

# VIRTUALLY ENHANCED TOURISM EXPERIENCES

Utilizing Virtual Experiences in Tourism Product Design and  
Marketing

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Opinnäytetyössä on tarkasteltu matkailun ja erilaisten virtuaalisten teknologioiden yhdessäeloa matkailuliiketoiminnan kannalta. Tässä tapauksessa Virtuaali Todellisuuden, Lisätyn Todelisuuden ja Sekoitettun Todellisuuden kannalta. Opinnäytetyön tarkoitus oli antaa selkeä kuva matkailun haasteista digitalisaation ajalla, ja siitä miten virtuaalitodellisuutta ja muita ”todellisuuksia” pystytään hyödyntämään tuotesuunnittelussa ja markkinoinnissa. Tarkoitus oli antaa selkeät raamit ja asiantuntijoiden mielipiteet alan tulevaisuudesta. Opinnäytetyön primääridatana toimi asiantuntijahaastattelut ja alan asiantuntijoiden observointi.

Opinnäytetyön tutkimukseen käytettiin laadullista menetelmää, jossa haastateltiin alan ammattilaisia ja asiantuntijoita sekä kerättiin tietopohjaa alan kirjallisuudesta. Opinnäytetyön aihe ja materiaali analysoitiin ja tulokset ovat esille opinnäytetyössä. Haastatteluiden tuloksia on käytetty mahdollisten konseptien luomiseen ja pohtimiseen. käytännön näkökulmasta Suomessa paljoa tutkittu. Alaan ei ole Suomessa panostettu resursseja vielä paljoa, ja tämä opinnäytetyö tuo esiin kuinka tärkeä on pysyä muutoksen harjalla, myös matkailussa.

Omat johtopäätökset tietoperustaan pohjautuen antoi hyvä rakenteen työlle, ja siinä tuleekin ilmi kaikki keskeisimmät haasteet yhdistäessä matkailu ja digitalisaatio. Ongelmakohtia ovat asiakkaiden motivoiminen kuluttamaan Virtuaalisesti tuotettuja elämyksiä ja osallistumaan kyseisiin aktiviteetteihin. Toinen haaste liittyy olemassaolevaan teknologiaan, ja siihen miten se saadaan kuluttajia miellyttäväksi ja houkuttelevaksi.

Avainsanat digitalisaatio, matkailu, tulevaisuus, innovaatio  
Muita tietoja Työhön liittyy multimediaesitys.

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The main objective of the Thesis was to explore and define the possibilities of using Digital technology (Virtual Reality, Augmented Reality and Mixed Reality) in Tourism and researching the possibilities of using Virtual Experiences in Tourism business. The objectives include Marketing and using developmental tools in Virtual Experience designing. Commissioners acted in a supporting role in the Thesis Process.

For this thesis, a number of qualitative research methods were used including data collection, developer and expert interviews, and content analysis about the subject matter were conducted. Interviews with the experts and forerunners of this branch of tourism in addition to the interviews of product designers and developers in the fields of Tourism and Digitalisation were conducted. The outcome of these interviews was used in creating the concepts of marketing and product design possibilities in Virtual Reality marketing/product design in tourism.

The results from the research gives great expectations towards the future of Tourism where Digitalisation meets with traditional experience design and providing. The challenges are in motivating the customers to use Virtual Experiences and using the technology in the best possible ways.

Key words	virtual reality, augmented reality, tourism, design, digitalisation, innovation, future
Special remarks	Thesis includes a multimedia presentation

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## FOREWORD

For this Thesis project, I wish to thank my Interviewees Jaajo Linnonmaa, Tuomas Karmakallio, Pasi Niinikoski and Juho Pesonen who gave material on the subject matter and provided me with their expert statements. These interviews proved to be a vital part of the research and clarified my research question in the beginning. Thank you again,

I want to thank my teachers, Teija Tekoniemi-Selkälä and Outi Kähkönen who gave support during the research process and even sent me more material to study on and to use in the research.

Lastly, I want to thank Olli Hietanen from Finnish Parliament's Futures board. He provided me with interesting material and motivation for the process.

I also wish to extend my gratitude towards the commissioners from Visit Finland and Visit Rovaniemi who acted as mentors for the process.

## 1 INTRODUCTION

Tourism is facing a significant change from modern service based economy to transmodern Experience economy where traditional services are replaced with experiences. This shifting has transformed Tourism to venture deeper into electronic Tourism or commonly known as e-Tourism where experiences and services can be bought and experienced online. The whole industry including business management and processes, marketing aspects and experience producing are constantly evolving due to Digitalisation in Tourism. The new trends are forcing the industry to re-invent itself as a multiplatform industry where most services are available online. (Gelter 2017, 14-16.)

Digitalisation in Tourism is a relatively new branch of development in Tourism industry. Digitalisation aims to bring more e-services and experiences to visitors and customers by introducing new concepts which rely heavily on innovative and technological achievements such as Virtual Reality (VR), Augmented Reality (AR) and Mixed Reality (MR). Digitalisation in Tourism also focuses on experience design and creating holistic experiences. These different Realities are used to create experiences and activities in Tourism industry. In Tourism, digital means are used to create holistic experiences and activities to cover the needs and expectations of the visitors. (Gelter, 15-17.)

The mix of different realities such as Virtual Reality, Augmented Reality and Mixed Reality are evolving and developed constantly. This brings out the question why this aspect of digitalization is not realized fully in Tourism Industry and experience design. There are many application possibilities for this kind of new and innovative design which would help and enhance the experiences in Tourism industry. Especially Tourism industry which relies on interaction based activities and introducing other cultures through hands-on learning and experiencing can benefit greatly by taking immersive Virtual and Digital experiences to consideration. Producing these experiences requires a lot resources from companies and the personnel, but mainly the the success of implementing digitalization and VR/AR/MR experiences rests on the shoulders of the experience designers. The leap that Tourism as an industry should take is

massive, but the results gained from new customers and other stakeholders can be much more rewarding than just keeping the old routines and activities Tourism industry has now.

This thesis project was inspired by future development of Tourism experience design and marketing which will change in the coming years. Relying on similar products and activities will mean that Tourism, as an industry and provider of recreational activities will diminish as we know it unless it embraces the change. In the Thesis, the research focuses on exploring and defining the possibilities and limitations of using Virtual Experiences in Tourism and what companies should consider when planning to utilize digital means in their Tourism services. To focus more on the core actions and planning, the thesis introduces frameworks and comprehensive examples on different processes during the experience design.

The commissioner of this Thesis is Visit Rovaniemi. The company is in the key position of branding and marketing Lapland and Rovaniemi as an attractive destination abroad. Visit Rovaniemi is a national expert and top-level organization in research, product design and overall marketing of Lapland and Rovaniemi.

The primary data is gathered by semi-structured interviews with professionals and entrepreneurs from Tourism industry and also from VR/AR/MR experts. First interview was with Juho Pesonen, who is the Head of Research in University of Eastern Finland. His main subject is Tourism and Business research. The statements Pesonen gave in the interview were mainly from user perspective and business development perspective and how to develop these issues within the industry. Second interview was conducted with Jaajo Linnonmaa, a radio host and entrepreneur who has launched his company Virtual Traveller in 2016. The company has an application where it is possible to share 360-degree videos and other material for users. Linnonmaa's statements about using Virtual Experiences in Tourism were critical and examined the subject matter from a neutral perspective. Third interview was with Pasi Niinikoski, an entrepreneur who works mainly with Mixed Reality experiences and bringing forth the Digitalisation in Experience Design. Niinikoski did not give the permission to publish details about his company. Fourth interview was with Tuomas Karmakallio, chairman of Finnish

Virtual Reality Society (FIVR). FIVR is a developer community where Finnish VR/AR/MR companies meet and work together. Karmakallio gave the interview mainly from a developers' perspective and how to actually start aiming towards more user-oriented experiences in Digitalisation and Tourism.

These interviews formed the baseline of this Thesis, as the subject is very current and also a needed research subject in the Tourism Industry. The observations made through the interviews and participant observation gave critical and much needed constructive criticism on the subject matter, but also for the industry which is in dire need of change if it wants to keep up with other industries which are embracing the Digital Age with results of innovation and change. Interviews function as primary data and literature as secondary data results in various conclusions in Tourism and Virtual Experiences.

This Thesis is structured to give a comprehensive research about Virtually Enhanced Experiences in Tourism without confusing the reader. After the introduction, the methodological research segment is provided to give a basis on the research methods used in the thesis process. The methodological research clarifies which is the primary data (interviews and analyses) and what is secondary data (literature and other information). After the initial presentation of "Methodological Research", the concepts and theories about Virtually Enhanced Experiences are introduced.

Virtual Experiences in Tourism and defining them are the main objectives in this thesis. The thesis has three goals: First to define Virtually Enhanced Experiences in Tourism and clarify the resources needed from companies. Secondly the thesis introduces frameworks and processes that should be considered in Virtual Experience Design. Thirdly, the thesis introduces the ideas and concrete examples of using Virtual Experiences in Tourism. In this thesis, the concepts of Virtually Enhanced Experiences are processed and examined with data received from the interviews and through secondary data. Virtually Experiences can best be described as experiences which are produced or enhanced by digital means in Tourism Industry. These different processes which are needed to create a Virtual Experience are introduced and reviewed in chapter "Designing Virtual



Experiences". To give a holistic image of Virtual Experiences, this thesis includes Marketing perspective and introduces the developmental tools (framework and processes) which are needed to create the Virtual Experience.

The concept of Virtual Reality (VR) and Augmented Reality (AR) vary a lot and are dependent on the user's own perception. The perceptions in VR can vary from using simple headmounted displays to immersive computer created 3-D mapping and tracking (Guttentag 2009, 3-7). The definitions are broad for VR but the general consensus among academics and experts is that Virtual Reality is an experience which is situated in a digitally created world. The user is not present there in a physical manner, but rather immersed in a virtual manner (Pine & Korn 2011, 10-13.) Augmented Reality is about perceiving digital objects and content through smartphones and glasses, such as Google Glass. The immersion is not complete in AR and the experiences rely on creating digital images upon the screens of smartphones which are then "observed" in real life. Augmented Reality is cheaper to produce, as it does not require immersive technology or programming power from computers. (Raja & Paco 2017, 68-72.) Mixed Reality (MR) which mixes up the real world and the virtual world to create new imaginings of the world. In this Mixed Reality World, the real objects and digital objects co-exist. Mixed Reality can be described as a combination of both VR and AR. Mixed Reality can be utilized to create virtual worlds, just as with VR but without the immersiveness. (De Souza e Silva & Sutko 2009.)

In Digitalisation and Tourism, predicting and foreseeing customer behaviour is strongly related to the success of business, as it is clear that Digital technologies will have industry altering impacts on Tourism. Customers do their personal research online, focusing on visual inspirations, such as pictures, videos and other content which improves their interest towards the destination. Travelers and tourists rely on digital means to find out information about the destinations, and tourists create travel plans according to what they find through internet. The customer behaviour can be further theorized by researching future trends of e-Tourism. (Gelter 2017, 86-89.)

## 2 METHODOLOGICAL RESEARCH AND THEORETICAL STUDIES

### 2.1 Background Research and Analysis

In this thesis, qualitative methodology was used to gather information about the future of Virtual Reality and Augmented Reality in Tourism. Qualitative methodology is a way producing information on attitudes and general consensus towards the topic. The aim is not to produce rigid information or statistics about the subject matter.

In this Thesis, the Qualitative method was used to gather primary data. The primary data was collected through expert interviews and observations made from the participants. The content of the interviews was then processed and a deeper analysis about the results was made. Interview results were summarized thematically in a separate document. (Renner and Taylor-Powell 2003, 6-7.)

Secondary data was collected through literature and internet. Secondary data is information which has been already collected or peer-reviewed, and it is usually uploaded or available in many different medias such as books, world-wide web or other visual media. The most relevant secondary data for this Thesis was collected from Internet and academic literature.

Secondary data presented in this Thesis is collected through several different literal and academic sources. The sources cover varied subjects and topics such as Psychology in Tourism, Business Leading, Augmented Reality and Virtual Reality. My research relied on studying and collecting information on using Virtual Experiences in Tourism Industry. The frameworks and other appendixes have been produced with the knowledge and understanding received from literal studies and primary data. The structure of the used research methods and the process can be found in the Figure 4. below.

## Primary Data Collection & Analysing Process

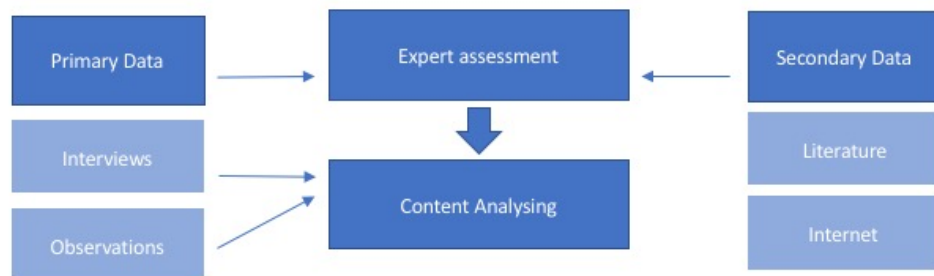


Figure 1. Primary Data Collection & Analysing Process.

The results of this long-lasting outcomes are presented in Chapters: "Tourism as a Foundation For Virtual Reality Based Activities" and in "Introducing VR/AR as a Developmental Tool" the results from the Interviews formed the technological and industry related background. The final chapter: "VR and AR Marketing Design" is the forms the theretical and practical base for examples and own perception of this Thesis subject.

### 2.2 Interviews

In this Thesis, I used both sem-structured and planned interviews but also unstructured interviews. The content of the interview is based on my own questions, and hold the most critical questions related to this subject matter. Interviews were used to provide empirical material from the field and from experts who have real experience and knowledge about the subject matter. The content of these interviews were used in Interview Content Analysis. (Renner and Taylor-Powell 2003, 7-9.)

The interviews were thematic in nature and included 7 main themes about the current situation. These themes were Digitalisation in Tourism, importance of VR/AR and MR in future Tourism and customer expectations in Digital Experiences and the outlook of Marketing by using Digital means. The themes were changed during the interview process as the themes did not cover enough to have a holistic view about Digitalisation in Tourism. The interview themes were

revised two times during the thesis process. First during beginning June and second time in July. The interview process began in the early stages of this Thesis as preliminary plans about possible interview candidates were made in April. The candidates are all from Finland as foreign candidates didn't respond to correspondence. The process began with creating the interview basis which held the interview questions. The basis was completed in May and the interviews started in June. My interviewees were either professionals from academic experience and studies or professionals from their own working experience and business ventures.

The interviews had the three targets in the thesis. First was to define Digital & Virtual Experiences in Tourism Marketing and Experience design. Second target was to find out empirical and objective information about using Virtual Experiences in Tourism Marketing and Experience Design and finding supportive information such as frameworks and processes. Thirdly, the goal was to introduce the idea of using Virtual Experiences in Tourism as a business process which can benefit and have effect on Tourism organizations. In addition to these three targets, other information received through the interviews were used to further develop the concepts introduced in this thesis. The interviews had 7 topics, and 7 assisting questions to deepen the conversation or shed light on subject matter.

### 2.3 Industry Observations

In this thesis, I used the observation during the research process and I examined the general assumptions and issues within VR/AR and Tourism industries (Figure 3.) During these months when this thesis process has been on going, I conducted visits to research centers such as FIVR, The Finnish Virtual Realty association, and contacted several entrepreneurs who currently were active in the industry. These professionals such as Jaajo Linnonmaa, Juho Pesonen and Pasi Niinikoski gave the most positive responses. I delved deeper into the industry and try immerse myself to the research at hand by having practical experience from devices and already existing experiences. The aim was to have a first hand experience from Digital and Virtual Tourism designs and practices. Industry observations ranged from observing the topics and how they resonate with the

interviewees and how they approached the subjects (Renner and Taylor-Powell 2003, 5-6.) Industry observation gave first-hand impressions about the participants and how they felt about the thesis subject and the interviews. Participant's interest, knowledge of the subject matter and commitment to the industry were observed during the interviews and initial conversations. The observations are only as a supporting factor in the thesis process, and are documented in a separate document (Steele and Taylor-Powell 1996, 2-3.)

#### 2.4 Interview Content Analysis

From the interviews, the content proved to be useful for studying the industry in a broader spectrum. This meant combining the technological innovations of engineering and programming with the experience design of Tourism industry. The main idea of this interview was to collect expert data on the subject matter and use it as primary data for this thesis. During the interviews certain patterns about designing and challenges were visible. Naturally, every person participating in the interviews had their own opinion, but certain words and patterns were constantly present in every interview. (Hodder 1994, 155-156) The interviews were thematically processed and documented on a separate document.

#### 2.5 Observations & Limitations of Research Methodology

On the first hand, this study had its limitations as it is a subject which hasn't been studied or researched much in academic world. Certain practical implementations are already existing, but no real studies about them have been made. Definition of the thesis subject was difficult as it was a combination of multiple aspects from multiple industries. The broad spectrum of this led to the decision of scaling down the original structure of thesis and to decide what was going to be studied and how deep the research would go. In this thesis, the chapter "Introducing VR/AR as a Developmental Tool" is about devices and operating them as a driving force in business planning. This chapter was scaled down from detailed information to more simple and specific chapter. (Renner and Taylor-Powell 2003, 9-12.)

The combination of Tourism and Virtual Technologies have still much to develop as the industry isn't acceptable for large industry-changing alterations. Customers need to align for the idea of using Virtual and Digital technologies to have experiences and the technology should be introduced carefully and with the conditions of the visitors and users (Pesonen 2017.) Tourism industry is limited by its own products, which are mainly service based. The new experiences which are possible to create through Virtual and Digital technologies are both intangible and less-reliant on actual concrete handheld products. Tourism in general must embrace the ideas of digitally and virtually enhanced or created experiences to keep up with constantly changing customer demands and needs (Linnonmaa 2017.) The results found from the interviews see Tourism as a great fast-tracking ground for more quicker and tailor-made experiences rather than just a another industry to be overtaken with technological applications and devices.

My thesis and the interviews were limited to Finland. The decision is based on the few key facts, where the Tourism Industry is still relatively traditional, a great example of this is Lapland and where the Virtual Reality Industry is just starting and shaping up to be its own influencer and forerunner in the age of digitalization. The results from the interviews present only Finnish angles to the research questions and provide expertise on the matter at hands. The limitation of the thesis to Finland was also reinforced by the fact that mostly European countries and regions develop any VR/AR/MR based experiences within a reasonable range from Finland. In Finnish Tourism companies, this thesis subject has generated a lot of interest and positive feedback albeit it has proved to be challenging for some to accept the change in Tourism industry that this thesis promotes. These challenges show in form of applying resources still to traditional activity based services rather than in digital technologies or experiences. The challenges are shown also in lack of motivation to invest in futuristic or innovative services (Pesonen 2017.) The challenge for more traditional companies such as ones who rely completely on safaris and other tangible activities is more critical than for those who invest more in product design and generally in bringing the company to 2010s. The interest from Tourism industry stakeholders encouraged me to continue studying and researching the subject matter even without the restrictions of the thesis. Every interviewee treated the subject with great

excitement and open-mindedness and the conversations quickly siderailed from the actual interview. The conversations turned into innovative discussions what could be done in the future and what is required from audience and visitor and also from the developmental aspect. This reinforced my perception that the industry has space and excitement for these new experiences that can be done with Digital and Virtual methods, but the direction and context is still lacking.

To conclude the observations: Limiting the subject matter was a difficult choice as I wanted to delve deeper into the source material and make more business related research. In that case, the thesis would have been much more comprehensive, but also much longer process. The research question itself gave some limitations about implementing Digital and Virtual aspects to Tourism Industry as this study did not research in to possible implementations in reserving systems and other back-office related activities. The interviews formed the basis of my primary data, and proved to be valuable asset for the research.

### 3 TOURISM AS A FOUNDATION FOR DIGITAL ACTIVITIES

#### 3.1 Current Status of Experience Design in Tourism

Experiences can be described as a series of conscious events or emotions that individuals have through their lives. They define who we are and how we see and understand our own world. Physical Experiences can be physical experiences where environment changes and we feel new sensations through our senses. Mental experiences are conscious and mental efforts that utilize the human mind, for example our perception and or imagination. The concept of experience is built on a foundation of cognitive psychology and the human psyche. (Haahti 2005, 3-12.)

Experience design is perceived generally as a practice of designing and co-creating different products or experiences with customers, for customers. The concept is to create a variety of services, events, products and controlled environments with a focus on the user's experience and solving the issues with

a culturally, morally or environmentally relevant solution. It is an approach to bring together the business and the customers by forging a meaningful bond between the two. (Haahti 2005, 3-12.)

In experience design, it's vital to be able to anticipate and forecast the customer's needs for different products and experiences. Customer expectations towards practical businesses has changed over the few years, and this brings new demands and interactions to the business world. The connection between the designer (business) and the user (customer) is often perceived as co-creation. The customer has a meaningful input in the process, as they are the end-users and use the products created. With good experience design, the customer journey never ends abruptly as the omnipresent channels and feedback keep the customers and the companies in touch. (Tarssanen & Kylänen 2006.)

The products we consume and use are easily defined as concrete material things or services, but experiences aren't material but they can be physical. They cannot be just created and carbon copied, but rather we create the opportunity and the environments to possibly achieve these experiences.

(Haahti 2005, 3-12.)

Experience design in tourism is evolving and changing towards a more integrative and interactive path. Many of the products and experiences are tailor made for customers or customer groups (Tuominen & Heikkinen 2014, 1-8). Generally speaking, the experience design is about understanding the psychology of the customers and trying to meet their needs. In Tourism, the idea and practice of experience design aims to fulfil the desires and expectations of the customers by anticipating and investigating the customer segments carefully. It is possible to forecast needs and expectations (Haahti 2005, 3-12).

In traveling and tourism industry, the experiences are the products and the new way of communicating in marketing. We can buy a product and share our own experiences and reviews about that. We cannot forge or multiply an experience, we can only create the right circumstances for it to happen. Experiences are becoming more important for the companies, as the customers rely on positive



experiences from them, or they might turn away. Creating experiences and messages that convey the company's mission and vision is vital in order to keep in communion with the customers. In many ways, keeping the focus point on the immaterial experiences, rather than on the actual physical products can be beneficial for businesses in the service and tourist industry. The experiences can act as a connection between the brand and the customers, and also they help customers to co-create with the company if the customers feel mentally and spiritually closer to the brand and the company. (Simkova 2014, 317-321.)

Experience design is conducted to pursue longer and better customer/consumer relationships. Experiences create more emotional connection between brand and the consumer. This strengthens the process of customer engagement (Tuominen & Heikkinen 2014, 1-8). The connection between brand and customer improves customer loyalty. Customer loyalty attracts more and more potential customers through networking. The customers who participate in on VR/MR experiences tend to feel emotionally attached to the experience, and thus feel a strong connection to the product. The emotional connection acts as a uniting factor between brand and customer. Virtual Reality and Mixed Reality experiences can change one's perspectives on multiple levels in life. Modern life revolves around experiences and sharing them with friends and family. VR, AR and MR make the sharing ability easier, as there can be many participants on one experience and the softwares can have social media sharing buttons and applications. (Kim & Fesenmaier, 2015 1-6.)

Modern humanists and millennials are currently largest and most important customer segments for Finland and Europe. Modern humanists mainly originate from Europe and value their own ethics and beliefs. They are not interested in mass tourism products such as snowmobiling with a large number of participants, they crave for life-changing and challenging experiences where they can learn about new cultures and meet new people (Visit Finland 2014, 4-12.) They wish to have authentic, emotional quality experiences where they can participate. The modern humanists and millenials are accustomed to different technological devices such as mobile phones, tablets and computers. Using VR and AR or MR are just the next logical steps to take. The added value to modern humanists and

millennials are the sensations of new and innovative experiences. Modern humanists value experiences and interactions with locals and Virtual Experiences can answer to that need by introducing culturally authentic aspects to the experiences. By reaching into co-creation with the modern humanists and millennials, the experience design can change the vision of tourism as we know it. By integrating aspects from both, constantly evolving business and technology world and from the demanding customer world, the tourism industry could benefit tremendously. (Kim & Fesenmaier 2015, 1-6.)

The human trait of curiosity can pave the way for Virtual Reality and Augmented Reality services and experiences. Humans are naturally pulled towards new and interesting experiences. These experiences can be achieved through Virtual Reality technology which gives immersive and responsive experiences to our customers (Korn & Pine 2011, 3-20.) Modern humanists and millennials are competent using smartphones and other devices which require a lot of information processing. The digital and social-media driven age opens up more and more development possibilities in terms of Virtually infused experiences, such as multisensory immersive experiences with Augmented Reality (AR) and Mixed Reality (MR). Virtual Reality (VR) delivers ways to create controlled environments and destinations via technology, where customers or guests are able to experience realistic portrayals of destined actions and locations. (Koc 2014, 140 – 148.) In Figure 1 it shown how different realities scale, and how VR/AR and MR line up (Pine and Korn 2011, 15-22.)

## REALITY SCALE



Figure 2. Reality Scale. (Pine and Korn 2011, 15 - 22)

Through Virtual Experiences the users and customers are able to converge with the Virtual Environment, and feel present in the actual time. The feel of

psychological presence and physical presence is necessary in order to create immersive experiences with VR. Presence as a psychological definition is to feel immersed or located in an actual location, and in VR the psychological presence comes from creating a Virtual Environment (VE) different from the actual physical location. In the VE, the users feel immersed and belonging in a different world, where they could function in the same way as in the natural world. The Virtual experience enables the same motor functions and multisensory behaviour such as walking, touching and hearing and seeing. This feeling of being located in a space such as controlled environment or world is called spatial awareness. Without creating the context of spatial awareness in the Virtual Environment, the experience isn't successful. In order to fulfil the expectations and demands of the tourism customer segments the experiences should be immersive and create the essence of realistic spatial context. (Pine & Korn 2011, 15 - 22)

The industry drives towards a more modern and personalized atmosphere, where services and experiences are interconnected as a comprehensive entirety. Modern humanists and millennials ache for constant experiences which enrich their lives (Visit Finland 2014, 4-12). This experience driven direction makes Virtual Reality experiences and products an interesting option as they can be produced and experienced in different locations and still have the same actual experience. Consumers can step into the virtually created worlds and environments to feel new emotions and mental experiences. These experiences can help them fulfill personal psychological needs and social needs. (Zehrer 2009, 4-8.)

The needs of every person are the forces that drive tourists towards fulfilling their prime needs. The personal needs and social needs of the tourists can be, for example, having the sensation of leaving their physical home in pursuit of new adventures and experiences. Through these experiences they are able to feel loved, relaxed and it enables self-development through cultural, social, and nature activities (Simkova 2014, 317-321.) By examining the basic needs of humans, we can find out the psychological and contextual motivations that lead to bookings and customer behaviour. The three basic motivators for western people are escape, search and desire. In the western world, holidays are a given

commodity and the thought of completely free time motivates and encourages spending it wisely. (Koc 2014, 120-129.)

Psychology can also be used to find out "hidden" needs of the users and customers. These "hidden" needs are those which hasn't surfaced yet, and the users might not recognize them. The needs can be used to find out quality expectations, attractiveness of said activities and create a "psychological portrait" of users and customers. In Tourism, analyzing information based on the psychological portrait can be used to find out mistakes and developmental aspects from existing marketing campaigns. (Simkova 2013, 3-4)

### 3.2 Frame Work for Innovative Tourism Services and Products

Virtually Enhanced Experiences and services in Tourism offer an opportunity to build unique frameworks and phases for businesses. The frameworks acts as a general guide and blueprint for future innovations and products. Companies should consider what parts of their core mission, vision and strategy they want to implement in the creation of a VR framework. For example, in Finland, VR-based experiences could implement elements from Finnish mythology and the northern location. It is important that the experiences and innovations are unique and they do not drown in the wide range of other products. The Virtually Enhanced products should not be considered as goods, they are experiences and they should be conceived as such. Even though Virtual Reality as a term is the complete opposite of the Reality as we know it, it can produce tangible experiences. Virtual Reality exists in the constantly evolving Internet or cyberspace, and is not constrained by physical attributes of the real world. The human mind does not need a perfectly crafted Virtual Environment to believe it is true. It's enough that we can act as if it were true and existing. (Kim & Fesenmaier 2013, 1-6)

Virtual Reality or Augmented Reality can act as a framework in innovative Experiences and products for a company, but they cannot solely rely on the success of VR/AR based activities and experiences. Before the Digitalization and

Virtual experiences are fully realized in the company business, phasing and structuring the plans are crucial.

The Experiences should be calculated carefully in beneficial and sustainable manner for business. The aim is to create a platform where the products and innovations can be brought together and then co-created with the customers. This will add value to their experiences as a part of something innovative. The Virtual Experience will add value to customers, even if it's not the actual experience but rather as the sub-product or spin-off. The purpose of any product/experience is to create value to the customers, and Virtual Reality and Augmented Reality are not exceptions. The value can be added to already existing products as a part of the product. (Pine & Korn 2011, 37-43)

Virtual Experiences are matters of creating belief that Virtual Experiences are true and existing, it is the opposite of what we consider as Reality. These experiences are not tied to any specific location, time or other universal law, but the experiences exist in the cyberspace which is open to transformation and alterations. Companies have the unique opportunity to start forming these cyberspace worlds, times, locations to meet their own needs in terms of product and experience design. A successful Virtual Experience, must be coherent and unified. In order to complete the experience, all the five senses should be activated. This is to create more interest and tangible content, the experience should focus on storytelling and immersiveness. When creating VR worlds or Virtual Environments, the customers who purchase the product should already have generated a sense of belief that the experience will give them something tangible, and it is real. This leads to the importance of building the right kind of frame work which will help companies to develop their products and add their own brand values to the designed products.

(Pine & Korn 2011, 46-58.)

### 3.3 Creating and Implementing Framework

Considering that tourists and customers desire to have tangible and authentic experiences, the customer segment should be carefully observed. The new

generations are after experiences which enriches their own life, and provoke them to think with own minds. Focusing on the strengths of the company and the product designing, the Virtual elements should give the company more in return than what these Virtual elements require (Salmond & Ambrose 2013, 28-40.) Gathering information about different customer segments such as Modern Humanists and Millenials can prove to be immeasurably important to the company which is designing VR/AR based activities and experiences. Business plans for products and experiences shouldn't be made based on sensations or emotions but rather with proper information and a strategical point-of-view. After the initial decision to start developing new experiences and products the company must determine the width of the budget, the right personnel for the design work and start the research and observation on the customer segments (Cova & Saucet, 2014.)

To reach this pinnacle of frame work, the company must look within itself and ask if enough information has been gathered about the customers and consumers in general. Then the learning and observation process can begin. First, the observations about the needs of the customers must be acknowledged as they are the base drivers for any consumption of products or services. Companies have their own stereotypes and judgements about customers which in many cases leads to a failed product design plan, as the actual products do not meet with the customer's needs. The more information companies have about the customer segments and their behaviour, the more complete the designing process will be, and that will generate a potentially successful experience. In order to fill the information voids and to utilize the information in the most logical way, companies have a variety of tools to use. This includes interviews, beta testing, ethnographic studies and surveys among many other research methods. (Salmond & Ambrose 2013, 60-68.)

Experience design battles with three different customer needs:

Firstly, existing customer needs (which are already known), for example; customer wants new experiences abroad. That is a need which is within the company's attention. They know that a customer has this need, and they are offering the solution for it in the form of a Virtual Reality tour to New Zealand. In

this case, the customer, fictively speaking, could walk to the venue of said company and purchase the experience/product in order to fulfil his/hers need. (Bourke & Roper 2017, 1-3.)

Secondly Bourke and Roper (2017, 1-3) introduce unmet (issues and needs not yet discovered): These are the needs that humans might not even recognize they have. Generally, these are problems and needs which are not clear through just solid observation or interviewing. For example, Uber saw an unmet customer need in a transportation situation and developed a clear and working solution for that. Most of the customers didn't even consider it as an existing problem or a need but it has solved the situation. (Bourke & Roper 2017, 1-3.)

And lastly Bourke and Roper (2017) introduce emerging customer needs (aspirations and needs yet to emerge): Emerging customer needs focus on the future. Discovering these needs opens business to great potential growth and securing a market dominance. These needs are something that hasn't yet emerged in the culture of consumers. For example, a completely new sport, can be such an emerging customer need. By innovating new technology and services, companies can gain advantage over the others who rely on the same products year after year. (Bourke & Roper 2017, 3-3.)

By focusing on these three customer needs, the companies must ask themselves what the actual problem or need is that they are solving. In reality, the issues and challenges are related to budgeting the customer observation and giving the designing team enough time to analyse the possible outcomes. Making conscious decisions about leaving some information out or not considering it as possibility in the customer context can affect the whole success of a product/experience as it obscures the research. Even the best frame work will not function properly without the valid and useful information about the customers and their behaviour. Experience design is not just focusing on the existing customer needs, but also about creating and innovating new services and concepts. (Bourke & Roper 2017, 1-3.) Experience design in tourism requires the basic knowledge of what the customer segments want, and that's why this thesis is looked through the Modern Humanist and Millennial perspective who are the

most likely customers to consume VR/AR related products and experiences. In experience design the companies must address the given information and work towards the best customer experience. To create more value through product design for the customers, usually the experience itself is not sufficient. Customers appreciate something tangible and personalized, and in VR/AR based services and products this could be represented by a printed picture, a souvenir or an object which is in direct relation to the fresh experience. (Salmond & Ambrose 2013, 50-59.)

If Virtual Experiences are applied to company business strategy, they need to be viewed as any other experience and reviewed through the experience design frameworks. VR/AR experiences and products are consumer products and products needs to fulfil some of their needs in order to be relevant to the business and prove to be a value-creating product.

The broad spectrum of all the processes related to product design should be used to ensure the holistic development of the experience/product. Different marketing strategies should be applied to successfully turn the product into a known part of the brand. Information technology and social media communications open up numerous possibilities to market the brand products, and the mentioned technologies can enforce the brand building. Consumers and possible business partners operate mostly through digital means, logically thinking this brings this conclusion in tourism and Virtual Reality: Bring the brand close to the consumer community and market actively your products online in B2B sales. From B2B sales to successful co-creation the task for the company is to make their operations versatile for customer and consumer sales, but also attractive to other businesses and co-operation partners.



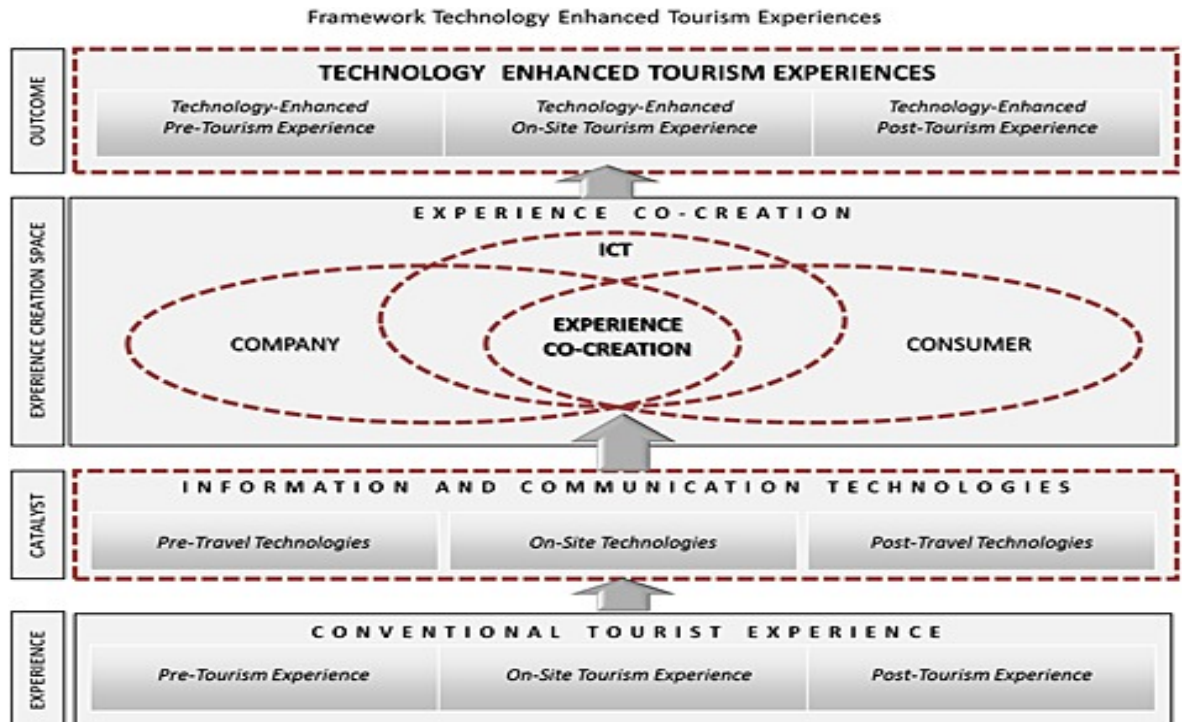


Figure 3. Framework for Technologically Enhanced Tourism Experiences (Neuhofer & Buhalis 2012, 1-4).

It is shown in the Figure 2. what it takes to co-create an experience in a technological world. The experience itself starts already from on-site, from the company's own office or some other place where it is possible to create. It is important to realize that this figure doesn't focus on the pre-existing functions of an experience. The on-site technologies such as Virtual Glasses, computers and other technology which makes the experience even possible is the catalyst which drives the co-creators to absolute best. (Neuhofer & Buhalis 2012, 1-4.)

The experience creating space is the main focus, which brings together all the elements from consumer perspective, company's vision and ICT. In that middle ground the company, for example a design company from Helsinki which wants to operate in Lapland could open up experience creating space in a large space where the technology is available. There the company can create the needed experiences in communion with all the tools needed. The idea is to offer a co-creative space, where everyone involved can bring up their ideas and aspirations for the new products and experiences and also how to make them better. This co-creation gives a lot of value to the customer experience, which in itself enhances the customer experience. To fully realize the full potential of co-

creation, the customers must be included in every step of the value creating process, starting from early processes of planning and strategizing. (Pine & Korn 2011, 130-134)

The co-creation process culminates to the actual experience, which has been done in co-operation with the customers. Technology enhanced experiences require the right combination of intelligent design which produces more content and context to the actual experience. Intelligent service design uses multiple array of different mediums and new technologies, such as Virtual reality, Augmented Reality, 360-degree videos and photos. In the co-creation process, it may be required from customers who are co-creating to have at least basic understanding of the technology and development process. A good way to incorporate the customer perspective is to take their ideas about the design and general structure into consideration rather than the technical aspects and details (Neuhofer & Buhalis 2012, 1-5.)

The co-creation is a process for the sake of innovation in the destined industry. In this case, tourism. For co-creation process to actually succeed, interactive participation in planning and designing should be honoured and focused on. Customer-company relationship should be maintained and nurtured in order to achieve closer customer engagement. In Virtual Experiences, the customer-destination relationship is deconstructed and reassembled as the customers can participate from various locations with digital technology and through social media. (Neuhofer & Buhalis 2012, 1-5.)

'We should embrace the technological change, and utilize it as much as we can. This disruption in Tourism especially can be either harmful, or a positive aspect. Digitalisation moves quickly, and the industry [Tourism] should be ready for rapid innovations and changes.' (Niinikoski 2017.)

## 4 DESIGNING VIRTUALLY ENHANCED EXPERIENCES

### 4.1 Designing Experiences Through Digitalisation

Virtually Enhanced Experiences are experiences, which are created or improved through Digital technology and concepts. These different concepts and improvements can rise from Virtual Reality, Augmented Reality and Mixed Reality. The experiences are immersive and the users can enjoy sense-triggering sensations.

What comes to Virtual Experiences in terms of conceptualizing, it is a long process. Blueprinting the concepts and bringing it to life is a consuming process, but if it's done correctly it will succeed. This is the stage where UX (User experience) and UI (User Interface) and all other design elements come together to create one cohesive Virtual Experience (Salmond & Ambrose 2013, 108-120.) The conceptualizing should begin already when the products are thought about. Imagining them theoretically in your own mind will help tremendously to bring it to life further in the project. Below is a short framework for conceptualizing in order to help producing the Virtual Experiences to life according to Salmond & Ambrose (2013, 108-120.)

First Phase: Technology and mechanics (Figure 4.) Before making any final decisions, the more you know about the actual platform or technology the better, so study the material carefully from multiple sources. Choosing the most suitable platform for the experience (mobile, VR, or AR or even web-based platform).

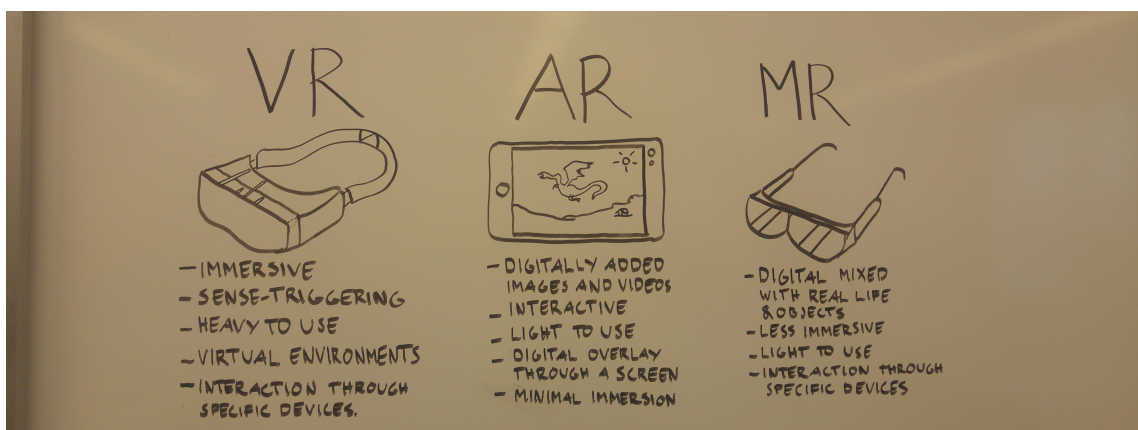


Figure 4. First Phase: Examples of Technologies for experiences

Second phase: Making wireframes (Figure 5). Make wireframes to simplify the design and to streamline the process. The wireframes can be simple sketches about the product, but they will determine the overall flow of the product and user interface. Wireframes clarify the overall structure of the designed experience or application.

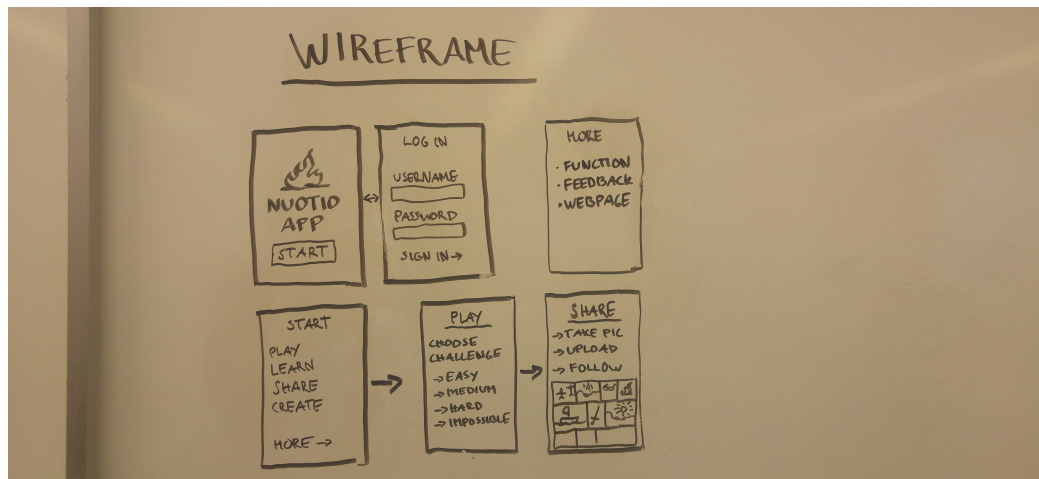


Figure 5. Second Phase: Example of a partial wireframe for an Gamified Application. (Salmond & Ambrose 2013, 108-120.)

Third Phase: Storytelling in design (Figure 6.) Stories will engage more users and captivate their attention to the product. Usually storytelling has a huge impact in the customer experience if it's done right. In storytelling there are these five principles: simplicity, unexpectedness, concreteness, credibility and emotions. The experience should follow a narrative, and the arc of drama. A narrative is constructed based on the user groups and their demands. It can be a multidimensional narrative story with many nuances and details, or a simple linear adventure with simple goals and structure. It depends on the planned user group. (Kalliomäki 2017. 1-7.)

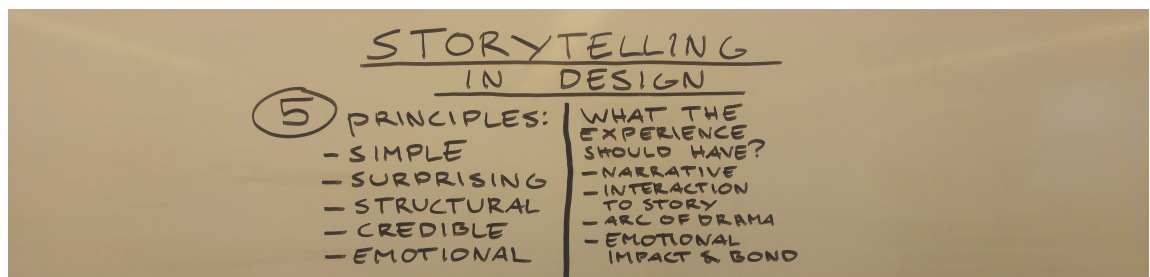


Figure 6. Third Phase: Key principles in creating a effective story for an experience. (Kalliomäki 2017. 1-7.)

Fourth Phase: Sketching the experience (Figure 7). Basic framework of how the experience works. From entry to exit and show navigation. Also the sketching should show the interactions, and other focal points of the experience (audio, visual and surfaces). Sketches and mind mapping should be made through out the designing process, it will help to bring the ideas concretely into practice.

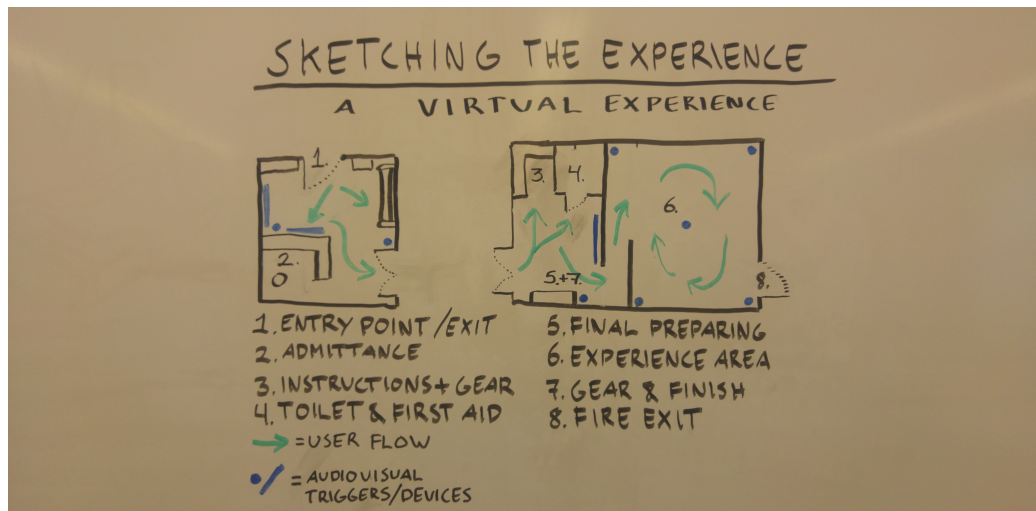


Figure 7. Fourth Phase: Example of an sketch of the flow of the experience. (Salmond & Ambrose 2013, 108-120.)

Fifth Phase: Prototype (Figure 8). Create a multimedia presentation introducing the finalized concept using videos, PowerPoint and other media as a support. The prototype should be based on the wireframes and sketches. In the prototype phase, it is important to figure out the logical traffic flow of the experience venue and how will customers move through the space within the venue.

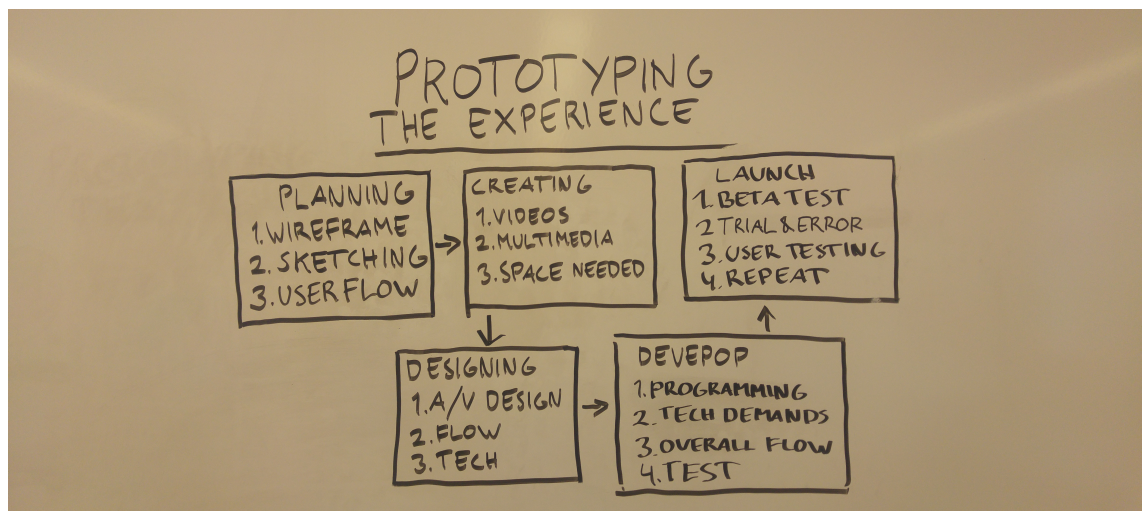


Figure 8. Prototyping exercise for pre-launching. (Salmond & Ambrose 2013, 120-144)

In the prototype phase, the audio & visual devices should be placed to correlate with the customer flow. Instructions how to operate devices (VR-headsets, other technological assets) should be present in the space. But this is the main question: What makes this experience so unique that people should visit it or purchase it? (Salmond & Ambrose 2013, 120-144)

Sixth Phase: Project group. After the successful pitching of the idea and getting greenlit, it is time to gather the project group. In any VR/AR related project, there should be persons who know about programming and working with game mechanics. They have the mechanical side as a responsibility. The other main project workers are: team leader, assistants and graphic designers who create the visual imagery for the experience. Others: audio & visual designers who create the soundscapes for it. The overall staff needed for the project might vary greatly, depending on the size of the project. The project group needs lots of visual talent, designing understanding and user experience know-how. Audio and visual designers play a key role in making the experience feasible and interesting for consumers.

Seventh and Final Phase: Test and develop. This is the most important phase, and cannot be missed in any case. The testing phase is a part of the creating process. It's needed to launch the project to public. The product needs to be tested many times, preferably several dozen times to find errors in the system. The persons who have created the game mechanics and test and de-bug the project. If errors or bugs are found, then it's time for developing process. This needs to be continuous process. Limited audience testing might prove also beneficial in the testing phase.

In conceptualizing phase it's important to use visual tools as the project develops and moves further. A simple Word-document is not enough, as the sketching and computer programming is much more layered and complicated to be put into a Word-document. Project planning tools such as Scrum is useful in large projects. Cloud-based project tools also offer modern and clear tools for following up projects and assigning tasks. (Salmond & Ambrose 2013, 20-74)

Conceptualizing decides the path of the project and how it will turn out. This means that the amount of energy and resources directed at the project should be measured and made sure that the amounts are correct. From personal experience, usually the project budgeting and resourcing can be miscalculated and needs to be increased during the project to meet the standards and goals of the project. An easy way to follow-up the costs and development of the project is to make or use an existing Microsoft Excel template where you just fill in the calculations and expectations of the project. That is a managerial tool, but should be made available for the entire team to inspect and follow. (Salmond & Ambrose 2013, 98-103)

#### 4.2 User Experience Design and User Interface Design

The user experience design (UX design) in Virtual Experiences has a specific purpose. The purpose of UX is to introduce the customer to the technology and make it a positive experience for the customer. The designer's main responsibility is to create the basic layout of the experience and all the frame work it needs, such as webpage navigation and the wirework (mapping) to it. A part of UX design is to figure out how to create value for the customer through technological ways without overburdening the customer with too much information and technological know-how.

In UX design, the processes can be varied from user testing, to creating "personas" who test the product and experience and to creating scenarios and storyboards for more "gamified" experiences. The personas work as a fictive testing subject who are consuming and using the products the UX designer is creating. These personas are later used when creating storyboards or scenarios in a narrative storyboard where they are located. The storyboards are immensely useful tool for creating visual representations of situations and processes in the experience itself. (Salmond & Ambrose 2013, 66-89)

The experience itself, should be designed in a way that it fulfils the experience pyramid in Figure 2. (Tarssanen & Kylänen 2007). In the pyramid there are 5 different stages, which are the touch points of every experience.

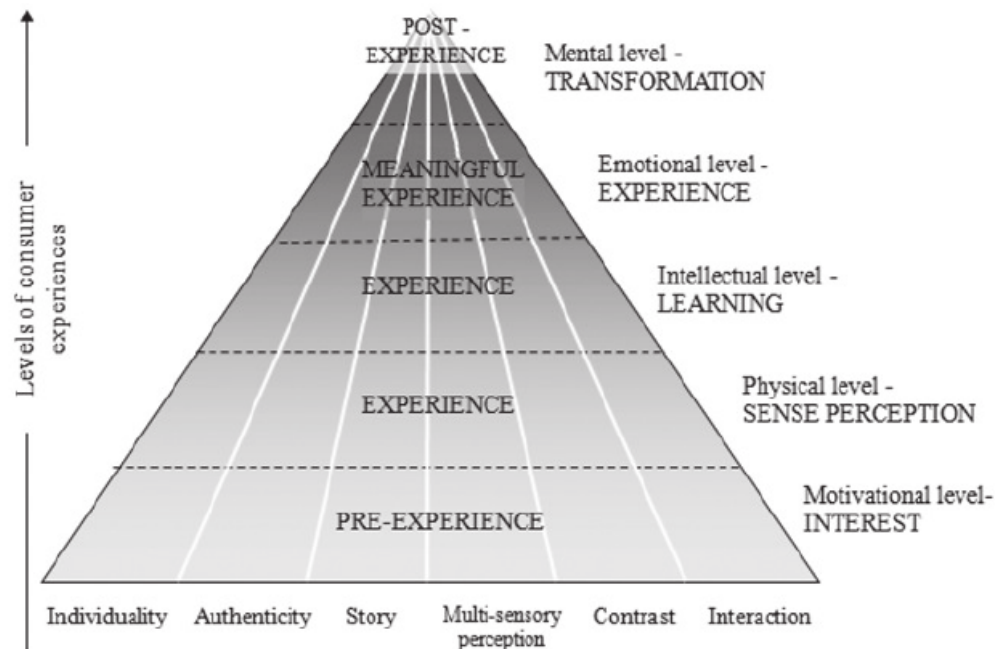


Figure 9. Experience Pyramid (Tarssanen & Kylänen 2007.)

In the bottom of Figure 9. there is the motivational level, which maintains and nourishes the customers interest for the company brand and the actual experience. Physical level is where the customer has the actual experience, and this generally means the venue or the location of the experience. The physical level gives the first experience to customer by stimulating the senses. This level of the experience pyramid is dedicated to giving the experience via sensory feelings. In the intellectual level, the learning process of the experience takes place and the experiences of the senses are processed thoroughly in the customer's mind. This experience level of the pyramid is potential for company's own subjective indications what should be taught or experienced during the process through implementing ideas to the minds of the customer. The emotional level of the pyramid concentrates on the emotional reactions of the customers during the experience, and the emotional reactions are almost impossible to control and subjectively affect. The last level of the experience pyramid is the mental level, which focuses on creating the strong reaction to the fresh



experience. If the reaction is powerful enough, it can create a change in one's lifestyle and or thoughts. (Tarssanen & Kylänen 2007.)

UX design in tourism focuses on creating the most logical and engaging experience in a digital environment. In a website, the UX designer's task is to create simple paths and forms and the wireframe to navigate through the site. Creating different personas taken from the customer segment and implementing the personas to the test phase of the product/experience can help to pinpoint issues and other fixable things in the product. (Bulencea & Egger 2015, 30-37.)

'Challenges in User Experience Design are in creating the actual experiences which potential users would find interesting. Nowadays, the experiences don't have the necessary quality or value for users. Before we see Digitalisation fully in Tourism, the experiences cannot be second-class, modern people expect high-class experiences.' (Karmakallio 2017.)

User Interface Design (UI Design) a part of the overall design for example in a webpage. The purpose is to simplify and make the webpage usable from the customer perspective. This can include lots of different processes such as streamlining the webpages and making it easier to navigate. It is all about revising the product from the user's/customer's point of view. If the product doesn't meet the customers need and it is overly complicated or hard to use, usually the customers will switch to an easier product. (Salmond & Ambrose 2013, 66-89)

User Interface design focuses on creating most logical and easy to use interfaces and touchpoints for the customer in the service/product. The process starts from acknowledging the possible issues and challenges in the product. In the case of Virtual Reality, these issues can relate to the first touch of between the customer and the product, in actual interface. This part of the whole design process is making the interfaces and other graphic design so engaging that it will generate real interest and gives the customers a positive feeling about the experience (Karmakallio 2017.)

One of the main points of UI design are graphic design and the aesthetics of the product/experience. This means that the overall material should be brand-related and unified to a certain point that the experience will be linked automatically with the brand in the customer's mind. UI design is developing constantly as there are numerous tools to use, and more experience is gained through successful testing and launching of products. In interface design, the designer must think what is the most logical and customer friendly options for the interface, in example how to place the navigation buttons and touch points. (Salmond & Ambrose 2013, 66-89.)

The difference between UX design and UI design is that UX focuses more on the overall experience and the journey of the customer during experiencing the product, as UI is aimed more at creating the image and the visual interfaces and the adaptability of the product from a customer perspective.

UI design in tourism focuses on creating the simple, yet effective interfaces, for webpages, applications, virtual products, reserving systems and other mediums which are operated online. From the perspective of a tourist, the reservation systems, virtual interfaces and webpages should design in a way that is available for everyone, it's easy to understand and to use. Also, the visual aspects the product should generate associations to the brand, and to a location if that's a part of the company mission and vision. A good UI design helps the customer connect with the brand and helps them to have positive experiences with the company (Bulencea & Egger 2015, 34-40.)

#### 4.3 Testing as a Part of the Frame Work

The almost finished product can be released as a beta-testing phase among chosen influential organizations and individuals. This method brings great marketing value and possibly disrupts the markets if the product has great reviews and user experiences from the chosen audience such as Youtubers, Blogs, News Channels and other influential media. Open beta testing for public sets the product ready for consumer dissection and review. The customer consensus will make their own judgements about the destined product based on

the words from their trusted blogs, news channels or youtubers. Beta testing also brings a lot of feedback from the chosen users, and that can be utilized when trying to improve and fix any mistakes. The testing shouldn't be left for the general audience, but for organizations and individuals who already have a basic knowledge about Digitalisation and the motivation to experience something new. It is vital that the company is ready to receive those reviews and update the software or the experience. It's better to test the product before launching it, as it brings the minor mistakes or bugs to attention. Diving into the world of digital marketing as a part of the experience design for the product benefits the company and brings it closer to the customer consensus.

(Salmond & Ambrose 2013, 30-37)

Starting to build up frame work and the possible co-creation and other creative spaces are the first steps in this long process. Progression takes time and companies shouldn't abandon their original products in favour of VR enhanced experiences and products. Virtual Reality, in the beginning should act as a way for creating more customer value and new innovative experiences rather than focusing being the main attraction, unless the service concept is based wholly on VR/AR infused experiences and products. Going all-in for Virtual Reality related experiences can prove to be a tough market to break through without proper experience design. (Linnonmaa 2017.)

When considering to create VR/AR based products, the main focus should be in user experience design (UX design). The focus in UX design is to create immersive environments where users feel like they are in another world. UX design is a relatively new term, and it has been established since the revolution of digital technology. According to Salmond and Ambrose (2013) the User experience design can be divided into 4 main baselines which need to be considered when creating or designing services and products with VR/AR.

First baseline introduced by Salmond and Ambrose is making the experience interesting. Making it stand out from the rest of the products and services what the company is offering is valuable. It should be something which immediately comes off as a value-creating experience and what engages the customers in

interaction. In order to make the product/service interesting it should focus on storytelling and enlarging the experience beyond ordinary life. Enriching the experiences by utilizing the elements from storytelling or narratives benefits the products. The products can be wildly distinguished from the original products, as long as it serves the purpose. The richer the media aspect and authenticity is the more it will produce value to the customers (Salmond & Ambrose 2013, 140-142.)

Second baseline introduced by Salmond and Ambrose is enabling the experience. Second focus should be on making the positive experience possible to have and make the right circumstances for it. The designer's focus should be driven towards utilizing enough of different mediums and sense-immersive appliances. If the company has some tangible objects, such as snowmobiles, knives, or other paraphilia which they already have connected in their minds with the experience, can bring more value and generate more curiosity with the customers. Companies can make stories, narratives, videos and other presentations just based on the objects and present through different media how they are used in the business and everyday life. This can enforce and enhance their own customer experience with the company (Salmond & Ambrose 2013, 140-142.)

According to Salmond & Ambrose the third baseline is keeping the UX relevant. One of the main objects in UX design is to figure out how customers and consumers think about similar brands and products, and to be emphatic towards the customers in order to understand their behaviour and consuming logic. By aiming to be relevant, the process is to clarify that what is relatable and relevant for the customers. Designers can publish content and marketing material and follow-up which marketing content works in the desired way in the customers and potential new customers. The designers have an opportunity to discreetly influence the customer's experiences in a positive way and to turn the experience to positive. The follow-ups work as a constructive way of taking in the feedback and learning from that (Salmond & Ambrose 2013, 140-142.)

Fourth and final baseline Salmond & Ambrose introduced is focusing on the space. The space needed for the product and the venue of the designed product

should be considered and pinpointed carefully as that determines the scope of usage. If the product/experience is an on-site experience, the logistics are a major perspective as it will affect the venue. The project can be very small scale, or large scale but it should fulfil the space where it is operated in the most logical way. Traffic flow and positioning of personnel are things to consider. Personal traits such as height, weight and ages can prevent or enable the experience, depending on the UX design. The exact measurements for the needed product/experience can prove to be a challenge if the personal traits and UX design is not considered properly (Salmond & Ambrose, 2013 140-142.)

Every experience is unique and it can give much needed content for a person's life, and for that reason UX design and applying the many possible perspectives from customers and from business is a substantial factor in creating a positive and immersive experience. Designers need to work on multiple platforms and applications to bring together all the elements from storytelling, multimedia presentations and 3D-modeling to succeed in User Experience Design. The aim is to create a positive relationship between the customer and the business.

## 5 DIGITAL TECHNOLOGY AS A DEVELOPMENTAL TOOL

### 5.1 Frameworks in Virtual Experiences

Introducing VR, AR or MR to a working business model requires resources just like any other product or experience. The resources for developing should be considered as one the priorities in designing. Limiting product resources will cost in the design and quality of the destined product or experience. The costs of limiting resources can be higher to the company, as the product can generate negative or lukewarm responses from the audiences and customers if the expectations don't match with the quality of the product. (Niinikoski 2017.)

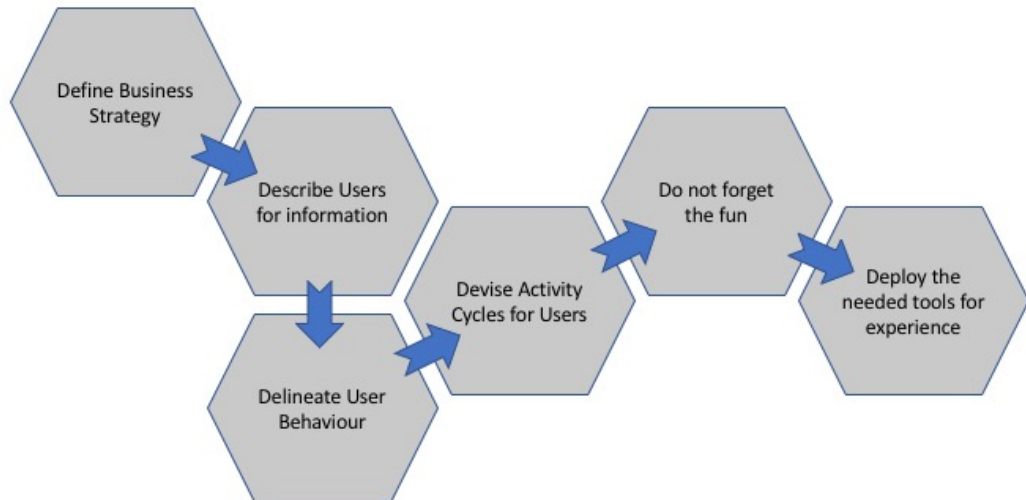
New technology such as VR and AR unravels the world of the digital development. In many ways the digital technology has changed our ways of perceiving the world. Our everyday is filled with objects, advertisements and immaterial apps that have been designed through interactive and digital

technology. Virtual, Augmented and Mixed Realities are commonly seen as an activity/experiences targeted at a certain audience. The certain audience is stereotypically seen as technologically advanced and customers who work in a related field. This shouldn't be the case. VR/AR/MR experiences should be developed as such that everyone can enjoy them as much. In the developing process, the guiding, commands and interface should be designed to be easy understood for everyone in the targeted customer segment. (Karmakallio 2017.)

## 5.2 6-Dimensional Framework for Virtual Experiences

In order to create Virtual Experiences and products, the company needs a solid framework to build on. There are many different solutions to this challenge, but most companies rely on creating the products and experiences through a tested framework. The framework gives freedom to be creative, but also gives guidelines and boundaries for the product/experience. Each creative process is unique and holds different methods and processes within. In this chapter the framework model for creating memorable experiences is discussed.

In the 6D framework (Figure 10.) which is meant for designing gamified systems and products list six steps that need to be considered and planned during the process. And these are: defining the business goals, outlining the customer behaviour, configuring the customer users/players, plan activities and how to rhythm the cycles, keeping it fun and interesting and lastly, to use the proper tools and technologies for the destined product/experience (Werbach 2013).



Werbach 2013.

Figure 10. 6-Dimensional Framework for Gamification and Digital Experiences. (Werbach 2013).

All these processes shown in Figure 10. are important for the successful implementation of the product. Defining the business strategy and goal are the very basic processes in the design. These two processes determine the success from a business perspective. The next step after defining business strategies and describing users is to outline the customer behaviour, and how the customer/player is supposed to act in during experience. In this process, it is important to give outlines and guidelines about the experience itself, and how to get the most out of it. Configuring the customers/players during the experience is a part of the UX design, and this includes creating the testing personas. These personas give rough ideas and types about the players and customers who consume these kind of experiences. This can be used to collect more detailed information about customer segments. Next step is to create the rough blueprint of the activity and rhythm the activity cycles in the experience. With professional design the experience could be a teaching, authentic and emotional experience for the customers. This leads to the next logical step, keeping the experience fun and engaging. This requires the activity to be interactive and creative. The process is to define the activities based on the customer segment, what they think is entertaining and interactive and fun. The last step is to deploy the correct tools for the experience (Werbach 2013.) This can include VR glasses and headsets, or more audio visual technology such as projectors, speakers and such. It

depends on the experience and how immersive it is. (Bulencea & Egger 2015, 40-48).

The main advantage that Digital Experiences have over ordinary experiences such as videos and photos are the interactive aspects and how the user has the control over the experience. Designing Digital Experiences and products is always a three-way conversation between the company and developer and the customer/end users. Usually a Digital experiences require a technological device such as headsets, microphones, audio equipment, projection tools and wireless network connections. The amount of technology might seem too much to invest in, but the return of investment is considerably more profitable with the right design and product management. (Pesonen 2017.)

Virtual Experiences rely on creating the feeling of “presence” in which the customer believes that they are in a completely different reality. Digital Experiences can be received through Virtual Reality Headset such as Oculus Rift, Google Cardboard or Vive. The purpose of these headsets is to immerse the user in the world of Digital Experiences. There are a lot of ways to achieve an immersive experience, for example Immersive Rooms. The purpose of the Room is to functionally follow user’s movements and move the changing imagery on the wall according to the movements. The walls can consist of different images which are projected by different audio visual devices. Finally, to complete the full immersive experience, the user wears Headsets or 3D-stereoglasses to successfully experience the Virtual World.

(Pine & Korn 2011, 30-50.)

### 5.3 Limitations In the Current Technology

Limitations in the current technology are the prices and the usability of the first generation of devices. There are also other limitations such as the productio of immersive content, which needs more than just visual or hearing sense triggering. The technology of 2017’s is not capable of creating touch or other atmospheric sensations, for example the feeling of wind on user’s skin. Virtual Experiences hasn’t grasped the concept of holistic design, as the experiences are made for



one purpose mostly, to entertain. (Karmakallio 2017.) The designers should focus on creating the hardware such as headsets and headphones in a way that is easy to start, to pause and to end. The complications and having to take many steps in order to start using the devices is something which will turn away potential users. There are great expectations towards developing Digital Experiences but to make it a real success story, the devices and hardware should be simple and easy to use. (Pesonen 2017.) From a consumer perspective, the products should be easy to install, use and to learn. Consumers want a simple objective which to pursue, in this case the idea to start using a Digital devices to chase the experiences.

The price and usage of a VR/AR/MR devices such as the Oculus Rift headset is a dilemma. The applications and game experiences that are now available in the stores, offer only simple solutions to a greater need. From a user's perspective, producing the holistic experience is the key. Users want the experience to be available when they want it, how they want it and where they want it. Our society revolves around the general assumption that everything we want to consume, is available at any time. This is why the current technology hasn't reached the critical success that was forecasted for the Virtually enhanced industry. If a person wants to use the device, they need to set it up first which overcomplicates the usage. Users must receive certain amount of value from using the VR/AR technology, and this value can be reduced by making the usage of said devices too hard and complicated. (Pesonen 2017.)

'Google Cardboard is a prime example of how technological breakthroughs should not be introduced. These 5 euro solutions do more damage to the image and perception of the technology. It's a great thing to have these new innovations, but really, the focus should be in the quality customer experience. The quality of these cheap and easy experiments are not in the desired level.' (Pesonen 2017)

When it comes to the actual Virtual Reality and Augmented Reality, their image quality and the ability to motion capture the real movements is not what the customers are expecting, but in the future after the first generation of devices the quality can be improved. The best option for VR/AR and Mixed Reality is to be

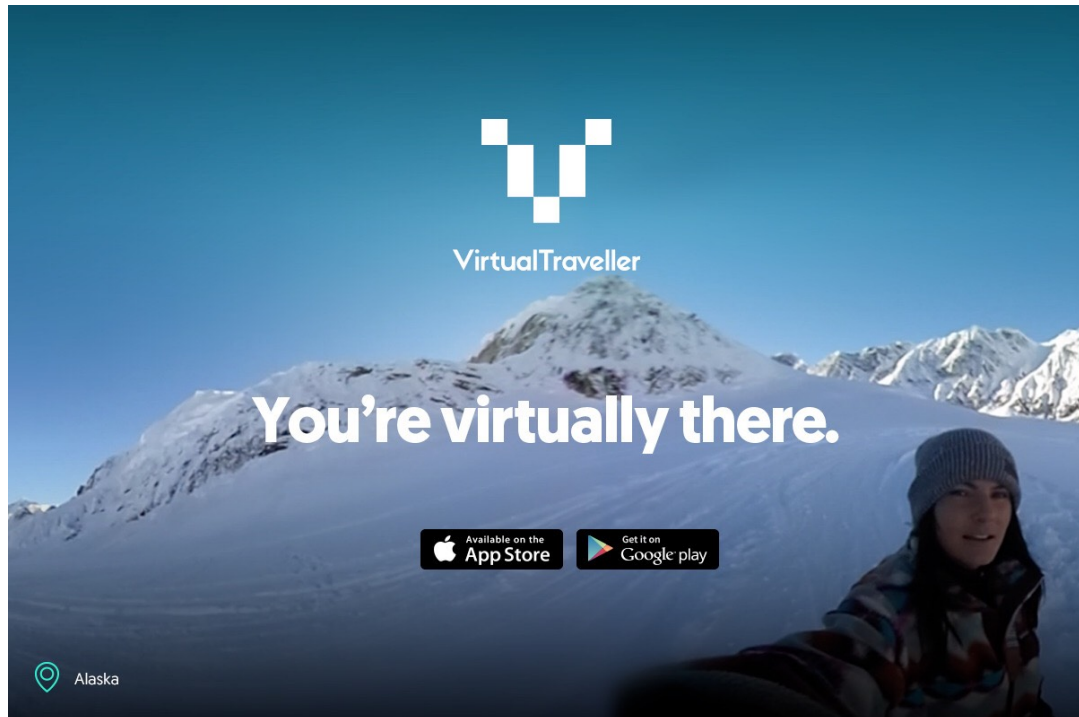
able to capture the images and create the worlds as in reality, down to the fine details (Pesonen 2017.) The resolution of the imagery and perceived reality could be very close to 4K or even 8K in the future. 4K means Digital Video Formats which have horizontal resolution of over 4000 pixels per square inch and 8K meaning over 8000 pixels per square inch. Now the resolution quality is around 240 pixels per square inch and 720 pixels per square inch, with relatively low framerates. If the quality is second-class the success usually is not in the same scale. (Karmakallio 2017.) When developing something new such as VR the quality of these experiences and user experiences should be very high-end, and not suffice to second-class. That's why the industry should push more resources on developing the hardware which is enough to produce and portray Digital Experiences in great resolution and focus on creating the best options of producing content. The content that is created through VR/AR/MR based programs should be stable to be viewed through smartphones, screens and different types of innovative glasses. (Bulencea & Egger 2015, 50-55.)

One of the limitations in VR/AR/MR is also the content availability. As consumers expect to have same content available in smartphones and in computers. This is mainly accomplished through internet and the ability to view shared content via smartphones and computers. The actual VR content is possible to be shared by a cloud service, but the file sizes at this time are the disadvantage. The files require too much space and processing power, in example from smartphones that they simply do not work. There are exceptions but the most immersive and expansive experiences are still just outside the reach. The experience content in a wide spread customer community should be available for download to maximize the success among users and customers. (Linnonmaa 2017.) Augmented Reality has limitations in immersiveness and user attraction. AR Experiences are more resource-effective to produce than Mixed Reality or Virtual Reality Experiences, but AR has limitations. The older generation such as Modern Humanists might see AR as a children's toys and applications, which can prove to be an issue for developers to find a right application to attract users from all age-groups (Linnonmaa 2017).

#### 5.4 Potential In Future Technology

In the future, technology provides measures and application possibilities beyond our wildest dreams. The technology that exists now, is pushed forward constantly and the boundaries between different industries intersects all the time. This creates more situations where inter-sectoral development can happen. Social Media and Virtual Reality can exist in symbiotic relationship where the customers and users receive interactive social media material which can be produced with different systems. In the near future, the VR and AR content that we are experiencing could be shared through multiple social media platforms, just like an experience, in a zoo for example. You could review, rate and give comments to the creators in real time. Currently 360-degree videos provide an interesting approach to VR and AR content, as they can be used for varied marketing strategies. (Linnonmaa 2017) A great example of this is Jaajo Linnonmaa's application called Virtual Traveller. Virtual Traveller acts as a platform for sharing 360-degree videos from different locations. The users have the opportunity to view and share these videos. The users can view these videos through smartphones, tablets and websites. In the near future, these videos can be viewed with computers and the person who have shot the videos, have the opportunity to edit and share these videos. The vision is to develop Virtual Traveller into a app which creates marketing revenue through shares and selling of marketing space. (Linnonmaa 2017.)

'Virtual Traveller meets the demand of social sharing in new innovative ways, in 360-degree videos. It encourages users to view footage from exciting locations, and it's available for everyone to download. Viewing new locations might change their perspectives where to travel' (Linnonmaa 2017.)



Jaajo Linnonmaa's Virtual Traveller application. (VR Suomi 2016)

Future technology also brings more computing power to the current technology and the next generation of devices, such as HTC Vive or Oculus Rift. These new devices can significantly boost the powers and experiences as the resolutions, areas and virtual worlds are progressed from the first generation of devices. (Karmakallio 2017.) The first generation of VR devices provided the examples and set up the general structures of VR experiences, but the second generation and upcoming devices can breach those boundaries and expand the experiences even further. An idea for a utopic VR experience is to view VR experiences through a very simple device, Google Glass-inspired goggles and users can immerse themselves in the world without setting up any other devices. These light and usable devices are favoured as they require very little maintenance and setting up to work (Niinikoski 2017.) For more immersive experiences such as games and totally immersive interactive worlds, the headsets, headphones and control devices are needed. These devices and applications are streamlined and made easier to operate. At the moment, the VR experiences require a minimum of 2x2 meters of space, where to move and interact, but perhaps in the future there is no space limitations. The more there is to set up and logistically think about, the more the cumbersome process will drive out the potential users.

Simple is beautiful and usually it's much more favourable than complicated devices. (Pine & Korn 2011, 150-166.)

Augmented Reality has potential to be a great platform for viewing Digitally enhanced objects through services such as Aurasma. (Aurasma, 2017.) Aurasma can be used to turn common items to Augmented Reality viewing experiences. Services like Aurasma, are applications which are run by mobile smart phones or tablets devices. Currently AR focuses on creating fun and entertaining applications for younger generation, such as Generation Z and Millennials. In the future, the demand for informative, interactive and engaging applications can be higher. Augmented Reality can be used also in preserving cultural heritage and demonstrating it in interesting ways. One such way to showcase the cultural heritage is to develop an application which portrays the historic scene through in a digital way.

Another example of current Virtual Reality experience is titled "CAVE – Fully Immersive Virtual Reality". A general CAVE set-up consists of: rear projection walls, under-the-user floor projection, audio devices in various locations, movement trackers in different locations such as walls and floors. In addition to this, visual and audio devices are used in the CAVE-system. The user wears a Head Mounted Display (HMD) or other Virtual Reality Glasses which displays a 3-D image in a process called stereoscopy. In stereoscopy a person is showed two images, one per eye. Then these images are combined into a single image in the brain and neural system. Image projection in a large room/space is a strong element which immerses the users even more. (Gondhalekar 2014, 1-5)

In the future of tourism, where customers expect services to be easily accessible and available Virtual content can produce change. Travel services such as snowmobile safaris, scuba diving and space tourism could be available through a regular travel agency. In order to produce these contents and services, the technology will need to develop further and offer more accessible ways of joining in to a service.

Travel agencies and safari operators could have their own CAVE rooms/spaces where the customers could enjoy the Northern Lights even in the summer time. CAVE-set offers multiple choices of which to project and demonstrate. These can include under-water locations and experiences, snow-covered mountains, tropical forests and deserts all brought available for a Virtual Experience. These are the so-called Virtual Environments where the experience takes place (Gondhalekar 2014, 1-4.)

The CAVE set is developing and constantly evolving into a better and more functioning direction which can be used in the tourism industry. The real benefit of CAVE set is that it is available for many people at the same time. They can enjoy the experience together and work as a team. This brings a lot more value to the experience (Virtual Reality Society 2017.)

In the future, VR and AR might become the de facto platforms for experiencing media and services from outside consumer's the local area. For example, users can enjoy the travel agent's recommendations and views from Thailand's Phuket Island by selecting it from the VR platform or AR application. The users can view material and media from their selected area or country and make their travel decisions based on that.

'In the future, there is a possibility for a device, which can cover all three Digital Realities. One device could be used to see movies, interact with friends and have sensational experiences, but for now, the technology isn't there yet. Maybe in the future.' (Pesonen 2017)

Future technology can bring unprecedented changes to the industries, but it can also bring a lot of positive change. The degree of development is impossible to predict as industries take inspiration from each other. Technological development drives industries to their best in sustainable ways and it usually enhances the business performance. In tourism, this developmental change is about services and experiences and the ways they are relayed to the masses. This could mean finding out performance-enhancing ways of information relaying, and booking. Through Virtual Experiences the customers can have almost real life like

experiences as they contact the responsible company and immerse themselves in respective material. (Portman et al. 2015.) A great example of this is the Marriot Hotels Vroom Experience which was co-created with Samsung. In this experience, the hotel guests have the option of ordering VR headsets and headphones to use. Also launched during the VRoom campaign is the VR Postcards where the guest can choose different stories to experience. These stories follow a traveller through their journeys and the guests can immerse themselves to the material and enjoy scenes and other aspects from various locations. These co-created campaigns infuse storytelling with new age technology which is important to the potential customer segments such as Modern Humanists and Millenials. (Marriot VRoom 2015)

## 6 VIRTUAL EXPERIENCE MARKETING

### 6.1 Virtual Experience Marketing in Tourism

Virtual Reality and Augmented Reality as marketing tools have several advantages over the common marketing strategies. VR/AR engages the customers in a completely new manner, and promotes customer loyalty. Customers feel more connected to the brand and the products, if they are in communion with the brand values (O' Mahony 2014.) From a marketing perspective this opens up ways to define the company strategies and marketing plans according to the customer values and to conceptualize the brand. Strategic thinking in planning marketing and design can be brought together to successfully finish the marketing plans. (Cova & Saucet 2014) All these actions are made to strengthen the company brand and image in Virtual World. Marketing for Virtual Experiences in the real world, opens innovative ways to promote the experiences, such as conventions, events and own pop-up VR/AR/MR experiences. Tourism marketing in general focuses on creating the authentic feeling for brand, and for the brand to implement the own values in its products. Virtual Reality marketing itself is a strategical decision which can bring a lot of value to the industry but also for all the stakeholders.

Strategies in marketing decisions affect the whole concept of the company and the brand. These decisions should be made with a clear image of what the company wants to happen and how they will generate interest in the markets for destined products (Visit Finland 2014, 15-24.) The destination marketing in tourism focuses producing an image of the destination to the customer consensus. In destination marketing, companies have the opportunity to change the perspective from creating the image of destination through marketing ways to creating the destinations in Virtual Reality. This way of destination marketing and management can act as driver for innovations as tourism companies don't have the restrictions of ordinary marketing in their strategical thinking. Innovations and new technology together in marketing combine the most useful attribution of both for the creating the most attractive marketing campaigns and ways. (Bulencea & Egger 2015, 70-78)

The real advances in digital technology produce already significant marketing differences between the non-digital and digital marketing ways. Non-digital marketing relies on B2B marketing and making the customer see the products as something that will generate value in their lives. Making the company brand clear and visible for consumers is much harder in non-digital marketing, as there isn't that much customer contact from the company's point of view (Linnonmaa 2017). The benefits of using digital marketing ways will generally boost the company's views among the customer consensus. The more attention you get in the digital markets, the more customers are drawn to your company brand and products. (La Valle 2017)

## 6.2 Company branding and visibility

According to McDermott C. (2017) to make the company visible with the Experiences, the marketing resources should aim for different purposes. Focusing on a single objective might result in a big success, or a big mistake. This is too much of a risk for any company, and the resources should be projected to multiple purposes and objectives such as more visibility on Social Media, newsletters, local newspapers, network wide marketing and CRM-marketing. (McDermott 2017.) One of the purposes could also be sponsorships, which aims



for outsourced funding for the project, for example, these can be large tech-companies, co-operative companies and associations which have similar objectives.

If a tourism company for example decides to invest in digital and interactive services such as Virtual Reality or Augmented Reality, the pre-existing company image should be considered. The pre-existing company image and brand might prove to be a challenge to successfully launch the VR/AR products. If the image and brand is strongly leaning towards natural activities and marketed with the terms; natural, traditional, old ways, Christmas, nature and wildlife, this might be an issue for a company who is looking for more modern, ecological and digital service market place (Karmakallio 2017). The company might seem to be simplistic and rustic activity provider if the marketing suggests so, but if the company wants to be a provider who can offer natural and digital experiences, the marketing has to meet the company vision for digital services also. It should be made clear in marketing that the company is more than capable of providing digital services and experiences alongside with the more nature-oriented experiences. (Frochot and Batat 2013, 1-212)

In the overall marketing of the company, for example in webpages, there could be own section dedicated to digital services to separate them from the original possibly nature-related safaris and activities. On the front page, if the digital products are new there could be advertisements and other marketing material promoting the experiences. In any way the two different sections shouldn't overlap and undermine the performance of the service experiences. Many travel companies who have also accommodation services besides travel activities have separated their sections in the webpages. This is a method for making the services clear for the customers and professionals. Same practice can work with digital services. As their own separate entity in the webpage, and with the reservation opportunity programmed to the site. (Linnonmaa 2017)

The experiences should be marketed as something new and unique but in the same time, keeping the shroud of mystery around the experience itself. A great way to introduce the experience is through an interactive Alternate Reality Game

(ARG). This has been a great method to launch products with interactive properties and enhancing the experience. Many movies such as Sherlock Holmes, Harry Potter and The Dark Knight have used ARG's as a marketing stunt. The ARG's have also been a part of the music industry for Death Grips – a band known for their unique music and marketing innovations. They used an ARG to promote their record No Love Deep Web which was published in 2013 (Thirdworlds.com 2017.) The main idea behind ARG is to introduce a game which operates through a narrative structure but uses multimedia to deliver the content. The players have a large role how the story plays out with their interactive decisions. Usually ARG's are puzzle solving and plot-base interactive experiences. ARG's multimedia platforms can be emails, telephones, videos, pictures but internet works as the main network. Usually the ARG's are free to play and consume, but pay-to-play models are in use too. (Argology.org 2010)

### 6.3 How Virtual Experiences are perceived in current markets?

VR and AR are perceived generally as positive, innovative and demanded in current marketing niches. The customer expectations aim for creative, engaging and interactive marketing strategies which engage the customers in fully. In 2016, Virtual Reality Gaming business was worth 3.6 billion dollars (Grand View Research 2017.) The overall interest generated from consumers for VR and AR is not meeting up with the expectations created. (Linnonmaa 2017.) A good example of ultra fast revenue growth in the Gaming industry is the case of Pokemon Go. It gained over 600 million dollars during the first months in 2016, and continues to grow almost by 0,5-1 million dollars each day. In 2017 the VR Industry overall has grown into 7.17 billion dollars, but the 65% of all sales is coming from headset sales. Consumer content provides another 12% and other 12% comes from VR camera sales. The start for consumer content and industry specific content such as educational, traveling and construction content has been very slow. (Grand View Research 2017.)

'Current sales of the applications like ours Virtual Traveller and other digital equipment such as Oculus Rifts are dissappointing to me as an entrepreneur, as I want to my company to reach higher levels of revenue through application

purchases. People should be educated more on the technology so they would get excited about it.' (Linnonmaa 2017).

Linnonmaa concludes that the Digital application and equipment sales have been a disappointment for the industry, as the revenues have been significantly lower than expected. The industry and the biggest headset manufacturers hoped for much more financially beneficial results. (Linnonmaa 2017).

One of the reasons for lower results might be in the consumers. The customer expectations are varied but a common theme reoccurs: easy to use and something which creates enough interactive content to keep them engaged. Without crossing the gap with consumer and the content/device developers the VR/AR marketing will diminish to non-existent (Karmakallio 2017.) Customers and users need to learn more about Virtual Reality in order to make it mainstream. Without proper learning process and without educational content the soon-to-be customers will get stuck in Decision Paralysis. In this Paralysis they are not able to make buying decisions because they do not know enough about the product, how it is used, why it is used and what they will get from using the products. (Malhotra 2017.)

Virtual Reality and Augmented Reality should push more into making the content and the devices for larger audiences instead of developmental use. The audience will see VR and AR content as something which gives them value to their lives. Current marketing niches see VR and AR as futuristic, intangible subjects what are hard to grasp. This means technologies might seem impossible to comprehend, and older generations do not see any value VR/AR might add to their lives (Merel 2017.) This creates a dilemma between the VR/AR products and the consumer, as the consumers might believe that there is no need for Virtual Reality or Augmented Reality products in their life. The dilemma needs to be solved in order to increase the sales and strengthen the marketing image. Virtual Reality and Augmented Reality has issues with marketing as the technology still feels out of reach to regular customers. The general feeling towards Virtual Reality among potential users is this: It is in the future, not in the present and it is too expensive to purchase for regular entertainment use. This

creates few issues with overall theme of VR and AR. Customers might feel resistant to change, just like with every other emerging technological achievements. This is where the process of customer engagement comes to play (Pesonen 2017.)

During 2014-2016 when the VR/AR technologies started emerging, the general consensus considered them as toys for developers with no real intention or purpose for larger audiences. Now the situation is different as the content and the devices are developed for large public use. The devices are developed constantly and the prices are reduced due to lower manufacturing costs and better designs. The devices are designed to be more customer friendly, and easier to use so the larger audiences can enjoy the VR/AR content as well. (Grand View Research 2017.) The customers are now engaged in the processes of making the most out the devices in order to create maximal value to them. The purpose from the developers perspective is not only to maximise the monetary value generated by the customer, but rather to build a long-lasting trust and relationship. The trust between the company and the customer can help to increase the conversion and return of investment. The customers are taken in deeply to the design process where they can be heard.

#### 6.4 Examples of Virtual Experience Marketing and Blueprinting

The examples of VR/AR marketing are emerging everyday and companies invest more funds to them as they provide unique marketing content and enhance customer engagement and excitement. According to the article of Greenlight Insights, the 71% of consumers consider brands as forward-thinking if they use Virtual Reality in their marketing campaigns. (Greenlight Insights 2016.)

Virtual Reality and Augmented Reality marketing can open up new opportunities to companies in storytelling and immersing the customer in the experience. In most cases the marketing is creating videos and interactive environments with video footage or GCI (Computer Generated Imagery). These two medias are heavily used to produce the marketing campaigns. (Linnonmaa 2017) The content is created by cameras and computers. It is no longer just video and audio,

but more holistic with different technological innovations such as haptic sensors, hand controls and even artificial or natural aromas to enhance storytelling.

Example 1.

"Dreams of Dalí. "

"Disney and Dalí: Architects of the Imagination" exhibit at the Dalí Museum, 23.1 - 12.6.2016.

This experience invites viewers to the surrealist world of Salvador Dalí. In the experience viewers are able to look freely up or down, left and right while drifting through the surrealist landscapes of Dalí. The experience contains the most famous Dalí figures such as giant elephants with long legs. It's a great example how old famous works of art can be reused in a modern way. The project was created by Goodby Silverstein and Partners. The Dalí experience is viewed through Oculus Rift headsets and audio devices (Ziamou 2016.)



Dreams of Dalí – Virtual Experience. (Ziamou 2016)

Example 2.

"Trailscape by Merrell"

Merrell promoting their new hiking shoe model Capra.

26.2.2015

Trailscape was the first commercial use of in-motion Virtual Reality experience. In this experience, the users were able to walk down the paths demonstrated in the Oculus headset, achieving an more lifelike feeling for the landscape around them. The Trailscape used 4-D technology and motion tracking to create unique

experiencescape for users while promoting their new most technologically advanced hiking shoe. (Nudd 2015)



Merrell & Framestore – Trailscape. (Nudd 2015)

### Example 3.

#### ”Experiencing Lappish Forests”

Fictive marketing campaign developed by the author of this Thesis.

01.09.2017

This experience features the sensation of driving a snowmobile through Lapland’s snow-covered forests. Users feel the unique environment from the drivers perspective and are able to drive the predestined tracks. Using Oculus Rift and a disabled snowmobile the user is able to experience the speed and thrill of operating a snowmobile in snowy forests. The experience will be available at international travel fairs and can be included as a educational tool for travel companies.



Experiencing Lappish Forests – Experience. (Flight Media 2017)

Example 4.

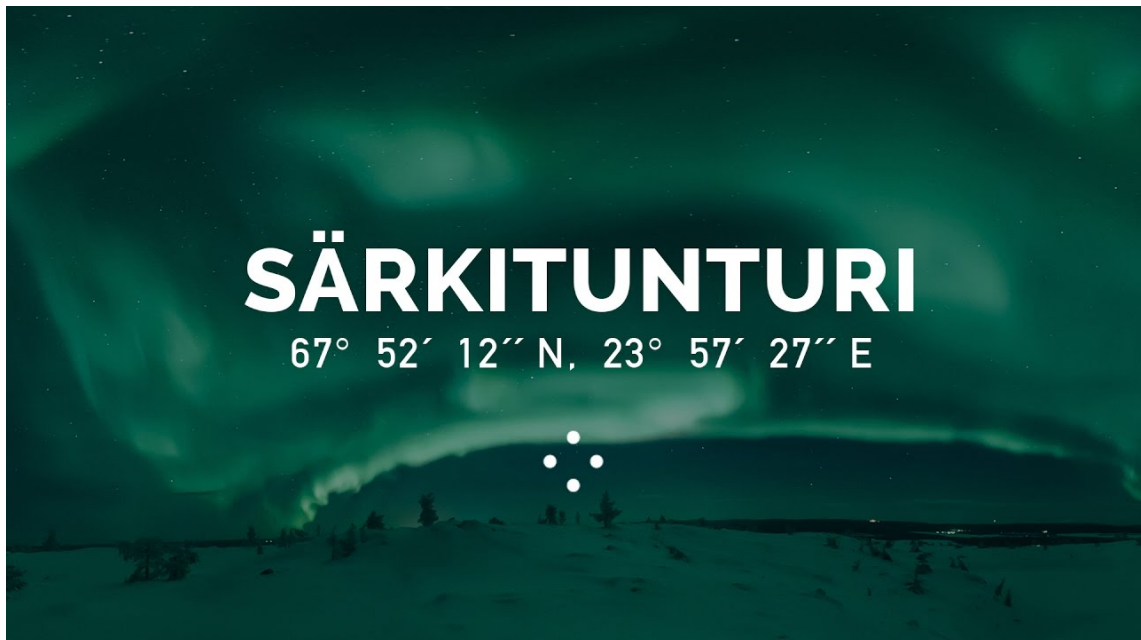
”100 Moods from Finland”

Suomi 100 project/ Flatlight Creative House

04.04.2017

This project was created by Flatlight Creative House to celebrate Finland’s 100th year of independency. The 100 Moods project is a series of 360-degree videos which present a significant place in Finland, such as Särkitunturi in Muonio during a massive northern lights outburst. It can be experienced in two ways, digitally in high-quality 360-degree videos, or physically in a igloo-shaped space. It was created by recording footage from northern lights with videocameras.

(Flatlight Creative House 2017.)



100 Moods From Finland – Särkitunturi. (100 Moods from Finland 2017)

## 6.5 Creating the Marketing Campaign for Virtual Experiences

In VR/AR marketing, the experience design plays an important part as well. The marketing plans must correlate with the existing experience/product to give customers and users an honest idea. The marketing campaign can be tangible, with concrete marketing resources such as posters, presence in print media and news paper or come in the form of card board goggles, and downloadable app. (Linnonmaa 2017.) The campaign starts by finding out the needs of the users and comparing it with the strenghts of the product. Assessing the situation according

to customer information and analysis unlocks the needs of the users and customers. These analyses can be done either with questionnaires, researching general information about different customer groups or by psychological analysis to find out the needs. (Kannan & Hongshuang 2017, 10-18.)

After a successful analysis about customers, the company should decide what goals it will place on the marketing plan. The aim is to set the company apart from competition and rely on the own strenghts such as highly regarded brand. The goals can be utopistic or more realistic, depending on the magnitude of the campaign and the nature of the product. These goals should be focused tightly with the company's brand to ensure the continuity of company's image even when launching a completely new product. Also, this part of the plan holds in the competition outlook, where the company searches into competetive companies, who have similar products and makes an analysis about their strenghts and weaknesses. (Kannan & Hongshuang 2017, 11-24) This can be used as a beneficial factor in own marketing plan and strategy. Once the issues are addressed and realized, the planning process how to counter these weaknesses should start.

After a business analysis conducted both on own weaknesses and strenghts, and the analysis about the customers it is time to start developing how to gain the attention of the customer base and to drive it towards the products and services (Werbach 2013.) This process gives the answers how reach three types of customers: cold prospects (who are not aware of the company at all, are mostly targeted through direct emails and marketing.) Warm prospects (who already know the business and have been exposed to previous marketing campaigns.) and hot prospects (who already know the business and are eager to consume the products.) These ways of reaching the three prospect types can vary from using low-cost social media to using bought printmedia and tv-spots. It depends on the company brand also which methods are available, for example a company aiming and investing to digitalization should refrain from using too much print media or flyers. It might be hurtful to the image. (Kannan & Hongshuang 2017, 17-22)



Launcher of the experiences and services should make a clear divide between tangible and intangible resources which are used in the campaigning. These assets such as rented places, and equipment or company owned materials are the physical resources needed in the campaign. Financial assets and resources such as revenue, turnover and investments are financial resources which will be used to fund the campaign. Intangible resources used in the campaign can be: production, marketing, and coordination among others. These assets can be used to drive the digitalization further (McDermott 2017). The efforts for the marketing campaign should aim to fulfil the company's expectations about results and also to fulfil the needs of the users and customers. Visitors and users are attracted to the experiences and services through digital technologies. It should be stated that not every company has the intangible and tangible resources to fully realize this potential in gaining more revenue and turnover. Combining the websites with AR experiences and social media networks produces an united visual marketing brand, which should be utilized in the general marketing plan (O' Mahony 2014, 4-8).

## 6.6 Marketing Psychology of Virtual Experiences

In Digital Experiences Marketing, the aspect of psychology of marketing is similar to traditional product/experience marketing seen in Tourism. In addition, VR and other Digital enhancements added to marketing strategies and plans give more comprehensive and exciting content for the potential customers and users to see. Marketing material and projects done in Digital means should aim for building trust, and a feeling of being in control for the users as users see their smartphones as an extent of their personal communications. VR/AR content act as an inspiration for consumers, and in this phase of designing the Virtual Experience's marketing plan the motivation level for purchasing the experience should be carefully considered and revised. Videos and other visual enhancements have been useful in generating emotional bonds and impacts with consumers which promotes more in-depth consumer engagement. (Gelter 2017, 87-89.)

Emotions are a key factor in creating a memorable Virtual Experience, and this should be focused in marketing campaign for the Experience. Human emotions

such as happiness, excitement, frustration and discontent have important roles in improving customer/consumer loyalty, brand recognition and social media reactions. Positive thoughts and impressions are the first steps to build towards the Virtual Experience. (Gelter 2017, 92-93.)

Human psychology determines what it sees and thinks as useful and desirable. By creating marketing content that appeals to the targeted group and channeling it in the right way, a company can have upper hand in industry markets. (Simkova 2013, 3-4) Producing content which creates emotional bonds and positive thoughts to the users and visitors works as enhancing factor between the company and the user – this is used to build up the customer engagement. In the age of digital marketing, available content is easier to get and it can be spread with various ways between users and also from company to customers. (McDermott 2017.) Human psychology is a sensitive matter to consider and small mistakes in marketing campaigns can cause a great loss for the company. This is why psychology in Tourism especially is a sensitive subject. The users should feel embraced by the company rather than just an target audience or test subjects (Simkova 2013, 3-4.)

## 7 CONCLUSION

This thesis was completed in 6 months, but the thought process for the subject has been going on for a long time. I have always felt that Tourism industry lags behind the technological advances and this was a concrete way of researching into this matter. All the conversations and interviews with experts and other working people in travel & tourism business have validated the research questions.

This thesis had a few different goals. The purpose of this thesis was to introduce the possibilities of Virtually Enhanced Experiences in Tourism. The first goal was to define Virtually enhanced experiences and what is needed from the companies. Second goal was to define frameworks and what it takes to develop a Virtual Experience from company perspective. Third goal was to introduce ideas of using Virtual Experiences in Tourism as a functional business process. It is easy to dream about utopistic products and services. This cannot happen without the right context or framework to support it. My research approach was qualitative, which was more fitting for this thesis than quantitative. I interviewed 4 experts from the tourism industry, VR/AR industry, digital entrepreneurs and lecturers who have deeper knowledge in the subject matter. The Tourism industry is in need for Virtual Experiences. The continuous excitement for innovating new ideas shined through the interviews. I consider this as a great thing as it shows how much Tourism industry still needs to grow and lean into Digitalisation.

Virtually Enhanced Tourism Experiences can be defined as an experiences where the user is immersed in a virtual environment and has sense-triggering experiences. The experience itself doesn't always have to be strictly in Virtual Reality. It can be something less immersing such as Augmented Reality Application, or a combination of both, Mixed Reality. The main sensation in the experience comes from personal fulfilment where the user is free to do as they please within the confinements and limitations of the devices and experiences. For example, one would be able to "travel" from Finland to South Africa, just by using a Head Mounted Display (HMD) which portrays the Virtual Experience.

Possibilities are limited, the implementation is depending on developers and designers.

Nevertheless embracing the Digitalization doesn't come without a price. Jumping on the digital age might prove to be a great challenge especially for small companies who are still lost with their business plans. If they make investments and products too expensive, their business will wither away. This thesis provides frameworks for marketing, product design and blueprinting in Tourism. They assist in Experience Design and potential challenges companies might be facing in their designing processes.

While I was conducting my research, I had the opportunity to test the devices myself. This proved to be a valued lesson, where I saw which would be potentially most useful in tourism practices. These devices what is now produced and sold, are too rigid for large scale use in experience creating. They are ideal for intimate, smaller scale sensations but critically thinking the devices won't fulfil the needs of modern humanists or millennials.

Tourism and travel industry is slowly waking up in the digital age and seeing the results it might provide in the future. Virtually enhanced experiences can change the behaviour of travelers and tourists in the ways they consume experiences and products. Tourism consumerism is shifting towards buying holistic experiences and Virtually enhanced experiences can act as innovator and driving force in this change.

The results of this research showed that Digitalization can help companies differentiate themselves from competition by relying on their own innovative visions in VR/AR/MR world. It will provide companies with new service modules and enables companies to take full advantage of latest and largest developmental changes in this century. Interviews provided support to research questions about Digitalization in Tourism. The turbulence of technological change is also visible in Tourism, as more and more of personalised and tailored services are in demand.

This thesis for me was a passion project, something that I had to get out of my thoughts. The idea of this thesis and the subject matter has been circling in my mind for a long time, and still I'm not done with the subject. This is something that I want to base my own work on and start promoting digital services also in Tourism. Even though I am quite satisfied with the results, I wish I had more opportunities to interview more experts. But in Finland, where the industry is still very much small scale, it is hard to find credible interviewees. Building the framework for digital services in tourism is important if the industry wants to see an successful implementation. In order to achieve this, a common conference or rules should be introduced to all actors in the industry.

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