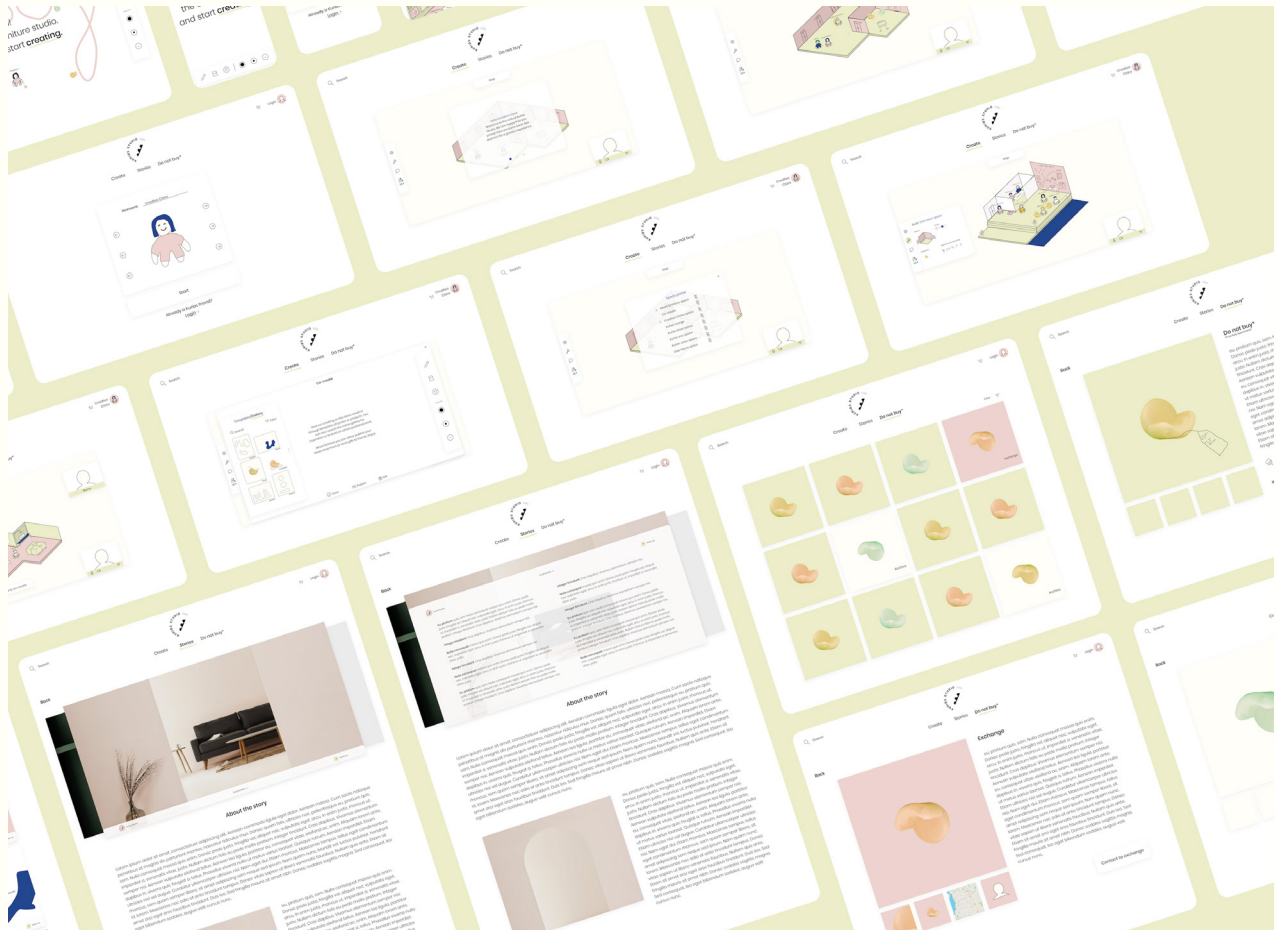# Digital Kuriøs - *A Virtual Furniture Studio for Co-Creation*

Oslo Metropolitan University

2021

A Master's thesis by
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Abstract

The current system of the furniture design field of Norway is affected by trends, consumerism (throw-away society) and the goal of growth and convenience. Theory suggests that designing with an emphasis on interactions between product, use, and user through a game or play perspective can offer a perspective that recognizes all humans as creative to participate in the design process and "solve their own problems". In this project, research was conducted through a systems oriented approach to design, including methods of game theory, sales safari, probes, game analysis, platform analysis and GIGA-mapping, amongst others. Emerged findings of successful use of game dynamics and co-creation considering elicitation of communities, activation and emergent behavior, provided values possible to extract and utilize for concept development. Accordingly, investigating how one can design for and with co-creation and engagement, contradicting the goal of growth, simplicity and availability in the field furniture design. *Digital Kuriøs – A Virtual Furniture Studio for Co-Creation* is a digital platform that invites business partners and customers into the creative process of the startup furniture and design company *Kuriøs Studio*. This is conducted through an interactive and social space built on game dynamics to facilitate co-creation.

Keywords: Co-creation. Game dynamics, Emergence. Systems oriented design. Emotional durability.

Co-creation,
Game dynamics.
Emergence.
Systems oriented design.
Emotional durability.

Preface

We humbly want to thank everyone involved in this project – those who have enriched it with perspectives, discussions, feedback, challenges and motivational boost. They include both cheerleaders of our lives and professional supporters contributing to bring out our potential of being and becoming designers.

A *special thank you* to our supervisor Tore Gulden for always finding ways to push and broaden concepts into new directions and for always having faith in our ability to achieve what we envision.

Thank you to our dear classmates, who we have not been able to interact with physically the past year because of Covid-19. We have discussed obstacles, project-related and personal, and inspired each other through the digital screen.

Thank you to the *Department of Product Design at OsloMet*. This has been a place to grow and learn, a place with so much to offer of knowledge and facilitation and a place we are grateful to have spent 5 years of education.

Thank you to *Kuriøs Friends* and participants for engaging in methods conducted in the process of the project and for continuing to follow the journey of *Kuriøs Studio*.

A *last thank you* to our friends and family, who solemnly cheer and motivate unconditionally, whether things go smoothly or stagnate.

Thank you.

Index

Chapter 1

Project introduction

1.1 Introduction and scope

The project *Digital Kuriøs - A Virtual Furniture Studio for Co-Creation* aims towards studying how one can design for co-creation and emotional durability in the field of furniture design. Through a game and systems oriented design approach the project investigates how and if elements from games can create an inclusive arena for creative emergence, invite for co-creation and thereby achieve emotional durability. "Looking at design with an emphasis on interactions between product, use, and user through a game or play perspective does not necessarily lead to convenience as a valuable function. Thus, including game and play theory as part of a design process can offer a new perspective in traditional design thinking. Such a design approach that takes in game and play elements trusts in the acknowledgement that all humans are creative and capable of making their own environments, seeking their own potentials, and, given the chance, solving their own problems, and that this recognition asks for a reformulation of the role of design." (Gulden & Sjøvoll, 2017).

Accordingly, it is desirable to create a basis for future services and products for the startup furniture and design company, *Kuriøs Studio*. By starting within the frames of a digital platform that invites business

partners and customers (*Kuriøs Friends*) into the creative process through an interactive and social space where all actors can play and create together. In addition, the digital platform is intended to contribute to establishing *Kuriøs Studio* in the market, reflecting the company values. Hence, challenging the goal of growth and consumerism by rephrasing the desired values through activation and engagement has been a driving force.

Resarch Question
How to design for co-creation and emotional durability in the field furniture design through game dynamics?
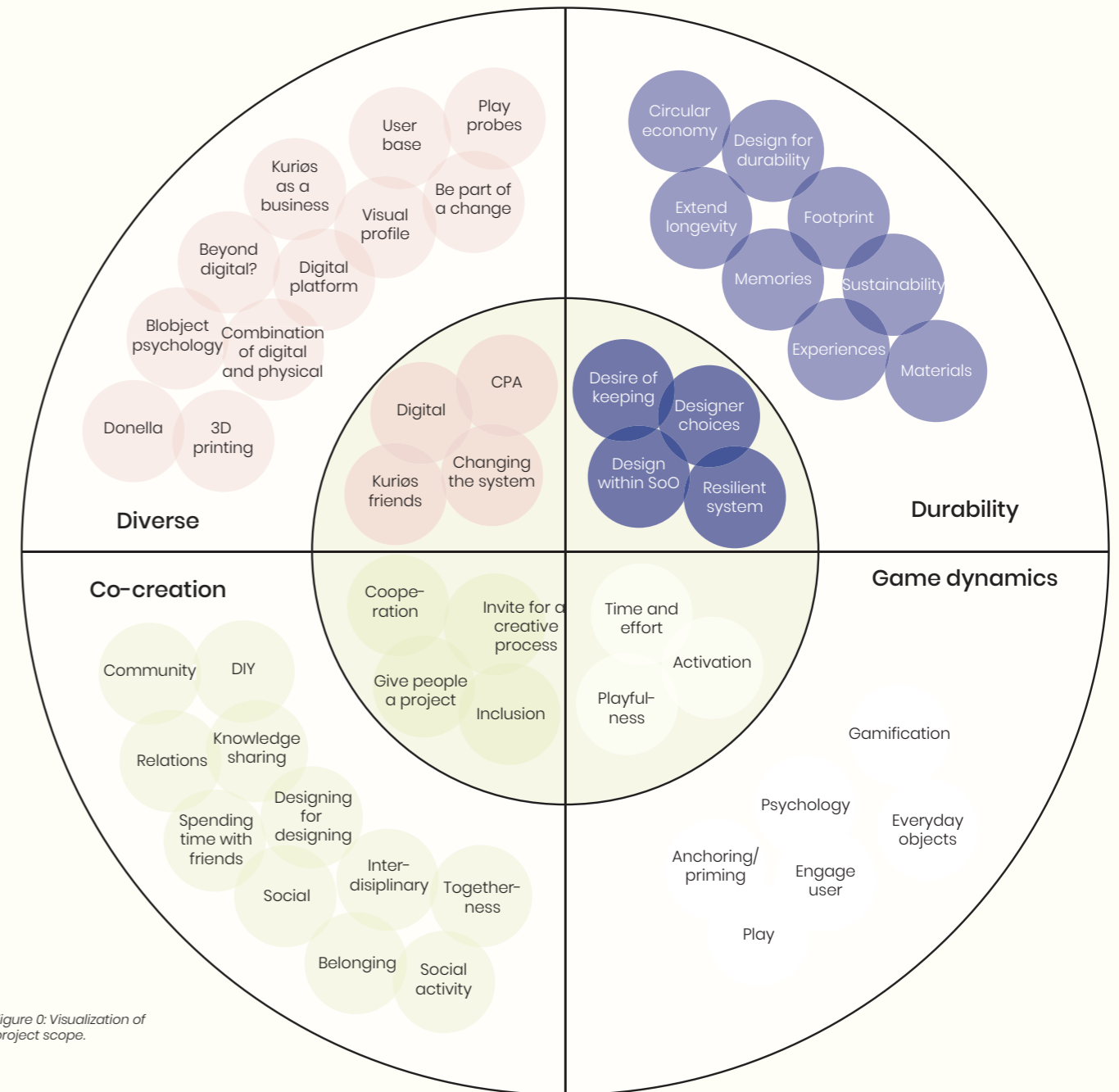
Figure 0: Visualization of project scope.

1.2 Background

The background section presents relevant theories and research around the project theme. *What is the state of the art? What is the story so far?* It also suggests a hypothesis to why the project is significant in its context, possibly contributing to closing current gaps in knowledge.

1.2.1 Leverage in Kuriøs Studio revolving systems
Kuriøs Studio is a startup furniture and design company founded and run by Elise Sandvik, Iris Trana and Julie Sørensen. Our vision is to elicit joy, mainly through furniture and interior design with playful and surprising elements. The design processes are often driven by curiosity, challenging the set frames of what furniture can be and designing products that will last.

In the course "Visualizing Complexity, a giga-map (available in appendix) was developed to visualize the complex systems surrounding and influencing *Kuriøs Studio*. The visualization increased the understanding of how the company at an early stage can influence and create a stable, yet flexible system for its future. Additionally, the mappings highlight how various systems are interwoven and how those layers create leverage that the company can benefit from. According to Donella Meadows´ (2008) theory, leverage points are "places within a complex system (a corporation, an economy, a living body, a city, an ecosystem) where a small shift in one thing can produce big changes in everything" (Meadows, n.d.). Potential leverage was (among other leverage points) found considering the goal within the current system of the furniture design field of Norway, including growth, simplicity and availability. The leverage was then connected to possible areas of intervention in the system of *Kuriøs Studio*, with concepts answering to the respective leverage found in the systems.

The research question of the Master's project is connected to *Kuriøs Studio* as a way to explore how one can design for and with co-creation and engagement, contradicting the leverage point about a goal of growth, simplicity and availability. With the power to add, change, evolve, or self-organize system structure, this project investigates how one can take previous experiences of co-creating in the design process, combine it with recent knowledge about game dynamics and system oriented design to explore possible services within the system that can create emergence. The findings from the research can then be incorporated as a base for the creation of a digital company platform. The platform ought to facilitate emergence and activation from customers and business partners (named *Kuriøs Friends*).

1.2.2 Inclusion of customers into co-creative participation
The current inclusion of co-creation in processes within the furniture design industry usually involves customization and personalization. "A growing number of e-commerce companies are offering personal choices at affordable prices" (McKeough, 2020). *Normann Copenhagen* invites customers to customize their furniture pieces by stating "Our furniture can be customized in the tone and texture of fabric that suits your interior design scheme best" and "A universe of color combinations let you design an unique sofa or lounge chair in daring pink for a fashionable statement or in complementing tones of color for a balanced living room environment" (Normann Copenhagen, n.d.). Ben Parsa, the chief executive of *Inside Weather* refers to their customization website; "Being able to visualize tens, and soon hundreds, of millions of combinations of furniture from the comfort of your home is something that we think has tremendous mass appeal" (McKeough, 2020). Their website focuses on customizing every product, allowing the customer to pick a model and design the details like frame finish and upholstery (Inside Weather, n.d.). On one hand, to customize and choose from possible options can potentially increase the product attachment based on personalization, offering a convenient service to match furniture with your home interior. On the other hand, customization can

be considered relatively superficial and passive. The existing furniture industry is highly affected by trends, consumerism (throw-away society) and the goal of convenience. This way of co-creating can be seen as a precursor to the idea of a co-creative platform, with the goal of activating and engaging with higher effort to elicit sustainable behavior, longevity and emotional durability of products within the field of furniture design.

Our Bachelor's thesis "JOMO (Joy of Missing Out)" from 2019 revolved around interpersonal relations and emotional attachment through theories of blobjects (blobby objects), form idiom, color psychology and materiality. During the design process co-creation was used through a concept called "HUHU" ("help us help you"), where followers of an instagram account frequently were included to participate, share experiences and contribute to decision making. Design is enriched through interacting and designing with stakeholders, which can be considered co-designing (Sanders & Stappers, 2008). By facilitating a space where designers and stakeholders meet to experiment and share their understanding of what it is, in order to co-design for what can be, is a way of rehearsing the future (Binder et al., 2010). The approach elicited engagement, inclusiveness and transparency to the project, and started our design approach of co-creation.

There are examples of solutions in other fields beyond furniture design where the participative factor plays an important role. Successful platforms that use mechanisms of co-creation are mainly games like *World of Warcraft* or *Minecraft*, or collaborative work tools such as *Gather*, *Miro* and *Figma*. As an example of how facilitating for co-creation can lead to success in terms of market share, *Figma* has gradually increased in market value, compared to their competitor, *Sketch* (Hunaid, 2020), that does not facilitate co-creation in their application (Tanaka, 2020). These examples of solutions point to co-creation as beneficial in several areas, and are thereby interesting to further investigate in light of furniture design.

The article "Customer co-creation in B2C e-commerce: does it lead to better new products?" discusses whether facilitation for co-creation leads to better new products in the context of digital services led by customer targeting businesses (Pee, 2016). Through an investigation based on empirical studies and literature reviews, Pee (2016) highlights that businesses employing internet-based platforms with direct communication with customers are especially well positioned to leverage customer co-creation in the development of new products. Relatedly, there are some notable factors including customer emotions, the transparency in the co-creation process and the responsiveness of the hosting firm (see figure 1). Additionally, the article suggests co-creation to involve two key tasks; contributing new ideas (design process) and selecting the idea of implementation (decision process) (Pee, 2016). The study concludes that businesses facilitating for co-creation through internet-based services in key stages of new product development generate better new products in terms of innovation and product sales. The article research relates to the project aim – substantiating possible advantages to emerge by facilitating for co-creation in different stages of a service.

"Customer co-creation is an important stream of research on open innovation. Open innovation advocates using purposive inflows of knowledge from external sources to accelerate internal innovation, and outflows of knowledge to expand the markets for external use of innovation."

"The customer co-creation literature suggests that co-creation involves two key tasks of contributing new ideas (1) and selecting (2) the idea to be implemented"
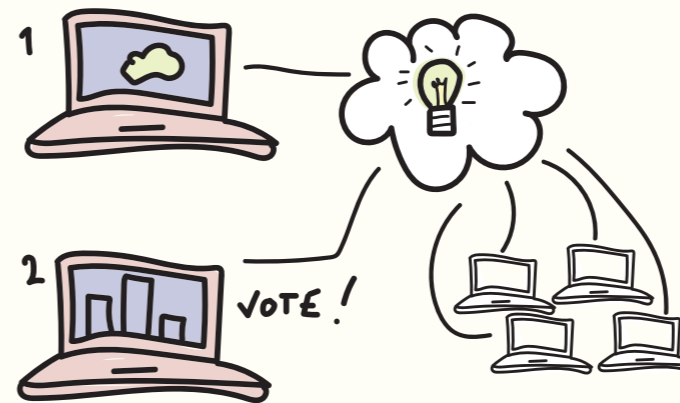
Affecting factors for participation:

Emotions (Enjoyment, ..)

The process of co-creation (Transparancy, ..)

The hosting firm (Responsiceness, ..)

"Being on an Internet-based platform and having direct reach to customers, are especially well positioned to leverage customer co-creation in the development of new products."

"From the resource dependence theory's perspective, customer co-creation allows firms to link with a large base of customers, access their consumption knowledge and experience, and use the critical external knowledge resource to improve the outcomes NPD."
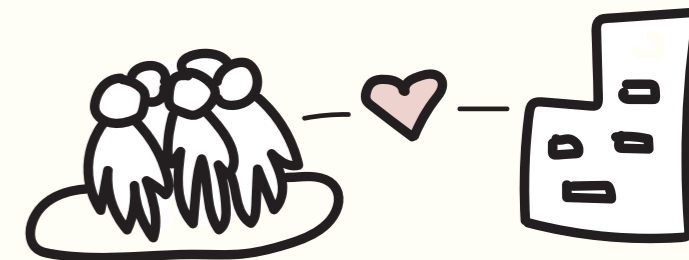
Figure 1: Visualization of the article "customer co-creation in B2C e-commerce: does it lead to better new products?"

1.2.3 Emotional durability in design

The degree of consumer product attachment (CPA) is the strength of the emotional bond a consumer experiences with the durable product (Gulden & Moestue, 2011). The reason for replacement of products with new ones is accordingly driven by the desire of feeling of pleasure through status, belonging, convenience and self expression. The suggestion to calm this desire in favor of the environment is for designers to by applying different methods and strategies to create contexts of experiences (COE) into the stages of ownership, and thereby achieve a greater CPA (Gulden & Moestue, 2011). By including these theories, one can design for engagement and activation, which again is applicable in the argumentation for durable design solutions.

LASTING – Sustainable prosperity through product durability (2020–2023) is a research project funded by the Research Council of Norway, investigating how the lifespans of consumer goods can be increased. Through studying clothing and textiles, furniture and home appliances, *LASTING* investigates how to keep the value of products, materials and resources high for as long as possible through a holistic approach including policies and regulations, production and design, and consumer practices. It will also promote lifespans of products as a crucial element of the environmental discourse, and by influencing central actors and decision makers to implement effective political means enforcing product quality and consumer rights (LASTING, n.d.). A company participating in the research, exemplifying a way to design for emotional durability through furniture and interior products, is *Studio Føy*. Their mission is to create vibrant, authentic products with value for

the owner. By composing narratives around the designs they integrate "an affectionate invitation to build on the story at home, and to have fun conjuring up new compositions and expressions" (Warm Nordic, n.d.). The narratives are often linked to the conscious communication of their products, signalizing longevity, Norwegian production, appreciation and altering products through their lifetime, for instance with their assemblable bench "Pusle".

Another Norwegian company is the anthropological design studio *Aula*. They focus on relations between people, space and objects, by implementing an anthropological mindset in the field of design. Their main goal is accordingly to "uncover and understand how people shape and are shaped by our surroundings" (Aula, n.d.). Their interior products are locally produced, as they carry a permeating desire to contribute to promoting Norwegian design. Their approach to create lasting products of emotional durability is through their transparency in the production line and choosing materials that can be kept through generations. Chapman (2005) argues for a turn towards emotionally durable design through creating lasting relationships between products and users. Furthermore, spurring product attachment has long been considered a promising strategy to increase product lifespans (van Nes, 2010).

1.2.4 Learning from games

Game designer and researcher Jane McGonigal describes games to give us unnecessary obstacles that we volunteer to tackle (Interaction Design Foundation, n.d.). Designers use gamification to insert gameplay elements in non-gaming settings, enhancing user engagement with a product or service (IDF, n.d.). Design focused on interactions between product, use, and user through a game or play perspective will not automatically result in convenience as a valuable function. However, incorporating game and play theory, as well as weaving suitably fun features into the design process can offer new perspectives and tap users' intrinsic motivations to enjoy and use it more (IDF, n.d.; Sjøvoll & Gulden, 2017).

Strava uses gamification in their frequent service development for the running and cycling athlete community. Their ambition is to "build the most engaged community of athletes in the world" (Strava, n.d). Game mechanics utilized include challenges and leaderboards, enabling comparison against other participants. The board gives the opportunity to follow similar athletes across the world. There is also a possibility for "followers" or "friends" to earn trophies and prizes and give them away. In addition to keeping track of one's own achievements in a calendar, one can share recap sections to a chosen limitation of users. Subscribers receive more advantageous features, which plays on leveling, contrast principle and competition (Strava, n.d). *Strava* is an example of a service where game dynamics are actively considered to elicit engagement from the community.

There are numerous examples of services designed with gamification features, some of them being *Finn.no*, *Vipps*, *Tise* and *Duolingo*. For instance, *Duolingo* has elements like internal currency for completion, social interaction for collaboration with friends, competitiveness, badge awards for achievements, rewards and scoreboards (Khomych, 2021). A report conducted by Statista reveals there are over 1,651.66 million active mobile gamers worldwide as of 2020, expected to increase to 2,220.8 million by 2025 (Khomych, 2021). Another report shows that in 2020 games remain far ahead of other *Apple App Store* categories, with 21.86% of apps belonging to the gaming category, followed by business, which is only 10.11% (Khomych, 2021). Accordingly, game design elements like badges, rewards, points, scoreboards, internal currency and levels are actively borrowed by other categories.

Another aspect of gaming is socializing and making friends across the world through the screen. "Gamers socialise with others online and create a sense of community and wellbeing. Most gamers value the socialisation aspects very highly. They are among the main motivations for playing, particularly when it comes to engaging in "massively multiplayer online games". These games have large numbers of players, typically from hundreds to thousands, who interact and play on the same server – like World of Warcraft and Runescape" (Griffiths, 2020). This sense of community and belonging is also worth raising awareness to, as far as gamifying services. How does this behavior emerge and what can we learn from it?

Chapter 2

Research

2.1 Systems Oriented Design

Systems-oriented design (SOD) is an un-dogmatic design oriented approach (Sevaldson, 2013) which aspires for designers to build an interpretation and implementation of systems thinking - enabling systems thinking and design thinking and practice to benefit from each other (Sevaldson, n.d.). Birger Sevaldson, a pioneer researcher within SOD, describes the systems-oriented designer as "less concerned about hierarchies and boundaries of systems and more interested in looking at vast fields of relations and patterns of interactions. She is geared towards looking at as many interrelations as possible and working with a "field-feel" and holistic overview, while making details accessible. The systems-oriented designer is looking beyond the object (product or service) and she perceives the object merely as a "symptom" or "outcropping" of vast systems that lay behind the object" (Sevaldson, 2013). An important factor within SOD is suggested by Sevaldson to think beyond the user centric perspective, critically evaluating the excluding of stakeholders within the system. A multi centered approach considers four perspectives (see figure 1) to prevent ignorance and omission of valuable users and unexpected consequences (Sevaldson, 2018). SOD and thinking in systems pragmatically deals with the dynamic complexity of real world problems, requiring acknowledgement and acceptance of system ambiguity (Gulden & Wigum, 2019). The system perspectives are re-interpreted in the context of design, and combined with concepts of designing for complexity (Sevaldson, 2013). This approach to design can consequently elicit feedback loops of wonder, holisity and implementation (see figure 2) (Gulden & Wigum, 2019). SOD has consistently been utilized as a basis framework within the research phase, continuing into the concept phase as it builds on the mapped systems revolving around and influencing *Kuriøs Studio.*

Critique worthy aspects
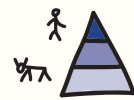
Anthropocentric
Centred on needs, perspectives and worldviews of Homo sapiens, setting humans individually and humankind in general in the center on the cost of the rest of the living world.

Not based on role of agent
To include secondary users, affected bystanders or non-users, or non-human beings that are affected by the design intervention often in unintended ways. Agency implies to act against one owns primary interests

Not sustainable
Prioritising the solving of the needs of our fellow humans over solving other pressing issues, unavoidably follows unsustainable development and a further build down of our fundament to sustain life on earth.

Production
Amongst the secondary users, most often forgotten, are the people involved in the production process.

Unintended consequences
Any centric perspective will run the risk of overlooking the counterintuitive kickbacks from solving singular problems according to particular perspectives.

Figure 2: Visualization of the article "Beyond user centric design."

Lens perspectives of multi centered design

"Because user centred design is geared towards seeing the world through the glasses of the user, the designer is in a servant position form the outset. Such strong one-centric perspectives are guiding the perception and dominate or exclude other considerations."
"Though we cannot defy the basic conditions of our perception, we can influence it through the rigging of our processes. Such a strategic move would be to implement multiple perspectives to critically interpolate between them."

Frog (within)   Bird (overview)

Telescope (horizon)   Microscope (detail)
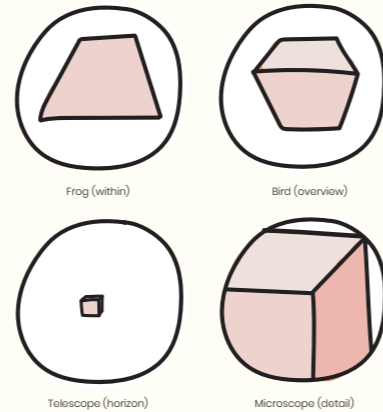
"As we cannot fully foresee or regulate how systems function, or how they affect each other, designers must be aware of this ambiguity if they are to "regard situations without judgment, prejudice, or the desire to control" [2]. Accordingly, if designers approach systems with sufficient awareness and attention to this ambiguity, they can perform within them with the intelligence of wonder rather than stress and denial, becoming wiser and more systems-literate by accepting the surrounding complexity."

Thinking inside the box

Outside world of dynamic complexity

Feedback loops:

Judgement

Prejudice

Desire to control
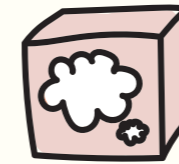
Change in cognitive system

System ambiguity

Outside world of dynamic complexity

Feedback loops:

Wonder

Holistic thinking

Implementation

"The concept of general systems theory offers a cross-disiplinary platform for studying the relations between ... elements and their influence on behavior, nature, and society."
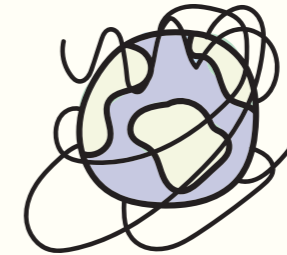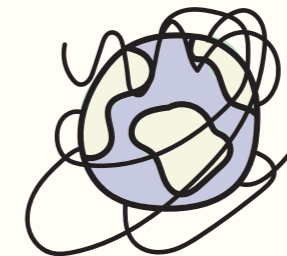
There is global and exponential change in environment, consumption patterns, technology and demography.

How can designers create products and services for the systems in which they must perform?

Figure 3: Visualization of the article "The emergence and development of a designerly approach to adress complexity"

2.2 Theory

As a way to dive into theoretical research, relevant articles have been gathered, highlighted and interpreted as a communicative archive of theory visualizations to support design choices made throughout the process. This includes theory both from previous courses about designing for experience and within complex systems, as well as theory surrounding main project themes of co-creation, emergence and engagement. In addition, to preserve a greater understanding of the process, terms of high relevance have been extracted and explained in the project dictionary.

2.2.1 Theoretical research articles

Engagement by lamination of autopoiesis concentric interaction systems in games: a study of fotball and Pokemon Go

The article "Engagement by Lamination" written by Tore Gulden aims to "rethink games and game design within the theory of self-producing interaction systems". Accordingly, he identifies dynamics of play and engagement elicited by games that can serve as game design parameters by extension (Gulden, 2018). This project has consciously and efficiently built upon the basic idea that such dynamics can elicit engagement and furthermore an autopoietic system from the service the project proposes. From the article, meaning is explained to be something between the actual and possible reality. Finding meaning inside a game often resembles engagement, as a motivation to join the game, whereas a goal is engaging for an evolution of an autopoiesis system to make players remain playing. The experience of a game can be explained to rely on the behavior elicited by the design of the game. The play activity is set up with frames and keys which make up a concentric interaction system and elicit the desire to fabricate (or break) within these "rules". The autopoiesis system occurs when the players emerge from the frame and continue the narrative. The theory from the article has been relevant in terms of facilitating agency of engagement, both in the conducting of methods and when developing the design concept proposal. How do one create an autopoietic system from a service?
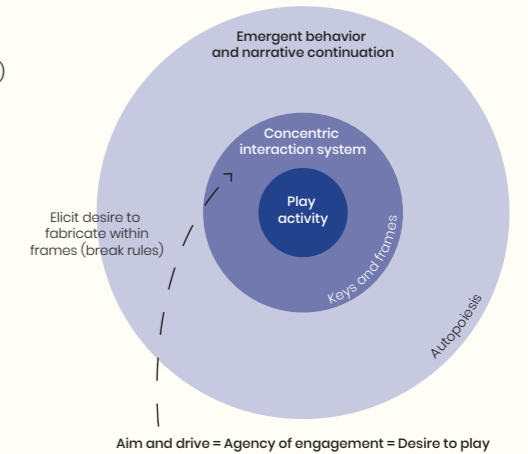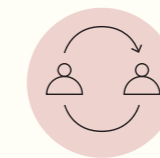
Figure 4: Visualization of the article "Engagement by lamination of autopoiesis concentric interaction systems in games: a study of fotball and Pokemon Go"

Game dynamic in design -
a process to achieve creative agency (to give people a chance)

The article "Game Dynamic in Design - A Process to Achieve Creative Agency (To Give People a Chance)" presents a philosophy about trust and devotion to the people whom the design is for. The role of the designer is often interpreted to define environments, problems, and solutions for others, with generic design methodology goals of user centrism, lack of friction and convenience. This can potentially block people from engaging and acting on situations provoked by the design (Gulden & Sjøvoll, 2017). However, by including game and play elements into the design field, the user is encouraged and allowed to think and act beyond the set frame, representing a voluntary engagement and autonomy. (Gulden & Sjøvoll, 2017). The approach "trusts in the acknowledgement that all humans are creative and capable of making their own environments, seeking their own potentials, and, given the chance, solvi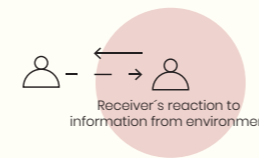ng their own problems, and that this recognition asks for a reformulation of the role of design" (Gulden & Sjøvoll, 2017). The engagement approaches and discussions on creative agency from the article permeate motivations and working methods of the project; from researching games, implementing game dynamics into concepts and incorporating elements in the final design proposal.
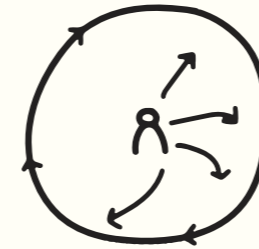
Generic design
methodology

Goals:
User centered
Friction-free
Convenience

"What is often overlooked when using a generic design methodology is that engagement is elicited by different factors for different people. Hence, the possibilities for the user to see or to make various choices of use based on what a product or service motivates are often limited."

"The example typically emerge from user-centered design approaches, which aim for friction-free encounters with products and the use of the product, functions that are often referred to as convenience."
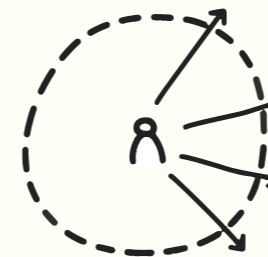
Play design
approach

Goals:
Creative agency
Subsequent enjoy-
ment

"Looking at design with an emphasis on interactions between product, use, and user through a game or play perspective does not necessarily lead to convenience as a valuable function. Thus, including game and play theory as part of a design process can offer a new perspective in traditional design thinking. Such a design approach that takes in game and play elements trusts in the acknowledgement that all humans are creative and capable of making their own environments, seeking their own potentials, and, given the chance, solving their own problems, and that this recognition asks for a reformulation of the role of design."

Figure 5: Visualization of the article
"Game dynamic in design. a
process to achieve creative agency
(to give people a chance)"

Engagement approaches

1. Game mechanics (gamification)
- that which in the game gives a responce when action is taken by a player (like rules or constraints). The interaction between system and player. Acknowledging that peole enjoy challenges and not only convenience.

2. Framing
- defining context and a separate temporal layer of "other realities", with other rules or consequences. In order to engage in play and game it must feel appropriate in the framed context. What happens within a temporal frame of game and play and what happens outside this frame have bearings on each other.

3. DIY
- drives outside the commercial system, intrinsic motivation, and relational motivation. Relies on learning and social as well as material relations.

4. Playfulness
- relies on autonomy (the power to define a situation) and drive. State of mind that is fueled by excitement and balances on the boarder of joy and fear (of failure or embarrassment).

5. Movement or change as dynamics
- as the opposite of static, may open up for alternative use or play.

"Most designers are educated within a regime where they are taught that they are the ones that make things better for people. Game dynamics as a basis for design can build on the DIY approach and work as a tangible and conscious counter-philosophy that involves (and aims for) giving the user the freedom to think and act on the basis of objects and environments through design. By doing so, one empowers the non-designers and thereby liberates people from being influenced by coincidential thoughts based on the unconscious philosophies of designers."

Plenteous and Limited Play, Transmedia Storytelling -
Toys in Light of Individualist and Social Aesthetics

"Plenteous and limited play, transmedia storytelling-toys in light of individualist and social esthetics", written by Tore Gulden, discusses how toys can invite for plenteous or limited play. "Play" in this article is seen as behavior motivated by wellbeing and pleasure . "Open-ended toys" can be described as free, open and personal, stemming from intuition, fantasy, and creativity. Transmedia storytelling can evoke limitations of new play themes, as the story or context around it affects the play with fixed association patterns (Gulden, 2016). An experiment was conducted to observe children in a toy store, buying their preferred toys and playing with them after. One half of the group got additional material on their tables when building their LEGO. After finishing the sets, these children came up with new play themes using the extra material, while the other half did not. The observers paid attention to peer learning, fantasizing, play themes, isolation, cooperation, sounds and movements and initiative of contact. The LEGO sets had elements of sameness, fixed association patterns, and recognition, which can be viewed both as helping hands or hinders. The familiarity, classification, and instant gratification of the story can be efficient in a point of purchase as a way of commercial interest. The narrative can also be spread through various platforms enhancing the message. However, the resistance and creation of own experience can concludingly stimulate creativity and welcome new play themes. There was an interesting comment from a child worth mentioning, regarding how one defines play and even preparation of play: "There, now I can play!". The observer asked what she had been doing so far, and she answered "Building, of course" (Gulden, 2016). The relevancy of the article to this project lays in how one can understand the design of toys that motivate plenteous play. Facilitating for the plenteous play can draw a parallel to how one can design a service that elicit engagement and creative agency. How plenteous or limited should it be? Where is the balance between effort and free creativity?
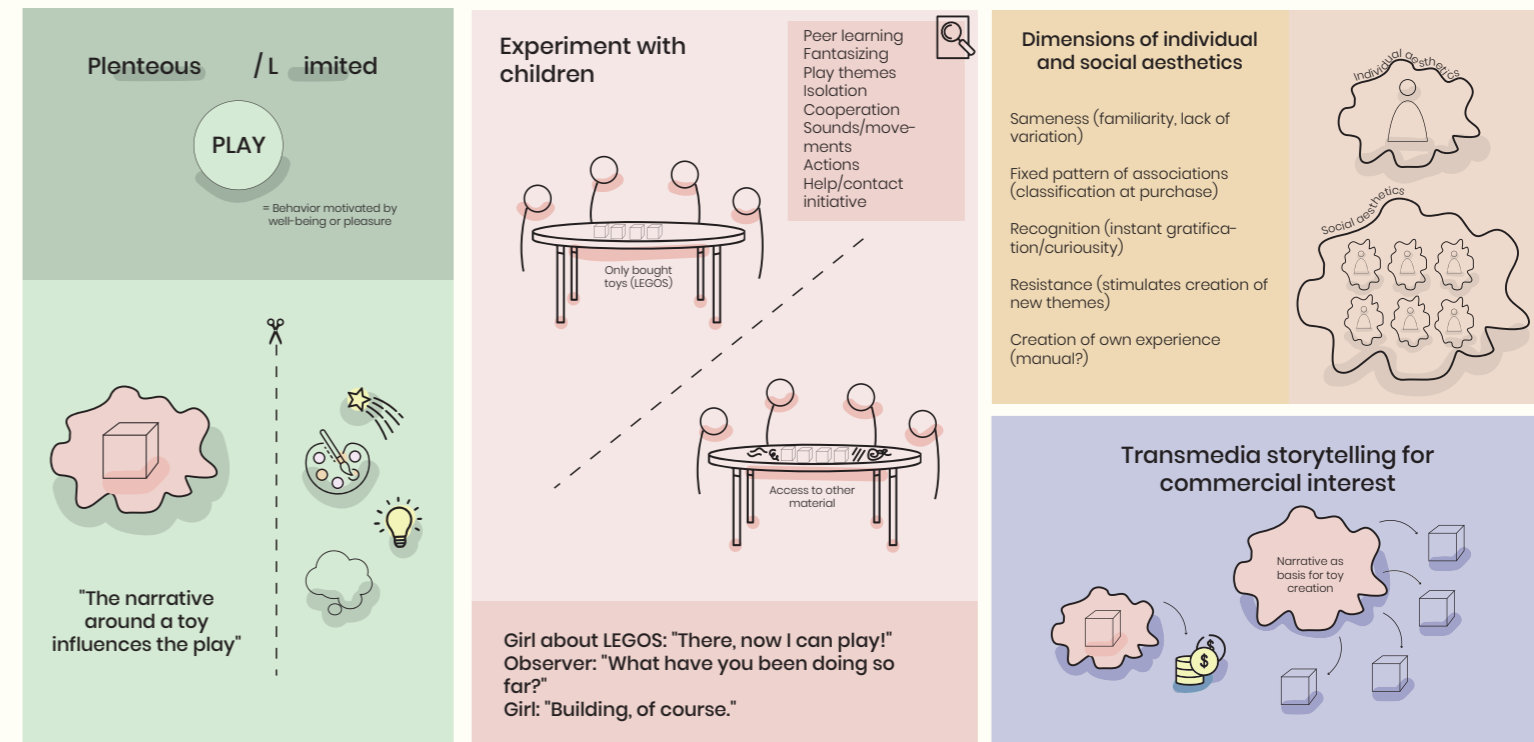
Figure 6: Visualization of the article "Plenteous and Limited Play, Transmedia Storytelling - Toys in Light of Individualist and social Aesthetics"

Context of Experience - a psycology-based design tool, towards sutainable consumption through extending the product lifetime

"The constitution of the strategies of consumer-products attachment, awareness og stages of ownership and the associated psychological phenomenon of habits and persuasion make the basis of the design tool COE to achieve CPA" (Gulden & Moestue, 2011). The article explains the relation between consumer-product attachment and the longevity of a product in the light of the environmental issue. The reason for replacement of products with new ones is accordingly driven by the desire of feeling of pleasure through status, belonging, convenience and self expression. The suggestion to calm this desire in favor of the environment is for designers to by applying different methods and strategies to create contexts of experiences into the stages of ownership, and thereby achieve a greater CPA. "Perception of a product relies on the context in which the physical item or service is experienced or perceived. The potential of influencing a customer or user is therefore greater when creating the product and context and or brand as a whole" (Gulden & Moestue, 2011). As a way to design for emotional durability, and achieve consumer product attachment, relevant strategies for CPA are actively utilized in the design process of this project:

- Develop products that are used together with other people
- Create meaning
- Mastering complex products designed to evoke pride
- Exploring the possibilities to evoke joy
- Product personalisation, memories, self expression and (group) affiliation
- Scarce products
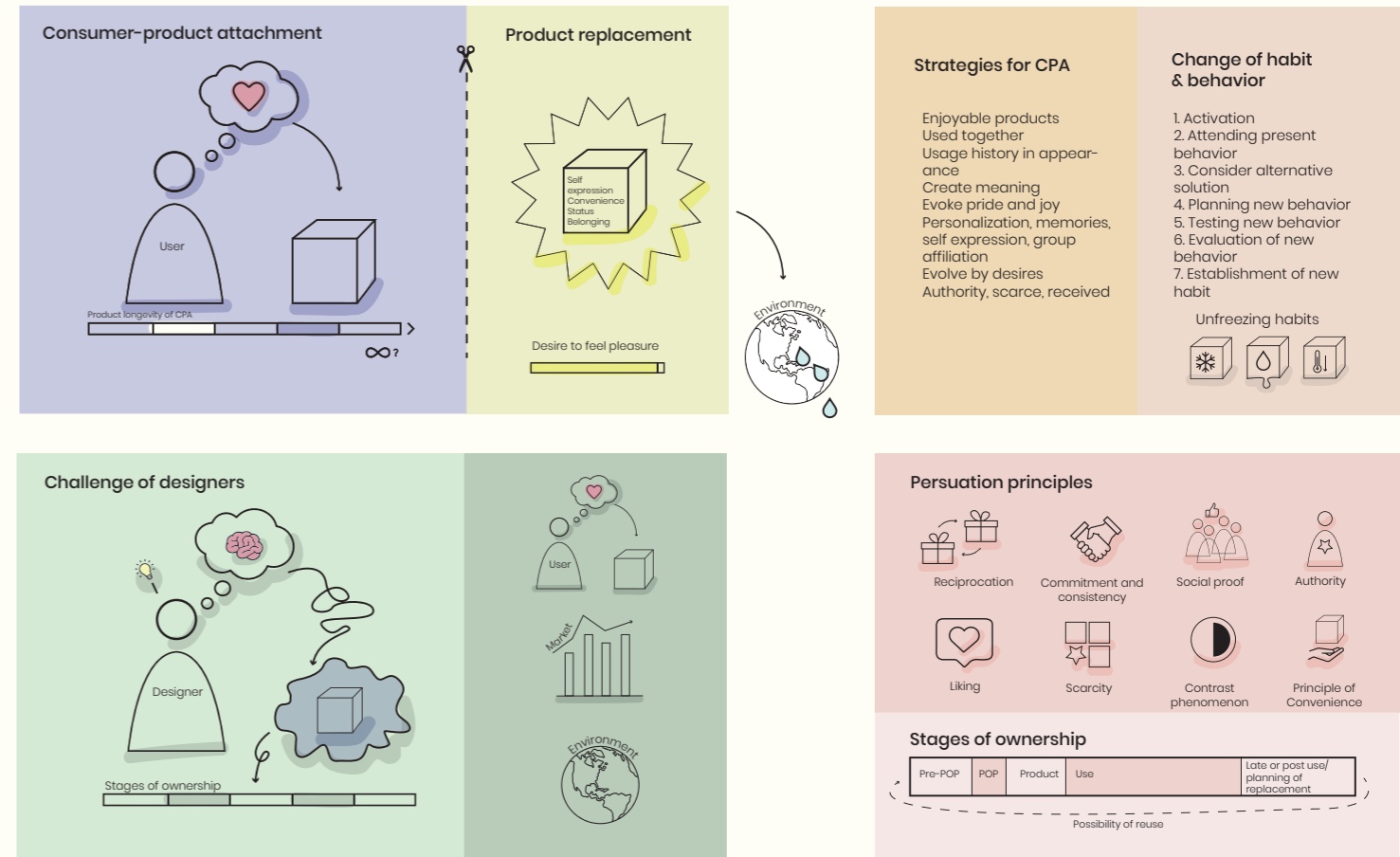
Figure 7: Visualization of the article "Context of Experience - a psycology-based design tool, towards sustainable consumption through extending the product lifetime"

Co-creation in new product development:
Which drivers of consumer participation?

Through an empirical study Mandolfo, Chen, and Noci (2020) investigates co-creation in new product development by providing a conceptual background in the psychological factors favoring consumer participation in company processes. Furthermore, the product typologies investigated are namely high-tech and high-touch products. The work also identifies customers personality traits, key motivations and barriers in light of the willingness to participate in new product development co-creation processes. "Results from structural equation modeling show that consumers' personality traits affect the perceived motivations and barriers to co-create, in turn shaping their willingness to co-create. Furthermore, consumer willingness to co-create varies depending on the product typology" (Mandolfo & Chen & Noci, 2020). In the article, three different personality traits are highlighted (see figure). These presented traits came across to be rather superficial, however for this project the findings in the article provide a reminder of the importance to get to know the customer. Moreover, to facilitate co-creation and create frames of activities worth the effort with different levels targeting different customers.

Personality traits

Results from structural equation modeling show that consumers' personality traits affect the perceived motivations and barriers to co-create, in turn shaping their willingness to co-create. Furthermore, consumer willingness to co-create varies depending on the product typology.

Mavenism: knowledge seeking, knowledge sharing, wanting to be unique, stong focus on others needs

Shopping enjoyment: value entertainment and marketing information, trend, social, pleasure

Quality consciousness: need for self care, structural thinkers, learning product information

High tech products

High touch products

Economic barriers

Willingness to create

Technology advanced and complex, requiring skills

Appeal to emotions, product image plays an important role

Figure 8: Visualization of the article "Co-creation in new product development: Which drivers for consumer participation"

2.2.2 Project dictionary

Co-Creation
Co-creation - focuses on how individuals can collaborate to meet needs for socialisation and meaning making, additionally how organizations can both use and influence the insight of co-creation from a position of equality rather than dominance (Ind & Coates, 2013). This is what Follett calls, "power with": "'whereas power usually means power-over, the power of some person or group over some other person or group, it is possible to develop the conception of power-with, a jointly developed power, a co-active, not a coercive power." (Graham, 1995, 103). In this way, co-creation can function as a force for participation that creates meaning for all. Providing the opportunity for on-going interaction between organisation and external stakeholders or customers, generating insights retrieved from their engagement (Ind & Coates, 2013).

Emotional durability
Emotional durability - within design can be defined as products, services or systems "…that reduce the consumption and waste of resources by increasing the resilience of relationships between consumer and product, presenting a more expansive, holistic approach to design for durability, and more broadly, the lived-experience of sustainability" (Chapman, 2009).

Game dynamics, mechanics and aesthetics
Game mechanics – "The particular components or technical underpinnings of the game at the level of data representation and algorithms, that which in the game gives a response when action is taken by a player (like rules or constraints)" (Gulden, 2017).

Game dynamics – "The emergent interaction between system and player; what happens when the player's wants, goals and intentions come in contact with the mechanics; the run-time behavior of the mechanics acting on player inputs and each other's output over time" (Gulden, 2017).

Game aesthetics – "The desirable emotional responses evoked in the player when they interact with the game system" (Stardust, 2018).

Gamification
Gamification – "The use of game design elements in non-game contexts and acknowledging that people enjoy challenges and not only convenience" (Gulden, 2017).

Play and playfulness
Play – "voluntary engagement and autonomy for the player". Playfulness – relies on autonomy (the power to define a situation) and drive. State of mind that is fueled by excitement and balances on the border of joy and fear (of failure or embarrassment) (Gulden, 2017).

Play forms
Agon – competition
Alea – chance or luck
Mimicry – simulation or role playing
Ilinx –rush or vertigo in the sense of altering perception
(Caillois, 2001)

Framing and keying

Framing – "Defining context and a separate temporal layer of "other realities", with other rules or consequences affecting how we conceive a situation before and while we interact. In order to engage in play and game it must feel appropriate in the framed context. What happens within a temporal frame of game and play and what happens outside this frame have bearings on each other" (Gulden, 2017).

Keying – "The function of keying can initiate and alter play engagement, depending on a common agreement among the players and occurs in multiple layers and forms. Hence, when communication among players in a game serves as an influencer on the way the game proceeds, play activities will waver, take many directions, and cause exceedingly complex interaction systems to occur" (Gulden, 2018). "Real situations can be transformed into situations of play. Up-keying describes an enhanced transformation of play away from reality, and down-keying is when a play situation, such as a play fight, is turned into a real one" (Gulden, 2017).

Emergence

Emergence – "An emergent process is a process of change that involves non-linear, abrupt phase transitions as a system's overall structure and function is transformed into a new regime of behavior, exhibiting new properties that could not have been predicted to arise prior to the transformation" (Systems Innovation, n.d.).

Autopoiesis and allopoiesis

Autopoiesis - "Interaction systems (like all social systems) reproduce themselves on the basis of communication (Seidl 2004, p. 14– 15); new systems emerge from given settings through interaction and these emerged systems can produce additional new systems (Gulden, 2018). "How the great masses of people (networks of processes) … interacted (with each other and their immediate environments) and, by such, established communication systems that produced additional communication systems associated with the gameplay, but in varying locations and with a different organization and intention. Thus, a communication system (play) produced a distinctly different communication system (also play)" (Gulden, 2018).

Allopoiesis - "a system creating some other external entity. For example, almost all engineered systems are produced through a human being imposing a preconceived pattern on a set of elements to create something other than themselves; a form of allopoiesis. Allopoiesis may be contrasted with autopoiesis which means self-producing or self-creating (Systems Innovation, n.d.).

Communication systems

Communication systems - "Unlike stable social systems, dynamic communication systems may appear and disappear quickly. Dynamic communication systems are driven mainly by the expectations and needs of the people within the functioning system, which are, as well, based on a history of expectations and interactions (Maturana, 1975; Maturana & Guiloff, 1980), or "interaction systems," which is the term Luhmann (2012) used to describe such autopoietic systems (Gulden, 2018)".

Agency and creative agency

Agency - "People, systems, environments, terms, phenomena, objects, and the network they produce influence or construct our conceived reality, and by extension our thinking and acting" (Gulden, 2017).

Creative agency - "A sense of empowerment and user control that may lead people to act beyond the foreseen or intended use of a designed object or system. This situation creates products and services that are altered and influenced by users, and represents a successful integrated design process. The user may feel clever and in control of his or her life, with actions not controlled by others ideas or products" (Gulden, 2017).

Engagement

"Playful engagement relies on a feeling of autonomy and a sense of acting with volition, willingness, and in congruence with one's own goals, needs, values, and identity". "Engagement is elicited by different factors for different people, and this means that there is an element of giving up control from the designers' part in designing for engagement and creative agency" (Gulden, 2017).

DIY
Do it yourself (DIY) - Drives of intrinsic and relational motivation outside the commercial system, located in reality . The engagement within DIY-activities relates to people's perception of a product through their actions of altering, constructing, building, and socializing about it, which in turn creates and connects to additional levels of experience and interaction, such as social relations, feelings of mastering, peer learning, and attaining of skills, among others (Gulden 2017). The person thus controls the degree over their own activity in the making and altering process, as well as future use" (Gulden, 2017).

Pleasure and enjoyment
Pleasure - Something that you can feel or experience as an immediate phenomenon, elicited without a barrier, possibly fulfilling a need (Gulden, 2017)".

Enjoyment - "A situation that demands a certain effort, determined by a drive that has to be "learned by imitation". It attributes a meaning such as, for example, personal growth, purpose or positive relations" (Gulden, 2017).

Immersion
Immersion - A dimension of computer games, mainly described as "being caught up in the world of the game's story"; the diegetic level. However, immersion also refers to the nondiegetic level that illustrates "the love of the game and the strategy that goes into it" (Gulden, 2018).

2.3 Methods and process

2.3.1 GIGA-mapping

In an increasingly complex world, it is highly important for designers of tomorrow to be able to cope with complex issues. Within the field of systems oriented design (SOD), one of the most central methods to tackle the complexity is the emerging technique of GIGA-mapping (Sevaldson, 2011). According to Birger Sevaldson, GIGA-mapping can be described as super extensive mapping across multiple layers and scales, investigating relations between seemingly separated categories, for so implementing boundary critique to the conception and framing of systems.

In this Master´s thesis, the method of GIGA-mapping has permeated most steps of the overall process, playing a central role in driving the design process forward and comprehending several layers of complexity. The method was initially applied to investigate and define significant terms that comprise the research question, including *co-creation*, *game dynamics* and *durability*. Accordingly, an exploration of evolving and emerging systems was conducted through a relational mapping in light of the company *Kuriøs Studio*. The mappings created a basis of systems to approach and further investigate. From there, a frequent use of the ZIP analysing tool (Sevaldson, 2017), drove the continuous mapping process towards converging directions within the project scope. Referingly, the ZIP analysis was used to gain a mapping overview of areas to **zoom** further into, innovative **ideas** to build upon or **problems** to raise awareness to. Simultaneously, with Donella Meadow´s theory of thinking in systems (Meadows, 2008), the discovery of leverage points and feedback loops found in the system initiated further mappings, analysis and methods (See figure 9).

Figure 9: Initial GIGA-mapping driving the design process forward

Legend:
- NE — Negative explanation
- LP — Leverage points
- FL — Feedback loops
- Zoom (ZIP analysis)
- Innovation/Idea (ZIP analysis)
- Problem (ZIP analysis)
- Emerged activity or method
- Significant terms from RQ
- Subject
- Descriprion

2.3.2 Negative explanation

"It is rather generally believed that "causes" or "reasons" for alcoholism are to be looked for in the sober life of the alcoholic" (Bateson, 2000/1972, p. 310). Negative explanation is a cybernetic method aiming to gain contrary perspectives on phrases, situations, relations or other aspects, such as in the alcoholism example. Regarding concepts by comparing opposite poles of directions can give insight on potentially excluded material and clarify a desired positioning within the constructed range. Based on this, a negative explanation was conducted with terms connected to the project theme, theories, methods and concepts (See figure 10). The terms extended with synonyms and their respective antonyms. The synonyms enhanced the understanding of the term scopes and how to utilize them. For instance by asking how one can create an activating concept including dimensions of "desire". The antonyms raised awareness to undesirable outcomes that need to be avoided when developing concepts. On the other hand, the negative explanation can be played on to touch a nerve or provoke a reaction. Either way, the method broadens the horizon to what can be included into the concept. For *Kuriøs Studio*, the explanations are also defining ways of working following the philosophy and communicative identity of the company.
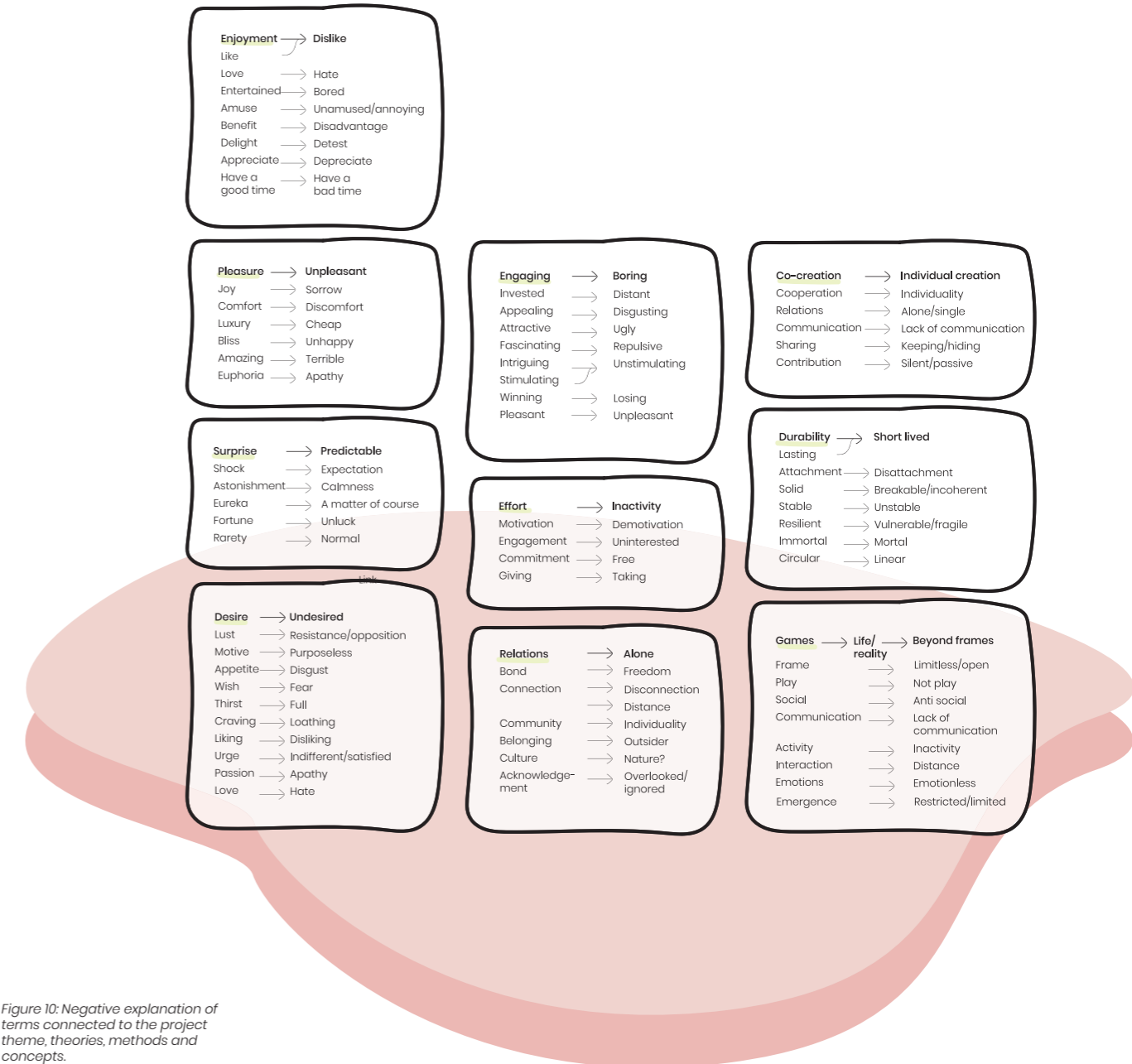
Figure 10: Negative explanation of terms connected to the project theme, theories, methods and concepts.

2.3.3 Communicative identity

As part of the development of *Kuriøs Studio* along with the digital platform, the communicative identity has been explored. It was important to identify what factors differentiate the company from others, values desired to promote and impressions left on the customers´ experience. The communicative identity has been explored from two perspectives, a philosophical and a visual. (See figure 11)

The philosophical perspective represents the foundation of the company. Therefore, the definition of the term "kuriøs" which the company is built on, was explored through a negative explanation. The meaning of "kuriøs" can be translated into strange or remarkable, previously knowledge seeking and curious. These keywords represent a mindset permeating the designers and designs within the company; approaching obstacles, assignments, customers and the design process with curiosity. The main objective is to contribute to eliciting joy by creating long lasting product and service experiences through co-creation and game dynamics. The design solutions will in the beginning revolve around furniture design, with processes often driven by challenging the set boundaries of what furniture can be, including features that stand out through playful and surprising elements.

The visual perspective revolves around establishing a graphic profile that reflects the philosophy. The graphic profile will be developed in the concept phase as part of the digital platform. The visual identity has previously been explored in a course focused on aesthetics and materiality. Each project investigated the visuals of *Kuriøs Studio* from different angles - both including the phenomenon blobjects. Blobjects are amorphic, organic and curvy forms contradicting hard angles and edges from conventional modernism. They generate emotional attachment with an embedded, inviting friendliness, motivating touch and interaction (Holt & Skov, 2005). The first project focuses on the different forms of a blobject through the materiality of candle wax and how one can achieve a blobby appearance using forms, colors, textures and combinations of these. The other project explores blobjects when transferred between digital and physical mediums. Results from both projects make up a base for the visual expression of the graphic profile. The term "blobject" was also negatively explained with synonyms and antonyms, referring to the physical expression of the form idiom, and will both be expressed in the future products of the company and the graphic profile of the services.

Developing the identity of the company can also include creating rituals for customers reflecting the "story" of *Kuriøs Studio*. Ted Matthews, a designer and researcher on the subject of rituals suggest; "…rituals and myths can be designed and/or used to cultivate mundane artifacts, actions or customs into meaningful transitions" (Matthews, 2014). This can for instance be realised by designing for rituals within transitional phases of the concepts, like the phase of buying products, when co-creating, when receiving the product or other possible transitional stages. Accordingly, designing for rituals can produce a sense of belonging, strengthen values and express customer identity. Therefore, theory considering rituals will be included in the concept development section.
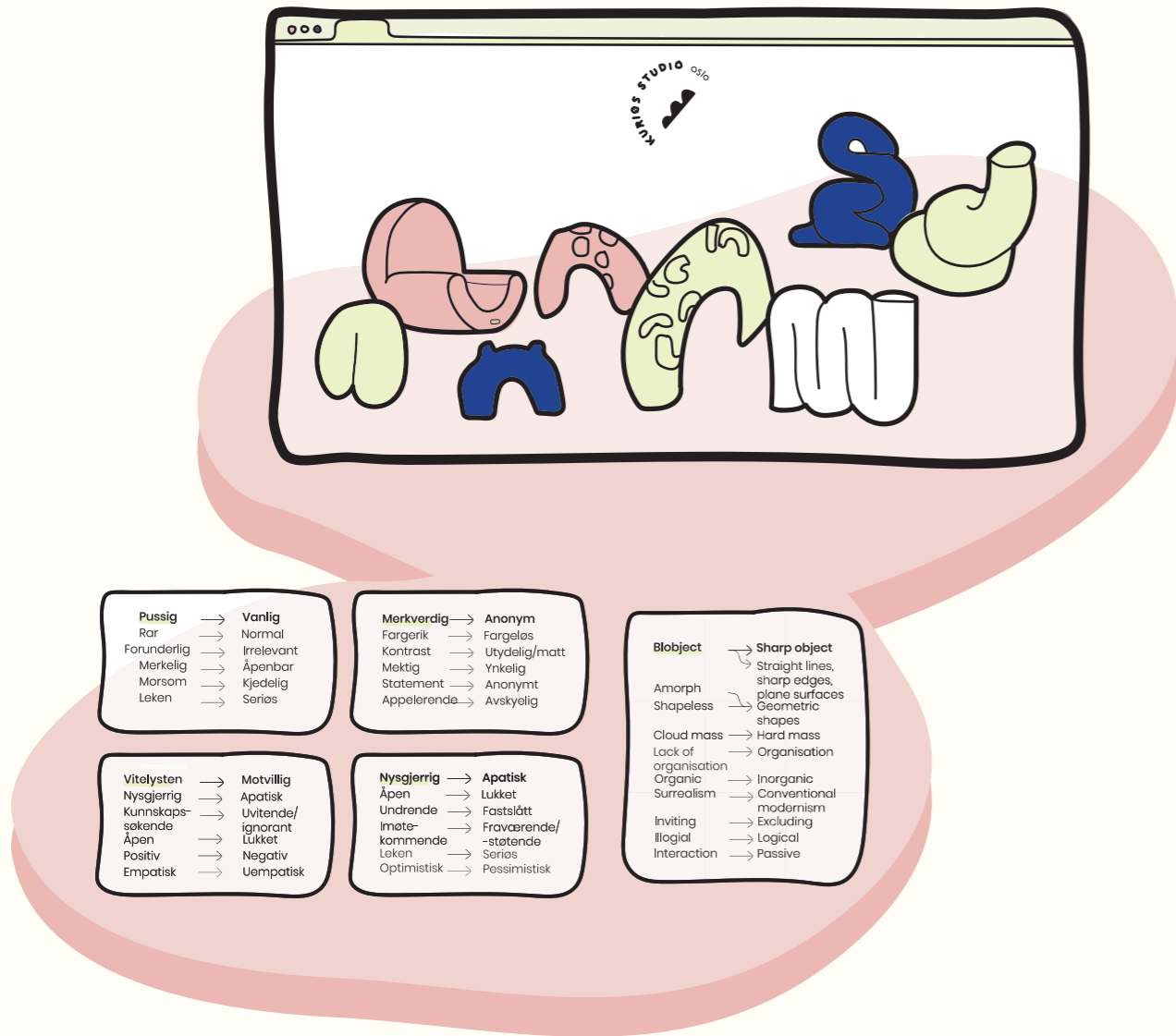
Figure 11: Visualization of the communicative identity of Kuriøs Studio.

2.3.4 Perspective interviews

According to Elizabeth Hoffmann, "open-ended interviewing often uses a simple, straightforward structure of a predetermined set of questions. The ethnographer uses these questions with each interviewee to ensure that certain topics will be covered with everyone. The set of questions acts as initial probes, possibly on a wide variety of topics related to the main subject of inquiry" (Hoffmann, 2007). A possible methodological weakness of interviewing in general is that the interviewee might provide only the "official account", a reporting of what s/he feels ought to happen rather than what did happen (Becker 1970; Bourdieu 1977). The example highlights a possible issue in interview-generated data. However, by triangulating the data, for instance by talking to informants from a variety of perspectives, or by combining the method with other methods that generate data, the issue can be avoided (Hoffmann, 2007). In this project the potential issues of interviewing, has been solved by conducting open-ended interviews, as an accessory to the other methods.

With the intention of bringing new perspectives to the project, two relevant resource persons were interviewed. An important stakeholder and representative of *Kuriøs Studio* was involved to add a valuable "external" business perspective to the project. Relevant topics discussed included the current state, economy, philosophy, marketing, communication, strategy, work environment and digital platforms. Most important discussions emerging from the interview revolved

around understanding more about potential customers' perception of *Kuriøs Studio*, and investigating the business-to-business perspective further. What learning outcomes can be gained from the B2B customer segment and processes? Can the future prototypes of the platform be tested with an existing customer of the company? Could the *Kuriøs* social media platform operate as a test platform throughout the project? (E. Sandvik, personal communication, 10.02.2021). Additionally a resource person recently graduated psychologist was involved to give insight to psychological theories and mechanisms that could be included in the basis of a potential co-creation platform (See figure 12). The interview revolved around how one can design to generate engagement and activation, which potentially could develop into a community or culture. The insight gave perspectives on themes and theories beyond design theories. Psychological theories on motivation and decision making were mentioned in relation to the feeling of mastery and a sense of belonging (K. Søhol, personal communication, 12.02.2021). Together, both interviews elicited a broader base of perspectives for the further process.
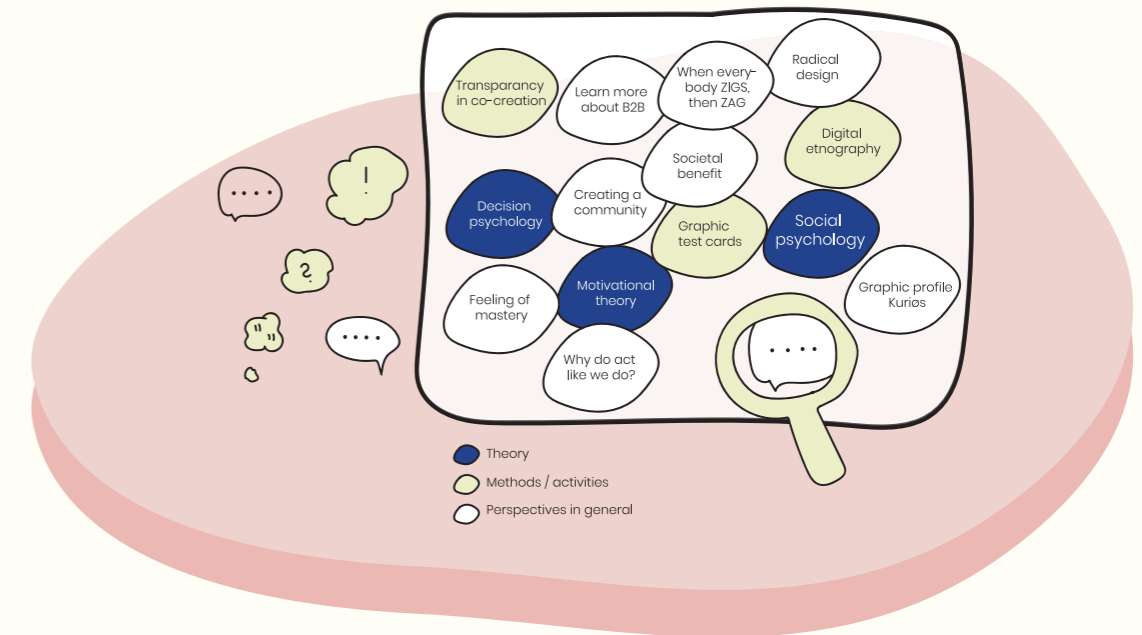
Figure 12: Visualization of the perspective interviews.

2.3.5 Sales Safari

Sales safari is a design method based on digital ethnographic activities - a study of people's lifestyles using the internet and social media. Via the technological world, user insight into actual habits, problems, opinions and needs can be acquired faster, easier and undisturbed because the person being observed is unaware of the situation (Hurff, 2016, p.36). The data obtained may be more honest and thus provide a clearer understanding of the user and its environment. In this project, Sales Safari has been performed through observations of content from various online platforms where games are discussed. Comments, feedback and ratings of board games, online games and amusement parks are analysed from *Youtube*, *Reddit*, *Amazon* and *Tripadvisor*. This reflects an allopoiesis, which in cybernetics is described as "systems able to create new structures and components or change existing forms to adapt both an environment or a purpose" (Mancilla, 2011). Thereby, one can argue that the games included in the method *Sales Safari* produces something other than the system itself, in this case activity brought to other platforms. The purpose of the method was to reveal any dimensions, mechanics or dynamics within these platforms replicable and inheritable to a digital platform with similar desired effect. A finding worth mentioning refers to the social part; playing with friends tends to make a game more exciting, and can be the reason for choosing to play the game at all. An associated finding is enabling gifting as a part in the game, which can underlay the possibilities to make friends within the game and create social connections, sense of belonging and community. Another finding is how memories elicit emotional attachment from nostalgic feelings of past experiences. A memory can be created by theme music, quotes, sayings, aesthetics or others. Accordingly, there is a balance between new features and keeping the concept of the game. A third finding is that some people search for strategic and complicated games, but there is a fine line between pleasurable and hassling complication. Effort in learning is a balance of worth - does it feel rewarding? The collection of all findings are presented in the visualization (See figure 13).

Summary ●

Games: Minecraft, Fortnite, World of Warcraft
Source: Reddit

Sharing achievements, or sharing inspiration with others that play the same game, creates social connections between players in addition to elicit emergent behavior. (within the platform itself, or on other platforms/forums).

Expectations tend to govern experiences.

There is a fine line between luck and effort.

Playing with friends tend to make a game more exiting - the social part of a game is important and could be the reason for choosing to play the game at all.

Memories elicit emotional attachments. A memory can be created by theme music, quotes, sayings, aesthetics or others; that brings back certain experiences from the past.

Enabling gifting as a part in the game, can underlay the possibilities to make friends within the game, create social connections, sense of belonging, community.

Aesthetics matters for the experience of the game (the look and feel, the concept, the philosophy)

When a game has emerged into a community (sharing, caring, internal language, belonging) of players, rituals can arise, such as having a funeral withinthe game to honor a lost player.

Games: Minecraft, Fortnite, World of Warcraft
Source: Youtube

The game storyline allows immersion and emergence to build on the story, often related to real-life situations (transmedia).

Minecraft enables different ways of playing in order to include all skill levels and cover different needs, "play to create"/survive/with friends".

A community-based section (Minecraft example) invites for co-creation, a sense of belonging and social support. Inviting to challenges and events is a way to remain relevant and maintain the community.

After updated game versions, elements from the original game or first experience with it evoke nostalgic emotions and memories. There is a balance between new features and keeping the concept of the game.

Boardgames: Scythe, Small world, Mysterium, Betrayal at House on the Hill
Source: Amazon

Board element aesthetics and quality.

Effort in learning is a balance of worth, does it feel rewarding?

News value, experiencing or owning something different

Relational interaction and excitement with other players, pokerface

A flowing system of mechanics determines experience of game (balance between too much mechanics or too little)
Adjustable or adaptable depending on situation (how many players?)

Spending time with friends, social, cooperative

Some people are searching for strategic and complicated games, but there is a fine line between fun complicated and too complicated.

Amusementparks: Tusenfryd, Universal studios Hollywood, Disney world Orlando
Source: Trip advisor

Freedom to choose own experience and memories (ride pictures - ritual, stop to take pictures).

Pricing and waiting time balanced with outcome of experience.

Bringing back memories, or giving new memories is an important part of the experience.

Planning is looked at as both fun and exhausting to do, to get the best experience its often needed in advance.

The quality/aesthetics and overall visual impression is an important factor.

An expectation of gaining several different emotions throughout the day (fear, magesug, laughter, etc.)

Transmedia storytelling through souveniers, photos, characters brought to life.

Possible to buy levels of experience (skipping line, personalization, extra info, guiding). Scarcity, lucky

Figure 13: Visualization representing the summary of findings from Sales Safari.

Minecraft

Finding: The top rated comments are often based on created memes or scenarios of the player and viewer, connected to expectations.

Finding: Fantasy and involvement, immersing into the story of the game.

Finding: Sharing builds, using other medias to show timelapses, giving and gaining inspiration, feedback, memories from childhood

Finding: Sharing Platform for sharing ideas and builds, emergent behavior, buliding things from reel life, creating modifications such as adding facial expressions, creating other types of textures to the game. Sharing, co-creative
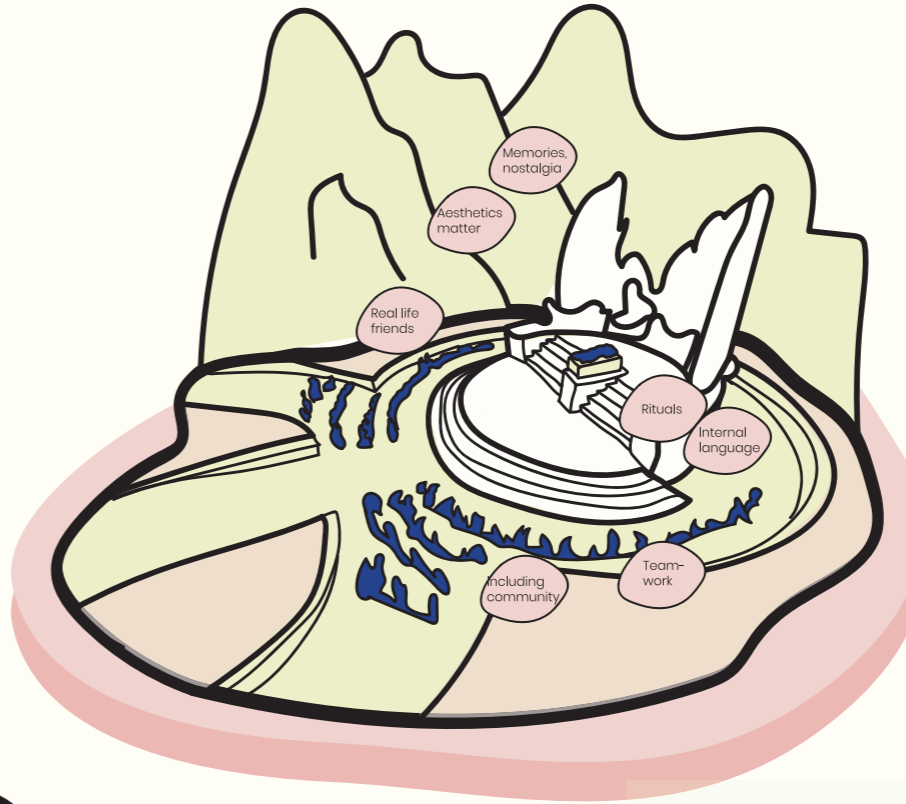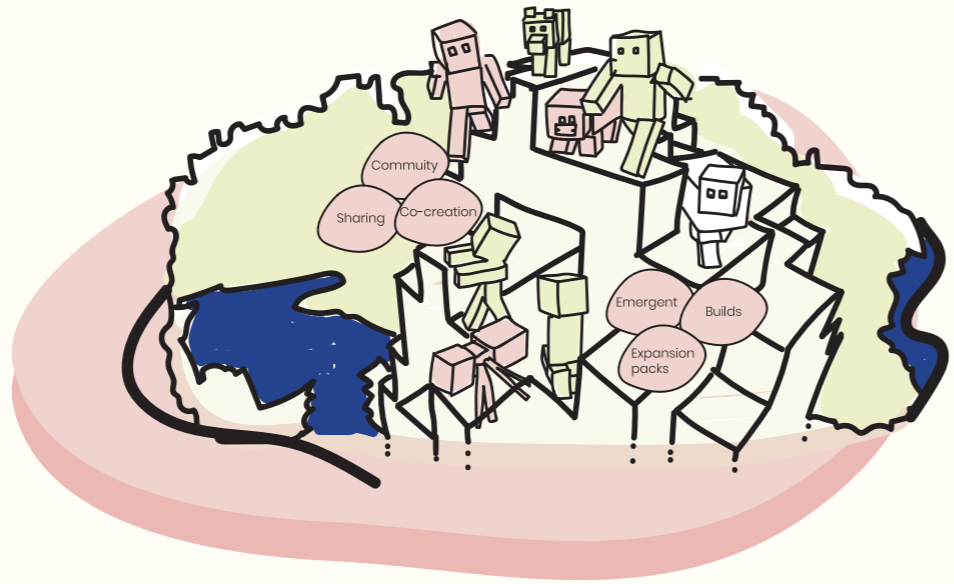
Fortnite

Finding: Many comments refer to past functions/features as something they miss, changing version of game.

Finding: Many videos created present and gather scenes from the game, ex. "top 200 the funniest fails," "top 100 best instant karma moments"

Finding: Commenters are referring to times within the video, imagining the scene as a reaction to a real-life event
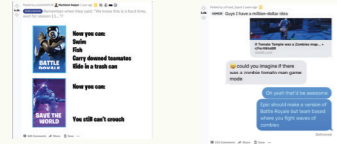
Finding: Expectations of new and exiting features. Wanting to contribute with game modifications or new possibilities within the game

Finding: Too much luck, too little effort/strategy can frustrate and make a game boring over time

Figure 14: Visualization of digital games analysed in Sales Safari
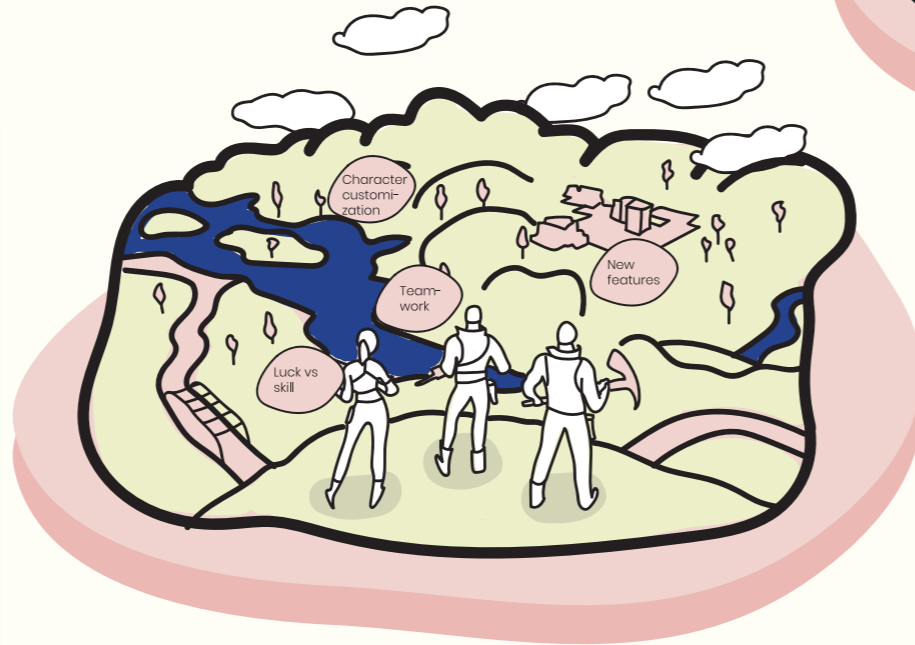
World of Warcraft

Finding: Gifting, making friends, sence of belonging, community, giving back

Finding: Memories makes strong emotional attachments, sharing, friends, fantasy

Finding: A Strong feeling of community, belonging, creating own rituals, sharing, caring, own language, internal belongingness, social codes

Finding: Aesthetics matters, look and feel, the concept, the philosophy
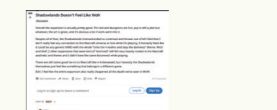
Finding: Effort, expectation, learning curve, reward, value

Finding: Social aspect, online community support

Finding: Addictive, activating, engaging

Finding: Virtual world, imagination, memory

Finding: Transmedia storytelling

Mysterium ●

"For people who don't like to **think outside the box** when it comes to clues may not enjoy this game. Right now I've only played it with my wife and 9 year old and they both dig the game, and helping to teach my son to think more outside the box on some things to find connections and be **observant**."

"It was definitely hard keeping a straight face when my **friends** were trying to figure out what the heck I was trying to tell them with my card choices!"

"The **aesthetics** are beautiful. The artwork is top notch, and the game pieces are very well made, definitely one of the best set of game pieces I've owned in the last few months for me."

Betrayal at House on the Hill ●

"It goes **beyond fun scary** things into really, really dark things. I played it once, and it's now **not allowed in my house**."

"Lots of fun to play, especially as you're never quite sure as to when the game will change completely or who will suddenly turn on the rest of the group. Lots of replayability with a book full of different betrayer scenarios to play through. The game is dead **easy to learn** and quickly becomes involved and challenging!"

"I'm not a games fan, but I can put up with this one. (which is high praise, believe me, I'm forced into family games). Initially the one person being a 'traitor' was a problem.**(panic and shyness ensued)** but despite the amount of reading involved (probably not best played when drunk!) soon we were **enjoying it** and everyone wanted to be the 'traitor'."

"This is a great way to **spend time with friends**. You begin by **selecting a charac-ter** and **exploring** the creepy house **together**, by moving and drawing tiles, trying to avoid obstacles and hopefully **discovering** useful items."

Scythe ●

"'I won't go as far as saying you should buy this game just for solo **play** with the "Automa" system, but it is definitely a perk to have."

"It provides a cool way to **learn** the game and with all the variants available by the publisher **online**."

"For me a big part of board games are the friends you play with so excluding the social part lacking Scythe's solo play, or Automa as they call it, is the most in depth and worth while solo variant I have spent time with."

"If I had one criticism, it would be that there are too many different **game mechanics** and one or two could be removed to make a more streamlined game."

"**confusing and complicated to learn**"

"It needs a lot of **time** to set it up. Not interesting even after the set up."

"The production quality of the cards, figures etc. is great, but the fundamental design of the **game mechanics is a total failure** in my opinion, as there is close to **zero interaction** between players. I see playing board games as a **social event**, and this game has hardly any interaction between players other than combat...."

Small World ●

"'I am constantly looking for **strategy games** that are fun to play for my wife and I. I also play with some friends too in groups. I got the chance to play the original Smallworld at a friends house and loved it. When I decided to buy it, I saw this version and decided to get something different than what my friend owned. Unfortunately, there isn't much different between the original and this stand alone version. The Races, Powers, and Map are different **but gameplay is the same**. What I love about this game and the original Smallworld is that it adjusts the map size depending on how many people are playing."

"I feel the main problem is the **large learning curve** for new players – there are a lot of characters, special powers, etc – and yet very little **reward** for learning everything – the game doesn't leave you feeling satisfied. In contrast, a game like Puerto Rico is complex to learn, but amazingly **rewarding to play (and win)**, or Munchkins, which is very easy to learn, and also (semi–**satisfying**) to play. But Small World takes more than a few minutes to explain, and yet once a game has finished I am never left feeling like I have played a good game. The mechanics are slow and I just feel like the game isn't one flowing system."
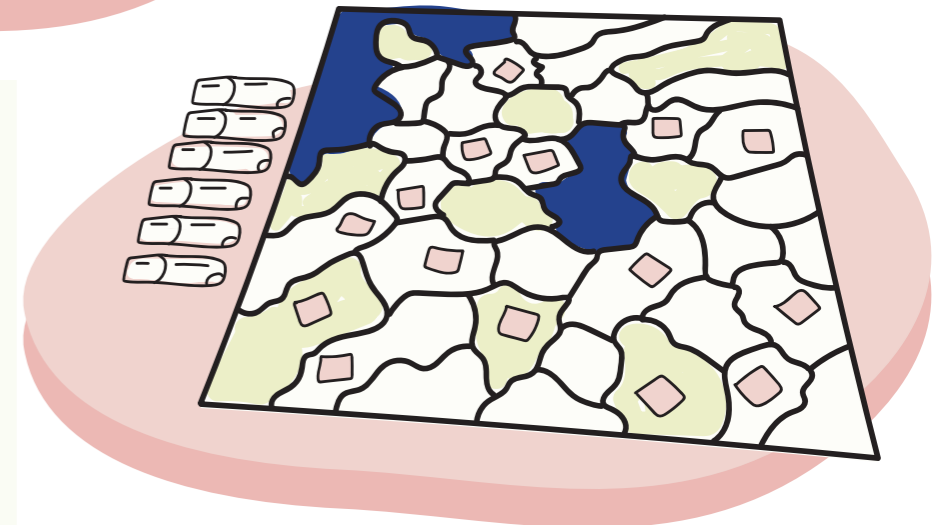
Figure 15: Visualization of board games analysed in Sales Safari

Amusement parks

"We bought the VIP ticket for our whole family, which there are 5 family members. Each person costs about $400. The cost was a burden however, we do not regret that decision because we had a terrific guide who explained with abundant information with a vivacious energy. If you buy the VIP ticket, then they provide you a guide who only works with you. We did not wait for the rides, the guide explained about the movies, brought us to every single festival, and studio sets where movies were made, and they provided breakfast, lunch, and dinner. If we had no guide, I don't think we would be able to have used the time wisely." (Review of Universal Studios Hollywood)

"I suppose it a must do when you travel all the way to LA. Experience it once probably not again unless you have children. Really pricey visit nearly 200 dollars a per adult and every theme or ride you need to queue for over 1 hour, it no wonder you need more than a day to visit." (Review of Universal Studios Hollywood)

"It always surprises me just how much fun I have when I come to Disney. And now I have two little ones of my own, it is a whole new world of awesomeness for me to show them all the sights I remember from when I was a child. Memories like this are hard to beat." (Review of Disney World Orlando)

"I'm sure Walt is turning over in his grave. The entire Disney Park is exceptional in all regards but extremely expensive. A family of 4 can expect to pay around $500.00 just to get in, that not including parking, meals and souvenirs." (Review of Disney World Orlando)

"Point blank - You will NOT have a good time at Walt Disney World if you are not willing to plan your trip in advance!" (Review of Disney World Orlando)

"Her er det noe å finne på for en hver. Alt fra høye, kjappe og skumle karuseller til rolige lave og morsomme attraksjoner. Badeland er et stort pluss, spesielt i sommervarmen. Anbefaler å ha med egen mat." (Review of Tusenfryd)
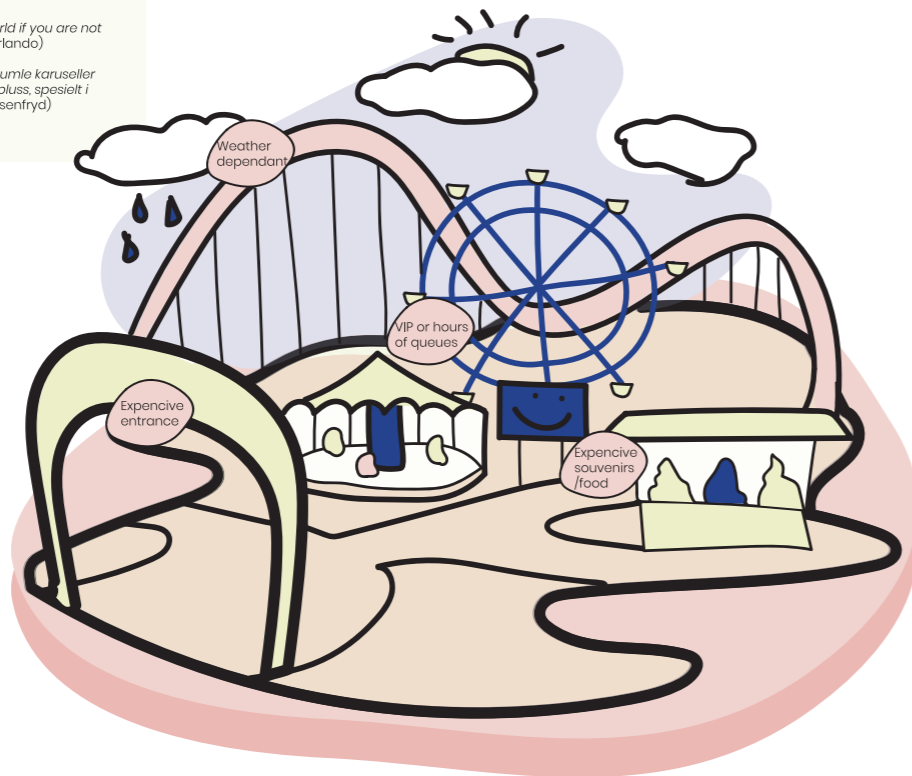
Figure 16: Visualization of amusement parks analysed in Sales Safari

2.3.6 Case analysis of game

Among us is a multiplayer social deduction game where a group of players are dropped onto a spaceship. Every player is designated a secret role, either as "crewmate" or "impostor". A crewmate is to avoid getting killed by the impostor(s), either by completing a set of tasks or voting the impostor off the ship. The aim of the impostor is simply to kill every crewmate without being detected. *Among us* was created in 2018 and remained under the radar until the global pandemic, when it rapidly became an international success (Lorenz, 2021). The collaboration game was relevant to analyse and investigate as a case example due to its generation of engagement and international publicity as a digital co-creation. The goal of the analysis has been learning how the use of certain game dynamics could be inherited and implemented in the phase of concept development. To analyse the game, a combination of two separate research approaches were conducted.

Firstly, *Sales Safari*, a method of virtual ethnography, was used to study honest reactions and experiences of the game obtained from ratings and comments in *Appstore* (See figure 18). Through the analysis, an eagerness to contribute to the improvement of the game was discovered. An example of this could be several players suggesting to add possibilities of customization. Other suggestions were implementing new roles apart from impostors and crewmates, such as detectives or nurses with abilities exceeding the original gameplay. As the game offers a chat with the purpose to discuss and decide a player to be kicked off the spaceship, some players highlighted the lack of possibilities to read facial expressions, thereby wanting to integrate video to the discussions. Additionally, a central finding was the emergent behavior occurring within the platform, with players discovering certain settings opening the possibility to play hide and seek inside the game - an emerging game within the game. To summarize, players of the game are eager to contribute to create new features for an elevated experience, which correlates to theory about

creative agency. "Creative agency is a concept that describes such sense of empowerment and user control that may lead people to act beyond the foreseen or intended use of a designed object or system" (Sjøvoll & Gulden, 2017). The suggestions can also draw parallels to constructing additional complexity within emerging social systems.

Secondly, an autoethnographic research method was conducted with the purpose to describe and interpret ("graphy") cultural texts, experiences and practices ("ethno") through personal experiences ("auto"). Autoethnography furthermore contains engaging in rigorous self-reflection in order to identify and interrogate the intersections between self and social life (Bochner & Ellis, 2006, p.111). The method was approached through two following cases; playing the game together with a random selection of online players and playing with a group of people from a closer network, including friends and colleagues. One can imply that the game consists of elements achieving engagement and activation despite differences in age, sex and occupation. Putting the diversity into context, the players included occupation fields within psychology, nursing, art direction, HR, social work, project management, developing and design, in an age range between early twenties to late thirties. By actively playing the game ourselves while analysing, an overview of game mechanics to potentially extract and implement into future concepts was provided (See figure 19). A central finding was the increasing feeling of mastery elicited by continuous play. Over time, learning strategies and personal skills developed, in addition to inheriting behavior from other players. Hence, the term *learning by doing*, or in this case *learning by failing* is relevant to playing. Another finding is the social systems that emerge in the group. For instance the game offers relational tensions that naturally promotes suspicion towards other players as a result from the secret roles assigned from the start, followed by the players reaction and actions throughout the game. Role playing, the feeling of mastery, strategy and social interaction through discussions, chat and voting, as well as elements of surprise, competition, customization and aesthetic continuity appear to substitute a digital platform for co-creation and emergent behavior.
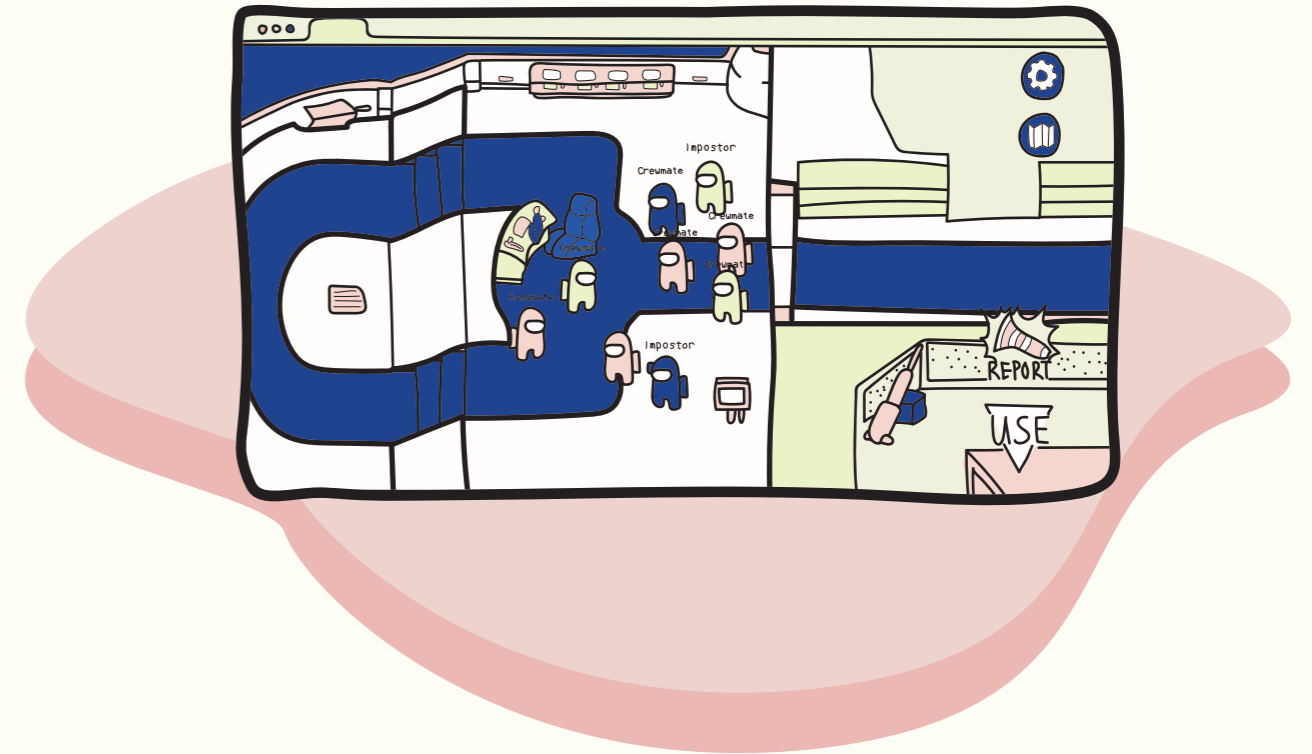
Figure 17: Visualization of the game "Among Us".

Among us ●

Among Us!

Ratings and Reviews

4.5 out of 5   463.5K Ratings

"I could play like 20 games in a row and never get bored. A lot of people feel this same way which is probably why the game is so successful and although that's good, it comes with a price. That price is more content. People need more and more content and if the demand isn't met with even small additions like new tasks or new colors for characters then the game will slowly start to die out. A big thing people want is the ability to have friends. You can play like 40 games with the same person and really bond with them and get to know them, only for both of you to be kicked out of the game for an update or hacking or something and you'd never be able to see them again. A friend request feature would go a long way to helping this issue, plus with more friends you can play with, the more people will want to play"

"Most of the time I try to join a server with 6/10(More or less) players, it says the game has either already started or the lobby is full. I refresh the servers, and there's barely any. I try another one, same problem. I'm usually spending at least 2-3 minutes just trying to join a game with settings I like. A friending system, I've met so many nice people when playing! It would be nice for a friend-ing system! Another suggestion is more customization, there's only 12 colors along with a not so massive selection of hats. I'm not allowed to buy anything online, so it would be cool for more customization for people that can't afford to buy more hats and things"

"I really love this game, it's really fun! The graphics, gameplay, and everything overall is amazing! I was also thinking of some things that could be added. This is something I heard on the internet and isn't original, but I wanted to spread it around because it sounds interesting. What if there was a role called "Jester" where their goal is to get ejected, making them win? Also a role of "Detective" sounds interesting. Like, you can give that person the option to take screenshots, so they can have solid alibis/evidence of the imposter, but only they have it, so that the crew mates don't have too much of an advantage. They can send the screenshots to the chat, helping out their case (maybe also a limited amount of screenshots so their not overpowered?). Also the idea of adding friends would be cool! It's sad you can't add anyone, and the strangers you could enjoy playing with you'll only play with once. It would also be nice to adopt mini crew mates whenever their parent dies, I just think that would be very wholesome. More colors would also be cool. I mean, this is only optional since the colors that are already there are great, but I think it's something to keep in mind."

"ok to start off this game is very overrated. i mean like why is the game so hyped up when it's js mafia but virtual. u can literally just blame anyone and say THEYRE THE IMPOSTER and the game will end there. on the other hand u can be on the phone with ur buddy and u can just double team and say this guys the imposter or back each other up. which i understand that people have these evil intentions and are super dirty with games and never play by the rules that just makes this game all the more dumb and overrated. plus you can always press join game and it'll say the among us matchmaker is full please join again. that has happened at least 15 times in a row for me. and the only fun role that you can ever play in this game is imposter because when you are crewmate you can literally just say he's the imposter and he can say you're the imposter. unlike in real life you can't use facial expressions and background knowledge of a persons personality to know what kind of strategy they would use to kill someone. also some people when they don't want to be crewmate or imposter straight up leave the game which is unfair to many players and while i can understand that, it is still unfair to others. i won't regret writing this review because it is the absolute truth but please try to come up with a better game and come back next time thank you!"

Figure 18: Visualization of ratings and comments about "Among Us" found through Sales Safari.
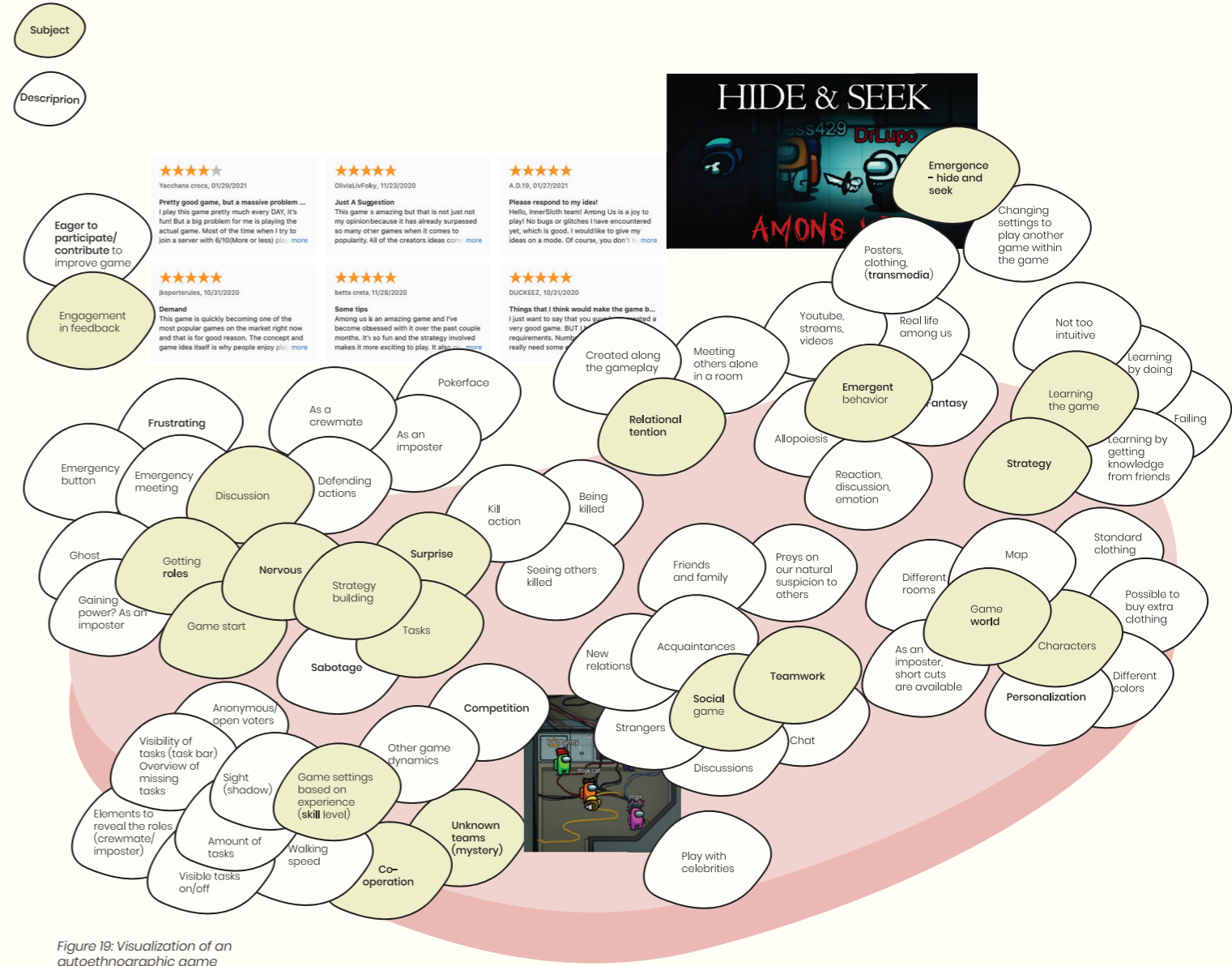
Figure 19: Visualization of an autoethnographic game analysis of "Among Us".

2.3.7 Co-Creation platform analysis

The project aims towards designing for co-creation by utilizing game dynamics in the context of furniture design. Co-creative platforms within this context are supposedly lacking, however, there are examples of platforms within the world of creative working tools and games where elements can be extracted to inherit. In this project two co-creation platforms were analysed through an autoethnographic approach due to their designed elements of co-creation and use of game dynamics. The first subject of analysis is a co-creation platform offered by the developers of *Minecraft* as an extension of the original game, discovered during the Sales Safari analysis of the game. The second platform is *Gather*, a platform that functions as a co-creation platform imitating real life social gatherings, tested through in a work context as an effect of Covid-19.

Our first impression of the *Minecraft* website was a sense of passiveness within the approach to co-creation, as the landing page highlights the desire to create a community of players, yet still offering a suggestion box to get input from the possible community. Anyhow, by further investigation and analysis, the platform came across as increasingly activating towards co-creation, since the website is closely connected to the game platform. For instance, the website emphasises support and complementing the users on their creativity by displaying impressive builds and art done by players of the game. Additionally, it offers monthly stories, almost like newsletters, highlighting exceptional players. Moreover, the platform provides the possibilities to vote on next month's theme. Storytelling is also important for co-creation, where active feedback from players is guiding the future of the story (See figure 20). Apart from that, the site embraces transmedia storytelling by providing external guides through *Youtube* and *Discord* (discussion platform) as resources and tutorials for new players, a warm welcome to the community. To summarize, the website itself would not function as a co-creation platform without the actual game of

Minecraft, anyhow it is an additional and active provider for the creation of community amongst players, and it is successfully designed for emergent behavior to occur.

Gather is a digital space for social interaction, combining audio and video with virtual 2D spaces for people to create, live, and interact more effectively online. The platform lets users walk around and talk to people next to them within the space - almost like in real life. The platform was created as a result of Covid-19 and the urgent need for better digital solutions for social gatherings (Gather, n.d.). (See figure 21) To conduct an analysis of the platform we tested the platform ourselves, while carrying out another *Sales Safari* at *Youtube* and *Reddit*. The digital ethnographic method revealed a low quantity of comments and reactions compared to the other subjects investigated earlier in the process . However, amongst the comments and reactions we discovered a high interest in sharing uncovered possibilities within the platform. For instance, several users shared their experiences of hosting a real party for the office or their friends, being able to imitate how it was before the pandemic. As the platform facilitates mingling, making it possible to walk around and talk to the people you would like to talk to, cooperate with or play games with - simulating a physical social context. For example, one user pointed out that it was great to finally show the summer interns "what the office looks like". Others highlighted were possibilities to use the platform as a classroom, for a more natural way of teaching and learning during the pandemic. When testing the platform ourselves as part of the project through the autoethnographic method, we created our own space to use as a workspace. Here it was possible to adjust multiple settings and add a variety of plugins of co-creative games, interactive objects and special features. Additionally, it was possible to customize your own avatar and communicate with other users by showing body language; dancing, waving, giving hearts, raising a hand and showing a question mark. Combined with the possibilities to use audio, video and chat, *Gather* creates a social, co-creative platform including several game dynamics.

Minecraft Community

WELCOME TO THE MINECRAFT COMMUNITY

Our Minecraft community never stops amazing us with their creativity. On this page, we gather some of their best work—videos, builds, and more.

COMMUNITY CREATIONS
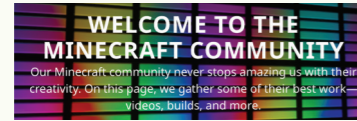
Finding: Landing page emphasises support and complementing the users on their creativity

Finding: The community have a sharing culture and goal of inspiration

Finding: Games of different preferences and purposes

Finding: Story case of user, co-creation example

Finding: "Earth" designed for free mobility and cooperation. Ended because of Covid.

HAPPYCRAFT

HAR DU ET FORSLAG?

SEND INN IDEENE DINE HER!

Finding: A rather passive suggestion box, a desire to get input from the community

Welcome back, adventurers! (In case you're just joining us, catch up here.) Last week we wandered through a large dimly lit building, only to stop at three windows, each lit with a different color. The community chose to travel through the blue window for our first adventure!

Turns out we've made quite a splash with this choice, as we're now diving into some more images captured by **od149**, who's also created one of the featured spotlight images earlier this month! The builds showcased today are all from od149 and feature fire and ice, in addition to the naturally generated scene above found while exploring.

Finding: Storytelling and update based on the choices of the community. Facilitating emergence within frames.
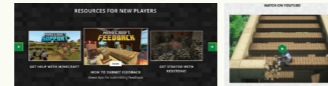
Finding: Invite for new-beginners. First step in playing experience. Connected to other platforms like youtube tutorials and Discord discussions.

MINECRAFT
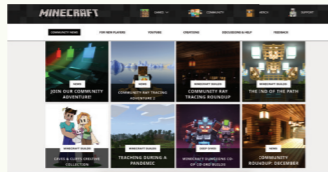
Finding: Acknowledging, commenting back on and showcasing user's work (referred to as art).

Typically we have an over-arching theme surrounding our various community roundups, and if you've been checking out the community section of the site this week, you may have figured it out (if you need to catch up, go ahead, we'll wait). What do all these images have in common? Besides featuring some advanced graphics with shadows, lights, and reflections, they were (of course) all created by the community during our ray tracing beta through the year.

What's ahead? Through the end of December, we'll be featuring community collections from our recently-ended ray tracing beta. However, there's a twist.

You get to help us decide which collection of images we post next! We're opening up the choice to a public vote. This is definitely an experiment, so we'll need your help to make it work.

Now it's time to help us make our first selection.

Finding: They find common themes for the monthly collections, users can contribute with suggestions and voting. "This is definitely an experiment, so we'll need your help to make it work".

Figure 20: Visualization of a platform analysis and findings from the Minecraft website

Finding

Subject

Description

Social, possible for co-creation

Create real life immitations of spaces, such as offices and schools etc.

Emergence: creating new games within the platform (ex. escaperoom)

User control, choosing how to use and explore the rooms

Chat, video, audio

Chat

Choice of appearance/ character

Rooms

Divided spaces (gardens, kitchen, sofa)

Communication

Secret rooms

Audio

Body language, through different reactions

Dancing, waving, hearts, questions

Music

Walking from room to room

Video

Interior, activities

Exploration of all possibilities

Trying out games

Single/ multi player

Games

Emergence from own experience

Tetris

Worktools

"Let's go to this room" "I'll just sit into this couch"

Minimum players, forced co-creation

Alias

Explaining your actions within the platform

Drawboards

Idea bowls

Imitation

Figure 21: Visualization of the platform "Gather", an analysis and findings from Sales Safari.

Gather •

"So, kind of a weird question, but I'm trying to put together some escape/puzzle rooms together in Gather and I'm curious if anyone else has tried something like this before. I figure it would likely require a lot of micromanaging from whoever owns the space."

"Just discovering this now, it's gonna be the wave of the future and will be interesting to see what other people create in similar platforms! This makes all the difference in on-line learning in schools and other kinds of gathering!!"

"Just used Gather today for my university club meet-and-greet event! It's so liberating to be able to virtually "walk around" and "mingle" with other students, terms that seem almost taboo in our current times. One of the biggest pluses (in my opinion) is that all participants have control over who they want to talk to, whenever they want to, something that Zoom breakout rooms sadly overlook. The event went really well, people had a lot of fun, and I would totally recommend this platform for anyone trying to plan a chill social-type event (or meeting, or anything, really)! @ makers: Would be amazing if there was even more support for certain (perhaps) commonly-useful objects within the map, such as Clock/Timers, music players, etc. :)"

"I love the proximity chat combined with the ability to move around, just like at a real party! Can't wait to host our Yule Fest on Gather!"

"I used Gather to host a work happy hour and it turned out super well! For an event of our size, it was important that we could socialize in smaller, manage-able groups while still being connected in a larger space, so Gather was a perfect fit. We recreated our office (with a few extra bells and whistles) using the map editor. It was so fun to feel like we were back in that space and to see coworkers that we don't work directly with. For our summer interns, it was their first time seeing what the office looks like! Now everyone is free to re-use the map for any event. The Gather team was extremely responsive and helpful for all of my questions and I highly recommend working with them."

2.3.8 Design Concept JAM

A design jam was performed to initiate the concept development phase while facilitating co-creation as part of the process. At an early stage, one could receive input based on four pre-established main problems claiming leverage in the final concept proposal. The main problems were formulated "How can we engage?", "How can we facilitate co-creation?", "How can we create the desire to commit (effort)?" and "How can we benefit from existing technology?". The data elicited from the jam could then add to a continuous idea bank developed throughout the research phase and presented with a summary of all method findings. Additionally, the method implementation was assessed to adapt a revised jam for the convergent concept development phase later in the project.

The method was facilitated in the online collaboration platform *Miro*, a "digital whiteboard" where people can draw, work and co-create, convenient for common planning or brainstorming ideas (Mohammadi, 2020). The jam was divided into different steps with time limits set to each section. It started by shortly introducing the project, followed by noting some initial thoughts to start the dialogue. Groups of three to four students from the class were then divided into two *Zoom* "breakout rooms" for the next sections. The sample of convenience was familiar with the project, collaborating in *Miro* and ideating concepts through design methodology, and therefore found as reasonable for the purpose of the method. In the first section the participants were to brainstorm ideas to solve the main problems using text and visualisation tools available in *Miro*. Secondly, three top ideas were voted forward for further development. The third section, the groups were to define the concepts with a drawing, title and an elevator pitch. Lastly, the two teams presented the concepts in plenary.

The jam participants are as design students not covering a broad diversity of fields. However, they are familiar with ideation phases and could possibly fill in overlooked gaps through critical thinking. Factors mentioned in the initial thought discussion was awareness of the designed context or framing, designing within stages of product lifetime, investigating the meaning of the term "durability" for the users and non-designers. Other aspects included mastery, levels and feeling of accomplishment. In the concept development sections of the jam, important elements that the attendants highlighted were customization, accessibility, social relations and random meetings, competition, lottery, "forced" co-creation, facilitation and rewarding of a committed early bird supporters, storytelling, sharing, arranging pop-ups and placement of products to elicit visibility.

The conducting of the co-creative method resulted in idea generation, concept development and cooperation. A reason for achieving a generative jam might have been the use of *Miro* as a cooperation platform. The participants were familiar with the structure of a design jam and experienced with using the platform. Regardless, yet emphasised on by the participants, the platform offers a low-key system of simple visualisation tools which makes it easy to use: drawing, post its, stickers, icons and colors. An emergent behavior occurring in the jam was the attendants´ use of personal colors when writing post-its, correlating with the theory about creative agency. Other unexpected events were the general use of time to understand and execute the assignments when arriving at the break-out rooms. As facilitators one could have been stricter to follow the time schedule and nudge the speed level at every task. However, fruitful ideas might get disturbed from moving on when the time runs out. Therefore, there

is a balance for consideration on how to manage time limits in the next jam. Another factor is the balance of presence and absence while the participants do the tasks in the rooms; follow up in need of guidance and understanding the procedure, while also not influencing any ideas, work flows or expectations. There were some technical issues with the transitions between break-out rooms and the main lobby, resulting in facilitators going in and out of the rooms in case of need for help. This could have been implemented differently, either by using another platform, spending more time explaining the tasks, or set up an improved plan for navigating between the rooms. Some sections might also need a nudging comment to explain the expectation level, for instance seeing the elevator pitch as a quick and fun sales speech.

Although the concept jam was conducted early within the design process, it offered valuable insight in ways of substantiating co-creation actively. Moreover, key aspects, elements and perspectives from the attendants considering co-creation, durability and game dynamics, will be important to preserve and make use of in the concept phase.
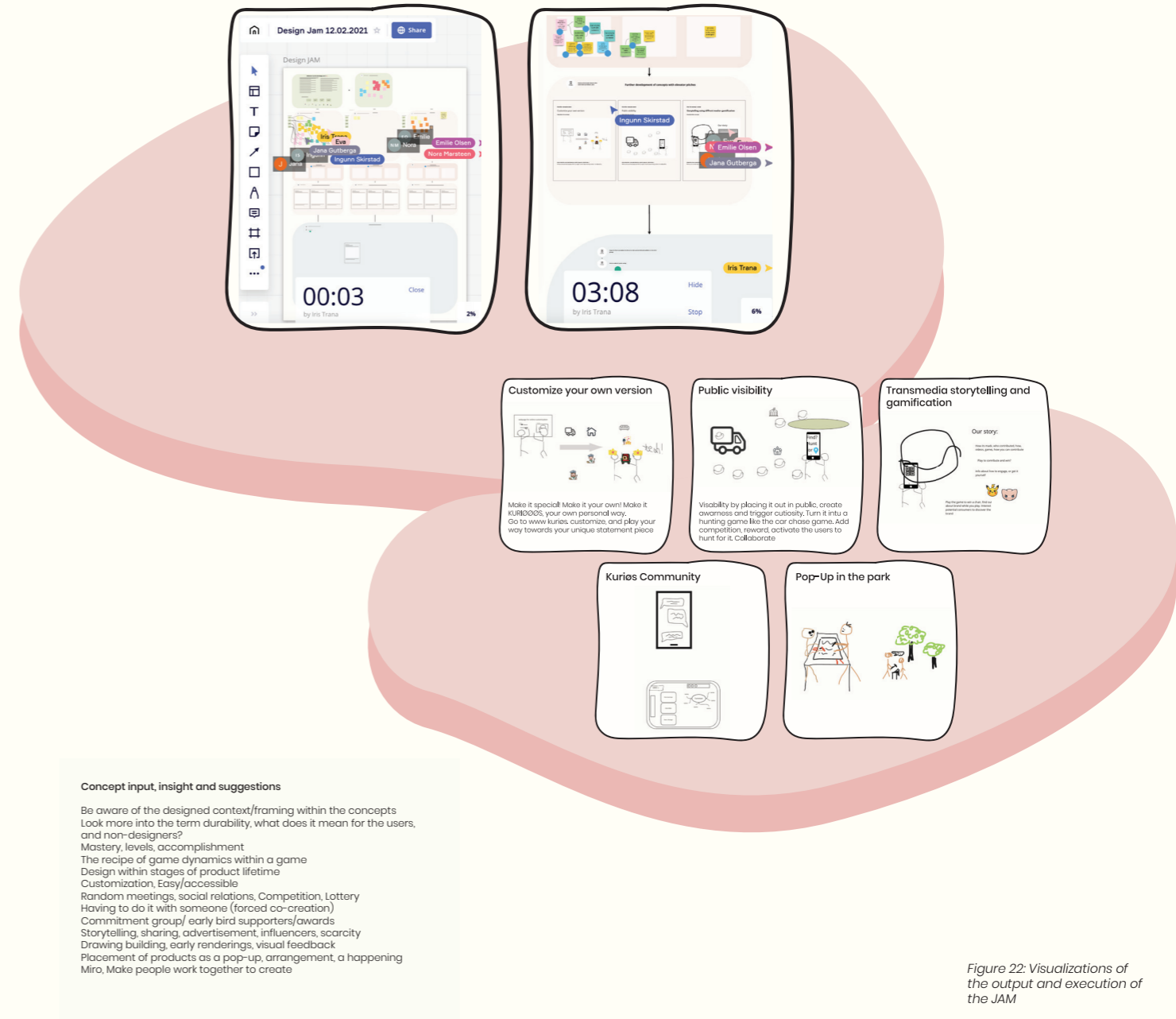
Figure 22: Visualizations of the output and execution of the JAM

2.3.9 Design probes

Design probes are conducted with the purpose of gaining insight into lives, needs, perspectives and thoughts, without influence during the process. Participants are given relevantly designed tasks to examine and interpret, often in formats of photography, diary writing and open-ended questions. The method involves and activates to perform self-documentation, challenge or provoke imagination and increase empathy within different situations to better the experience of the design solution (Gulden & Sjøvoll, 2016). It also establishes objectivity due to the remoteness and independence between the respondent and the interpreter (designer) (Gulden & Sjøvoll, 2016). This process elicits valuable data of analysis and allows designers to have an access to users' subjective interpretations on their lives; areas that designers cannot enter (Service Design Lab, n.d.).

Instagram stories

Based on the possibilities probing can provide, a design probe was created. The probe consists of two separate sections, with the second as an extension of the first. In the first probe section, *Kuriøs´*s *Instagram* account functioned as an interactive digital platform, convenient for engagement and contribution. It also demonstrates how the company can connect and develop a mutual relation to future customers on the desired premises of co-creation. Using *Instagram* stories as the communication tool, the categorized questions were presented in four rounds of different days, including the topics of games, play, childhood games and lastly the invitation to the second probe section. The questions were formulated to generate insights into which games and activities people found engaging and why, and from there analyse game dynamics based on the submitted answers. Furthermore, submitted answers were shared to exemplify and inspire interpretations, nudge more people to participate and meet the curiosity of others´ answers.

Factors to why people enjoy their respective games, toys or plays revealed some valuable qualities and interesting findings. The most frequent qualities include the social aspect, inclusion and universality, generation of adrenalin, laughter and challenges for brain activation. Other important qualities were teams and competition, coincidence and randomness, the factor of winning, graphical aesthetics, storytelling and nostalgia. The mentioned qualities can be translated into game dynamics, which can be implemented into design concepts. For example, the generation of adrenalin can be represented by "ilinx" – described by Roger Caillois, a french sociologist on the sociology of play and games, as disorientating oneself, thrill-seeking and risk taking (Caillois, 2001) – like the rush one gets from roller coasters rides. A limitation to the method is that the company is in a preliminary stage, meaning the sample consists of firsthand customers, the *Instagram* followers included in the first probe section. Due to this, the sample mainly includes participants of students, relatives and people familiar with the company from before. In an ideal situation, the research sample would have a higher quantity of randomized and diverse participants. The data is still representative as the contributions to the first part of the probe unfolds a basis for analysis and reflection. These are potential buyers of products and services who will follow the company's journey in the future, as well as help recruiting more people to join the community of *Kuriøs Studio*. The tasks were also created with a low threshold, open for personal interpretation with non-leading questions – to some extent avoiding constriction of intuitive storytelling or results. The purpose of the questions - to inspect for game dynamics through the submitted answers - was neither revealed.
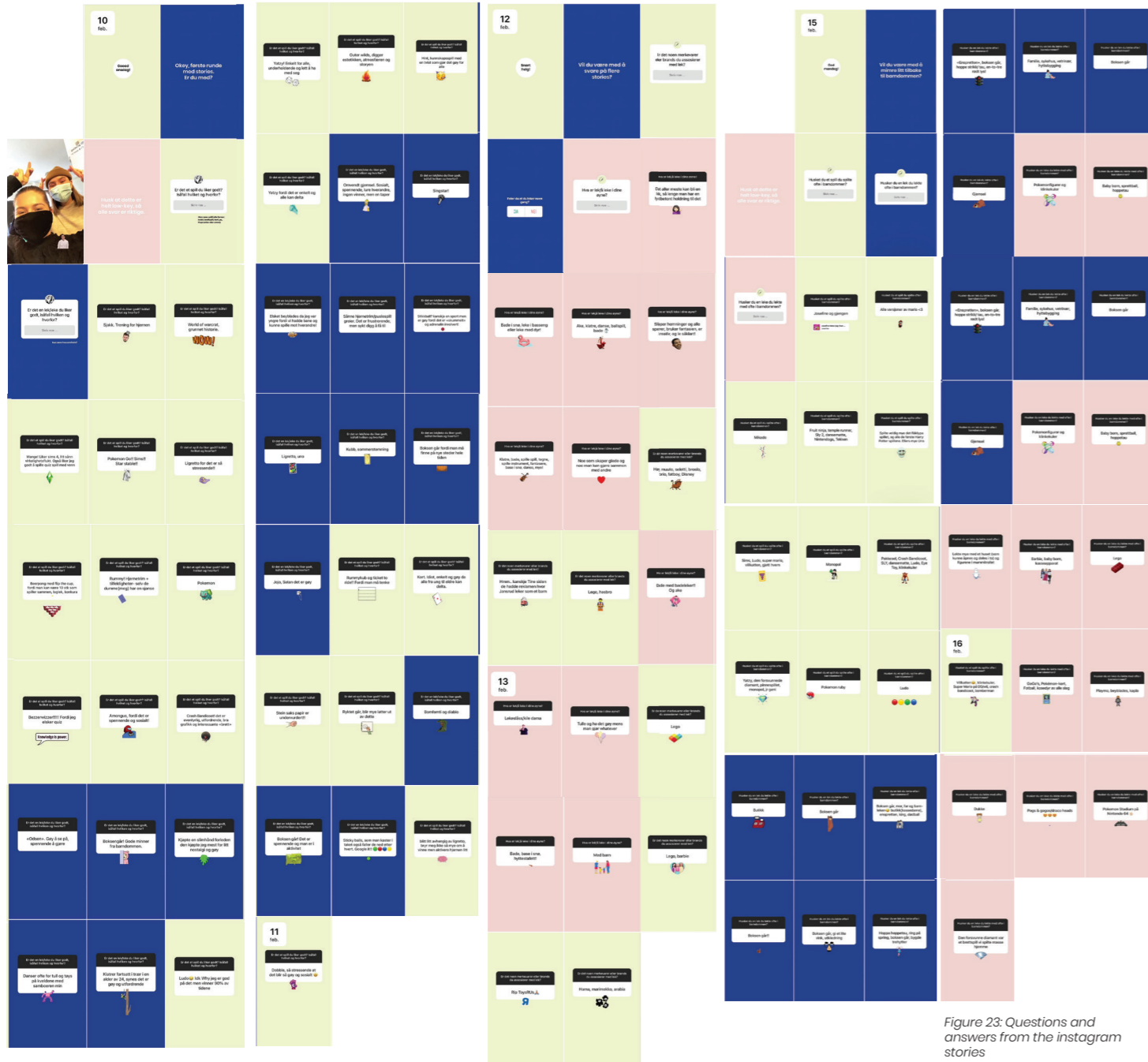
Instagram

Figure 23: Questions and answers from the instagram stories

Digital probe kit

The goal of the two-parted probe was initially to start with an accessible activity creating engagement, and then nudge participants to join the second probe - being more thorough and based on facilitation of co-creation activities. The second probe was given to stakeholders as a digital kit divided into days with what was regarded as easy tasks. They were created to elicit discussion and activities between the participants and their closest friends and family, with activities possible to achieve physically or online. However, the second part of the probe generated little feedback, with only one completed response.

This response is still considered valid due to its comprehensive and qualitative form, revealing findings that can be related to other parts of the research. When describing her favorite games and why they are enjoyable, the argumentation was connected to elicitation of joy and enjoyment, memories and tradition and playing together with others. She mentioned a gift of a *Memory* game personalized with pictures of her family. Additionally, the stressful aspect of playing, having adrenalin, competition instinct and depending on others to either help or ruin your chances of winning were mentioned factors. The probe elicited a fruitful discussion around the theme games from childhood, naming "The floor is lava", hopscotch, jump rope, marbles, stickers and collective figures. The participant valued the feeling of unity, playing together and wanting to keep the collection of toys because of the memories and joy associated with it. She stated "Those were good times, now I don't feel like I have the same freedom and possibility. Which is a bit sad", which can indicate an inner desire to play and feeling of nostalgia. When

inviting to an activity that could elicit co-creation, she chose to play the *Memory* game with some friends. This gave an opportunity to get to know each other better, however, it might have been more exciting to her as it was a personalized and family-related game.

Several other people showed interest and curiosity to join, but never seemed to have time to make the effort. This is considered a finding in itself, with the reason being a passiveness and lack of engagement in the tasks. The format might have given an impression of duty rather than reward. Another rather obvious limitation is the overarching virus situation, which generally interferes with most processes. Among other things, it affects people's motivation and accessibility, which again influences the result of gathered data. This became especially visual in the transition to the second section of the probe. Seemingly, the commitment to examine the tasks of the probe were either too passive or a challenge experienced as a burden because of the current conditions caused by Covid-19.

Hybrid probe
As a way to apply a different approach to the probe, a hybrid method of play probing and Sales Safari was initiated. "In light of theory, it seems that play probes can elicit playful behaviour, when experienced as free, fun, and possibly be constructive for all partakers as it enables a playful attitude" (Gulden & Sjøvoll, 2016). The hybrid approach revolved around inviting fellow students to a virtual classroom through the previously analysed online collaboration tool, *Gather*. The space was simulated to a realistic physical classroom, with a kitchen area, workshop room and smaller rooms for working in peace. Additionally, elements of activation and surprise were placed around the area for exploration.

Probe kit

Figure 24: Probe kit onboarding and tasks

"When the gamification features are used in a way that opens up for a playful attitude, play probes may provoke behaviour which balance on the edge of a playfulness - productivity paradox by eliciting motivation and experienced autonomy and following productive play (Gulden & Sjøvoll, 2016)". Through this platform it was desired to discover how people use the space as a collaborative platform. *Will the participants visit each other in the different rooms? How will the digital setup be compared to the learning environment in the physical classroom before Covid-19? How will it be compared to how the learning environment has been, with minimal contact, only connecting with others through group tutoring?* The probe was examined as an undercover experiment and an attempt to activate more offensively - where we could interact, observe and analyse co-creation without the participants knowing. The hybrid revealed several findings regarding subjects of onboarding, co-creation, discussions, play, enjoyment and continuous use. Firstly, the activation of the participants to enter the platform was initially challenging. Nevertheless, after the first entry the majority came back and started using the platform regularly. A rather offensive approach to onboarding was therefore conducted through sharing possibilities and pictures from within the platform to the class chat, activating additional classmates to join. Throughout the period of the experiment we shared moments of joy and playfulness through the games that were used as energizers, and through "role play" features such as body language possibilities. Additionally, the platform substinated fruitful discussions and co-creation through workshops led by classmates that found the tools available suitable for cooperation in the workshop room. On the other side, the presentation features within the platform are not as suitable as other presentation tools, based on a comment from a group tutoring session. Anyhow, it seemed like the elements and activities given activated continuous use of the platform, giving the class an opportunity to simulate ordinary life pre Covid-19.
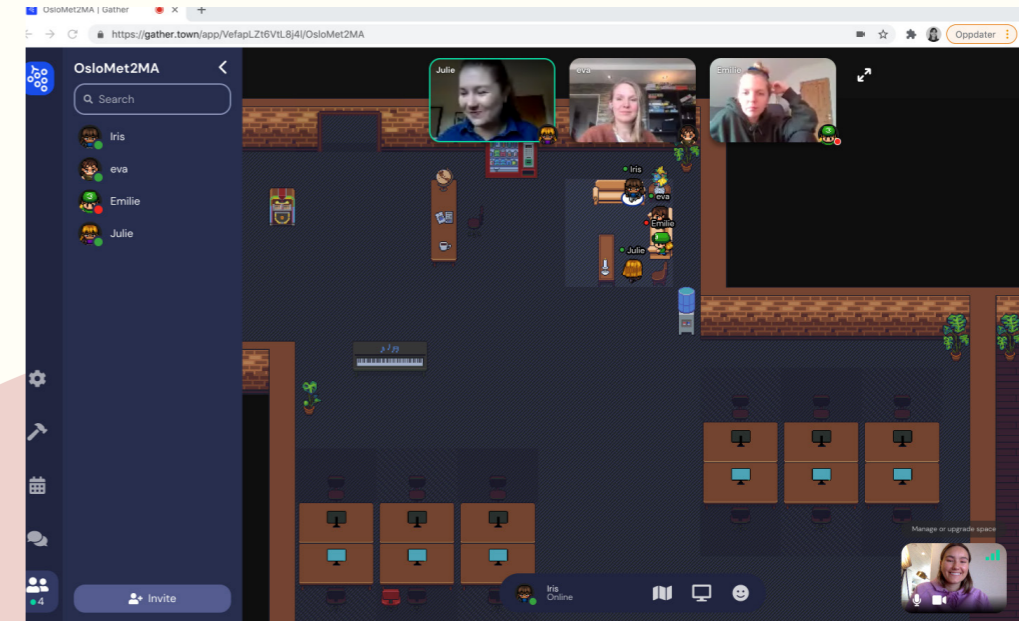
Figure 25: Screenshot from a group meeting in Gather

2.4 Summary of findings

Theoretical ●

Creative agency

Contrary to a generic design approach with goals of convenience, a play design approach allows the user to act and behave beyond the set frames, with a goal of creative agency and subsequent enjoyment.

Engagement is elicited by different factors for different people. A possibility to make various choices of use based on what the design motivates should be enabled.

Acknowledging that all humans are creative and capable of "solving their own problems" reflects a humility in the role of the designer; to design for creative agency.

Engagement can be elicited by game mechanics, framing, DIY, playfullness and movement/change.

From a play activity, a concentric interaction system can be created through keys and frames. An autopoiesis system is elicited when the behavior emerges beyond the frames and the narrative continues.

COE

A product is often replaced because of a desire to feel pleasure through self-expression, convenience, status or belonging.

To achieve a consumer product attachment, one can design contexts of experience within stages of ownership, including a circular possibility of reuse.

Play

Play can either be limited or plenteous. The resistance and creation of own experience can stimulate creativity and welcome new play themes.

Transmedia storytelling is a way to extend the narrative of a product outside the product itself. However, it can evoke limitations of new play themes, as the story or context around it affects the play with fixed association patterns

System complexity

A strategy to avoid dominating or excluding important considerations is to implement a multi centered design approach, seeing the "user" from different perspectives.

When handling complexity, gigamapping is a visualization tool to preserve the rich data by connecting information from separate categories. Conventional diagrams tend to strive for categorical clarity on the cost of interlinked richness.

Awareness of ambiguity of systems is important to design with wonder and acceptance of the surrounding complexity.

Co-creation

Motivations and barriers vary due to the differences of personality traits (among other factors), therefore it is reasonable to facilitate co-creation and create frames of activities worth the effort with different levels targeting different customers.

"Being on an Internet-based platform and having direct reach to customers, are especially well positioned to leverage customer co-creation in the development of new products."

Factors to elicit co-creative participation, in contributing with new ideas and selecting the implementable idea, are emotions of enjoyment, transparency of process and responsiveness of the hosting firm.

Methods and process ●

Game dynamics

There is a fine line between luck and effort ; too much luck and too little effort and strategy can frustrate and make a game boring over time.

A flowing system of mechanics determines experience of game (balance between too much and too little).

The effort put into learning is a balance of worth, does it feel rewarding? Some people are searching for strategic and complicated games, but there is a fine line between fun complicated and too complicated.

Enable different ways of playing in order to include all skill levels and cover different needs.

The use of scarcity and luck can enable new levels of emotional experiences.

There is a balance between new features and keeping the concept of the game (news value).

The most frequent qualities mentioned in the probes considering favourite games include the social aspect, inclusion and universality, generation of adrenalin, laughter and challenges for brain activation. Other important qualities were teams and competition, coincidence and randomness, the factor of winning, graphical aesthetics, storytelling and nostalgia.

Lack of game dynamics created lack of engagement in the probe tasks, as several people showed interest and curiosity to join, but never seemed to have time to make the effort.

Emergent behavior

Transmedia storytelling can extend the initial frames of a game, and thereby influence new contexts.

An emergent behavior is often a desire or urge to change the rules within the given frames.

Emergence of creativity can unfold within the frames of given building tools.

Sharing achievements, or sharing inspiration with others that play the same game, creates social connections between players in addition to elicit emergent behavior.

Communicative identity

There are gaps in the communicative identity of Kurios Studio that needs to be further defined and explored within the concept development.

Co-creation and social interaction

Minimum of amount of players forces co-creation activities.

Enabling the possibility of being social creates a basis for co-creation.

Enabling social meetings, can motivate reason for playing.

Dividing into roles can elicit behavioral dynamics between participants, ex. connected to power.

Enabling imitation of real-life emotions or gestures can elicit co-creation (chat, video, body language, signs, character appearance, dancing).

Rituals, memories, culture and emotional experiences

Expectations tend to govern experiences

Memories elicit emotional attachment, a memory can be created by theme music, quotes, sayings, aesthetics or others, that bring back certain memories from the past.

Aesthetics matters for the experience of the game, in the manner of creating an illusion or concept philosophy.

When a game has emerged into a community, rituals made by the community can arise.

The reflection of cost and time spent determines the feeling of a rewarding experience.

Enabling gifting can underlay possibilities of friendships and sense of belonging to a community within the game.

Inviting to challenges and events is a way to remain relevant and maintain the community.

Highlighting work created by players can elicit a sharing culture.

Encouraging and embracing expansion of community by benefiting from other platforms.

Engagement, exitement and creativity together with co-creation and social interaction is enabled through the platform Gather when entering the designed space. However, the challenge is to activate people to join.

Figure 26: Visualizations of the summary of findings from both theory and methods and process.

Chapter 3

Concept development

3.1 Idea bank

The idea bank (See figure 27) represents and consists of premature ideas or reflections that emerged within the systems oriented research process. Because of the time they arose, the ideas and reflections are closely linked to research findings and theory considering rituals, game dynamics, co-creation and creation of culture elements possibly leading to emotional durability. Therefore, they were kept as initial inspiration for the concept development phase, additionally, to function as a basis for the following sprint activities.

Gamified steps of process

Step by step process on website

Possibility for users to give suggestions or feedback within the different steps

Every step be like a game, not only choice of shape and color

A part of the process, feeling of being heard/contribution

Digitally social

Social activity, meeting/gathering point between friends.

Digital activation due to Corona, possibly important post-pandemic?

Cooperation despire geographical differences.

E.g. Paint n´ sip, gifting, Among Us.

Spend time together online.

Drawing activity

Paint site, people can draw and and send their drawings through the Kuriøs website

Engaging digital platform

Design proposal:
Engaging digital platform

Gifting

Enable giving gifts to other Kuriøs Friends using the "game", create a culture. Nudge meetings, name giving based on other friends, long term link/relation?

Test products

Develop products that can be tested on the website?

Rituals and culture

Design Kuriøs Friends´ rituals, and thereby aim towards a cultural development, common ground, important for co-creation

Levels of activation

Different stages/levels of activation, Miro, Kuriøs game, a sharing platform. Different combinations of the same. An app, a game, a website with possibility to share.

Time and effort

Not necessarily winning in order to buy, but playing along the way, spending time using the platform (e.g. paint the product to see options). Transform website elements into activities/rituals.

Co-creation inspiration

Based on findings in the Sales Safari; concept, philosophy and aesthetics are important to "believe in the game", immersion.
It will be purposeful to establish a digital company profile as an additional delivery.
Existing forms of co-creation can show how Kuriøs can look and be. Use aesthetics as example of how co-creatoin and game dynamics are valuable together.

Insert collaborative platforms

Implement Miro to the website

Figure 27: Visualizations of the idea bank.

3.2 Design sprints

"*Sprint* offers powerful methods for hatching ideas, solving problems, testing solutions—and finding those small, correct habits that make all the right behaviors fall in place" (Knapp, n.d.). *The Design Sprint* was invented and created by Jake Knapp and Google Venture, and is a refined and efficient approach to problem solving. It combines advantages from cooperation with individual work along with methodology from design thinking, lean startup and service design. Within the design sprint a team is focused on building a large variety of ideas within the limit of a few days (Løpe, n.d.). In this project, the design sprint methodology was implemented and adapted to the concept development phase as two set rounds of sprints, including time framed activities of cooperation and individual work, iterations, theme based ideation, feature based ideation and prioritization voting.

3.2.1 Sprint one

Organization of method

Sprint one was examined with the following activities:
- *Free idea generation (10 min x 3)*
- *"Yellow bowl", with game dynamics (10 min x 3)*
- *Idea generation with a focus on rituals (10 min x 3)*
- *Idea generation with a focus on co-creation (10 min x 3)*
- *Dot voting*
- *Analysis and discussions*

The sprint started by generating ideas divergently and individually, "emptying" the minds through three sessions of free ideation without any particular/specified criteria or limitation. Discussions elicited during idea presentations of each round, which again generated opportunities to co-creatively build further on each other's ideas. The "Yellow bowl"-activity was conducted through a *Scribble* feature within the *Gather* platform. Game dynamics were randomized for rounds of concept drawing based on the pre-registered words. Every other round, roles were distributed between a drawing inventor and an observing commentator, enabling a continuous and dynamic discussion. The next two sprint sections were specified to focus on "rituals" and "co-

creation" in the context of Digital *Kuriøs Studio*. Designing for rituals and experiences in transitions, as well as activating and engaging for co-creation were themes seemingly relevant and reasonable to bring further from the research phase.

After the generative rounds of ideation, the data was collectively reviewed and individually evaluated with a dot voting session based on the *MoSCoW* method. *MoSCoW* is a prioritization technique for helping to understand and manage priorities into what **m**ust, **s**hould, **c**ould and won´t be included (Agile Business, n.d.). The prioritization categories were accordingly translated "Yes!" (ideas that answered holistically to the research question), "Yes, but..." (ideas with potential to answer the RQ) and "Maybe" (ideas that could function as featuring parts of a concept). Furthermore, the prioritized ideas were analysed and synthesized into a sample of ideas and concepts within defined categories. The generated ideas included suggestions to how one can become a friend, how to activate inconveniently in the point of purchase, creation of rituals and avatar, elicitation of creative agency, onboarding, social meetings, features concretely revolving the platform and the gifting aspect. The sample created a basis for the next sprint, both as inspiration and a driving force to uncover areas that needed further investigation and ideation after the first sprint.

Kuriøs goggles/ lenses

Rooms of categories

Poster activity

"Buy this (one service) in this room"

Processes with videos etc. people can comment/involve

Combine kuriøs products with what you already have (objects)

Implement object into environment

Co-creative Ideabank Build on others ideas

Detective mode

Collect, collaborate to buy

Arraging/hosting arragengemts (assisted/not)

One aspect with group of friends.

Connecting strangers, nudging meets

3d model of products

online world (habbo, gather)

Become a friend

Storytelling around the platform - why? how to engage?

create scenarios of use

Building cartoon spaces with kuriøs furniture/products

if your friend owns product, you can join friends

upload a photo of a pose in jomo to get access

Complete within timelimit to buy limited (scarcity)

Gifting, friends in the platform.

Private spaces for activities with friends

get approval to share in the platform

painting/drawing page with stickers of kuriøs products

paint to see in other variations

do we have to name products? people create their own first names, adjective

Blobify this. A room with mesh-mixer like formgiver make for stickers posters

Drawing room/ maker space for product suggestions. Possible to be printed etc.

easy floorplan maker, add kuriøs products

Kuriøs world B2B, and B2C

Early bird or loyal customers/ contributer to platform get to influence/benefits

matching products together, find someone with same/different product

levels of buying, need this to come to next/special product

Race to buy, build new tracks

B2B place activities in location, and make digital represenation

Co-creation as an expantion

Inspiration sharer themes each month

Material collection through service

Designing a giving ritual, experience of receving something from us (memories)

Do something before revealing/when revealing gift

social meetings through service and irl

Private space for work

Playful, jump between rooms

Konfetti room, make it rain!

Pool, make memories when buying

Optimal version, first version, stepwise development

All of our products should be given with a surprice experience

Customizing avatar, gives different roles, again giving different lenses. Avatar in form of blobs(?) - not usual people. People traits and expressions?

Surprise, mystery box, sticker (Anette Moi) code for use in platform, access to rooms?

Map in platform as game, find this/that, correlating to real world? Imitation of placement of ex. JOMOs. Drawing products with map - sharing findings/positions.

Work spaces for stakeholders, actors, bring them into gamified working situations. Architects, interior architects etc.

Adrenaline, creating feeling of rush, with time, activity done by time. Campaign based on time or adrenaline.

Luck, winning, scarcity, "Willy Wonka golden ticket", wheel of fortune, joy

Using the platform to arrange social meetings, bring into the friend group. An activity to do with friends

Skills, showcasing through platform. or, skills based on different levels of difficulty within the product it self

Levels of competition, local, one on one, teams, based on geography, Kuriøs against the world, etc..

Invitation maker within the platform, nudging creative behavior and eliciting social meetings through a Kuriøs Studio aesthetic

Surprising access to another room in the platform, either opened through buying or just through exploration

All products comes with a hidden surprise within the product

Create personal avatar, when that is done, you are invited into the Kuriøs World - design of the start of the journey

Personal invitation/thank you note

Giving a challenge with every product, ex. create a stilleben with it and share with someone.

"Monthly" appreciation of a kuriøs friend

Placing stickers around oslo/the platform, invitation or info about events. Registrate or follow.

Making friends within the network, either by meeting irl or through the platform. A rewarding experience to get to know other Kuriøs Friends. (and their network?)

Create stories of "feelings" we want to elicit

Internal language, sign? Everytime you meet someone within platform

Secret passwords, find them somewhere else in the kuriøs world. Get a code when entering the world, then find them. Saying an internal code/sign when going into rooms.

Kuriøs Studio Repair. Use of material, create new product or implement in new production. User gets a reward in some kind.

Kuriøs Studio, theme music? Eliciting making of memories. Possible to turn of, but a strong connection to sences and memories. The Kuriøs Studio sound

Wheel of luck to elicit activies to start with, a suggestion wheel on what to do, with instructions.

Design a ritual of changing hats, sound, effects that makes it feeling of new. Possible to find other hats? or gain?

Celebrate people's birthdays, giving them some benefits/visual signs

Different experiences when entering and exiting a room, special for each room

rituals of getting orders, personal note with suggestion to do something from the internal language. A pose etc. Or do something within the platform,

Contributing buy drawing or making suggestions to a online collection sharing bank. Design the ritual of thankfullness for contributing. A reward as well?

When going into the world for the first time, getting instructions to walk into different spaces, leave notes of next step, to explore and get familiar to the platform

Change world after holidays/markeringer, either as a theme for more elements, or one element that changes

Kuriøs Studio Archive. Possible to return, buy back products that have flaws, get a reward maybe personal note or other by doing it.

Inviting kuriøs friends to join a party hosted by kuriøs within the platform or irl, or both!

Win to buy, design a simple and playful Kuriøs Studio game. Not have many different games within the platform, but one game that says: This is Kuriøs Studio game. Simple but fun, like icopter, tetris or simular hehe. An add on to other kuriøs products and services

Kuriøs Studio loader, when the platform is loading to open or between actions. Maybe with sound

nudging social meetings irl, desing the ritual of what to do with other kuriøs friends. examplewise the collection of products. Collecting online, and gain possibility to buy. Play game to be able to buy or collect sample from kuriøs friends to be able to buy. Effort to gain. More ways into the goal of buying, but effort in all.

Figure 30: Output from idea generation with a focus on rituals.

Tasks, competition, from Kuriøs, send in suggestions to challenges in competition, co-creation to submitting

Forced co-creation, have to be more people to complete something

Co-create in the design research, get and give input. HUHU

Build on others ideas, co-create in the design process

Customize and make a personal gift, ex. color products, create a card with it, and send as gift to friend. They recive the gift, and are able to make further changes or buy product as is.

Draw a shape or object, abstract or concrete, kuriøs will make it. or kuriøs will create a product based on the shape. scaling it up or down.

Sharing process of how a suggestion becomes a product. winner of "competition", selected by us or voted from kuriøs friends, win the product you designed? has to be in a certain material. different tasks/requirements for each round.

Storytelling, following the journey of a product, joining the design process, contributing with drawings/other, and vote weekly iterations - ending in a real product. Majority decides. By Kuriøs Friends (DIY)

In the platform, showcase own needs. Need bank, want bank, wish bank, idea bank, etc.. Voting. commenting

With products designed by someone, or a group, there can be an additional object/design that explains process, meanings, or other aspects, to extend the giving experience. ex. skratching to reveal.

Website like platform - pushing the limits of what a website can be. Not nessesairy making a platform like gather or such

Musepekeren is your avatar, making different emotions, or actions when navigating - for instance dancing when waiting.

Hybrid between world and ordinary websites, "rooms" as different parts of the website

Kuriøs Game has two player, gain extra points?

How can we have a chat on the platform? Private rooms for booking?

Create drawings of products on map, need to be two to do it - oooor it two or more. gain extra reward? Possible to buy? Free sample? Discount?

Create "avatars" or shapes, which you can use in different activities in the platform. for instance create a poster with these, take group photos, etc.

Kuriøs Repair, open for "forum" or showcasing or contribute with own skills. Or maybe called Kuriøs inspo? Show how to DIY, style or use products in new ways

Poster making, co creative

Like a graffiti wall, drawing over or adding to others drawings, always changing wall/background/room. updates on cool inspirations?

Transmedia, co-create, challenge to extend the kuriøs studio aesthetics onto existing belongings. Showcase that to be a part of Kuriøs is to be creative. Embroidery.

Figure 31: Output from idea generation with a focus on co-creation.

Effort to become friend

Making friends within the network, either by meeting irl or through the platform. A rewarding experience to get to know other Kuriøs Friends. (and their network?)

matching products together, find someone with same/different product

upload a photo of a pose in jomo to get access

Become a friend

if your friend owns product, you can join friends

Effort to buy

Win to buy, design a simple and playful Kuriøs Studio game. Not have many different games within the platform, but one game that says: This is Kuriøs Studio game. Simple but fun, like icopter, tetris or simular hehe. An add on to other kuriøs products and services

Implement object into environment

Collect, collaborate to buy

Complete within timelimit to buy limited (scarcity)

Surprise/playful and creating rituals

Designing a giving ritual, experience of receiving something from us (memories)

Playful, jump between rooms

Konfetti room, make it rain!

Pool, make memories when buying

"Monthly" appreciation of a kuriøs friend
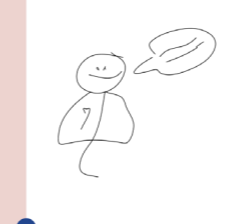
All products comes with a hidden surprise within the product. Can be linked to the platform
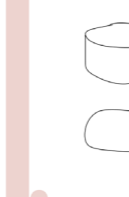
Change world after holidays/markeringer, either as a theme for more elements, or one element that changes

Luck, winning, scarcity, "Willy Wonka golden ticket", wheel of fortune, joy

Figure 32: Output from dot voting and analysis 1/3.

Elicit creativity

Combine kuriøs products with what you already have (objects)

Processes with videos etc. people can comment/involve

paint to see in other variations

Building cartoon spaces with kuriøs furniture/products

Co-creative Ideabank Build on others ideas

do we have to name products? people create their own first names, adjective

painting/drawing page with stickers of kuriøs products

Poster activity

Like a graffiti wall, drawing over or adding to others drawings, always changing wall/background/room. updates on cool inspirations?

Draw a shape or object, abstract or concrete, kuriøs will make it. or kuriøs will create a product based on the shape. scaling it up or down.

Contributing buy drawing or making suggestions to a online collection sharing bank. Design the ritual of thankfullness for contributing. A reward as well?

In the platform, showcase own needs. Need bank, want bank, wish bank, idea bank, etc. Voting, commenting

MY NEEDS

Map in platform as game, find this/that, correlating to real world? Imitation of ex. JOMOs. Drawing products with map - sharing findings/positions.

Storytelling, following the journey of a product, joining the design process, contributing with drawings/other, and vote weekly iterations - ending in a real product. Majority decides. By Kuriøs Friends (DIY)

Giving a challenge with every product, ex. create a stilleben with it and share with someone.

Build on others ideas, co-create in the design process

Figure 33: Output from dot voting and analysis 2/3.

Onboarding / remain relevant

Chalk placed in the city, kuriøs stickers and connection to platform

Placing stickers around oslo/the platform, invitation or info about events. Registrate or follow.

Inviting kuriøs friends to join a party hosted by kuriøs within the platform or irl, or both!

Transmedia, co-create, challenge to extend the kuriøs studio aesthetics onto existing belongings. Showcase that to be a part of Kuriøs is to be creative. Embroidery.

OR IRL

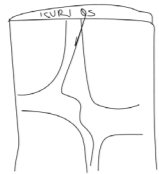Arraging/hosting arrangegemts (assisted/not)

Social meetings

Forced co-creation, have to be more people to complete something
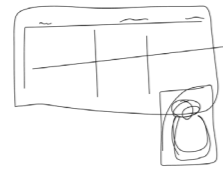
create scenarios of use

Connecting strangers, nudging meets

Platform base

Hybrid between world and ordinary websites, "rooms" as different parts of the website

Website like platform - pushing the limits of what a website can be. Not nessesairy making a platform like gather or such

Kuriøs Studio, theme music? Eliciting making of memories. Possible to turn of, but a strong connection to sences and memories. The Kuriøs Studio sound
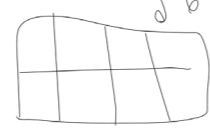
Internal language, sign? Everytime you meet someone within platform

Kuriøs Studio Archive. Possible to return, buy back products that have flaws, get a reward maybe personal note or other by doing it.

online world
(habbo, gather)

Kuriøs Repair, open for "forum" or showcasing or contribute with own skills. Or maybe called Kuriøs inspo? Show how to DIY, style or use products in new ways

Rooms of categories
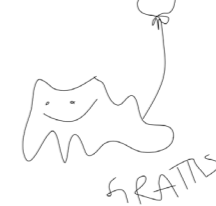

Kuriøs goggles/ lenses

Avatar

Create personal avatar, when that is done, you are invited into the Kuriøs World - design of the start of the journey

Musepekeren is your avatar, making different emotions, or actions when navigating - for instance dancing when waiting.

Celebrate people's birthdays, giving them some benefits/visual signs

Customizing avatar, gives different roles, again giving different lenses. Avatar in form of blobs(?) - not usual people. People traits and expressions?
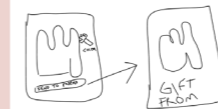

Gifting

Gifting, friends in the platform.

Customiza and make a personal gift, ex, color products, create a card with it, and send as gift to friend. They recive the gift, and are able to make further changes or buy product as is.

Do something before revealing/when revealing gift

With products designed by someone, or a group, there can be an additional object/design that explains process, meanings, or other aspects, to extend the giving experience. ex. skratching to reveal.
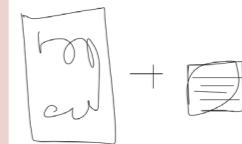

Figure 34: Output from dot voting and analysis 3/3.

3.2.2 Sprint two

Organization of method

Sprint two was examined with the following activities:
- *Idea generation with a focus on onboarding and remaining relevant (5 min x 3)*
- *Idea generation with a focus on nudging social meetings (5 min x 3)*
- *Ide generation based on the tool "design with intent" were several lenses were used (5 min x 3)*
- *Dot voting*
- *Analysis and discussions*

The second sprint was conducted with a main purpose to complement the first sprint ("squeeze the lemon") with ideas within areas of potential. The first two activities of individual ideation and discussion were therefore focused on onboarding, remaining relevant and nudging social meetings. The generated ideas included ways of activating people through new and creative methods reflecting *Kuriøs Studio*, such as pop-up play probes, spreading of word through friends, pop-ups seeking curiosity and exploring the taste of *Kuriøs Studio*. Regarding nudging social meetings, ways of creating emergent behavior, allopoiesis, culture of community and co-creation were explored.

In the next generative activity levels of activation were implemented with the design tool "Design with Intent". "The Design with Intent

toolkit is a collection of design patterns, or 'gambits', for influencing user behaviour through design, aimed particularly at socially and environmentally beneficial behaviour change. The patterns are drawn from a range of disciplines, and are phrased as questions or provocations to enable the toolkit's use as both a brainstorming tool and a guide for exploring the field of design for behaviour change" (Design with Intent, n.d.). Furthermore, two lenses, the Ludic Lens and Cognitive Lens, were relevantly extracted for three rounds of ideation per lens. "The Ludic Lens Includes a number of techniques for influencing user behavior that can be derived from games and other "playful" interactions, ranging form basic social psychology mechanisms such as goal-setting via challenges & targets, to operant conditioning via unpredictable reinforcement and rewards, to common game elements such as scores, levels and collections" (Design with Intent, n.d.). "The Cognitive Lens draws on research in behavioural economics and cognitive psychology looking at how people make decisions, and how this is affected by "heuristics" and "biases". If designers understand how users make interaction decisions, that knowledge can be used to influence interaction behavior" (Design with Intent, n.d.). With the second sprint completed, all defined categories were covered through a divergent ideation as a base for development of a converging concept direction.
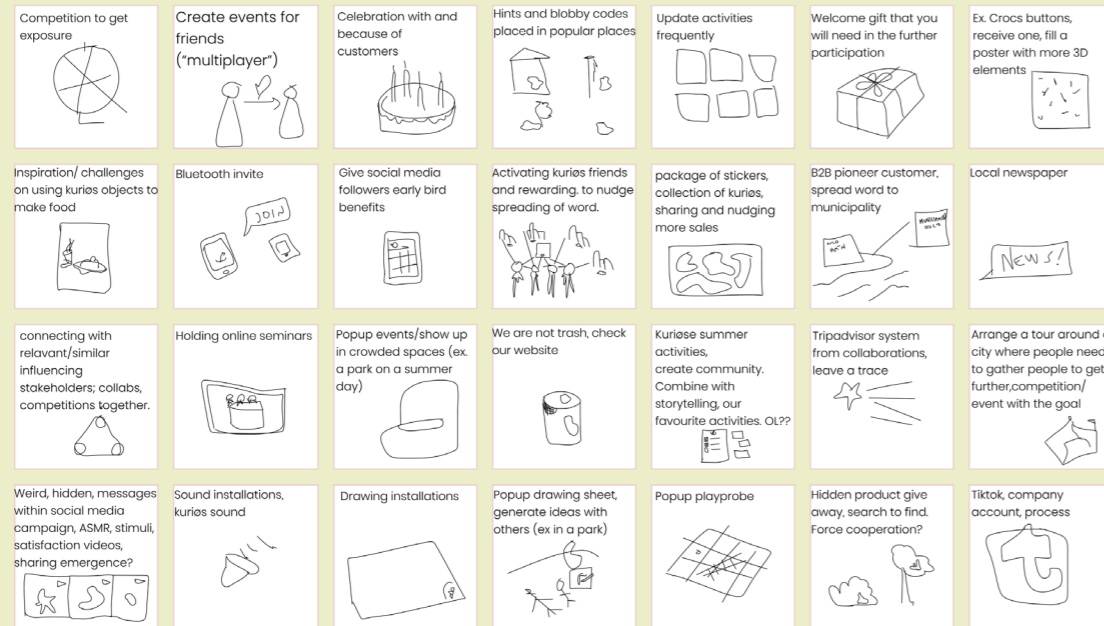
Figure 35 cards:

Competition to get exposure | Create events for friends ("multiplayer") | Celebration with and because of customers | Hints and blobby codes placed in popular places | Update activities frequently | Welcome gift that you will need in the further participation | Ex. Crocs buttons, receive one, fill a poster with more 3D elements

Inspiration/ challenges on using kuriøs objects to make food | Bluetooth invite | Give social media followers early bird benefits | Activating kuriøs friends and rewarding. to nudge spreading of word. | package of stickers, collection of kuriøs, sharing and nudging more sales | B2B pioneer customer, spread word to municipality | Local newspaper

connecting with relevant/similar influencing stakeholders; collabs, competitions together. | Holding online seminars | Popup events/show up in crowded spaces (ex. a park on a summer day) | We are not trash, check our website | Kuriøse summer activities, create community. Combine with storytelling, our favourite activities. OL?? | Tripadvisor system from collaborations, leave a trace | Arrange a tour around a city where people need to gather people to get further, competition/ event with the goal

Weird, hidden, messages within social media campaign, ASMR, stimuli, satisfaction videos, sharing emergence? | Sound installations, kuriøs sound | Drawing installations | Popup drawing sheet, generate ideas with others (ex in a park) | Popup playprobe | Hidden product give away, search to find. Force cooperation? | Tiktok, company account, process

Figure 35: Output from idea generation with a focus on onboarding and remaining relevant.

Figure 36 cards:

You get to give a gift to someone, and rewarded | Theme parties | Direct contact with creator | Host co-creation evenings where people/groups can join | Arrange a concert, ex Evig ferie? | Give "ingrediens" to different players, ask around and co-create to make the product together. Collect parts of the production process. | Create exhibition event with other designers/creators

Find missing part at other player by asking | Place products made for graffiti in fitting areas, schools? Løkka? cooperate with "DUER?" | already social places, to learn from. "verve" | Giving out/sell/win inflatables at swimming place | Kuriøs welcome jewellery, to wear, starts conversations | Challenges to be preformed at social spaces. Sand castle | Chalk drawing on public space

Collaborate with marketing of products, like icecream/soda, or make kuriøs icecream | Ask someone around to continue your drawing | Taste the colors of Kuriøs. A pop up stand, with products. Taste to buy? buy icecream or product | Include people in marketing, create poses or contexts with different products | Kuriøs colorful klinkokule. used as pynt but also to play klinkokule game with others. Connect to collecting activity? | pop up video around the city, with challenges? other? | "Chubby bunny" easy challenges to win poster or other "simple" products/possibility to give someone a gift

Figure 36: Output from idea generation with a focus on nudging social meetings.

Score: based on challenges/ products bought or other activites

Meme:Tiktok trends with products; ex. recreate the shape with your body

Gap to fill: Physical gaps in products for customers to fill

Challenge: customers find new ways to use product

Gap to fill: Evidence of gap to fill to recieve or achieve something

Storytelling: with and based on customers stories and behavior. Kuriøs is kuriøs friends

Leave gap: Color your own poster, kuriøs designs

meme: social media poster and product give away

Collect: designing collectables that work together, new function with adding another object?

Meme/collection: cryptocurrency art

Challenges and targets, fish products from pool to win

Playful: Gerilja design, provoking curiousity, stunts

Leave gap: Side note/product to fill in personal story around product

Collection: Kuriøs products as digital art, give personality, collection

Meme: "vandrehistorie", continue the story

Level: evolving products and collections, level up

Figure 37: Output from idea generation based on ludic lens from "design with intent".

124

Commitement and consistancy: answer to the leverage of not aiming only for growth. Every product comes with, "do not buy *if not appreciated"

Social proof: sharing kuriøs friends ways of using products

Reciprocation: Enabling exchanging of valuables/products

Rephrasing and renaming: use other terms than buy for instance

Reciprocation: highlighting other designers, combine with our services/products

Personality: create a kuriøs maskot or three avatars which are us when interacting with customers.

Decoys: Unlock colors/features through doing activities. Show how much you lack or must do to be able to unlock

Empathy/humble?: nudging by using reverse psychology, ex in competitions

Desire for order: create collections numbered or alphabetic. desire to have all

Commit: A more offensive news letter

Social proof: transparancy in process. We are not afraid to tell you

Expert choice: show how we would do it? or other kuriøs steadies?

Assuaging guilt: do not feel guilty for buying. just make sure its something you will apprichiate / need etc.. We can buy back, Kuriøs Archive

Scarcity: co-create a limited edition color or product etc..

Figure 38: Output from idea generation based on cognetive lens from "design with intent".

125

Activating kuriøs friends and rewarding. to nudge spreading of word.

Hidden product give away, search to find. Force cooperation?

Assuaging guilt: do not feel guilty for buying, just make sure its something you will appreciate / need etc.. We can buy back, Kuriøs Archive

Arrange a concert, ex Evig ferie?

Playful: Gerilja design, provoking curiousity, stunts

Give "ingrediens" to different players, ask around and co-create to make the product together. Collect parts of the production process.

Rephrasing and renaming: use other terms than buy for instance

Commitement and concistancy: answer to the leverage of not aiming only for growth. Every product comes with, "do not buy "if not appreciated"

Social proof: sharing kuriøs friends ways of using products

Reciprocation: Enabling exchanging of valuables/products

You get to give a gift to someone, and rewarded

Challenge: customers find new ways to use product

Level: evolving products and collections, level up

Collect: designing collectables that work together, new function with adding another object?

Meme:Tiktok trends with products; ex. recreate the shape with your body

Place products made for graffiti in fitting areas, schools? Løkka? cooperate with "DUER?"

Taste the colors of Kuriøs. A pop up stand, with products. Taste to buy? buy icecream or product

Include people in marketing, create poses or contexts with different products

Chalk drawing on public space

Direct contact with creator

Leave gap: Side note/product to fill in personal story around product

Score: based on challenges/ products bought or other activites

Personality: create a kuriøs maskot or three avatars which are us when interacting with customers.

Decoys: Unlock colors/features through doing activities. Show how much you lack or must do to be able to unlock

Desire for order: create collections numbered or alphabetic. desire to have all

Leave gap: Color your own poster, kuriøs designs

Reciprocation: highlighting other designers, combine with our services/products

Tiktok, company account, process

Figure 39: Output from dot voting and analysis.

3.2.3 Summary of sprints

In the summary of the sprints, the selection of ideas were combined in the categories from the first sprint: effort to become friend, effort (to buy), surprise/playful and creating rituals, elicit creativity, onboarding and remaining relevant, social meetings, platform base, avatar and gifting. Moreover, the ideas were synthesized again into new categories, more applicable to a digital platform – with categories as platform(contribution), product (participation and experience), Kuriøs Identity (message and visuals), marketing (strategies and activities). The summary was a part of clarifying and understanding how the ideas could evolve into a refined direction, and thereby develop into concepts. The overall sample of ideas will be available for further concept exploration and implementation.

Platform (Contribution)

Making friends within the network, either by meeting irl or through the platform. A rewarding experience to get to know other Kuriøs Friends. (and their network?)

matching products together, find someone with same/different product

upload a photo of a pose in jomo to get access

Decoys: Unlock colors/features through doing activities. Show how much you lack or must do to be able to unlock

Co-creative Ideabank Build on others ideas

Rephrasing and renaming: use other terms than buy for instance

Win to buy, design a simple and playful Kuriøs Studio game. Not have many different games within the platform, but one game that says: This is Kuriøs Studio game. Simple but fun, like icopter, tetris or simular hehe. An add on to other kuriøs products and services

if your friend owns product, you can join friends

Score: based on challenges/ products bought or other activites

Become a friend

Leave gap: Color your own poster, kuriøs designs

online world (habbo, gather)

Kuriøs Studio, theme music? Eliciting making of memories. Possible to turn of, but a strong connection to sences and memories. The Kuriøs Studio sound

Implement object into environment

Complete within timelimit to buy limited (scarcity)

Collect, collaborate to buy

Direct contact with creator

Kuriøs goggles/ lenses

Give "ingredients" to different players, ask around and co-create to make the product together. Collect parts of the production process.

Processes with videos etc. people can comment/involve

painting/drawing page with stickers of kuriøs products

Building cartoon spaces with kuriøs furniture/products

Rooms of categories

Hybrid between world and ordinary websites, "rooms" as different parts of the website

paint to see in other variations

Gifting, friends in the platform.

Poster activity

Connecting strangers, nudging meets

Map in platform as game, find this/that, correlating to real world? Imitation of placement of ex. JOMOs. Drawing products with map - sharing findings/positions.

Build on others ideas, co-create in the design process

Forced co-creation, have to be more people to complete something

---

Contributing by drawing or making suggestions to a online collection sharing bank. Design the ritual of thankfullness for contributing. A reward as well?

In the platform, showcase own needs. Need bank, want bank, wish bank, idea bank, etc. Voting, commenting

Draw a shape or object, abstract or concrete, kuriøs will make it. or kuriøs will create a product based on the shape. scaling it up or down.

Musepekeren is your avatar, making different emotions, or actions when navigating - for instance dancing when waiting.

Like a graffiti wall, drawing over or adding to others drawings, always changing wall/background/room. updates on cool inspirations?

Storytelling, following the journey of a product, joining the design process, contributing with drawings/other, and vote weekly iterations - ending in a real product. Majority decides. By Kuriøs Friends (DIY)

Customiza and make a personal gift, ex, color products, create a card with it, and send as gift to friend. They recive the gift, and are able to make further changes or buy product as is.

Customizing avatar, gives different roles, again giving different lenses. Avatar in form of blobs(?) - not usual people. People traits and expressions?

Kuriøs Repair, open for "forum" or showcasing or contribute with own skills. Or maybe called Kuriøs inspo? Show how to DIY, style or use products in new ways

Kuriøs Studio Archive. Possible to return, buy back products that have flaws, get a reward maybe personal note or other by doing it.

Create personal avatar, when that is done, you are invited into the Kuriøs World - design of the start of the journey

Website like platform - pushing the limits of what a website can be. Not nessecairy making a platform like gather or such

Figure 40: Summary and analysis from both sprints 1/2.

Product (Participation and experience)

Collect: designing collectables that work together, new function with adding another object?

Reciprocation: Enabling exchanging of valuables/products

Level: evolving products and collections, level up

Desire for order: create collections numbered or alphabetic. desire to have all

Leave gap: Side note/product to fill in personal story around product

Designing a giving ritual, experience of receiving something from us (memories)

do we have to name products? people create their own first names, adjective

Combine kuriøs products with what you already have (objects)

Giving a challenge with every product, ex. create a stilleben with it and share with someone.

All products comes with a hidden surprise within the product. Can be linked to the platform

With products designed by someone, or a group, there can be an additional object/design that explains process, meanings, or other aspects, to extend the giving experience. ex. skratching to reveal.

Do something before revealing/when revealing gift

Kuriøs identity (Message and visuals)

Commitement and concistancy: answer to the leverage of not aiming only for growth. Every product comes with, "do not buy *if not appreciated"

Assuaging guilt: do not feel guilty for buying, just make sure its something you will appreciate / need etc.. We can buy back, Kuriøs Archive

Playful, jump between rooms

Konfetti room, make it rain!

Pool, make memories when buying

Personality: create a kuriøs maskot or three avatars which are us when interacting with customers.

Change world after holidays/markeringer, either as a theme for more elements, or one element that changes

Celebrate people's birthdays, giving them some benefits/visual signs

Internal language, sign? Everytime you meet someone within platform

Marketing (Strategies and activities)

Luck, winning, scarcity, "Willy Wonka golden ticket", wheel of fortune, joy

"Monthly" appreciation of a kuriøs friend

Transmedia, co-create, challenge to extend the kuriøs studio aesthetics onto existing belongings. Showcase that to be a part of Kuriøs is to be creative. Embroidery.

Placing stickers around oslo/the platform, invitation or info about events. Registrate or follow.

Inviting kuriøs friends to join a party hosted by kuriøs within the platform or irl, or both!

Chalk placed in the city, kuriøs stickers and connection to platform

Activating kuriøs friends and rewarding. to nudge spreading of word.

You get to give a gift to someone, and rewarded

Tiktok, company account, process

Reciprocation: highlighting other designers, combine with our services/products

Arraging/hosting arragengemts (assisted/not)

Hidden product give away, search to find. Force cooperation?

Meme: Tiktok trends with products; ex. recreate the shape with your body

Taste the colors of Kuriøs. A pop up stand, with products. Taste to buy? buy icecream or product

Arrange a concert, ex Evig ferie?

Place products made for graffiti in fitting areas, schools? Løkka? cooperate with "DUER?"

Challenge: customers find new ways to use product

Include people in marketing, create poses or contexts with different products

Playful: Gerilja design, provoking curiousity, stunts

create scenarios of use

Chalk drawing on public space

Social proof: sharing kuriøs friends ways of using products

Figure 41: Summary and analysis from both sprints 2/2.

132

133

3.3 Concept iterations

3.3.1 Finding a concept direction
The two divergent sprints and the analysis of them generated a base for further concept iterations. The base included a rich sample of relevant ideas, whereas these could either elicit interesting combinations or form features of main concept directions. To explore and approach directions of concepts, individual concept development was conducted by merging ideas from the sprint. The goal was to create two concept directions each, without being influenced by each other, and from these find a common denominator from the four concept proposals. The presentations of concepts were to include a title, visualization and short description, possibly connected to game dynamics.

Concept one: Create in Channels!

A space within the platform, the creation space! It includes several channels for creation or co-creation, where you can play, play around, create and socialize. The results of what you are making can be bought in different forms, ex. posters. The different channels represent "games", including a painting site with Kuriøs stickers, colors and free imagination, another is creating a space with products, give feedback or change existing products or processes of Kuriøs, build on other´s creations - and further features that need to be developed from the idea bank. Explore the channels and get access to more of them by becoming a Kuriøs Friend (three levels of application).
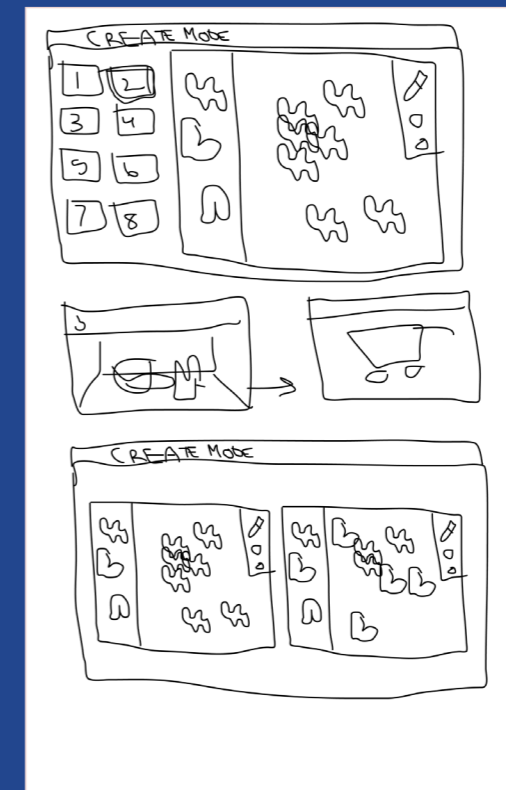
Figure 42: Visualization of concept one.

Concept two: Kuriøs Afterparty
Kuriøs will initiate and encourage exchanging of products within the community of Kuriøs friends as a way to connect and fulfill the desire for pleasure of something "new". The platform section will consist of archives of previous product collections, enabling exchange with Kuriøs archive or directly with other people, hosting workshops and repairing suggestions. Also it is a way to engage in how one can change or fix the aesthetics of products. If you come up with a solution you get to buy cheaper/get access within the platform to more features. After the party comes the afterparty, which is also fun.

Concept 2: *Kuriøs afterparty*
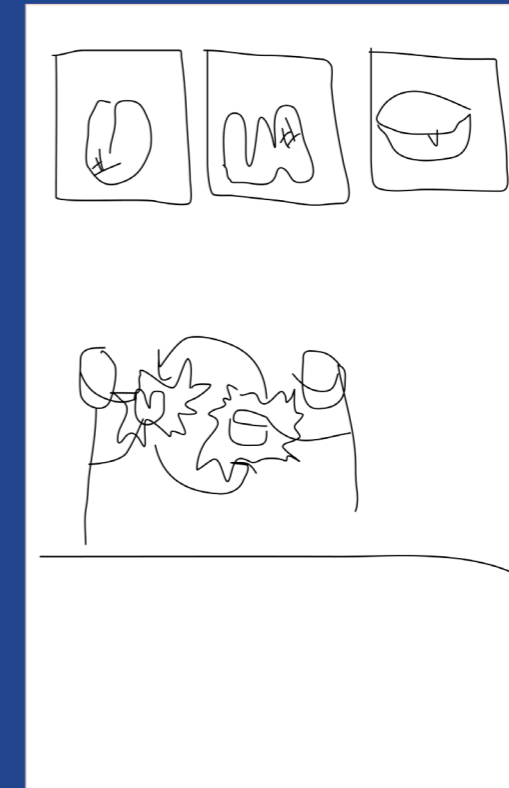
Figure 43: Visualization of concept two.

Concept three: Creative Kuriøs Friends
A creative boost
"Normal website" push boundaries
Publish online drawings/ideas
Avatar, mouse, possible to express feelings
Creative mode?
Drawing tools on the back screen of the platform, emergent.
New wordings
Do not buy
Possible to create and give gifts
Add friends
Co-create, or build on others ideas
Space built up by rooms (but in a known website appearance?)
Small games, effort to buy
Luck, wheel of fortune
Levels
Kuriøs archive
Kuriøs exchange
Paint to see product in other colors
Adding friends, possible to send virtual gifts for people to accept?
Durability as a focus - creativity - social interaction
Giving kuriøs friends a project

Concept 3: *Creative Kuriøs friends*

Figure 44: Visualization of concept three.

Concept four: Collect, collect, collect
The game of furniture and design
Augmented reality
Levels
Collections and searching
Friends
Co-creation activities give rewards
Mainly mobile based
Collections 1-3/A-C
Evolving, collections
Kuriøs archive
Kuriøs product exchanging
Engage people through pop-up activities, social media, inviting, early bird users
B2C focus
Avatar
Digital gifting

Concept 4: *Collect, collect, collect*

Figure 45: Visualization of concept four.

From the presented round of concept iteration, concept one, *Create in Channels!,* and concept three, *Creative Kuriøs Friends,* were merged into a preliminary main concept direction. The concepts both represented the mutual understanding of the desired potential of the platform, as well as clear and coherent links to the systems oriented research findings. "Design research, persuasion psychology and brand theory show that brand loyalty and the feeling of product attachment is strengthened through time and effort spent in the planning of a purchase and use" (Gulden & Moestue, 2011). "By including game and play elements into the design field, the user is encouraged and allowed to think and act beyond the set frame, representing a voluntary engagement and autonomy" (Gulden & Sjøvoll, 2017). Thus, the basis of the main intervention concept revolved around creating a creative space within the website, with underlying website features permeated by co-creation and effort.

3.3.2 Platform construction

The next iteration revolved around constructing the base of the platform, with the creation of a sitemap and a wireframe. "A UX sitemap is a hierarchical diagram of a website or application, that shows how pages are prioritized, linked, and labeled" (Jhang, 2020). "A wireframe is a layout of a product that demonstrates what interface elements will exist on key pages" (Designerrs, 2020). This would give an understanding and discussion on evolving questions and ideas at the early defining stage. *What behaviors and interactions will be elicited in the different sections? Where should what be placed? What is the desired outcome of navigation and communication? What tools can be used to visualize the concept?* The discussions emerging revolved around in what degree the website should reflect a "regular" website, that is filled with surprising elements of game dynamics and effort when taking a deeper look. Alternatively, whether it should function more as a virtual platform itself. In addition, it was discussed whether the main features linked to game theory were to be available only through login. The sitemap, early sketches and wireframes were developed to explore these features, interaction and placement, providing an indication of the preliminary "look and feel" of the platform.

Landing page

Tools, tegning i bakgrunn, innganger til de andre spacene, produkter? Avatar, logo, chat (?), friending (become a friend)

Background canvas

OR AVATAR BEFORE LANDING PAGE?

Creative space	Share space	Buy space	Private space (my site)
Poster "workshop"	Sharing space for creations from Creative space	Kuriøs Game	Private meeting spaces for collaboration with B2B partners
Inspo/build on slider		Product customization	
Create with others	Sharing started projects for others to continue	Pre-made Posters	Chat
Suggestions for new products	Sharing space for product experiences	Products	Creating canvas
collagemaker (poster?)			Contact with Kuriøs
Virtual room for chatting, walk around in kuriøs space, (gather ish). code to privat space?	Kuriøs sharing Kuriøs Friends' creations		
	Kuriøs stories (About)		**Avatar creator ?**

3.3.3 Visual wireframing of a two-parted platform

In the third iteration, investigating users became relevant. Discussions revolved around building two portals, one approaching partners (B2B) and the other *Kuriøs Friends* (B2C), customized for their purposes. Questions emerged considering the design and needs of the different actors - should there be two separate spaces with the user identified before entering, or should it be one common ground with features adjusted based on desired functions? For instance, it would be relevant for collaborative partners to explore reference projects in a portfolio and to facilitate private spaces for co-creation between them and *Kuriøs Studio*. For *Kuriøs Friends*, it might be more relevant to interact and gain inspiration from other users and their creative work.

This iteration also included more of a visual wireframing. As a baseline, the platform was divided into four main spaces to cover different dimensions of the platform - somewhat diverging depending on the user perspectives B2B or B2C. The landing page was initiated to elicit creativity, with the possibility to create the website background with colors and stickers. The idea of having an avatar before entering the site was included for personalisation and activation, also needed as a social aspect within the creative space. A creative space in a two dimensional format would include activities based on co-creation among *Kuriøs Friends*, with a gallery of creations and a possibility to continue others´ published work. Furthermore, a section of selected stories, with

interactive features like commenting and giving "blob ups" on the content would be implemented. For B2B partners, the stories would work as a project presentation of collaborations. Lastly, a space for buying products of *Kuriøs Studio* would be designed to challenge convenience by including a game to buy, as well as being able to exchange products with other users or buy flawful products from an archive. Enabling exchange and "second hand" sales refers to including the last stage of ownership (planning of replacement), potentially expanding the longevity of products. "One promising strategy to extend the lifetime of a product is to increase a person's feeling of attachment towards a product throughout the whole period of ownership" (Gulden & Moestue, 2011). Targeting experiences within the different stages of ownership in the design process can have an impact on the potential lifetime of products (Gulden & Moestue, 2011).

HELLO KURIØS
FRIEND! YOU ARE WE
ARE **KURIØS STUDIO**
THIS IS AN INTRO OR
SOMETHING

HELLO PARTNER! YOU
ARE WE ARE **KURIØS
STUDIO** THIS IS AN
INTRO OR
SOMETHING
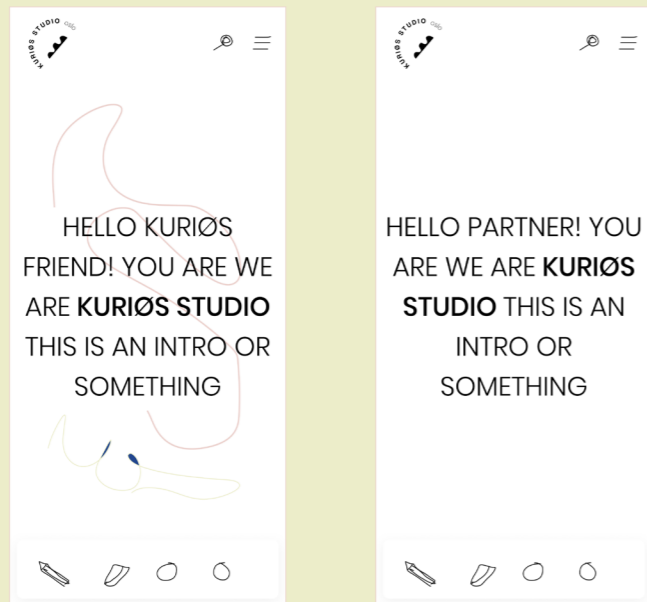
*Figure 47: Visualization of the
two-parted front page.*

Friend/Partner

Create   Stories   Buy

Search
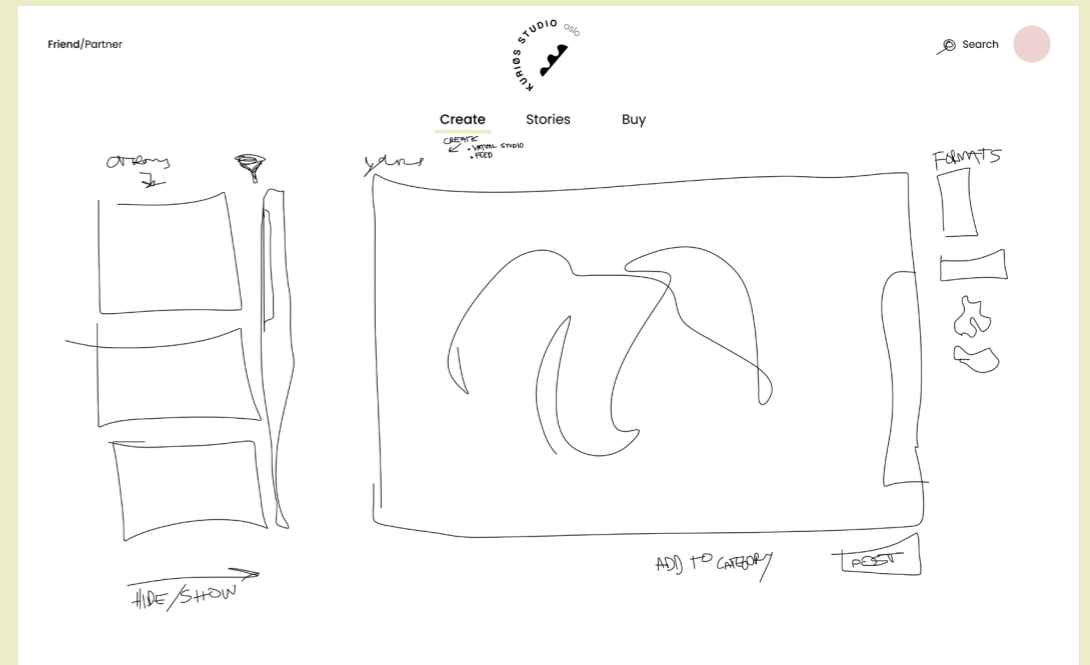
*Figure 48: Visualization and
early wireframe of create
space.*
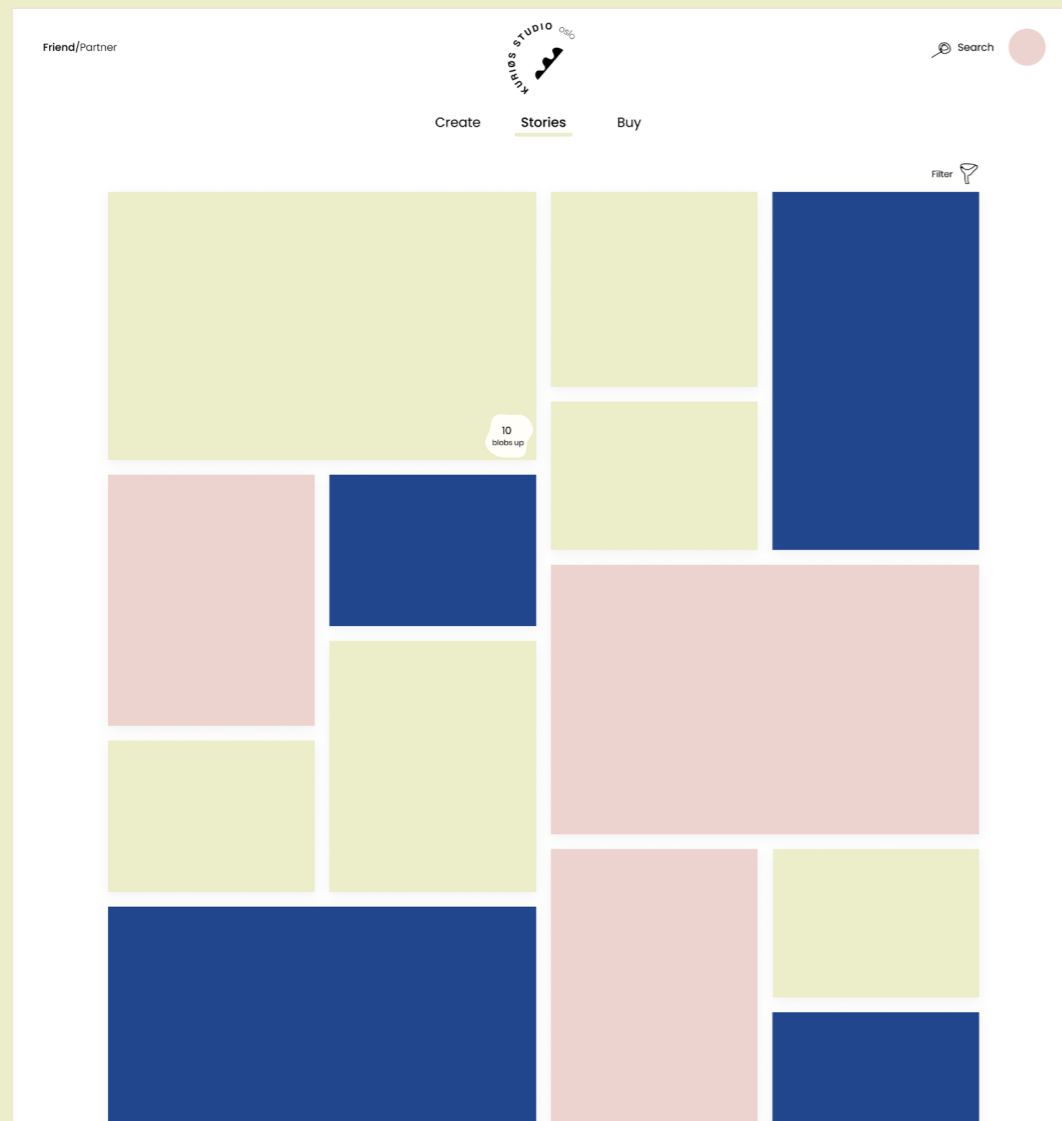
Figure 49: Visualization and wireframe of stories.
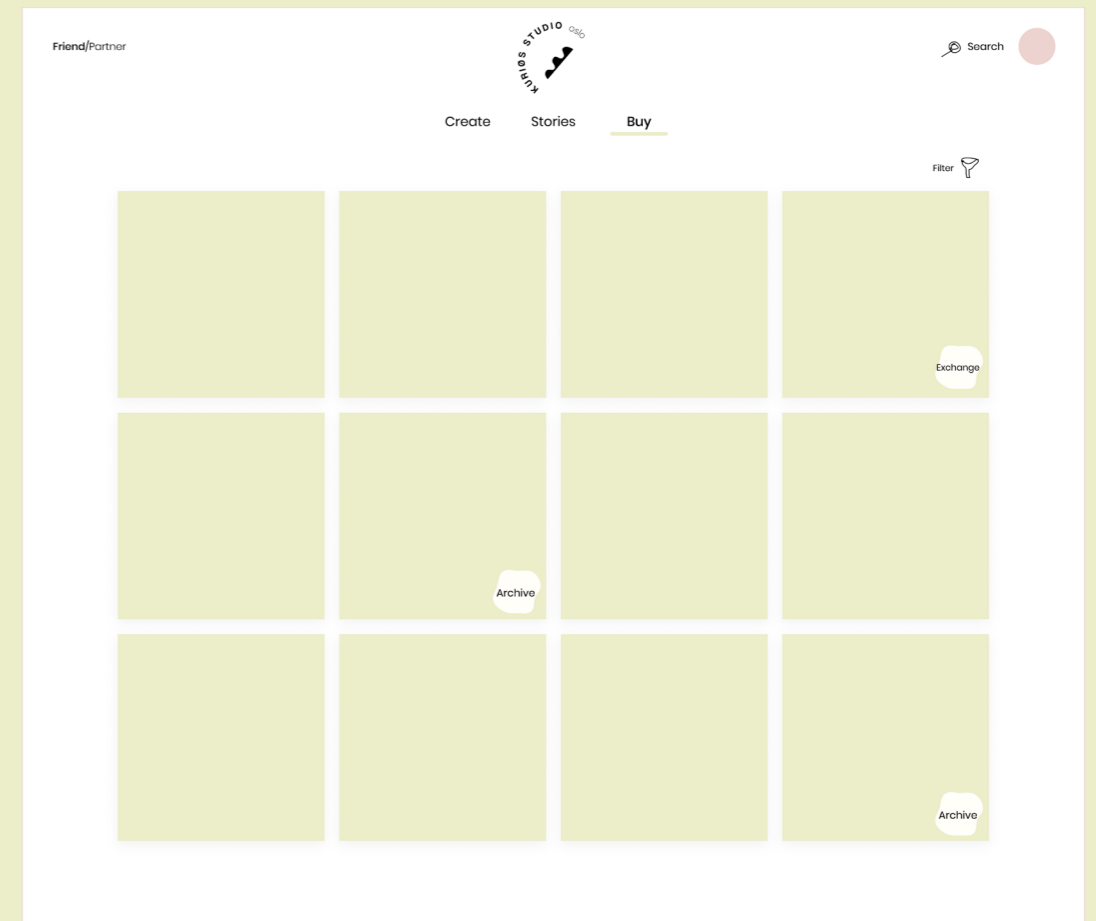
Figure 50: Visualization and wireframe of buy section.

3.3.4 Co-create with Kuriøs

The fourth iteration was mainly focused on developing the *Create* space in the form of a virtual studio. The space would be a collection of rooms with different activities or features connected to them. From the previous discussion around the separate portals distinguishing B2B and B2C, it was decided to combine the two into a main platform. Accordingly, the private room option would be available for *Kuriøs Friends* who would need private sessions of co-creating. Partners would then also be directly invited to the *Create* space, enabling a closer link between all actors and more direct facilitation of co-creative processes.

Another feature that was further explored was moving the avatar to the *Create* space where one would interact, socialize and create together - a way of role-playing. The appearance of the avatar was also considered, either in relation to products from *Kuriøs Studio* or based on blobjects as part of the visual philosophy. A loading page was included with the avatar and a specific sound, to trigger emotions based on memory creation. The *Create* space was transformed from a two dimensional format to a three dimensional - with the possibility to walk around with the avatar, interacting with people or creating within the activity rooms. Dimensions like perspective of the platform, use of sound when entering new rooms, communication through chat and video and selection of rooms were discussed. Rooms relevant to include were a

gallery for exploration of creative work, a studio with the possibility to create posters, contribute to product ideas and gift ideas for others, a surprise room, lounge area for games and interaction and a personal space for private meetings. Widget integrations of *Miro*, maps, games and the web shop could be incorporated to increase the experience of co-creation. The iteration lastly included discussions on the overall visual experience, content, implementation of the visual identity and philosophy of *Kuriøs Studio*.
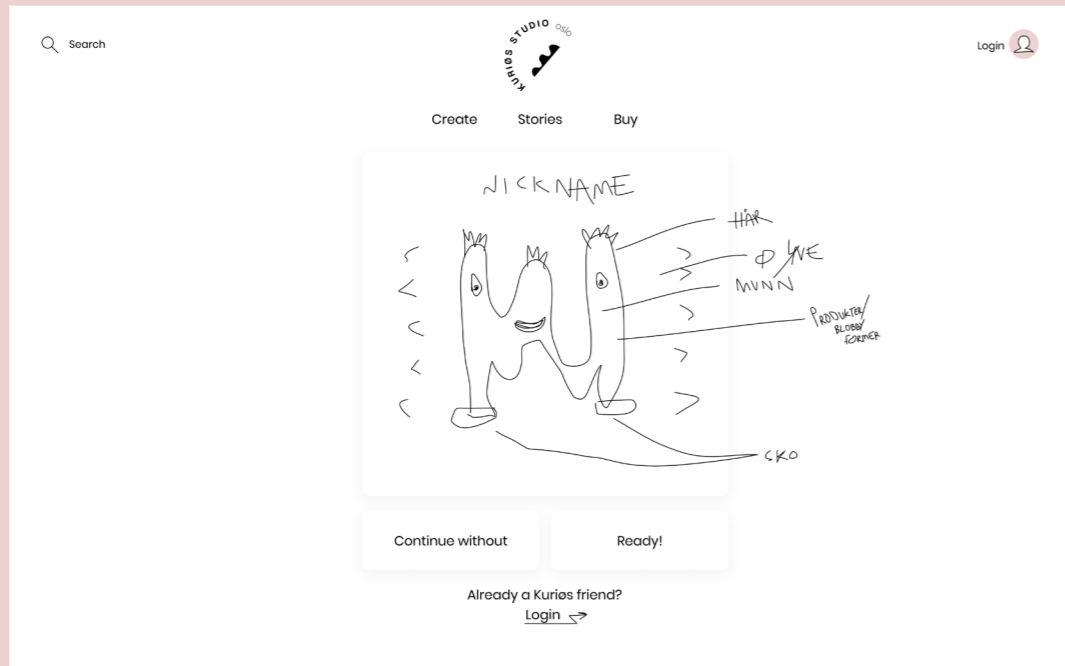
Figure 51: Visualization of
Avatar.
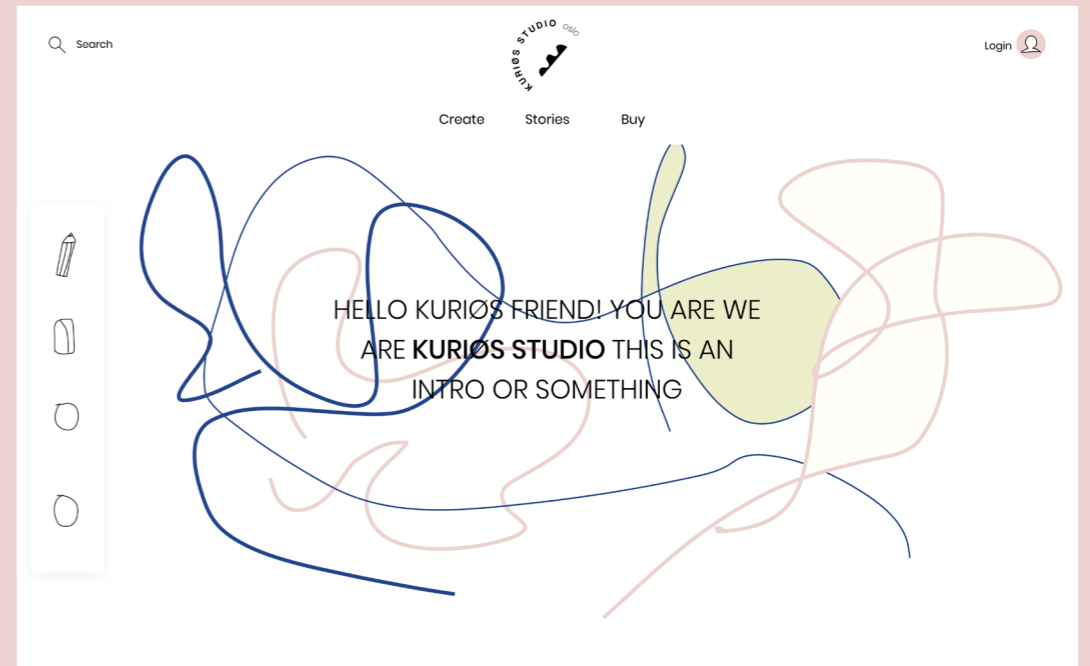
Figure 52: Visualization of
front page..

Figure 53: Visualization and
wireframe exploration of
create space.
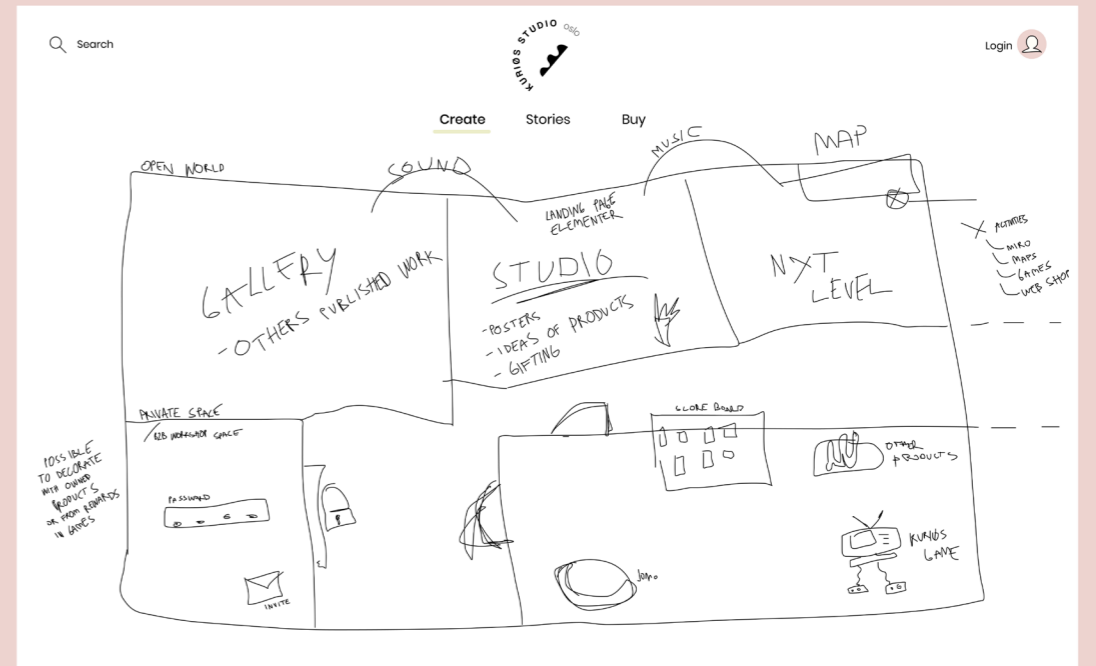
Figure 54: Visualization and
wireframe exploration of
create space.

Chapter 4

Design proposal

4.1 *Digital Kuriøs*
– A Virtual Furniture Studio

Digital Kuriøs is a service and a digital platform for the startup furniture and design company *Kuriøs Studio*. The platform invites business partners and customers (*Kuriøs Friends*) into the creative process of *Kuriøs Studio* through an interactive and social space where all actors can play and create together. The platform is built on game dynamics to facilitate co-creation with a goal to achieve emotional durability in the field of furniture design. Strategies incorporated to achieve emotional durability and consumer product attachment are; using the service together with other people, including the user in the creative process evoking pride, facilitation for joyful moments, facilitation for personalization, memories, self expression and group affiliation. As a baseline, the platform is divided into four main spaces to cover different dimensions of the platform: *Landing page, Create, Stories*, and *Do Not Buy**. The following pages will present the spaces with their respective features and purposes.
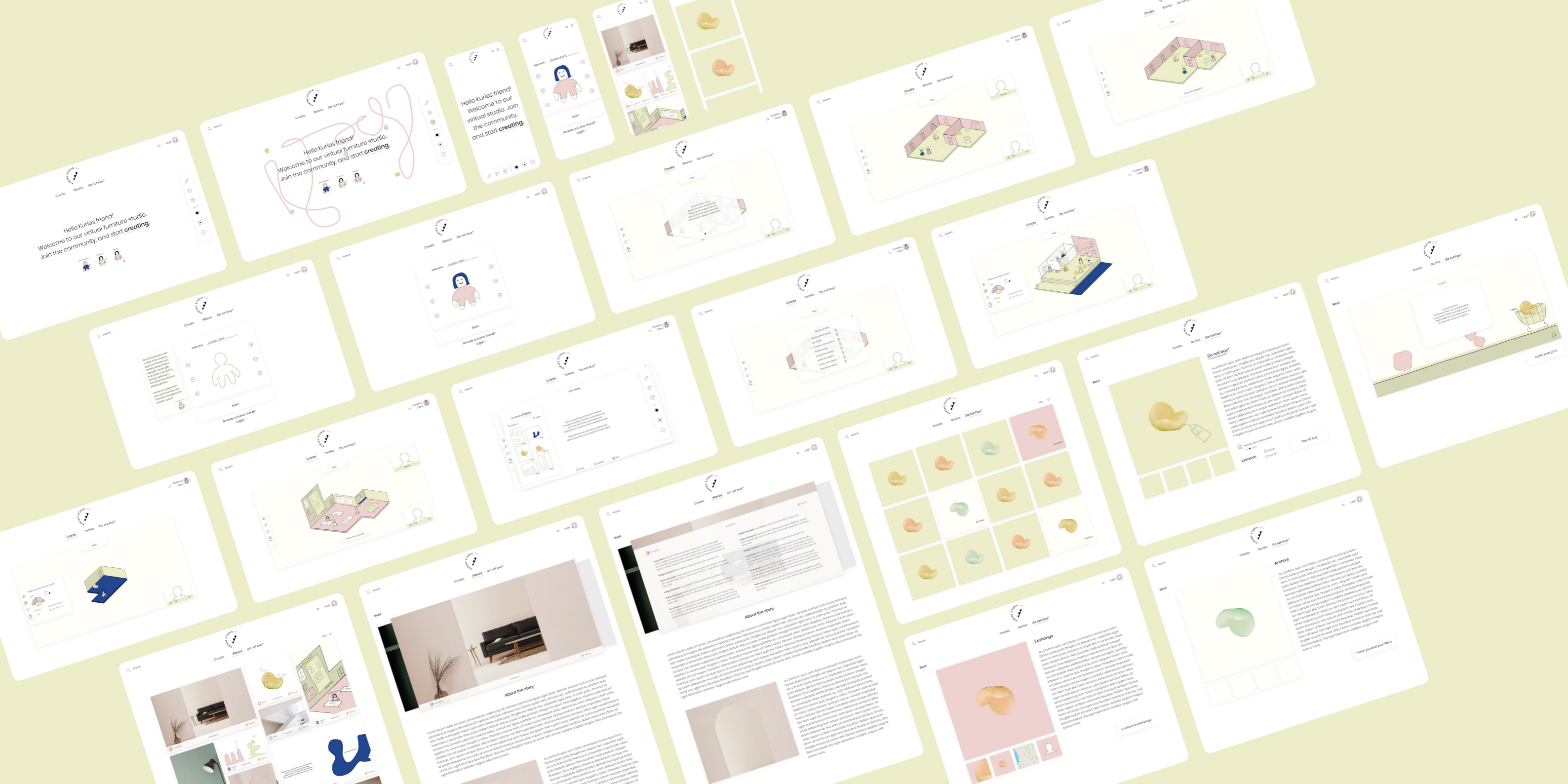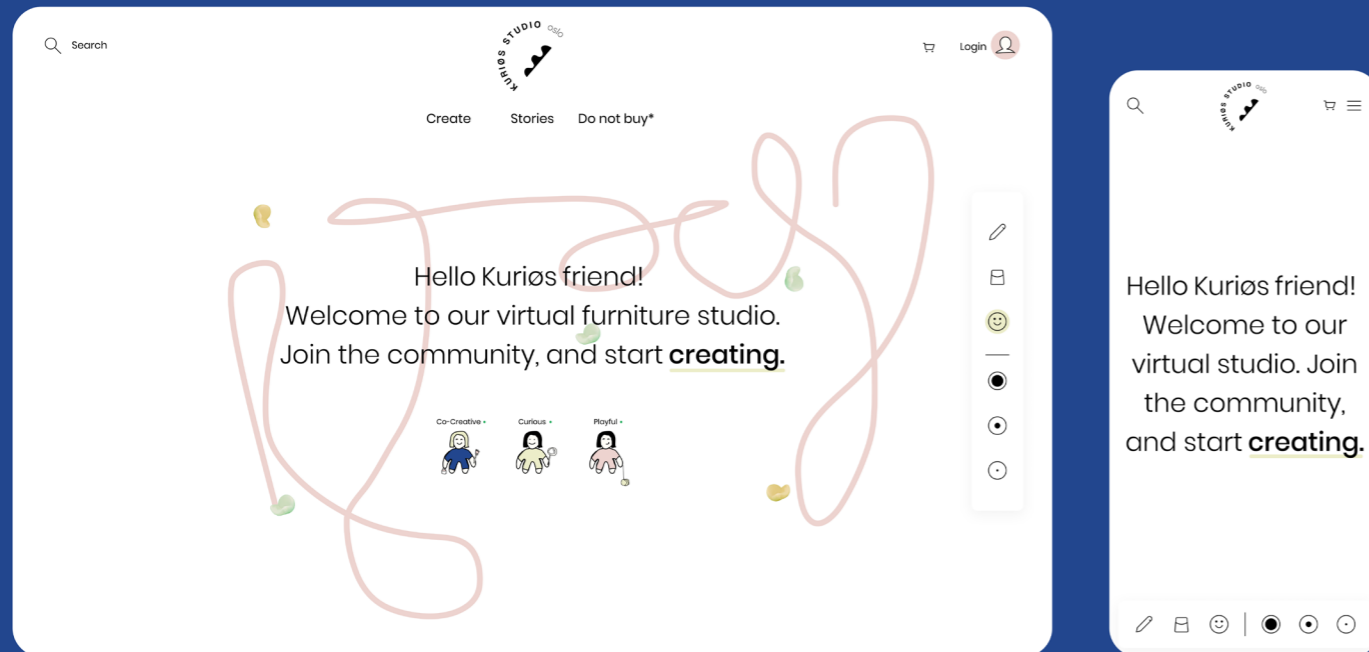
*Figure 55: Final concept of
the landing page.*

4.2 Concept explanation

4.2.1 Landing page
When initially entering the virtual furniture studio, the landing page gives the user a welcome to *Kuriøs Studio* and the community through wording and visuals reflecting the philosophy of the company. The communication includes discrete hints of what the platform offers. These are represented through the three avatars (Co-creative, Surprising, and Curious), in addition to the welcoming text "Hello Kuriøs friend! Welcome to our virtual furniture studio. Join the community, and start creating.". The feature is connected to the *Design with Intent* Cognitive Lens by giving the platform a personality to engage as a "social actor", and the Cognitive and Ludic Lenses through storytelling by telling a story via the design to create interest and emotional engagement (Design with Intent, n.d.). Furthermore, the landing page offers a toolbox with the purpose of eliciting creativity and joy from the very start. With the toolbox the user is free to create drawings with the use of different colors, lineweight and stickers of products and blobby forms reflecting the *Kuriøs Studio* form idiom. The blank background leaves a gap to fill, provoking curiosity and interaction through playfulness and an activity that potentially users would want to spread the word about like a meme (Design with Intent, n.d.).

A main motivation to the platform concept stems from the belief that every person is creative; it is just a matter of circumstance and tools unleashing creativity. A recently observed and practical example is from an elevator of a new apartment complex, covered in polystyrene material for protection in the finishing building process. The material leaves a blank sheet, which within a few weeks is covered with drawings and text created with keys or fingers by the residents of the building (See figure 56). The elevator enables a framed activity under relatively safe and closed circumstances, both physically and by the time limit of the ride. The example points out how framing an activity (Design with Intent, n.d.) and enabling the right tools can elicit creativity and emergent behavior to unfold, demonstrating what the landing page of the platform promotes. The goal of the landing page is to establish a welcoming ritual that evokes creativity and curiosity – the feeling of a creative boost attached to the memory of visiting *Kuriøs Studio*. Relating to the strategies of contributing to a greater CPA, the elements of the landing page are designed to evoke joy, create memories, enable self expression and personalization (Gulden & Moestue, 2011).

Figure 56: Observations from the elevator.

4.2.2 Create

The *Create* space is incorporated with the purpose of eliciting co-creation and interaction. It consists of a collection of rooms representing different functions or activities to nudge creativity, social meetings and cooperation through a customized avatar. The rooms, including a *Lounge area*, *Private space*, *Co-create space*, a *Space portal* and *Lccked room*.

Avatar

Before entering the *Create* space, the user is asked to customize an avatar. The purpose of this is linked to role-play and mimicry (Caillois, 2001; Design with Intent, n.d.), as the user automatically will step into a desired role within the context. Potential effects of roleplay can be the emergence of behaviors, choice making and actions, as it can make the user feel creative, important or affiliative. A "*Kuriøs Studio guide*" is designed to nudge the user to create an avatar by highlighting the possibilities within the *Create* space: "You will need your own avatar in the creative space to interact and create product ideas, highlight needs, gifts and posters. As well as joining workshops, receiving rewards and playing games. Create an avatar with your personal look and nickname to explore the creative space!". This will initiate a playful and committing challenge and "leave a gap to fill" to create process engagement (Design with Intent, n.d.). The guide also refers to the Cognitive Lens tools "Expert choice" and "Do as you're told", showing users instructions through an authority figure. The avatar creator basis includes several features closely related to the form idiom of blobjects; deciding a nickname, facial expression, color and clothing. The nickname section is presented with the example "Creative Clara" as one way of describing the avatar with an adjective representing a certain role of desire. Relevant CPA strategies the avatar is based on refers to evoking joy, memories, self expression and personalization (Gulden & Moestue, 2011; Design with Intent, n.d.).
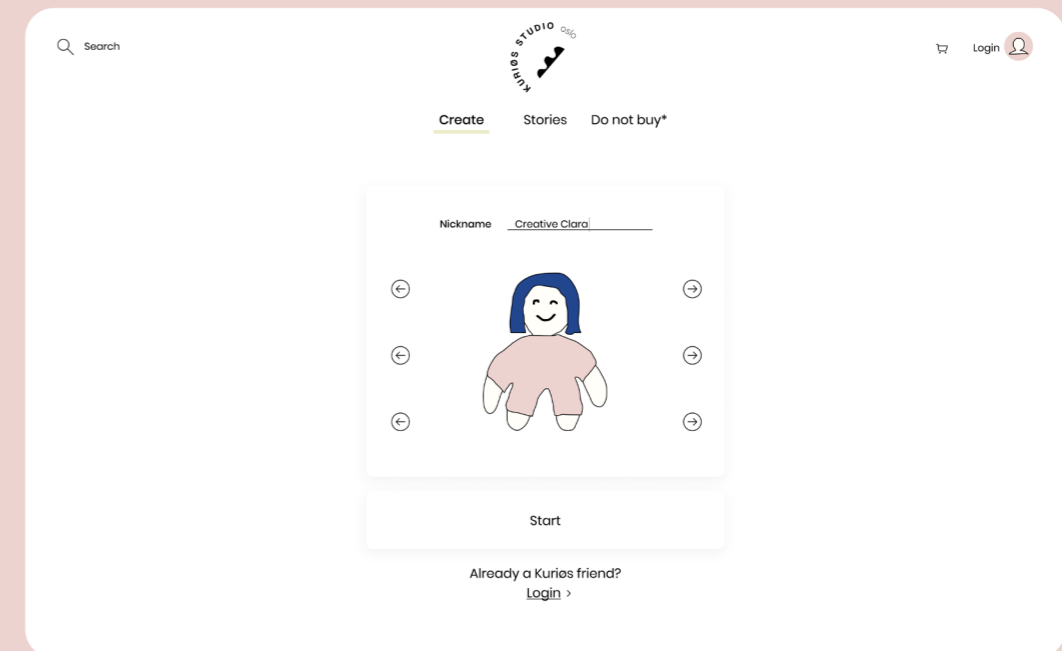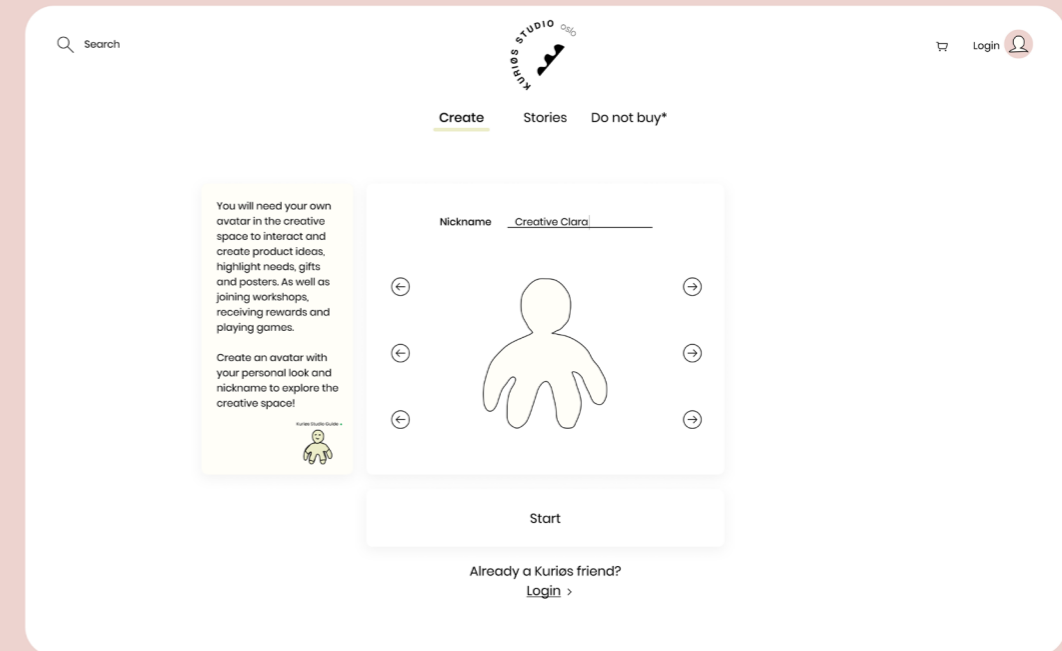
Figure 57: Final concept of the avatar.

Open space and Lounge

When transitioning from the avatar maker into the actual *Create* platform, a "*Kuriøs Studio* loader" with a recognizable sound is designed as a ritual of entry, possibly creating a visual and aural memory (Gulden & Moestue, 2011; Matthews, 2014). The loader is present in all transitions within the *Create space*, when entering rooms or opening widgets and integrations. Relating to a finding from the *Sales Safari* method, memories elicit emotional attachment from nostalgic feelings of past experiences. A memory can be created by theme music, quotes, sayings, aesthetics or others. Accordingly, there is a balance between new features and keeping the concept of the service. In addition to creating a memorable ritual, the loader is contributing to storytelling and building on the personality of the company, eliciting curiosity and a potential meme (Design with Intent, n.d.)

In the first entry of the space, the user is presented with the open space and lounge. The guide gives a brief intro to the space, followed by offering a welcome gift - another user experience ritual. Inside the gift is a digital *Kuriøs* product for decorating an own space later on, accordingly it can be used in the *Create space*. The ritual of gifts can be linked to reciprocation and scarcity from the *Design with Intent* Cognitive Lens, to make the user want to return a favor and emphasising the value or limitation of the gift (Design with Intent, n.d.; Gulden & Moestue, 2011). From the Ludic Lens, the welcome gift functions as an unpredictable reinforcement, a collectable reward on an unpredictable schedule to keep the user interactive (Design with Intent, n.d.).

Furthermore, the user is free to explore the virtual furniture studio. The open space and lounge area consists of a hallway with room entries and a lounge. Together they make up a common space for *Kuriøs Friends* to mingle, interact, share, and discuss. The framed activity can elicit emotional engagement, reciprocation, social proof and roleplaying (Design with Intent, n.d.). The lounge functions as a display of *Kuriøs Studio* products in addition to being a free space where users can benefit from a break from other activities. Play can be described as a state of mind that is fueled by excitement and balances on the border of joy and fear (Gulden, 2017). Accordingly, play can facilitate a break, letting the mind focus on an activity contradictory to work. The break can either take place in the *JOMO* chairs (Joy of missing out), or through playing the *Kuriøs Studio* game, where competition (Agon) is activated (Caillois, 2001) through a live scoreboard of the best players. In the example of using the *JOMO* chair, the users will be exposed to *Kuriøs* products by exploring them in a setting. Through the game elements, interactive behavior can emerge from feedback of scores that allow comparison to a reference point (Design with Intent, n.d.). The game can possibly initiate immersion, "being caught up in the world of the game's story"; the diegetic level. However, immersion also refers to the nondiegetic level that illustrates "the love of the game and the strategy that goes into it" (Gulden, 2018). Alternatively, it has been discussed to incorporate features for taking a break with the pure purpose to surprise, elicit joy and a memorable experience, for instance through a confetti shower or digital trampoline. Overall, the loader, welcome gift and game are features applied with the purpose to create a feeling of belonging to a community through common rituals and interactions (Gulden, 2017).
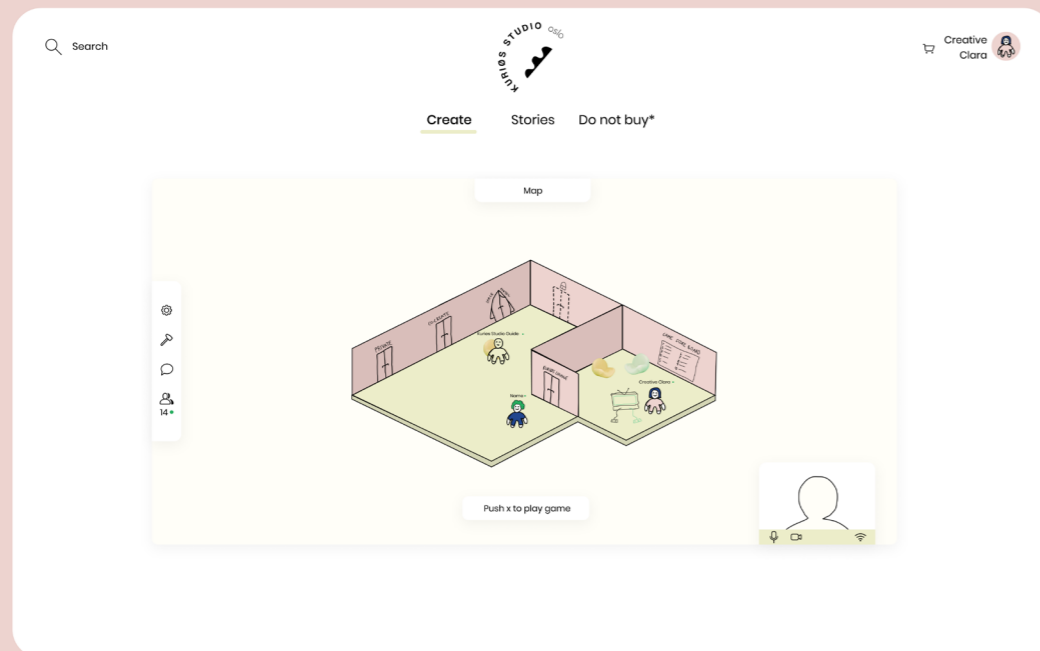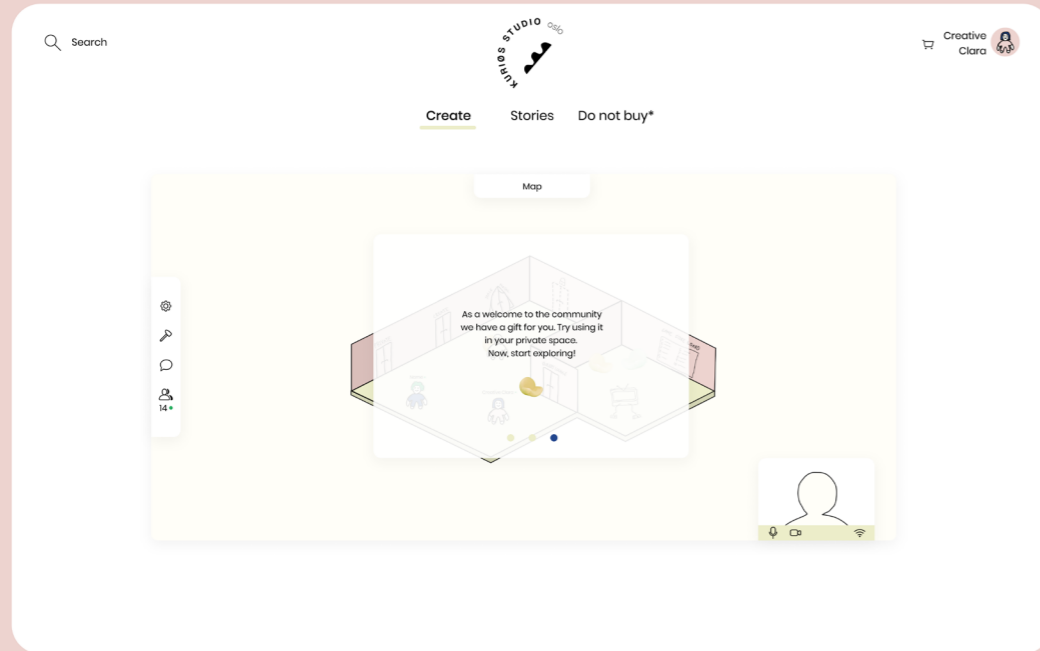
Figure 58: Final concept of the open space and lounge.

Private space
The *Private space* is designated for the user to customize a private room for socializing and creating based on their own premises. The room is locked for others and one will need a password to join a specific room, unless the desire is to leave a space open and unlocked for everyone to join through the "space portal" (A further explanation of the *space portal* will be given underneath the heading "space portal and locked space"). The room itself can transform and evolve through the build tool, which makes the room adaptive and fitting to different user needs and preferences. This includes choice of integrated activities and widgets, as well as setting an atmosphere through colors, *Kuriøs Studio* furniture, personal objects collected through rewards or standard decorative objects.

The *Private space* could function to facilitate a co-creation workshop space between *Kuriøs Studio*, a business customer and the stakeholders potentially affected by their project (see figure). For instance if *Oslo Havn* were to buy the product *JOMO* from *Kuriøs Studio*, one could invite to a co-creative workshop between *Oslo Havn* and inhabitants of Oslo to get new dimension and perspective. The facilitation would also include building a *Private space* suitable for the situation or inviting the business partner to create their own space beforehand. This could encourage and enable cooperation and co-creation, as co-creation can function as a force for participation that creates meaning for all. Providing the opportunity for on-going interaction between organisation and external stakeholders or customers, generating insights retrieved from their engagement (Ind & Coates, 2013). Communicating through

175

the avatar can potentially relieve tension, ease the interaction and elicit a lower threshold because of the roleplaying (Mimicry) (Caillois, 2001; Design with Intent, n.d.) in a context with several different stakeholders. Thereby, co-creation and creative agency can potentially emerge with a lower threshold. As a systems approach, a workshop could additionally integrate and connect to other necessary apps that could benefit the creative process, such as *Miro* for easier post-it collections, *Google Maps* for placing the project in a geographic view or *Foodora* for food delivery in the lunch break.

Alternatively, the room could function as a private room for a group of friends invited for activities such as creating posters, gifts, product suggestions or product personalizations. Regardless of context, the co-creation aspect within the private space contributes to achieving increased CPA through the strategies of creating together with other people, creating meaning with scarce products of desire as they are influenced by ideas of *Kuriøs Friends*, evoking joy and pride by contributing and mastering, personalisation, memories, self expression and affiliation when creating personal products (Gulden & Moestue, 2011).

From the *Design with Intent* Ludic and Cognitive Lenses, the private space gives users common challenges and targets between different stakeholders, a feeling of scarcity, playfulness and curiosity with the private space, it leaves a gap to fill with the building of a personal space, roleplaying through the avatar, and possibly a desire to recommend the story of the approach to co-creation by *Kuriøs Studio*.
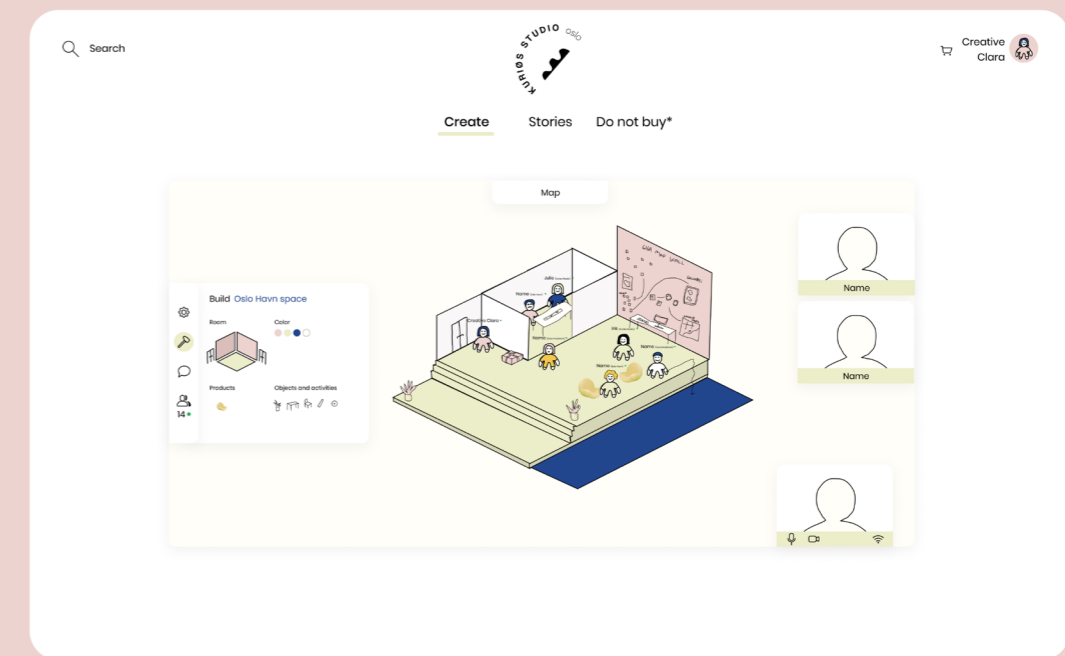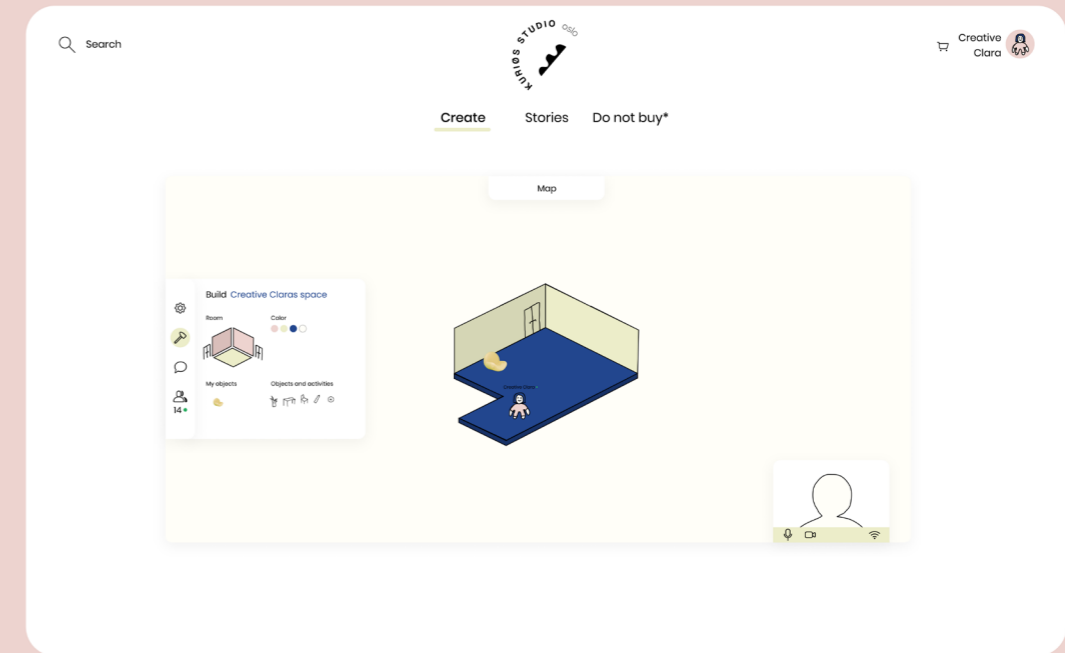
Figure 59: Final concept of the private space.

Co-create space

The *Co-create space* and the private space share some similar interated elements. However, the *Co-create space* is in contrast always open for everyone, eliciting social interaction within the community of *Kuriøs Friends*. Thus, a continuous interaction between *Kuriøs Friends*, and between *Kuriøs Studio* and *Kuriøs Friends* give the potential of relations, different layers of co-creation, creative agency and the emergence of a community (Gulden, 2017). The space offers work tools for co-creation, containing different levels of activation with the possibility to start from a blank canvas as a "gap to fill" (Design with Intent, n.d.), from a template, or to create based on products or others´ creations. Splitting the activity into achievable levels can help users feel like they are making progress (Design with Intent, n.d.).

When a creator has finished a creation, it can be saved, gifted or published. Furthermore, the creator will have to label the work with tags of different meanings before publishing. "Sketch" signals a creation for others to continue or build on, "Need" expresses a need for help or guidance of a specific task or project, or "Finished" for others to be inspired and react on. With publishing, there are also opportunities to receive rewards to encourage users to continue creating (Design with Intent, n.d.). With the "Need" tag, business customers have the possibility to publish a need for co-creation workshops or to highlight potential projects that need input from *Kuriøs Friends* or *Kuriøs Studio* who can contribute to meet the inquired need. *Kuriøs Studio* will review the tagged creations to get insight and potentially publish needs and finished projects for potential publication in the *Story space* (A further

explanation of the *Story space* will be given underneath the heading "Stories"). Regardless, all creations will be available within the co-create space.

Overall, the space substantiates the idea of sustainable behavior and emotional durability as it can help *Kuriøs Studio* to create products people want, need and prefer. The engagement within DIY-activities relates to people's perception of a product through their actions of altering, constructing, building, and socializing about it, which in turn creates and connects to additional levels of experience and interaction, such as social relations, feelings of mastering, peer learning, and attaining of skills, among others (Gulden 2017). The person thus controls the degree over their own activity in the making and altering process, as well as future use" (Gulden, 2017). Over time, the space can change and evolve based on findings from continuous use, further evolving and fitting the purpose - creating with and for *Kuriøs Friends*.
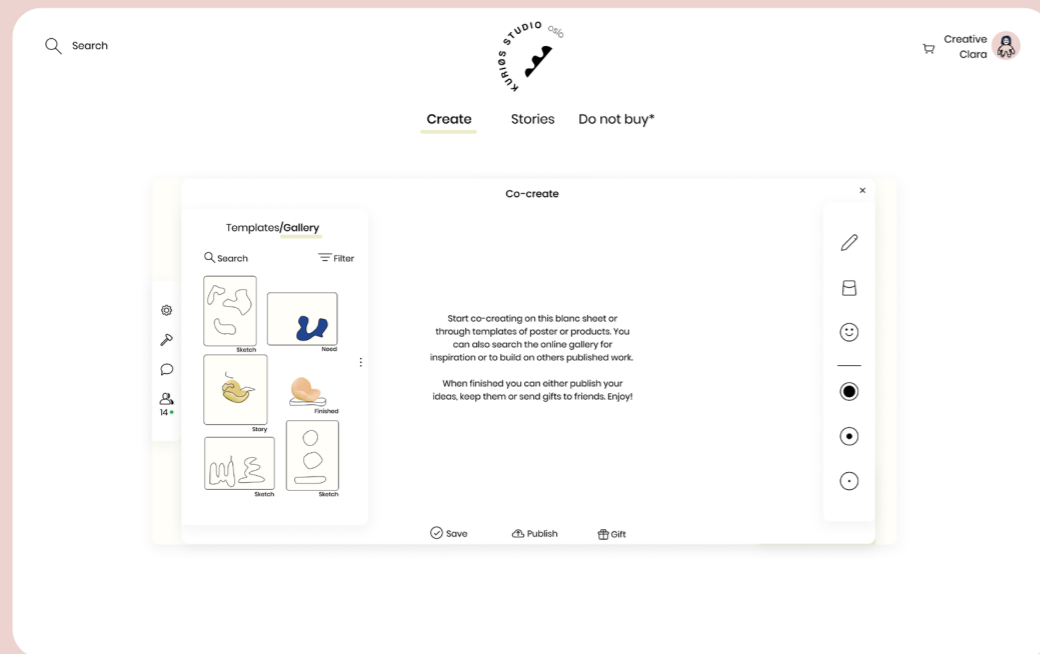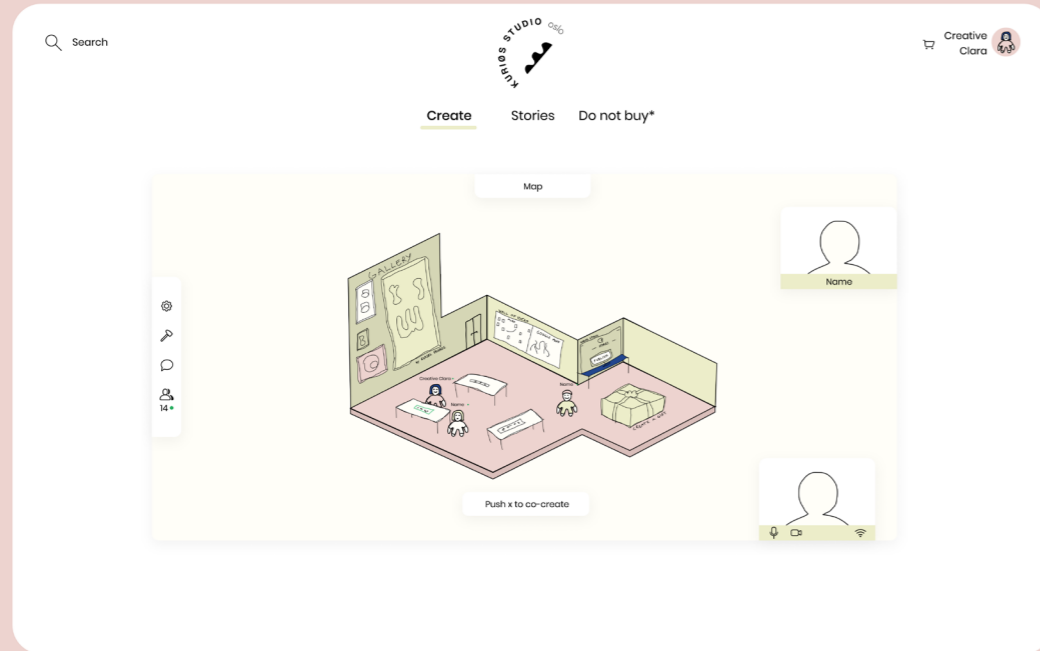
Figure 60: Final concept of the co-create space

Space portal and Locked space

Within the *open space* two additional rooms are implemented; the space portal with the key functionality to serve an overview of shortcuts to rooms, and the *locked space* eliciting curiosity and containing a world of surprises.

The space portal provides a playful way of traveling between different rooms through a rocketship. The portal enables the possibility of random meetings and interactions between *Kuriøs Friends*. Thereby, emergence is elicited within the frame of getting to know other *Kuriøs Friends* possibly substantiating the creation of a community. "Interaction systems (like all social systems) reproduce themselves on the basis of communication (Seidl 2004, p. 14– 15); new systems emerge from given settings through interaction and these emerged systems can produce additional new systems (Gulden, 2018). Furthermore, the portal provides a news value of inspiration due to the dynamic and rich amount of rooms available to visit.

The *locked room* will from time to time be available for *Kuriøs Friends* to visit. The availability will be based on special happenings and arrangements facilitated by *Kuriøs Studio* such as celebrating pride month, launch parties or other ritual events. Additionally, the room can function as a reward based opportunity by for instance serving a

confetti shower when making it to the leaderboard of the *Kuriøs Studio* game, when buying a product or in other transitions worth rewarding. Thereby a ritual can be created through cultivating a mundane artifact (the opening of the locked room) in the meaningful transitions of receiving the reward (Matthews, 2014). Research obtained from the method *Sales Safari* highlighted how there is a fine line between new features and keeping the concept. Therefore the *Locked space* is carefully designed within the original concept, making it possible to seamlessly integrate new features into the platform by evolving and changing the space behind the locked door. Having the locked room visually present enables curiosity and surprise when it occasionally opens or when the user is given the possibility to enter. Thus, receiving the chance to enter the room is considered a scarce opportunity, creating a memorable experience (Design with Intent, n.d.).
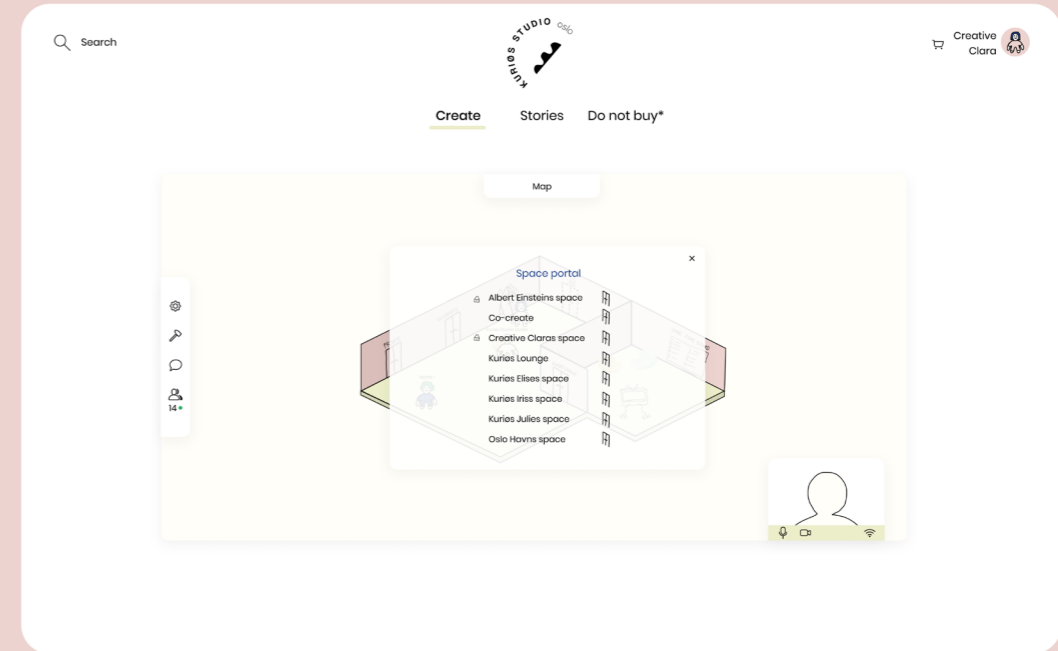
Figure 61: Final concept of the space portal and locked space.
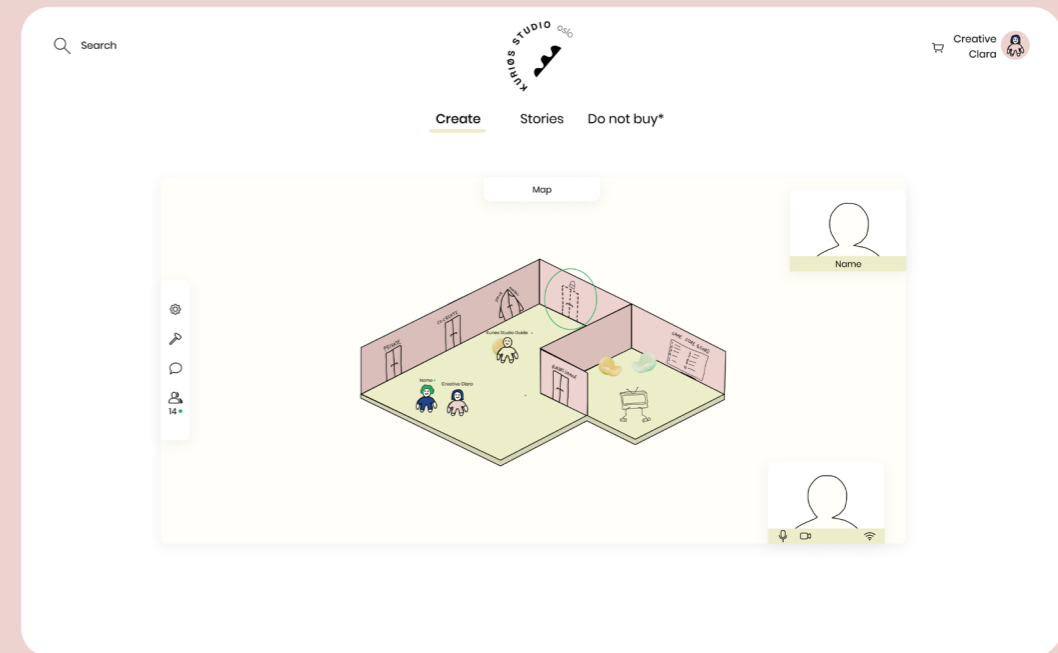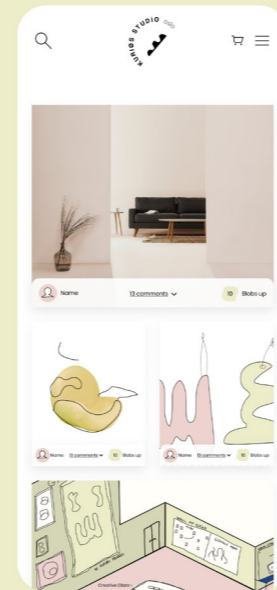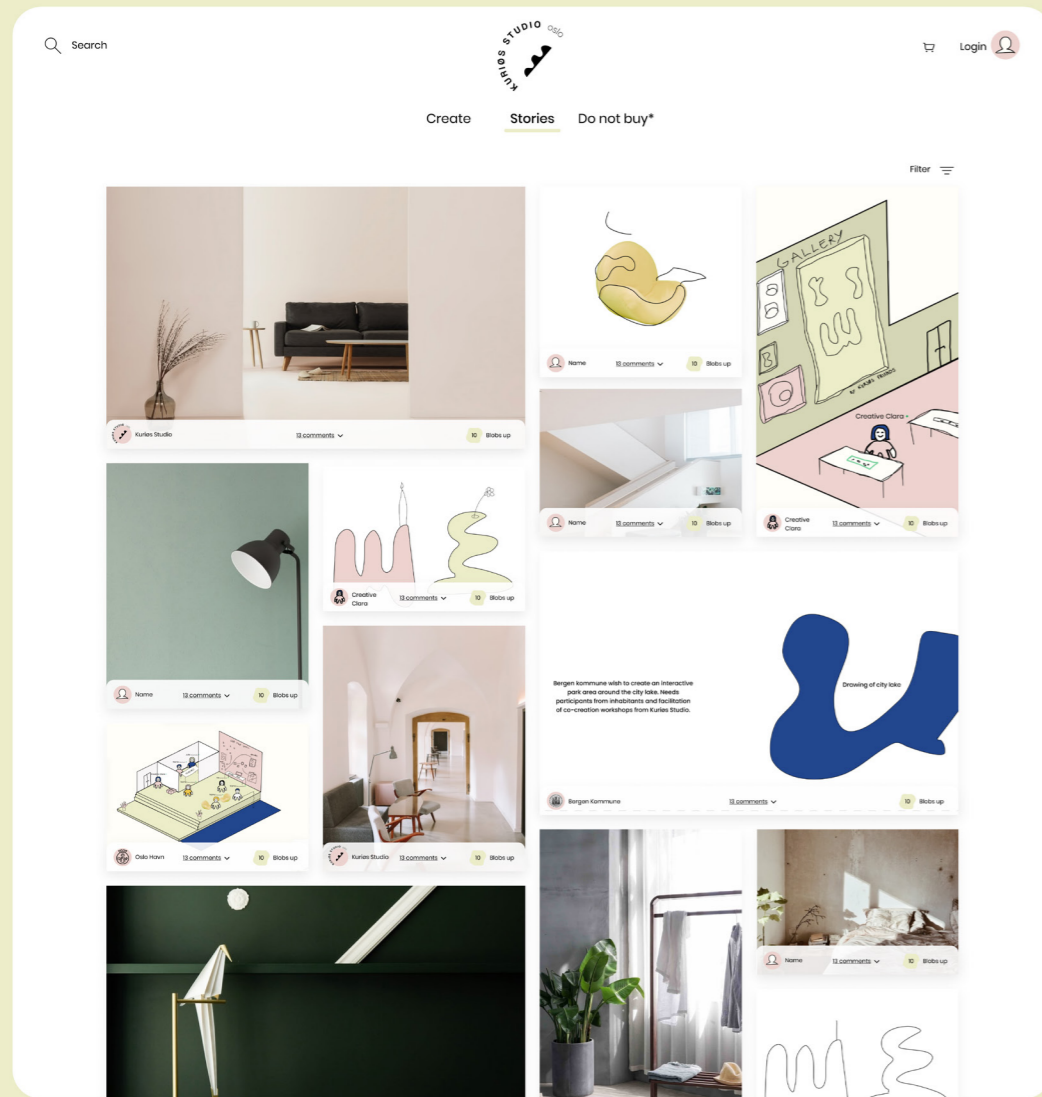
Figure 62: Final concept of Stories 1/2.

4.2.3 Stories

Stories is a section that presents stories composed and published by *Kuriøs Studio*. The stories will be based on a set criteria substantiating storytelling of the *Kuriøs Studio* philosophy which include values of surprise, curiosity or co-creation (Design with Intent, n.d.). They can revolve around *Kuriøs Studio* projects or product news, collaborations, success stories from collaborating partners, *Kuriøs Friends´* stories from product installations at home, or stories chosen to publish created in the co-creation space of the website. The stories are categorized and can be filtered based on interest and relevance for the reader. Motives to share stories are to highlight, cherish and elevate creativity and creative work of *Kuriøs Friends*. Additionally, it is desired to create inspirational content that can nudge further use of the platform as well as remaining active and relevant through news value (Gulden & Moestue, 2011). Lastly, a motivation is to maintain and unfold transparency as a part of the business. The stories can also be shared through or gathered from other platforms like social media - as a way to enable transmedia storytelling and reinforcing feedback loops (Meadows, 2008).

Within each story there will be a possibility to react to the content through blob ups (likes) and comments. The reaction aspect mainly relates to scores, leaving gaps to fill, social proof and reciprocation (Design with Intent, n.d.). This functionality encourages interactions between *Kuriøs Friends*, possible emergent behavior and autopoietic communication systems to unfold. "How the great masses of people interacted and, by such, established communication systems that produced additional communication systems associated with the gameplay, but in varying locations and with a different organization and intention. Thus, a communication system produced a distinctly different communication system" (Gulden, 2018).

186
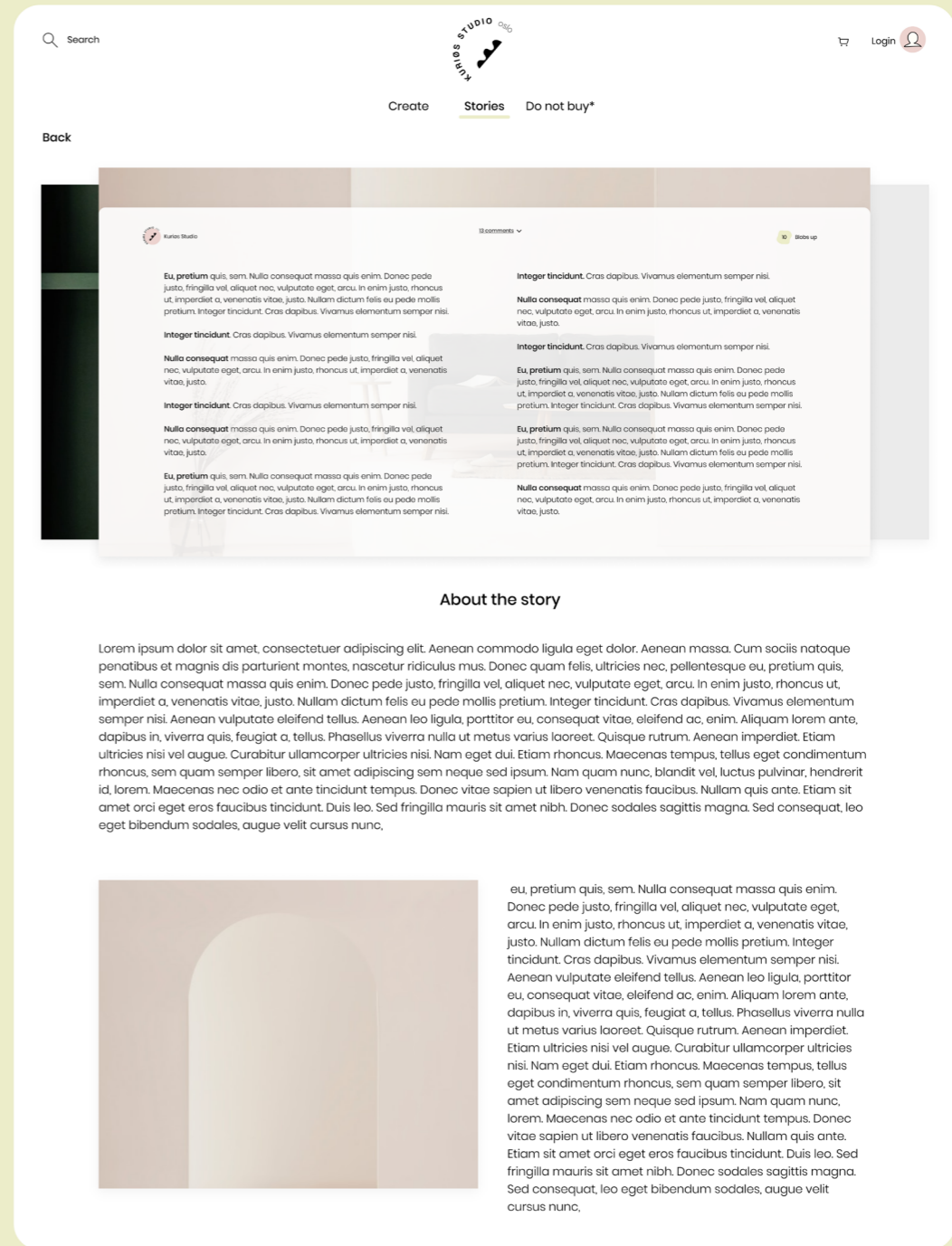
Figure 62: Final concept of Stories 2/2.
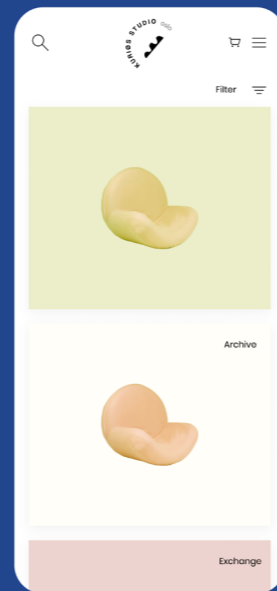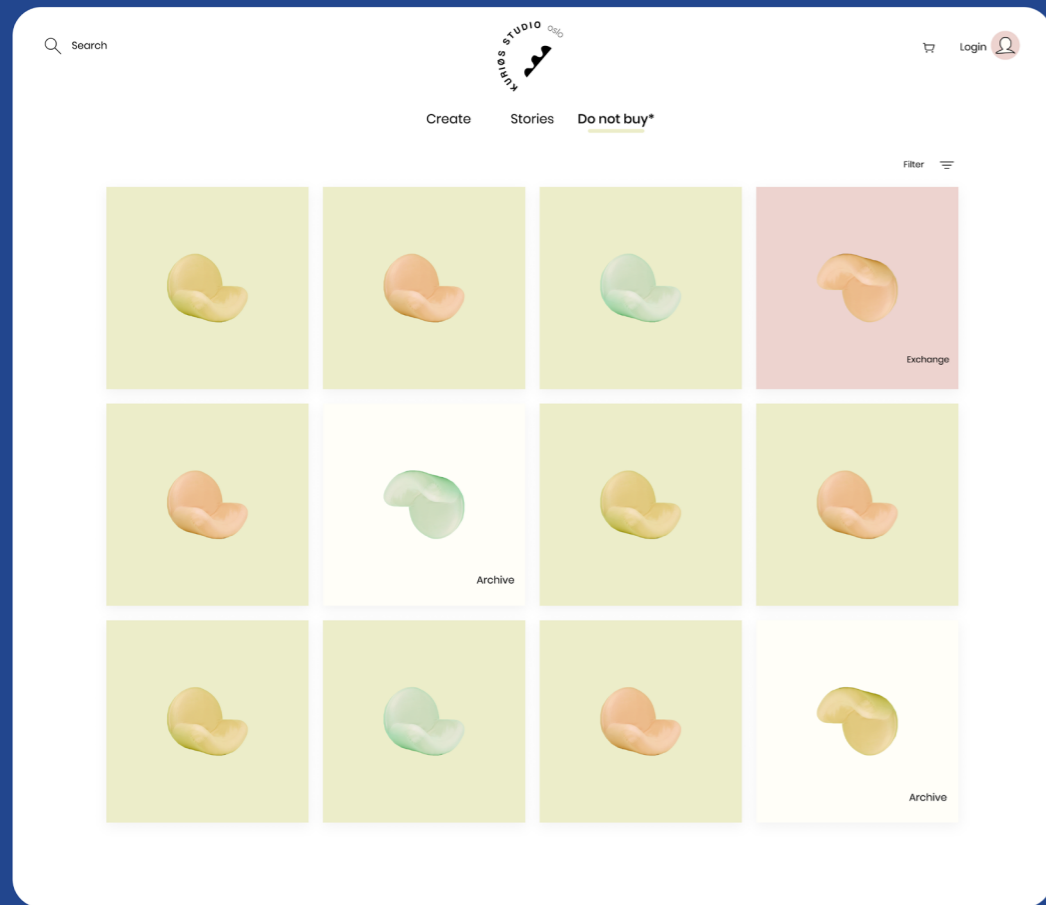
Figure 63: Final concept of Do Not Buy section.*

4.2.4 Do Not Buy*

*Do Not Buy** is a section of the website built up by three different categories; *Do not buy*, *Archive*, and *Exchange*, whereas each category approaches different stages of ownership contributing to sustainable consumption and behavior (Gulden & Moestue, 2011). Communicating the webshop part of the platform as *Do not buy** is an active choice of wording with the opportunity of eliciting curiosity in figuring out the true meaning behind it. The first impression when entering this section of the website might be that it looks relatively regular, but by further investigation into the different categories another truth unfolds.

Do Not Buy*

Through further investigation of the webshop, an explanation is given within the category with the identical name, *Do not buy**. The explanation states "Do not buy* *If not fully appreciated". The explanation is designed to function as a reminder to think twice before buying to avoid impulsive purchases, which can be linked to rephrasing and renaming (Design with Intent, n.d.). Furthermore, additional elements of effort are implemented within this category to make sure the buyer actually wants and will appreciate the product, resulting in an increased CPA (Gulden & Moestue). For instance, the site offers customization through playfulness whereas the user must paint the

product with a paintbrush to see it in different colors, strengthening the CPA (Gulden & Moestue, 2011) and eliciting creativity. Moreover, another level of effort is implemented in the buying situation, where the potential buyer can play the *Kuriøs Studio* game to be able to buy. The game challenge (Design with Intent, n.d.) is to jump with the desired product over blobjects with an aim to reach the shopping cart, enabling competition (agon) (Caillois, 2001).

One can argue that at this time the levels of effort are excessive, and might result in too high of a threshold to buy a product. This is solved by implementing the possibility to skip the game and move directly to the shopping cart. Anyhow, as an "easter egg", the possibility to be rewarded by playing is presented at the start of the game. The reward can be used in the *Create* space, which can nudge *Kuriøs Friends* either to join the *Create* space, or activate continuous use. Furthermore, together the elements can result in a *Kuriøs* ritual, create a memory of the buying situation, in addition to create the sense of a community (Matthews, 2014; Gulden & Moestue, 2011). Thus, the elements are challenging the leverage point (Meadows, 2008) found in the background research considering the goal of growth and convenience.
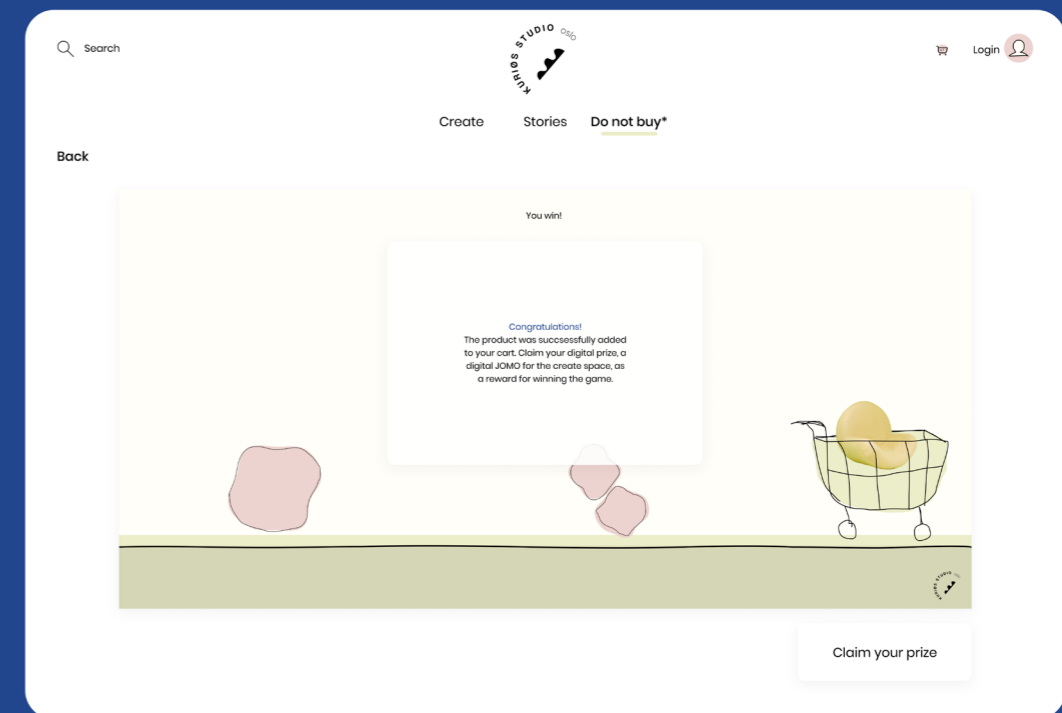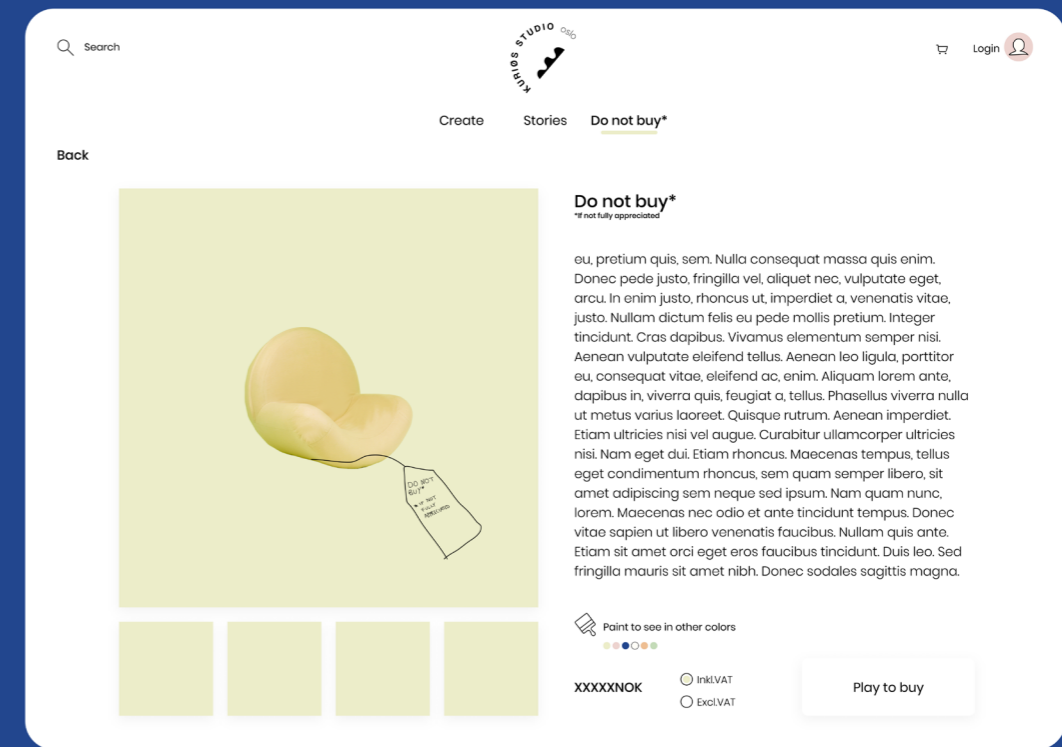
Figure 64: Final concept of Do Not Buy category.*

Archive

Archive is a category approaching "Late use and planning of replacement" in the stages of ownership, enabling continuous use and circular life cycles - giving products that would end up as trash the opportunity for further life. The *Archive* consists of products with flaws, production faults or returns to *Kuriøs Studio* that can be sold at a reduced price. Storytelling is a significant part of this category, as the story behind the product is closely stated and explained (Design with Intent, n.d.). *What is the story behind the product before ending up in the archive? Where has it been? What has happened? Why did it end up here?* And now, possibly ending up at a new buyer's place to continue the story. To nudge the "saving" of an archive product, the buy button is communicated through the wording "I want you and all your flaws", yet again making sure that the user actually wants the product with the story, and it is a more appealing way of selling what usually is named a "flawed product". Overall, the category contributes to tell the story about sustainable consumption and how growth and simplicity is not the only way within capitalism.
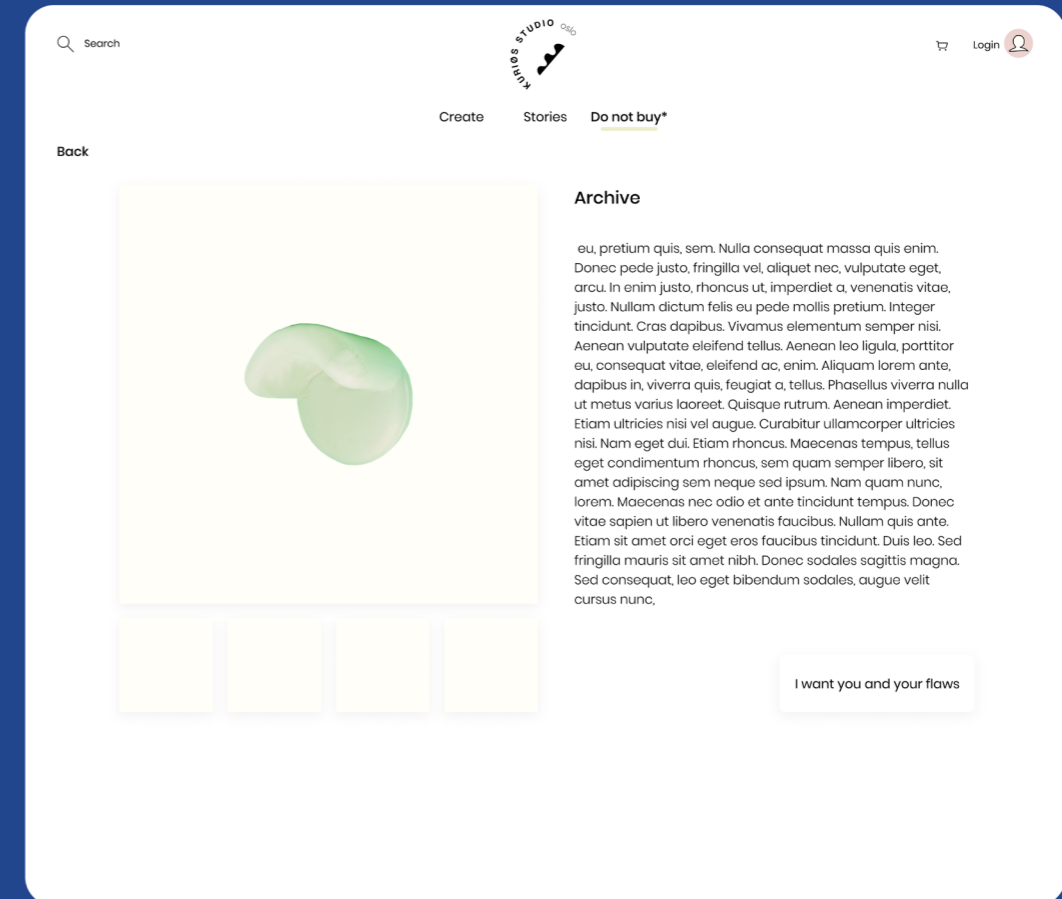

Figure 65: Final concept of Archive category.

Exchange

To both nudge social meetings between *Kuriøs Friends* and to save products avoiding premature endings of product lifetime, the section offers the *Exchange* category. *Exchange* facilitates bartering between *Kuriøs Friends* or between *Kuriøs Studio* and *Kuriøs Friends*, with the possibility to upload a proposal of an exchange of products. This could for instance be changing the color or different products with someone. The reason for replacement of products with new ones is often driven by the desire of feeling pleasure through status, belonging, convenience and self expression (Gulden & Moestue, 2011). The feeling of pleasure could potentially be fulfilled by replacing the product with another within the exchange stock. This promotes sustainable behavior and encounters the users can discover the exchanging of products at a point of planning a purchase within the Do Not Buy* space. Meeting another *Kuriøs Friend* and the effort put into doing so could create greater CPA through connecting the product to a memory or a story (Gulden & Moestue, 2011; Design with Intent, n.d.). The *Exchange* section helps those who want to exchange and replace products, resulting in giving Kuriøs products extended longevity.
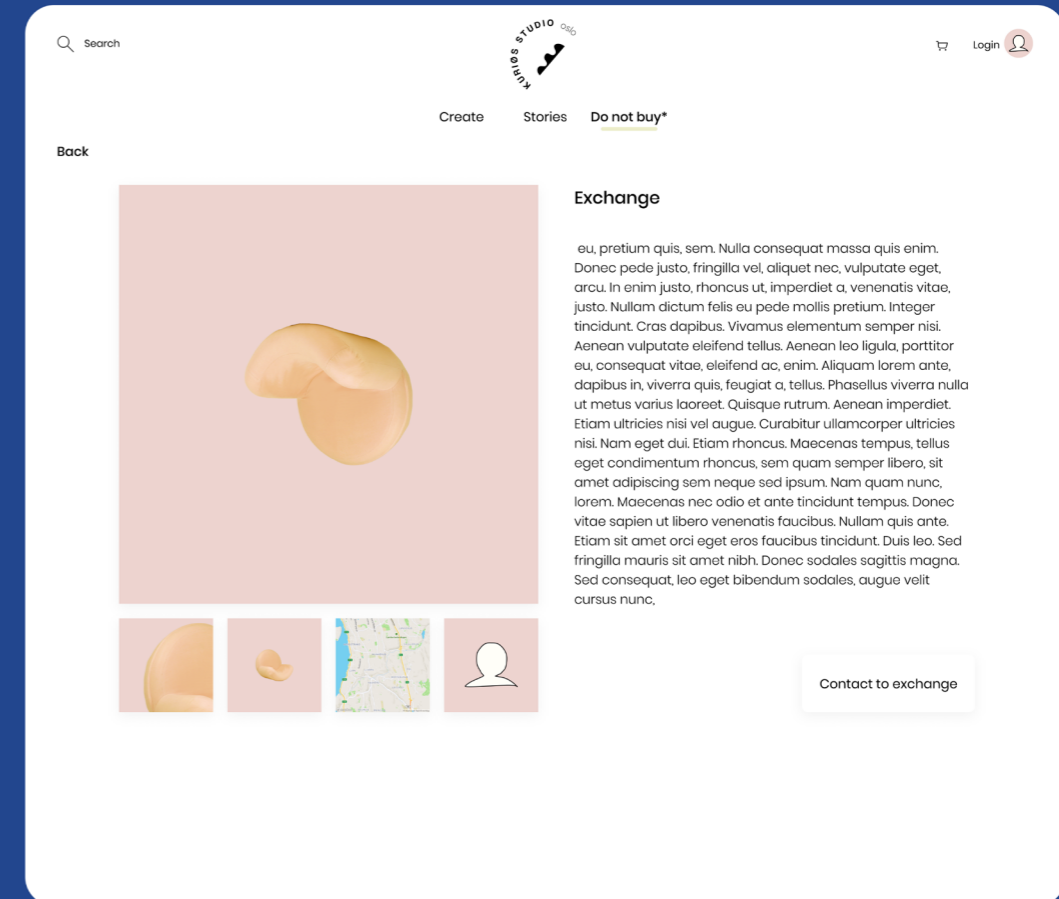
4.2.5 User journeys

Journey mapping provides a holistic view of the customer experience by uncovering and investigating a series of interactions. The process of journey mapping can encourage conversations and discussions leading towards designing for a better user experience (Gibbons, 2018.). In light of systems oriented design, and combining the method of journey mapping with research insight and theory discovered within this project, the *Virtual Furniture Studio User Journeys* was created to highlight possible interactions and the repercussions of them (See figure 67).

Figure 67: User Journeys of concept.
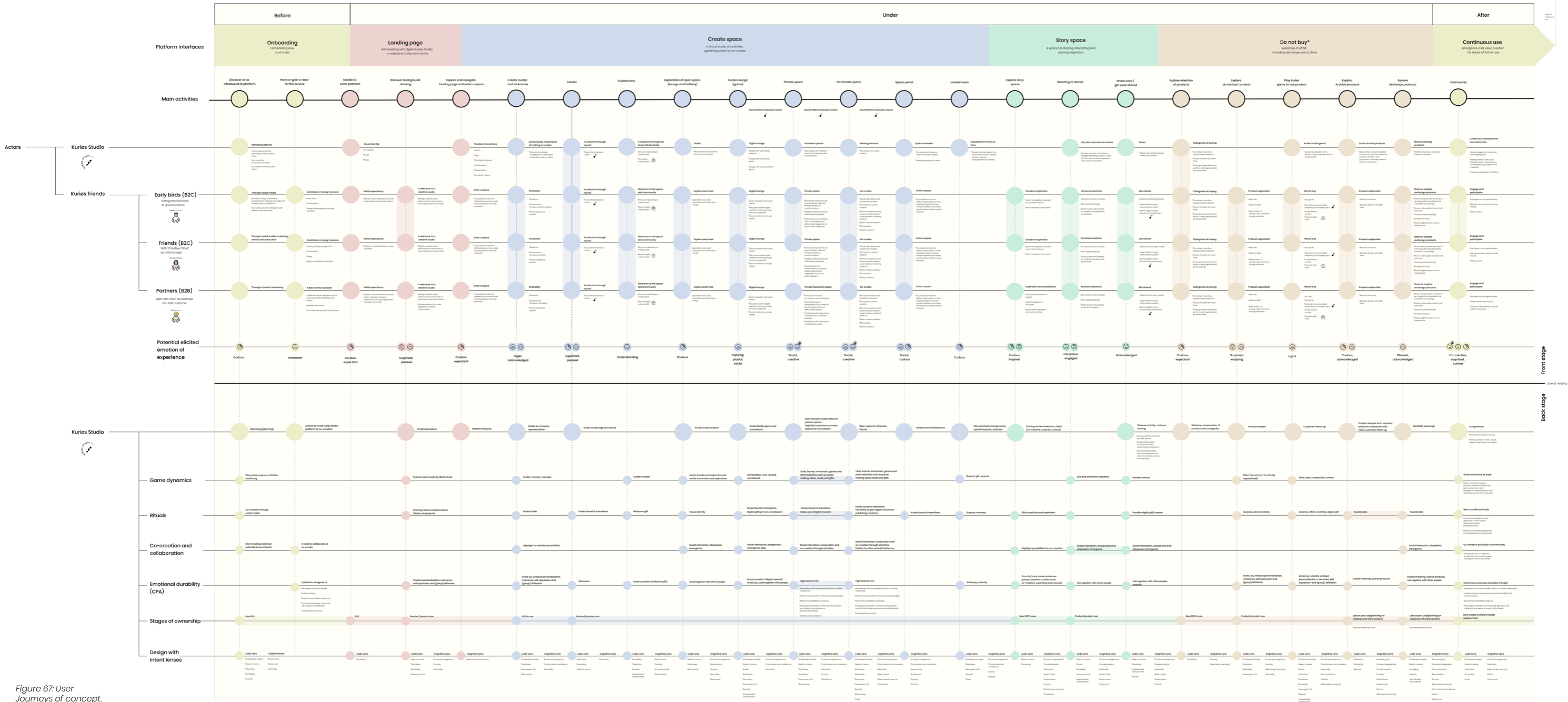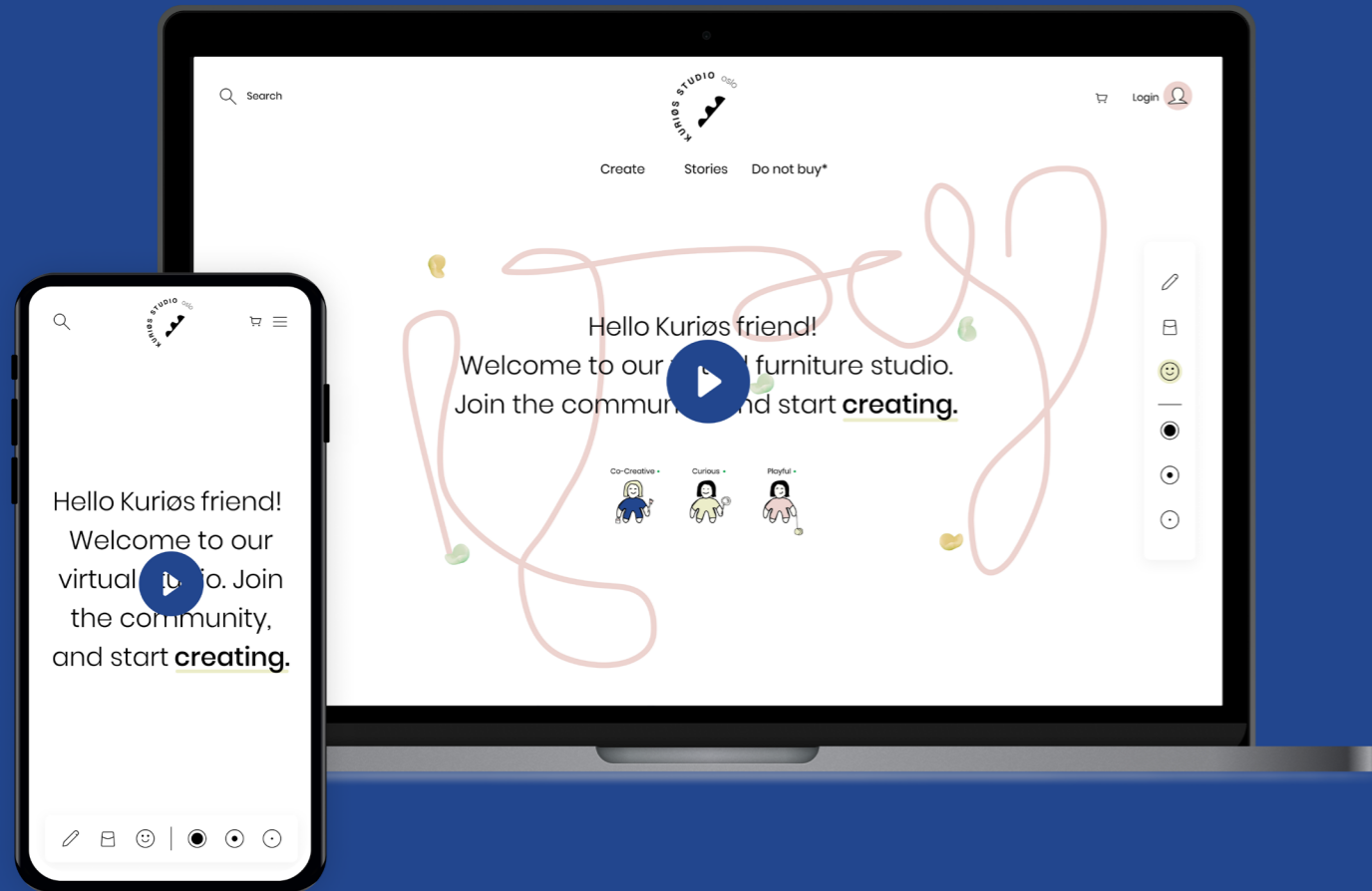
4.2.6 Prototype

To test interactions and get an impression of the "look and feel" of the *Virtual Furniture Studio* a prototype was created. The prototype showcases key interactions and possibilities within the platform, reflecting *Kuriøs Studio* in form idiom and philosophy. Within the prototype possible scenarios, activities, and widget interactions are displayed.

The prototype is accessible in the prototype platform, *Figma*, through the following link:

https://www.figma.com/proto/9Mobbuzs0qfTkRAIOJlzPG/
Masteroppgave?node-id=353%3A7472&scaling=contain&page-
id=101%3A6

To view a video of the prototype, use the following *Youtube* link:

https://www.youtube.com/watch?v=e-57s_qd7Oo

4.3 Implementation

4.3.1 Foresight
The foresight is presented using factors from the method Impact and Threshold analysis (IMP), including systemic impact (leverage) of short and long term goals as well as evaluating the threshold from different variables (Sevaldson, 2016).

Systemic impact
Through the process of developing the concept, exploration of how one can design for and with co-creation and engagement, contradicting the leverage point about a goal of growth, simplicity and availability has been conducted. With the power to add, change, evolve, or self-organize system structure, this project investigates how one can take previous experiences of co-creating in the design process, combine it with recent knowledge about game dynamics and system oriented design to explore possible services within the system that can create emergence. The platform ought to facilitate emergence and activation from customers and business partners. The anticipated radius of ripple effects are estimated within Norway, with a potential to expand internationally either through product sales from other countries or expandation of the community of *Kuriøs Friends* across borders. The development of *Digital Kuriøs* as a co-creative platform entails goals of different levels and timespans.

Short term goals:
- Develop an MVP version of the platform and start marketing activities through play probes, social media, and use the established connections of collaborating business partners.
- Developing the platform further with activating features, activities, processes, products, services based on theory from game dynamics to elicit engagement and playfulness, effort and eventually emotional durability.
- Enable potential customers to shop products and followingly establish a basis for the financial security of the company.
- Start the process of building relations in the community of *Kuriøs Friends* through interaction and activating with the co-creative platform and marketing, with continuous development and generation of new rituals in transitions of Kuriøs products/services.

Long term goals:
- Maintain and develop a functioning and dynamic platform as a representative space for co-creation with activities for co-creations, rituals, social interaction, creative agency and emergence with and for different related actors; *Kuriøs Studio* and business partners, *Kuriøs Studio* and *Kuriøs Friends*, and *Kuriøs Studio*, *Kuriøs Friends* and business partners.
- Inspire a goal differing from the goal of growth, giving buyers an experience that potentially can increase CPA and expand the longevity of *Kuriøs* products.
- Through the platform enable emergence of a community where *Kuriøs Friends* are included into the design process within different levels. Potentially evolving into an autopoiesis and allopoiesis system of reinforcing feedback loops considering creativity across the country.

Thresholds

Economic: Costs connected to the development of the platform.

Technological: Development of the platform requires experts considering certain features, especially the "Create" space, the *Kuriøs* game and landing page tool.

Cultural: Change of habitual ways of buying, will it work in the world of convenience? Onboarding and establishing a community of customers.

Experience of platform

Emergence of a
co-creative community

Platform
spaces elicit
co-creative
processes

Digital
Kuriøs

Keys and frames

Autopoiesis

*Figure 69: Visualization of
the platform experience, as
a part of the foresight.*

4.3.2 Feasablity

The feasibility of the project is dependent on factors of economy, testing and time spent developing the platform. This involves taking the necessary steps at the right pace, considering the company being a startup without any financial security (yet). Anyhow, the platform substantiates the company's business goal of co-creation and sustainable behavior, which is important to consider from the start when designing a digital platform for the company.

To make the project feasible, various steps and stages of realisation are necessary. For instance, to start with a most viable product (MVP) of the platform. The MVP could be based on a website builder, with integrations from *Miro* and *Gather* covering small parts and steps towards the desired outcome of the main intervention concept, the *Virtual Furniture Studio*. Hereby, *Kuriøs Studio* can achieve an increased impact compared to a regular website (see figure 70). By doing so, costs for development are not required, only annual costs for the subscriptions. According to a research paper by Lucy Carney (2020) an average cost for building and maintenance through a website builder is 10 000 NOK annually. In comparison, if *Kuriøs Studio* were to develop the main concept from the start, hiring a consultant to develop the platform would require upfront costs of 250 000 NOK, excluding costs for monthly maintenance (Carney, 2020). Another solution could be to collaborate with bachelor and master students from the *Department of*

Computer Science at *Oslo Metropolitan University*. A collaboration could assist different parts of the project considering frontend and backend development, realising the main intervention concept. The risk of a cooperation of this kind, could be the timeframe of a school project, in addition to the students requirements specified by the university, both setting possible limitations and boundaries to the collaboration project.

Simultaneously with the steps required to develop the platform, sales and marketing activities must be pursued. Currently, the company collaborates with *Rotostøp*, *Oslo Havn* and *Selvaag Eiendom* on initiating production and further sales of *Kuriøs Studios*' product, the *JOMO* chair. Repercussions from the possible commercialisation of the product, would be to strengthen the economy, hence enabling platform development at an earlier stage. Additionally, successful collaborations can expand *Kuriøs Studios* business network, increasing the amount of possible co-creative processes to be initiated and tested through the MVP platform. Moreover, marketing activities defined in the concept development of this project could be conducted to activate potential Kuriøs Friends to join the MVP of the platform. This includes pop-up activities and play probes at locations where social interaction takes place, eliciting emergent behavior in light of the *Kuriøs Studio* company philosophy to unfold and engage.
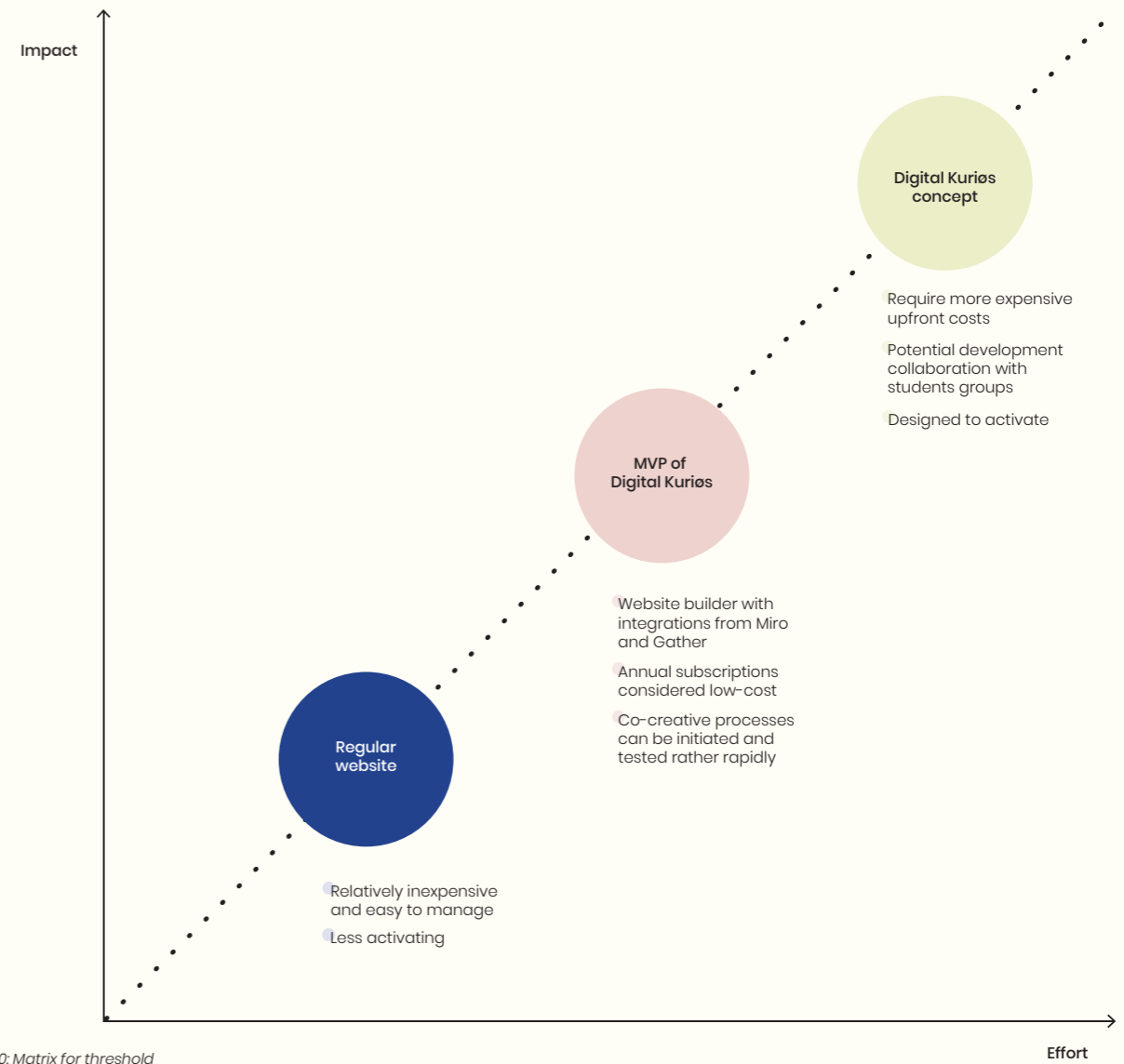
Prioritisation matrix

Impact

Digital Kuriøs concept

Require more expensive upfront costs

Potential development collaboration with students groups

Designed to activate

MVP of Digital Kuriøs

Website builder with integrations from Miro and Gather

Annual subscriptions considered low-cost

Co-creative processes can be initiated and tested rather rapidly

Regular website

Relatively inexpensive and easy to manage

Less activating

Effort

Figure 70: Matrix for threshold (effort) and impact compairing stages.

Chapter 5

Conclusion

5.1 Discussion

The discussion addresses the project in light of themes influencing the design process and possible repercussions enabled by the project. This includes evaluations of theory and methods, as well as potential limitations or possibilities caused by external factors.

5.1.1 Digital collaboration

It seems natural to reflect upon how Covid-19 has affected the project process due to the constant changes of restrictions reframing the base for collaboration. As an external factor, repercussions of the virus have generated both limitations and possibilities. For instance, the opportunity to indulge in a rich design space became limited when not being able to meet physically. A rich design space helps the designer to handle complex systems and visualizing them through GIGA-maps, as a common understanding is elicited by communication and conversation from collecting broad overviews and deep detailed views in a physical space (Sevaldson, 2012). Due to the physical space not being an option, the collaboration consequently had to take place through other platforms. Thus, the platforms *Miro*, *Figma*, *Gather* and *Zoom*, amongst others, became important communication tools when GIGA-mapping, but also to execute the comprehensive design process in its entirety. Communicating online has some obvious limitations, as elements in discussions and methods can be overseen by the digital filter that the network connection, video and audio streaming provides. Anyhow, being aware of the possible limitations have strengthened the verbal communication, and elicited creativity both in the search for functional platforms adapted to the needs, and in the choice of methods. Simultaneously as the project revolved around creating a digital platform for co-creation, the adaptation to the external factors resulted in frequent platform testing providing a richer understanding of online collaboration - possibly strengthening the project outcome.

5.1.2 Method evaluation

The methods examined in the project contain strengths and weaknesses considering factors of research sample, execution and external influences. In the method evaluation relevant methods will be highlighted and interpreted based on their level of success.

The perspective interviews were meant to triangulate the other methods and theory by bringing new perspectives to the project. They were however rather short and not followed-up, and therefore the data can be considered less qualitative. The perspective interviews could potentially be conducted with a richer amount and variation of interviewees, but they were generally not assessed as the method of high prioritization, as the project revolves around co-creation, activation and game dynamics. At the time of conducting the interviews, it was considered necessary to retrieve resources with perspectives from other fields than design.

Evaluating the examination of the Sales Safari, one can argue whether the data represents reality when the method is based on digital content. On one hand, the gathered data can be perceived as valid as the person being observed is unaware of the situation, leaving user insight into actual habits, problems, opinions and needs. On the other hand, the technological world might filter direct interpretation of actual people and their emotions. Regardless, the data reveal a relatively genuine simulation of emotions through rituals, memories, use of wording, images, reactions and ratings. Another bias worth mentioning can be that the generated data is extracted based on the designers´ prior knowledge about game dynamics, thereby also possibly affected by prejudice perception. This is also applicable to evaluate the platform and game analysis, which are unavoidably biased as auto-

ethnographic methods. However, there is a prior awareness of the potential pitfall that the bias provides, as well as an aim to keep the curiosity objective when researching.

The method of probing was restrained due to the digital frames caused by external factors. This generated challenges in planning and execution of physical play probes for co-creation, which resulted in adaptations within the confines of the situation. Thus, under different circumstances, the sample could have had a higher quantity of randomized and diverse participants. Some participants also withdrew or were not able to submit in time. However, the activity through the Instagram account of *Kuriøs Studio* provided data from followers of friends, family and people with an interest in design. Accordingly, they constitute a base of *Kuriøs Friends* who activate and show interest and involvement, possibly for collaboration and co-creation in the future. The probing also included a probe kit which did not activate as intended. What does it take to activate; a wish to contribute, a challenge? A revised version of the probe would possibly succeed by including more design elements of activation through game dynamics.

Lastly, the user journeys were utilized to anchor the concept visually to theoretical and methodological research findings. The visualization of the interaction sequences shows hypothetical experiences emerged by the designed elements. Accordingly, a possible weakness is connected to the hypothetical proposition of events and feedback loops. Prioritizing usability testing therefore serves as a reasonable commencement for future development of the service.

5.1.3 Theory evaluation

The theoretical basis of the project is closely related and influenced by the facilitated Master level courses offered at the *Department of Product Design* at *Oslo Metropolitan University*. Accordingly, the theory resembles inherited and learned knowledge gained through education. This has apparently affected the motivation and execution of the project to a certain extent. This is not necessarily an exclusive limitation, nor a positive repercussion of the education, yet a bias to take in consideration and reflect upon. A number of research articles applied into the project are authored by and frequently referenced to Tore Gulden. However, it is important to highlight the variety of sources utilized as the basis for his research; the citation originates from a wide range of researchers and findings, making the data diverse regardless. Lastly, the theory is combined with an approach on systems oriented design, research on emotional durability and designing for rituals, substantiating a divergent theoretical base.

5.1.4 Sustainability

As designers, it is our responsibility to focus on eliciting sustainable production, circular economy and positive action patterns. Emotional durability through incorporating co-creation and game dynamics has been included as a goal throughout the project. To add to the discussion, the concept in light of sustainability will be highlighted in relation to *UN Sustainable Development Goals* (SDG).

According to SDG 13, the platform has potential to facilitate and strengthen the ability of individuals to counteract, adapt and reduce the consequences of climate change, as well as strengthening their knowledge and awareness. Followingly, the concept can influence SDG 11 and 12 considering making cities and human settlements sustainable as well as facilitating sustainable consumption patterns (UN, n.d.). With the usage of SDG, there is a potential risk of utilizing the goals in contexts to achieve a greener marketing of a service, product or business approach. Hence, it is considered highly important to nuance the argumentation with theories of increasing consumer product attachment (CPA) and approaching contexts within stages of ownership, among other strategies. Anyhow, the *Sustainable Development Goals* by the *UN* are enhanced as a reliable resource to guide and enrich knowledge in order to make sustainable choices for companies and consumers in general.

5.2 Conclusion

5.2.1 Project relevance and contribution

In the project *Digital Kuriøs - A Virtual Furniture Studio for Co-Creation* investigations of how one can design for co-creation and emotional durability in the field of furniture design through game dynamics has been conducted. Theoretical frameworks and qualitative research of games and co-creative platforms revealed the possibility to adopt and learn from other systemic fields. Findings of successful use of game dynamics and co-creation considering elicitation of communities, activation and emergent behavior provided values possible to extract and utilize for concept development. The study resulted in a digital platform that invites, engages and activates customers (*Kuriøs Friends*) into a co-creative process. The platform creates a basis for future services and products for the startup furniture and design company, *Kuriøs Studio*.

The project contributes a methodological process and a digital model where actors of the furniture design field can transfer key elements into levels and stages of using co-creation and game dynamics in or even after the design process. The project will stand as an example to mainly inspire for activating and engaging with higher effort to elicit sustainable behavior, longevity and emotional durability of products within the field of furniture design. "Design research, persuasion

psychology and brand theory show that brand loyalty and the feeling of product attachment is strengthened through time and effort spent in the planning of a purchase and use" (Gulden & Moestue, 2011). The basis can furthermore be inherited into other fields or companies, by substituting and implementing relevant adjustments to fit the specific context. For example in an educational situation, furniture production collaborations, creation of digital services, in fact most projects with interactive processes involving people.

5.2.2 Future
The current status of the digital platform is presented with a prototype and a design proposal including functions and features of how the platform will perform. Additionally, the concept development phase elicited a bank of ideas that will be useful in the future work, for instance regarding marketing of the platform. To realise and launch the platform, some vital activities beyond the frames of the project remain. The prototype is developed with anchoring in qualitative research with findings and theory substantiating engagement through co-creation. However, it remains to be validated through testing with potential users. Hence, usability testing and evaluation of the concept will be a beneficial primary step that can reveal potential improvements and next iterations of the platform prototype and its features. Testing will also be more convenient and varied as restrictions are gradually opening after the Covid-19 lockdown, for instance through gerilja testing. Furthermore, developing and testing a MVP of the website with integrated collaboration tools is an inexpensive way to potentially

confirm parts of the concept that need further testing. Additionally, *Instagram* followers of *Kuriøs Studio* (early birds) and pioneer customers of *Kuriøs Studio* products (business partners) could be reached and activated to participate in the testing.

5.2.3 Conclusion
To conclude, *Digital Kuriøs - A Virtual Furniture Studio for Co-Creation* is a digital model challenging the goal of simplicity and convenience by rephrasing the values through activation and engagement. The project has, referring to the research question, investigated how one can design for co-creation and emotional durability in the field furniture design through game dynamics. The platform is an example of how the research findings can be applied to create an inclusive arena for creative emergence with co-creation and elements of effort possibly leading to emotional durability and sustainable behavior. Thus, it is suggested that the research findings in this project can be applied and inherited to other arenas and projects involving people to enable creativity and engagement. Overall, this project is a small step towards an investigation on whether inconvenience and effort in light of consumerism can have a positive effect considering consumer product attachment and sustainable behavior. The project outcome strives to inspire further research and investigation on related topics, both within the discipline of design and interdisciplinary.

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