Designing for Aesthetic Experience

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Digital ways of representing fine art are significantly changing the way art is put on display. New exhibition formats including digital projections of fine art allow us to rethink how we can use technology to create art experiences. However, replicating the existing relationships between art, meta-text and visitor might not be the right way. In this project, I explore new ways of creating technologically enabled experiences with fine art paintings based on John Dewey’s concepts of aesthetic experience and expression. Utilizing a constructive design research approach, I create concrete prototypes and designs that expand research on aesthetics of interaction to propose new ways for museums to create art experiences.

CCS Concepts: • Human-centered computing → Interaction design theory, concepts and paradigms; • Applied computing → Fine arts.

Additional Key Words and Phrases: art experience, aesthetics of interaction, expression

ACM Reference Format:

1 INTRODUCTION

Digital ways of representing fine art are significantly changing the way art is put on display. The white cube paradigm employed by fine art museums and galleries worldwide seems to be the default way of putting art on display, however, challenged by critique pointing at its ritualistic nature, which severely limits the way art can be experienced [5].

This critique applies best to exhibitions of traditional art forms like painting and sculptures. Indeed, many new media artworks are in themselves challenging the way we engage with art, through interactivity, bodily movement, over distance, or through engagement over time. Many other art forms are similarly engaged in expanding how we think about and engage with art. However, a particular overlap between the new media art world and museology has been emerging.

Examples of this are seen in the emergence of immersive art experiences, like those of Grande Experiences “Van Gogh Alive”1, Van Gogh Museum “Meet Vincent”2, the Lumiere venues from Culturespaces showing Klimt, Van Gogh, Dali, Gaudi and others3. These immersive fine art experiences are mirrored in art venues like Artechouse4, Nxt Museum5, Wonderspaces6 and Superblue7 that are especially suited for presenting artworks that are native to the immersive exhibition format. Such experiences have shown to be very commercially successful [12].

1https://grande-experiences.com/van-gogh-alive/
2https://meetvincent.com/
3https://www.culturespaces.com/
4https://www.artechouse.com/
5https://nxtmuseum.com/
6https://www.wonderspaces.com/
7https://www.superblue.com/

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However, this is not the first time immersive media experiences have been employed in the art museum setting. Earlier examples aim, for example, to give the visitors access to collection databases, send them on a virtual tour, give them access to historical artworks that are not physically available, or provide annotations to the artworks.

The immersive exhibitions are a step away from this, and towards more visceral experiences of the art, through the sheer size of the presentation, the added soundscapes, and added animations. Nevertheless, these experiences highlight the opportunities of using digital technologies to challenge the white cube paradigm, its rigid ritualistic space, its restraint on the body, and its insistence on the “right way” of viewing art. The multi-modal and encapsulating space of these experiences creates a wide design space for museums, where space, senses, body, artworks, and sociality all are malleable. But it begs the question, whether simply enlarging artworks and adding music is the best way we can use technology to create new art experiences around paintings.

Art museums exist to conserve and preserve our art-historical legacy, as well as putting it on display for contemporary and future populations to experience it, learn about it, and be touched by it. However, when showing digital reproductions, how is that anything but a cheap version of showing the original artworks? The commercial art experiences seem to be made more for the spectacle itself, rather than the artworks. In contrast, the “Meet Vincent” experience produced by the Van Gogh Museum in Amsterdam, seems to focus on contextualizing the images on display, through supplementary exhibits with biographical material. However, the role of the paintings themselves, being large centerpieces of the experiences, is not all that different from what you expect from a regular museum experience, except that the original material qualities are removed, but to some extent replaced by a detailed view achieved through the sheer size of the projections.

Given the possibilities that the medium grants us, I believe it is necessary to reconsider the role the artwork is given in the experience. Instead of simply reproducing the regular museum’s relationship between artwork, space, meta-text, and audience with digital reproductions we should use the potential of the medium to present some of the knowledge in a way that acknowledges research done on aesthetics in the interaction with technology.

“The needs of daily life have given superior practical importance to one mode of communication, that of speech. This fact has unfortunately given rise to a popular impression that the meanings expressed in architecture, sculpture, painting, and music can be translated into words with little if any loss.” According to Dewey [4, p. 106], this might even be a necessity if we want to communicate certain aspects of art.

Any interaction with digital products has an experiential and aesthetic aspect [6, 10]. However, what if this experience was not just the secondary result of using a product to achieve a certain functionality? What if the experience of interaction could carry the meaning in itself?

This project is co-financed by the Munch Museum in Oslo, Norway, and will therefore use the art of Edvard Munch as a case for these explorations.

This leads to the following research question: How can we create technology-based designs that allow the museum visitors to have an aesthetic experience thematically related to Edvard Munch’s work?

Related to this question are two broader questions each creating a trajectory in two different domains. Museology: What is the role of original artworks in creating art experiences? HCI: How can we use technology to design experiences that are expressive, and carry particular meaning?

2 THEORETICAL BACKGROUND

John Dewey’s “Art as Experience” from 1934 has had a wide influence on the HCI community. While originally written about art, Dewey’s view of experience as inherently situated and embodied has been applied successfully to encounters
with technology as well [10]. For an extensive review see [1]. According to Dewey experience is constructed in a continuous doing-undergoing between one’s own body and the environment [4]. This also implicates both body and environment in the experience of artworks. The environment is both regarded as a physical and social space and the body as both mental and physical states as well as integrating previous experience. Therefore, the experience of artworks happens in the same realm as that of everyday experience. Something that distinguishes the art experience from the everyday experience is whether you have an aesthetic experience. According to Dewey, “[…] we have an experience when the material experienced runs its course to fulfillment” [4, p. 35, emphasis in original]. Dewey argues that an experience can be had both intellectually and through practical action. He argues that between the poles of aimlessness and mechanical efficiency you find “courses of action in which through successive deeds there runs a sense of growing meaning conserved and accumulating toward an end that is felt as accomplishment of a process.” [4, p. 39]. Dewey argues that having an intellectual experience has aesthetic quality, but it differs from distinctly aesthetic experiences, which is that of art. "In an intellectual experience, the conclusion has value on its own account. It can be extracted as a formula or as a 'truth,' and can be used in its independent entirety as factor and guide in other inquiries. In a work of art there is no such single self-sufficient deposit. The end, the terminus, is significant not by itself but as the integration of the parts. It has no other existence.” [4, p. 55].

This project aims to develop a methodology for evoking an experience in the visitor, not just one of aesthetic quality, but a distinctly aesthetic experience. This is according to Dewey achieved by the artist through expression that in turn creates an expressive object. However, this project challenges Dewey’s reservation of aesthetic experience for art, and explores how we, through design, might create similarly expressive objects, and can be used as a design tool as well to evoke an emotional response.

Some of the qualities Dewey relates to artworks, may indeed be reserved for works that are the results, of artistic expression, but the most important quality for this project is that of communication, “Because the objects of art are expressive, they communicate. I do not say that communication to others is the intent of an artist. But it is the consequence of his work – which indeed lives only in communication when it operates in the experience of others. If the artist desires to communicate a special message, he thereby tends to limit the expressiveness of his work to others – whether he wishes to communicate a moral lesson or a sense of his own cleverness” [4, p. 104].

In this project, the intent is indeed communication, and whether expressiveness will need to be limited remains to be seen. Dewey discerns between statements, which is what sciences normally does by pointing to that which leads to an experience, and on the other hand, expressions which constitutes experience. The project will explore how the tools of the artist, can be used, not to express ourselves, but to make expressive technology, that evoke an emotional response, in the image of research made on Edvard Munch’s work. Using expressive technological designs alongside the art, we can create other experiences that highlight or mirror certain qualities of the original artworks, and that have the potential to evoke aesthetics experiences in the visitors.

In HCI the idea of aesthetics is tightly coupled to the concept of interaction gestalt [9] and pragmatist interaction aesthetics [11]. Namely that the interactive relationship between human and technological system, has an aesthetic in itself. The interaction can be understood through its attributes which in turn are responsible for the experiential qualities of the interaction [8]. However also the performance of the interaction is part of shaping the social aspect of the experience, as the user of a given system takes the role of both operator, performer, spectator [3].

The insights that the research above presents into the aesthetic qualities of interactions with technological systems will be the foundation of the designs made in this project. By designing interaction attributes and visitor performance
as well as visual and sound aesthetics it is possible to create installations that let the visitors experience qualities in
interaction that are related to the world of Edvard Munch, rather than merely indicating them through statements.

3 METHOD

In this project, I employ a constructive design research methodology [7]. Construction means designing and creating
concrete objects and installations. This is a future-oriented exercise, aiming to propose and investigate how particular
prototypes and designs open up for new kinds of experiences.

Part of the project is done in the field, part in the lab. The first part of this project has been a lab experiment about
the role the material (physical or digital) of paintings plays in the art experience. The current part, where I am stationed
at the Munch Museum, naturally makes use of this context, to create design experiments that can be evaluated within
the museum context.

Overall the project can be seen in light of what Stolterman & Wiberg calls concept-driven interaction design research
[13]. The aim is not necessarily to create a design best fit to meet a particular demand, but more importantly one that
challenges existing practices to investigate what happens when we go new ways. The main aim is to challenge theory
and gain new theoretical perspectives through practical experimentation. However, that does not necessarily mean that
the designs cannot be useful in their own right.

The shifting context allows for asking different kinds of questions. Experiments embedded in the museum context
allow for investigating the sense-making of the designs in context, however in a complex social setting where experiential
factors might be more difficult to single out. The controlled environment of a laboratory experiment, on the other
hand, allows for diving deep into a particular aspect of the aesthetic experience, like the influence of the material
manifestation on the art experience. These design experiments will be supplemented by a few more analytical studies
of related projects, to bring my own projects into perspective.

In all cases, the goals are explorative, in an attempt to expand on existing theory about human-computer interaction,
experience, and art.

4 PROGRESS

Since the Ph.D. project started in October 2020, I have conducted an experiment that explores the experience of paintings
as they are represented in a physical condition, in a digital 2D condition, and a digital 3D condition, respectively. This
experiment was created early on, to investigate how the representation of paintings in digital media alters the art
experience.

One of the most important findings is how the affordances of the manifestations place the painting in different roles
that modulate the social role and cultural value of the painting. The different material conditions of the paintings alter
the availability of information about certain aspects of the painting, such as size and weight, as well as the affordances
for interaction with the paintings. A particular interaction aesthetic emerges from these affordances, which is part of
casting the painting in a role in a more complex social and performative sense. In the end, this has effects such and
shaping the expectation of value or shifting the focus between the experience of interaction and the pictorial qualities
of the artworks. The results from this experiment are currently being written as a paper. At the time of writing this
paper, I have two ongoing projects.

Together with the Munch Museum, I am developing a museum experience that lets the visitor immerse themselves
in a multi-modal installation, that reflects topics from a Ph.D. project done on a particular series of Edvard Munch’s
paintings, known as “The Green Room”. In this research, the expressivity and the relation between the paintings are

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presented through themes such as instability, avatars, and poisonous feelings. The aim of this installation is to use expressivity to evoke an experience in the visitor related to those themes, and in that way, letting the visitor tacitly learn about Munch’s work. The concrete design is a 40 sqm room in the new Munch Museum, due to open in autumn 2021. Upon entering the room, the visitor realizes the dim lightning and unsettling music playing in the background. On the wall next to the entrance a poem sets the scene, by replacing the introductive text of the other exhibitions in the building, with a set of puzzling statements. As the visitor moves further into the room, a (video) mirror image appears next to them on the wall, gradually transforming into a painted silhouette. The silhouette follows the visitor into the adjoining space, where the walls are covered from floor to ceiling by projections in a traditional CAVE format. On each of three walls, a room painted in the style of Edvard Munch is projected, and the visitor’s painted silhouette appears in each of them. The rooms are unstable, slightly changing in size, color, and texture, and as the visitors move around the space, they are tracked by depth cameras and the silhouettes follow and merge and break with the silhouettes of other visitors in the room. In the wall where the visitor entered, a small hallway leads away. As the visitor enters their silhouette dissolves and they step in front of a projection of an Edvard Munch painting. The painting is of a room similar to the three projections, but it is inhabited by a female figure standing next to the corpse of a man, who lies bleeding on a sofa. By the end of the small hallway, a short text and a series of images let the visitors know that the paintings and the projected rooms are related to a series of Munch’s paintings all taking place in a green room. From here the visitor can exit the experience (see figure 1).

![Fig. 1. Two design sketches from the ‘Green Room’ project drawn by Dina Patey. The audience enters the experience on the right, where they are first met with a poem setting the scene. In the space in the back is the immersive environment, where the audience will appear as avatars in the rooms projected on the walls. As they exit on the left side, they pass by one of the paintings from ‘The Green Room’. Before they exit they are met with more information about the series.](image_url)

This design exemplifies the approach of using expressive design to let the visitors experience an aspect of Munch’s universe. The design of the experience is shaped by the research about this particular series of paintings, but instead of presenting the results of the research in a textual summary, we are letting the visitors experience the themes on their own bodies. The design process is characterized by the use of experience prototyping [2]. Using various means ranging from slideshows and video to room-scale mock-ups and interactive prototypes, we are iteratively working through different elements of the experience. These prototypes are evaluated internally by the design team, and by external groups. Throughout the process, we are involving non-frequent museum-goers, museum club members, museum professionals, and professionals in the field of interactive and immersive experiences. These formative evaluations continuously shape our understanding of the experience and inform our design decisions. Finally, this constructive design research project will be followed by a summative evaluation including interviews with visitors, investigating the resulting visitor experience.
Concurrently, I am interviewing the team responsible for a new forthcoming exhibition at the Munch Museum about how they have used interactive technology to tell a story about Edvard Munch’s life and practice. In this exhibition, Munch’s artworks play a minimal role. The only original objects are non-art objects found in Munch’s house. However, even these objects are moved to the edge of the exhibition space. Taking the floor is a range of technology-enabled interactive experiences, that illustrate aspects of Munch’s life and practice. Among other things the visitors can sit as a model for a shadow figure painting their portrait or they can try out a simulated lithography process. My interest in this exhibition is again, how interactive technology, is used in an approach where the visitors are invited to experience aspects of Edvard Munch’s life, rather than being told about it. I see it as a way for the museum to convey the expert knowledge they possess about the artist using what Dewey would call expressions and relying less on statements. Also, these interviews will be supplemented with interviews with exhibition visitors.

5 TRAJECTORY

In the next few months, I will be focused on finishing the two projects outlined above, and in turn, write about them. The research-through-design project will likely be followed by a second iteration, or a more detached project, to follow up the learning from the first project. Finally, a third design will follow, further developing this idea of using expressivity as a means of creating art experiences.

At the same time, I will be diving into particular aspects of the experience, such as the necessity of having an experience and (its relation to immersion) for this type of communication to work at all. A final aspect to explore is how this approach significantly changes the role of the original artwork, in such art experiences.

6 CONTRIBUTION

The expected contribution of this project is to develop an understanding of how the design of expressive technology can be used in establishing new relations between museum visitors and original artworks. This is done through the development of designs that proposes such new relations and by analyzing related projects. This is relevant for museums that want to develop new visitor experiences that both align with their goals for art education while also broadening their offers and thus appeal to people that normally sit outside the core target group of art museums. Additionally, this extends on and concretizes research on art experience and aesthetic interaction to further the research agenda towards a greater understanding of the capabilities of experience design.

REFERENCES


