

Redefining Art Spaces: Interactive Features in Digital Art Exhibitions

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Abstract

Art exhibitions held in digital spaces not only function as an alternative when art exhibitions cannot be held in physical spaces. Exhibitions in digital spaces offer a high level of accessibility and affordability, thus having great potential to connect individuals from different parts of the world. Digital platform art exhibitions provide artists and their creations more visibility and extend their lifespan beyond a fixed display period. The benefits of digital technology also extend to visitor-artist interaction, which can enhance visitors' comprehension and experience of enjoying art. However, there are currently no exhibitions of works of art in digital spaces that facilitate interaction between artists and visitors and between visitors. This article describes the design of an art exhibition in a digital space equipped with interaction features between artists and visitors. Utilizing these interactive elements will be useful not only for improving the function of art exhibitions in digital spaces but also for user experience for both visitors and artists.

Keywords: Art Exhibition, Interactions, Visitors, Artists

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Introduction

The online art exhibition has been developed since 1994 by Douglas Davis under the title *The World's First Collaborative Sentence*, and many were held during the pandemic to replace physical art exhibitions that could not be conducted at the time. Today, online exhibitions are less common due to the resurgence of conventional art exhibitions. Although online art exhibitions cannot rival conventional exhibitions for several reasons, such as the inability to experience the exhibition atmosphere, the layers that limit visitors from engaging directly with the artwork, the loss of artwork details, and the lack of interaction (Widjono, 2021, 97), conventional art exhibitions offer distinct benefits. While online exhibitions may not provide the same visual impact as conventional exhibitions, they are particularly useful for gaining exposure since not all visitors can attend physical exhibitions. Thus, online art exhibitions are not intended to replace conventional exhibitions but to complement them, as both offer different advantages.

The first online art exhibition, *The World's First Collaborative Sentence*, was a text-based online exhibition. Visitors were able to collaborate in creating art by freely and indefinitely adding words or sentences. This exhibition, which involved emotions and creativity, relied on user participation. Users were not only present to view the artwork but also contributed to its creation. This participatory model serves as the foundation for the development of the online art exhibition *Jalirupa*.

Jalirupa is a platform for online art exhibitions that emphasizes the importance of interactive features, which are essential in the context of online art exhibitions. The primary focus of the interactions designed on this platform is not on the relationship between the visitor and the artwork or the exhibition space, but on interactions between users, which are considered the central element of digital art exhibitions. It is hoped that these interactions can enhance the intensity of the online art exhibition experience, as interactions between users can be optimized in social media spaces. The use of interactive features within this digital ecosystem is expected to bridge the gap between artworks and the wider public. Thus, this intense and inclusive interaction is anticipated to facilitate the formation of a solid art-loving community within society, both in online and conventional realms.

The development of the *Jalirupa* platform adopts a human-centered design approach, adapted from IDEO methodology, which emphasizes a deep understanding of users' needs and preferences as the primary foundation for designing relevant and effective solutions. This approach aims to ensure that each feature developed provides an optimal interactive experience aligned with user expectations. In this context, human-centered design is applied systematically to guide the development process, with a focus on creating a more inclusive and adaptive experience for diverse user dynamics. This article is written to present the latest developments of the *Jalirupa* platform up to the ideation stage, recognizing that this project is still in the early stages of development and exploration.

Methods

The development of the *Jalirupa* platform utilizes the Human-Centered Design (HCD) method, adapted from the IDEO approach, which consists of three main stages: inspiration, ideation, and implementation. The development of *Jalirupa* began in 2021, starting with research to explore user experiences in appreciating artwork while visiting online art exhibitions (Rina, 2021) and the experiences of artists as participants in online art exhibitions

(Rina, 2022). These two studies are marked with the number 1, as shown in Image 1, which relates to the research flow.

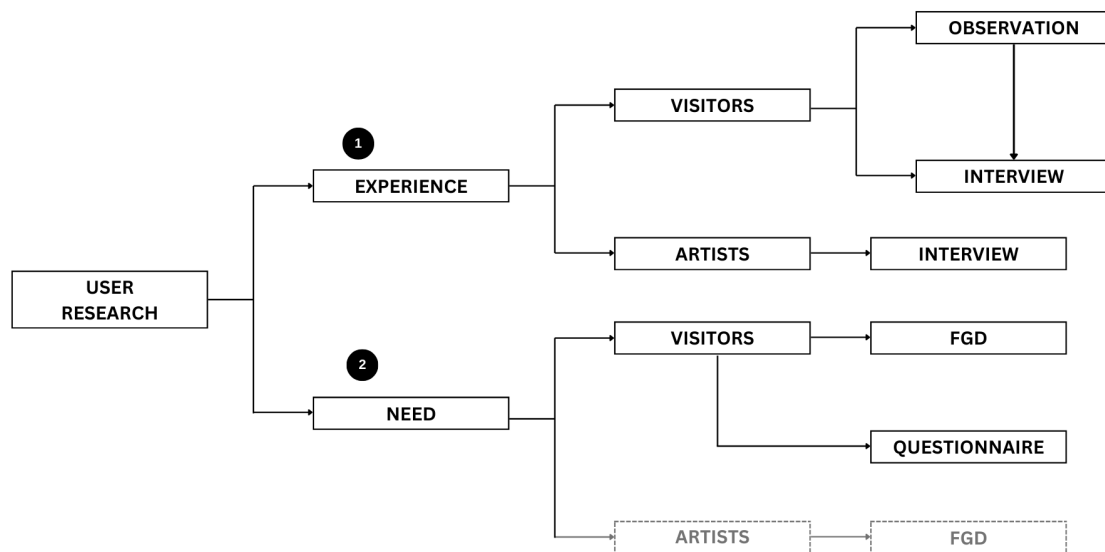


Figure 1: Procedure

This article discusses the ideation phase in the development process of Jalirupa, where ideas for solutions are formulated based on research findings and an understanding of user needs, as indicated by the number 2 in Figure 1. The development of the Jalirupa platform applies a Human-Centered Design (HCD) approach, which is not linear but iterative, while still following the stages of inspiration, ideation, and implementation (IDEO, 2015, p.11). This indicates that, during the development process of Jalirupa, further data exploration may be undertaken as needed to generate ideas at the ideation stage.

Data on user experiences and needs serves as a foundation during the ideation phase for designing a customer journey map, which begins with defining user personas. This journey map is crafted to trace user actions and emotions at each stage, thereby identifying areas requiring further development to optimize the quality of experience in the online art exhibition.

User Experience

Online art exhibitions became increasingly common during the pandemic as substitutes for conventional art exhibitions, which could not be held due to large-scale social restrictions imposed in Indonesia. Examples of online exhibitions conducted during this period include *Art Jakarta 2020* and *Manifesto VII Pandemi*, each adopting distinct strategies. These two exhibitions were the focus of Rina's (2021) study, which explored visitor experiences. *Art Jakarta 2020* featured a 3D exhibition space designed to mimic physical gallery spaces, while *Manifesto VII Pandemi* utilized digital platforms to showcase exhibited works.

Rina used the *Art Jakarta 2020* exhibition as a digital observation tool by studying visitor behavior as they navigated the virtual exhibition space. This research aimed to understand how art appreciation could be achieved by visitors in an online exhibition. The results indicated that visitors had trouble navigating the exhibition space, hindering their ability to reach a stage of full art appreciation.

Based on these observation results, interviews were conducted with three respondents involved in Rina's (2021) study to understand their experiences visiting online art exhibitions. The information obtained includes the following:

1. Visitors to online art exhibition platforms recognize that the experience offered by digital exhibitions differs significantly from that of conventional art exhibitions. In a Focus Group Discussion (FGD) conducted, one participant mentioned that the experience felt like being in a game. This aligns with Widjono's findings, where visitors reported that attending an online art exhibition was novel and exciting (Widjono, 2021). However, excitement toward something new is not a permanent state, as after adaptation, the intensity of this excitement tends to decrease (Haidt, 2005, p. 86).
2. Rina's (2021) research indicates that respondents observed during interactions with online exhibitions had trouble navigating the exhibition space. This difficulty imposed a dual burden on respondents: they had to navigate the exhibition space while also attempting to appreciate the artworks. Rina concludes that this appreciation did not occur within the scope of her study (2021).
3. In online art exhibitions, there is no direct interaction among visitors. In conventional art exhibitions, visitors are physically present in the gallery space with friends or other visitors, creating a collective experience that fosters social interaction. Online art exhibitions that replicate the conventional gallery space, such as Art Jakarta 2020, generally do not provide features for interaction. However, in the Manifesto VII – Pandemic exhibition, which served as an observation tool in Rina's research (2021), interaction among visitors could occur through a chat box that appeared while playing the exhibition video. This exhibition was presented in video format similar to a YouTube platform, not only displaying artworks but also showcasing concepts, processes, or other aspects the artists wished to communicate.
4. One of the participants in the focus group discussion emphasized the absence of a focal point in the online art exhibition, as the works were displayed with the same visual pattern, lacking a piece that would serve as a surprising element, such as an installation or a main artwork placed in strategic locations within conventional gallery spaces to create a climactic experience during the exhibition visit. These main works or installations are generally large in scale, as seen in physical exhibitions. However, the information regarding the dimensions of the works displayed in the online art exhibition appeared uniform on the screen, offering no variation in size except in textual form.

In the context of the online art exhibition platform developed on Jalirupa, users are not limited to visitors but also include artists who actively participate. A deep understanding of the artists' experiences as users of the online art exhibition platform is crucial to enhancing the quality of interaction and their overall satisfaction. In interviews conducted with three artists during the early stages of the Jalirupa platform's development, Rina (2022) identified several key points related to the artists' experiences as users of this online exhibition:

1. The process of shipping artwork has become easier and more cost-effective. In conventional exhibitions, shipping and handling costs are considerable, particularly when the exhibition is held in a city or country different from the artist's place of

residence. These costs can double if the artwork on display does not sell and needs to be returned to the artist. This expense is especially significant for large-scale artworks.

2. There is no direct interaction between the artist and the visitors, particularly in art exhibitions that mimic the concept of conventional exhibition spaces. Two out of the three artists stated that interaction between the artist and the visitors plays an important role in the exchange of ideas and a deeper understanding of the artwork, which can enhance the knowledge of both parties. However, one artist disagreed, arguing that such interaction does not hold significant value. According to this artist, the presentation of the artist's work can be conveyed through video media documenting the creative process, as was done in the Manifesto VII: Pandemi exhibition.
3. All artworks are given an equal opportunity to be displayed. In conventional art exhibitions, the primary artworks are placed at key points within the exhibition space, which draws attention to the surrounding pieces as well. Based on interviews conducted, artists expressed concerns about their works being placed in less strategic locations, potentially causing them to be overlooked by visitors.
4. There are no significant differences or advantages in the aspect of artwork sales between online art exhibitions and conventional exhibitions. Art transactions generally occur after potential buyers view the works in person, allowing for a deeper visual and emotional appreciation of the artwork's details. In conventional art exhibitions, special time is typically allocated before the official opening for collectors and enthusiasts, during which purchasing transactions often take place. For artists, online exhibitions primarily serve as a platform for gaining wider exposure rather than directly driving artwork sales.

The findings from the studies conducted by Rina (2021) and Rina (2022) indicate that online art exhibitions offer a new experience for users, both through the imitation of physical exhibition spaces and the full utilization of digital spaces. These online exhibitions provide convenience for visitors and artists to interact with the exhibition space and the displayed artworks. However, these exhibitions have yet to offer opportunities for visitors to interact with each other.

User Needs

Based on the research on the experiences of visitors (Rina, 2021) and artists (Rina, 2022) in online art exhibitions, a focus group discussion (FGD) was conducted to gain a deeper understanding of user needs. The FGD involved six participants who had previously visited online art exhibitions and six artist participants. Several key points from the FGD results can be noted as directions for the development of the Jalirupa platform, including:

1. Visitor Interaction: Such interactions provide opportunities for visitors to exchange ideas with one another, enriching their experiences, broadening their perspectives, and deepening their understanding of the artworks on display. This process has the potential to enhance the comprehension of art through reciprocal interactions. The understanding of the artwork may diverge from its original intent, leading to various

interpretations. In Blumer's symbolic interaction theory, he suggests that these variations contribute to and create new meanings (1986, 87).

2. Artists benefit from engaging with visitors, as this interaction provides valuable feedback and fosters deep, reciprocal dialogue. Through these exchanges, artists gain insights into how their work is received, evaluated, and perceived by visitors, which can stimulate new creative ideas. Blumer explains that the diverse perceptions held by visitors can enrich not only the visitors' understanding but also that of the artists themselves.
3. Visitors' choice not to interact: Not all visitors wish to engage with other visitors, although nearly all are interested in interacting with the artist or gaining the artist's perspective. This indicates a shared need between the artist and visitors; however, visitors vary in their desire to interact with fellow visitors.
4. Artists require a space to convey the creative process and various aspects related to their work. Although each piece in an art exhibition is typically accompanied by an artist statement, there are often additional elements the artist wishes to communicate. This opportunity to share is a valued aspect of exhibitions for artists; however, in online art exhibitions, this is not always feasible. Some artists, even if they may not favor in-person meetings with visitors or discussions centered directly on their work, still see it as important to share the creative process, perspectives, and other integral elements of their art. In this context, while direct interaction may sometimes feel uncomfortable, technology can offer an alternative means for artists to share their story and insights, albeit in a more controlled and limited format.
5. Curation plays a crucial role, particularly in conveying the creative process, perspectives, and other elements that shape a work of art. As a process of selection and interpretation, curation not only organizes artworks in an exhibition but also facilitates a deeper understanding of the conceptual and technical aspects related to these works. In this context, the curator is responsible for determining a specific subject focus to present to the public at a particular moment. Through the arrangement and interpretation of artworks, the curator creates a dialogue between the artist and the audience (George, 2015, p. 10).
6. Considering the relationship between visitors' self-perception and the need for interaction in online art exhibitions, visitors who identify as extroverts tend to be more open to engaging with others, showing a desire to actively participate in the exhibition's social dynamics. In contrast, visitors who view themselves as introverts are more likely to wait for others to initiate interaction, reflecting a tendency to avoid interactions that are not externally prompted or encouraged by others.

Understanding the tendencies of visitors to view themselves as either extroverted or introverted, and how this self-perception influences their motivation to interact with other visitors, is a compelling topic for further research. Based on survey results collected from 108 respondents, it was found that visitors were more open to responding to interaction invitations from others compared to initiating interactions themselves or ignoring others' initiation attempts. The survey data shows that 37 respondents (34.3%) indicated they would initiate a conversation, while 71 respondents (66.7%) indicated they would not. However, if another visitor initiated a discussion about an artwork, 82 respondents (75.9%) said they

would respond, whereas 26 respondents (24.1%) would not. These findings provide valuable insights into the dynamics of visitor-to-visitor interaction and can serve as a reference in developing the Jalirupa platform, which needs to consider these motivational factors to design a more inclusive and engaging interaction experience.

Interactive Features

The JALIRUPA concept centres on fostering a sense of community through direct, face-to-face interaction rather than digital engagement. This concept highlights the importance of creating spaces where visitors and artists can connect and interact, thus enabling active participation and dialogue. The exhibition aims to cultivate meaningful relationships and a collaborative art experience. Through interactive features, visitors can discuss the artworks with both fellow visitors and the artists themselves. Such interactions are intended to lay the foundation for community building; however, sustained interaction must first be established to realize this sense of community. The following interactive features proposed for the Jalirupa platform are based on research findings regarding user experiences and needs.

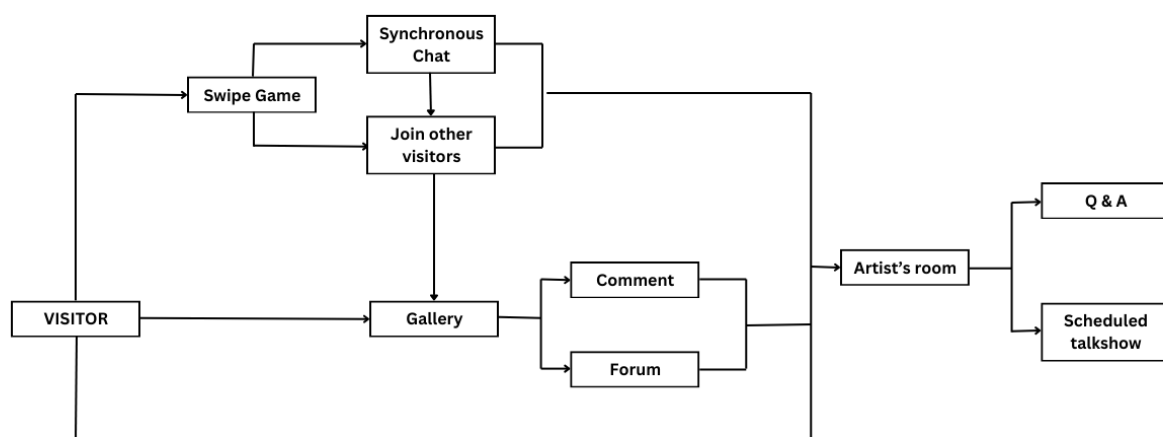


Figure 2: Visitor Flow

Figure 2 illustrates the proposed visitor flow, where visitors can directly enter the gallery or artist's space, or opt to try the swipe game. This swipe game can facilitate visitors in meeting and then interacting, either through direct chat or by visiting the gallery or artist's space together. This shared experience is expected to alleviate feelings of solitude when visiting an online art exhibition.

Swipe Game

The development of interactive features in online art exhibitions faces challenges in creating a vibrant and engaging community atmosphere. In this context, interactive features have the potential to enhance opportunities for communication among visitors. However, these features are often less effective without initial user engagement to initiate conversations. Therefore, to address participation barriers, an additional feature in the form of a swipe game has been designed as a social meeting mechanism that helps users connect with others who share similar interests or goals. This feature facilitates initial matching and provides a stimulus for the development of more meaningful interactions.

This initial matching resembles dating apps like Tinder, Bumble, and OK Cupid, which connect individuals with similar interests or goals. However, in this context, it relates to shared tastes and styles in visual arts as a preliminary form of bridging social capital. Noviani, Manasika, and Anggrahitaa (2024, p. 46) found that dating app users leverage digital intimacies as resources to expand their networks, enabling them to gain certain benefits. The purpose of the swipe game as a feature of this virtual exhibition is to connect individuals with shared interests or goals, with the hope that these encounters will stimulate productive interactions within Jalirupa.

Synchronous Chat

The synchronous chat feature in online art exhibitions serves as a medium for interactive communication among visitors within the virtual exhibition space. Through this feature, real-time conversations can take place between visitors who happen to be in the same booth. These virtual booths may encompass multiple artworks grouped based on the similarity of artists or artistic styles, providing visitors with the opportunity to share perspectives and engage in direct discussions. With this feature, visitors are made aware of the presence of others in the space at the same time, fostering a collective experience that closely resembles the dynamics of a physical art exhibition.

This synchronous chat feature serves as a facility with the potential to encourage meaningful interactions, although many visitors' express hesitation in initiating it. However, when visitors decide to utilize this feature, it can become an effective means of expanding interactions between visitors and other individuals, as well as with the artists. The interactions that occur within this context have the potential to create a more constructive dialog space and enrich both the social experience and aesthetic understanding for all parties involved.

Asynchronous Chat

Asynchronous chat refers to communication that occurs with a time gap between participants, allowing them to interact or discuss without the need for direct or real-time interaction. Several forms of asynchronous chat are proposed as follows:

1. **Forum.** The forum functions as a virtual space where visitors can engage in discussions about specific artworks, styles, or artists. This platform allows users to share opinions, ask questions, and provide feedback related to the style, works, and artists. Active participation of visitors is recognized through mechanisms such as badges, which acknowledge their contributions and engagement within the community. As their involvement increases, users may gain certain rankings or privileges, enabling them to moderate discussions and exercise greater control over content and interactions within the forum.
2. **Q & A with the Artist.** Visitors can ask the artist questions on the Artist's Page regarding the exhibited work, concepts, processes, or other projects. These questions will initially be answered by an AI system to reduce the artist's workload in answering them individually and to ensure no questions are overlooked. Questions requiring specific responses can be answered directly by the artist asynchronously, depending on their available time.

Both forms of asynchronous chat provide greater time flexibility for both visitors and artists. They allow visitors and artists to interact without the need for both to be present at the same time. The use of AI technology to respond to more general inquiries addresses the curiosity of visitors and enhances work efficiency for artists, while still maintaining a personal touch when visitors ask about specific matters that are answered directly by the artist. This use of AI technology also facilitates multilingual question-and-answer exchanges.

Artist's Page

In this feature, the artist can convey their point of view regarding the artwork, process, concept, and other aspects they wish to communicate in a curated manner through various media. The artist can utilize media such as videos, photo collages, interactive media, or others. The curatorial process, in this context, is crucial to ensure that the elements communicated by the artist accurately reflect the ideas and meanings they intend to convey.

This feature allows artists to hold live chat sessions through platforms such as Zoom, Google Meet, or a calendar for either online or in-person discussions. These sessions can be conducted from before the exhibition's opening until after it ends, at least until the next exhibition takes place. This approach aims to maintain engagement between visitors, the artwork, the artists, and the exhibition, as community building will not succeed without continuity. Theory.

Conclusion

Based on the Human-Centered Design approach, this platform is developed with a focus on the interaction needs of users, both visitors and artists. Both visitors and artists demonstrate a need for mutual engagement, despite the barriers to initiating these interactions. The development of the Jalirupa platform marks the initial step towards creating a more interactive and inclusive digital art exhibition experience. Its online implementation complements conventional exhibitions, offering broader exposure and overcoming geographic limitations. However, the development of Jalirupa is still ongoing, and the proposed features have not yet been proven to fully meet the interaction needs of users in online art exhibitions.

The interactions facilitated on the Jalirupa platform need to be continuous, considering the importance of fostering close relationships between visitors and artists. In this context, consistent and open interactions can create space for discussions, the exchange of ideas, and a deeper understanding of the exhibited artworks. Thus, the platform functions not only as a digital exhibition space but also as a medium for building a more inclusive community, where visitors can engage more deeply in the artistic creation process and critical reflections on the art itself. Such a community has the potential to bridge, or at least reduce, the gap between society and art, opening opportunities for broader participation in the art world, while enriching the aesthetic experience more comprehensively.

References

- Blumer, H. (1986). *Symbolic Interactionism: Perspective and Method*. University of California Press.
- Cahaya, R., & Widjono, R. (2023). Exploring dialogue and interactions in online art exhibitions: Perspective from artists and visitors. In *Atlantis Press* (pp. 62–69). <https://www.atlantis-press.com/proceedings/imdes-23/125993715>
- George, A. (2015). *The curator's Handbook: Museums, Commercial galleries, Independent Spaces*. Thames and Hudson.
- IDEO. (2015). *The Field Guide to human-centered design*. Design Kit. https://d1r3w4d5z5a88i.cloudfront.net/assets/guide/Field%20Guide%20to%20Human-Centered%20Design_IDEOorg_English-0f60d33bce6b870e7d80f9cc1642c8e7.pdf
- Noviani, R., Arina Manasikana, R., Dayu, D., Anggrahita, A., Noviani, Manasikana, R., & Anggrahita, R. (2024). Digital Intimacies and the Construction of Social Capital in a Heteronormative Society: A Study of Dating App Users in Indonesia. *ASEAS*, 17(1), 45–61. <https://doi.org/10.14764/10.ASEAS-0104>
- R. Rina, Pengalaman penghayatan karya seni dan kehadiran virtual. (Research report) pp. 27-28, Tangerang, Indonesia: UMN, 2021.
- R. Rina, Perupa sebagai pengguna dalam pameran karya seni daring. (Research report) pp. 13-18, Tangerang, Indonesia: UMN, 2022.
- Widjono, R. (2020). Analysis of User Experience in Virtual Art Exhibition During Pandemic. In *Atlantis Press* (pp. 93–99). Atlantis Press. <https://www.atlantis-press.com/proceedings/imdes-20/125947174>