NTNU
Norwegian University of
Science and Technology

I want to show

How user-centered design methods can
assist when preparing for micro moments

Lisa Jørgensen

ABSTRACT

In 2015, Google presented a term called "micro moments", a term that addresses consumer behavior on the mobile web. Micro moments consist of four key occurrences; *I want to know, I want to go, I want to do* and *I want to buy*. This phenomenon is presented in a digital guide called *Micro Moments: Your Guide To Winning the Shift to Mobile,* an informational brochure intended to enlighten the marketing business on certain user needs and user behavior, and how a company can strategically prepare for them. The intention of this thesis was to study the term micro moments along with the guide, and to see if there were any connection to be made between information given from Google and to common methods used in the disciplines of interaction, service and user experience design. During the study it was decided to add a personal contribution to the terminology called "*I want to show*"; a micro moment based on user-generated content such as social media posts. Google did not cover this user behavior trend in their guide, therefore *I want to show* was added with the intention to suggest that this type of user behavior can be beneficial for the previously mentioned design disciplines as well as for marketing.

Comparing the strategic guide from Google with relevant methods in user-centered design disciplines shows that it's important to know how to find information about users and use user research methods to ensure that the preparation advice from Google are being adhered to. The study also agrees with Google's advice to communicate across teams, because user research methods can ensure that user needs are being met, which in turn can increase the chances that a user is pleased with the interactive system, product or service from a company. Comparing the proposed micro moment *I want to show* to modern marketing strategies as well as known design methods from user-centered design disciplines resulted in a reason to believe there are certain benefits to be gained for both marketing and user-centered designers by acknowledging the type of user behavior this moment describes. Conducting information gathering on the posted content as well as on the user profiles can give valuable user information to be used when designing for users, and user-generated content are known to influence other individuals, which might be beneficial for marketing.

I

SAMMENDRAG

I 2015 introduserte Google et begrep kalt mikroøyeblikk som omhandler forbrukeradferd på det mobile internettet. Disse øyeblikkene består av fire viktige hendelser*; Jeg vil vite, jeg vil dra, jeg vil gjøre* og *jeg vil kjøpe.* Mikroøyeblikk som fenomen presenteres i en digital veiledning som heter *Micro moments: Your Guide to Winning the Shift to Mobile,* og er en informativ brosjyre ment for å opplyse markedsføringsvirksomheter om visse brukerbehov samt brukeradferd, og hvordan et selskap kan forberede seg på dette. Intensjonen med denne oppgaven er å studere begrepet mikroøyeblikk og hele brosjyren for å se om det finnes sammenhenger mellom informasjonen gitt fra Google og vanlige metoder brukt innen interaksjon, tjeneste - og brukeropplevelsesdesign. Gjennom studiet ble det bestemt å skape et eget bidrag til begrepet mikroøyeblikk som heter *«Jeg vil vise»;* et øyeblikk basert på brukergenerelt innhold i sosiale medier. Google dekker ikke denne brukeradferden i sin veiledning, dermed ble *Jeg vil vise* laget med formål å foreslå hvordan denne brukeradferden kan være gunstig for tidligere nevnte designdisipliner, samt for markedsføringsbransjen.

Sammenligning av informasjon fra Googles veiledning mot relevante brukerfokuserte metoder viser at det er viktig å vite hvordan man finner informasjon om brukere, og å bruke brukersentrerte metoder for å sørge for at de forberedende rådene fra Google blir overholdt. Studien er enig med Googles råd om å kommunisere på tvers mellom fagfelt, da brukersentrerte metoder kan sikre at brukernes behov blir ivaretatt, som igjen kan øke sjansene for at en bruker er fornøyd med det interaktive systemet, produktet eller tjenesten til et selskap.

Sammenligning av det foreslåtte mikroøyeblikket «jeg vil vise» mot moderne markedsføringsstrategier samt kjente designmetoder innenfor brukesentrert design, resulterte i at det er grunn til å tro at det er visse fordeler som kan oppnås for både markedsføringsbransjen og for designere ved å anerkjenne denne brukeradferden. Å innhente informasjon om både det publiserte innholdet samt på brukerprofiler, kan resultere i verdifulle data når det skal utformes nye design for brukere, ikke minst fordi brukergenerelt innhold er kjent for å ha påvirkningskraft, noe som kan være gunstig for markedsføringsbransjen.

PREFACE

This thesis marks the end of the master's degree programme in Interaction Design at NTNU - the Norwegian University of Science and Technology in Gjøvik, Norway. Through these semesters I've learned more about human-computer interactions and human behavior than I could ever have envisioned before enrolling, with the result that I am now more curious and passionate than ever in regards of the "deep realms" of interaction, user experience and service design. There are so many fascinating topics within the human-computer and user-centered design disciplines but in the end, I managed to choose one I found captivating.

I would like to express my sincere gratitude towards my supervisor *Anders-Petter Andersson*; for your patience, enthusiasm, and for being a well of knowledge. This thesis would not be a reality without your guidance! I would also like to thank *Hilde Bakke* and *Frode Volden* for their encouragement, and for ensuring all thesis technicalities would be hassle-free. I could not have done this project without certain people; my parents and my boyfriend, who maybe never truly understood what my studies were about but always believed in me, my friend *Sanijela* for our motivating talks - you kept me going! To my friend *Silje*, and lastly my best friend *Stine* for all her help and treasured opinions of the topics in this thesis.
Thank you.

Lisa Jørgensen,
December 2017.

LIST OF ABBREVIATIONS & EXPLANATIONS

E-WOM   ELECTRONIC WORD-OF-MOUTH

IG   INSTAGRAM

IxD   INTERACTION DESIGN

SELFIE   A SELF-PORTAIT PHOTOGRAPHY

SD   SERVICE DESIGN

SNAP   A PHOTO OR VIDEO SENT THROUGH APPLICATION SNAPCHAT

NTNU   NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY

      NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET

UI   USER INTERFACE

UCD   USER-CENTERED DESIGN

UGC   USER-GENERATED CONTENT

UX   USER EXPERIENCE DESIGN

TABLE OF FIGURES

TABLE OF CONTENTS

1 INTRODUCTION

Mobile devices are used exceedingly for daily tasks. It has been years since mobile phones were a call and text gadget only; the rapid development in micro computing made sure of that. Today, we use our mobile phones for almost everything, it is our day-to-day assistant and a lifestyle accessory. Our phones have turned into alarm clocks, calendars, GPS, shopping lists, boarding passes, game consoles, payment methods and banking services, social platforms, cameras, and so on and so forth. Our connection to the internet makes it possible for us to do anything; learn a new language, buy a product, plan travels, or to conduct research. A mobile phone is life captioning and life preserving, and humanity is about to get spoiled on spontaneous behavior allowance. What brought us here is the digital revolution, which may also be called the Third Industrial Revolution - a period in human history timeline where we went from analog to digital technology (Technopedia, N.D; Pariona, 2017). We're currently in what many call the Information Era, a time where technology is always evolving, our connection to the internet is constant, and we're able to receive media to our devices around the clock, whether it is news updates, promotional emails or social media (Technopedia, N.D; Granados, 2016).

In 2015, Google presented a term called "micro moments", which entail four types of moments where a user turns to their internet connected device, usually a smartphone, to address an urgent personal demand. A spontaneous interaction made available by the device, the internet and all the information accessible on the World Wide Web. A moment as such can be, but is not limited to, seeking knowledge about something, such as an item or a place, or even to find directions or opening hours to a restaurant (Google, 2015). Details of this terminology are explained in a digital brochure Google calls Micro Moments: Your Guide to Winning the Shift to Mobile, where four user behavior trends on the web are described with the aim of supporting the marketing business. This master thesis aims to study micro moments as a relatively new phenomenon, and to see if there is a connection to be made with design disciplines interaction, service and user-experience design. These disciplines all have a high emphasis of human psychology in design processes. This paper will also contribute to the term micro moments by adding a fifth moment, which is based on the activity of user posts on social media, and will be reasoned by facts and common methods from the design disciplines.

1.1 Problem description

Google's guide explaining micro moments as a phenomenon to be aware of, is first and foremost intended at the field of marketing and how marketers can prepare for the mobile web. It contains basic information on how consumers behave in seeking and gathering information, how to draw in customers, and how companies can be fully present, aware and prepared for traffic from the mobile web. However, when the main topic is user behavior trends and interactions with the web, adding in-depth explanations as how to gather information about the consumers is a necessity. I find it problematic that there is little information to be found stating how the marketers should find this information, or who to talk to. It is stated in the guide that it's advised to communicate across teams, but this explanation is limited to a few sentences. As an interaction designer, I think it is important to include and emphasize user-centered designers and researchers in a guide such as this, which is why it this thesis aims to study the guide and pinpoint how user-centered design disciplines can aid in the matter of understanding users and thus for preparing a brand for the web. Another problem found when studying Google's guide, was that there was a certain modern user behavior that was not covered; the common phenomenon of social media communication and the possibility of individuals influencing each other.

1.1.1 Research questions

The scope of this thesis is to study Google's guide and highlight any information that would be necessary to know for user-centered design occupations. The primary research question for this thesis is:

1. Are there any strategic advice from Google found in Micro Moments: Your Guide to Winning the Shift to Mobile that interaction, service and user experience designers should be aware of and can advise on?

Considering how tight-knit people are with their mobile devices in this day and age, the need for another research question arises:

2. Social media is considered a part of the internet with a massive potential for multi-way online communication. How can we present user-generated content as a new micro moment to prepare for?

1.2 Structure

This thesis with the title *"**I want to show:** How user-centered design methods can assist when preparing for micro moments"* is structured in the following way:

Chapter 1 aims to introduce the reader to the primary topic at hand, *micro moments,* and will explain the thesis goals, research questions and project limitations. Chapter 2 will explore the terminologies used to address the topic and the research questions, and contains detailed background information. This includes a brief but detailed description of Google's term *micro moments*, key marketing insights from Google's guide, the author's own description as well as field expert definitions of the terms interaction, service and user experience design as well as information regarding the social media platforms that will serve as examples for this project. Chapter 3 will explain the approaches and methods used to conduct this thesis, whereas chapter 4 will present the findings of the first research question. Chapter 5 will present the author's contribution to expand the term *micro moments*, and thus targets to answer the second research question, including the discussion and reasoning for the fifth micro moment. Chapter 6 will contain a brief discussion of the thesis in general. Lastly, chapter 7 concludes the thesis.

The structure and formal yet informal language of this thesis may come off as odd to those accustomed to purely academic reports and assignments but as this is part academic part design it becomes necessary to present the thesis as a study in this way.

1.3 Motivation and justification

The motivation for conducting this project stems from learning about the term *micro moments*, and from an interaction designer's perspective wonder why the guide *Micro Moments: Your Guide to Winning the Shift to Mobile* seems mostly to be aimed at the field of

marketing. With this assumption in mind, based on the content of Google's own guidelines and articles, it was decided it was worth to conduct an in-depth qualitative study of this strategic guide, to learn what type of user behavior Google refer to when they mention *micro moments*, and to see whether it contained information valuable to the user-centered design fields, and vice versa. It was also discovered during the study that micro moments as Google presents them, are somewhat limiting on the advisal of potential information to be gathered from the users, as users have other impulsive activities on the internet as well. Upon this discovery, I decided to see if it was possible to create an additional micro moment that would theoretically be beneficial for both the fields marketing and UCD. For this purpose, I decided to study social media trends to see if there was any possible valuable information to be gathered, and to see if there were any research or field expertise opinion to support the idea. Another motivation was to be able to present own insights on the topic, as an interaction designer, using knowledge gained through my time as a student. The thesis then "split in two", where one aim was to cover important information as to how user-centered design disciplines can aid in user research as well as assist brands in design and presentation of usable and quality data to the users they want to draw in (and keep!). The second segment is to present a suggestion to a micro moment that includes users on social media and how social media can influence us as consumers.

1.4 Project limitations

This thesis limits itself to present fundamental explanation of interaction, service and user experience design, and methods used to support user information gathering. It will not concern itself with the explanation of *practicalities* of user research or the design processes, nor the depth of ethics behind user information gathering. Although these topics are important when dealing with users, these subjects are beyond the problem this thesis is trying to solve. The thesis will also explain the terms *micro moments* as presented by available material from Google. Furthermore, the thesis limits itself to compare the original four micro moments only to the disciplines of user-centered designs, but the suggestion to the fifth micro moment will be reasoned using arguments from modern marketing strategies as well as user-centered design. The social media platforms chosen for this project, to be used as a foundation for the fifth micro moment that I will suggest for the "micro moment family", is Instagram and Snapchat, although other platforms exist. Lastly, as a clarification, whenever

this thesis mentions personal opinions, these opinions are presented through an interaction designers perspective, with the knowledge acquired through the Interaction Design programme at NTNU The Norwegian University of Science and Technology in Gjøvik, Norway.

2 THEORY & DEFINITION

This chapter presents the background information and definitions used to describe the terminologies in this thesis. The initial information includes an introduction to the company Google and the guide that is the basis for this thesis as a project, followed by information regarding social media and social media platforms Instagram and Snapchat. This chapter also contain definitions of interaction, service and user experience design. A brief explanation of the term "microinteractions" have been included to aid in differentiating this term from Google's term "micro moments".

2.1 Google

The duo behind the famous search engine Google, Larry Page and Sergey Brin, met at Stanford University in 1995, and the company was founded in 1998. The first search engine was called Backrub but was later changed to Google, a name which is based on the mathematical term "googol" meaning "1 followed by 100 zeros" (Google n.d; Goodrich, 2013). The intention behind Google as a search engine was to present information in an organized manner, and today the company owns and produces many different types of technological products such as operative system Android and video platform Youtube (Google, n.d). Page and Brin (2004) have said that they always want Google to remain an unconventional company that encourages creativity and innovation.

2.2 Micro Moments: Your Guide to Winning the Shift to Mobile

Google's concept *micro moments* is a term to describe the events where a person turns to their device, usually a mobile phone, to fulfill a need for certain information, and where they expect quality results immediately. There are four types of these moments; *I want to know, I want to go, I want to do, I want to buy*. They are part of a customer's "decision journey" and function as an awareness mental model for marketing (Google Inc, 2015, p. 4; Ramaswamy, 2015). The in-depth explanation from Google regarding the term is presented in a strategic guide called *Micro Moments: Your Guide to Winning the Shift to Mobile*, which enables

marketers to understand the basics of how customers might think, and how to be prepared when their brand is online on the mobile web. It also contains real world examples collected from different types of brands, and how they went from problems to success. Although the term was presented in 2015, micro moments are still considered highly relevant because of users demand for immediacy as well as the rapid advancement in smart devices (Ramaswamy, 2017). The guide is sectioned up in five parts; the introduction to micro moments, how to be there for users, how to be useful, how to be quick and lastly how to connect all the information together.
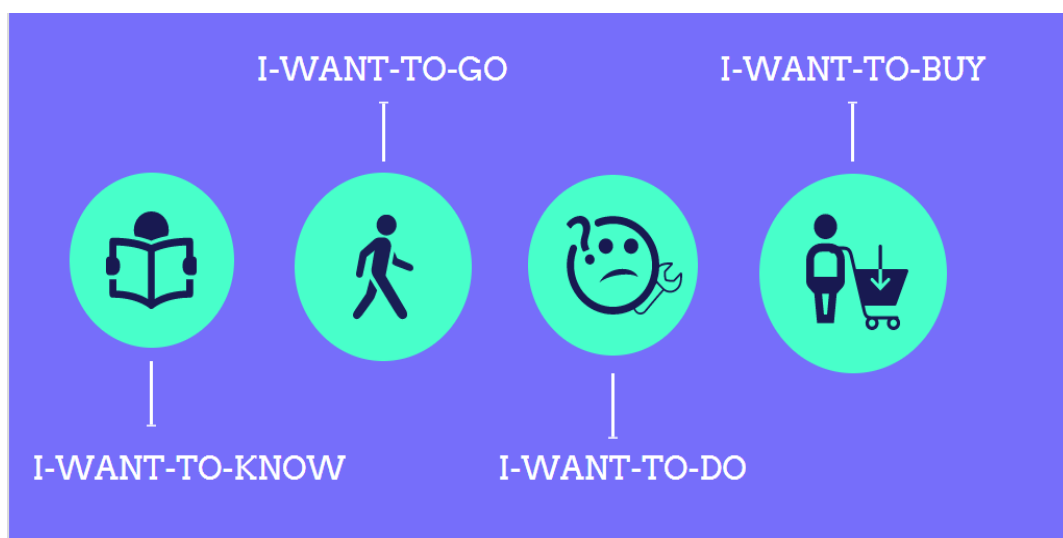
Figure 1 Google's four micro moments. Created by Joergensen, L (2017)

2.2.1 Micro moment one: I want to know

Whenever people do an online search regarding an item or to get information about a request such as "how to eat healthy", that's considered a *I want to know* moment. These are the moments where users want to be given inspirational information (Google, 2015, p. 12). Google data informs searches using the word "best" have gone up 80% over the course of two years, and that even a term such as "best toothbrush" have gone up 100% in the same period of time (Gevelber, 2017a). *I want to know* is a consumer stage where it's all about reaching out to the World Wide Web to find answers to something you really want to learn more about, but you may not yet be ready to commit and go through with a purchase.

2.2.2 Micro moment two: I want to go

This moment aims at different types of information based on location. For instance, a store with an online presence should have their inventory online, and more specifically different physical locations should have the *local* inventory up to date. If the store also has opening hours and directions, users looking into going somewhere are given relevant information for their location specific request (Google, 2015 p. 13). Two years ago, when the guide was presented, people used search terms like "near me" to find what they wanted. Now Google's Vice President of Marketing in the US, Lisa Gevelber (2017b), shares that this search term is not trending anymore, because people expect this to happen automatically.

2.2.3 Micro moment three: I want to do

People are eager when it comes to looking for tutorials; information on how to do something, whether it's fixing a broken dishwasher, creating your own Christmas decor or doing a 50's makeup look. *I want to do* reflects this type of moment – when we need advice on how to conduct a certain project. For instance, Google shared that in 2015, Home Depot's "How-to" videos were watched more than 43 million times (Google, 2015, p 14). Preece et al. (2015, p. 82) says that it's easier for some people to follow tales through listening rather than reading.

2.2.4 Micro moment four: I want to buy

This is a moment when the user is ready to make a purchase, and is looking for relevant information that best suits their needs. This does not have to be an online purchase, but the moment serves as a touchpoint for when the user is ready to commit. As an example, insurance company Esurance tripled their customer acquisition through adding click-to-call ads (Google, 2015, p. 15). A touchpoint is a common term used in service design, and simply means all the possible interactions a consumer can have with a service provider (Stickdorn & Schneider, 2011, p. 33). Advertisements through e-mail, flyers, a reception desk, customer service in chat or on phone care all examples of possible touchpoints.

2.2.5 The three "be"s and Connecting the Dots

Micro Moments: Your Guide to Winning the Shift to Mobile also contains three main strategies with the intention to prepare marketers on how to anticipate and prepare for the actual micro moments. These strategies are called "be there", "be useful" and "be quick".

Be There

This advice concerns itself with availability and knowledge of the user groups of the specific industry a brand is in (Google, 2015, p. 5). As a marketer, you'll need to know what possible contexts and user goals a user will have with your product or service, and it's highly advised to conduct research on this matter through search trends (Google, 2015 p. 9). For instance, a car rental company should be aware of its competitors as well as people (potential consumers) and possible relevant user needs, but it does not need to concern itself with people between 0-18 years of age, as they are not allowed to drive yet and will probably not need to rent a car. (Obviously, age limit is dependent on country laws). Being there is all about the brand being able to present relevant information to the user on all digital platforms for the entire experience (Google, 2015, p. 9).

Be useful

This point about being useful regards creating and presenting information that the users *want* and the information they *need,* and giving it to them in the best possible way because quality for the users should matter more than closing the deal (Google, 2015, p. 11,12). As a marketer, if you're not giving the users the content they want in real time, you might lose them. Google (2015, p.11) says 40% of visitors of an online interactive system will be less likely to ever come back if the system doesn't give them the experience they expect.

Be quick

The point of being useful goes hand in hand with being *quick*. Even though one should never force sales, it's highly beneficial for both brand and user if the user is pleased with the information, and is enabled by the system to go through with the purchase without hassle (Google, 2015, p. 15,17). People today are expecting to be allowed to be spontaneous and get what they need in real time. This means that the interactive system must be optimized for speed, marketers must have enough information about the user groups, or target groups if you will, that might visit, and prepare in *advance* for their needs. They might have to look for

search trends or past purchases to anticipate what type of content is important. Lastly, it's imperative that the information is presented in such a way that the user finds it fast. The opposite may result in losing the user (Google, 2015, p. 15 -19).

Connecting the dots

This last section of *Micro Moments: Your Guide to Winning the Shift to Mobile* provides an explanation to three important topics – displays, touchpoints and people. For displays, Google explains that it's important that marketers know that users are not mobile bound, rather they move between different devices as they see fit (2015, p. 22). They also state that it's urgent that teams realize that sales are not "everything" but that users are just as interested in information gathering, which is why insight in different contexts and user goals are important (2015, p. 23).

For touchpoints, it's just as important to "be there" or "be useful" when it comes to information users gather *offline,* such as physical and digital advertising, customer support calls or store visits (Google, 2015, p. 25). The last but crucial information given regarding connecting the dots, is *connecting the dots between teams*. Here Google state how important it is that a brand's team communicate across knowledge and expertise, and that they treat micro moments as a phenomenon that's "everyone's job" (Google, 2015, p. 26).

2.2.6   The other micro moments

The state of micro moments as a phenomenon hasn't been frozen since the release of the guide *Micro Moments: Your Guide to Winning the Shift to Mobile*, and there have been several other mentions of other types of micro moments during the last two years. In December 2016, Google presented the five *auto* moments to be prepared for, and these are moments explaining how brands need to prepare for the people who want to purchase a new car (Google, 2016a). These moments are called: *which-car-is-best, is-it-right-for-me, can-I-afford-it, where-should-I-buy-it, am-I-getting-a-deal.*

Being an innovative and obviously well-prepared company, six months prior to the auto- moments Google also presented micro moments for travel marketing in their article *How Micro Moments are Reshaping the Traveling Journey* (Google, 2016b), as 40% of visits to US travel-related websites came from mobile phones. People spend more money on travels now than before, so preparing the marketing business for modern traveling inquiries and

plans is vital. These moments the article presents as *I-want-to-get-away, time-to-make-a-plan, let's-book-it, can't-wait-to-explore.*

2.3 User-centered design disciplines

When reading the names of design fields such as user interface design (UI), user experience (UX), service design (SD) and interaction design (IxD) they all might sound the same and cause confusion. What they have in common is that they're all "user focused", meaning that one of the main conscious concerns during the design process are the *users* who are going to be using the finished product, whether it's a service, product or an interactive system. For the purpose of this thesis these disciplines will be mentioned as "user-centered design" (UCD) disciplines, which is used as an umbrella term. User-centered design as an approach, or as a philosophy, to design and development, involves having users and their tasks - not technology nor a product - as a priority focus point as early as possible, and to use appropriate methods to ensure that the end product will suit the user (Preece et al, 2015, p. 327; Baxter et al, 2015, p. 508).

Usability.gov is an American website for UX resources, managed by the Digital Communications Division in the US Department of Health and Human Services' Office of the Assistant Secretary of Public Affairs, which describes user-centered design as a process of multiple principles with the purpose to guide teams and thus design and development into the understanding of users, tasks, evaluation, and concerns the entire concept of user experience. (U.S. Dept. of Health and Human Services, n.d. a)

As previously presented in section 2.2 *Micro Moments: Your Guide to Winning the Shift to Mobile,* this guide contains brief information on how marketers can prepare for consumer needs and certain user behaviors. UCD methods becomes an appropriate angle when the guide is studied through an interaction designer's perspective. All three disciplines, IxD, SD and UX used as UCD in this thesis often use some of the same methods during the design process, which means that these disciplines cannot always be differentiated in theory nor in practice.

This is also why I chose to include input from these three disciplines in this thesis, even though I present myself as an interaction designer, I am also a service designer and a user experience designer; I am interested in people and user behavior, their interactive habits,

emotions when using interactive systems or services, their needs and their problems, their journey. Which means, in a topic such as the guide to micro moments that relies so heavy on user behavior and user behavior trends, using these three disciplines became a natural choice.

2.3.1 Interaction Design

Personal definition:

Knowledge about how people interact with a product or interactive system and their attitude towards it, enables interaction designers to help create artifacts that are efficient and easy for the users to handle. From my time at the Interaction design programme plus from countless days of information gathering throughout the two years at NTNU, I learned that this discipline is about studying, observing and understanding user behavior in different situations, such as through user tests, heatmap tools on a website, or even every day events where you just happen to notice someone fiddling with a product or an interface.

Expert definition:

Good interaction design requires insight in possible user groups, contexts of a product's use, and location (Preece et al, 2015, p. 6), and one of the main concerns are to create interactive systems that trigger some form of emotional and motivational state of mind for the user, such as trust or creativity (Preece et al, 2015, p 131). We can have a product with functions that we need, but how we use those functions is interaction design (Hartson & Pyla, 2012, p. 12). Benyon (2014, p. 206) says that it's critical for people that their capabilities are considered when interactive systems are to be designed, not just for efficiency but also to create a genuinely motivating experience.

2.3.2 Service Design

Personal definition:
Service design is a design field that consists of approaches from multiple business disciplines where the goal is to create or improve a service to be valuable, relevant and easy for its users. Good service design follows users in their journey from start to finish to ensure that they are satisfied with every aspect of the experience. To me, SD is like a machinery where every

detail needs to be looked over in a continuous loop, and all aspects of its infrastructure need to communicate correctly.

An example of part of a service infrastructure:

For a bus company the time table for every route need to be always up to date within the entire company's employees. The timetables need to be published on the company's website, in travel applications, in brochures available on buses, and on any local bus office or terminal in the vicinity. Whenever there's a seasonal change to these timetables, new information has to be made available to the public as soon as possible. The drivers need to follow the timetable set, within the best time proximity possible. The application customers use for traveling should contain options to pay for the ticket, find routes to the chosen destination, and also contain all route timetables close to real-time events. The application should also notify the user in the event of time table diversions. That same time table information also has to be sent to bus stops that have time table displays, and it needs to be updated frequently. Sometimes, other bus drivers should be made aware of delays in case they have to wait.

Expert definition:

Dutch service Design company 31 Volts (n.d.) says that when two coffee shops are placed next to each other selling the exact same products, service design is what makes you choose one over the other. Service Design has its origins in old industrial design, from when people first were concerned with improving life standards and how to make life easier (Polaine et al, 2013, p. 18). Today, service design is an evolving design discipline that involves multiple design approaches and design thinking, and is therefore difficult to describe without limiting it (Stickdorn & Schneider, 2011, pp. 22-23). Copenhagen Institute of Interaction Design are being quoted in the book *This is Service Design Thinking* with their academic description: *"Service design as a practice generally results in the design of systems and processes aimed at providing a holistic service to the user"* (Stickdorn & Schneider, 2011, p. 23). Reason et. al (2016 p. viii, x) describes the field of SD as a discipline that has great potential for a positive impact on services we use, because through design thinking and design methods, service design might help any employee of a business organization see their services through customers eyes. The potential for service success relies on customer behavior (Reason et al, 2016, p. x). They also say that even though service design as a discipline has been around for

over 20 years, businesses and organizations still fail to see the importance of it and the problems it can solve.

2.3.3 User Experience Design

Personal definition:

User experience design is all about giving the user "the whole package" when they use a product, a service or an interface. It's a design discipline with the principle of always focusing on the positive emotional state of the users, and covers the experience from A to Z. Topics of importance for a UX designer are for instance ease and pleasantness of use.

Expert definition:

User experience design is about going beyond functionality and the pure creation or existence of a product, into creating experiences that are engaging, but also aesthetic and desiring. It's about adding qualities that we want to accept and keep (Benyon, 2014, p. 93, 95). Baxter et al. (2015, p. 4) simply state that an UX design is made of different design principles but in the end, a UX designer "make technology easier to use", and a crucial point of experience design is gathering information about users. Hartson & Pyla (2012, p. xii) says that user experience is more than just "focusing on the human" but also focusing on emotions, social and cultural interaction.

2.4 Social media

As technology has evolved, so has the World Wide Web. Today users of the internet, often referred to as "creative consumers", are being enabled by technologically advanced interactive systems to both create and consume information (Berthon et al, 2012). User creations are being referred to as UGC, user-generated content, where UGC is any type of media shared with the public on the internet by a user/consumer (Beal, n.d.; Wikipedia, 2017a). Social media communication among individuals vary, where some post often as a one - to - many type of networking, while other individuals might be of the more observational type and only pay attention to posts (Preece et al, 2015, p. 109). Today's communicating trends on the web does not only consist plainly of text, videos and photos sent between individuals, social media as a phenomenon also serve as portals for massive communication opportunities between individuals and brands, and communities and brands (Berthon et al, 2012). A brand interacting with their consumers online might even experience that social media serve as an enabler for a closer relationship and higher consumer loyalty (Hamilton et al, 2016).

The idea of using social media as part of the thesis was inspired first and foremost by Google's guide *Micro Moments: Your Guide to Winning the Shift to Mobile* and the topic of user behavior on the mobile web, along with UGC as a communicating method, and the term "influencer". An influencer is a "regular person" who holds a certain merit (often on the internet), receiving sponsoring from a brand with the purpose of advertisement (Hallenbeck, 2017). Applications Instagram and Snapchat are two similar yet also different platforms of social media, and were chosen to be used in this thesis because they serve as two of the most popular public portals for user-generated content. Knowing this means that social media plays an important role in the reasoning behind the fifth micro moment to be presented in chapter 5, and description of the platforms used in the design is deemed appropriate.

2.4.1   Instagram

Photo-sharing application Instagram (IG) was created by Kevin Systrom and Mike Krieger (Wikipedia, 2017b). Systrom has been quoted in his belief that communicating through photos would rise in popularity along with advancements in technology (Siegler, 2010). Instagram was acquired by Facebook in 2012, and even though the statement has later been deleted from CEO Mark Zuckerberg's timeline, several online newspapers, The Guardian (2012) among them, quoted his statement saying that Facebook wants to keep providing great photo experiences, and that connecting the two platforms would be beneficial for both parties. Instagram reported having 800 million active users by the end of August 2017 (Statista, 2017), and 2 million advertisers (Instagram Business Team, 2017a). The functionality behind Instagram is that a user can create a profile (private or business account), choose information they want to share such as real name, website and a custom biography, and from thereon be able to share photos or short videos adding their own explanatory comment on the picture using plain text, symbols, hashtags or mentions.

Identifiers

A hashtag, also known as the symbol #, is a digital identifier on Instagram. This feature enables posts with the same hashtag to be categorized together. If the account behind an Instagram post with a specific hashtag is set to public, the post becomes visible among all other public posts using the same hashtag. Examples of hashtags are #flower or #vwvan (Instagram Help Centre, n.d. a; Instagram, 2012). Another identifier is the unique identification of a user profile, the term called "mentions", better known as "@mentions", where the @ is set before the username of an account (Instagram Help Centre, n.d. b). Benyon (2014, p. 355) describes these identifiers as tagging; using keywords to label and group certain elements together.

Figure 2 Example of an Instagram post from author's own account. Joergensen, L(2017)

2.4.2 Snapchat

Snapchat was founded in 2011 by Evan Spiegel, Bobby Murphy and Reggie Brown, and is currently being developed by the company Snap Inc (Molloy, 2017; Wikipedia, 2017c). Snapchat is a photo, video and messaging application where the core functionality is that users can send short videos or time limited photos ("snaps") that does not get stored on the recipient's phone. Since its release in 2011, they've added multiple functionalities to the app, and Snapchat reported having approximately 178 million active users in the third quarter of 2017 (Statista, 2017b). Previous versions of Snapchat relied on private photo or video communication but later builds opened up for other features, such as public postings (called Our Story) using locations or topics (Snapchat Support, n.d. a).

During the time this thesis project was conducted, Snapchat updated their application. On October 10th they revealed their newest feature called *Context Cards* (Snap Inc, 2017), currently only available in certain regions because of testing. If a snap seems particularly interesting for the recipient, he or she can "swipe up" to reveal relational data. As an example, this feature can show locations, opening hours or even reviews (Snapchat Support, n.d. b).
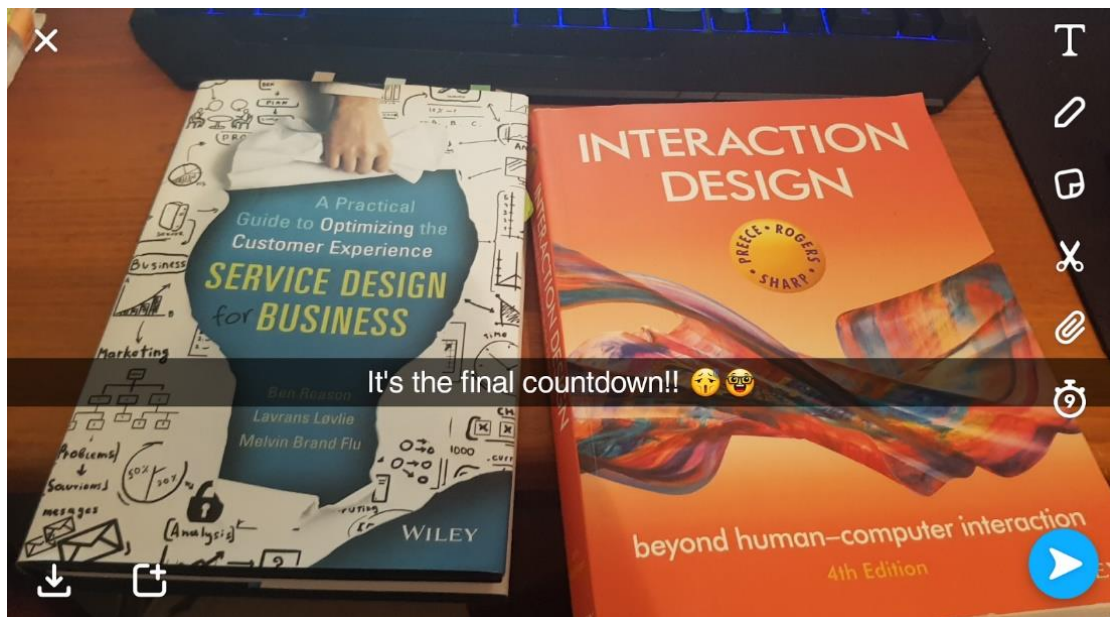
Figure 3 Example of a Snapchat image before posting. Joergensen,L (2017)

2.5 Microinteractions

Some may have heard of the term "microinteractions" and wondered if they are the same as micro moments. They are not. *Microinteractions* is a term described in detail in Dan Saffer's book *Microinteractions: Designing with details* (2014). Whereas micro moments are all about the user's sudden need to engage with a brand, and the four categories that make up the term, microinteractions is an expression that includes all single task interactions with a certain product. To further explain, microinteractions is an expression regarding all small, singular tasks available in an individual product (Saffer, 2014, p.2). To give a few examples; pressing the button that starts the coffee machine, swiping to either accept or reject a call, or giving a "like" or "reaction" to a picture on Facebook. Where breaking your headphones, and picking up your mobile to enter Amazon.com to purchase a new one is a micro moment, the action of clicking "buy" is a microinteraction.

3 METHODOLOGY

This master thesis aims to study Google's guide *Micro Moments: Your Guide to Winning the Shift to Mobile* and investigate if the advice Google presents can be further explained through appropriate methods found in user-centered design fields interaction, service and user-experience design. This chapter describes the methods and approaches used in the attempt to answer the research questions, and the methods used to produce this thesis.

3.1 Qualitative research

The nature of the thesis' topic makes this a *qualitative research* project with methods inspired from several qualitative research design approaches. In qualitative research, no clear framework of methods to be used is defined; the topic(s) to be studied may have so many proportions that strict boundaries might limit the researcher's ability to understand social events (Leedy & Ormrod, 2013, p. 141). In qualitative research, it's not always straight forward in terms of pinpointing a certain problem as part of the planning phase but rather a problem can emerge through the study of an event or phenomenon. Thus, it is not easy to describe or plan what questions to ask or which methods to use (Leedy & Ormrod, 2013, p. 142). The purpose of this qualitative study is description and interpretation (Leedy & Ormrod, 2013, p 142), namely to reveal relationships between advice found in Google's guide *Micro Moments: Your Guide to Winning the Shift to Mobile* with user-centered methods used in user-centered design disciplines interaction, service and user-experience design, and to create a new occurrence after the discovery of problems found during the study of micro moments as a relatively new phenomenon.

3.1.1 Qualitative research design

As mentioned, there are no real guidelines or strict framework for qualitative studies, but this thesis was planned with a qualitative approach. However, with the nature of qualitative research, I made a conscious decision *not* to create and follow a strict pre-defined plan but a plan that grew and took form during the work process. The project started with inspiration from the guidelines of content analysis (Leedy & Ormrod, 2013, p. 151), where the aim was to study the guide *Micro Moments: Your Guide to Winning the Shift to Mobile* and locate

certain characteristics to be further examined. This approach then resulted in the following research question: "Are there any strategic advice from Google found in *Micro Moments: Your Guide to Winning the Shift to Mobile* that interaction, service and user experience designers should be aware of?", with the intent to pinpoint and explain which relationships there were to be found between the guide and user-centered design methods.

This specific part of the project is a comparative study conducted with the purpose of presenting qualitative information from user-centered design disciplines, using argumentative reasoning found in appropriate design process methods. Factual textbooks from authors within the respective fields of interaction, service and user experience design will be used to explain the definitions of the disciplines.

During the study of Google's guide, it was discovered that there was a potential to take the topic of micro moments further, and social media paired with user behavior on social media became foundations for the creation of the fifth micro moment. This type of method was inspired from the research design approach grounded theory, because it began with micro moments as a base of information, which developed into a new theory regarding micro moments as a phenomenon caused by the current theoretical information seemed incomplete (Leedy & Ormrod, 2013, p. 148). The last research question for the thesis is as follows: "Social media is considered a part of the internet with a massive potential for multi- way online communication. How can we present user-generated content as a new micro moment to prepare for?"

3.2 Constructing the fifth micro moment

The creation of a fifth micro moment to be suggested with the existing four moments is to be completed by taking use of social media platforms Instagram and Snapchat as portals for studying user-generated content as well as articles on modern marketing strategies and social media as a phenomenon. Together with the knowledge to be gained through journalistic as well as research articles on marketing and modern marketing strategies, my own knowledge gained through the Master in IxD programme, supported by applicable textbook material, the suggestive micro moment is expected to be designed. This will be a verbal statement with some infographics to support ease of understanding.

Approaches:

- Studying content posted from my friends / followers to the public
- Studying content posted directly to me
- Studying my own posting habits (personal posts or comments to others')
- Studying popular posts 'liked' or 'commented' by people I follow
- Reading articles on modern marketing strategies UGC and influencers
- Reading articles on social media
- Reason for the concept of 'I want to show' using appropriate UCD methods and UGC as a marketing strategy.

Grounded theory have several advisory points that suits this part of the thesis, such as the development of the theory behind the suggested fifth micro moment, named "I want to show"; it is based upon data inspired by, but not taken from, the original study material, it was created by the sense of incompleteness or inadequateness of Google's guide *Micro Moments: Your Guide to Winning the Shift to Mobile,* and it shows how one interaction can turn into other interactions (Leedy & Ormrod, 2013, p. 149).

4   MICRO MOMENTS VS USER-CENTERED DESIGN

This chapter aims to study the information presented in Google's guide *Micro Moments: Your Guide to Winning the Shift to Mobile* to relevant methods and information found in user-centered design disciplines interaction, service and user-experience design. The goal is to detect what relationships we can see between UCD methods and micro moments and the three "be" strategies. This chapter also presents how UCD disciplines can help with *connecting the dots*.

4.1 Micro moments are user goals

The real topic behind the four micro moments *I want to know, I want to go, I want to do* and *I want to buy* is user goals. All this information that users go on the internet to find, are user goals. They reflect the need in that moment, such as to seek knowledge or get help with a problem.

I want to know… which restaurant has the best sushi

I want to know… what net neutrality means

I want to go… where to buy iPhone X

I want to go… best pancakes (near me)

I want to do… how to do cross-stitching

I want to do… how to change a car battery

I want to buy… a time-share in Spain using Paypal

I want to buy… a Mercedes (right now)

These are all examples of possible micro moment goals. This means, a brand shouldn't only be prepared for the concept of micro moments, but they should also prepare for the actual information the users want. Obviously, if you rent out cars you do not need to worry about the best sushi places, but you need to anticipate the possible user goals users will have towards your service or product as well as any similar competitor. *Why would one user choose you, your website, your product or service, your expertise, over someone else?*

An example Google makes (2015, p. 12), is how Realtor.com realized that buying a home is a complex process that often cause negative emotions for people looking to buy a home. They then created videos to help people understand the whole procedure. This is a great example that caters both to *I want to know* moments as well as to *I want to do.*

4.1.1   User goals and possible implications

In connection to Google's advice *"Be There"* and "*Be useful"*, a brand must know and anticipate what the user's goal is going to be, and that information presented should comply with what users want, and this is one of the aspects of importance in human psychology in user-centered design. Baxter, Courage & Caine (2015, p. 15) explains that even though there are many goals to be met in a product development, such as sales, making sure that the *end users* meet theirs are important. They continue saying that a product that cause problems for the end-user may have negative consequences for the brand's sales and reputation. Knowing what users want are important for all four micro moments. If you don't know what the user's goals are, then you cannot prepare for the moments they want to *know*, *go*, *do* or *buy*.

4.2 Design methods

Design rules and methods are guidelines created with the purpose of learning how to design for users when they interact with a product or an interface. The first type of guidelines stem from the early 80's to mid 90's when people such as Norman, Shneiderman, Nielsen and Molich, people with a various higher education in either technology or human psychology, presented various suggestions to how awareness of cognitive psychology could aid designers and developers when creating interfaces (Johnson, 2014 pp. xiii - xv). Although this thesis regards itself with interaction, service and user experience design, there are design methods and factual knowledge found in the field of user interface (UI) design that is also highly beneficial for understanding the user, as many UI guidelines aid the *interaction flow* and the *feel of experience* a user has with an interactive system such as a website or application.

4.3 Understanding users

User research and understanding users are vital parts within user-centered designs. General user research can be conducted anywhere; search what competitors are doing and how they are doing, read reviews and ratings, social media chatter, forums, your own company's Facebook site, research articles from academic studied or social studies on your field, Google your brand etc. Google already presents many real-life numbers about people and their opinions in the guide *Micro Moments: Your Guide to Winning the Shift to Mobile,* such as 90% of users haven't made their decision on a brand when they go looking for information or that brand awareness can increase with 46% if the brand shows up in search results (Google, 2015, p. 6). Just as users turn to their device to search for information for the four micro moments, so should user researchers.

4.3.1 Data gathering

As mentioned, it is possible to conduct searches online to gather data about users. User-centered designers also take use of methods such as surveys or interviews to acquire information.
Interviewing is a popular but time-consuming method. They often offer broad perspectives given from the persons being interviewed, and can give qualitative data (Baxter et al, 2015, p. 100). *Surveys* are also good methods with a high chance of both qualitative and quantitative data, because you can get several opinions at once (Baxter et al, 2015 p. 110). However, usually there's mostly quantitative data to be collected in this process.

There are several methods that user-centered designers use to guide a design process, and to ensure the interest and goals of the user are being kept. Data gathered about real users feed information to a dataset containing characteristic information such as age, education, various skills, occupation, habits, anything about humans that make us individuals as well as part of a group. This dataset is called *user profiles*, and user profiles are used to create fictional users, also known as personas (Baxter et al, 2015, p. 36). *Personas* are created using background information from real users, and often directly from user profile data. Personas are made-up characters with made up names, but the age of a persona, the education, the job, interests, user needs and even e.g. attitudes towards technology can be information that stems from the real world, from real people (Benyon, 2014, p. 55). When there's doubt in

development what direction to take and what features to add, personas can keep the team focused, as the persona is reflecting the real user, and the question they have to remember is "will the real user need this?" (Hartson & Pyla, 2012, p. 267). However, having a group of personas to reflect the real users is not enough. Therefore, we also use *scenarios*. Scenarios are made-up events that in theory could happen in the real world (Benyon, 2014, p. 55). They're used to anticipate how the real users would use a product or a service. Scenarios using personas can be a part of early evaluations of a design (Baxter et al, 2015, p. 46), because they make us ask questions to stay relevant during the development process.

4.3.2 Understanding users is not only knowing who they are

When users are looking for something specific, they tend to scan for information, and this is perception influenced by the goal which may cause us to miss information that's not part of it (Johnson, 2014 p. 9). Preece et al (2015 p. 67) name this type of cognitive process "visual attention*"*. Among the design rules to support this mental state is structure, to set up the interface and the informational data in a way that makes it easy for users to scan and understand it (Johnson, 2014 p. 29; Preece et al, 2015 p. 67,71). Another aspect regarding information, is to acknowledge that not all users have the same level of skill when it comes to reading (Johnson, 2014, p. 67). This means that topics such as fonts, unusual or difficult vocabulary, poor information structure and repetitiveness can give a user issues with the data presented (Johnson, 2014, pp. 75 - 80), and that further interaction with the website or application may no longer be desirable. In this event, the interactive system is neither "there" nor "useful".

4.3.3 Evaluations

To know what users want and how to present that information to them is not only about user research. To know if the website or application is useful and quick, there's also the possibility to conduct evaluations. Evaluations are conducted with different types of goals depending on what the product or service is supposed to do. For instance, one can evaluate for speed of delivery of information, how an experience makes people feel, to see how people interact, or if the product caters to disabilities such as eyesight (Preece et al, 2015, p. 454-455). A type of evaluation is heuristic evaluation, an inspection method for interactive systems where the goal is to follow a set of principles to see if the system complies or not (Preece et al, 2015, p.

501). There are several sets of principles but the ones that are most known are the user-interface guidelines from Shneiderman and Plaisant, and the ones from Nielsen and Molich (Johnson, 2014, p. xv).

Shneiderman and Plaisant	**Nielsen and Molich**
Strive for consistency	Consistency and standards
Cater to universal usability	Visibility of system status
Offer informative feedback	Match between system and real world
Design task flows to yield closure	User control and freedom
Prevent errors	Error prevention
Permit easy reversal of actions	Recognition rather than recall
Make users feel they are in control	Flexibility and efficiency of use
Minimize short-term memory load	Aesthetic and minimalist design
	Help users recognize, diagnose and recover from errors
	Provide online documentation and help

(Johnson, 2014 p. xv; Preece et al, 2015, p. 501)

These principles are important not just for user-interface designs but also for interaction and user experience purposes. A user should for instance never feel that they can't make mistakes when they use a product, nor should they be expected to understand complicated words, remember where they are on a site rather than seeing it, or be unable to finish a task such as conduct a purchase. These are important principles to remember when it comes to Google's points on being *useful* and being *quick*, and also to the micro moments such as *I want to know* or *I want to buy,* because the principles mentioned can be directly connected to points such as the delivery of *useful content* and enabling users *to quickly* conduct a purchase. One of the aspects "of learning how to be quick", to ensure the user's patience doesn't run out, is to be aware of the technical issues a user might have. A brand usually would want users to be able to go through with a purchase hassle-free, as supported by Google's advice "be quick", meaning that any interactive system should be tried and tested for certain types of technical frustrations. Jeff Johnson presents a few examples in his book, such as the use of words like "member ID" for login, and that this might cause confusion for the user (p. 145) if the user

doesn't understand what this login credential means. It's important to remember, as stated in section 2.2.5 *The three "be"s and Connecting the dots* any negative emotion from the user's side, like poor information, structure or delays, can cause the user to leave the system or the service, and never come back.

Another aspect of evaluation is user testing, or as Hartson & Pyla (2012, p. 429) prefers; UX evaluation. Benyon (2014, p. 221) calls this participant evaluation, where real users get to test a scenario. Preece et al (2015, p. 457) refers to a possible evaluation method that includes real users as usability testing – a method with the goal to see how usable a product or service is. What these terms all have in common is that they refer to a stage in development where theory is seen in practice, and designers and developers get to see if the data gathered and product or service designed cater to user needs (Preece et al, 2015; p. 454, Benyon, 2014 p. 215).

4.4 What can UCD learn from micro moments?

There are points to be made and lines to be drawn from the disciplines of interaction, service and user experience design to micro moments. We see that to be able to fully understand users, what habits they have when they search, how they interact, what they expect etc, UCD methods can help when filling in all the necessary information about these points. However, it's important for any designer or researchers to be *aware* of micro moments. Let's take *I want to do* and *I want to know* as examples; designers and researchers know how to use research methods to find information, but they should be aware of search trends as *resources* to understand what it is that users as a group look for. What do users say about the similar apps a designer is working on? How many reviews are there for this type of product, is there a need for a new one? When user-centered design methods can give marketers and other occupations the means to conduct a study, the answers to those studies lie within the micro moments themselves. That's where the users, the people, get to tell their story, this is where the actual data is. We can learn how to read, but the content of a book will provide us new knowledge. As we can see, Google's guide and explanation to micro moments versus factual information from user-centered designs are not just a one-way connection but it's a multiway relationship.

4.5 Connect the dots – to someone who knows how

To support Google's "Be useful" principle, there are multiple steps to take to actually *be useful* for the user. The guide already recommends in the section *Connect the dots across teams* (2015, p. 26) that people across teams should work together. Understanding users is more than just analyzing data found from searches, number of visits, time spent on a website or items left in a digital shopping cart, which is why it's important for a brand and it's marketing department to understand the value of user-centered design methods, as well as recognize to connect with people who work within this area of expertise. User experience needs to be acknowledged across teams (Baxter et al.,2015 p. 16).

      The U.S. Dept. of Health and Human Services provides an informative article through their page Usability.gov (n.d. b), with descriptive indicators as to why projects should include user-centered design methods. Among these are for instance that if the goal of an interactive system or service is to improve performance, then one must ensure that numbers of errors and possible errors are reduced, and if the goal is to increase exposure, then one must make sure that users come back, and that new visitors find their way in. All these are important remarks that have already been stated in Google's guide through *be there*, *be useful* and *be quick*. This shows that UCD methods and the guide can go hand-in-hand.

5   THE FIFTH MICRO MOMENT

In this chapter I will present my own suggestion for expanding the term micro moments with an important user activity that that might be just as useful for branding as for personal reasons, namely the sharing of personal content online. The suggestion will also be reasoned for both directed at the marketing business as well as for the fields within user-centered design.

5.1 I want to show

As previously introduced, Google's micro moments are already split into four key events - *I want to know, I want to buy, I want to do, I want to go.* However, a user's engagement with a brand doesn't stop there. How about the moments where they reach for their phones to tell the public about a specific point or event in their life? *I want to show* is the suggestive category for a fifth key user moment to belong under the term micro moments. These are the moments not only when an individual post to the internet with the intent to engage with a brand, but also when a user post to social media for personal, social reasons. *I want to show* as a micro moment is a contribution worded and described by me - as an interaction designer and a mobile user, and its creation comes from a realization that when studying Google's guide to understanding user behavior through the term micro moments, "something" was lacking, and that something turned out to be social media. Google's guide covers a good amount of ways to be aware and prepare for user behavior online, but it did not cover how a brand should be aware of users *outside* of these micro moments. With the rise of modern day internet and thus social media platforms, a product, service or experience's life cycle doesn't end after a purchase has been made.

I want to show is not a new phenomenon, as the moments this entail can be described as user generated content (UGC).

Figure 4 Explaining "I want to show" through an infographic. Joergensen,L (2017)

5.1.1 Naming the concept

I want to show could easily be called "I want to share'", because that's what users do on the internet - they share. It's a common word that people already associate with the internet. We share each other's posts (also known as reposting), we share opinions. Oxford Dictionaries (n.d. a) explain the term *social sharing* as a mass noun that means: *"The practice of sharing content from a website on a social media site or application."* They state that a *mass noun* means *"a noun denoting something that cannot be counted (e.g. a substance or quality)"* (Oxford Dictionaries, n.d. b). This sounds impersonal to me because it's almost remind me of those chain-letters we used to post as kids, or that we received on e-mail in the early 2000s. It's something that just gets "spread around".

Share can also mean:

- *"One of the equal parts into which a company's capital is divided, entitling the holder to a proportion of the profits"* (Oxford Dictionaries, n.d. c).
- *"A person's part in or contribution to something"* (Oxford Dictionaries, n.d. c).

The origins of share comes from Old English *scearu* , meaning "division" or "part into which something may be divided" (Oxford Dictionaries, n.d. c).

The word show is described as:

- *"Be, allow, or cause to be visible" (Oxford Dictionaries, n.d. d).*
- *"Offer, exhibit, or produce (something) for inspection"* (Oxford Dictionaries, n.d. d).
- *"A spectacle or display, typically an impressive one"* (Oxford Dictionaries, n.d. d).

One of the origins of the word show comes from Old English *scēawian*, meaning "look at" or "inspect" (Oxford Dictionaries, n.d. d).

I chose to use the word *show* because I consider this word to be more personal and appropriate for the activities involved. A user might *share* to repost a brand's online contest, but when they post a "selfie" together with friends or a photo of their new mountain bike - they *show* it to the world. Naming the concept became a difficult choice because share is, as mentioned, a common phrase on the internet, and obviously it's common that we want something to be seen by many, but still *show* seemed the most appropriate because of its connection to *exhibit* and *display.* As an interaction design student, I learned from the Interaction Design programme that knowing users as humans is of the highest importance,

and I believe that whenever someone posts to social media, perhaps specifically to popular platforms like Instagram and Snapchat, it shows a piece of their identity, passions and life. An individual's post conveys "I want to show you this", making it personal.

Another angle for not wanting it to be called *I want to share*, based on the meaning of something that cannot be counted, is that I feel that *share* would have too close a connection to influencers. Oxford Dictionaries presents influencer in terms of marketing as *"a person with the ability to influence potential buyers of a product or service by promoting or recommending the items on social media"* (n.d. e). That doesn't sound so bad, but influencers on the internet often have something to gain from it, they often receive products to try (and review), or they get money. This is not the type of consumer behavior that the concept of *I want to show* as a consumer micro moment should be built on.

SOCIAL MEDIA POSTING

Private

Influencer

- Non-goal oriented
- Non-profit
- Not sponsored
- Shows private life and private opinions

- Goal oriented
- Some form of profit
- Sponsored by brand
- Either private or sponsored opinion

Figure 5 Private opinion on the difference between private versus influencer posts. Joergensen, L. (2017)

When deciding on the correct description for this moment, social media influencers as a person who does it actively, were purposely excluded. As mentioned in section 2.4 *Social Media*, influencers have a goal-oriented agenda, and their presence on the internet is close to serving a spokesperson for a brand rather than just as a private person showing their interests and passions. Margaret Rouse (2016) for WhatIs.com writes that influencers are usually e.g. celebrities, someone that the marketing business want to collaborate with because of the vast amount or readers, watchers or followers they have. This obviously doesn't mean that a celebrity cannot post something that isn't being sponsored, or that they do not post private

posts unrelated to marketing, it just means that this specific type of influencer is not what *I want to show* is about. However, this moment is based upon the *concept* of influencers, because I thought "If people get influenced by an individual clearly sponsored to show off a product, isn't there a possibility that we'll be influenced by a post from a friend or acquaintance that is *not* sponsored?"

5.1.2 I want to show: engaging directly with brands

As an example, an *I want to show* moment can be when a customer reaches for their phone to submit a review. Reviews can be restaurant experience, a customer service, or a product purchase. In other words, any shared moment where the user's main goal is to share their consumer opinion, with the intent that the brand should be aware of said opinion. A brand, let's say a restaurant, usually already have its own page within the review based website, and can therefore easily track customer opinion. A website such as this can be Yelp.com or Tripadvisor.com. This example is a goal-oriented version of this type of *I want to show*, as one can assume the moment (and thus the review) is intentionally targeted at the brand. Baxter, Courage & Caine (2015, p. 27) advises companies to realize the importance of the internet with a quote *"so whether you know it or not, you have a presence on social media"*.

5.1.3 I want to show: Engaging indirectly with brands, or not at all

These moments do not have to be aimed at a brand, however a brand might be indirectly involved because of the context of the shared media. These are usually non-goal oriented as they are meant as posts between a user and the user's friends or followers for social interaction purposes, but a brand might get involved if the user uses a public mention of the brand's name (so called "hashtags" or "mentions", presented in section 2.4.1 *Instagram).*
A personal example to explain this type of moment, is when a couple of my friends, who are into Korean cosmetics, "snap" me a photo or video of their recent purchase. This is a *I want to show* moment for them, which turns into a *I want to know* moment for me, because I get curious and want to know more. I might inquire my friends directly or do a Google search. It might even end with a *I want to buy* moment as well, if I find the information valuable and influential enough, and it has happened. In the past I have bought Korean cosmetic products after being influenced by my friends' social media posts.

Figure 6 Snapchat photo of a Korean Beauty purchase. With permission, Sande, M. (2017)

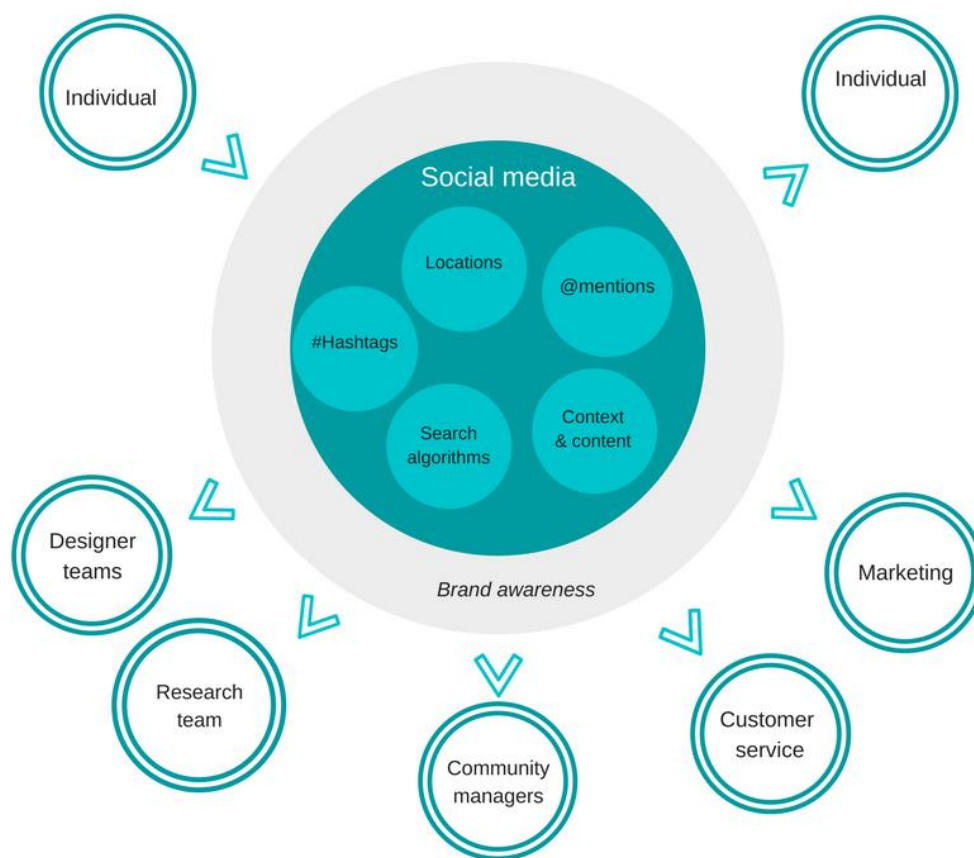## 5.2 A private life moment is also a *I want to show* moment

It is important to emphasize that these moments do not have to explicitly evolve around the fact that a purchase was made. *I want to show* can be any post where users share their interests on social media. Everything from an image of a coffee cup, a knitted scarf or a video of a train passing can be a *I want to show* moment for the individual sharing, that in turn might influence other people's lives - their interests and possibly their own future purchases. We must consider the possibility that the opportunities with user-generated content such as reviews, ratings, non-sponsored blog posts, photos and videos can be highly influential for anyone interested. With this in mind, we can assume that *I want to show* as a micro moment is a direct output from a user in their journey, whether it is meant as a consumer aiming their content directly towards a brand, or just a human being - a user of a mobile phone, sharing a piece of their lives and their interests with a custom crowd.

5.3 Why acknowledge *I want to show* as a micro moment?

It can be argued that *I want to show* could just as easily have fit under the existing micro moment *I want to do.* However, as previously explained, these *I want to do* moments are typical *self-help* touchpoints, for instance when a user expresses the need to find tutorials and guidance (Google, 2015, p 14). The condition of an *I want to show* moment is that it's supposed to be a *statement*, they are the user's way of expressing "look at this" or "I have an opinion", and the need to share this with the public. Reason et al (2016 p. 9) says that it's important to know your customers as humans, so this means that it's important to know what trends people participate in on the modern web, because the whole point of Google's guide *Micro Moments: Your Guide to Winning the Shift to Mobile* is to give strategic advice about modern user behavior online. We already know that the mobile phone is considered almost as a part of the human body in this day and age; we "snap", we "tweet", we post pictures, browse, purchase, research and so on and so forth. In fact, a statistical study from 2014 said that there were 60 million uploads to Instagram every day (Simply Measured, 2014 p. 2), and as previously mentioned in section 2.4.1 *Instagram*, the social media platform reported having 800 million active users and 2 million advertisers. Businesses seem to realize that participating in social media trends is important, because Instagram's internal data presented 15 million business profiles by July 2017 (Instagram Business Team, 2017b). As briefly

introduced in section 2.4.2 *Snapchat*, their new concept *Context Cards*, with the option to swipe up to see details of someone's post, is a type of artifact which serves to aid external cognition, as it can give us information we may have forgotten or did not know (Preece et al,2015 p 93). As an example, a snapchat photo or video from a restaurant with the caption "where are you?" can aid in giving the recipient the address and opening hours, or even serve as a reminder of a date.

Figure 7 I want to show awareness between users and organizations. Joergensen, L. (2017)

5.4 *I want to show* as a marketing strategy

Figure 8 Google's micro moments including "I want to show". Joergensen, L. (2017)

One of the key questions presented for marketers in the micro moments guide, is: "*What are consumers doing with your product or service (for example, baking cookies, buying a home, recovering from an injury)?* "(Google, 2015, p. 16). This is a great question that user-generated posts can give a closer answer to. This question that Google presents is written in terms of the purpose of the *I want to do* moment, but it's highly relatable to *I want to show,* because people share so much from their lives online. If you want to know what someone is doing, maybe they will have posted it on social media? One of the popular marketing strategies in today's society is in fact user-generated content and the use of influencers. As mentioned briefly in section 2.4 *Social Media*, user-generated content is any media, like blogposts, tweets or videos, made by users and shared publicly with the internet, basically what the idea of *I want to show* is based on; the fact that users like to share their opinions and passions. Instagram Business Team (2016) wrote a post explaining how advertisements have become more popular, and that Instagram users are known to act after being inspired by a post. In a study conducted by TurnTo and Ipsos in the United States (TurnTo, 2017), 1070 people were asked about their online purchases, where 90% answered they find user-generated content to be of influence on their purchase decisions, with search engines being the second most influential tool. 71% of the participants in the same study said they submit product reviews online, and 69% said they submit product ratings. Three years prior to this study, marketing company Crowdtap, conducted a study together with Ipsos (Crowdtap,

2015), where 839 men and women were asked about media habits and information perspectives. It was said that 30% of time spent on media, are spent on platforms for various user-generated content, such as social media networking (including chats) and e-mails or texting. When the topic was purchases, or brands, friends, family and peer-reviews are the most trusted sources for information (Crowdtap, 2015 p. 4,6).

Through the rise of online communication platforms and user-generated content comes the term eWOM - electronic Word-of-Mouth; a type of digitally published opinion posted through networking platforms, for instance a review-based site such as Yelp, or social media site Facebook (King et al, 2014). It is suggested that when consumers post their opinions e.g. regarding a product online, eWOM serves as a continuous loop for consumer-to-consumer communication, changing the ways consumers seek out information but also alter the decisions a consumer might have in their decision-making journey (King et al, 2014). The social media platforms used in this thesis, Instagram and Snapchat, both offer commentary options available to be posted by individuals to be found by other individuals.

A few months ago, I noticed an example of how a brand took use of user-generated content, when I saw a post on my own Instagram feed. See the post below in figure 9. The An individual proudly presents a do-it-yourself creation of her kitchen counter using special contact paper purchased through a store. An employee from the store saw it, and asked to repost the image on their site, turning user-generated content into brand advertising. According to Patel (2017), this method is great to build relationships with consumers.
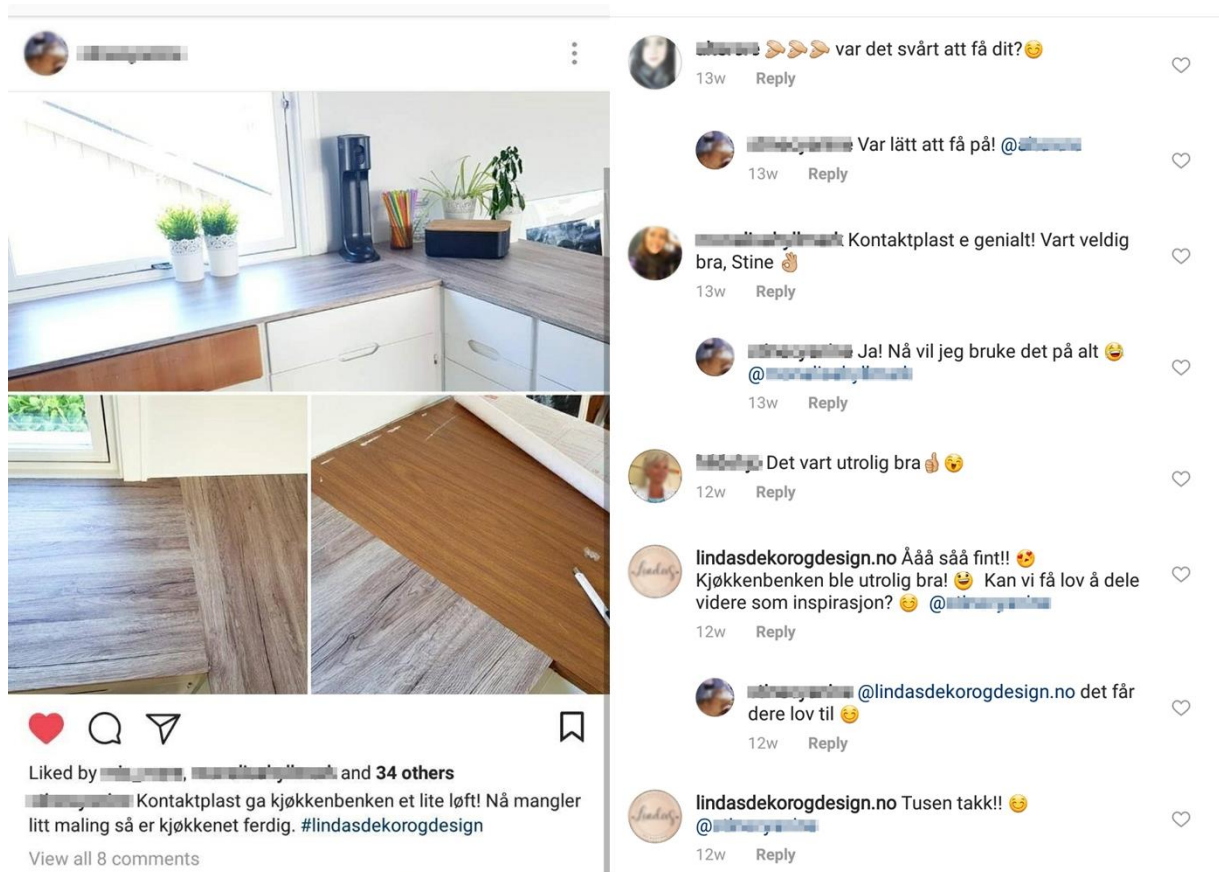
Figure 9 A Norwegian Instagrammer's post. With permission, Bendiksen,S (2017)

This example was a non-goal oriented *I want to show* moment for this user where the aim was to first and foremost show the followers what was going on in her life, with the bonus being that the brand noticed and responded. As mentioned in section 2.4 *Social Media* by Hamilton et al (2016), connecting with customers online can create better relationship between customers and brands.

One very valuable comment to support how UGC can influence individuals, was made by my best friend. We were discussing my thesis and the concept of *I want to show* as a micro moment. She said:

> *"I usually take a peek at the comment section for advertisements, and when there's like 200% 'super happy customers' who commented, it's obviously fake. There's a lot of bad products on the internet, so reliable sources (friends and acquaintances) is worth their weight in gold"*

> - Stine Bendiksen, personal conversation about IG, 16th of November 2017.

5.5 How can *I want to show* be of importance to UCD?

I want to show relies heavily on the fact that it is a user-behavior moment where the users freely share their lives and their opinions on the internet, and thus the emphasis of importance to user-centered design disciplines is what we can learn about users through their online accounts, their posts and their posting habits. There are multiple tools available to assist in monitoring a brand's Instagram presence, whether it's followers, hashtags, ad visits or account visits, one of them being Instagram's own built-in feature Instagram Insights (Holtz, 2017). Following hashtags and mentions can function as a portal to useful insights about users. As Baxter, Courage & Caine (2015, p. 24,27) explains in their *book Understanding your users. A Practical Guide to User Research*, conducting part of the customer research online could prove highly beneficial for gathering user information. Customers will contact customer support to complain or explain problems, but they also tend to share their experiences online, both good and bad. This happens on multiple social media platforms. Turning to social media to learn about your customers and the details of who they are, can help create user profiles, which in turn can help create realistic personas. Understanding who your users are is a critical part of the design process. (Baxter et al, 2015, p 35). Any user researcher for UCD might get valuable insight in either a type of product's user groups, or for their own specific product. Whereas user profiles stem from characteristics about a group of real users and e.g. their age, technical experience, opinions and education, personas are fictional users created with the purpose of illustrating a real user from the real world (Baxter et al, 2015, p. 36).

There is a possibility that learning from individual's posting habits or hashtag trends will not be sufficient background material to be certain of user needs or user experience but as already mentioned, could be beneficial for user profiling and general user group observation, and even possibly creating more realistic scenarios and storyboards. Creating stories about a customer's current and future experiences are vital for good service designs and can help multiple teams within a company to understand customer lifecycle (Reason et al, 2016 p. 18). Being able to follow social media trends and customers' point of view could create stronger relationships between customers and brands (Reason et al, 2016 p.5). Social media might also serve as a stepping stone for further user research, into methods such as interviews, focus groups or other user research activities. One such activity may be the finding of so called "trusted testers", users that can be part of design processes from an early stage (Baxter et al

2015, p. 35). This also reflects on what was said in section 5.4, *I want to show as a marketing strategy*, that one of a brand's highest interests should be to know what users do with their products.

Following in the steps of user behavior insights, one of the concepts of service design is qualitative customer research (Reason et al, 2016, p 7). I want to show can be a powerful foundation for such insight. It is not always easy for service designers to know what customers truly feel about their service, but social media is a free source of data to be added in blueprints or in customer journey mapping (Reason et al, 2016, p. 12). This is of course, dependent upon how much users actually share. Qualitative research is about understanding customers to be more than a number, and that qualitative information can yield more useful information than statistics (Reason et al, 2016, p. 9). With that said, it's worth mentioning that protecting the integrity and identification of the users is still very important, even though users may give their feedback and opinion open to the public e.g. on an Instagram post using a public profile it's important to remember that no form of harm should come to the users (Baxter et al, p. 70).

6 DISCUSSION

This chapter provides a general discussion on this thesis as a project, with comments on Google's guide as well as other paths this thesis could have taken in terms of choice of methodologies.

6.1 The guide to winning *micro moments*

One of the concerns I have with Google's guide isn't that it doesn't present information valuable to the fields within user-centered design. It has several important pointers that any user-driven designer can understand and take a note on. The issue is that the guide doesn't really pinpoint to occupations *outside* of UCD how essential it is to know who to collaborate with to make the information they want users to find and see, truly useful. Telling a marketer to be useful and quick, with the reasoning that users want good information and that they want it "right now" doesn't necessarily help. Therefore, Google's guide should have a much larger emphasis on the last section they call *Connect the dots across teams* (2015, p. 26) to teach the importance of teams working together to understand the users and to ensure a brand's success. Google's guide is, and fairly so, advising marketers how to direct consumers into feeling they have entered a trustworthy and desired domain, a place where they feel their needs are being accounted for. As far as I see it, is part of a sale strategy, which again is fair as that's part of marketing as a business. However, human psychology is far too complex for one field of expertise alone, which is why we have occupations and educations such as cognitive psychology, interaction design and user experience. Results can be great when user behavior is understood and acknowledged from both an economic perspective as well as user-centered design (Reason et al, 2016, p. 9).

6.1.1 Why we shouldn't include *I want to show* as a micro moment

One can wonder why Google hasn't already included a moment such as *I want to show* to the original four moments, but a general idea from my perspective is that perhaps individual influencing through user-generated content isn't as widespread yet. Although there are studies such as those from TurnTo and Crowdtap insinuating that social media and influencing through user-generated content are trusted sources for people, as well as the fact

that Google's own search numbers for reviews have risen, as mentioned with the search term for "best" in section 2.2.1 *Micro moment one: I want to know,* perhaps this is not enough to include user-generated content as moments to prepare for? Another possibility is, of course, that user-generated content hasn't been a topic yet at the marketing department. Lastly, one can also speculate whether the behavior seen through *I want to show* could be covered under the existing term *I want to do*, even though this moment is aimed more for self-help and tutorial purposes.

6.2 What could have been done differently?

First of all, there is a chance that other's might want to use the concept of *I want to show* with the term social influencer, and that influencer marketing is the new "something to prepare for". Shareen Pathak for Digiday.com (2017) writes in her article "Brands are using influencers like ad agencies" that the use of influencers gives a brand more control, and that it is cheap advertising. She's not the only one, online searches for influencer marketing reveal many similar articles of both present day and future predictions. Perhaps is this part of what Google should say that the marketing business should prepare for when going mobile?

There are several design discipline methods that could have been beneficial to include in support of the topics in this thesis, especially for *I want to show*. Example methods are interviews, focus groups or even surveys. These methods are often used in the user-centered design disciplines to find information about user characteristics as well as e.g. user needs, habits, attitudes, problems, and similar. This study was intended as a theoretical qualitative project, with no additions from my personal life other than professional opinions as an interaction designer. Throughout the study this was difficult to uphold, because the idea of *I want to show* first came to me after having decided on the primary research question of the thesis and studied the topic for a while. It took a few readings through *Micro Moments: Your Guide to Winning the Shift to Mobile* before I realized what "bothered" me about it, and I thought "don't we also suddenly reach our phones to show people what we just bought, or where we are?". The idea kept growing as I searched social media platform Instagram, and started to notice patterns in my feed as well as on the Snapchat pictures and videos I received. From then, some data gathered and used in this thesis was provided by people I have a close relationship with. I explained the concept of my thesis to my friends Marina and Stine, and was granted permission to use their Snapchat and Instagram photo (section 5.1.2 and 5.4.),

and my friend Stine also participated with a quote regarding her personal thoughts on influencing through UGC versus brand advertisements. This is data gathered that is valuable because her opinion has been supported by research articles, but the matter of influencing could have been proved further if I had chosen to use e.g. a survey, to gather qualitative and quantitative data from others as well. Interviews, if done correctly, can reveal rich data, and focus groups are often used in marketing and social sciences (Preece et al, 2015, p. 234, 237). The concept of surveys entails that a larger number of people could have participated, and thus a larger number of opinions could have been gathered, as they might be less time consuming than interviews and focus groups (Preece et al, 2015, p. 244). The concept of interviews is highly encouraged in the qualitative research method *grounded theory,* because of the type of data the information can reveal (Leedy & Ormrod, 2013, p. 155), and as for *I want to show* as a possible micro moment, there could have been specifically attitudes such as social media usage, posting habits and influencing that could have been interesting to have.

Although it is possible the information would have been valuable for the support of *I want to show* as a micro moment, and the interest to continue to prove this concept was surely there, the primary goal of the thesis started with studying Google's guide and comparing information found with important design methods in UCD disciplines. There simply was not enough time to include further data gathering for *I want to show,* and perhaps I should have let this idea pass and focused only on the topics for the primary goal. Alas, the concept of *I want to show* and the possible relationships to both marketing and UCD disciplines got too interesting to reject. It is however, a possibility to continue this path in a future study.

7 CONCLUSION

The purpose of this thesis was to study Google's guide *Micro Moments: Winning the Shift to Mobil*e and to see if there were any advice given by Google that could be beneficial for interaction, service and user experience design disciplines. During the study of the strategic guide, it was discovered that it did not concern itself with a user behavior widely popular on the internet, namely social media posts. This last chapter aims to illustrate and summarize whether the research questions have been answered.

7.1 Conclusion of micro moments vs user-centered design

There's a clear indication that profound knowledge not only in finding user information but also in understanding user behavior is important when it comes to the term *micro moments*. There seem to be a two-way relationship between the advice given from Google in their guide to user-centered design disciplines, as they both can benefit from the information presented. We can see that there's a valuable connection to be made between finding user goals, which is a vital part of micro moments, and presenting them in a structured, uncomplicated manner, which user-centered methods can assist with. Google states it's important to not only being there for a customer, but also presenting them with the information they need. By gathering information from real users, designers create fictive characters to help envision a real problem, or a real user need, which in turn can help any team *be useful.*

7.2 Conclusion *of I want to show* as a micro moment

Although it is impossible to be certain that there always will be qualitative informational data to be gathered from social media, the connection between user research methods and the concept of *I want to show* as a micro moment do indicate that there is a strong possibility, as user research is all about figuring out who the users are, and social media is a perfect platform to see all types of users, because we share so much of our lives online. We can assume that there is a certain possibility that a moment shared from one person may turn into

a *I want to know*, or *I want to buy* moment for others based on how users say they're often influenced by others' opinions. If we are to follow Google's advice from *Micro Moments: Winning the Shift to Mobile*, stating how important it is to be there for the users with the right content as well as the means to conduct a purchase, we could say that *I want to show* is a micro moment to be prepared for and should be included as part of Google's strategic guide. Marketers should be aware of social media posts, who the users are of their product(s), and the fact that users trust each other's opinions.

7.3 The possibilities of further studies

There's so much more to a successful website, application, service or product than what's mentioned in this thesis. This project could easily have stretched into including accessibility or even dug deeper into social interactions and purchase influencing. One could also benefit from studying modern UX strategies specifically created to adhere to smartphones and tablets along with information architecture, and even connect micro moments, especially using *I want to show* and social media trends with hashtags and other digital identifiers, to the Semantic Web, which is an approach to structure the web and enable information to give meaning for computers as well as human users (Benyon, 2014, p. 355; Berners-Lee et al., 2001). This also means that there is an opening to keep studying and perfecting the advice of *"Connect the dots across teams"* between the fields of marketing, developers, UCD and information architecture to be able to continuously create products and interfaces that can adhere to both users and brands, creating win-win situations. I can imagine it would be interesting to see a study of using influencers as a marketing strategy; if they truly hold any real consumer power versus user-generated content without a specific agenda. Lastly, as already mentioned in section 6.2 *What could have been done differently?*, it is possible to follow the topic of this thesis with a study that can reveal more quantitative data.

8 BIBLIOGRAPHY

31 VOLTS. (n.d.) *Service Design.* [Online]. URL: http://www.31volts.com/en/service-design [Accessed: 12.12.17]

BAXTER, K., COURAGE, C., & CAINE, K. (2015) *Understanding your users.* A Practical Guide to User Research Methods. USA: Elsevier Inc.

BEAL, V. (n.d.). *UGC - User-generated content.* [Online]. URL: https://www.webopedia.com/TERM/U/UGC.html [Accessed 05.12.17]

BENYON, D. (2014). *Designing interactive systems: A Comprehensive Guide to HCI, UX and Interaction design.* Harlow: Pearson.

BERNERS-LEE, T., HENDLER, J., LASSILA, O. (2001). *The Semantic Web. A new form of Wecontent that is meaningful to computers will unleash a revolution of new possibilities.* [Online]. URL: http://wwwsop.inria.fr/acacia/fabien/lecture/licence_travaux_etude2002/TheSemanticWeb/ [Accessed: 13.12.17]

BERTHON, P.R, PITT, L.F, PLANGGER, K., SHAPIRO, D. (2012). Marketings meet Web 2.0, social media, and creative consumers: Implications for international marketing strategy. *Business Horizons vol. 55, issue 3*. Pp. 261-271.

CROWDTAP. (2015). *Social Influence: Marketing's New Frontier.* [Online]. URL: http://go.crowdtap.com/socialinfluence [Accessed: 14.12.17]

GEVELBER, L. (2017a). *Micro-Moments Now: Why you should be the adviser consumers are searching for.* [Online]. URL: https://www.thinkwithgoogle.com/consumer-insights/consumer-mobile-search-buying-behavior/ [Accessed: 02.12.17]

GEVELBER, L. (2017b). *Micro-Moments Now: Why 'near me' intent is a 'near you' opportunity.* [Online]. URL: https://www.thinkwithgoogle.com/consumer-insights/local-search-mobile-search-micro-moments/ [Accessed: 02.12.17]

GOODRICH, R. (2013). *Googol, Googolplex - & Google.* [Online] URL: https://www.livescience.com/31981-googol.html [Accessed: 13.12.17]

GOOGLE. (n.d). *From the garage to the Googleplex.* [Online] URL: https://www.google.no/intl/en/about/our-story/ [Accessed: 13.12.17]

GOOGLE (2015). *Micro moments - Your Guide To Winning the Shift to Mobile.* [Online] URL: https://www.thinkwithgoogle.com/marketing-resources/micro-moments/micromoments-guide-pdf-download/ [Accessed: 15.12.17]

GOOGLE. (2016a). *The 5 Key auto micro-moments brands should win.* [Online]. URL: https://www.thinkwithgoogle.com/marketing-resources/micro-moments/key-auto-micro-moments-mobile-trends/ [Accessed: 14.12.17]

GOOGLE. (2016b) *How Micro Moments are Reshaping the Traveling Journey.* [Online]. URL: https://www.thinkwithgoogle.com/marketing-resources/micro-moments/micro-moments-travel-customer-journey/ [Accessed: 14.12.17]

GRANADOS, N. (2016). *What is media in the digital age?* [Online]. URL: https://www.forbes.com/sites/nelsongranados/2016/10/03/what-is-media-in-the-digital-age/#1c5c58d751ea [Accessed: 29.11.17]

HALLENBECK, N. (2017). *The Complete Guide to Influencer Marketing on Social Media.* [Online]. URL: https://owlmetrics.com/blog/the-complete-guide-to-influencer-marketing-on-social-media/ [Accessed: 05.12.17]

HAMILTON, M., KALTCHEVA, V., ROHM, A.J. (2016). Social Media and Value Creation: The Role of Interaction Satisfaction and Interaction Immersion. *Journal of Interactive Marketing 36.* pp. 121–133.

HARTSON, R., & PYLA, P. S. (2012). *The UX book: process and guidelines for ensuring a quality user experience.* Waltham: Morgan Kaufmann.

HOLTZ, J. (2017). 5 Free Instagram Analytics Tools for Marketers. [Online] URL: https://www.socialmediaexaminer.com/5-free-instagram-analytics-tools-for-marketers/ [Accessed:08.12.17]

INSTAGRAM HELP CENTRE. (n.d. a) How Do I Use Hashtags? [Online]. URL = https://help.instagram.com/351460621611097?helpref=uf_permalink [Accessed 04.12.17]

INSTAGRAM HELP CENTRE (n.d. b) How Do I Mention Someone On Instagram? [Online]. URL: https://help.instagram.com/1422266748076581?helpref=uf_permalink [Accessed 04.12.17]

INSTAGRAM. (2012). *Instagram Tips: Using Hashtags.* [Online]. URL: http://blog.instagram.com/post/17674993957/instagram-tips-using-hashtags [Accessed: 04.12.17]

INSTAGRAM BUSINESS TEAM. (2016). *Hitting 500,000 advertisers.* [Online] URL: https://business.instagram.com/blog/500000-advertisers/ [Accessed: 04.12.17]

INSTAGRAM BUSINESS TEAM. (2017a). *Welcoming Two Million Advertisers.* [Online]. URL: https://business.instagram.com/blog/welcoming-two-million-advertisers/ Accessed: 09.11.2017

INSTAGRAM BUSINESS TEAM. (2017b). *Announcing 15 million business profiles.* [Online]. URL: https://business.instagram.com/blog/announcing-15-million-business-profiles/ [Accessed: 09.11.201]

JOHNSON, J. (2014). *Designing with the Mind in Mind: Simple Guide to Understanding User Interface Design Guidelines.* Second edition. Waltham: Morgan Kaufmann

KING, R.A, RACHERLA, P., BUSH, V.D. (2014). What We Know and Don't Know About Online Word-of-Mouth: A Review and Synthesis of the Literature. *Journal of Interactive Marketing 28.* pp. 167–183.

LEEDY, P.D, ORMROD, J.E. (2013). *Practical Research: Planning and Design.* 10th edition. Harlow: Pearson.

MOLLOY, M. (2017). *Who owns Snapchat and when was it created?* [Online] URL: http://www.telegraph.co.uk/technology/0/owns-snapchat-created/ [Accessed: 26.10.17]

OXFORD DICTIONARIES. (n.d. a). *Social sharing.* [Online] URL: https://en.oxforddictionaries.com/definition/social_sharing [Accessed: 14.12.17]

OXFORD DICTIONARIES. (n.d. b). *Mass noun.* [Online]. URL:
https://en.oxforddictionaries.com/definition/mass_noun [Accessed:14.12.17]

OXFORD DICTIONARIES. (n.d. c). *Share.* [Online]. URL:
https://en.oxforddictionaries.com/definition/share [Accessed: 14.12.17]

OXFORD DICTIONARIES. (n.d. d). *Show.* [Online]. URL:
https://en.oxforddictionaries.com/definition/show [Accessed: 14.12.17]

OXFORD DICTIONARIES. (n.d. e). *Influencer.* [Online]. URL:
https://en.oxforddictionaries.com/definition/influencer [Accessed: 14.12.17]

PAGE, L., BRIN, S. (2004). *2004 Founder's IPO Letter*. [Online]. URL:
https://abc.xyz/investor/founders-letters/2004/ipo-
letter.html#_ga=2.230181343.27064543.1513183228-1401994762.1513183228 [Accessed: 13.12.17]

PARIONA, A. (2017). *What was the digital revolution.* [Online].
URL: http://www.worldatlas.com/articles/what-was-the-digital-revolution.html [Accessed: 29.11.17]

PATEL, D. (2017). The Ultimate Guide to Posting User-generated Content on Instagram. [Online].
URL: https://owlmetrics.com/blog/user-generated-content/ [Accessed: 05.12.17]

PATHAK, S. (2017). *Brands are Using Influencers Like Ad Agencies.* [Online]. URL:
https://digiday.com/marketing/brands-using-influencers-like-ad-agencies/ [Accessed:14.12.17]

POLAINE, A., REASON, B., LØVLIE, L. (2013) *Service Design: From insight to implementation.*
Brookyn, NY: Rosenfeld Media

RAMASWAMY, S. (2015). *How Micro Moments are changing rules.* [Online]. URL:
https://www.thinkwithgoogle.com/marketing-resources/micro-moments/how-micromoments-are-
changing-rules/ [Accessed: 13.11.2017]

RAMASWAMY, S. (2017). *Micro-Moments are multiplying—are you ready for the future of
marketing?* [Online]. URL: https://www.thinkwithgoogle.com/marketing-resources/micro-
moments/future-of-marketing-machine-learning-micro-moments/ [Accessed: 02.12.17]

REASON, B., LØVLIE, L., & FLU, M. B. (2016). *Service design for business. A practical guide to
optimizing the customer experience*. Hoboken: Wiley.

PREECE, J. ROGERS, Y., SHARP, H. (2015). *Interaction design: beyond human-computer
interaction*. Chichester: Wiley.

ROUSE, M. (2016). *Influencer (social influencer).* [Online]. URL:
http://whatis.techtarget.com/definition/influencer-social-influencer [Accessed: 14.12.17]

SAFFER, D. (2014). *Microinteractions: Designing with details*. Sebastopol: O'Reilly Media.

SIEGLER, M.G. (2010). *Instagram Launches With The Hope Of Igniting Communication Through
Images*. [Online] URL: https://techcrunch.com/2010/10/06/instagram-launch/ [Accessed: 04.12.17]

SIMPLY MEASURED. (2014). *Simply Measured Q3 2014 Instagram Study*. [Online].
URL: http://get.simplymeasured.com/rs/simplymeasured2/images/InstagramStudy2014Q3.pdf
[Accessed: 04.12.17]

SNAP INC. (2017). *Introducing Context Cards.* [Online] URL: https://www.snap.com/en-US/news/post/introducing-context-cards/ [Accessed: 09.11.2017]

SNAPCHAT SUPPORT. (n.d. a). *About Our Story*. URL: https://support.snapchat.com/en-US/article/post-live-story [Accessed: 04.12.17]

SNAPCHAT SUPPORT. (n.d. b). *Context Cards.* [Online]. URL: https://support.snapchat.com/en-US/a/about-context-cards [Accessed: 04.12.17]

STATISTA. (2017a). *Number of monthly active instagram users*. [Online] URL: https://www.statista.com/statistics/253577/number-of-monthly-active-instagram-users/ . [Accessed: 09.11.2017]

STATISTA. (2017b). *Number of daily active Snapchat users from 1st quarter 2014 to 3rd quarter 2017 (in millions)*. [Online]. URL: https://www.statista.com/statistics/545967/snapchat-app-dau/ [Accessed: 09.11.2017]

STICKDORN, M., SCHNEIDER, J. (2011). *This is Service Design Thinking: Basics, Tools, Cases*. Amsterdam: BIS Publishers.

TECHNOPEDIA. (N.D). *Digital Revolution* [Online]. URL: https://www.techopedia.com/definition/23371/digital-revolution [Accessed 29.11.17]

THE GUARDIAN. (2012). *Facebook buys Instagram for $1bn: full statement by Mark Zuckerberg*. [Online]. URL: https://www.theguardian.com/technology/2012/apr/09/facebook-buys-instagram-mark-zuckerberg [Accessed: 04.12.17]

TURNTO. (2017). *Hearing the Voice of the Consumer UGC and the Commerce Experience.* [Online]. URL: http://www2.turntonetworks.com/2017consumerstudy [Accessed: 05.12.17]

U.S. Dept. of Health and Human Services. (n.d a). *User Centered Design Basics.* [Online]. URL: https://www.usability.gov/what-and-why/user-centered-design.html [Accessed: 13.12.17]

U.S. Dept. of Health and Human Services. (n.d b). *Benefits of User-Centered Design.* [Online]. URL: https://www.usability.gov/what-and-why/benefits-of-ucd.html [Accessed: 14.12.17]

WIKIPEDIA. (2017a). *User-generated content.* [Online] URL: https://en.wikipedia.org/wiki/User-generated_content [Accessed: 05.12.17]

WIKIPEDIA. (2017b). *Instagram.* [Online]. URL: https://en.wikipedia.org/wiki/Instagram [Accessed: 04.12.17]

WIKIPEDIA. (2017c). *Snapchat.* [Online] URL: https://en.wikipedia.org/wiki/Snapchat [Accessed: 04.12.17]