** and exceed the average as well.

Thus, comparing with the **TGI index from people older than 30 years old**, the TGI index for the group of **people younger than 29 years old** indicates that this group of people are **more concerned about “digital media”**.

This reveals that the application of digital media, or digital technology as alternative, to other things will arouse this group of people’s interests. Thus, using digital technology in Kunqu Opera is a way that **attracts younger generation’s attention**, which will benefit Kunqu Opera’s future development and preservation.

Figure 5 in Graph Link: <https://ruoheng-digital-project-site.mystrikingly.com>

Continue to **Kunqu Opera**

Continue to **Case Studies**



TDI (target group index) refers to the strength or weakness of the target group in a specific research area.

By comparing the TDI of users from one group with 100, this index is used to examine whether the group's users are more concerned about a certain type of problem than the overall level.



This essay will compare the different focuses of China and the West in using different forms of digital technology to help Kunqu Opera through case studies.

China: on Promotion of Kunqu Opera

The West: on Promotion of Kunqu Opera

China: on Promotion of Kunqu Opera

In China, **digital technologies** such as online videos and live streaming provide new ways to **promote basic knowledge and performance clips of Kunqu Opera**, benefiting Kunqu Opera's development.

According to **previous data analysis**, in China, audience, particularly young people with the potential to protect and inherit Kunqu Opera, frequently use and pay attention to digital technology such as online videos and live streaming. Therefore, this form of digital technology presents an excellent opportunity for Kunqu Opera to **break away from its traditional performance stage** in China.

Continue

China: on Promotion of Kunqu Opera

Take **the Shanghai Kunqu Opera Troupe** as an example.

According to Pan, the Shanghai Kunqu Opera Troupe has continuously launched nearly **30 online teaching videos and live streaming activities** since March 8, 2020. Its fans on **Tik Tok** alone have increased more than **sixfold** from its beginning date to May 19, 2020, and some series has **been viewed online by approximately 400,000 people**.

This demonstrates that by incorporating digital technology into Kunqu Opera, Kunqu Opera is no longer limited to the traditional theater mode, but instead **moves to the platform of digital technology**, which is **familiar to the audience**, and explores the new online stage.

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The Shanghai Kunqu Opera Troupe is a Shanghai Kunqu Opera performance group that arrange and perform various classic Kunqu operas.

Tik Tok is a short video application.



China: on Promotion of Kunqu Opera

In fact, Kunqu Opera in this form of digital technology receives a lot of positive feedback and support from the audience because it challenges their **horizon of expectations.**

As **Jun Zhang** stated in an interview by Cai, people in the heyday of Kunqu Opera had different ways of appreciating Kunqu Opera, making the rhythm and aesthetics of Kunqu Opera less appealing in today's world. In other words, Kunqu Opera was a form of art that surprised people in the past, whereas **it gradually falls short of competing with many other entertaining arts in modern times.** However, with the popularity of **online videos and live streaming,** promoting Kunqu Opera in this form of digital technology is **novel and interesting for the audience today.**

Continue



Horizon of expectations refers to reader's **potential aesthetic expectation for the work** due to their **accumulated aesthetic experience in the past**.

More specifically, as **Jauss** interprets, "the new text evokes for the reader (listener) the horizon of expectations and rules familiar from earlier texts, which are then varied, corrected, altered, or even just reproduced" (23). In other words, even if readers are unaware of their expectations, it is critical to **reconstruct the readers' horizon of expectations in order for the work to be recognized**. This theory applies to both readers and literary works, as well as audiences and artistic works.

Thus, evaluating whether employing digital technology in Kunqu Opera meets audience's horizon of expectations has become an important analytical part in this essay.



Jun Zhang

- a Chinese famous Kunqu Opera artist
- the former vice president of Shanghai Kunqu Opera Troupe

China: on Promotion of Kunqu Opera

This is because that as society's pace is become faster, people tend to spend their time on arbitrary activities that don't take up much of their time (Yang et al.).

Thus, short videos are becoming more popular as **people's time becomes more fragmented** due to the **fast life pace**. As a result, for online videos, **the relatively short length** meets people's need to **watch things in their short time spans**. And **the casualty characteristic of live streaming** enables people to **watch it with greater ease**. In accordance with this logic, Kunqu Opera in such a form of digital technology is **more attractive and accessible** than traditional in-person performance in the theater for audience nowadays.

Continue

The West: on Promotion of Kunqu Opera

The application of digital technology to the protection of Kunqu Opera in the West has **transformed the space of theater** to be **interactive and immersive**.

Digital technology could **change** the clearly **separated** performers' stage and the auditorium in traditional theaters into a **shared stage** for performers and the audience. This allows performers and audience to interact with each other more closely and further immersed in the Kunqu Opera's performance.

Continue



Take Qianhui Feng's project ***Inner Awareness*** in University College London as an example.

In this project, Feng took Kunqu Opera's famous love story "*The Peony Pavilion*" and created **a new form of theatre with an interactive and immersive experience**. In this special immersive theater, **audience is invited to walk around** the stage and immerse in the performance from various perspectives in order to feel the emotional power of Kunqu Opera. During this process, Feng would use **Kinect, Processing**, and other digital technologies to **record the movement of both performers and audience members, and respond in various colors and shapes**. When performers dance and the audience walk around, Kinect can detect movement of their bodies and hands, causing the screen to respond with **real-time animations** like changing lines and shadows. Besides, such visual effects are tied to the plot. For example, when performers are performing sadness, no color is applied to the changing lines and shadows.

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Inner Awareness proposes a new form of theatre with a spatial interactive installation design that will assess the relationship among performance, space and audience, thereby providing the audience with a thoroughly immersive experience.



Kinect is a line of motion sensing input devices produced by Microsoft, which can be used to perform real-time gesture recognition.

Processing is a graphical programming language.





This improves the **interaction between performers and the audience**, resulting in a more immersive theater experience for the audience to enjoy Kunqu Opera. According to **Feng's project** description of the use of digital technology in Kunqu Opera, “the collision and fusion of Kunqu Opera and contemporary digital technology has the potential to give the opera a new lease of life.” That is to say, **the interactivity and immersivity of the new theater** in fact **take the audience away** from Kunqu Opera’s old **horizon of expectations**.

With the **traditional theater** of Kunqu Opera, audience could only **expect to perceive Kunqu Opera under the stage from the seat**. However, using such form of digital technology like **Kinect** expands the relationship between the audience, and the theater. The audience could **now expect to create the theater environment** with the performers and connect with Kunqu Opera more deeply. Therefore, this interactive and immersive theater **broadens the audience's horizon of expectations**.

This case clearly shows that how the use of digital technology in the West has **revolutionized the theater space**, bringing the audience closer to Kunqu Opera’s performance.

Continue to [Case Study from China](#)

Continue to [Analysis](#)

Analysis

Although Kunqu Opera was once a popular form of entertainment enjoyed by both emperors and commoners, **its decline in modern times necessitates its adoption of digital technology**, which opens up new opportunities for its development and preservation.

Digital technology has the potential to **transform the audience's horizon of expectations** and promote the spread of Kunqu Opera-related information regardless of space and time.

As **Jauss** states, “reception of an art work can result in a ‘change of horizons’ through negation of familiar experiences or through raising newly articulated experiences to the level of consciousness” (25). In other words, in order for Kunqu Opera to be widely accepted, **audience's horizon of expectations in modern times should be constructed by either rejecting or broadening their previous cognition of Kunqu Opera.**

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Analysis

Digital technology can **overcome spatial and temporal constraints**, thereby contributing to Kunqu Opera's development and preservation.

- **On the one hand**, the appearance of Kunqu Opera in digital technology **breaks people's past horizon of expectations** by **taking the advantage of online videos and live streaming**.
 - **On the other hand**, digital technology **expands the form of Kunqu Opera's performance** and allows the audience to **form new horizon of expectations**.

However, there are still **drawbacks** in the use of digital technology in Kunqu Opera. The appeal of Kunqu Opera may be reduced as a result of the use of digital technology in Kunqu Opera since digital technology **no longer restricts the audience to perceiving Kunqu Opera in the theater from the seat under the stage.**

- One is that people **may not experience the live charm of Kunqu Opera**'s performances when using digital technology such as online videos and live streaming.
 - Another is that the creation mode of the interaction **breaks the traditional sense of opera**, which may lessen the appeal of Kunqu Opera with regard to the wonderful plot.

Analysis - Strength - Part I

Kunqu Opera uses digital technologies such as online videos and live streaming to **spread and attract a larger audience.**

Kunqu Opera is more commonly associated with the theater than with the Internet, because people tend to believe that Internet is more casual in its presentation of such art. However, with **the emergence of digital technology like online videos and live streaming**, people's original **horizon of expectations** for Kunqu Opera have shifted. In this case, rather than the long-time and complete-plot performance in the theater, Kunqu Opera **introduces its critical concepts and highlighted short clips of performance** through online videos or live streaming. It **fully utilizes the dissemination characteristics** of digital technology to **attract audience, assisting them in developing a preliminary understanding of Kunqu Opera.**

As a result, **the collaboration between Kunqu Opera and popular digital technology is consistent with modern people's horizon of expectations.** This helps to **make it easier for a larger audience to access Kunqu Opera, thereby promoting the preservation of Kunqu Opera.**

Continue



Analysis - Strength - Part II

Digital technology **transforms the traditional theater** by creating a space in which the audience can **interact with performers** and **immerse themselves deeper in Kunqu Opera**.

Instead of simply allowing the audience to perceive the performance, Kunqu Opera's use of digital technology constructs an interactive performance stage. This time, like performers, audience are expected to walk around the stage. Their **movement will be recorded by digital technology** such as Kinect. Such digital technology will **respond in real-time animation with varying lines and shadows in different colors**. This extends the audience's **horizon of expectations** by giving them the ability to walk around the stage and create the plot with performers. The audience could now **expect the traditional Kunqu Opera to be merged with their personal interpretation**. This could lead to **an increase in the number of audiences**, allowing more people to experience digital technology's ability to improve the expressiveness of opera (Benford and Giannachi).

As a result, digital technology **allows audience to interact more deeply** with performers and Kunqu Opera, **attracting a larger audience** to learn about Kunqu Opera and **contribute to its future development**.

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Analysis - Drawbacks - Part I

Perceiving Kunqu Opera through the screen in the form of online videos and live streaming can never be compared to the experience of seeing it in person in the theater.

Kunqu Opera presented through digital technology is **the result of the movement of cameras guided by the cameraman** (Benjamin, par. 8). The audience would only need to **passively watch the scenes on the screen instead of thinking about the plot and actively following performance with their own eyes**.

Besides, when the audience is not physically present, **performers are unable to make certain changes and adjustments to their performances based on the audience's real-time reactions**. In this situation, “the audience’s identification with the performers is really an identification with the camera” (Benjamin, par. 8).

This indicates that **digital technology would fall short of fully revealing the charm of Kunqu Opera**.

[Continue](#)

Analysis - Drawbacks - Part II

The interactive theater formed by combining Kunqu Opera and digital technology has **overturned the creation rule of traditional Kunqu Opera**. This new form of theater even **removed some important opera elements such as complete plots and conflicts**, leaving the audience with a sense of **lacking the sense of opera**. Therefore, the application of digital technology in Kunqu Opera may reduce its appeal in terms of being perceived in person in the theater with a fantastic plot.

Continue

Possible Ways

Based on the **preceding analysis**, it is clear that Kunqu Opera should fully utilize digital technology in terms of information promotion and interactive experience. Some possible approaches are as follows:

1. Kunqu Opera can continue rely on the popularity of digital technologies such as **online videos** and **live streaming**, promoting Kunqu Opera at a faster speed and a larger scale.
2. As the audience's interest in interactive theater grows, Kunqu Opera could further expand its **immersive form** to allow more people to experience Kunqu Opera.
3. Kunqu Opera could further utilize the advantages of **5G technology in 4K ultra-high-definition video transmission**, and create a new mode of perceiving Kunqu Opera.

Continue

Hope

This essay demonstrates that digital technology has **a positive impact** on Kunqu Opera's preservation. Its findings could serve as a model for other opera's preservation problems.

By using new applications of digital technology in Kunqu Opera's preservation in China, this essay hopes to **promote the prosperous revival of Kunqu Opera.**

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