

ex:museum

An explorative interaction design diploma
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Institute of Design,
The Oslo School of
Architecture and Design (AHO)

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NASJONALMUSEET

DESIGN, ILLUSTRATIONS AND CONTENT
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**Heritage
should not be
inaccessible,**

**it should
be a part
of everyday
life!**

RESULT AND IMPACT

We designed and built an interactive communication platform called “LOOK” for the National Gallery in Oslo. LOOK was developed in collaboration with the National Museum and Halogen.

The platform invites people to look at art, and at art people. It is a video link between the inside of the gallery and a popular location in Oslo, that enables people outside the museum, or “outsiders”, to peek in.

The National Gallery will be able to reach out to the desired audience at any location. Our final user test showed that our platform was engaging.

CONTEXT AND GOAL

Many in the younger generations look upon classic museums as ancient dusty archives, still and unchanging. They have fast entertainment at their fingertips, and many museums have therefore realized they must lure the audience in by shouting louder and making art more relatable. This diploma looks into how interaction design can be used to better engagement and communication between those who deem the National Gallery as boring and the institution itself.

PERSONAL MOTIVATION

Classic museums like the National Gallery, where the National Museum of Norway displays the works of old masters like Edvard Munch, are deemed tedious by many of our friends. We saw it as a design challenge to make such a place attractive enough for them to notice.

Our collaborator Halogen has a Systems-Oriented Design project tied to the new National Museum opening in 2020. They have made a user journey based on the old National Gallery, which is the arena in which we have designed for. In this future user strategy* for the museum experience, we saw a chance to contribute with something tangible

and testable as the National Museum has many strategies, but fewer visible realized ideas.

HOW

Our criteria for success has been engagement. Through our research, we identified opportunity areas for inter human communication, digital and tangible interaction on both the inside and the outside of the National Gallery. These led to hypotheses which we categorized and tested early and often. These explorations outlined our direction for the next step forward and identified a set of tools we brought with us to engage our target group.

REFLECTIONS

We have drifted naturally towards exploring technology and its possibilities, but we also wanted this diploma to be driven by human factors, user insight and wide experimentation. It has been a delicate balance, also trying to find our place between making art or designing. Contribution-wise, the project offers the National Museum a clear solution on how they can give newcomers a peek into their world of art. There are of course many unconfirmed hypotheses that still needs testing over a longer period of time.

* You can find their user journey called Publikumsreisen - Fra sofa til sofa in the digital appendix, as "fig_2". Their research presentation, we call "fig_1".

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Amalie has her bachelor in Graphic Design from Kingston University.

ART SOCIOLOGY

is a subfield of sociology concerned with the social worlds of art and aesthetics.

AUGMENTED REALITY (AR)

is computer generated content overlaid on a real world environment.

EXPERIENCE

is an event or occurrence which leaves an impression on someone.

EXTENDED REALITY (EXR)

refers to all real and virtual environments generated by computer technology and wearables.

IMMERSIVENESS

notes or relates to digital technology or images that actively engage one's senses and may create an altered mental state.

MIXED REALITY (MR)

digital interfaces but also includes environmental input, spatial sound, and location.

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CHAPTER OVERVIEW

We will introduce you to current issues, personal motivation and the relevance of this diploma.

1

introduction



project overview

CURRENT ISSUE

Museum visits in the 21st century call for a new approach. There are new possibilities for installing exhibitions, telling stories and drawing people into the museum. New possibilities offered by technology affect visitors' expectations and behavior before, during and after a museum visit".

– Driebit and LavaLab*

*("Let art tell stories!", n.d.)

‘ex:museum’ is an exploration of how interaction designers can work within and outside the museum. We have designed a platform where people can engage interactively with the museum, resulting in a shared social arena for discussions and entertainment.

RELEVANCE

Classic museums are in many ways archives for the collective memory of a people. Some manage to stay relevant as Peter Weibel sees it in his "The Museum of The Future" (2006): "The museum has slowly discarded its reputation of being an archive for dead things or, as Paul Valéry suspected, an instance of suffocated life. The concept of the museum has changed: it is no longer a place of quiescent time, but rather a place of events." Other museums are still deemed uninteresting to many.

We wanted to contribute to keeping the National Gallery of Norway relevant, and our process has highlighted several opportunity areas. Our solution is a suggestion on how to do this. It is based on the design studio

"Halogen's" future user journey for the new National Museum of Norway (est. finished in 2020), but realised in today's National Gallery. With our research, we shaped this suggestion utilized into a tangible experience.

VISION

Many who have not been to the museum think it is an institution full of unspoken rules. Therefore we wish to bridge the mental and physical gap between the inside and outside of the museum. We want to design an engaging tangible experience for those who are not in the museum.

MISSION

ex:museum's mission lies in the intersection of the digital and the physical space; it extends the museum experience beyond the physical walls of the National Gallery. 61 percent of the Oslo population have little or no knowledge to the National Museum (Publikumsreisen, 2017). It is in the hands of the ones who are responsible for cultural heritage to make it accessible to the public, and ex:museum enables them to do this. By collaborating with the National Gallery, we saw it as our challenge to make

heritage accessible and relevant to the public. Also, it is a common opinion amongst our target group that the National Gallery is boring.

A PORTAL EXTENDING THE MUSEUM

ex:museum is a portal between the everyday life and the slow and reflective world of cultural heritage. It demonstrates how distributing the institution can be valuable as a way to reach those who have forgotten that the museum is a place to be. Ex:museum uses technology to drive human interaction, with the ambition to engage and surprise groups and strangers to interact with each other. It is a site-specific experience that enables visitors to engage with non-visitors of the museum.

THE LINE BETWEEN ART AND DESIGN

Finding the role of an interaction designer in a museum has been one of our primary research questions. Where is the line between art and design, and where do we position ourselves? We found our position was to communicate content rather than trying to create content that could take the attention away from what is actually on display in the National Gallery.

brief

Make the National Gallery more accessible, relevant and engaging for those who deem old paintings as dull, or forget about it as a place to go.

Create and test a working prototype, aiming for a 'word of mouth effect' and engagement around the permanent exhibition in The National Gallery.

INTRODUCTION

brief

COMPETITION & THE STATE OF THE ART

How can art compete with social media and its push notifications? Can we utilize similar mechanisms?

DESIGN AN INTERVENTION

Enable a physical meeting point between people and bring heritage into their everyday life in a museum context.

BE CONCRETE

Make the National Gallery more approachable and give them a concrete suggestion on a solution based on their user journey provided by Halogen.

CHAPTER OVERVIEW

We will have a look at what the National Museum and the National Gallery is, and the state of the art within our field.

2

background

the national museum/ gallery

It is part of the larger institution the National Museum of Norway. We refer to the National Gallery (or the NG) as a physical place from now on. The National museum is the institution, consisting of several museums and departments.

The National Gallery houses a collection of our cultural references and is a museum where they see it as their mission to make art experiences accessible, both physical and intellectual.

“Culture is viewed as an essential axis of developmental processes and museums as key tools for the exercise of cultural citizenship”.

– Querol, Kallio & Heinonen, 2017

ITS VALUE

Those who work in the museum, curators, for instance, might say something like this on the importance of art: To have the same cultural references is important to build the nation. It can encourage the feeling of belonging to society if you know the same things.

We agree to this kind of opinion, and from our expert interviews we have found a common response to why the arts are an essential part of being human; art can make you stop, look harder and get a broader understanding of society.



DIGITALIZING ITS CONTENT

The National Gallery has hundreds of thousands of objects, but only a few highlights are displayed at a time. Today the National Museum is digitalizing and making all collections more accessible online.

They even made an online browsing tool together with the design studio Bengler, called VY. Its purpose is to make it easier for people to browse lots of paintings.

61 percent of Norwegians have little knowledge of what the National Museum is.

There is limited knowledge about the National Museum amongst the Norwegian population. 61 % report they have little knowledge, while only 10 % says they have good knowledge (Gran & Wedde, 2012). Hence there is a high potential to increase the knowledge of the National Gallery as a place to visit.

STRATEGY FOR 2016-2022

The National Museum aims to be all of Norway's museum, and create a wide enthusiasm for the new National Museum. Their vision is to create new generations of art enthusiasts.*

A GOOD PLACE TO BE

“The new museum should be a **versatile meeting place** and a good place to be”.

“We will excite and provide good **public experiences through** the design and **content of the building**”.

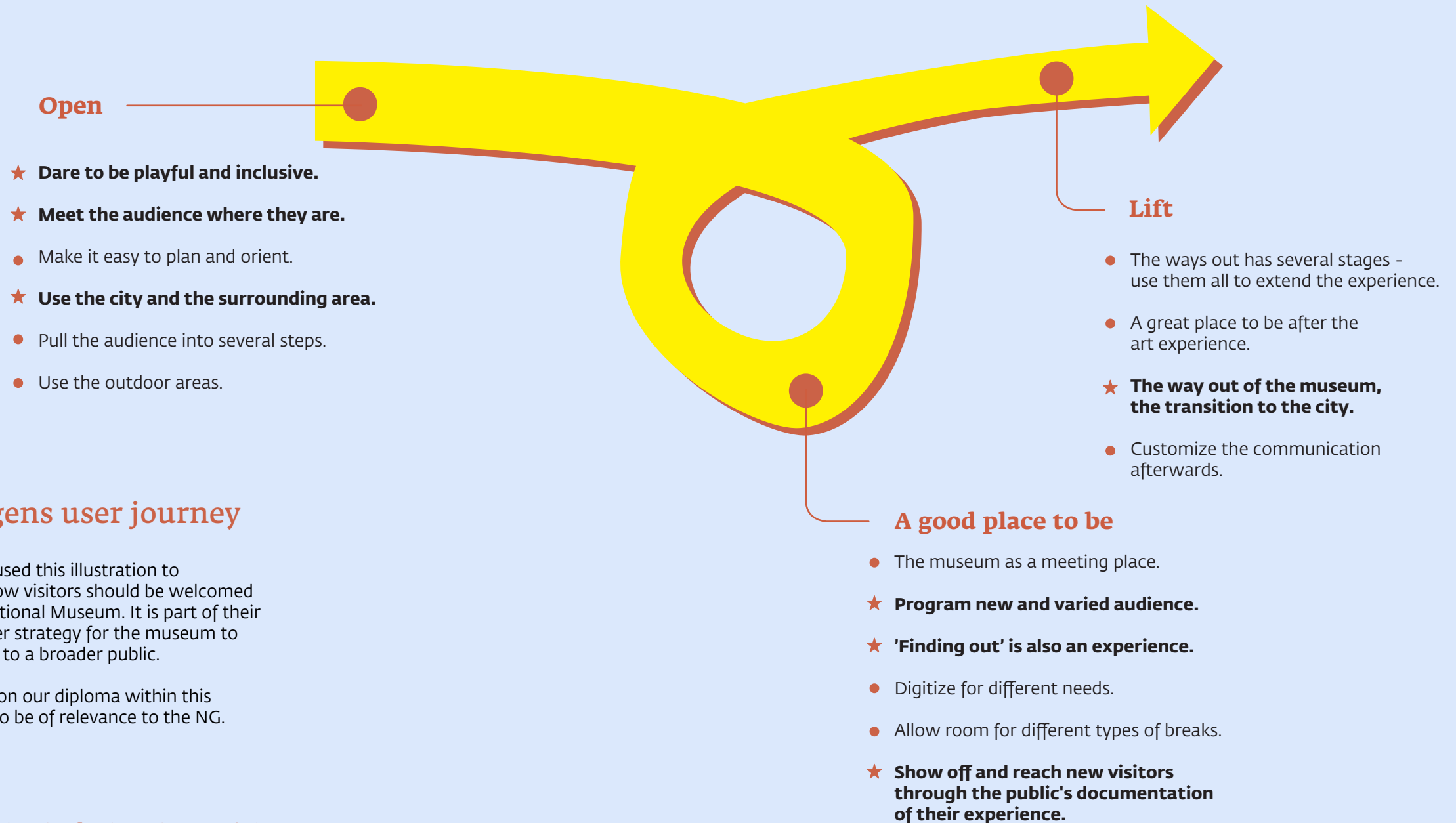
PUBLIC EXPERIENCES

WIDE AUDIENCE

“We will develop **innovative exhibitions for a much larger and wider audience**”.

* from The National Museums "Strategiske mål 2016-2022"

★ We have highlighted the points where we position our project.



Halogens user journey

Halogen used this illustration to explain how visitors should be welcomed by the National Museum. It is part of their future user strategy for the museum to reach out to a broader public.

We position our diploma within this strategy to be of relevance to the NG.

*Find Halogen's work as fig_1 (research presentation) and fig_2 (user journey) in our digital appendix.

WHY DO THEY VISIT

Museums and galleries are places people visit expecting an 'art-experience'.

An 'art-experience' suggest something different and offers a place for reflection. What is a successful art-experience for those who are bored by the traditional oil paintings?

In an early meeting with the National Gallery, Dr. Nils Ohlsen said that the National Gallery seeks to be a place where people have long-lasting experiences with art. Studies show that people are not spending a lot of time on one single oil painting, but is more interested in wandering and experience the museum as a whole (Carbon, 2017). Fiona Romeo's* teachings on how people do not follow the meticulously designed linear narratives in a museum were key points of insight in our process: "Even if exhibits could be presented sequentially, visitors would dip in and out, circle back. It's much more of a dance" (Fiona, 2013). Therefore we need to design a non-linear experience, where the visitor themselves decide what they spend time on.

*previous Director of Digital Content & Strategy at Museum of Modern art, New York and Head of Design & Digital Media, National Maritime Museum, London.

WHAT DO THEY GET FROM IT

A museum is supposed to represent society's collective memory, but memory is a short-lived creature in the time we live in.

What is the point of having a physical museum when we have photos, videos, and articles available to us on our phone, at home or on the go?

Daniele Quercia of Yahoo! Labs suggests that we are happier and more creative when we change our atmospherical stimuli on a daily basis (Quercia, 2014). Using ourselves as examples, we got much more productive by switching between many places to sit and work on the diploma.

Museums for classical art add lots of value to the paintings by placing them in a context. When you walk around and look at them together in a dignifying building you get a more significant piece of the story behind the painting.

“All museums are adding restaurants, shops and things that are not about the core activity of a museum, but that are places that people want to gather ... But what if we also engage them in the public place, which is a place of encounters, disruption, learning and quality exchanges?”

– Beatrix Ruf

Extending the National Gallery to a

public space

How can the National Gallery distribute the art beyond the museum walls?

The museum is public, and more often than not, we find it's the people that make public spaces interesting. They are the audience in the museum looking at others who are also an audience. Often when you go to a museum, you go together with friends, as we found when casually asking around. It is a social experience as you discuss what you see, and that which is supposed to be worshipped as somber and beautiful art can quickly become weird and the cause of laughter. People want good experiences together, as those are the ones you remember. Do you have the best memories from shared experiences or alone?

Having said this, the museum houses many different types of people, and some would rather contemplate on paintings quietly and treat them with dignity. There is no right way of experiencing art, but it should be taken in, as it can evoke feelings, ideas, and discussion.

Paintings are rich with timeless themes. Therefore most paintings should have the ability to engage the visitor to become an active viewer.

Social interaction might be the extra spark to enable active viewing. The designer's role here could be to design conversation starters, dilemmas and entry point to enable brilliant discussions. That way, the museum can make people come there to question society as they once did when the old paintings were contemporary.

Beatrix Ruf, the director of the Stedelijk Museum of Contemporary and Modern Art and Design in Amsterdam, argues that museums should engage people in the public place "... which is a place of encounters, disruption, learning and quality exchanges" (Siegal, 2018).

designers in the museum

In a museum, designers can be storytellers, and or digital mediators. They should bring tech forward, but humans first.

“Going to a museum is a social experience, with the potential to tell stories in both time and space and offers design opportunities for us to design non-linear digital narratives”.

– Fiona Romeo (Romeo, 2013)

AS STORYTELLERS

Museum visits call for a new approach to stay relevant for the visitors that see the smartphone as an extension of themselves. Most people today are walking around with a smartphone that offers them storytelling and non-linear experiences 24/7. Push notification is disrupting physical presence, with the buzzing and the dinging are calling for people's attention.

AS DIGITAL MEDITORS

The digitizing of the museum is evidence that the National Gallery aims to stay updated on ways to share art experiences.

In our field of interaction design, AR is emerging as a media platform that offers new possibilities to display information on all physical surfaces. AR is commonly viewed as a digital visual layer on top of the physical reality and is often used to only display information. In this diploma we have broadened up the term, and defined it as “extended reality”; were AR creates coexistent spatial realities, in which anything is possible – anywhere. Using extended reality, the museum can become dynamic and personalized, without changing the layout of the physical exhibition.

ARTIST OR ENABLER

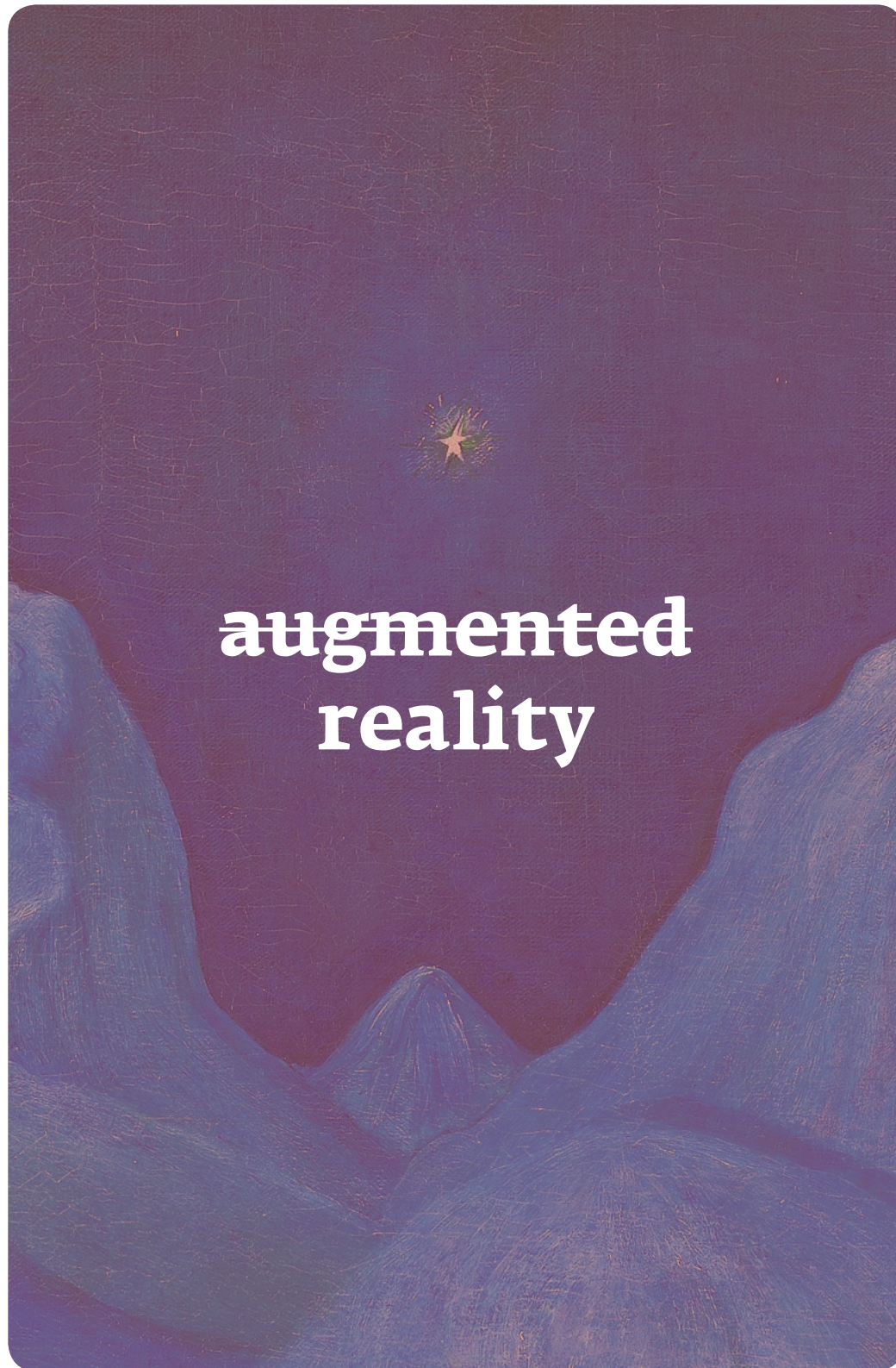
We learned that AR does not mean advanced and immersive, but rather enhance and lift an experience. To augment means to add in order to improve. By prototyping rapidly we found our role in the museum; designing an interaction portal between the National Gallery and a public space. We wanted to add social interaction between museum guests and outsiders to improve both of their experience.

We need to be mediators in the museum, to create an entrypoint for personal reflection and understanding •

It was important to us that one's attention should lay on the museum, not the technology. Immersive and advanced technology was our entrypoint to this diploma, as an enabler for us to design beyond the screen; to design for physical presence.



**for those who
find it boring**



FROM AR TO REALITY

From the beginning, we had a hunch that going for AR in the museum was the way to go, as we could have the possibility to add an invisible, but an otherwise noticeable layer of content besides the art hanging there. We are inspired by Kevin Slavin* on how AR gives us new ways of seeing, and not new things to see. He argues that AR should be augmenting with the body, not the eye, meaning it is making you aware of the world around you. Not solely from a lense in front of you (Slavin, 2017). As we want to bring the attention away from screens, and aimed for a working prototype as an outcome, we analyzed the state of the art with augmenting data using smartphones.

CHANGE OF CONTEXT, CHANGE OF MEANING

"Museum objects are treated as objects with a digital and physical dimension. Their meaning can change when the context changes, for instance when a museum object is exhibited or mentioned in a story on a website. In this way, objects and stories can acquire new meanings again and again".

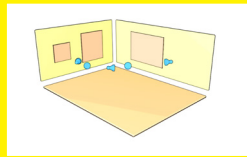
– Driebit and Lava Lab, ("Let art tell stories!", n.d.)

“... reality is augmented when it feels different, not looks different...”

– Kevin Slavin (Slavin, 2011)

*Kevin Slavin is today Chief Science and Technology Officer for the Shed, and previous Assistant Professor and founder of the Playful Systems Group at MIT Media Lab.

Using more of your senses, listen to what previous visitors have said in front of the paintings.



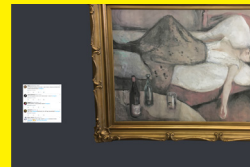
How might we add a hidden experience using the content at the National Gallery?



Augmenting with opinions, using tangible props.



Using metadata and AI to display comments and suggestions from visitors.



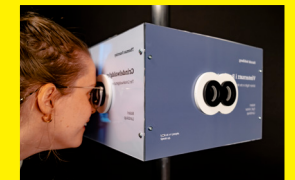
A physical, social experience that encourages discovery. Designing for attention and privacy, and consider what information could enhance the experience.



Transform data into physical, real-time space.



Using an engaging visual language to spark curiosity.



Summary

The National Gallery is an important cultural institution that people tend to forget as a place to visit, or have little knowledge of. To capture the audience they want, engaging them in public spaces, where they are, might be the way to go.

When designing for museums, one should also take those who enjoy the museum as it is today into consideration. An extended reality in the museum space is, therefore, a path to follow, as one can add digital content that does not visually disturb the artworks.

CHAPTER OVERVIEW

The development of ex:museum, and how the research and process was conducted.

3

approach, process & methods



approach

We divide our project into four sections of exploration.

FIRST

We researched the state of the art of technology in museums to gain an overview of the field we were to design in. We also made a map of relations between painters in Norwegian art history, to gain enough knowledge to prototype with storytelling.

SECOND

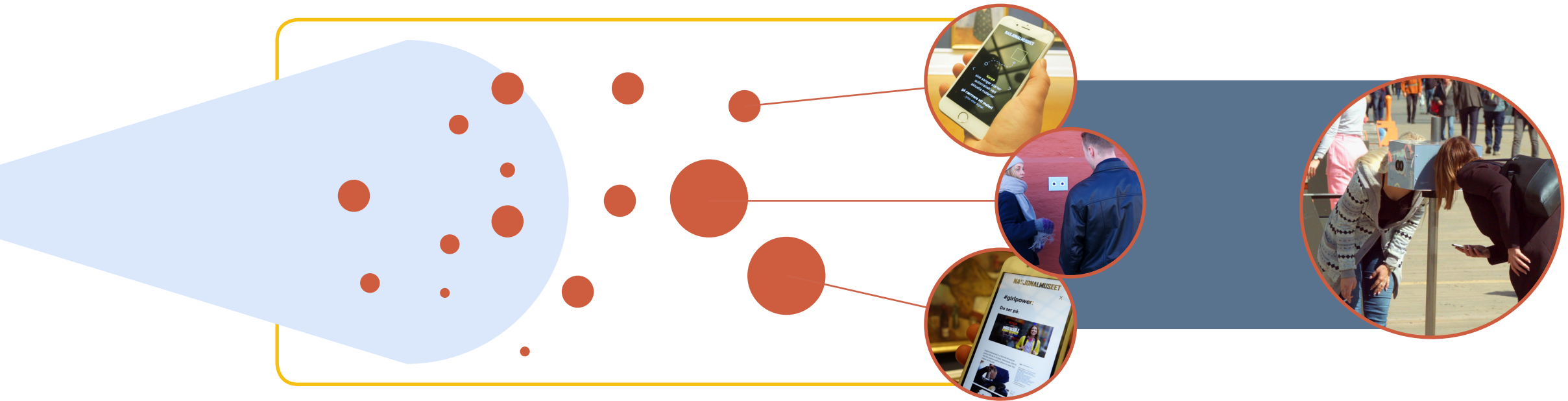
We looked into what extended reality can be within the museum, including other sensorial experiences than just visuals. What kind of hidden content could we add to the paintings, and how could the audience interact with it?

THIRD

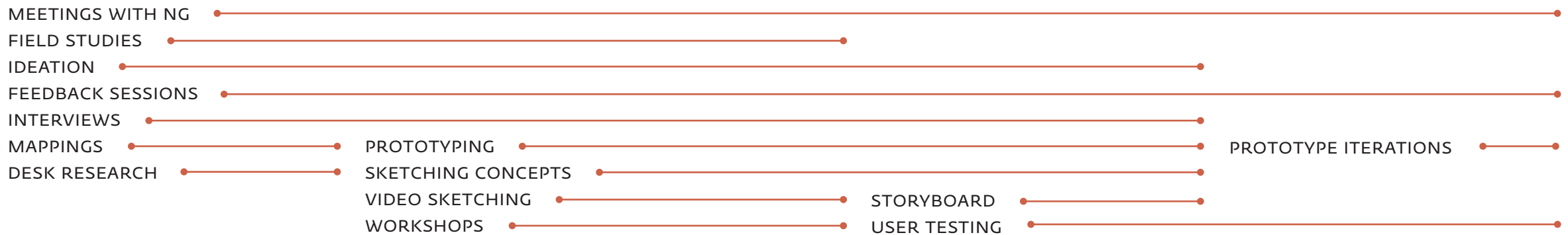
The last and final section narrows the process into three concepts, where we evaluate which one would engage our target group the most.

FOURTH

Design and build a working prototype to be tested at the National Gallery and a popular public space in Oslo.



Research — Explore — Evaluate & analyze — Finalize



design process

We built our research on Halogen's insights and findings, which we present in chapter four. This led us to define problem areas, areas of opportunities and scope the project.

FIELD STUDIES, WORKSHOPS & STAKEHOLDERS

A meaningful interactive solution should go more profound than a surface level marketing campaign. To go deeper than surface level designs we have conducted not only desktop research, field studies, and interviews, but included early sketching and ideation. We sketched out ideas from day one and aimed for an open and rich design process. We have conducted field studies in 12 museums in Oslo and London. We mapped our findings, conducted workshops, arranged meetings with stakeholders and interviewed both visitors and non-visitors of museums and galleries.

Thinking by doing

HUMANS OVER TECHNOLOGY

To avoid disturbing the view to the art as the professionals intend it to be viewed today, we decided to use AR as a non-intrusive experience. However, with observations and ideas from our prototypes, we began to expand on what AR means, and decided to move away from the term AR, and switch it to extended reality (ExR).



VISITORS

To understand why people go to the museum, we casually interviewed them.

NON-VISITORS

Interviews and Facebook messaging our friends aimed to capture people's general opinion on art and why they do or do not seek these experiences.

EXPERTS AND STAFF

To understand how professional museum designers work in the field, and how curators mediate, we carried out lengthier interviews.

IDEATION

We visualized ideas and concepts during the entire design process of this project. They were used to convey ideas between ourselves, and to create a rich design space filled with sketches that could be combined into a stronger concept.

FIELD STUDIES

On our field studies, we studied visitor behavior inside various museums and documented* how the museum

presented their collections. We also took note of new and old interactive tools and experiences and the use of digital media in the museums in general.

DESK RESEARCH

Research papers and books about our context and professional field provided us with a broader understanding of themes like engagement, museum history, curation, and technology.

BLOGGING

Throughout our process, we have shared our ideas on our blog at [Medium](#), and our 'board' on [Are.na](#). The purpose was to keep the writing up and expose our work. In our channel at Are.na called "Art in digital space" we have posted interesting reading, inspiring quotes, our own animations/pictures and thoughts, and pictures from the web with sources.

*In digital the appendix you can find the template we made for our field studies

Summary

The approach has been explorative yet anchored in the heart of NGs future strategy.

It has been technology curious but human focused, and we have learned a lot by doing.

CHAPTER OVERVIEW

This chapter covers how we identified tools for designing engagement around museum exhibitions, in our case, the National Gallery's permanent exhibition.

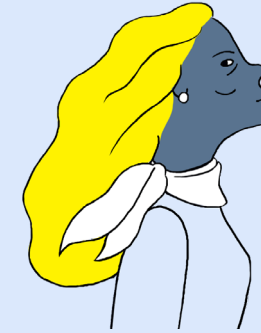
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research & findings

Visitor research

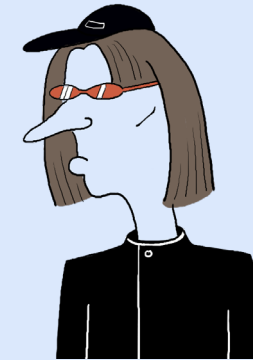
Halogen has divided the National Gallery's visitor into three stereotypes of visitors; the Traditionalist, the Urban Culture Conscious and the Uninitiated. These three stereotypes represent a span of many different visitor types.

Our user is best represented by the uninitiated visitor.



THE TRADITIONALIST

"The Traditionalist likes museums and has the skills to orientate and understand the content. The museum is safe, and it's supposed to be a bit of a holiday. She has an unconfirmed relationship with contemporary art, and does not want to rely on her interpretation or experience of art".

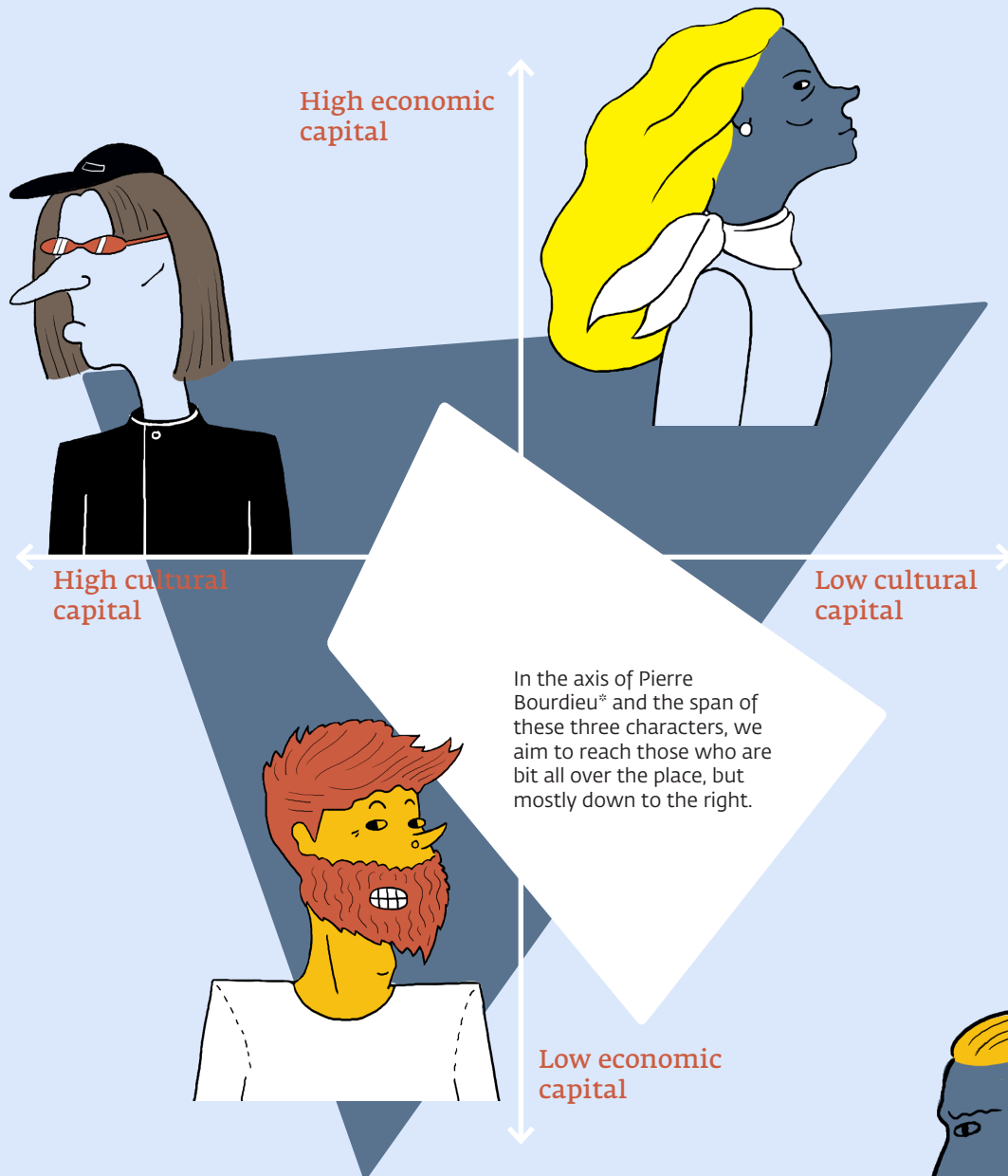


THE URBAN CULTURE CONSCIOUS

"The Urban culture conscious (Art Hipster) fully believe in his own judgment of art. He steers actively away from the classical art museum because it does not surprise and open for the visitor's interpretations. He wants a museum that is part of urban life..."

THE UNINITIATED

"The Uninitiated rarely goes to the museum and is not particularly interested in art. He rather chooses other cultural experiences but will get curious if he is introduced to the museum. All depends on him not feeling rejected before he starts the experience".



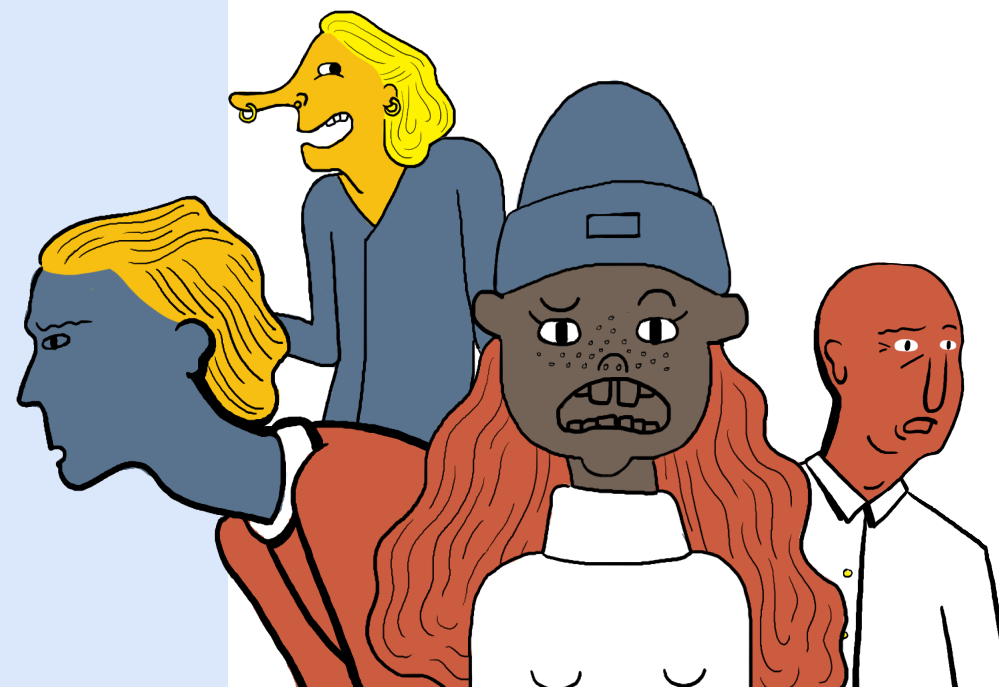
*Bourdieu was a french sociologist especially concerned with general theoretical sociology and of the relationships between education and culture. One of the most essential themes he wrote about was the relationship between individuals and social systems.

Our visitor is not at the museum

Halogen and the National Museum have a clear strategy on how to handle the visitors. They have passion and knowledge about art inside their walls, and that is where they put in the most effort and energy. Halogen told us they could benefit from a concrete project being realized outside of the museum. How can they then engage those who have forgotten about the National Gallery as a 'place to go'?

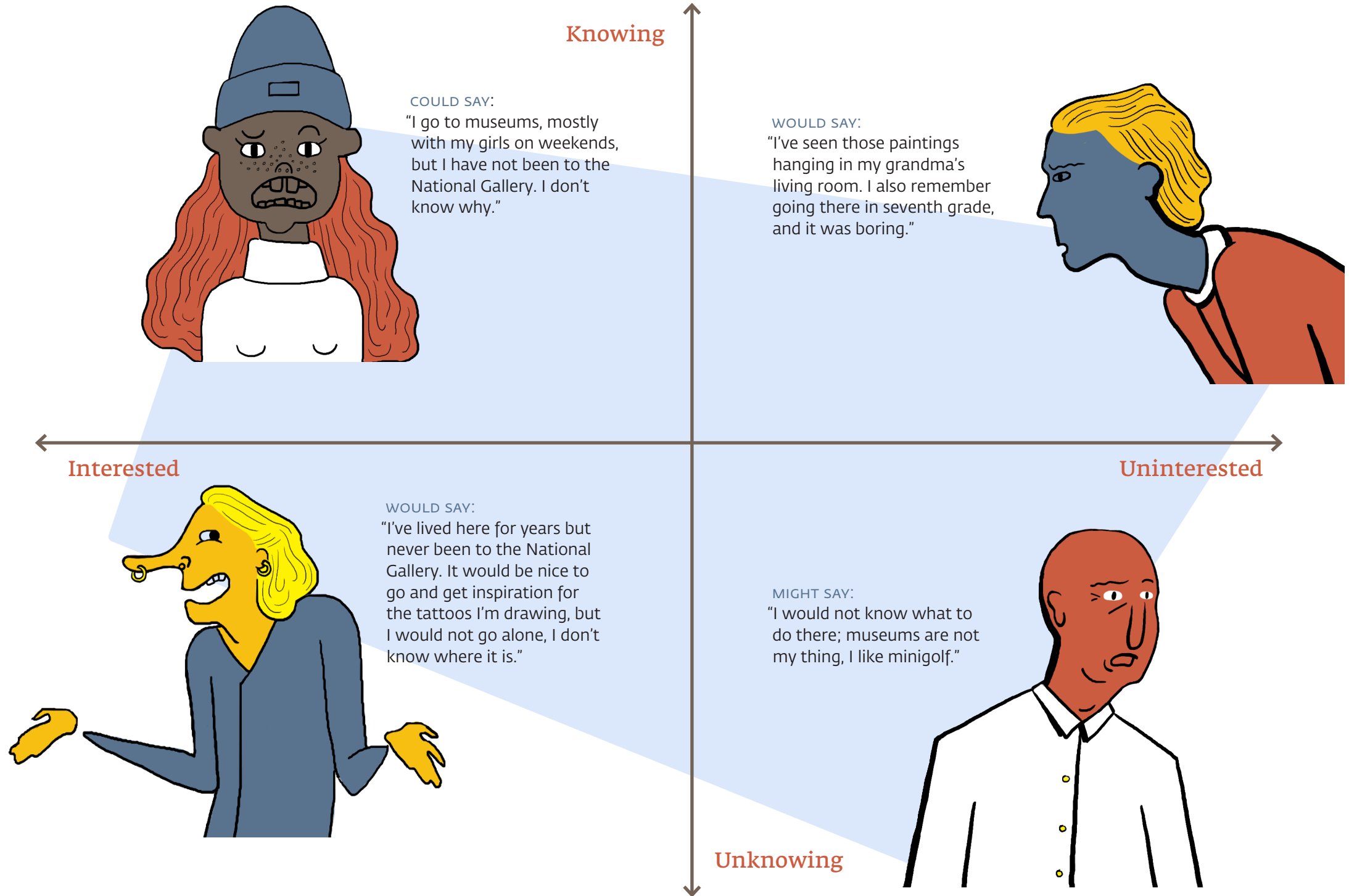
FOUR STEREOTYPES

Our target group does not prioritize museums as 'thing to do'. They have forgotten about it, or have previous bad experiences with it.



SHARED TRAITS

- Tech-savvy and fully adapted to social media, and are defining and shaping their own identities.
- They accept the obligation of commercialism and consume without thinking about creating.
- They are very much aware of what labels different activities will put on them, letting their social reputation control their behavior.



desk research

Our brain is constantly being fed with live and fast inputs. Hence we show little or no attention to static oil paintings. We crave notifications and the endorphins they give.

How can we use the same type of instant accessibility to make the National Gallery live and responsive? Can extended accessibility to the museum be of interest to visitors?

“Museums of the future should be places where people feel at ease – to encounter things they may not know as well as things they do. **They should be places to commingle and explore things in the company of strangers.** Within them, people should find the past, the future and be able to bring their own ideas and learn new ones. Museums should be enjoyable, curious, allow us to see beauty and fill us with wonder. They should be sociable spaces, which quietly undo social hierarchy and inequality”.

– Maria Balshaw, director, Whitworth Art Gallery.

“... from growing up with digital media and mass produced digital content with a short lifespan, you definitely **seek the physical and tangible product**”.

– Elise By Olsen, former chief editor of Recens paper.

Two examples of interactive experiences in museums

THE COOPER HEWITT PEN

Cooper Hewitt designed a successful device for visitors to gather information they found interesting on objects in the museum's collection. At the end of the visit, guests could see what they gathered on a big interactive table. As we wanted to move away from the mobile screen we found inspiration in The Cooper Hewitt Pen;

“...There was a strong consensus amongst the staff and designers that the museum should provide a compelling enough experience for visitors to only need to use their mobile devices to take photos with”.

– Chan, (2015)



Ensure a ‘look-up’ experience.



Photo from cooperhewitt.org (Chan, 2015)



Photo: Amsterdam Museum - Monique Vermeulen

*Lava is an international creative agency with offices in Amsterdam and Beijing.

Tell non-linear stories where people can be active participants.



“In the exhibition you can chose to follow one of the three highlighted characters in the exhibition and chat with them using your Facebook Messenger app. These characters will take you on a tour through the exhibition, tell you their story of the 17th Century and start a dialogue with you....”

LAVALAB'S CHATBOT

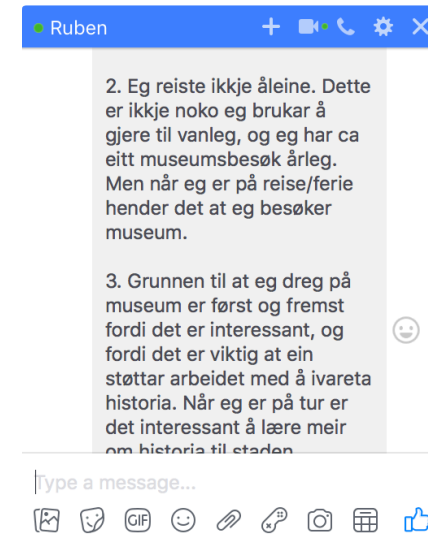
Lava's* BoldFlinck Messenger 17th century chatbot enables museum visitors to chat and be a part of a social network made up of characters from paintings in the Rijksmuseum in Amsterdam. In the early research phase, we were inspired by this chatbot, which was a result of their research on how to engage digital natives in museums.

interviews

Our main reason for conducting interviews was to understand what the general opinion amongst our target group was of the world of art. Do they deem it tedious, and why?

FINDINGS

interviews



INFORMAL CHATS

We talked to our friends using social media, asking them why they visit museums, and if not – why not. We sent them digital versions of artworks for them to express their opinions about them. Informal conversations with random visitors at the museums was also a part of the process.

EXPERTS

In the following spread you will see highlights from our interviews with experts. There are mediators, some designers with years of experience working with museums, and natives from the National Museum.

Collaborators



The National Museum

3 meetings at their office.
Meetings with graphic designer.
Security briefing.

MUSEUM EMPLOYEES

Having meetings with the people who run the National Museum was essential to finding a balance between what would have a potential for implementation and what is fun and interesting from our view.

“Art should be memorable and can only be so if it sparks a dialog”.



Anne Zanussi from Halogen

2 initial meetings with presentation of Halogen’s delivery to NG.
5 feedback and update meetings

EXPERIENCED DESIGNER

Anne Zanussi has worked closely with the National Museum and the making of a user journey and strategy for the new National Museum that will be finished in 2020. She gave us advice and insight and helped us frame and scope our diploma.

“The National Gallery could benefit from something concrete. They already have strategies from the visitor journey we created”.

External experts



Fiona Romeo & George Oates

Online lectures and articles
+ one interview at AHO
2 lectures at AHO

DESIGNERS IN MUSEUMS

We had the chance to present our material to Fiona and George, who between themselves have loads of experience with museums and interactive design. Fiona has worked with exhibition design and user experience and George with digitalisation and navigation for big archives. They are legends within the field of design for museums.



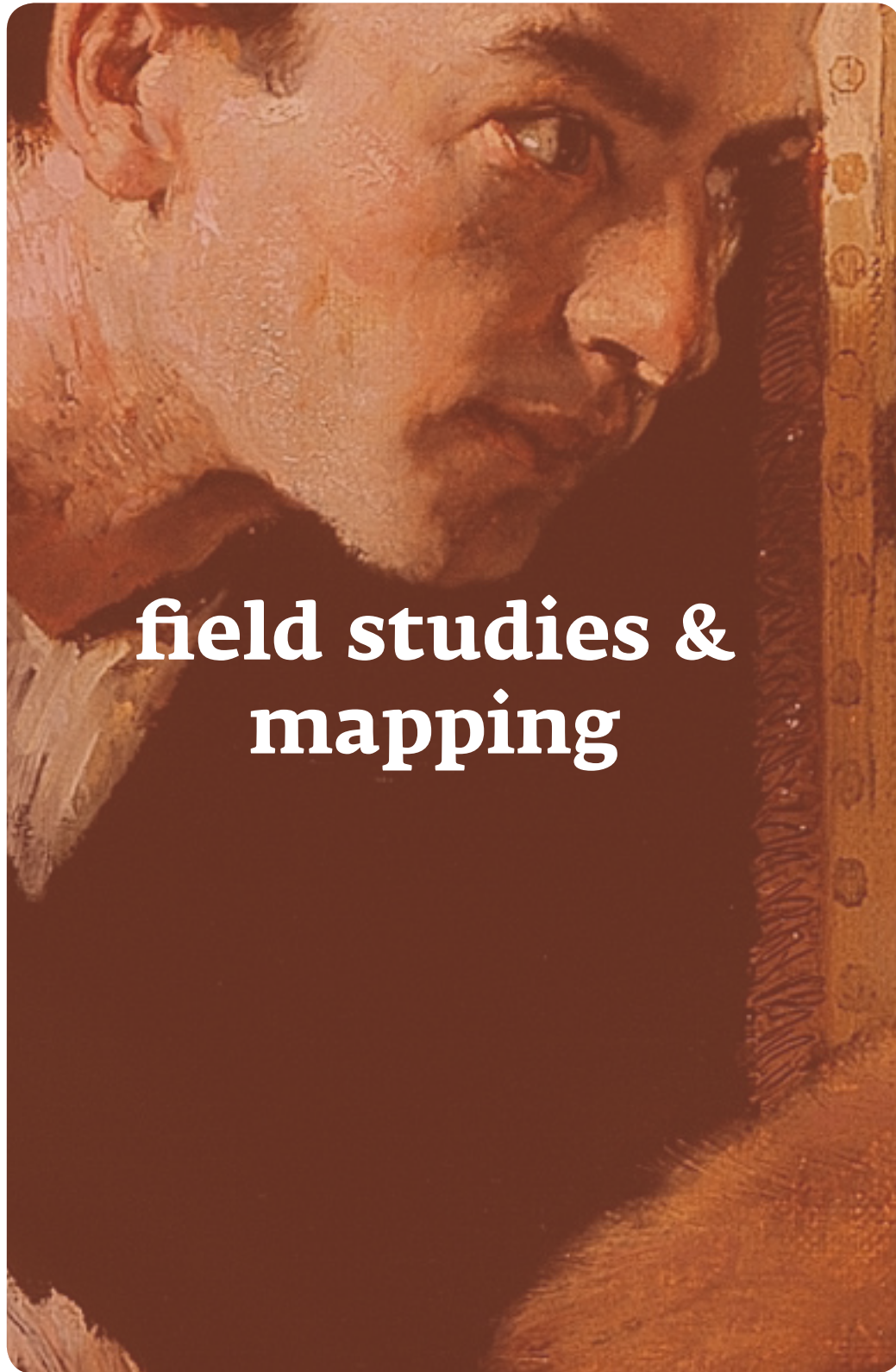
Adeline Cuvelier

A guided tour through the Nobel Peace Center and interview over a coffee. (Find the transcript of the recording of this interview in the appendix as "fig_3".)

EXPERT GUIDE

Adeline is an experienced guide and museum aficionado. She has worked in several museums, and is currently working at the Nobel Peace Center. She gave us crucial insight on how younger generations behave in the museum and what they are engaged by.

“We take it for granted that people know how they get to the museum”.



field studies & mapping

DESIGNERS IN THE FIELD

We observed and spoke to people at museums to understand how art can engage visitors and non-visitors.

In all we had twelve museum visits, four in London and eight in Oslo. Some taught us a lot and some did not, but all visits were valuable.



At the NG we found that young Norwegians document their experience and enjoy details in the paintings.



FINDINGS

field studies & mapping

NATIONAL GALLERY

In our first visit to the National Gallery, we saw kids play games on their phones. They showed little interest in the oil paintings, the teenagers used Snapchat while they were on the guided tours, and the Asian tourists took photographs of the object labels.

CONTEMPORARY ART AT ASTRUP FEARNLEY

At Astrup Fearnley, some look past the art, and out the window instead. They seek comfort in the present, where there is no story, no hidden meaning or code they need to understand. This hints that visitors should have an easy entry point into understanding what they are looking at.

BACKGROUND STORIES AT NOBELS PEACE CENTER

At Nobels Peace Center we interviewed a guide and learned that there are barely any teenagers between 16–25 that visit outside of school tours. Some of them do not even know that they are allowed to go there without a guide. The art, or photographs, in this case, is not what impresses them, but the stories of how they were made. How the photographer was allowed entry to forbidden areas to photograph, or got into contact with the people in the portraits, those were the exciting parts.



Technology in museums is often outdated and out of function, it becomes uninteresting.

At Teknisk Museum in Oslo, we found many installations that did not function.

field studies & mapping

RANDOM CONVERSATIONS WITH MEDIATORS AND GUARDS

At Astrup Fearnley, one guard and two guides told us that word of mouth is vital to reach out to those who normally would not consider the arts as a source of entertainment. They believe that was the reason why the Takashi Murakami exhibition was the most visited exhibition last year at Astrup Fearnley. This exhibition had the same amount of advertising as previous displays, hence why the employees at Astrup Fearnley believe people told their friends about it..



word of mouth

“They say hey, we went to Astrup Fearnley and saw this insane sculpture with massive boobs”.



engaging stories

“Art is supposed to make you see; it is what differentiates us from animals. This meta-universe we can create”.

UNDERSTANDING HOW THEY MOVE

Some visitors wander through the museums without actually looking at the art. People are drawn to the window, to the view of the sea. It might be easier to digest, as art with its abstract and conceptual ideas can lead to a what is called ‘art fatigue.’ The nature scenery is, therefore, a refreshing break for the brain, with no hidden intention.

STORIES AS ENTRYPOINT

One man walked around looking bored when he suddenly read something on a label that made him relate to the painting; then he got excited. How do we get people to connect like that? Stories of the artists and why they painted can make us understand and engage with art.

Engagement often leads to further interest for our visitor group. How could we tell these stories? We investigated this further in our artist network mapping, which comes up soon.



art fatigue

“They point out the window and say: This is the true art”.





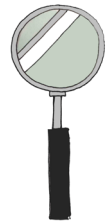
Photo: Us taking a selfie using props at the V&A in London.

Smartphones and 'tappable' screens at the museum

We found that we should reframe the use of smartphones as objects rather than disruption. Our user utilizes the phone as an extension of themselves, and that is something we discard.

Reframe the use of smartphones as objects rather than disruption.

There is potential in the smartphone, seeing that everybody has it on their person, but it seems that people who are at the museum can deal without checking it all the time. We, therefore, decided to pursue the smartphone as a possible tool in our explorations.



Most visitors today have a smartphone with them when visiting, and they expect screens to be 'tappable' and have instant feedback.

SMARTPHONE USER BEHAVIOUR

- Taking selfies
- Taking pictures of captions
- Taking pictures of art
- Snapchatting where they are
- Instagramming the paintings



Mapping out the content of the National Gallery

Insights from the interviews led us to map out the history and stories behind the paintings, as this had potential to create engagement. We created content for further use in a possible storytelling concept.

We had to get familiar with the museum and its content. What paintings are there and what are their stories behind them. We mapped out the National Romanticism period in art and what the connections the artists had to each other, which factions they belonged to, romantic relationships and so on and so forth. But going back to our personal motivations, we realised that we would much rather spend time on the interactions than extensive story telling. We found that this was not an easy entry point, as it requires a lot of brain power, and we chose to let people wave up their own opinions, like the 'good old art debates' that we found in the Christiania bohemian community.



debate

The art of the 19th century Oslo was often a critique of the time it was made in. Can we create social discussion disruption with the same art today?

THE NETFLIX OF ART

We went to a debate, 'What will the Netflix of art be', (Hva blir kunstens Netflix?, 2018) which gave us further insight into what artists and the more conservative museum-goers think about the digital shift in the art world.

It was highly relevant to us as it made us think more about what the designer's role is in a museum. We decided that it leans more into mediating content that is already there, rather than making up new stories.



In museums, audio guides are the **status quo**. Following is our personal experience of testing two variations of the audio guide in the National Gallery.



TESTING THE AUDIO GUIDE AT THE NG

We found that the audio guide gave us a common ground to start discussing what we had experienced. We enjoyed how the app used music to set the mood, and that it introduced other paintings or artists that on some level is relevant to the work.

Going linearly, A to B was too disturbing our experience of flow, and it meant that we spent a lot of time looking for the "right" painting. We ignored the art that was not mentioned. As soon as we got together again, we immediately started to voice our opinions and discussing the paintings.

We paid more attention to paintings that normally would not have captured our attention; the audio guides made them worth the time.



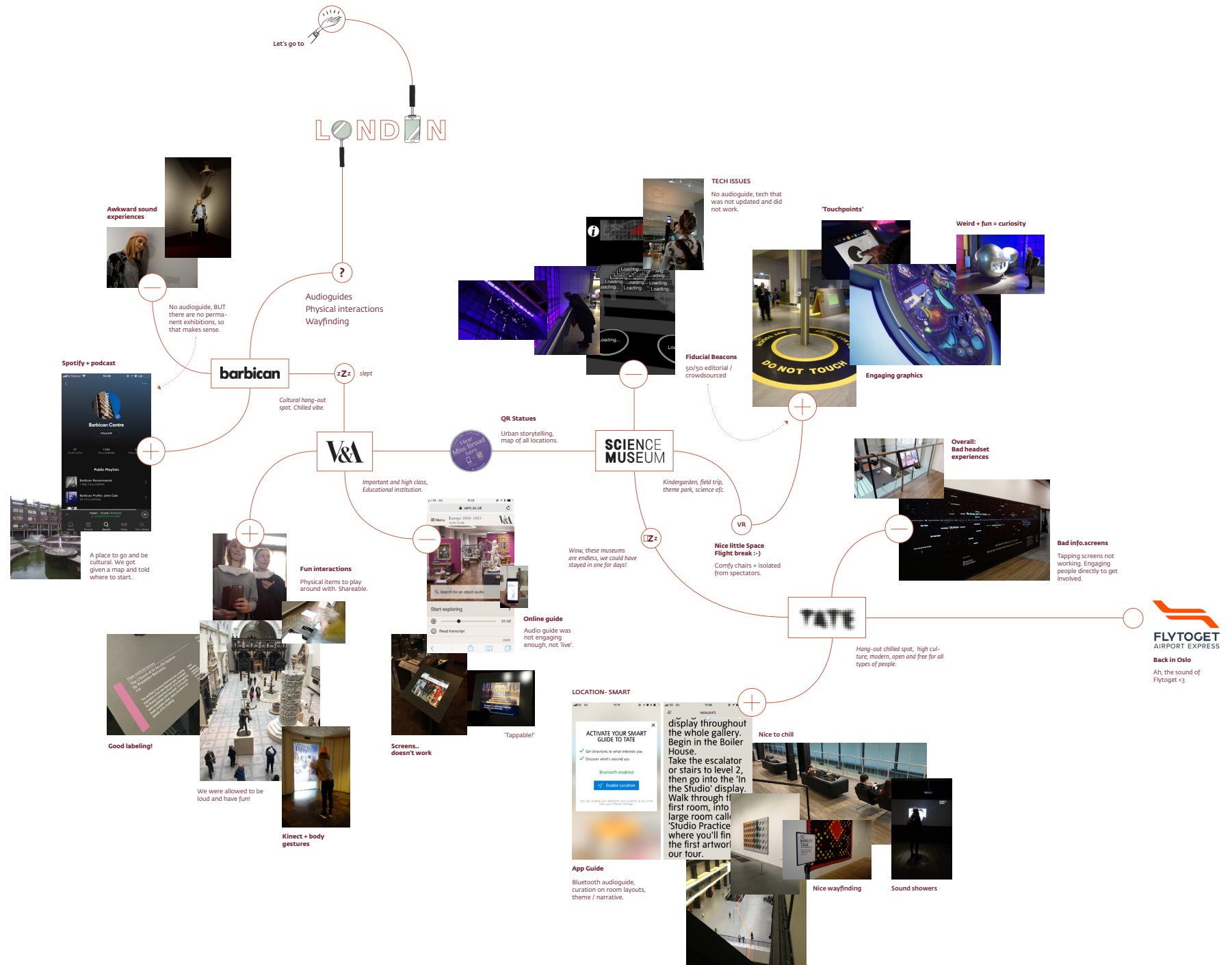
show n' tell

Engaging in curated content, then gathering to share our opinions lifted the museum experience.

Where does it start? Do I press play at the reception, or do I walk up the stairs to the main exhibition? How do I navigate with it, can I pause? Why is this not an app that I can download on my own phone? Where is it?! We spot a man using the audio guide, he is trying to find information of a painting that is not in the audio guide. You really need to pay attention to the map, as it does not show our live location.

INTERACTION DESIGN SAFARI IN LONDON

We traveled to London to experience how museums and galleries design exhibitions for a broader audience, we hoped to see a more cutting edge use of interactive experiences than in Norway.



exploring extended experiences



50/50

Split content 50/50 between crowdsourced and curated. To get crowdsourced content started, or keep it coming after a longer period, some content needs to be editorial.

Find this map in a bigger format in the digital appendix as "fig_5".

Halfway Summary

As we are bombarded with impressions every day, art is there for us to gain a more comprehensive understanding of society.

It is essential to create an easy entry point and to establish that you are allowed to not like art.



THE NOTION OF TIME

Where can we entice these new visitors? Is it by creating an event, or is the notion of time something we can play with. What if your visit changes every time you go there, the museum remembers you, or you can see what happens in the museum when it is closed.

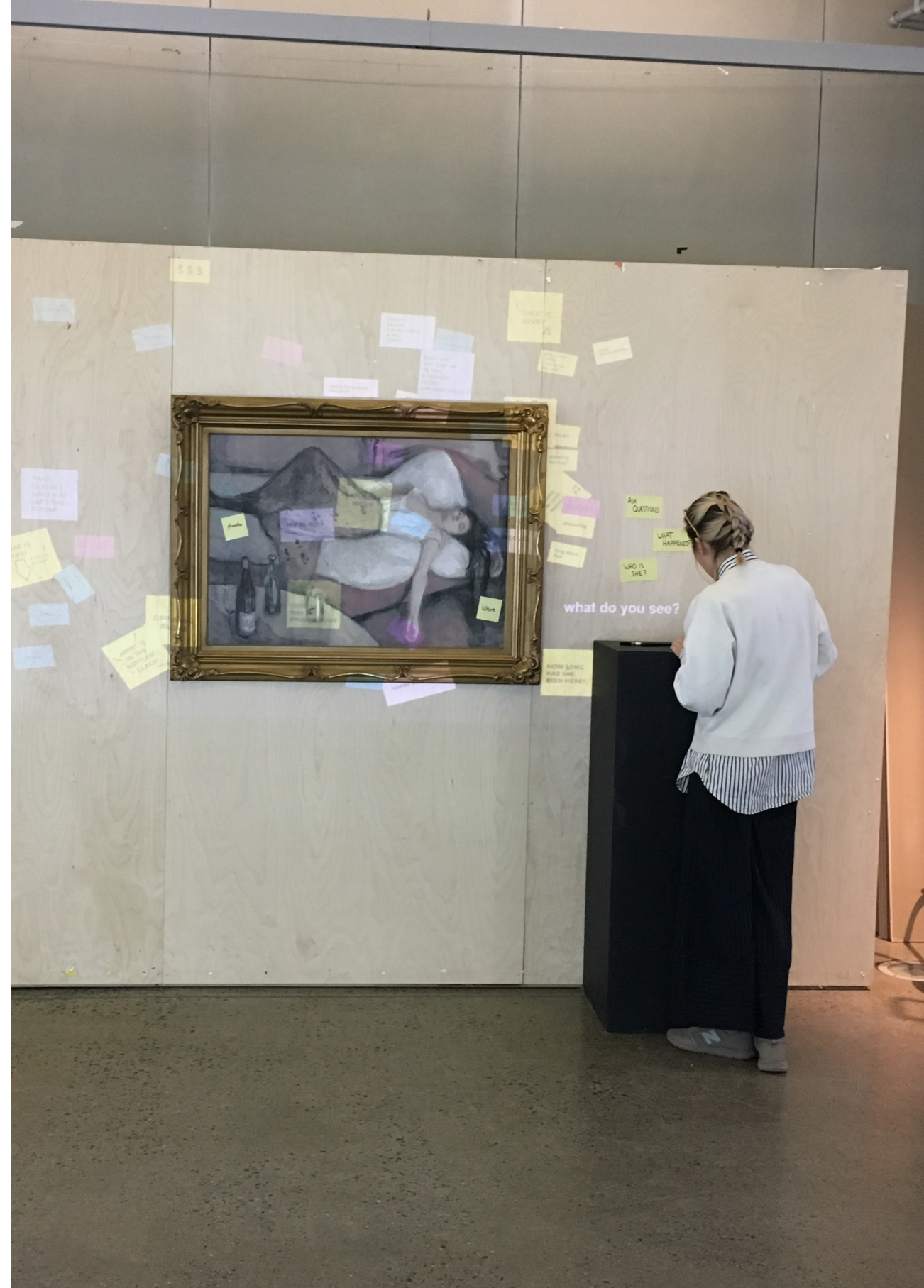
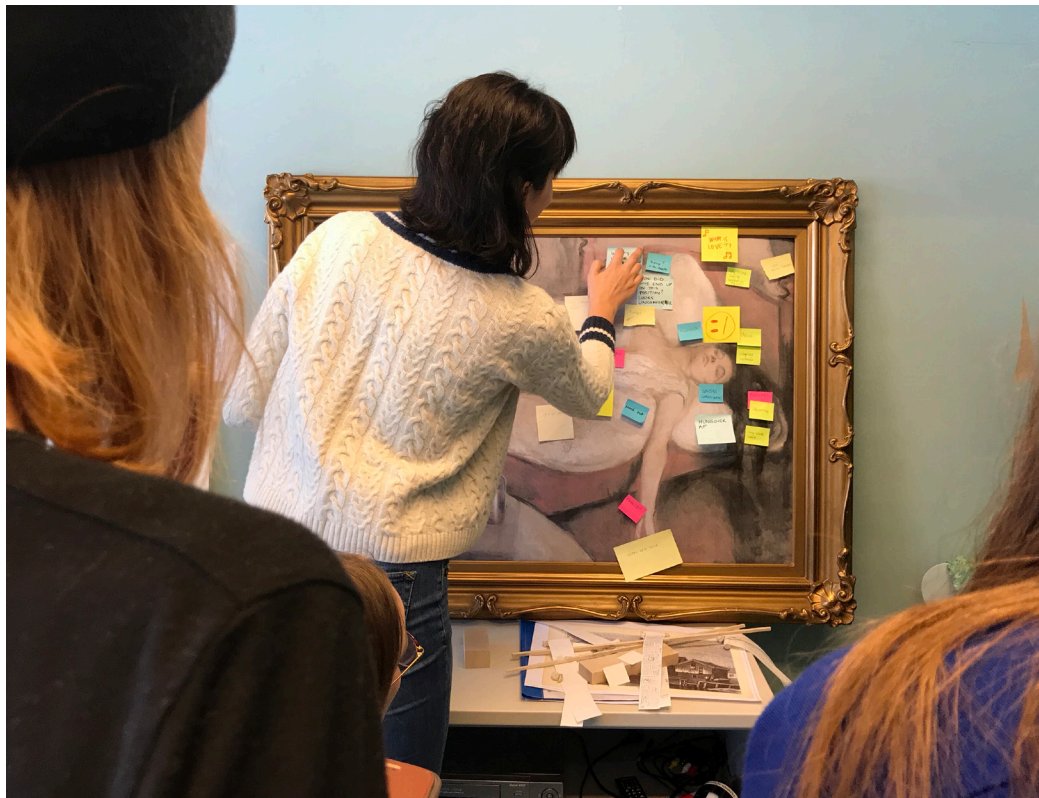
FROM STORYTELLING TO COMMUNICATION

Five weeks into the diploma we had gained enough insight to crystallize the background for our project. Then it was time to move on to making concepts and exploring possibilities for extended reality storytelling in the National Gallery. Our focus was now on designing.

From our mapping of the National Gallery's content, we found that the 19th-century painters led a turbulent and exciting life, which could have had entertainment potential. Though once we started prototyping, we moved away from curated storytelling, to designing platforms where people can tell their own stories.

*Skam is a popular norwegian TV show.

ideation & prototyping

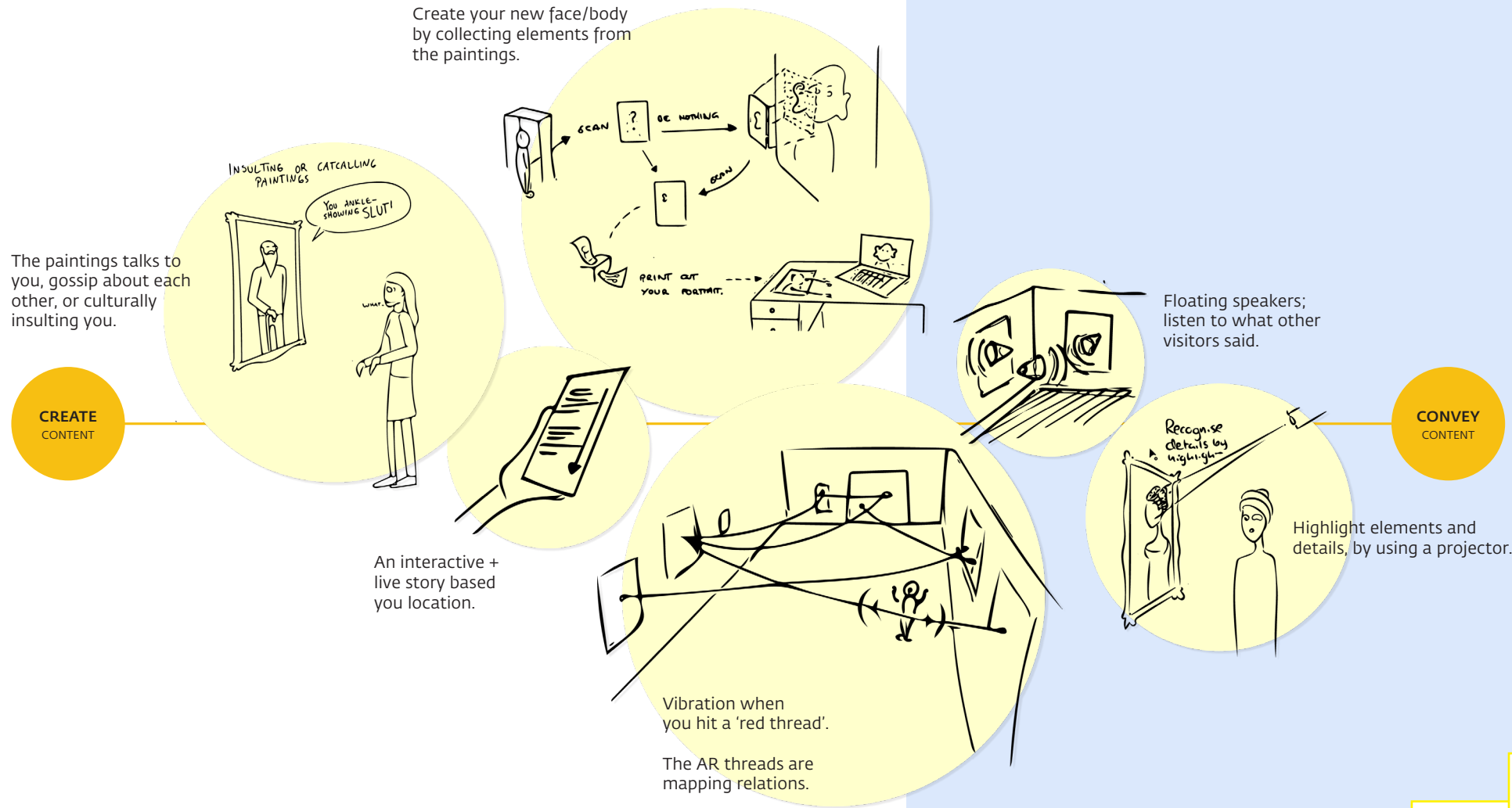




RICH DESIGN SPACE
 Thinking by doing has underpinned our design process in this diploma, and we have aimed for a 'rich design space' where we throughout the project used our 'wall of ideas.' We used this to let our thinking be visually accessible and transparent to both each other, but also for our peers whom we shared studio space with.

Have a closer look at our wall of ideas in a bigger format in the digital appendix as "fig_6".

*a method we used based on Google's design sprint kit, short for 'How Might We'.



THE LINE BETWEEN DESIGN AND ART
 We looked at where we should position ourselves; create content or convey content. The "Netflix of Art"-debate (Hva blir kunstens Netflix?, 2018) led us to choose the role as designers designing platforms where others stories are conveyed, not creating stories ourselves.

We had to get our ideas down on paper in order to better evaluate them.

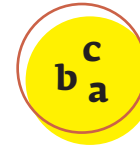


You can find these in the digital appendix as "fig_7".



TOOLS FROM TAKEAWAYS

Here is a set of 'tools' to engage our target group and to spark dialogue around art. These are a result of direct research and brought them with us in the prototyping phase.

**Non-linear**

Smartphones have changed how we consume stories; they are non-linear. Our target group prefers to find and create their own narrative and experience.

**Sharable**

Our group uses social media to share what experiences. As Halogen pointed out in their strategy, this is an excellent way of making the gallery visible for the outsiders. We looked at how you could use social media to share the museum experience.

**Physical objects**

Our users are bombarded with visuals all the time; they seek physical and tangible products.

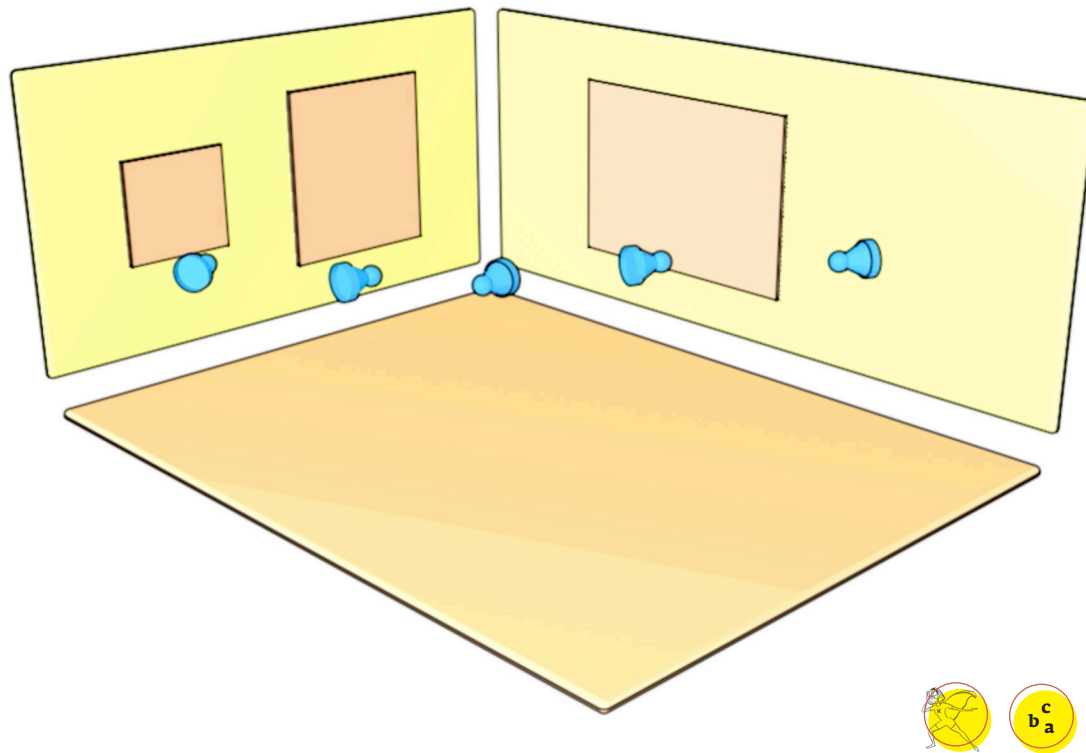
**Super powers**

Technology extends the possibilities of how humans can interpret the world. We tested how technology can help us see, hear or feel what we usually cannot perceive.

**Invite**

61 % of people living in Oslo have little knowledge of the National Museum, so we need to meet them where they are and invite them in.

A one-day design sprint resulted in an experimental audio augmented prototype of one concept.



sound

People showed interest and found it curious. They wanted to understand what they were saying.

FIRST AUDIO PROTOTYPE

The idea of our prototype was to let people hear what other people had previously said about the art. Perhaps that would make you notice details in the paintings that you would not otherwise do, or feel like you were part of an ongoing debate. It could be a conversation starter with your friends as well. You would listen to the ghosts of other people's opinions.

We thought about having speech coming from behind the paintings, but that would maybe seem like the characters in the paintings were talking to each other. Therefore we thought of putting speakers on the sofas and benches around the actual National Gallery. In our video, we used our laptops and played speech simultaneously on both. The two users focused on where the sound came from at first, from the laptops, then started looking around when they understood that the talking was about the paintings.

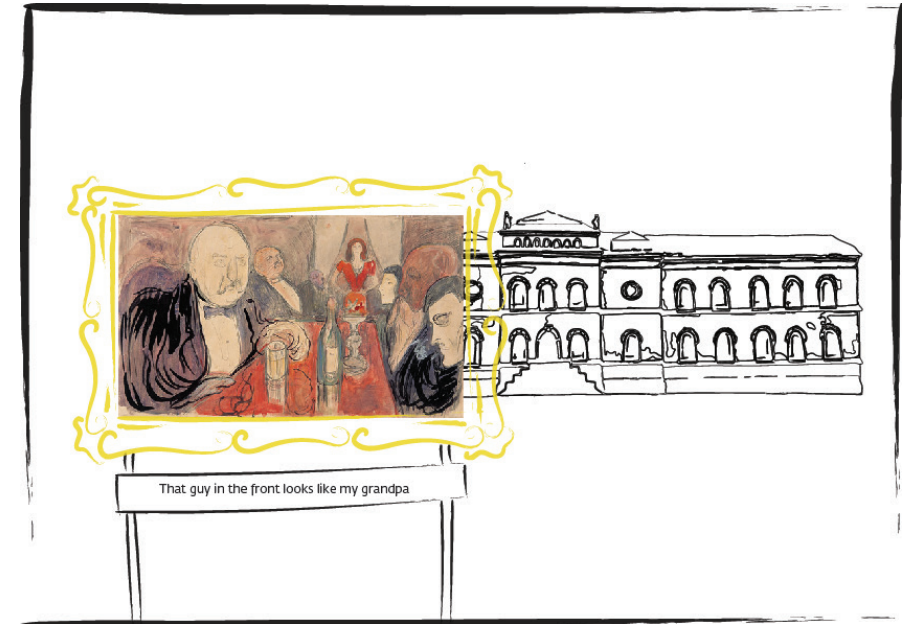
The test subjects commented on how they at first thought the paintings were gossiping about each other since the talking seemed very rehearsed. It was rehearsed, because it was us, Hanne and Amalie, who recorded it. Having the paintings talking about each other was an exciting idea, and it could also mix with our initial concept.



SPEAK INTO A FIXED OBJECT
 Speak into and listen from an interactive installation standing in front of the painting, or maybe outside the museum?

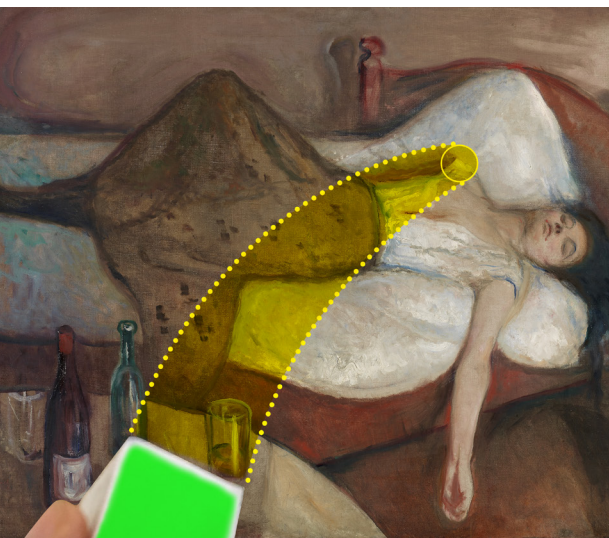


Photo: This object would probably take the focus away from the art.



LIVE 'VOICE TO TEXT' FRAME

Using either IBM's Watson Speech to Text or Google's Speech API we could place frames around town and show in real-time what people are saying about the paintings (or gossip). Or again, maybe this is the weird ear position around the city?

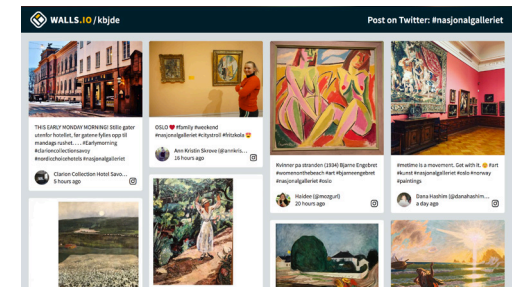


PORTABLE VOICE COLLECTOR
 Receive an object that leaves your comments hanging on top of the artwork. You to record your voice on the object and leave it wherever you like on a painting. You can also use it to pick up and listen to what others have left behind.



SOCIAL WALLS

Only exposing tweets and social media content that links to the National Gallery is not going to engage our user group, they can find that anywhere. If we go with this idea, it needs to be connected to a special event, and then we are back to considering the aspect of time.





AI AT THE MUSEUM

Bengler has an ongoing project with the National Museum "...looking at how machine learning and deep neural networks can be applied to their collections. Both to easily add metadata, but also just to explore the context free gaze of machine classification." (Westwang, 2016), so we sketched on how we might use this in our project. Can the museum automatically know what paintings you are going to enjoy?



PAINTINGS AND POST-ITS

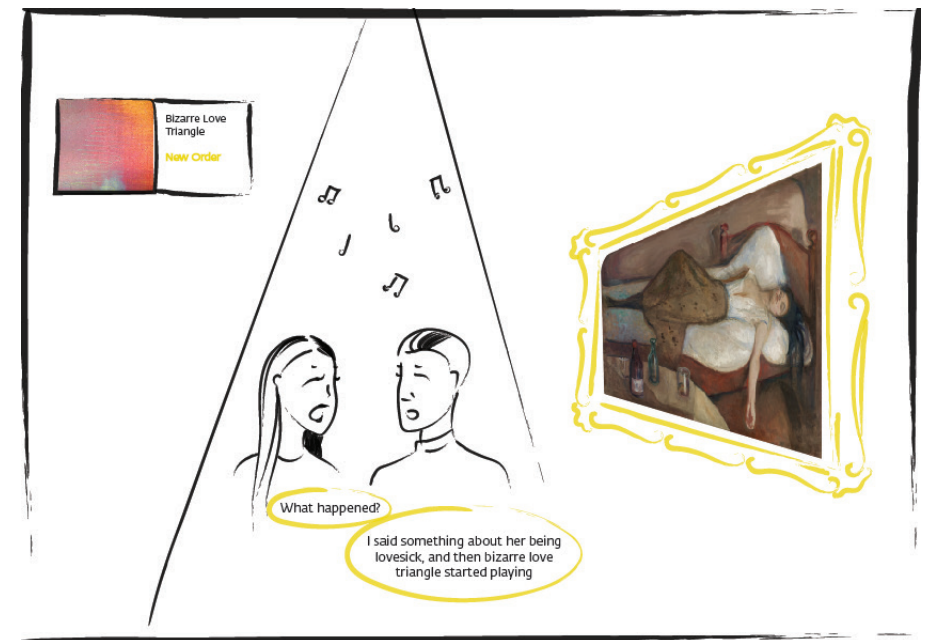
We arranged a workshop where we gave the participants post-its and asked them to write "whatever" they could think of relating to our copy of 'The Day After' by Munch. The participants of the workshop wrote up song titles that they

MODERN SOUNDTRACK

The audio guide we tried at the NG featured short snippets of music, classical music, as might be expected. What if the music was modern? How would that change the mood? Could it get you to see the paintings in a new light? Music is for everybody, while classic art has a higher threshold, but together they can be powerful, like in Quentin Tarantino's movie "Django Unchained" or Baz Luhrman's "The Great Gatsby"

"In our age, the energy of jazz is caught in the energy of hip-hop".

- says Luhrman, who's movie is set to the sixties, but has a modern soundtrack with artists like Jay-Z, Andre 3000, Beyonce and Fergie (Blistein, 2013).





“... Let's you feel like an ant. Dive into a secret and hidden world. Reality is augmented, to see something in the world that is already there, but something you have never seen before. Invent new ways to see, not new places to go”.

– Kevin Slavin (Slavin, 2011)

People get really close to the object labels on the walls in museums and very often take pictures of them. This is already a place where information is displayed, so what else could we put there? A camera in the object label could offer a fun and weird view for someone who would want to peep in to the museum.



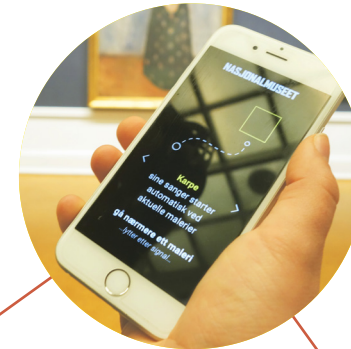
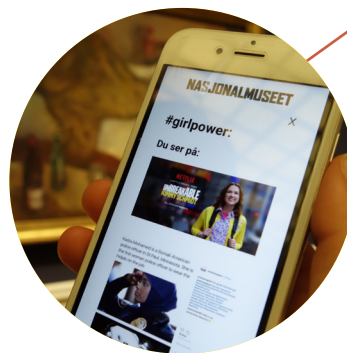
Three final concepts

The last step in our research process ended with three concepts. We had to evaluate which one we would continue with. We will introduce each one briefly.

Buzzart

CONCEPT 1

People want to know more about themselves or their partners. An AI finding out what you like through social media algorithms might surprise you. The Buzzart concept explores the opportunity of having the paintings tell you something about yourself, which might make you take a closer look at the paintings, spark discussion or be a fun activity for groups.



Inside Out

CONCEPT 3

This concept takes place both inside and outside the museum and is meant to give outsiders a low threshold look at what is going on in the museum. People talk about the paintings in museums, add their own opinions and give them new meaning all the time, so what if this was conveyed to the rest of us? Can hinting at what happens inside the museum in realtime lure in new visitors?



share

At this point, we understood that we have to storyboard and share our concepts with the National Gallery and others to understand what concept we should develop further.



analyzing & evaluation

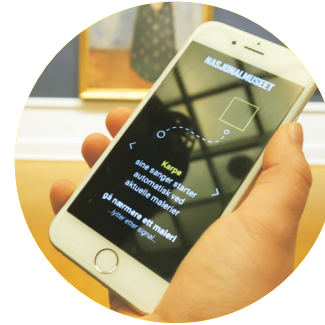
ANALYZING AND EVALUATING

By analyzing the different concepts, we could compare and evaluate them. We set up criteria for us to better evaluate them, and from there we storyboarded two of them, to understand how they could be experienced. The storyboards made it easier for others to give us feedback on the concepts.

We chose to go further with two concepts and storyboarded them as a way to get feedback from others.



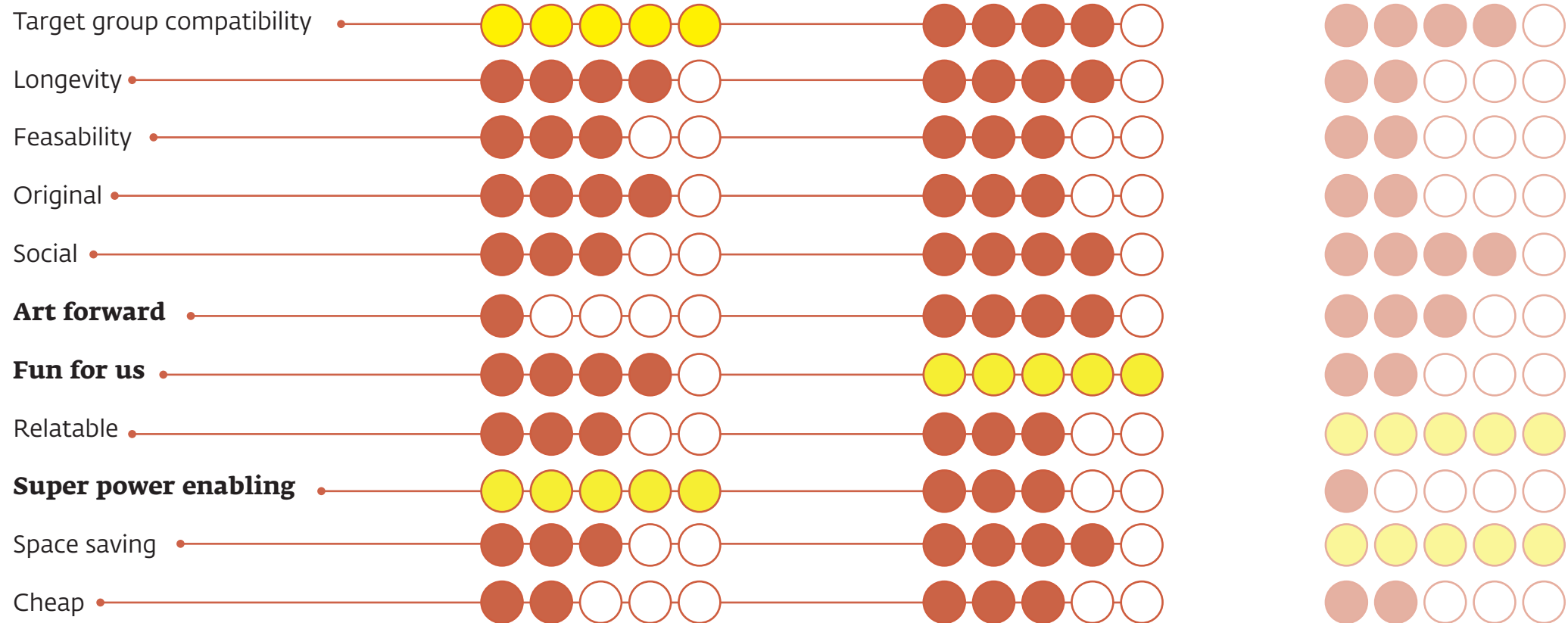
Inside Out



Music-eum



Buzz-art



Frøydis loves Karpe Diem.

One day she walks by and decides to visit the museum, she downloads the app for free.

The app uses Bluetooth to understand her location and guides her throughout her visit if she is too far away from a painting she is notified.

She has no interest in oil paintings and has never had any reasons to visit the museum.

She walks up the stairs.

Sometimes she does not think Karpe Diem did a good job, so she changes to other artists playlists.

Aha, it makes sense!

Wow, this music with that song makes her sad, is this how the artists felt?

She can also discover songs that other people find a good match for the current painting.

The app is smart, and when she exits a notification pops up and tell her about the possibilities beyond the museum wall.

She starts to think about the songs she listened to, but can't quite recall their names and their art pairings.

She is experiencing art fatigue, and needs a coffee.

Luckily the app has mapped it for her!

She found some paintings weird, but she is happy to see that the artists have left comments on why they thought it was fitting.

Hm, she doesn't agree with that pairing. She suggests a better match in her playlist.

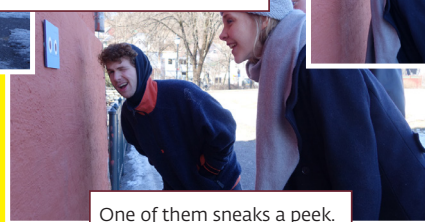
For her next visit and for others to discover.



On a sunny day, some friends are hanging around in town.



They spot something strange, something different that they have not seen before.



One of them sneaks a peek.



She does not get it and calls her friends over.



They start to discuss what it is, taking turns on who's looking.



They see inside a room, a room filled with people and paintings.



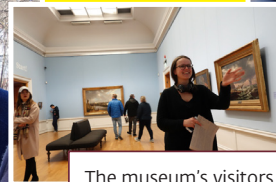
"Where are you?" They ask, and people try to speak. But they can not hear any of it.



"We can't hear you. Can you show us something?"



One of them notices that people react to what they are saying.



The museum's visitors start to wave and tries to speak slowly with their mouth.



They discover a QR code next to it and is sent a map when they scan it.



Naaa tiao..nal..



They don't have anything else to do that day, so why not follow the path and discover some art.

22th of March 2018

Music-eum

A layer on top vs Naked and self-referencing

<p>? consider</p> <p>Context</p> <ul style="list-style-type: none"> • Daytime vs. Evening (set the mood) <p>Production</p> <ul style="list-style-type: none"> • Collaboration with Tono, Spotify or Tidal? • Tinder-swiping • Personal phone vs. NGS phone vs. no phone • Using personal phones? Charging spots! • Beacons and bluetooth can be used in order to create a smooth experience. <p>User</p> <ul style="list-style-type: none"> • Freedom to choose? • Encourage active participation vs passive. <p>Social</p> <ul style="list-style-type: none"> • Sharable • Involve celebrities – can they create their own playlists? • Featured playlist of the month • 50/50 curated/crowd-sourced • "Other people listen to..." <p>Sound</p> <ul style="list-style-type: none"> • Headset or soundshower? 	<p>+ for</p> <p>Context</p> <ul style="list-style-type: none"> • NG as "a place to be", more than only old art. Think about how libraries have changed. <p>Production</p> <ul style="list-style-type: none"> • Scalable platform • Easy to advertise • Interaction design muscles! <p>Social</p> <ul style="list-style-type: none"> • Something you do before and after to elevate/enhance the experience. • Bring something home <p>Sound</p> <ul style="list-style-type: none"> • Extra layer = including more senses <p>User</p> <ul style="list-style-type: none"> • Create something = ownership • "Lang levetid i hodet" – Nils • Makes you stand longer in front of the painting. • Research show that most people spend under 30 seconds in front of paintings in museums. • Personal taste = reliable • "Music is nice because it uses the platforms they are already on." - Jørn 	<p>- against</p> <p>Context</p> <ul style="list-style-type: none"> • Need to already be there <p>Production</p> <ul style="list-style-type: none"> • Legally tricky and expensive • Things to carry around... • App, alright as long as it does not disturb the physical experience. <p>User</p> <ul style="list-style-type: none"> • Tiresome and annoying having to hold something, and figure out where to put it <p>Production</p> <ul style="list-style-type: none"> • World of mouth? • Web cameras • Bird watching <p>User</p> <ul style="list-style-type: none"> • Most doable? • Weird vs. nice vs. default object?
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Merge them?
Can they enhance each other?

Outside You could see what people listen to. People watching. Using soundshower!	Inside See what people are listening to. Be seen. Headsets, space saving!	Production Time consuming and raising issues around both privacy and legal rights to music.
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Carlsen, C. - C. (2017). Art Perception in the Museum: How We Spend Time and Space in Art Exhibitions. I-Perception, 8(1), 204-6099/195044. http://dx.doi.org/10.1177/2046695917050444

We compared them next to each other and set them up in a document after a post-it session. Find this in a bigger format in our digital appendix as "fig_8".

THE CULTURAL THRESHOLD

Music lowers the cultural threshold, and by using the visitor's personal music, they can establish a sense of ownership. The main issue is that you need already be at the museum, which our target group is not. To meet our target group outside, and to stay away from screens, **we chose Inside Out**. With this concept, we believe we can lower the threshold by designing a curious looking object, and let people have a 'mini-visit' to the museum.



We chose the Inside Out.

The storyboarding was helpful for us to choose a direction. We evaluated the concepts together with Anne Zanussi, and the National Gallery.



inside out iterations

Now it was time to dig deep into how our final outcome should work and look.

TAKING INSIDE OUT FURTHER

We chose to further develop the Inside out concept, backed by the National Gallery itself and two well-renowned women who have designed for some of the most prominent museums in the world; Fiona Romeo and George Oates. We had to test if people were interested in peeping into a box, and how people would react to random voices from an object label, without information about the project.

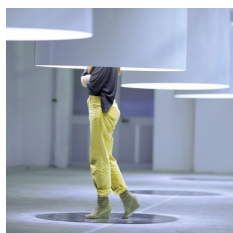


**What is it to look into
a museum portal?**

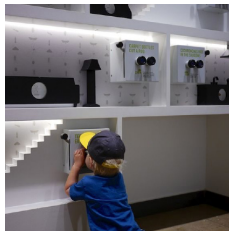
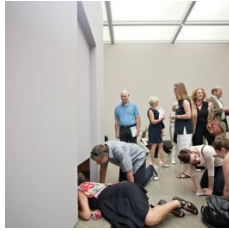
**How do we invite
outsiders to look in?**

**How can we design
so that museum
visitors and outsiders
can communicate
with each other in
an exciting way that
makes sense?**

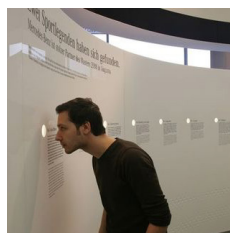
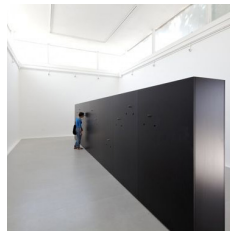
INSIDE A BOX



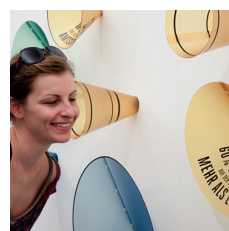
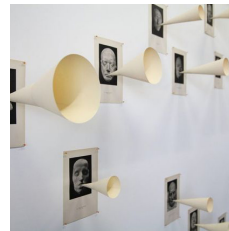
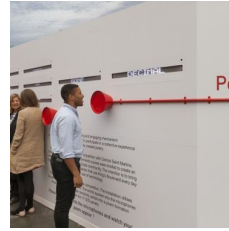
HIDDEN DISCOVERY



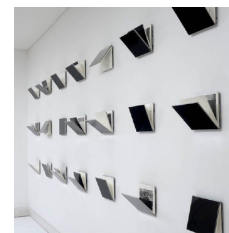
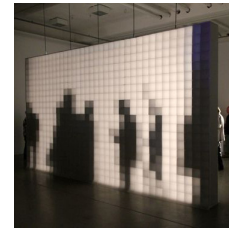
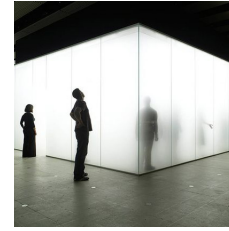
PEEP HOLES



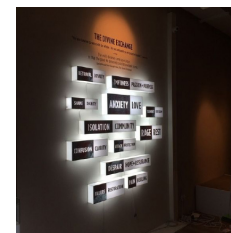
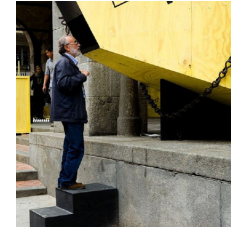
CONES / FUN



SHOW ACTIVITY



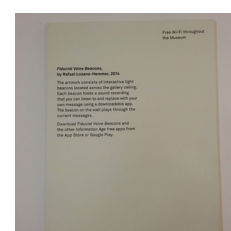
SUPER GRAPHICS



EXHIBITION DESIGN



LABELS WE HAVE SEEN



- Narrow and long has higher threshold to use than a wide and short.
- Graphics on it makes it less artsy, and more commercial.
- You expect to be able to look around 360 degrees.

- "Oh, look what I've found."
- Discovery.
- Treasure hunt. More for kids.
- Higher threshold as you have to search and be more active participator.

- "What's this."
- You want to bend over and look inside.
- Like looking into out a ship's cabin window.
- Backlight draws attention.

- Speaking/Listening, less looking.
- Draws attention
- You want to speak to it and put your ear next to it.

- Active vs. non-active mode
- Responds to movement.
- 'Listening'
- Could surprise.
- Delightful details in how it 'behaves'.

- Branding Personality Identity Advertising
- "Look at me"
- The colours should correspond with their permanent exhibition display, so that the viewer can understand the connection to NG better.

- Literally extending the museum walls.
- The colours of the walls inside should correspond with the colours in our exhibition.

- The typography could have been played more with in all of these cases.
- They are formal and traditional. The one exception uses QR code, which draws it back on accessibility.

* all photos can be found on our Pinterest board 'Peek' <https://no.pinterest.com/amalie/peek/>

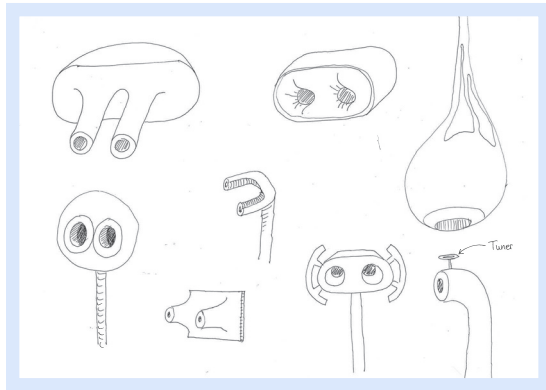
By placing the camera on the caption, people can have the superpower to be a fly on the wall.

We used our phone's Facetime to video call each other. It was easily accessible technology that worked.

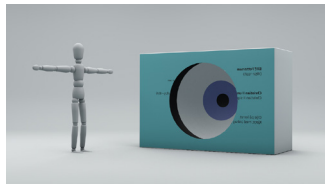


We believe the reversed object labels spark conversation on where and what they are looking at, extending the length of the experience for those who are curious enough..

We found that having 'eyes' on the reversed captions was welcoming and charming, an invitation to look in.

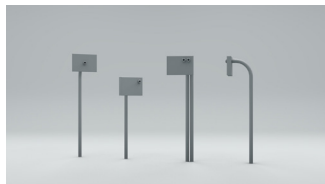
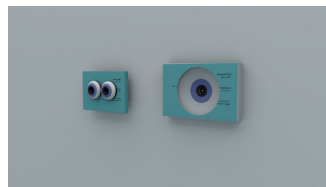


What type of affordances could we add to the object?



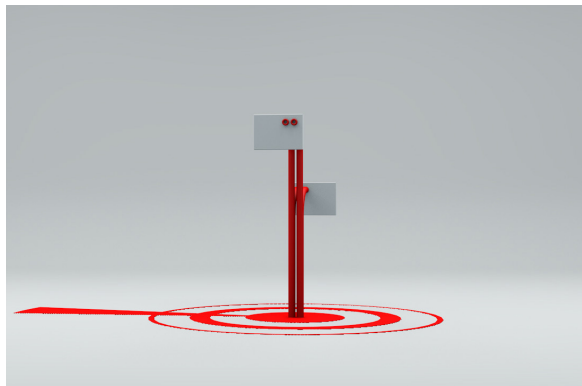
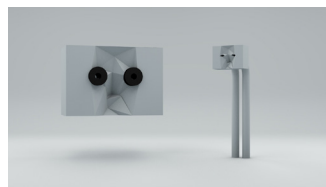
Testing out various sizes.

Simple caption on the wall, one or two eyes?



Pipe to the museum? Pipes indicate networks.

Add space for the nose, comfortable and weird.



Give direction to the museum by adding graphics to the portal.



share

A shared experience is more memorable.

LOCATION

We had to find locations to put the portal. The locations could be relevant to the current painting, one example being Edvard Munch's *The Scream* where it was painted, namely Ekeberg, a hill that looks out over Oslo. The criteria to meet our target group where they are, has led us to choose crowded locations in the city.

For prototype testing we chose Aker Brygge, a location by the sea where people spend time and enjoy the view. Also, this is very close to where the new National Museum is being built.

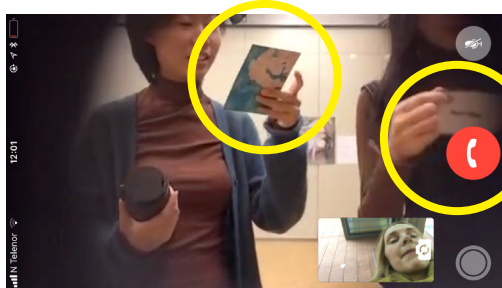
Map from E. Fischer's 'The Geotaggers' World Atlas #51: Oslo' (2010). It represents locations where people post a lot of pictures on social media, we therefore draw the conclusion that people spend time there.

We set up a sample of a corner in the National Gallery at AHO, using paper prototypes and our golden frame with a copy of 'Christian II signing the Death Warrant of Torben Oxe'.



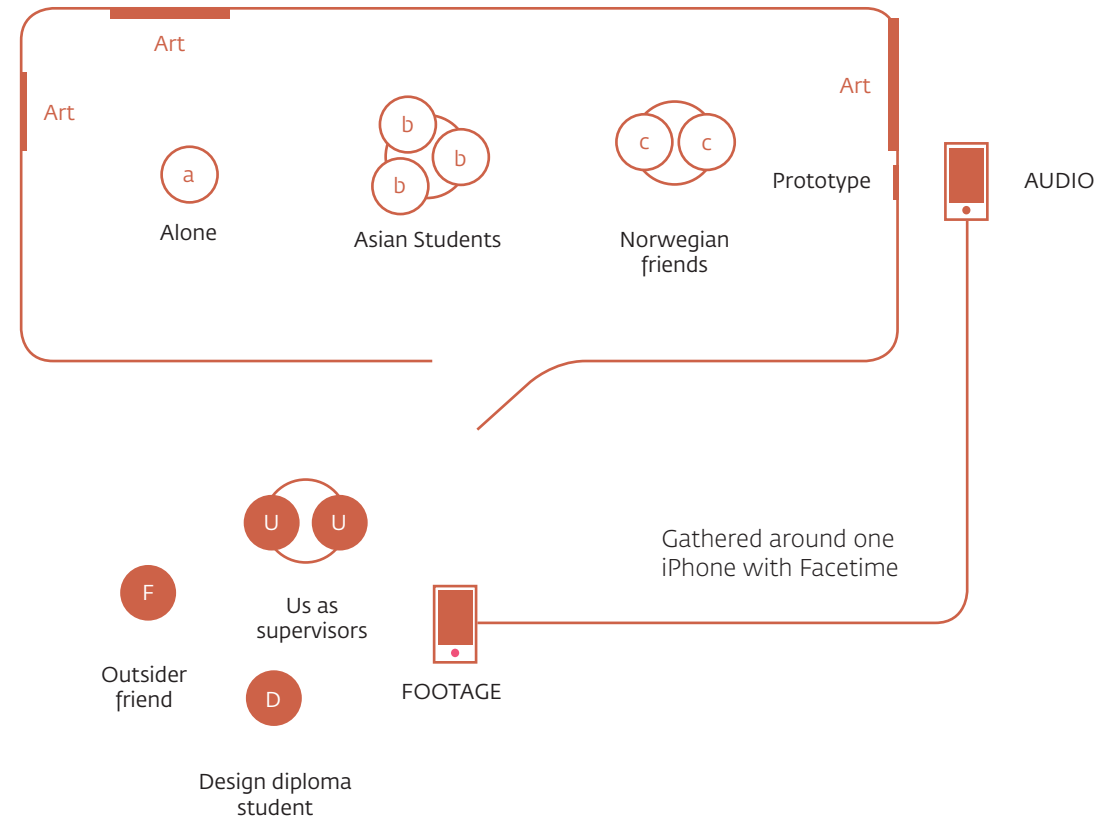
WHAT WE TESTED

Inside the prototype, there was an iPhone streaming live footage to another iPhone that the outsiders observed. The visitors were only able to hear the voices of the outsiders, while the outsiders were only able to view the visitors.



OBJECT LABEL INTERACTION

The visitors were students at AHO who had no pre-knowledge of our project. This way we could test where our concept failed to communicate its purpose. We placed some 'conversation cards' next to the prototype to see if they could be of use.



exploring extended experiences



THE VISITOR EXPERIENCE

'Participant A' heard us speaking before she looked at the art. This made her walk over to the painting by our prototype. She told us that she initially thought the audio was a playback.

"Okay, it's live! Then I'll come close and talk to you,"

she said, as she understood that the outsiders were talking about her, which changed her behavior. The question "What are you looking at?" was interesting to her, as she thought it was a question about what the people in the artwork looked at.

THE OUTSIDER EXPERIENCE

It is fun to be an observer and look at the visitor's reactions, and how they respond to questions we asked. It should, therefore, be possible for two or more people to look at art people together.

REFLECTION AND FINDINGS

We believe that a vibrant discussion equals engagement.

We saw that the participants were expecting instructions, looking for a purpose and a why. We see this as a positive thing, as it makes them physically aware of the space they are

in, but to keep the conversation going it needs more input from the outsiders.

"Hello? Can you hear me?"

The challenge is therefore what the outsiders can communicate to the visitors. The cards were confusing the visitor, and when they used it, the outsiders tried to find meaning in them, which they could not.

We decided to let people find meaning in the experience itself, and let the insiders and outsiders speak to each other. Then the material probes are not needed, and simple questions would be best. At this point, we understood that we should add visual cues to the outside could work as a conversation starter.

"Could it be as simple as having some graphics saying: Live from the National Gallery? Could there be some clues to what they could talk about?"

Enabling discussion leads to more engagement on both sides. If there are several outsiders, there will be more talk, and the visitors can hear people discuss through the label on the wall. Therefore the outside should be designed as a shared social interaction platform.

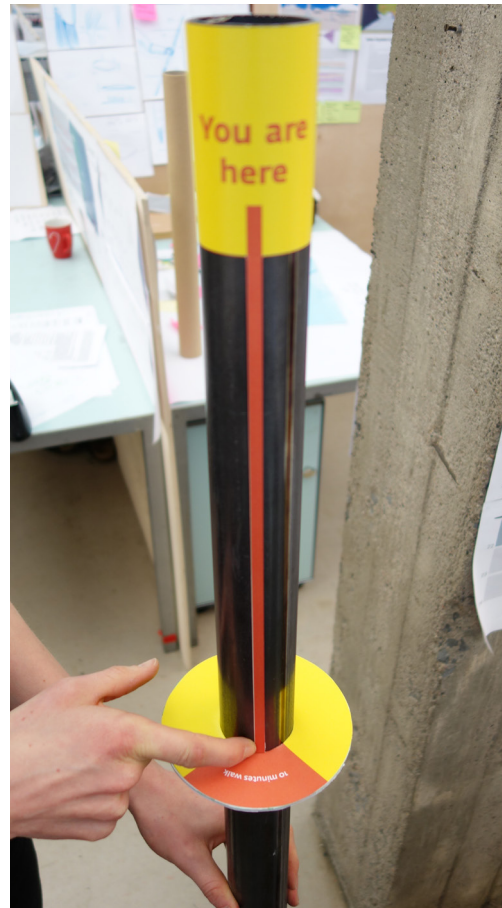
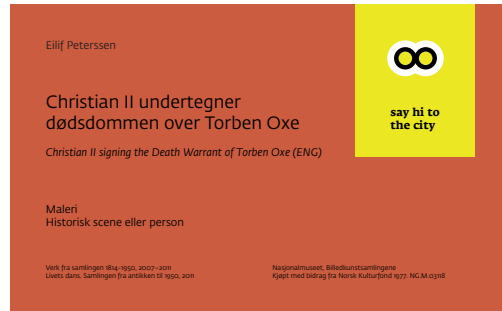
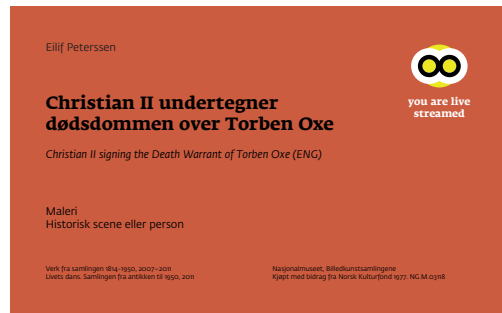
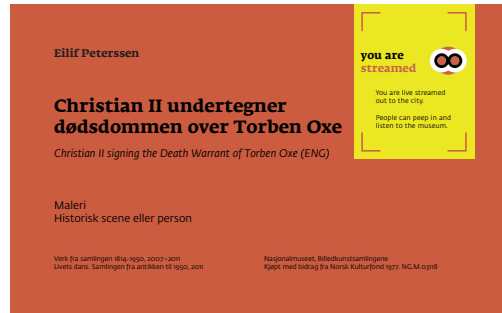
EVALUATION OF THE USER TEST

It is hard to recreate the National Gallery, and we are aware that this test did not give us a valid result of how actual visitors would respond. However, with this test, we discovered that our conversation cards were confusing and the testers had a forced relationship to them, with no relation to the artworks. This concept requires being tested in its real context, to understand if it engages random visitors.



'live'

Give the visitors and the outsiders a visual cue to what is going on. It could be as simple as saying "The National Gallery Live"



TECHNOLOGY

We looked at what kind of technology we would need, webcams, smartphones etc. that would enable us to explore in different ways with live streaming of sound and video. In our prototypes we used our iPhones facetimeing each other. This worked perfectly, and continued with video calls.

ENABLING CONVERSATION THROUGH 'BRANDING'

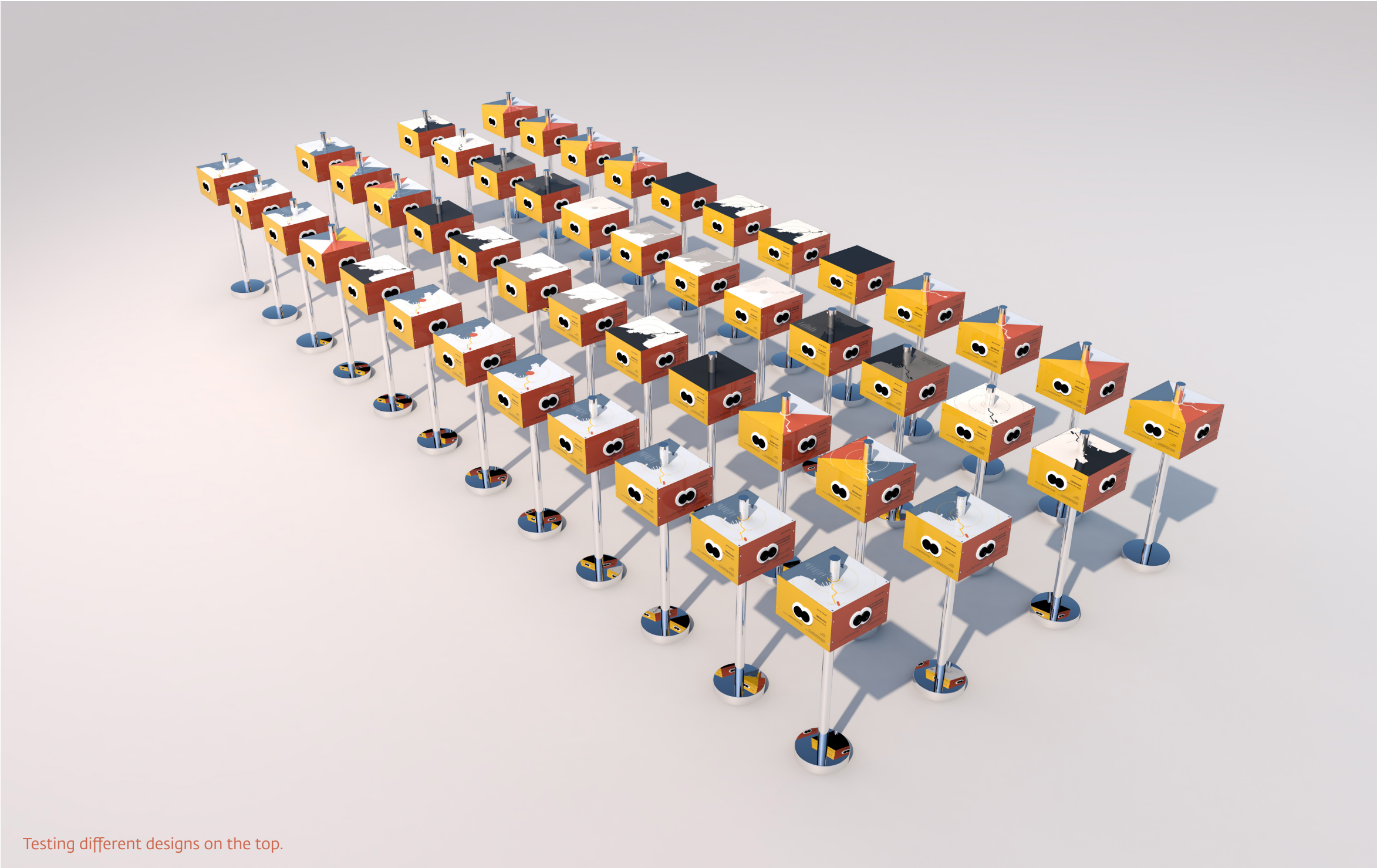
If you could stand there and look into the museum, seeing people who are looking at The Scream from the painting's perspective, what would be interesting to say to them? What would they want to show you back? Could the museum visitor have props, like speech bubbles, to enable discussion?

PRIVACY

We had to let people know about the streaming inside the museum in case they wanted to avoid the camera. If people know they are being streamed they might also wave, try to say hi or interact with it in other ways. We therefore tried to make this information stand out on the object label and played with tone of voice.

DIRECTIONS

How would the outsider know where to go if he decided to go to the National Gallery? On the following spread you can see iterations on direction graphics.

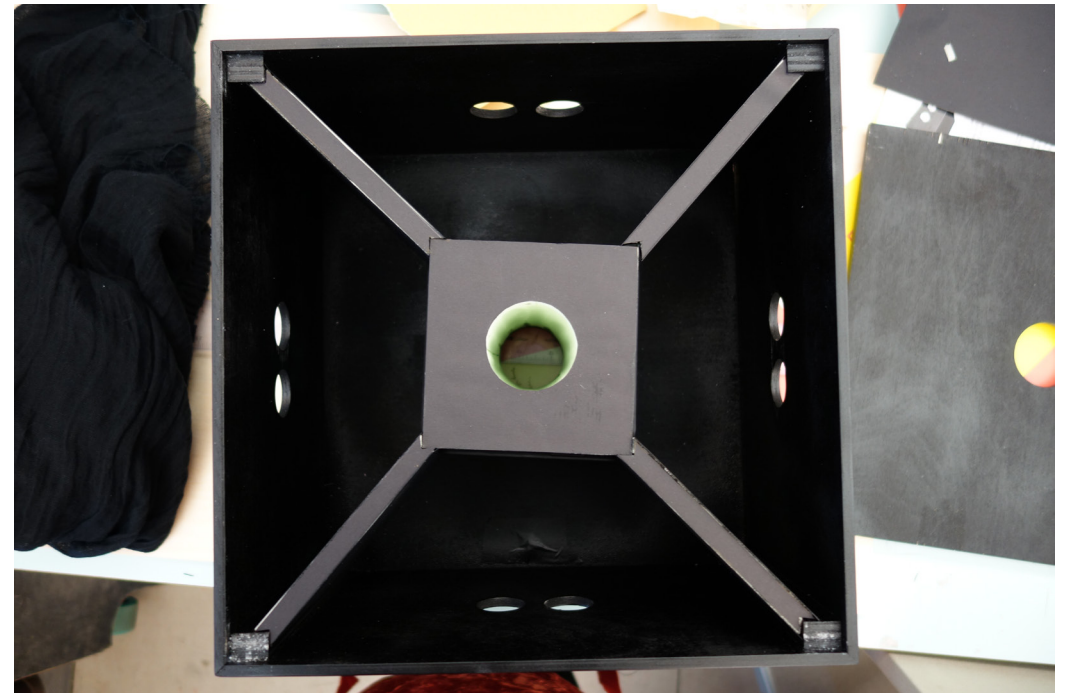
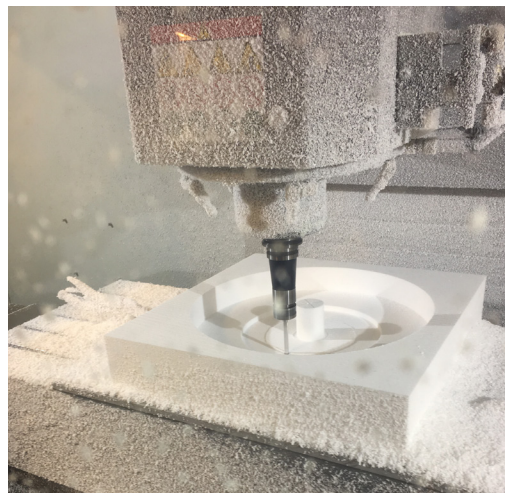


Testing different designs on the top.

exploring extended experiences



MAKING THE PROTOTYPE
 A wooden housing for the screens that needed to be dark inside, easy to open and solid. Also a concrete stand to counterweigh the top heavy box.



Summary

A non-linear, physical and shareable experience, which gives people the superpower to be a fly on the wall in the museum is what we pursue.

Discussion leads to engagement, but we have learned that trying to get people to talk about something specific is hard. Therefore we will let the platform stay an open communication device and see how people choose to use it.

CHAPTER OVERVIEW

The Inside Out concept evolves into the prototype 'Look.' Different design interventions are combined to create a curious and engaging experience using the National Gallery as the context.

5

outcomes & delivery

extending the museum

LOOK, our tangible communication platform, is a result of our research into what engages whom, experience prototypes, and builds on Halogen's insights into the National Gallery user journey.

THE MUSEUM: EXTENDED

Based on our findings we have found one solution to distributing the museum beyond its walls. Our findings led us to design a touchpoint between the National Gallery and people lingering at Aker Brygge. As suggested by Halogen's strategy (Publikumsreisen - Fra sofa til sofa, 2017), and according to our findings, the National Gallery should meet the people where they are. Therefore **we brought the National Gallery to the streets and let the people on both sides find their way of interacting with each other.**

ENGAGEMENT AROUND THE NATIONAL GALLERY

Our final concept checks the criteria we set to create engagement around and inside the National Gallery. It lowers the threshold of entering the art world and enables you to voice your opinion within the context of art.

The objects interrupt the status quo in the museums and surprise both visitors and non-visitors. The outcomes open a shared platform, where one can have accidental encounters with strangers.

OUTCOMES & DELIVERY

THE VISUAL LANGUAGE

The components of our final experience prototype are visually designed within the National Museum's brand framework but refitted to the tone of voice of our design solutions.



extending the museum

IMPLEMENTATION

Our design interventions use technology easily available today, meaning that they are ready to be implemented. They require small expenses and little physical space from the National Gallery to develop and implement in their permanent exhibition. It is a flexible system that can either be permanent or based on events.





how it works

We have opened four portals into The National Gallery, and put them inside a box called LOOK.

At the gallery, they are hidden in the object labels, live streaming from four different rooms. Non-visitors can have a mini-visit to the museum, and look at art people. The visitors can not see these outsiders; however, while they look at the art, they can chat with them.

DESIGNING EXPECTATIONS

From our research, we have found that one purpose of art is to let the viewer find their purpose and meaning behind the artwork. Our experience is therefore designed to spark engagement through curiosity and the journey of understanding where they are looking into, and who they are interacting with.

FOUR PORTALS, FOUR ROOMS, FOUR PAINTINGS

The visitor can look into four portals, each portal represents one art period that is displayed in the National Gallery's permanent exhibition.



From antiquity to baroque



Romanticism



From impressionism to Munch



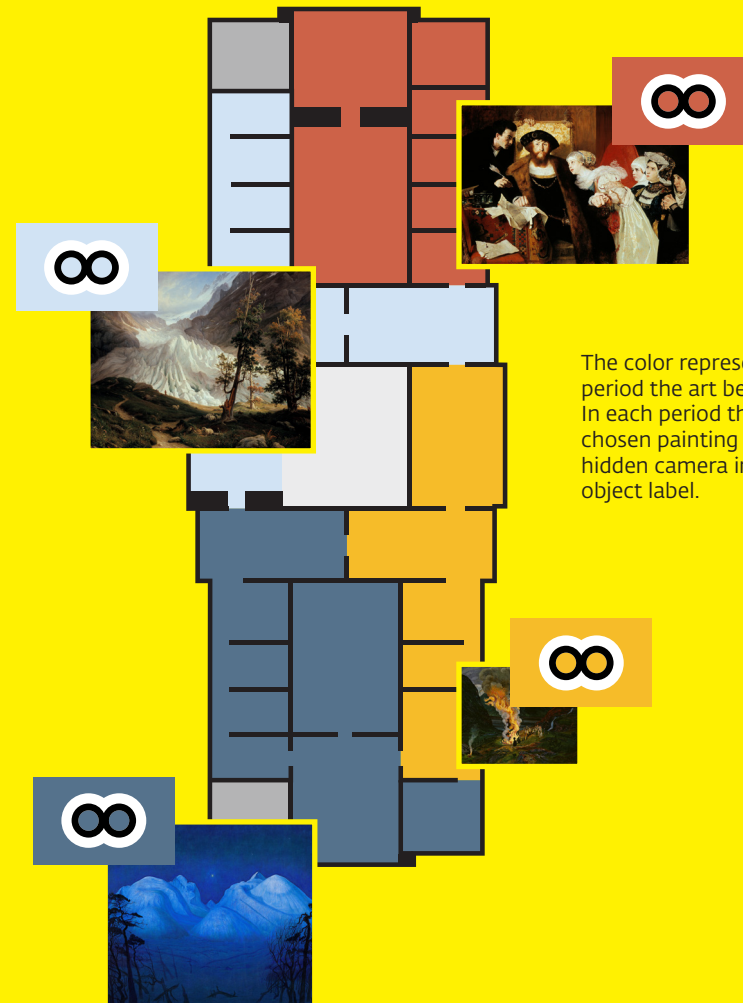
From modernism to the 1950s



LOOK: BE A FLY ON THE WALL

The view from the peepholes in the box is from the camera's position; the interactive object label. This view means that they are not able to see the painting the visitor is viewing, but the exhibition and the visitors.

Top view of the National Gallery second floor housing their permanent exhibition.



The color represents what period the art belongs to. In each period there is one chosen painting that has a hidden camera inside of its object label.



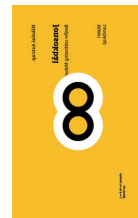
The camera inside is live streaming to a box outside of the museum, in our final test we placed it at Aker Brygge.

The boxes colors correspond with the colors of the walls of the museum.

The red rooms are in the north wing



The pale blue rooms are in the west wing



The orange rooms are in the east wing

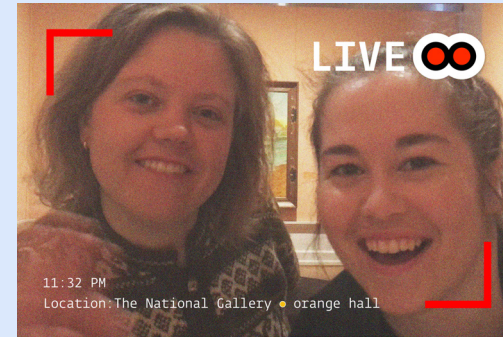


The dark blue rooms are in south wing

WHY FOUR COLOURS?

ex:museum has selected the colours used in the National Gallery's permanent exhibiton 'The Dance of Life'. There are four four different art periods displayed, arranged chronologically. The main emphasis is on Norwegian art of the 19th and 20th centuries, covering a span from Romanticism to Modernism.

extending the museum



To establish an understanding of where it is, we have added graphic elements and text explaining that it is live streaming from the gallery.



FOUR PORTALS

There might be times during the day when there is nobody in front of the object label. Therefore we chose to place four portals inside the museum, one in each period. People can then share the experience simultaneously together and has three times the potential for interaction when the four portals are placed in a shared box.

"What is this?"



"I've found one"



AT THE NATIONAL GALLERY

The posters introduce to the interactive labels, how to spot them and encourage people to engage with them.

The interactive labels are designed to stand out, to let the visitors know that something different is going on.

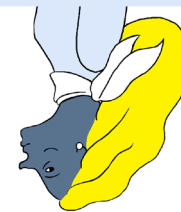
By using a coherent visual language, the visitor can recognize the portals out in the city.

"Oh there is the portal were people talked to us from!"

Before



During



After

Its curious design raise attention. Lowering the threshold by extending the museum to a public space.

The four different portals raise the chance to face a visitor. If the museum is closed, each portal could show curated films.

"Let's figure out how it is inside"

The map and the graphics provide information to let the non-visitors understand that it is the National Gallery they are looking in to.



AT THE LOOK

"Meet me where I am"*



"Show me something new and exciting" *



*quotes Halogen believe should be taken into account when the new National Museum opens in 2020.

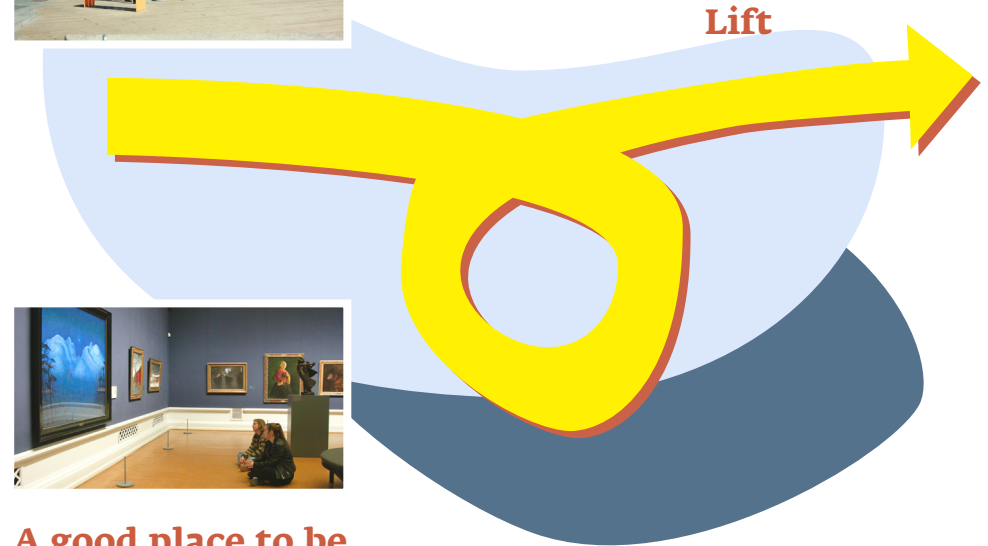


Our final test at Aker Brygge; people found it engaging and understood that it was live streaming due to the 'live icon.'

Open



Invites the non-visitors in.
Meets them where they are.
A curation tool.



A good place to be

CHALLENGES

SOLUTIONS

- Make people look → Curious and fun object
- Non-intrusive → Four portals easy to avoid/ignore
- Empty room → Four portals increase the possibility for encounters
- Engage interaction → The live icon
- The museum is closed → A selection of curated content
- Invite them in → Map and directions on the top



the visual language

LOOK is designed to be a curious and welcoming object set in the public space. The cartoony eyes it invites you to discover the National Gallery by being a fly on the wall.

LOOK

Look at art people.
Speak up.

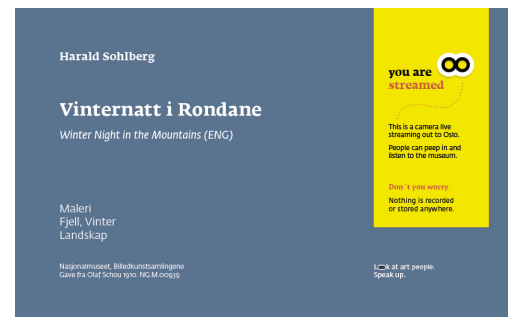
Look at art people.
Speak up.

THE ICON

The icon, above used in the logo, is the visual cue that connects the design components and sets the tone of voice.

THE TAGLINE

The tagline is not reversed, and is meant as a cue that the people on the other side can hear you.

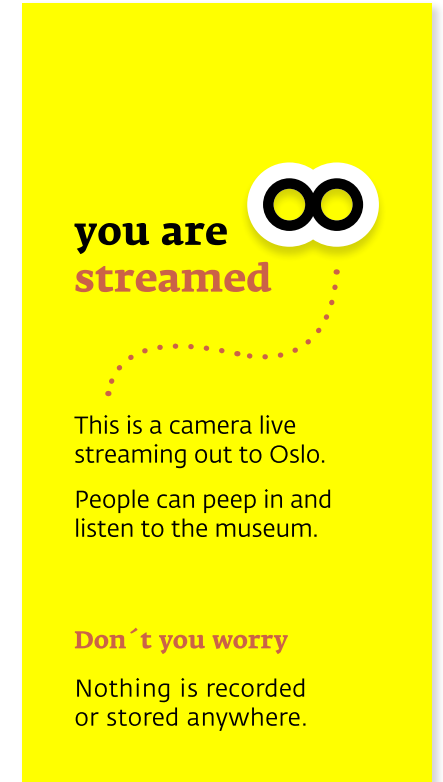


REVERSED CAPTION

The portals are represented on the outside as a reverse caption, as you are looking through the caption and

THE TOMBSTONE TEXT

The tombstone text describes what the art is, and we have used the data the gallery use themselves.

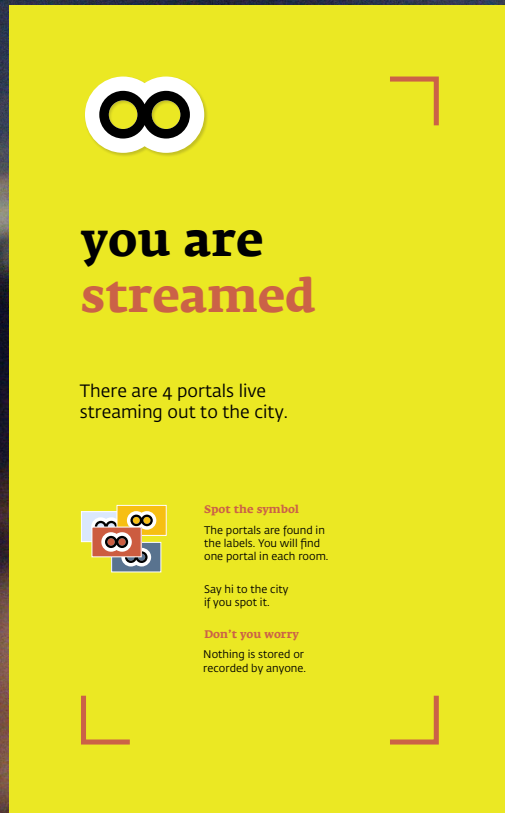


THE SIZE OF THE OBJECT LABEL

Inside the label, there is an iPad streaming out to the phones outside. We used the iPad as it has better sound quality than smaller smartphones. The object label had to cover the tablet; we also believe that its size makes it stand out in the exhibition, and lead to people wanting to have a closer look.

BRIGHT 'WARNING' YELLOW

It has been important for us to let people be aware of them being streamed, the sharp yellow helps the visitor to spot it.



**you are
streamed**

There are 4 portals live streaming out to the city.

Spot the symbol
The portals are found in the labels. You will find one portal in each room.

Say hi to the city if you spot it.

Don't you worry
Nothing is stored or recorded by anyone.



**du blir
streamet***

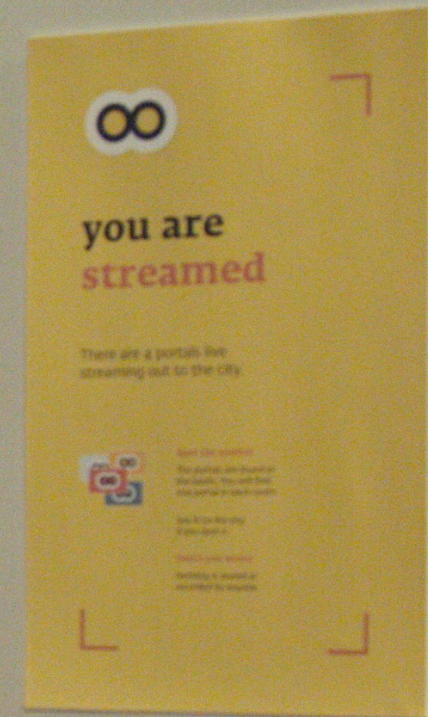
Det er 4 portaler som live streamet* ut til byen.

Se etter symbolet
Portalene er plassert ved etikettene. Det er en portal i hver periode.

Si hei til byen om du finner en

Ikke vær redd
Ingenting blir lagret av hensyn til personvern.

*direkte sending



**you are
streamed**

There are 4 portals live streaming out to the city.

Spot the symbol
The portals are found in the labels. You will find one portal in each room.

Say hi to the city if you spot it.

Don't you worry
Nothing is stored or recorded by anyone.

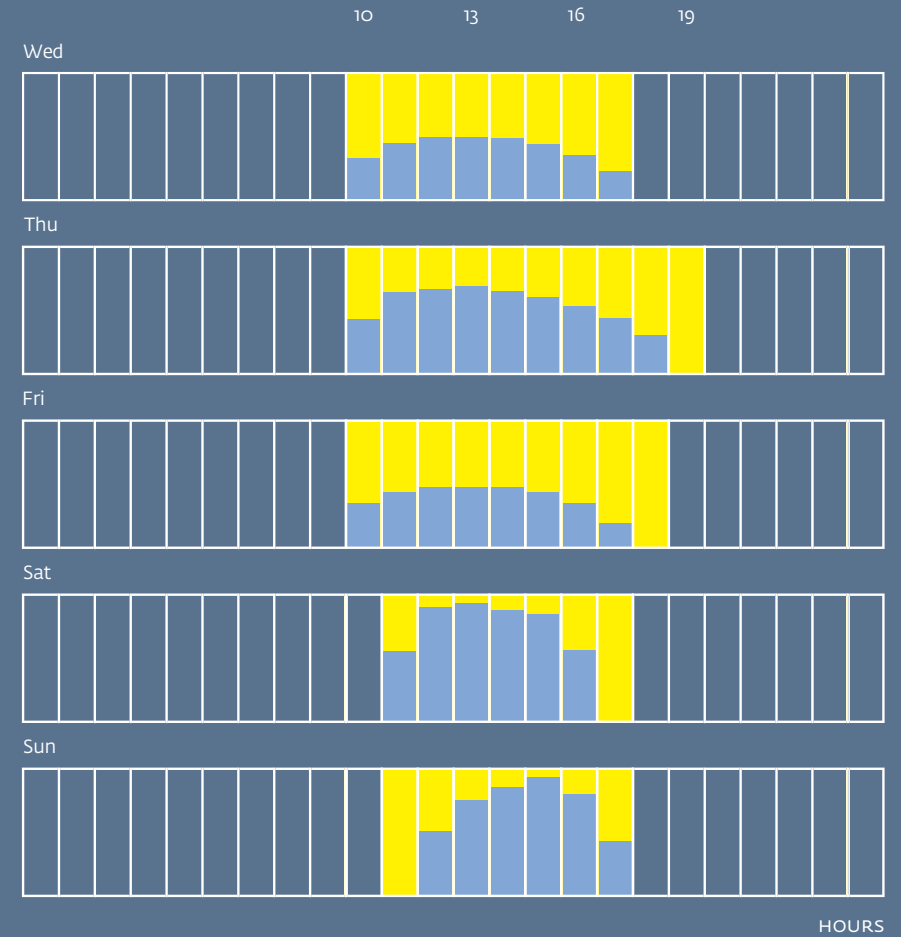
PRIVACY POSTERS

Due to privacy issues, the visitors need to be provided with information on why they are being live streamed.



potential

- Its popular times at NG*
- The opening hours at NG



The National Gallery has its opening hours, meaning that there are times where the museum is empty. That is where LOOK becomes the curator's tool.

* According to Google's Popular times.



The gallery is closed,

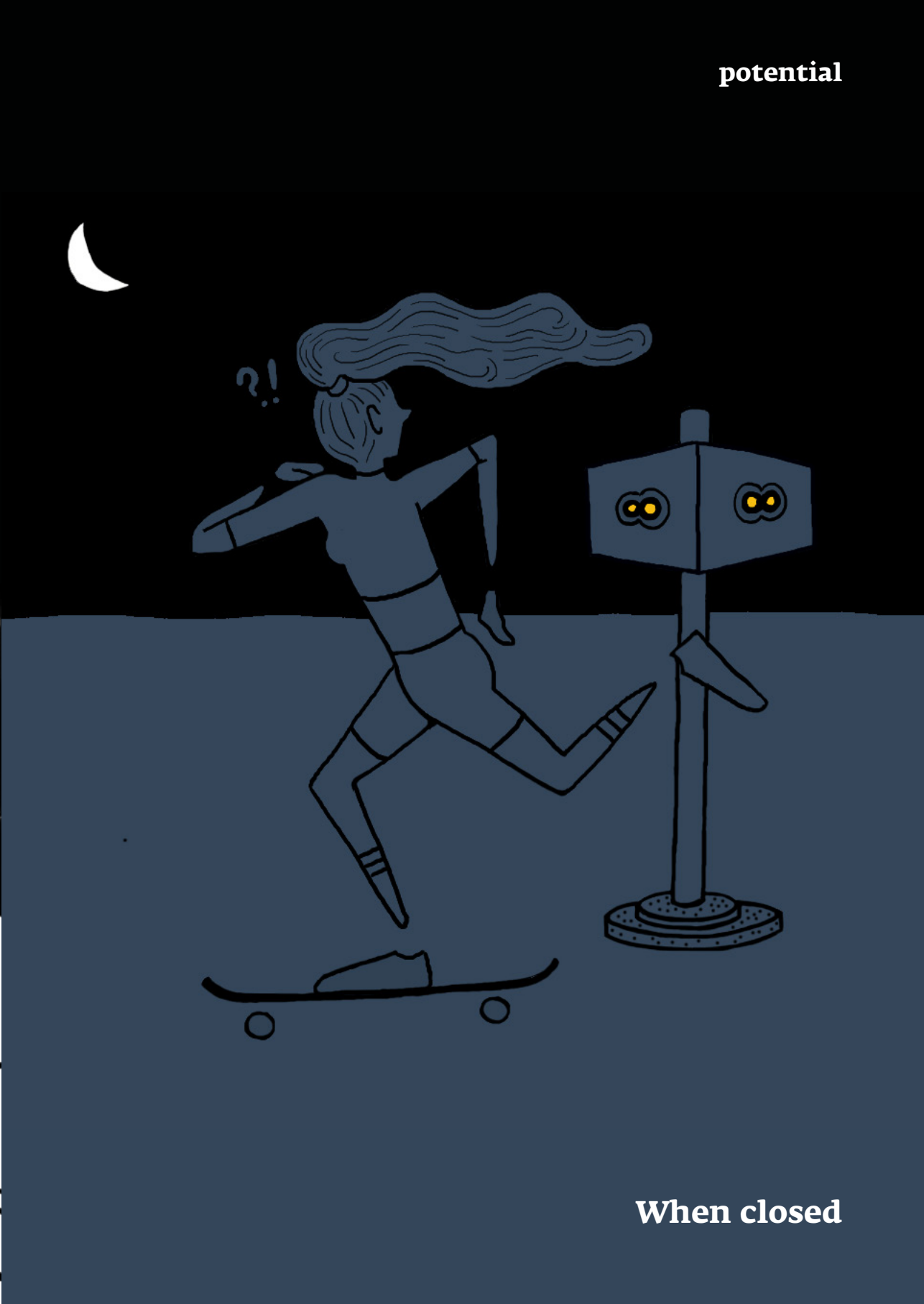
open and live,

and closed again.





When open



When closed

Summary

We have taken our initial goals, the National Gallery, its visitors and non-visitors into consideration in the making of this interactive prototype. It is not perfect, but we were able to make it look believable, test it, and learn a lot from that as you can read about in the following conclusion.

CHAPTER OVERVIEW

Looking back at what we have done, learned and how our diploma is a contribution to the National Gallery experience.

6

final test, conclusion & reflections

Final test inside the National Gallery

INSIDE THE MUSEUM

The main purpose of testing the label in the museum was to see how people reacted to it. In what ways would the different types of visitors react by being spoken to from a completely different place, and would they interact back? We were also able to test the look of the label and poster if they were visible and readable.

TYPES OF PEOPLE PRESENT

Young Norwegian couples, Asian tourists (young and old), senior men, high school students, guided tours, some Balkan tourists, guards, guides.

TYPES OF REACTIONS

Curiosity, they understood where the sound came from quite quickly, and many went over to the label. Some A-HAing. Several talked to the label, the basic greetings, some had more to talk about, but most did not know what to talk about. Several deliberately ignored the talking and continued strolling around. One group of Asians and one Norwegian couple came back to the painting and label twice and talked. Some waved to the label. Some did not realize they were being talked to until the talker mentioned something they were wearing or noting their position in the room.

REFLECTIONS

The visitors did not seem displeased or uncomfortable with being live streamed, rather the opposite. The label and sound did not seem to scare people away, but rather brought people closer. It is important to note here that as in many other museums, people simply wander past the artworks, they very rarely linger in one place unless it is the sofa. It looks a bit like they just float around and soak up the atmosphere rather than the actual pieces of art. Having our interactive label beside one of the paintings made people stand by it for a longer period, maybe thinking there must be something special with this one painting. Most people looked at the label, but the painting itself also got more attention.

In our digital appendix you can find compilations of the user testing inside and outside the museum as "vid_1" and "vid_2".

and outside at Aker Brygge.

OUTSIDE THE MUSEUM

Would people casually wandering along Aker Brygge notice, or better yet be interested in our museum portal: LOOK. Research and smaller tests suggested that they would, but there was only one way to find out. Getting their reactions to the content on the screens inside LOOK was important, so it was rigged with a microphone. We hoped to get some people

TYPES OF PEOPLE PRESENT

All kinds of people, because Aker Brygge is a melting pot for people with nothing much to do. Elderly couples, middle-aged men and women, families with young kids, teenagers, young couples, tourists, people walking alone or in groups. All kinds tried LOOK.

TYPES OF REACTIONS

Some came purposefully walking from the walkway and over to LOOK to investigate it, others walked by and noticed it. Few completely missed it if they walked past it. Almost all who came over instantly bent down and peeped into the portals. Most then stayed for more than ten seconds, often trying out all the four portals. Some exclaimed that it was live, had an aha moment, or tried to make contact with the other side. Some understood that they were looking into the National Gallery or a gallery. A couple of people got physical with the box, trying to knock on it, turn it or open the lid.

Three teenagers also stayed for quite a long time, investigating all that could be investigated and reading the external labels. Some did not get what was going on at all, and one old man discarded it as humbug.

REFLECTION

Aker Brygge was perfect for this kind of intervention as the passersby were casual and open to curious experiences. Little on or in the box directly suggested that it had anything to do with the National Gallery, and you would not know unless you have been there before. Therefore we were glad some understood where it was. The screens saying "live" were engaging, and maybe the most successful feature of Look beside the weird design of the installation. We did not get to test the actual interaction with people talking in the other end here, and we regret not knowing how long they would have stayed.

FURTHER DEVELOPMENT

Due to the length of this project, we have had little time to finetune the technical aspects of the outcome. Following are some aspects that need to be further developed if we would continue.



From our final test at the National Gallery

STABLE WIFI CONNECTION

The objects need wifi to communicate; this could become an issue if it disconnects.

CURATED CONTENT

Our target group need instant entertainment, otherwise they lose interest in the device. We do not necessarily want to keep them standing for hours, but long enough to understand what they are looking at.

PRIVACY ISSUES

Adress the privacy issues when school kids are visiting

'STRONGER'

As we experienced in our final test people will try and rotate the box, as it looks like a periscope, hence it needs to be strong enough to handle this. There should be a closing mechanism on the lid to secure the screens.

POWER OUTLET

Our prototype was limited to batteries; we would want it to be powered 24/7.

THOUGHTS ON THE PROCESS

It has been a dive into the many ways of engaging people within the museum context. We searched for our place as designers in the world of museums, and where we could contribute.

Initially, we believed we would design with new immersive technology. AR has the potential not to disturb the Traditionalist, as it adds only a 'hidden' digital layer on top of the physical world. Through investigation, we found that engagement does not come from the technology itself. Hence our ideation and conceptual thinking has been human-driven.

We have had fun, and have seen this as an important factor in our process. We have been throwing ideas on how we could present the National Gallery in new ways. We have had ideas that have been labeled 'gimmicky,' but they all led to an experience that we believe brings value to visitors museum experience.



PROJECT CONCLUSION

Our ambition to stay away from purely visuals remained with us throughout the project. We see it as a success that we were able to design a high-fidelity prototype that link the outdoor with the indoor, the digital and the physical. The physical prototypes are our proof of concept that we present to the National Museum as one way of engaging future visitors.

Our final test at the National Gallery and Aker Brygge gave us enough insight to pitch our concept to our collaborator, the National Museum. The public user test did spark people's curiosity and gained attention enough to let the National Gallery intervene their everyday. However, we see that there are improvements needed.

The prototype and concept still need adjustments when it comes to the technical aspects, both digital and physical, but we feel that we did our job as interaction designers – enabling people at the museum to interact with people outside the museum.

We hope that our concept and final delivery will be taken into consideration by the National Museum as a valid solution to the user insights they got from Halogen. It should be of interest as they are in the middle of moving the museum to its new location at Aker Brygge.

– and another thing that went according to our plan: we had fun!

conclusion



CHAPTER OVERVIEW

Here you will find our sources of literature, media research and the names of all the lovely people who have helped us throughout this diploma.

7

references & acknowledgements

OUR BLOGS

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<https://www.are.na/hanne-morstad/art-in-digital-space>

The 'Extended Museum' publication on Medium

<https://medium.com/extended-museum>

TYPOGRAPHY

The typeface used on all materials of this project is Fedra Serif and Fedra Sans.

FEDRA SERIF

Fedra Serif merges the physical aesthetics with the digital one.

"A synthetic typeface where aesthetic and technological decisions are linked. Its humanistic roots are balanced with rational drawing."

– Typotheque

FEDRA SANS

This typeface is simple and has an informal elegance. It works equally well on paper and screen.

Both of these has many variations in weights, hence our decision only to use this.

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