



**CATOLICA
LISBON**
BUSINESS & ECONOMICS



KOZMINSKI UNIVERSITY

The influence of content marketing initiatives on professionals' engagement. The case of self – driving cars.

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Dissertation submitted in partial fulfilment of requirements for the MSc in Management, at Universidade Católica Portuguesa and for the MSc in Strategic Management, at Kozminski University, 10.09.2018

Abstract

Automated driving depicts a disruptive technology in the automotive sector. LinkedIn (LI) constitutes hereby the social media platform, which connects experts from all over the globe. Experts are active via the LinkedIn feed and within expert groups, however, engagement with the content can be described as low. This thesis aims to investigate this issue, by analysing factors which lead to engagement with Content Marketing initiatives amongst professionals on LI. Engagement factors are divided into the four categories: motivational factors to engage (1), measured with Baldus' et al. (2014) scale, characteristics of a post (2), the influence of the topic (3) and the format (4) on engagement. Those factors are examined within three subgroups, users solely reading the headlines (1), users consuming the content (2) and users engaging with the content (3). A survey administered on LinkedIn leads to the findings, that professionals are predominantly interested in pure exchange of high quality information and that the engagement increases with the time the professional is in the field and with proximity to the actual research. Those users are best targeted in LI groups. Societal topics, such as ethics have a subordinate effect on engagement. Previous interactions (likes, comments and shares) with the content do not have an impact on the user's engagement. Professionals utilize a diverse plethora of knowledge sources, where LI constitutes a supplementary online source, which can easily be exchanged. Therefore, the marketer has the obligation to provide timely and relevant content in order to avoid redundancy and stay competitive.

Keywords: Automated driving, Engagement with Content Marketing, motivation to engage, scale of engagement, engagement amongst professionals, engagement on LinkedIn, Content Marketing on LinkedIn

Field code in the program "Erasmus for all": 04000

Title of the dissertation in English: The influence of content marketing initiatives on professionals' engagement. The case of self – driving cars.

Acknowledgements in alphabetic Order

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Akademia Leona Koźmińskiego – Kozminski University Warsaw

Universidade Católica Portuguesa – Catolica Lisbon School of Business and Economics

Universität zu Köln – University of Cologne

Personal: my beloved family and friends

Barbara und Hubert Lutzeier, Cornelius Lütkefels, Dr. Johann Kasperski, Lena Walter,
Monika Kasperski, Sharlan Shields

Professional

Continental AG: Stephan Giesler

Kammann Rossi GmbH: Carsten Rossi, Jule Sauer

Investors

European Kommission

K.D.St.V. Asgard (Düsseldorf) zu Köln

Kölner Gymnasial- und Stiftungsfonds

Thank you for being there when I needed your support.

Dankeschön

Dziękuję

Obrigado

*“The automobile is a temporary emergence,
I believe in the horse ”*

-Kaiser Wilhelm II, 1859 - 1941

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List of Abbreviations

CE	Consumer engagement
CM	Content Marketing
df	degrees of freedom
LI	LinkedIn
OBC	Online Brand Community
r	regression coefficient

Chapter 1. Introduction

1.1. Development into today's online Marketing sphere

With the rise of the internet consumers are nowadays subjected to an information overload, due to permanent exposure of advertisement online and offline (Kaplan & Haenlein, 2010). Therefore, online marketing in its initial conception has not managed to persist effectively and has caused changes in the behaviour of consumers. To minimize this disruptive information inflow, Ad blockers, which suppress banners, are now widely spread (Fischer, 2009).

There is perhaps no greater example of the transformative nature of communication within marketing than the formation of Electronic- Commerce (E-commerce) which emerged with the expansion of the internet in the late 90's. The internet had a profound effect on consumer behaviour with the availability of automated research, information, facilitation of communication and the diversification of distribution channels and customization. Retailers faced manifold challenges such as increased competition, customer segmentation, coordination between channels etc. (Peterson et al., 1997). Prior to the internet, what was initially a small quiver of communication possibilities to the disposal of marketers, has now transformed into a plethora of marketing alternatives to select from. Media-usage data allows for example micro segmentation and targeting which increases the agility of marketing measures significantly (Batra & Keller, 2016).

Therefore, business models have revolutionized. Ordinary retailers moved their business online, in order to cultivate the online consumer market (Turban et al., 2002). As a consequence, Marketing also moved online. The term online marketing is an umbrella term for several marketing actions in the digital world. Search engine optimization (SEO) especially at Google, AdWords, E-Mail Marketing, Mobile Marketing, Social Media Marketing are just an excerpt of the multi-layered subject of online Marketing (Lamenett, 2009). However, research has shown, that old (TV, newspaper) and new media (mobile, social media) have cross-effects on each other and they interact. The strength and weakness of different media in influencing outcomes in communication is not clear yet, which constitutes a challenge for marketers in their

planning of the media sequence. Therefore, one cannot neglect one of those two media channels (Batra & Keller, 2016).

1.2. The prominence of Content Marketing in the area of Marketing

Presently, Companies face the aforementioned issues in their online marketing efforts. Today, marketers are challenged to ensure that consumers actively engage with marketing content provided by the firm (Gärtner, 2014). Entities depend therefore on a marketing instrument which reaches the customer on a regular basis. The customer needs to be engaged, value for the customer has to be created and measures to retain acquired customers need to be implemented (Godin, 2007).

Hence, a new way of marketing is needed, marketing which is creating the mentioned value for the customer beyond just selling the product. According to Godin (2007), this new way of entertaining and educating Marketing is defined as Permission Marketing. The tool to engage the customers with relevant and timely content is called Content Marketing (CM) (Pulizzi, 2013).

Aiming at providing the suitable content, an online marketer needs to comprehend the motivational factors of the user to consume the content. In order to determine if the provided content is consistent with the entities' goals, various ways of measuring engagement exist, e.g. commonly used is google analytics, to define how many visitors a webpage generates and on which digital path visitors arrived at the website. Search engines or social referrers are some of the manifold possibilities. The antecedent step is to understand what actually motivates the consumer to engage (like, comment or share) with certain content (Hollebeek, 2014).

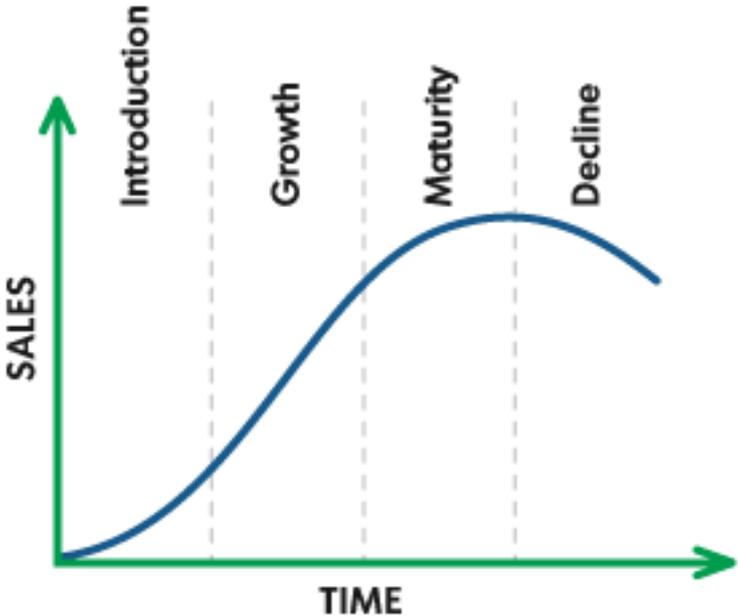
1.3. Relevance of the Topic and Motivation

Simplified one could say, that CM depicts the provided product or service and engagement describes the extend of consumption. A comprehensive understanding of the way customers consume a product lead ultimately to monetary benefits (Kaplan & Haenlein, 2010).

This hypothesis particularly applies for new products. Innovations bear higher risk of failure, due versatile to uncertainties in the market, which in turn means that information reduce the risk of failure. Already Liebermann and Montgomery (1988) outlined commonly known first mover advantages, like the possibility of establishing a monopoly in early stages of the product life cycle, but also the even stronger upsides of the first follower in the market, which can use the educated customers and can learn from the innovators mistakes, exploiting the information head start.

New products and technologies underlie generally the product life cycle, illustrated in figure 1.

Figure 1:Product Life Cycle



(Source: <http://nitashadang.blogspot.com/2013/10/product-life-cycle.html>)

One of the many new technologies under development are self-driving cars. Although the technology can still be located in its infancy, all major car companies and even players from the IT sector, like Alphabets subsidiary Waymo or computer chip manufacturer Nvidia have entered the field. Tesla offers as the only car manufacturer a self-driving mode in its vehicles, which puts autonomous vehicles at the very beginning of the product life cycle. The disruptive technology is on the rise and while R&D is focusing on new ways of mobility, it is paramount to gain insights, identify innovative firms and establish

relationships which could lead to strong ties in the future in order to come out first in the competitive race.

Aspects like an increase of safety or less congestion in densely populated areas are upsides which are commonly discussed as well as a higher complexity in maintenance, due to the increase in technology of the vehicles (McKinsey, 2018).

Gartner (2018) claims, that autonomous driving will hit the road in ten years, but already now people do interact with the topic offline and online.

A valuable source of knowledge is the internet and a place where experts come together is the social media platform LinkedIn. Experts share views, opinions and knowledge etc. in various groups and in their feed and connect with each other (Schwenn-Sebring, 2018). A valuable form to reach those experts, are relevant and timely information, which constitutes the core of Content Marketing (Pulizzi, 2013).

Bringing the initially mentioned aspects together, this thesis aims to shed light on the narrow field of the engagement of professionals on Content Marketing activities in the context with self-driving cars on the social media channel LinkedIn. This topic is highly relevant in the business context, because it depicts a disruptive technology for one of the largest industries in the world, the automotive sector, which the proportion of the GDP underlines. The automotive industry e.g. in Germany accounts for 4,5% of the GDP and employs almost 900.000 employees and creates a gross value of 124 Billion Euros (2015, Statista).

From the Marketing perspective the observation is highly interesting, since the target group is narrow, and Content Marketing depicts a prominent area of reaching out to the experts via the social media channel LinkedIn. Understanding the motivation of professionals to engage with provided content, what factors of a post are relevant and defining what kind of topics and formats of content are then most appealing is the aim of the underlying observation.

The motivation to choose this certain topic is based on the Automated Driving campaign called 2025AD of the automotive supplier Continental AG. The researchers employer, the Content Marketing Agency KammannRossi is running the campaign. The main goal

of the campaign is to provide a discussion forum, unattached to Continental. Aims are a societal discussion, gaining insights about the topic, bringing together experts and reaching the status of thought leadership in the field. This is achieved by actively participating in discussions, spreading content via various social media channels and providing a database for relevant academic literature in the field of automated driving. Finally, all those criteria are supposed to lead to a positive brand image and improve Continentals employer branding (Giesler, 2018).

1.4. Structure of the Thesis

The underlying Thesis is composed out of seven chapters and various subchapters. After the introduction the literature reviews of content marketing and engagement are addressed. The literature review of content marketing is structured in six subchapters, beginning with the localisation of content marketing in the marketing sphere, closing with a definition of the term. Afterwards, the relevance of Content Marketing within the digital information research is pointed out followed by different facets of the content distribution. This chapter ends with the specifications of Content marketing in the B2B context and on LinkedIn and concludes with managerial implications.

Subsequently the second theoretical pillar of the underlying research, the topic of engagement is analysed. By pointing out the foundations of consumer engagement, definitions and aspects of engagement, the roots of engagement are examined in order to understand the engagement in online brand communities. Following the theoretical analysis of the term, scales to measure the motivation of engagement are discussed and the for this thesis underlying scale is explained and justified. The third chapter comes to end with the managerial relevance of engagement in context with content marketing.

Chapter four delivers an overview over the research aim and method, where the data gathering method is pointed out sample information are given and, the data analysis method is outlined, and the limitations of the research are addressed.

Chapter five is dedicated to the empirical research of the thesis. After pointing out the aim, the research question is formulated.

Afterwards the results of the survey are presented in five sections. The observation starts with the demographics and the knowledge sources of the participants and followed by the observation of knowledge sources of professionals and the LinkedIn metrics concerning usage, which are supposed to shed light on the usage of LinkedIn in context with automated driving.

Section four constitutes the core of the empirical research. Participants of a survey are divided into three subgroups. The first subgroup mostly reads the headlines of a post, the second subgroup usually consumes the content and the third group consumes the content and expresses engagement, by liking commenting and sharing. Within those three subgroups, four different factors influencing engagement with several subitems are observed. The first factor deals with of motivational factors of professionals to engage with self-driving car content on LinkedIn. The second factor examines the relevance certain characteristics of a post on LinkedIn. Finally, the impact of a distinct topic or a certain format on the engagement of professionals on LinkedIn are analysed.

Lastly, the results are discussed and limitations to the research are formulated. The Thesis concludes and finishes with derived recommendations from the research to increase engagement of professionals on Content Marketing activities on LinkedIn.

Chapter 2: Content Marketing

In order to shed light on the topic of Content Marketing a placement within the field is carried out and definitions are discussed. Subsequently the relevance of Content Marketing within the field of Online marketing is observed as well as the distribution of the Content via online channels. Finally, managerial implications of Content Marketing are observed.

2.1. Localisation of Content Marketing in the Marketing sphere

In order to localise of Content Marketing in the sphere of Marketing, this chapter observes indirect and direct communication channels. Those channels are a part of the integrated marketing communication, which implies digital content marketing as well as content marketing.

2.1.1. Direct and indirect marketing communication channels

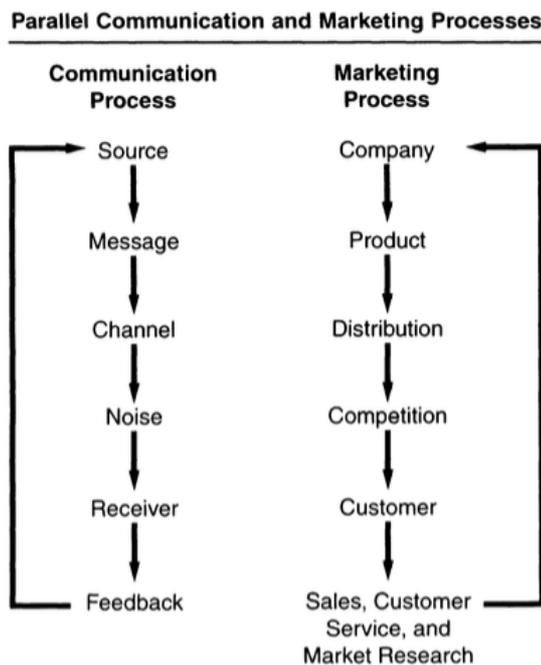
Paul Watzlawick et al. (1967, p. 51) state: “One cannot not communicate”. From this it can be derived that every action taken or not taken sends a message. Watzlawick’s first axiom maintains its relevance today in various fields. Within marketing it is a prominent example for the application of Watzlawick’s theory, due to the fact that communication is imperative in the orchestration of effectual marketing. Communication within marketing is ever salient.

McCarthy’s (1964) diverged marketing communications into two distinct communication channels, direct and indirect. Personal selling or direct marketing are comprised by interaction and proximity to the customer, and therefore represent direct communication. However, advertising or the general public’s conception and relation with a given corporate identity, are comprised by indirect communicative elements (Kotler, 2010). Therefore, it can be understood that in order to deliver a given message, information is communicated via numerous channels, for both direct and indirect marketing. Channels are the ways of distribution for a good or a service (Kotler, 2010).

2.1.2. Integrated marketing communication

As one can derive from Kotler’s definition, channels are eminent in creating revenue out of the produced good. Since the emergence of the internet, marketing channels have transitioned towards greater transparency in order to facilitate informed transactions (Kotler, 2010). Companies integrate and co-ordinate their channels of communication in order to deliver a coherent message of their product or service (Pickton & Broderick, 2005). Kotler (2010) refers to this co-ordination as Integrated Marketing Communication (IMC) and points out the necessity to view the marketing process from the customers’ viewpoint. This perspective is eminent, because information is not only included in everything a company does or does not choose to do (Schultz et al., 1993) but also in all products or services (Rowley, 2008). Duncan and Moriarty (1998) outline that in this context all stakeholders, not only customers need to be taken into consideration. In summary, Duncan and Moriarty point out parallels of Communication and the Marketing process as illustrated in Figure 2.

Figure 2: Parallels of Communication and the Marketing Process



(Duncan & Morarity, 1998)

The American Marketing Association defines IMC as the planning process which is developed to ensure that all brand touch points, which constitute all occasions a consumer interacts with the firm, by a customer or a prospect for a product or service are significant and homogenous over time. This definition captures the core of IMC, the planning process of the contact with customers, but fails to mention the tools used during the process of marketing communication and remains shallow concerning the aimed outcome of the communication. In contrast, the American Academy of Advertising Agencies specifies the previous definition by outlining IMC as an evaluation mechanism for strategic facets of communication through adding miscellaneous disciplines like public relations, advertising, personal selling etc. Moreover, the result of a well-executed constellation of contact measures with the receiver of the message emphasises the clarity and consistency of the communication. Ultimately, the Journal of Integrated Marketing Communications amplifies the evaluation of communication activities across all channels in order to maximize the profit (Batra & Keller, 2016). The latter definition delivers the most specific perspective and sheds light on the monetary face of these efforts.

Hence, information is therefore contained in both marketing communication and in the product itself (Rowly, 2008). Ranging from simple information, as the ingredients

of a loaf of bread and the branding contacts in the packaging, to the more complex goods like Computers and the accompanying handbooks. This information is integral for the consumer in order to gain the optimal benefit from the good or service. Digital marketing channels focus predominantly on information and exceed the provision of general product information, but also include advisory material. For example, a Camera company can supply information on how to take good photographs. Such examples display the multiple channels through which marketing assists in providing further clarity to the consumer and facilitates informed transactions.

2.1.3. Digital Content Marketing (DCM)

Marketing and media experts use various tools in the IMC to spread information, knowledge or best practices in order to activate, engage and retain the customer. Customer publishing, brand journalism, corporate publishing, branded media are just an excerpt of the various methods aimed at creating content as a marketing tool (Pulizzi, 2013). One point of commonality in the aforementioned marketing tools, is that in the digital context they are defined under the umbrella term Digital Content Marketing (DCM). Rowly (2008) defines Digital Content Marketing as an examination of the concept of customer value in digital content marketplaces, dispersed via electronic channels. Holliman and Rowly (2014) specify that DCM is an inbound marketing technique, which is enacted through web pages, social media and value-added content. DCM constitutes a recent version of marketing, whereas TV commercials can be categorized as a classic version. In this context Seth Godin (2007) distinguished between interruption marketing, and a modern form of advertising called permission Marketing. The former of which is the classic marketing method of television advertising, and the latter which addresses people with intent to consume certain products and are therefore more open to information by providing relevant engaging content which educates or entertains (Halligan & Shah, 2010). Scott (2014) furthered Godin's delineation by pointing out, that Marketing is not about causing one-way interruptions, but delivering Content in the exact moment when the audience demands it. Odden (2012) amends, that customers expect brands into the relationship before purchase. This niche in the IMC is filled with today's commonly used buzzword Content Marketing (CM).

2.1.4. Definitions of Content Marketing

Content in the context of B2B or B2C CM has vague definitions as Wuebben (2012) suggests that content is the key aspect of telling an appealing brand story for their product or service, while Halverson and Rach (2012) specify, that content is the reason why the customers visits the website in the first place, in order to read, learn, see or experience. Applying the notion of content in the marketing context, multiple definitions of CM have been devised within marketing academia and therefore these various definitions ought to be considered in order to create a comprehensive analysis. Lieb (2011) defines CM as a pull strategy, which attracts the customer with relevant, compelling and entertaining information, when the customer desires relevant, helpful or entertaining information.

Although Lieb's definition compliments Bruhn's earlier mentioned desire for a product, and explicitly points out the creation of a pull effect, the definition does not explicitly state the goal of CM. Simply put, Lieb's core understanding of CM is: being present when the customer needs it. This definition falls short of signifying the importance of the attributes which depict CM, namely, the accuracy and qualities of the information provided. While Lieb's definition constitutes a meaningful aspect of CM, it fails to encapsulate the field in its entirety. Jefferson and Tanton (2013) tie in by claiming that a paradigm change within organisations is needed in order to move from selling to helping. This change implies a commitment and development of skills. This definition outlines, that the change in the marketing perspective has also an influence on the organisation itself if executed consequently. Moreover, this shift constitutes a major alternation to the marketing practices in place. Content has been created around products and not aiming to meet customer's interests (Rockley & Cooper, 2012) Another perspective of CM is proposed by Löffler (2014) stating that Content Marketing is the ultimate answer towards the challenges of our time - a time in which Public Relations, Marketing, Journalism, Classic Advertisement and Social Media merge into each other. This definition states a reasonable observation of CM, by naming the various discipline's CM requires. However, it cannot be considered definitive, due to the fact that only limited aspects are considered, and the definition fails to delineate the parameters which comprise CM.

The Federal German Association of Digital Commerce (Bundesverband Digitale Wirtschaft, BVDW) has a different view in terms of the channels and outlines the

necessary activities of content creation within the field of CM by claiming that the aim of Content Marketing is the positioning of a firm or a brand as an expert in its area of capability by making relevant information available. The operational implementation of Content Marketing contains planning and creation of Content, which is relevant for a certain target group, as well as structured dissemination of information via various channels (BVDW, 2014). The BVDW differentiates the distribution Channels between native advertising, which constitutes paid online advertisement and inbound marketing, which revolves around the user and his content demand via social media or SEO. In addition, BVDW's definition includes strategic aspects, such as positioning, target groups and operational view. However, in comparison to Lieb's definition one cannot exactly classify the discipline in a subfield of Marketing out of the BVDW's definition and the main goal of CM remains unmentioned. In contrast, Eck and Eichmeier (2014) do not only define goals of CM and classify CM as a tool within the subfield of Marketing, but also take stakeholders into account. Thus, Content Marketing is the designation for the Marketing measure, which focuses on Content to capture the interest of the stakeholder at different contact points and within different stages of the customer journey in order to convey a message to the customer. CM is about the optimal use of miscellaneous channels to achieve personalization of content, delivering a brand message, the skilful use of social media and storytelling and presents a multitude of opportunities for about lots of creativity.

Whilst Eck and Eichmeier name the intermediate goal of consumer contact, and include meaningful key activities like brand message and storytelling. Storytelling is defined as a process of creating a connection to the audience by activating them emotionally with a story, which connects to the brand. "The core of Content Marketing is the content and the core of good content is a good story" the BVDW quotes Michael Howerton, the chief editor of Contently, a Content Marketing Agency, to define storytelling. However, in Eck and Eichmeier's definition the ultimate goal of CM remains unnamed. The presented definitions capture different facets of the field of Content Marketing. The discipline of Marketing is outlined as well as the necessary actions (creating and distributing content) and who the targeted persons (customers and stakeholders) are, as well as goals (getting in touch). However, it is worth noting that none of the definitions thus far have defined CM in its entirety.

Joe Pulizzi, the founder of the Content Marketing Institute, perhaps draws closest to a succinct definition of the field by claiming that Content marketing drives ultimately profitable customer action. This beneficial action is triggered via a strategic marketing concept, which aims to create and to deliver valuable, consistent and relevant content, which attracts and retains a specific defined segment. All stages of the customer journey, from the attention stage to retention and loyalty stages, are leveraged by all communication channels (in-person, print, mobile, online, social, etc.) and include various customer groups. Content marketing is similar to the core business of media firms, however is their success measured in monetary terms in contrast to paid content or sponsorship (Pulizzi, 2013).

CM is a Marketing tool which aims to provide the customer primarily with valuable information. This value is at the core of Pulizzi's definition of Content Marketing. Company strategy, the audience and the goal of tangible profit is further alluded. Moreover, Pulizzi's definition encapsulates the multitude CM channels through which content is distributed and the manifold application during the customer journey within the buying process. Finally, various authors are in line with the aspect of telling a "story" about the product, instead of spreading a product centred message (Halligan & Shah, 2010; Bhargava, 2012). This is the notion of CM that is the focus of this review.

The story of the brand is told throughout the customer journey, which can be summarized as the approach to understand how current and prospective customers make use of manifold channels and where the touch points are. The perception of the firm at each touch point and how the organisation would like to be perceived at those interactions. Information gathered can be leveraged to optimize the experience that meets the expectations of the majority of customers. The outcomes are competitive advantages and the gain of desired customer experience objectives (Eck & Eichman 2014). From this definition we can conclude that customers connect with a product multiple times via different channels. The information provided during the customer journey is crucial in gaining competitive advantage and hence creates value for the customer in the short term. Further, In the long run aspects like the brand perception can be influenced through effective information provision. Pulizzi (2013) names the buying process in his definition, while Eck and Eichmann (2014) use the synonym customer journey. Both outline in their previously mentioned definitions the critical meaning of CM to the customer journey at

its various stages. An optimal use of online and offline channels , by providing relevant information in both channels, is crucial for the success of a firm from the moment of catching the attention of a customer, as well as maintain retention and fostering long term relationships

2.2. The relevance of Content Marketing within the digital information research

Content Marketing embodies the blend of commonly known marketing techniques such as Word of mouth (WoM) and the locating of relevant information via search engines. The following chapter aims to examine the interdependencies between search engine optimization (SEO), CM and WoM.

Pulizzi (2013) ascribes various reasons for the emerging prominence of CM. Customers now find more than 90% of relevant product information independently via forums, blog, search engines etc., resulting in autonomous information flow which operates extraneously from company control. Consequently, classic media outlets such as Newspapers and television commercials are experiencing advertising budget declines and are increasingly rendered arbitrary in achieving effective marketing. This allows companies to utilise in-house resources and facilitate direct consumer contact through CM without any intermediary. This translates to In-house content creation and distribution via online platforms. The benefits of in-house CM are manifold, including facets such as cost reduction and greater creative control.

A meaningful insight of the consumer in the digital context is provided by Swatman et al. (2006), which highlights the simple and challenging issue of digital content, that the customer is habituated to free information. This statement implies the possible volatility of the audience, the low boarders for competitors to enter and corresponding competitive drive to deliver better value for the customer. Creating superior customer value is the pivotal aspect in ensuring a successful online presence (Porter, 1996).

2.2.1. Searching for relevant content online, the importance of CM within SEO

Typically, consumers search for information via search engines. The market leading search engine is Google, and a significant positive correlation between the

ranking of websites within the Google search and company revenue is present (Löffler, 2014). In order to provide the customers with the best possible results Google regularly advances and adapts its search algorithms, such as evident in the latest algorithmic adaptations, Panda, Penguin and Hummingbird. These editions prioritise results with relevant content over results which just repeat a certain number of keywords (Lin & Yazdanifard, 2014). This represents a major challenge for competitors operating within the market. Therefore, permanent adoption, the creation of relevant content and continual search engine optimization (SEO) are crucial components in managing these dynamic changes and securing a successful online presence (Fischer, 2009). SEO is eminent when it comes to research for information about a product. Thorough research mostly takes place when the level of engagement of the customer reaches a certain level. The more engaged a customer is with a product the more likely it is that he or she will research features such as price, experience of other users and after sales service, which increases the demand for relevant content provided (Pulizzi, 2013). Creating sustained customer attention and engagement via CM is the result of target group orientated CM which aims to bring the customer in touch with relevant information, created by the company, at a suitable time (Steinbach et al., 2015). Value added content is in detail useful, relevant, compelling and timely (Pulizzi, 2013).

2.2.2. Information research: leveraging Word of Mouth (WoM)

WoM is known as a powerful tool in the Marketing world and depicts a relevant involvement to electronic word of mouth (eWoM) during the evolution of the internet. Hence, eWoM, which constitutes a form of CM, represents a significant aspect in the marketing communication.

When a customer searches a product or service, information can be sought via asking credible members of the personal network like friends and family, otherwise referred to as Word of Mouth (WoM), which is defined as the information exchange between customers (Katz & Lazarsfeld, 1955). WoM is regarded by the customer as a more trustworthy source of information than printed media. The fact that customers trust their friends and families more than a company relies on two distinct reasons. Firstly, the opinion of a familiar person is considered of higher value than information provided by a company, which constitutes a question of trust. The companies' aim is to sell their product in order to create revenue (Feick & Price, 1987). Conversely, a family member

usually has no further interest in advising in favour or dissuading a good or a service. Moreover, individuals belonging within a social context, are more capable of evaluating their preferences, which means they can better evaluate which company can meet their preferences best (Herr et al. 1991).

WoM constitutes an unplanned way of communication for the company (Duncan & Moriarty, 1998), which can be beneficial or harming for an organisation, depending on the content of the message spread. Once a customer has assessed a company, they give recommendations or advise against a good or service. Consequently, WoM is reputed to be 10 times more effectual comparative to traditional advertising (Hennig-Thurau et. al, 2004). Tursov et al. (2009) argue that the elasticity for WoM is 20 times higher than for marketing events and even 30 times that of media appearances. In addition, is the effect on customer acquisition is stronger compared to average advertising measures, due to longer carry over effects. Those facts constitute an argument for the adaption of a customer centric orientation within the company's marketing activities, which leads ultimately to creating competitive advantage and fostering value for the customer.

The evolution of the internet in early 2000 towards user generated content, interaction and collaboration, called Web 2.0, constitutes a turning point for the interaction between organisations and customers. The emergence of social media, blogs, wikis and video sharing sites are the most distinct changes in this evolutionary stage of the internet and hence also for marketing practices (O'Rielly, 2005). Consequently, WoM has found its way into digital platforms. The evolution of online based media has facilitated the development of digital WoM, referred to as electronic word-of-mouth (eWoM), such that information is available to a wide range of people on the internet in various online channels, such as blogs, consumer review websites and forums (Hennig-Thurau et. al, 2004). Unsurprisingly, given the power of WoM, Online or eWoM has a profound effect on sales, diffusion and other marketing performance measures (Tursov et al. 2009, Stephan & Galak, 2012). The goal for content creators is therefore, to be as credible and relevant as the eWoM tools, e.g. forums or blogs, in order to achieve similar rankings in the web search via search engines. If possible, the long-term objective should include to create the knowledge source and discussion platform for a certain topic (Pulizzi, 2013).

As a result, CM acts as a leverage in achieving consumer trust, because the company does not aim to sell its product instantaneously. Rather, it assists in consumer problem solving. In this one can assume, that CM aims to reach a similar effect as WoM in terms of trust gaining. Trust is emphasized as paramount goal of CM (Silverman, 2012; Scott 2014). A significant aspect for worldwide operating companies is building trust in technology markets (Kotler & Pfoertsch, 2006), which is achieved through relevant and timely information (Pulizzi & Rose 2011).

2.3. Distribution of Content

2.3.1. Distribution of Content via E-commerce channels

Generated content has to find its way to the consumer in order to display its effect. The distinction of distribution channels as well as the source of content generation and the creating for content demand via pull marketing are relevant aspects of the following section.

E- Commerce is a distribution channel where activities take place mostly via the internet. Companies are able to gain miscellaneous competitive advantages through the online channel (Warrington et. al. 2000). Expanding entities gain reach without decline in richness (Evans & Wurster, 2000) and administrative as well as operational costs decline (Chappell & Feindt, 1999). E- Commerce has resulted in a consumer platform where information, goods and services are available instantaneously, and simultaneously increases consumer convenience.

2.3.2. Communication Channels for CM

Consumers exchange information via various communication channels. It is relevant to distinguish the certain channel formats in order to decide which content formats are suitable for the given channel. One can divide communication channels into three distinct categories: earned media, paid media and owned media (Godall, 2009). Owned media describes activities carried out by the company in its owned channels, such as a company blog or a brochure. Advertising is a classic illustration of paid media, where a third party oversees the communication for the firm. Earned media channels are where eWoM takes place. Content is generated by the consumers, bloggers or journalists and not by the company. A company can support generation of earned media activity, but this activity is not generated by marketers. Further distinction can be made within the field of

earned media, by dividing the channels in social and traditional media sources. (Stephan & Galak, 2012). The variety of communication channels fuels the development and importance of a tool to provide value adding customer centric content: Content Marketing.

2.3.3. Generating Content: Brand and User generated Content

Within the previously discussed channels, the created content can be distinguished into two different categories. Presently, Information available to consumers can be distinguished as either Brand Generated Content (BGC) or User Generated Content (UGC). UGC is heterogeneously produced by a lay person outside of a professional context, while BGC's source is professional expertise from the inside of a certain field provided by employees of a certain company or external providers (Burmam et al., 2012). Hence, Burmann's BGC and UGC constitute a direct interaction of the customer with the company. Quinton (2013) derives a direct impact on brand reputation, the development of brand communities and the co-creation of the brand from the interaction between customer and brand. Organisations might have to acknowledge, that they are not entirely in control of the process of brand building anymore, due to the conversational environment (Vallaster & Lindgreen, 2011), especially when the brand communities are highly engaged (McCarthy et al, 2013).

Co-creation of the brand, by empowering customers might be a change, since via eWoM the credibility of the generated content rises, the meaning and therefore the value for the consumer can be considered improved (Iglesias et.al, 2013). Since especially B2B marketers rely on a positive brand reputation, a collaborative approach might be a less risky way to peruse to develop content (Holliman & Rowley, 2014). Additionally, Rowley (2008) stresses aspects such as the design of the website and consumer experience play an important role for the success of the companies' websites in order to direct the user to towards the relevant content which meets the requirements. Furthermore, customer service gets improved via helpful and value adding information, which has passionate subscribers as a result. The result of value adding information is as mentioned before, trust.

2.3.4. Pull and Push Marketing

One could ask the question if traditional advertising becomes obsolete. Pulizzi (2013) provides a response to this hypothesis by claiming that advertising is still alive, but the driver that leading companies use to capture the hearts and minds of their customers is CM. Godin (2007) agrees by remarking, that CM is the only marketing left. The creation of pull and push marketing is one of the measures to tackle those manifold challenges. On the one hand, Pull Marketing addresses the customer directly. Through creating brand awareness in the mass media, consumer demand is created, which results in the customers' attention and creates a desire for the good or product. This causes pressure on retailers to meet the demand. Push marketing, on the other hand, fulfils the latent needs of the consumer through education about the benefits of a certain product. Personal selling or an aggressive pricing strategy depict measures of push marketing, in order to catch the customers' attention (Bruhn, 2000). Hence, it could be argued that pull marketing represents a marketing mechanism which allows enhanced control of marketing activities in order to ensure that the intended message gets communicated in the interest of the company. Therefore, pull marketing represents an effective tool in the provision of strategic information to the customer, using content marketing measures.

2.4. Content Marketing in the B2B context

With regards to the underlying observation of engagement on Content Marketing activities amongst professionals on LinkedIn, the B2B implications of Content Marketing are outlined in the following.

Generally, the B2B buying process can be described as decision, which is underlying a thorough cognitive process, where buyers search for information mostly online (McMaster, 2010). Compared to a B2C buying process, the B2B buying decision is taken by a multitude of involved individuals (Harrison-Walker & Neeley, 2004). In addition, companies tend to form strong ties to the supplier if satisfied (Tellefsen, 2002). Those aspects lead to a certain brand image, which is a paramount asset for trust in today's globalized world (Kotler & Pfoertsch, 2006). In turn, a positive brand reputation is found to facilitate a sustainable relationship between various stakeholders (Schwaiger & Sarsted, 2011). However, entities must face a certain powerlessness in brand image, due

to the internet and the prompt information exchange. Brand building has become an interactive process with the outside world (Vallester & Lindgreen, 2011). Hence, for the buying process, especially in the early information phase, B2B content marketing has a pivotal role in informing a potential customer and in creating a positive brand image (Adamson et al., 2002). In order to provide suitable information a firm must be aware of the buying cycle, so it can engage customers at the right moment during their buying decision with timely, relevant and compelling information, which makes it valuable and useful for the customer (Holliman & Rowley, 2014).

Moreover, various objectives such as lead generation, brand awareness and brand-building, offering thought leadership and achieving trust brand status can be determined, which are similar to the B2C objectives (Holliman & Rowley 2014).

In their research differentiate Holliman and Rowley (2014) three different characteristics of content marketing in the digital sphere, not paid for DCM, paid for DCM and social DCM. Not paid for DCM is openly available online, while paid for DCM constitutes a digital product liken an e-book. Social DCM takes place in social media, namely in communities and are a part of a wider CM activity. Those types vary in the originator of the content and the originators as well as in the users of the content as well in the users' key aim. Table 1 outlines the previously stated differences in B2B DCM.

Table 1: Types and characteristics of digital content marketing in the B2B context

<i>Characteristics of DCM</i>	<i>Originator of content</i>	<i>Originators' key aim</i>	<i>Users of content</i>	<i>Users' key aim</i>
<i>Types of DCM</i>				
<i>"Not-paid for" DCM</i>	Organisation	Customer engagement and building relationships, knowledge and brand community Business product or service purchases, or contracts	Business client organizations; consumers	Business purchase decision- making Business intelligence Consumer decision-making and purchase
<i>"Paid for" DCM</i>	Organisation	All of the above, but in addition, sales of the DCM	Consumers	Positive experience regarding the digital product and its delivery
<i>Social DCM</i>	Brand community members	To express views; to learn from the organisation and other users	Organisation	Market intelligence; persuasion; relationship and community building

(Holliman & Rowley, 2014)

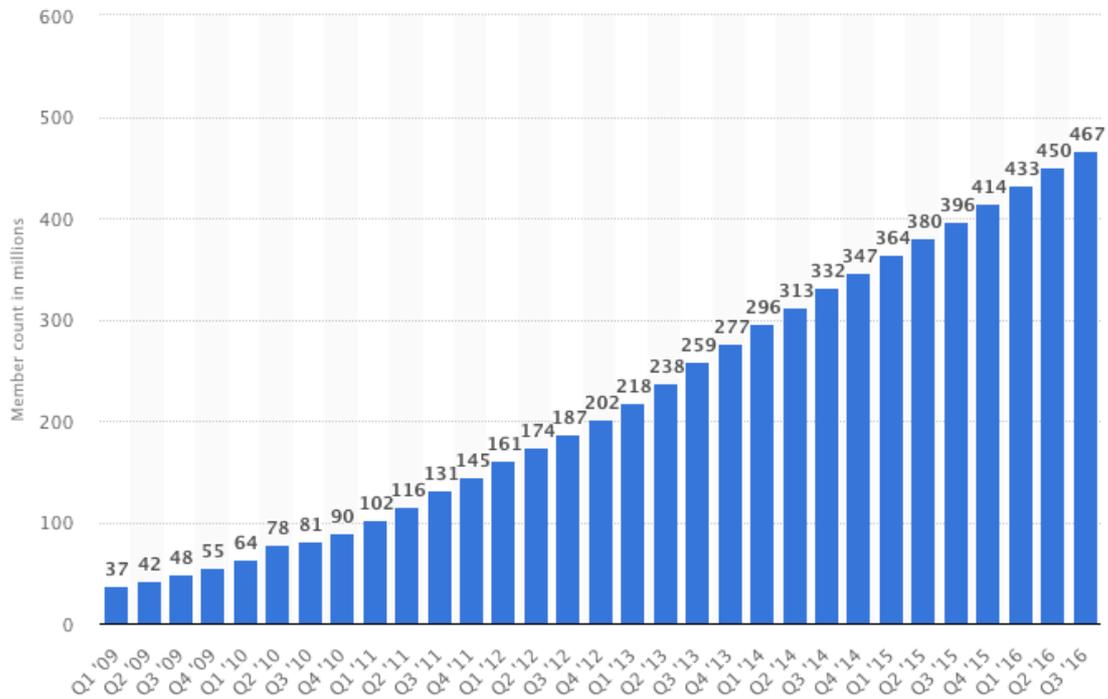
Summarizing, B2B CM has predominantly similar objectives as B2C CM with the difference, however, more cognitive effort is made in the B2B context previously to the purchase decision, which leads to a higher demanded standard of CM activities.

2.5. Content Marketing on LinkedIn

LI is a interesting channel for companies to advertise, since professionals from all sectors can be found. In this context Content Marketing measures concerning this social media channel are examined.

LinkedIn (LI) depicts a constant growth with 437 Million active users in Q3 2016 (figure 4, Statista, 2018) and 560 Million on the platform currently (LinkedIn, 2018), the most commonly used social network amongst professionals (Statista, 2018).

Figure 3: Growth of LinkedIn members from 1st quarter 2009 to 3rd quarter 2016 in millions



(Statista, 2018)

It is the only social network solely focussing on business, LI finds application in many domains such as personal branding, including self-marketing, networking, communication as well as special interest groups for discussions, news, and job opportunities (McCorkle & McCorkle, 2012). Hence, a lot of influencers, employers, experts and leaders can be found at LI (Schwenn-Sebring, 2018; LinkedIn, 2018).

Frequent posts are recommended, which means at least once a week, in order to have a consistent presence. Ideally during the day, while people are at work. Ensuring that every post has a goal, as well as using a professional tone which matches the brand is crucial, since the audience is also professional. Sharing knowledge in order to be perceived as an expert in the field is pivotal to strengthen one's reputation. Also, the reputation of the firm can be highlighted by devoting whitepapers dealing with business practices (Schwenn-Sebring, 2018). The formats of information may vary, as LinkedIn outlines in its tactical plan for Content Marketing (table 3, LinkedIn, 2018). LI distinguishes in the frequency of posting, ranging from daily to weekly depending on the format (e.g. Whitepapers, eBooks, Infographics etc.) as well as key metrics (e.g. impressions, views,

clicks etc.) and action items which depict certain actions (e.g. running sponsored content or using strong call to action) in connection with objectives of the posts (e.g. brand awareness, lead generation and thought leadership) content and frequency.

Table 2: LinkedIn tactical plan Content Marketing

LINKEDIN CONTENT MARKETING TACTICAL PLAN		LinkedIn	
Here's your printable plan for killing it with content marketing on LinkedIn			
OPPORTUNITIES	WHAT TO SHARE	OBJECTIVES	KEY METRICS
			ACTION ITEMS
 LinkedIn Company & Showcase Pages	<ul style="list-style-type: none"> Whitepapers eBooks Case studies Industry articles Helpful how-to content 	<ul style="list-style-type: none"> Brand awareness Lead generation Thought leadership Event registration 	<ul style="list-style-type: none"> Post 3-4x a day Engage with followers via post comments Change cover image every 6 months
 LinkedIn SlideShare	<ul style="list-style-type: none"> Company videos & presentations Infographics Webinar decks 	<ul style="list-style-type: none"> Lead generation Brand awareness Thought leadership SEO 	<ul style="list-style-type: none"> Upload new content weekly Highlight decks on profile page Group content into playlists Add lead forms
 Publishing on LinkedIn	<ul style="list-style-type: none"> Professional expertise & experiences Industry trends Lessons learned 	<ul style="list-style-type: none"> Thought leadership 	<ul style="list-style-type: none"> Post views (& demographics of your readers) Post likes, comments & shares Profile views Publish whenever you feel passionate Recommended: bi-weekly or once a month
 LinkedIn Sponsored Content & Direct Sponsored Content	<ul style="list-style-type: none"> Company news Blog content Industry news & research Case studies Webinars Eye-catching visuals & statistics 	<ul style="list-style-type: none"> Lead generation Brand awareness Thought leadership 	<ul style="list-style-type: none"> Run sponsored content 2-4 times/week Run for 3 weeks, then test & iterate Select compelling visuals Share gijmgiy links to lead forms & add URL tracking code Engagement rate Impressions Inquiries or leads Company or showcase Page followers
 LinkedIn Sponsored InMail	<ul style="list-style-type: none"> Webinar and event invitations eBook launches Product one-sheets Program demos and certification enrollment Blog subscription campaigns 	<ul style="list-style-type: none"> Brand awareness Lead generation Event registration Program & certification enrollments 	<ul style="list-style-type: none"> Keep copy <1,000 characters Use a clear call to action with a 300x250 banner Use first name personalization Bid competitively, especially if your audience is narrow Open rate/click-through rate Inquiries, leads and conversions Event registrants Program applications
 LinkedIn Text Ads	<ul style="list-style-type: none"> eBook launches Product one-sheets Webinar and event invitations Program demos and certification enrollment 	<ul style="list-style-type: none"> Brand awareness Lead generation 	<ul style="list-style-type: none"> Include an image: 50 x 50 Use a strong call to action Use 2-3 active ad variations per campaign to compare success Refresh ad copy every 1-3 mos. Use a customized landing page Website traffic Inquiries, leads and conversions

(LinkedIn, 2018)

2.6. Managerial implications of Content Marketing on LinkedIn

From this perspective it can be summarized, that CM is complementary to the classic marketing mix. Carried out mostly via digital channels, social media fosters the distribution of digital CM, because the entry barrier for publishing Content decreased significantly. Webpages, E-Books, Whitepapers and Blogs also as the prominent platforms of Facebook, Instagram, Youtube, Twitter, LinkedIn etc. constitute channels which can be handled with little effort as well as having a wide reach (Eck & Eichmeier 2014). Consumers search for information, studies, recommendations and credibility. That information gets shared within their network via social media, which means positive and negative experiences is shared via eWoM within the network (Lieb, 2011). The reason for the success of WoM lies according to Blanchard (2011) in the social nature of the human being. Humans are conditioned to exchange experiences, stories and longs for social interaction. Prehistorically, the spot where people exchanged such knowledge used to be the bonfire, today's bonfires are social media channels.

Objectives of CM in the IMC can be depicted in a so called "analytics pyramid" (Rose & Pulizzi, 2011). The top hierarchy of objectives address the top management followed by the reporting managers and the analytics team. Such a distinction of objectives provides a suitable structure for the organisation in order to adjust in a focused way to the new challenging marketing environment. Successful CM acts as a fundamental correspondence through which to foster the customer relations to a firm and therefore increase the retention rate. Therefore, customer lifetime value can be increased, and hereby strategic orientated CM is able to contribute to increase the revenue of a firm.

Pulizzi and Rose (2011) imply that CM encapsulates a transformative and multifaceted conduit through which communication between company and consumer takes place and therefore constitutes a prominent role in the IMC.

CM captivates consumers through interactions which transform and simultaneously recreate brand image. Further, Pulizzi and Barrett (2009) state that CM is a tool to acquire new customers and retain existing ones and calls customers or potential ones to act. Hence, with effective implementation of CM strategy both customer acquisition and retention can experience dramatic increases. Moreover, CM consequently leads to brand

awareness, lead conversion and nurturing. Therefore, brand building is viewed as crucial objective of CM activities. A positive brand reputation gives the customer assurance in terms of product quality, which leads to a higher willingness to pay (Bendixen et al., 2004). Furthermore, fosters a corporate brand the creation of a sustainable relationship between the firm and various stakeholders (Schwaiger & Sarsted, 2011). Throughout this dynamic process, communication is salient, thus it is understood that CM acts as a fundamental tool in meeting the transient needs of consumers in today's markets. Especially in the B2B context on LI, where multiple decision makers, experts and other relevant players in the industry are concentrated, the demand for highly relevant content focusing on the audience, has a paramount role to achieve the manifold CM goals of a firm (Halvorson & Rach, 2012).

Chapter 3: Consumer Engagement

3.1. The roots of engagement

Engagement is a widely researched topic in Marketing. This chapter aims to provide an understanding of the term engagement. This chapter is divided in three parts, starting with the basic outline of the term engagement, followed by the comparison of certain studies on engagement. defining the foundation of consumer engagement and its various aspects. Engagement in the online context is observed, namely in online brand communities. Chapter three concludes with managerial implications of engagement in context with CM.

3.1.1. Definition of Consumer Engagement

The foundation for the research in the field of engagement depicts customer engagement (CE), which was established through the study conducted by Brodie et al. (2011). Their study proposed the following definition for CE: "CE is a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g. a brand) [...]" (p.260). Moreover, they proposed five fundamental propositions from which further research implications were derived. Those propositions include the aspect of psychological state and refines CE by outlining its dynamic and iterative process of relationships, which creates value for the firm. Moreover, plays CE a relevant role within

a nomological network of service relationships, e.g. like “trust”, “commitment” and “loyalty”. Brodie et al. (2011) mention furthermore, that CE is a multidimensional concept, which is context specific in the spheres of cognitive, emotional and behavioural dimensions. Following up, CE levels are different due to a specific set of engagement situations, e.g. the level of the previously mentioned dimensions, behavioural intensity and the stakeholders who interact with each other. Their study was the first one to distinguish CE from other relation concepts as they identified the “participation” and “involvement” component, as already mentioned above.

3.1.2. Aspects of Engagement

Within the field of consumer/ brand relationship the research of consumer brand involvement gained increasing attention with recent years. Consumer brand involvement describes the level of consumer’s interest and personal connection with a brand (Coulter, Price & Feick, 2003; Zaichkowsky, 1985). Nevertheless, research went even further and exploits the concept of interactive consumer/ brand relationships, especially in a social media context (Bolton & Saxena-Iyer, 2009).

The research field of multilateral relationships between consumer, community and brand or topic elaborates the concept of consumer engagement, which includes the interactive component in the dynamic consumer/ brand relationship (Brodie, Hollebeek, Juric & Ilic, 2011; Calder, Mathouse & Schadel, 2009). The term engagement has not been assigned one clear definition yet, since the literature deals with different research types (empirical, conceptual and qualitative), various dimensions and subdimensions and therefore varying definitions are the consequence. However, research shows a pattern of three components. First of all, engagement is considered to be a mental state which involves cognitive processes (Jones, 1998; Marci, 2006; Shih, 1998; Avnet & Higgins, 2006; Brodie et al. 2014; Hollebeek et a. 2011). In addition, it contains some form of beneficence and significance (Algesheimer, Dholakia & Hermann, 2005; Rappaport, 2007; Wang; 2006; Hollebeek et al. 2011, Brodie et al. 2014). Lastly, engagement has an emotional component (Douglas & Hargadon, 2000; Heath, 2007; Wang, 2006; Hollebeek et al. 2011; Brodie et al. 2014). As mentioned above, the major difference to involvement is the active component of the relationship between the consumer and the brand. A definition, which captures the majority of those components is provided by Hollebeek.

Hollebeek defines (2011) consumer brand engagement (CBE) as “the level of a customer’s cognitive, emotional and behavioural investment in specific brand interactions” (p. 565).

A deeper insight over dimensions, subdimensions, concepts and definitions is supplied in the appendix (Appendix A).

3.1.3. Engagement in online brand communities (OBC)

In order to build sustainable engagement on the internet, some sort of social interaction is needed, which can be provided for instance through OBC. OBC can be described as brand communities, which are non – geographically bounded and which are based upon social relationships among admirers of a brand in cyberspace. The purpose of those communities can vary, however, they all have in common that the consumers engaging in those communities share the common interest for a specific brand or topic which is the centre of the community, which means that consumers engage not only with a brand or topic, but also with other members of the community (Algesheimer, Dholakia & Herrmann, 2005).

Henceforth it is implied, that members of OBC’s engage not only with a brand, but with topic as well. Hollebeek (2011) supports this aspect by stating that engagement is context specific and can occur in contexts, which go beyond the simple purchase of an item. Particularly, in those virtual environments consumers share their experiences, thoughts and knowledge and share their passion for the brand or topic (Woisetschläger, Hartleb & Blut, 2008; Ouwersloot & Oderkerken-Schröder, 2008). In order to stay consistent with the literature, the terminology of online brand communities is maintained, however topic centered groups on LinkedIn are examined.

Those communities offer a space to develop an interwoven network between the customer and the brand or topic, other customers and sales (McAlexander, Schouten & König 2002). Due to their dynamic and interactive characteristic OBC’s often serve as a tool to study consumer engagement (Kaplan & Haenlein, 2010). Especially since OBC’s facilitate engagement with a brand or topic as well as other members, those communities represent suitable spheres for the study of engagement (Wirtz et al., 2013; Brodie et al., 2014).

The motivation of consumers to enter digital communities has manifold facets. Consumers engage and enter into interactions with various foci at the same time (Brodie et al., 2011; Dessart, Veloutsou, & Morgan-Thomas, 2015; Vivek et al., 2012). Research in other academic spheres, social identification for example, suggests that participants of online communities identify with brands as well as other consumers (Morandin, & Bergami, 2013) and a development of relationships with several foci concurrently, for example, with a brand and a brand community takes place (Veloutsou & Moutinho, 2009).

3.2. Studies on Engagement

Existing research on engagement in the context of marketing can be distinguished into four sections which can be differentiated by the construct and dimensions of engagement. Research examining engagement with a brand, firm or organisation contain predominantly the concepts of consumer and brand engagement and aspects of behaviour, cognitive and affective engagement (Hollebeek, 2011a; Vivek et al. 2014). In contrast, engagement linked to an online brand community constitutes a specified form by adding motivational and interactive facets to the field of engagement (Kuo & Feng, 2013; Agelsheimer et al. 2005).

Engagement foci as pieces of entertainment, a communication medium and a product or service, with spheres ranging from utilitarian to sustain attention and intrinsic engagement (Calder et al., 2013) have been content to research as well as engagement studies with various engagement foci adding cognitive dimensions to the beforehand mentioned (Brodie et al. 2010; Dessart et al., 2015).

The literature offers manifold perspectives on the aspect of engagement, by examining various topics a consumer can engage with, ranging from brands over firms and communities. Hence, the construct of engagement varies from simple engagement, to brand engagement and online brand community engagement. Consequently, research sheds light from different perspectives into various dimensions by mainly focusing again on behavioural, cognitive and affective aspects of engagement.

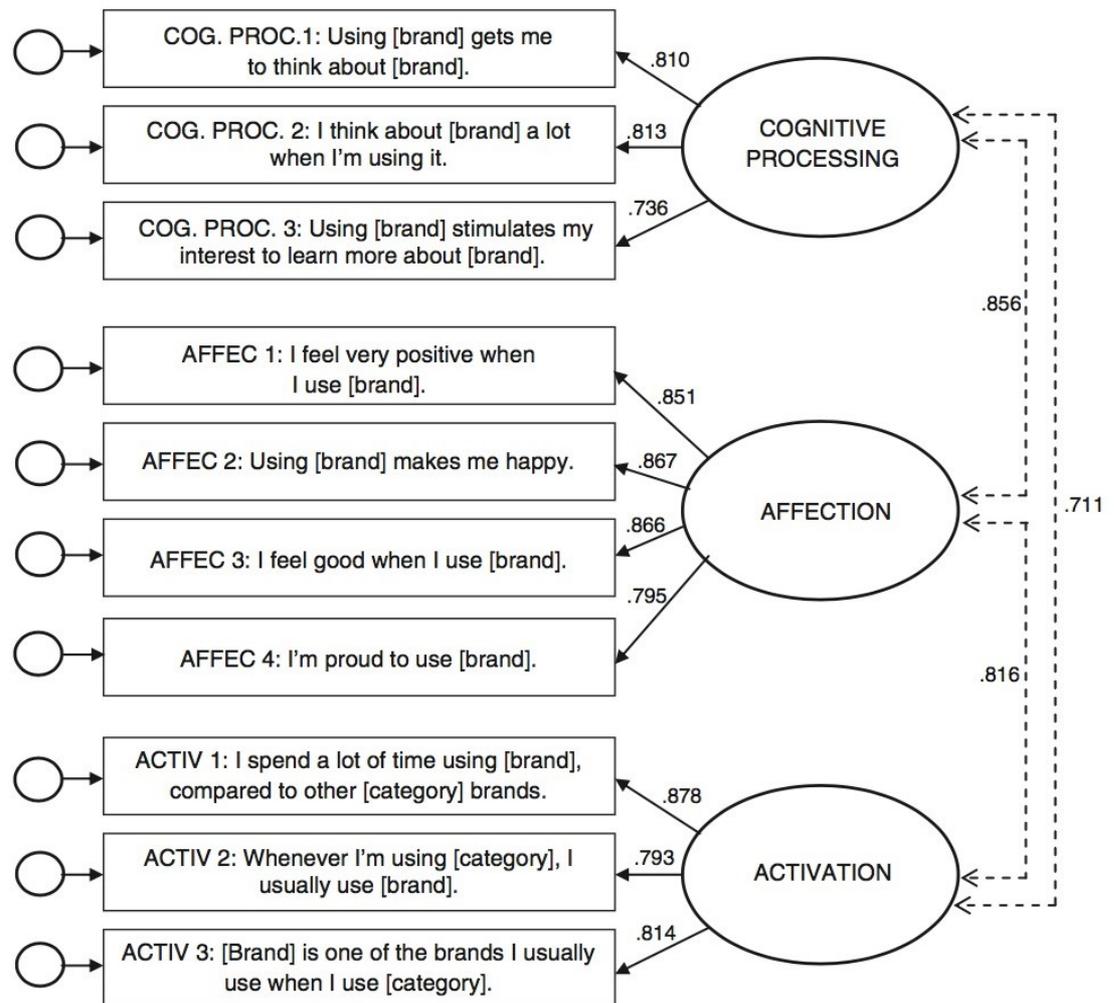
Table 7 in the Appendix (Appendix A) aims to give an overview over the recent studies in marketing dealing with engagement and their special focuses.

3.2.1. Foundation for the Scales of engagement

For the marketer, it is of great relevance to not only understand what defines a membership in such a brand community but what are the drivers and motivators for the consumer to actively participate in them and also how to measure their engagement. Hence, several approaches to develop key metrics and measurement concepts have emerged over the past years.

The study conducted by Hollebeek et al. (2014) was a direct response to the call from Brodie et al. (2011) to establish a scale-based engagement research. In addition, they placed consumer-based engagement (CBE) in a social media context. The researchers were able to establish three dimensions, namely cognitive processing, affection and activation. Cognitive processing addresses the overall level of attention a consumer pays during any interaction. Affection regards the solely positive emotional involvement of the customer in interactions. Activation includes the effort and resources a consumer spends on the interaction. Based on those dimensions they established a 10-item CBE scale which measures the overall engagement of a customer.

Figure 4: CBE conceptual relationships of engagement

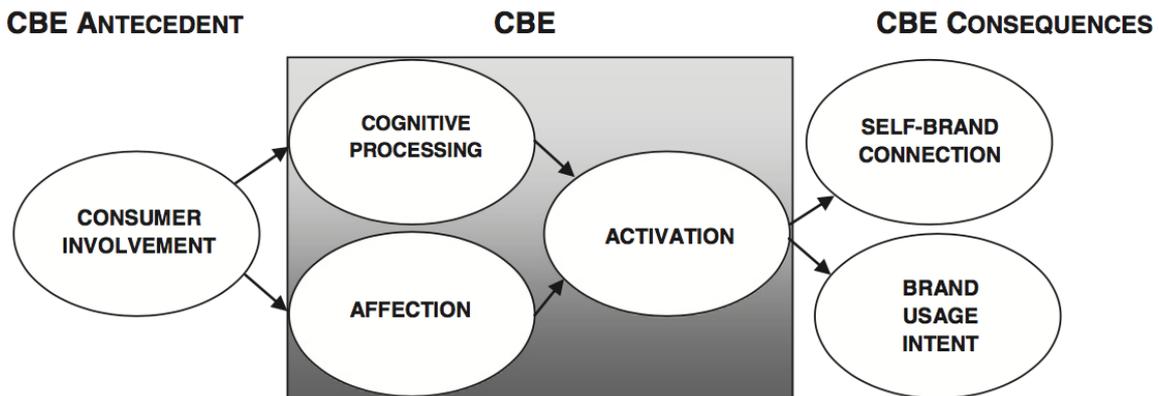


Notes - All standardized coefficients are significant ($p < .05$) and appear above the associated path. Dotted lines represent correlations.

Hollebeek et al. (2014)

Moreover, Hollebeek et al. were able to establish a CBE conceptual relationship through the application of the 10-item scale which provide greater insights for managers on how to enhance either brand usage intent or self-brand connection. Especially the distinction into the three dimension and the interdependencies, emphasized by significant correlations, constitute a meaningful contribution for the understanding of engagement.

Figure 5: Alternative model of selected CBE conceptual relationships



Hollebeek et al. (2014)

In their relationship model consumer involvement acts as a precursor. Through CBE, namely cognitive processing and affection, activation is influenced which has an effect on self-brand connection and brand usage intent result. Their model proposes the need for further research especially on the CBE consequences as the insights might be valuable to managers to design suitable retention programs with the knowledge gained on brand usage intent (Hollebeek et al., 2014).

Hollebeek et al. (2014) have proven the interdependencies of the three categories of cognitive processing, affection and activation and the CBE consequences with her model. Using Hollebeek's (2011) concept and the CBE consequences as a foundation, Agelsher et al. (2005) as well as Kuo & Feng (2013) take up the point of engagement and stress the importance of motivational and interactive facets in an online context. Baldus, Voorhees and Calantone (2014) in turn specify motivational dimensions for engagement with the development of a scale to measure engagement in OBC's. Those stages of development lead to the applied scale underlying this thesis.

3.2.2. Scales of engagement

A selected number of those concepts are outlined in the following paragraph, examined by their advantages and disadvantages in order to conclude with the most suitable framework for this thesis. Table 3 gives an overview over the existing scales to measure engagement.

As one can derive from table 4, the studies examined differ in concept of engagement, the definition of the topic, the context, the foci and the dimensions examined. Especially the dimensions examined by the researches show similarities to Hollebeeks et al. (2011) foundation of the here CBE factors cognitive, affectional and the resulting activation.

Table 3: Scales of consumer engagement

Study	Spratt et al., 2009	Hollebeek et al., 2014	Vivek et al., 2014	Baldus et al., 2015	Schivinski et al., forthcoming
Concept	Brand engagement in self-concept	Consumer-brand engagement	Customer engagement	Online brand community engagement	Consumer engagement with social media brand-related content
Definition	A generalised tendency to include brands as a part of the self-concept	A consumer's positively valenced brand-related cognitive, emotional, and behavioural activity during or related to focal consumer-brand interactions	The level of the customer's (or potential customer's) interactions and connections with the brand or firm's offerings or activities, often involving others in the social network created around the brand, offering, or activity	N/A	COBRA, a set of brand-related online activities on the part of the consumer that vary in the degree to which the consumer interacts with social media and engages in the consumption, contribution, and creation of media content
Subject	Consumer	Consumer	Customer	Consumer	Consumer
Focus/Foci	Brand	Brand	Brand/offering/activity	Online brand community	Social media brand-related content
Context(s) and brands under investigation (if applicable)	University setting; multiple brands	Social media settings; social media brands; Facebook, Twitter, and LinkedIn in three different studies	University settings (for exploratory work) and focus on the Apple brand as well as retail brands in two different studies	OBC members, panel respondents No brand or community information 11 motivations: brand influence, brand passion, connecting, helping, like-minded discussion, rewards (hedonic and utilitarian), seeking assistance, self-expression, up-to-date information, validation	Social media settings; multiple brands in each study
Dimensions	Affective (<i>inferred</i>)	Cognitive (cognitive processing), affective (affection), and behavioural (activation)	Cognitive (conscious attention), affective and behavioural (enthused participation), social (social connection)		Behavioural (consuming, contributing, creating)

(Dessart et al. 2016)

3.2.3. Justification for the choice of engagement scale for the underlying research

Keeping in mind, that the thesis aims to examine what motivates professionals to engage with certain content on LinkedIn groups, Sprott et al (2009) as well as Vivek et al. (2014) can be eliminated as a suitable scale, due to the narrow university setting, as well as including a brand into the self- concept. Hollebeek's et al. (2014) work serves as groundwork to understand the prerequisites and the outcome of CBE, which leaves Baldus et al. (2015), as well as Schivinski et al. (2016) to understand how consumers engage with content in social media. Schivinski et al. (2016) offer a compelling framework of engagement, dividing their scale into content creation, contribution and consumption. However, Schivinski et al. (2016) define the dimension solely as behavioural rather than affective, cognitive and behavioural (Baldus et al. 2015). Moreover, outline Baldus et al. (2015) 11 distinct motivations, in a multistep research approach starting with focus groups, open ended surveys, expert interviews, a validation study, the reduction of items and a test-retest reliability assessment which lead to the final scale of 11 motivations in order to predict the intentions to participate in an online community. In contrast, Schivinski et al. (2016) use online focus groups and interviews as well as netnography, which depicts an online subcategory of an ethnographic study. Both scales have their merits, however Baldus' et al. (2015) scale appears for the mentioned aspects to be a more refined, accurate and suitable fit for the underlying research question of this thesis.

3.2.4. 11 Engagement Dimensions according to Baldus ,Voorhees & Calantone

According to Baldus et al. (2014) there are eleven independent motivations which vary in their strength but in their sum, serve as a definition for engagement dimensions. Their identified motivations are brand influence and passion, connecting, helping, like-minded discussion, rewards hedonic and utilitarian, seeking assistance, self-expression, up-to-date information and validation. Those diverse motives are a useful cluster for managers to segment their customer in order to establish an appropriate communication and other tools to increase their engagement by addressing their primary needs. Moreover, Baldus et al. (2014) approach rather aims at identifying the nature of the engagement of the

consumer rather than developing measurements to enhance the engagement. The proposed scale can also be used to predict possible engagement. Their studies have been tested across various OBC and therefore was able to provide a scale which is most likely to be applicable in a wide range of different communities.

Baldus et al. (2014) research has three main managerial implications, which apply also for the research done in this thesis. Firstly, the scale helps to profile community members. A profound understanding of what consumers motivates to engage with content and the community, strategic marketing efforts can be developed to make the whole community engage to best engage its members. Another implication are targeted communication efforts. The wide range of engagement factors and heterogeneous communities make it a challenge to properly address the community. The scale can help to effectively communicate with the majority of members and to segment the audience. A tailored communication can save costs and increase the effectivity of engagement, as well as preventing to alienate community members.

Finally, companies could be able to identify lead users and thought leaders and incentivize them with the right motivational factors to endorse the brand or the topic in order to facilitate whatever goals the company pursues, such as gaining insights about a certain topic or being perceived a knowledge source. This multiplicative factor would depict an asset in the quiver of marketing measures of the community manager.

Table 4: Definitions of eleven Engagement Dimensions

Engagement dimensions	Definitions
<i>Brand influence</i>	The degree to which a community member wants to influence the brand.
<i>Brand passion</i>	The ardent affection a community member has for the brand.
<i>Connecting</i>	The extent to which a community member feels that being a member of the brand community connects them to some good thing bigger than themselves.
<i>Helping</i>	The degree to which a community member wants to help fellow community members by sharing knowledge, experience, or time.
<i>Like-minded discussion</i>	The extent to which a community member is interested in talking with people similar to themselves about the brand.
<i>Rewards (hedonic)</i>	The degree to which the community member wants to gain hedonic rewards (e.g., fun, enjoyment, entertainment, friendly environment, and social status) through their participation in the community.
<i>Rewards (utilitarian)</i>	The degree to which the community member wants to gain utilitarian rewards (e.g., monetary rewards, time savings, deals or incentives, merchandise, and prizes) through their participation in the community.
<i>Seeking assistance</i>	The degree to which a community member wants to receive help from fellow community members who share their knowledge, experience, or time with them.
<i>Self-expression</i>	The degree to which a community member feels that the community provides them with a forum where they can express their true interests and opinions.
<i>Up-to-date information</i>	The degree to which a community member feels that the brand community helps them to stay informed or keep up-to-date with brand and product related information
<i>Validation</i>	A community member's feeling of the extent to which other community members affirm the importance of their opinions, ideas, and interests.

(Baldus et al., 2014)

3.3. Managerial relevance of engagement in the context with Content Marketing

Engagement depicts a relevant managerial topic in the context of Content Marketing for various reasons. This field is enjoying increasing attention as a positive correlation between an increasing level of consumer brand engagement (CBE) and organization performance has been identified (Baldus et al., 2014). The positive associated effect of an increasing CBE can be profit growth, greater consumer integration in development processes or brand references (Nambisan & Baron, 2007; Sawhney, Verona & Prandelli, 2005).

Another major characteristic of online communities is their commercial factor (Albert, Merunka & Valette-Florence, 2008). Over the past decade research has dedicated itself to exploring those relatively new form of social formation as it has shown a favourable impact on the overall business community (Ganley & Lampe, 2009). Social networks are one of the most commonly used forms of social media on the internet, which makes it highly relevant for online marketers (Kaplan & Haenlein, 2010). Those communities are of such high value as they have an incomparable outreach, for instance Facebook had 2.19 billion active users worldwide in the first quarter of 2018 (Statista, 2018) which makes it to the most popular social network.

Hence, it is undoubtable that those brand communities have a tremendous value to the company and that those networks are of great importance which can be exploited (Cross, Liedtka & Weiss, 2005). Moreover, CBE is also applied to comprehend the customer experience and formulate appropriate retention actions (Bowden, 2009). This effect can be traced back to long term connections between consumer and company as well as the interactive and dynamic nature of the multiway relationship amongst consumers (Ouwensloot & Oderkerken-Schröder, 2008; Kaplan & Haenlein, 2010).

Hence, academics and professionals from the field of online marketing pay increasing attention to online consumer engagement (Brodie, Ilic, Juric, & Hollebeek, 2013; Baldus, Voorhees, & Calantone, 2015).

Chapter 4: Research aim and method

The following chapter 4 is dedicated to the outline of the research, starting with the aim, which contains the research question. The data gathering method is described and the sample information are given. Afterwards the data analysis method is pointed out and limitations of the research addressed.

4.1. Aim of the Research

Aforementioned relevance in the B2B CM topic constitute significant aspects and justify diving deeper into this topic, especially the monetary (revenue) and attitudinal (trust) facets play a key role. While CM can be perceived as the consumed product, depicts engagement the measurement for motivation to consume. Not only the quantifiable results of engagement the likes, clicks and shares on social media play a role, but also the precursor stage, the motivation to engage needs to be investigated (Hollebeek et al., 2014).

Moreover, call Baldus et al. (2014) as well as Zaglia (2013) for future research in different settings to their studies, which was a sample of large and broad pools of OBCs. Both conclude, that deeper insights in subcategories of OBCs are necessary, in order to better comprehend the motives for engagement and how stable the chosen motivational factors in Baldus' et al. (2014) scale are. In consequence, this would allow the definition of subcategories and the distinction in which categories which motives dominate in different circumstances. The strength and motivation to engage could vary and those factors need to be observed. Hence, further research could refine Baldus' et al (2014) insights.

The sphere of professionals' engagement on CM initiatives depicts a narrow field of research. Target group (professionals), circumstance (early development/ introduction stage of the product life cycle), social media channel (LinkedIn), topic (self-driving cars) and measure (Baldus et al. (2014) motivational factors) fulfil the request.

Those factors lead to the underlying research question of the thesis:

Which factors motivate professionals to engage with self-driving car content on LinkedIn?

This research question is flanked by the question if aspects like topics, formats or the person who shares content on LI have an influence on the engagement of professionals.

The aim of the research is to define which aspects need to be considered to ensure the maximal leverage of CM activities. By carving out professionals' main motivational factors, preferred topics and formats as well as the influence of the individual who spreads the content, could lead to refinement of CM activities. A more efficient allocation of CM resources, like the selective focus on certain topics, formats and discussions, might subsequently lead to a higher relevance for the consumer of the content. Crucial factors like the expert perception of the initiative and trust could increase, which ultimately could have a positive monetary effect for the firm, deeper industry insights and a wider network. Hence, the approach can be seen as inductive, since it is taking an existing scale and applying it in a narrow context accompanied by additional factors, which might have an effect on engagement.

4.2. Data Gathering Method

The foundation of the research focuses on a critical review of the academic literature on Content Marketing and Engagement, including its scales, provided in chapter two and three, which concludes in managerial implications and the justification for a certain scale to measure the motivation for engagement. The investigation is conducted via a structured survey collecting primary data on LinkedIn amongst professionals.

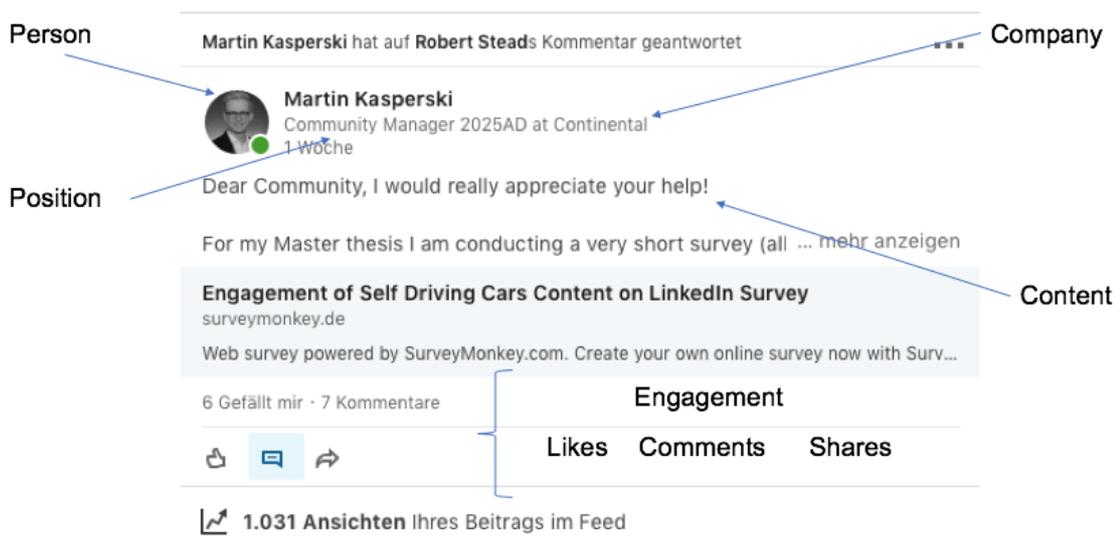
The survey consists of 15 multiple choice questions and one open ended question. It is divided into seven sections, beginning with the motivation to engage with self-driving car content followed by the reasons to engage with a specific post. The third section is dedicated to examining the most relevant topics with regards to automated driving followed by a section which deals with the format of the content. The fifth section is about the LI metrics, which examines the points of contact and frequency of professionals engaging with self-driving car content particularly on LinkedIn (Saunders, Lewis & Thornhill, 2009). The sixth section is devoted to various types of knowledge sources in the self-driving car context. Finally, the survey concludes with the demographics of the participants.

The first section, which deals with the four factors influencing engagement with self-driving car content on LI, constitutes the core of the empirical research. This section is divided into four subsections which all have a similar structure. Each subsection is composed of various subitems, which the participants were asked to rank in terms of relevance from 1 being not relevant to 5 being highly relevant.

The response options for the first question in this section were directly translated from Baldus' et al. (2014) scale and the motivational factor of a long-term benefit and expert perception (monetary, career or network) was added, since one of the aspects to be on LinkedIn, is to gain a professional advantage (Schwenn-Sebring, 2018; McCorkle & McCorkle, 2012). This results in the extension from 11 to 14 motivational factors, which can be observed in the survey, which is displayed in the appendix (Appendix A).

Section two deals with the engagement of a certain post and examines how various factors of a post influence the engagement of professionals. The person who posts reveals his or her name, position, company and might be already known in the community. Moreover, there is the possibility that other users have engaged with the post already, which could have a multiplicative or endorsing effect (figure 5). All those factors could have an influence on the consumption of content. In this section, 12 single aspects are ranked by the participants, again from 1-5, 5 constituting again the most relevant factor.

Figure 6: Characteristics of a post on LinkedIn



(LinkedIn, 2018)

Section three examines the preferences for a certain topic and the last section deals with the favoured format. By examining the posts of the months Mai, June and July in five LI groups, it was possible to derive 14 thematic clusters and 7 main formats.

4.3. Sample information

The survey was administered multiple times into five LI groups, which are all dealing with self-driving cars, constituting a random sample. In addition, it was published by Continentals’ focus page 2025AD and in LI feed of the researcher, where he calls experts in his network to participate in the survey. Hence, the type of sample is random. The composition of the groups is illustrated in the following table.

Table 5: Groups on LI dealing with self-driving cars

Group on LI	Group Size
Self-Driving Cars	16.080
Connected Car - driverless, telematics, infotainment, autonomous vehicles	5.483
Autonomous Vehicles and Platforms	1.614
Connected & Autonomous Vehicles	1.016
TaaS Technology - Connected and Autonomous Vehicles and Future Mobility	200

(LinkedIn, 2018)

Although the exposure to professionals in the automated driving sphere was extensive, the amount of responses remained limited. Over the time of initially four and extend by two weeks, number of total participants arrived at 51. This fact already gives a hint for the way engagement on LI works, that people mostly just scroll through their feed and the minor relevance for the aspect of “providing assistance” amongst professionals.

4.4. Data analysis method

The following chapter provides an overview of the structure of the analysis which is detailed outline in chapter 5.

The analysis is structured into three parts. The first part of the analysis deals with the demographic data, LI metrics and the knowledge sources, which are presented in a descriptive manner. The second part is dedicated to the three type of engagement of professionals with autonomous driving car content on LinkedIn. The final part of the analysis deals with the investigation of correlations and significance within the first four sections of the survey, namely the motivation to engage, the reason to engage with a certain post, the relevance of the topic and the format of the content. Henceforth referred to as factors influencing the engagement.

The second part of the analysis is in the following part further explained in order to provide a general overview over the structure. It can be said that the type of engagement, which is divided in three parts in terms of content consumption, serves as a starting point for the analysis, which is illustrated in figure 7 below and further explained in the following paragraph.

Engagement with content on LI is divided into the three types: reading the headline (1), consuming the content (2) and the consumption of content with likes, shares and comments (3).

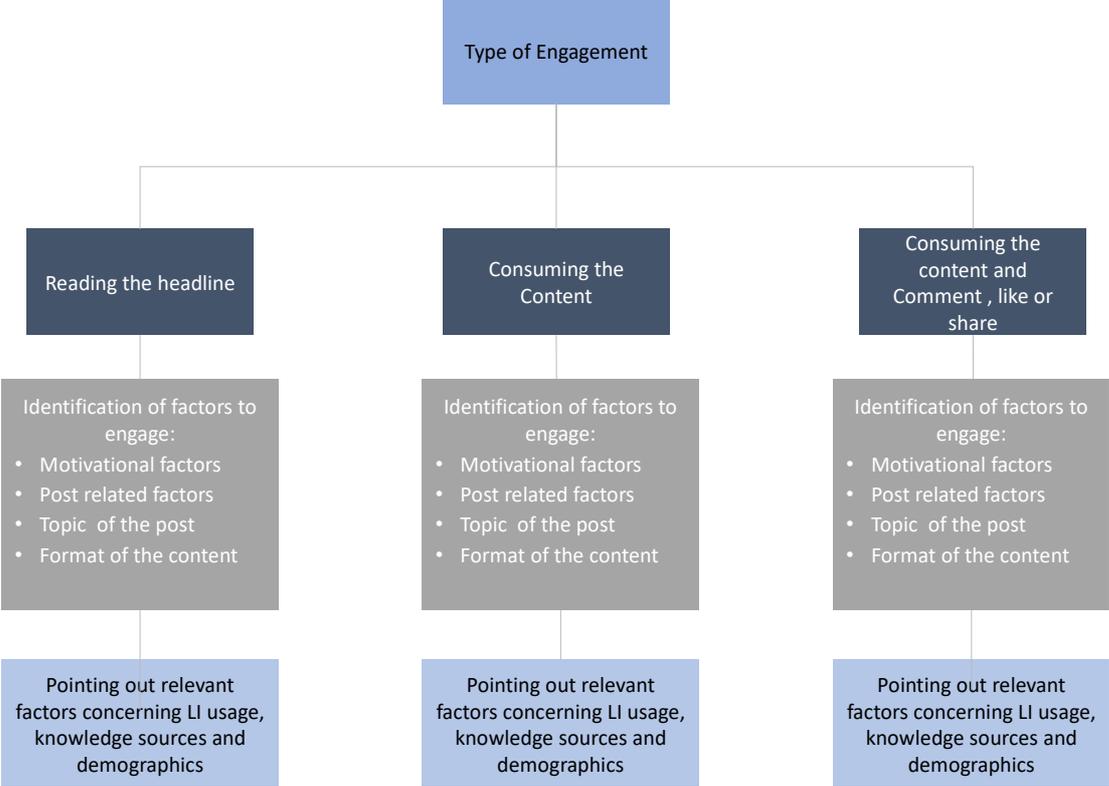
Each engagement type is examined by four factors influencing engagement, namely the motivation for engagement with self-driving car content (1), followed by the analysis of engagement with a certain factors of a post (2). The last two sections investigate the influence of the topic (3) and the format (4) of the post on the engagement.

In each section participants were asked to rate subitems scale from 1 (not relevant) – 5 (highly relevant).

This score is calculated via a weighted average, which refines a comparison between the subitems. This method allows the assignment of a score between 1 to 5 to each subitem, which indicates the strength of each subitem within its sections. This approach enables to derive which subitems have the strongest impact on a certain engagement type. Finally,

for every section an average score is displayed in order to compare the sections between each other and to obtain another indicative element to assess the subitems.

Figure 7: Structure of engagement analysis with autonomous driving content on LI



Lastly, the most relevant insights concerning the usage of LI, knowledge sources, and demographics are pointed out, in order to identify patterns within those three engagement types. The structure of the analysis is illustrated in figure 6. A weighted average was calculated out of the rankings. Finally, correlations within the four factors influencing engagement between the subitems were calculated in order to understand their correlations and outlining their significance.

4.5. Limitations of the Research

Several limitations have to be considered in this empirical research. Due to small sample size, limitations concerning the validity of data have to be taken into account. The results give a first impression give an impression, but to get resilient data, the sample size needs

to be increased. The sample composition is very distinct in terms of age, origin, career level and the field in which participants are employed. A more diverse sample size would lead to results which are more reliable and robust. The analysed correlations of responses are contributing to desired confirmation of Baldus et al. (2014) scale, but a clear refinement proves to be rather difficult, since correlations in subgroups with an overall sample size of 51 participants would hardly lead to meaningful insights. The insights depict a precursor stage in order to create a clear vision of the target group, which means the results give merely an initial indication how certain groups on LI engage with the content dealing with autonomous vehicles.

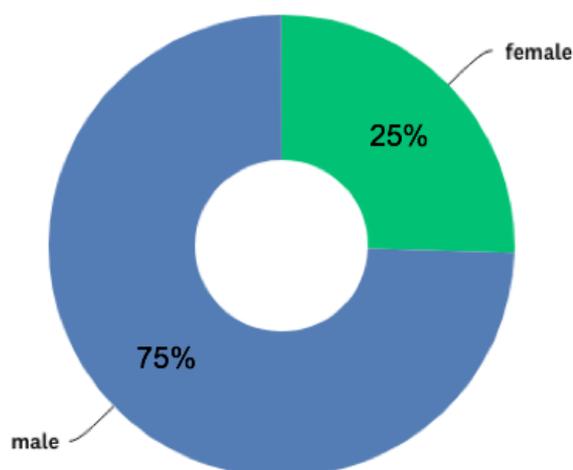
Chapter 5: Research result Analysis

In the following chapter the analysis is particularized presented accordingly to the structure which has already been outlined in chapter data analysis method. Beginning with a descriptive method of the demographics, LI metrics and knowledge sources, followed by the in-depth examination of the type of engagement in terms of consumption of the content and concluded with the investigation of correlations and significance of the first four sections of the survey. The source of the following data are the results obtained from the survey (n=51).

5.1. Section 1: Samples characteristics, Demographics of survey participants

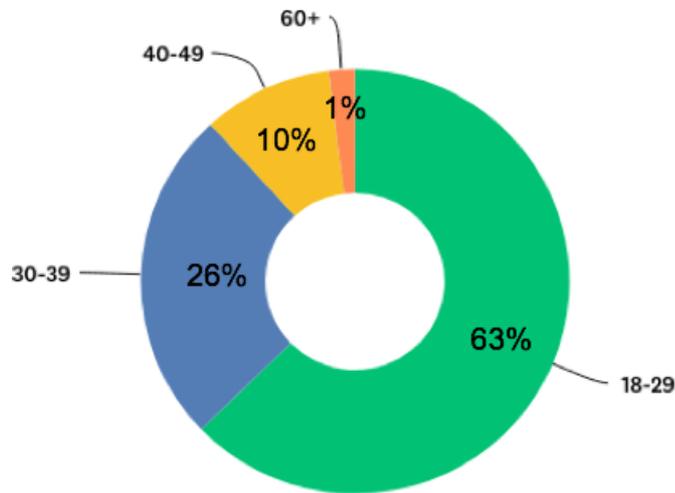
As one can derive from figure 8, 75%, thus, the majority of the participants are male. The male majority can be explained by the field of self-driving cars, which consists of spheres which are mostly dominated by man, such as the IT and the automotive sector. In line with this fact is, that females are mostly employed in the business sector.

Figure 8: The gender ratio of participants



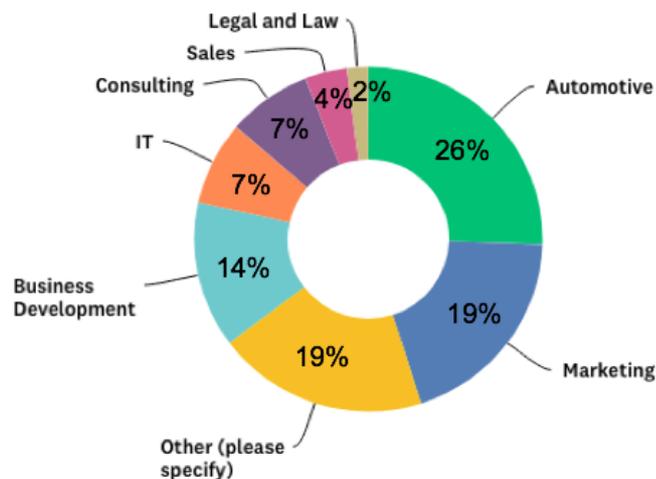
Regarding the age distribution, it is striking that 89% fall under the age group of 19-39 years, which is illustrated in figure 9.

Figure 9: Age of participants



Examining the aspect of employment, the following illustration (figure 10) give an impression over the diverse fields in which automated driving plays a role. 60% of the participants belong to business related fields, including others (marketing, business development, consulting, sales). Whereas, the remaining 33% are technically oriented participants (IT, automotive) and people from various other disciplines (legal, research, conferences).

Figure 10: Fields in which participants work



The young age of participants is an indicator for the young research field of self-driving cars and reflects also in the career level of the participants, where 87% are between the level of an intern/ student and professionally experienced (figure 11).

Figure 11: Career level of participants

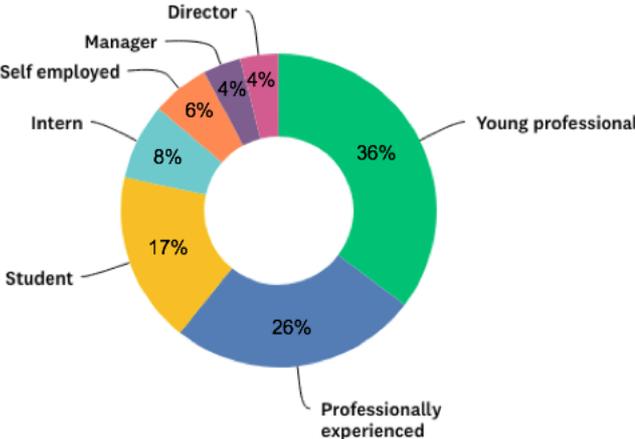
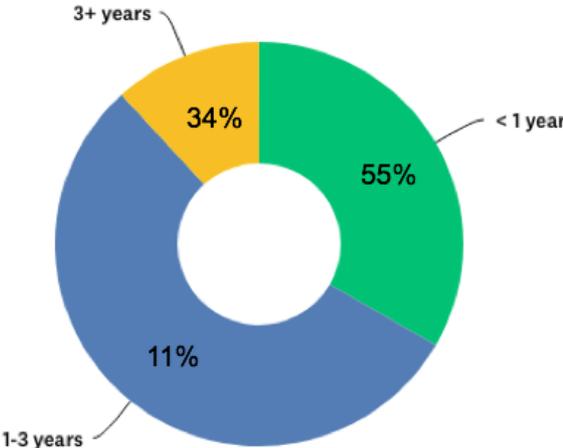


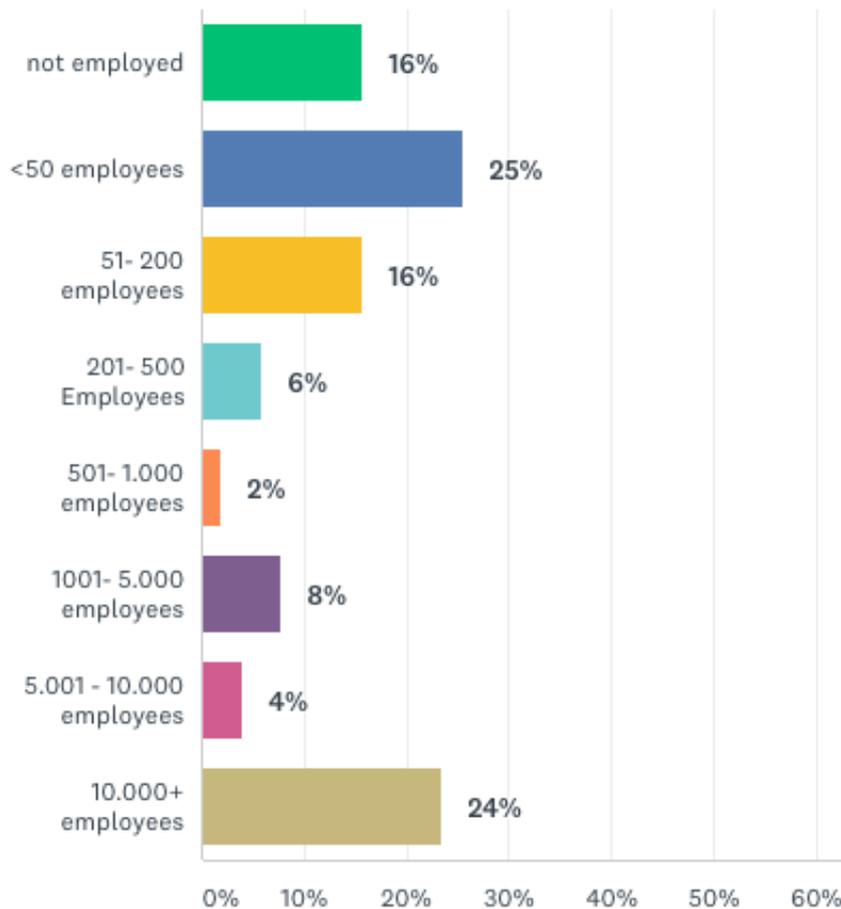
Figure 12 presents for how long participants have been dealing with autonomous cars. It shows, that 66% of participants are involved for less than 3 years. Hence, the view on the content marketing activities of self-driving car content on LI is mostly illustrated from the perspective of participants in either, the early stages of their career in the field of automated driving or professionals recently joining this special area.

Figure 12: Duration of dealing with automated driving



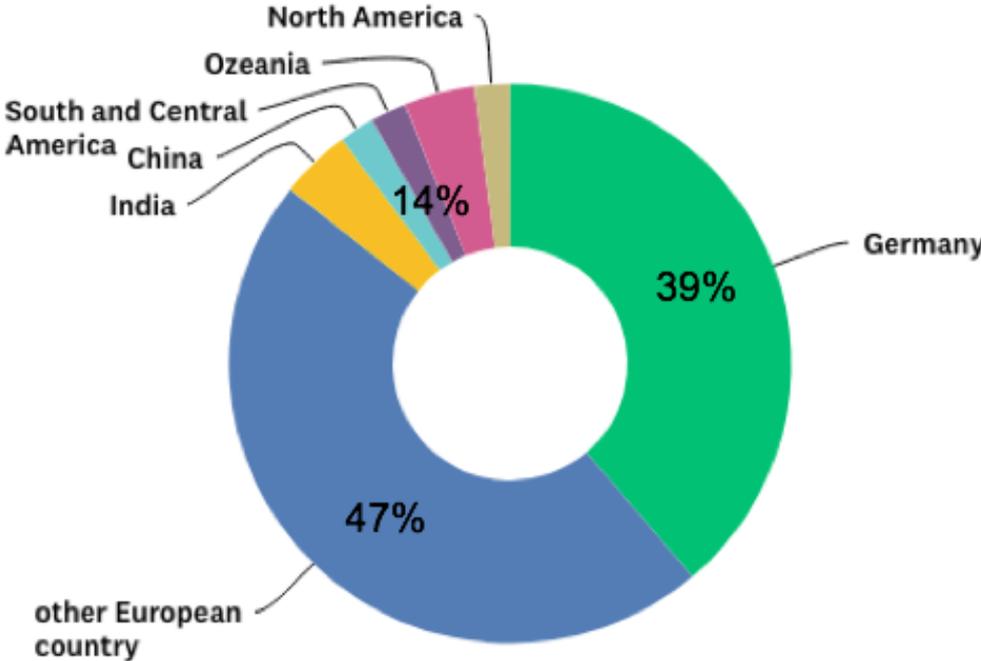
Noticeable is the fact, that 50% of the participants work either in small companies (< 50 employees) or in larger companies with 10.000+ employees, which is illustrated in figure13. Participants from both groups are mainly from the business field (marketing, consulting, sales and business development). Technically oriented participants show no clear distribution, they are represented in all company sizes and age groups, and geographic areas, however 85% of them are men.

Figure 13: Company size of participants work for



Participants from Germany and other European countries dominate the survey with 86% of all responses (figure 14). Of the overall responses depicts a European perspective. Especially the small number of North Americans (2%) is surprising, considering the market leader position they currently enjoy in the field of automated driving. Africans and people from Asian countries other than India and China did not participate.

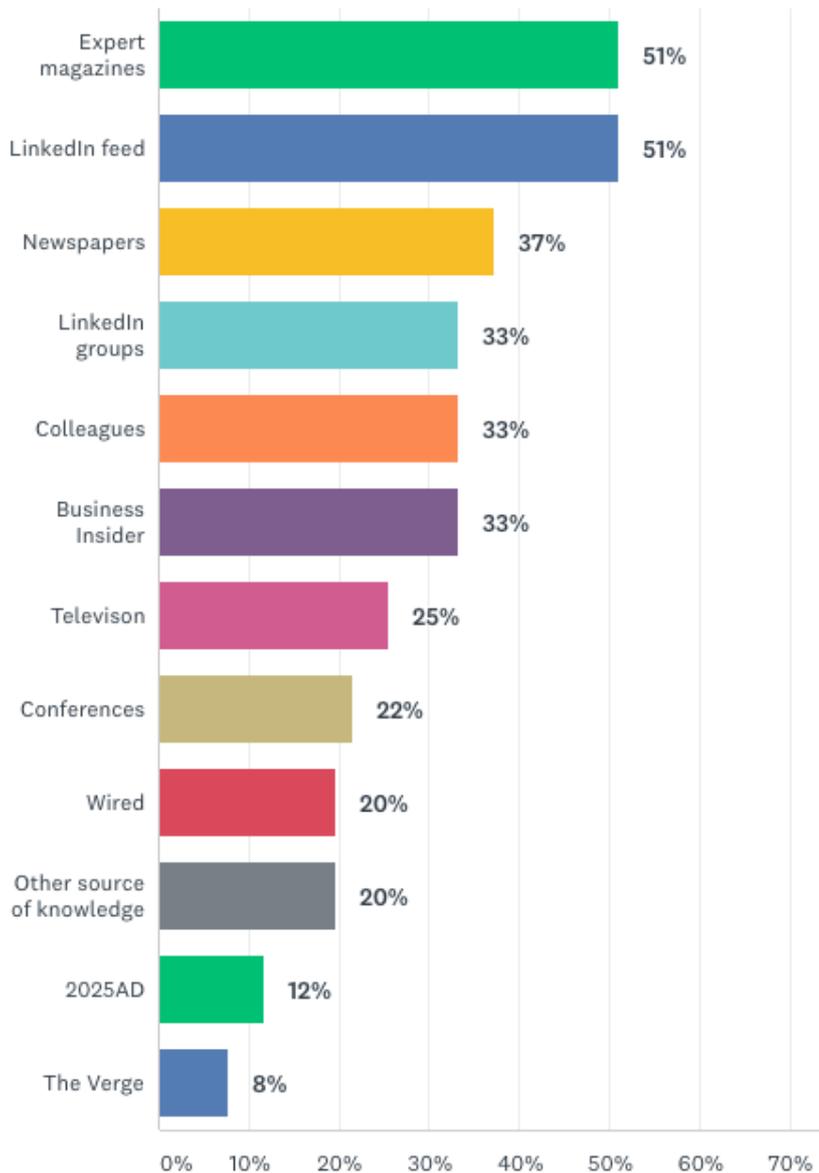
Figure 14:Origin of participants



5.2. Section 2: Frequently used information sources

Figure 15 shows vividly how diverse the sources of knowledge are amongst professionals.

Figure 15: Main sources of knowledge with regards to automated driving



Professionals mentioned scientific papers as sources of expertise as well as YouTube and tech blogs. The online channels are important (LinkedIn, Business Insider, the Verge, Wired, 2025AD and the Verge), but offline channels (Magazines, Newspapers) still have

a significant meaning when it comes to keeping up to date. Moreover, personal contacts (colleagues and conferences) are frequently used for knowledge exchange.

5.3. Section 3: LinkedIn metrics

In order to gain insights about the level of engagement, participants were asked to express how they engage with self-driving car content on LI (Figure 16). The data suggests a rather low engagement, with only 22% of commenting, liking or sharing the content. 78% read solely the headlines or continue in reading the article. This fact raises the question, whether comments, likes and shares are a suitable metric to measure engagement, since a lot of information gets lost, when almost 80% of the consumers do not visibly interact with the content. Page visits or time spend on a certain article might be a more informative metric.

Figure 16:Types of engagement with self-driving car content on LI

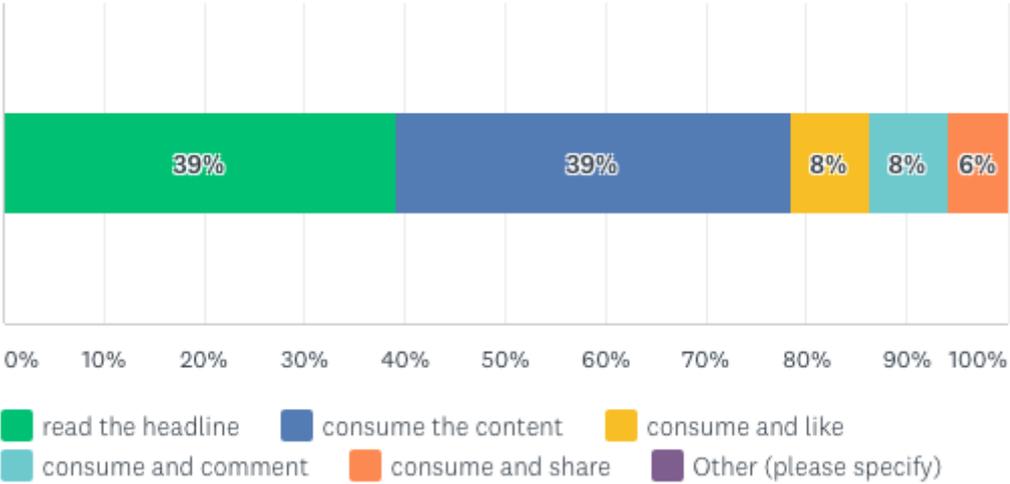
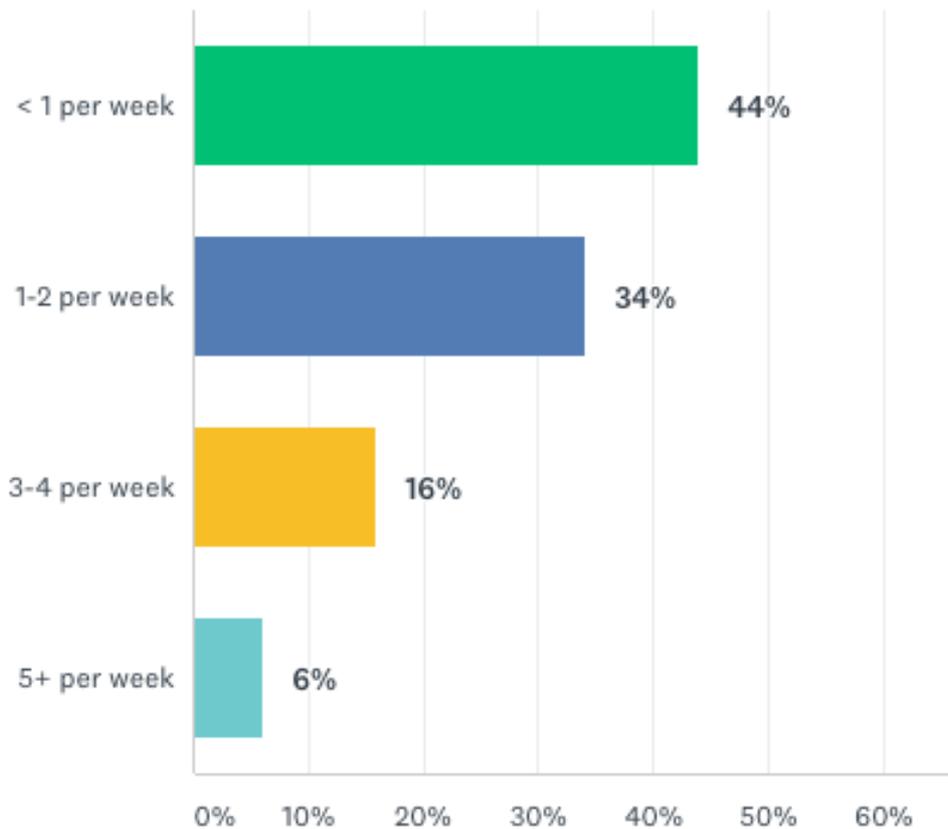


Figure 16 points out, that 78% of participant consume autonomous driving content at a maximum of two times per week. The group of the 78% corresponds show no striking demographic characteristics in terms of profession, age or gender ratio. A striking insight is, that 73% of the heavy users (3 and more times per week) are employed in the business sector, which suggests that those people spend more time on LinkedIn. Moreover, it can

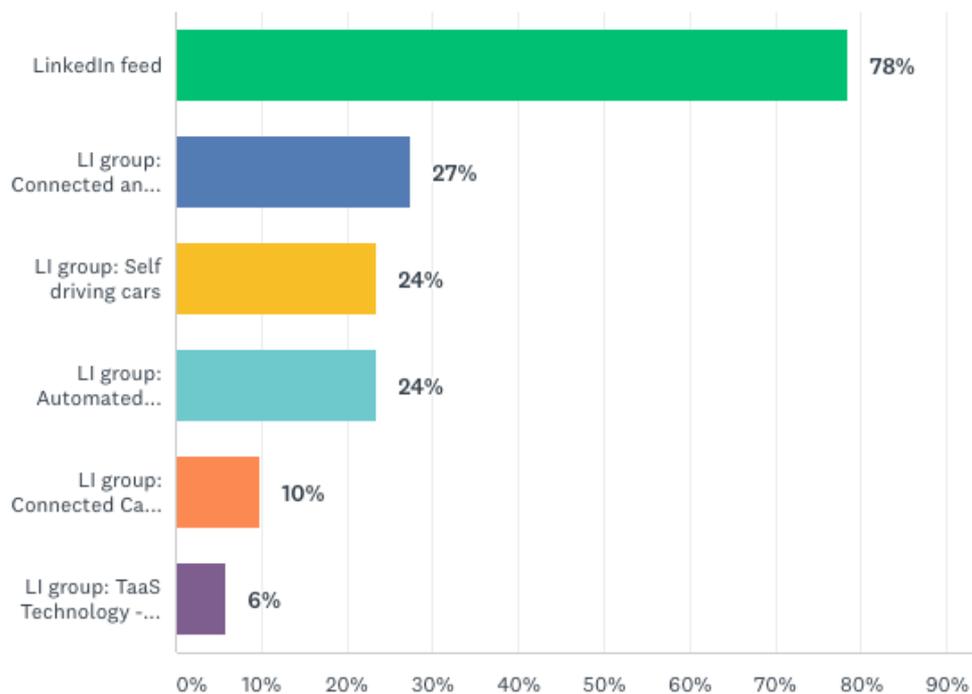
be concluded that those people have a higher motivation to stay informed than participants from the technical field. 91% of the heavy users are male.

Figure 17: Frequency of weekly consumption of automated driving content



The vast majority of 78% gets in touch with self-driving car content via the LI feed, as figure 17 illustrates. However, most of the users are additionally members of certain groups. Participants who consume content more often are also members in various groups. Users who consume content two or less times per week are mostly member in one group, either the largest one, “self-driving cars” or “Connected Car – driverless, telematics, infotainment, autonomous vehicles”.

Figure 18: Points of contact with self-driving car content



5.4. Factors dealing with engagement

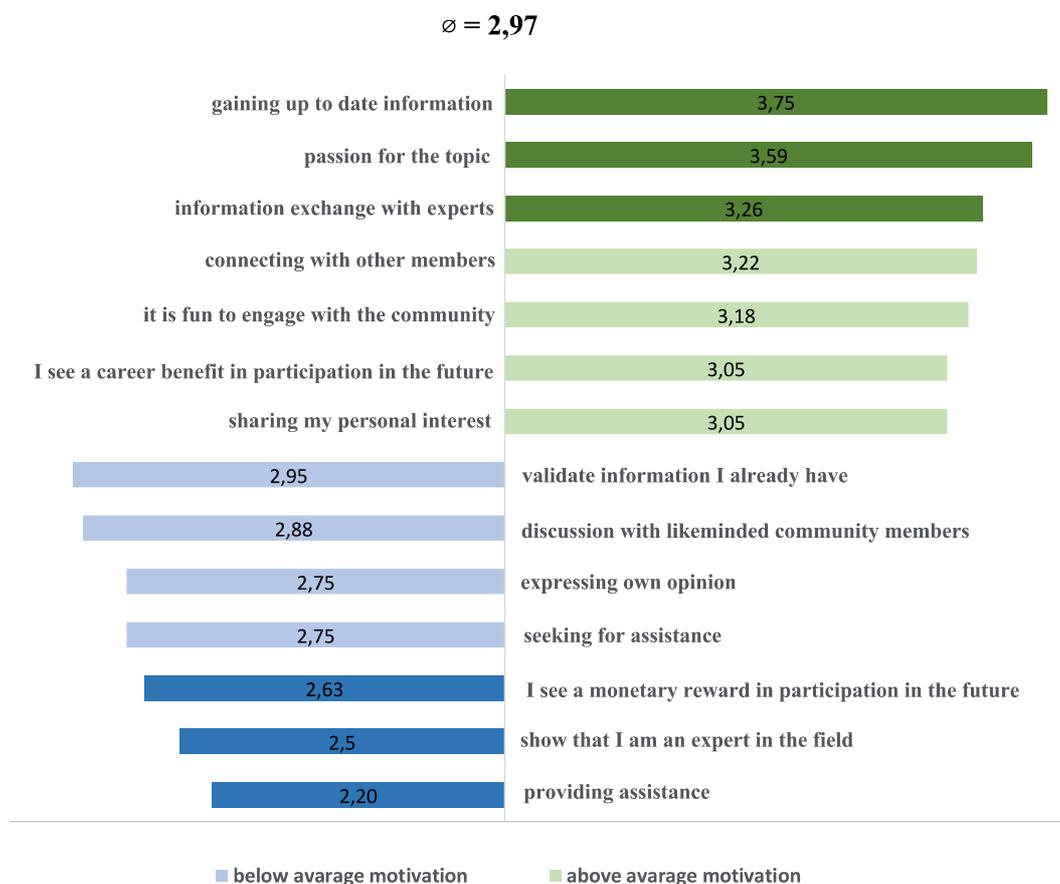
The analysis moves on to the second part, which is dedicated to the in-depth investigation of the three different types of engagement, namely reading the headline (1), consuming the content (2) and engaging with the content (3). Each subgroup is examined from four different angles in order to gain profound insights, which will be valuable for the recommendations for enhancing engagement. The four perspectives are the motivation to engage (1), the reasons to engage (2), the topic (4) and the format of the content (4).

5.4.1. Participants predominantly reading the headline

The users in the first subgroup, which mostly read the headline of LI posts represent 39% of all respondents. Their engagement can be described as low, since those LI users barely engage with the content. As one can derive from figure 19, the average motivational score to engage with Content is at 2,97 out of 5. The most important motivational factors to engage with content on LI are gaining up to date information (3,75), their passion for the topic (3,59) and the information exchange with experts (3,22). The first two subitems indicate, that the information are of personal interest and that recent information have the

highest relevance for those participants. The lastly mentioned subitem appears particularly striking, since high relevance of information exchange with experts contradicts the action of predominantly reading the headline. The presented contradiction can be explained with the selective consumption of self-driving car content of those participants. 85% use LI two or less times as a knowledge source and a diversity of other sources of knowledge can be determined, ranging from personal information sources (colleagues, conferences) over other online channels to expert magazines and television. The majority of information is already covered in various sources, in expert magazines or during conferences even deeper, which makes most of the content provided on LI less interesting, probably even redundant. Moreover, 70% of the low engaging participants are below 29, which reflects the selective content consumption of the younger generation. Consequently, the participants are in their early career stage, just 28% are on the level of a professionally experienced employee or higher.

Figure 19: Motivation to engage with Content on LI for participants predominantly solely reading the headline of a post



Self-presentation, through providing help and presenting themselves as an expert, is for those participants apparently a minor motivation to engage with content, since the subitems expressing the own opinion (2,75), seeking for assistance (2,75) and providing assistance (2,2), the long-term monetary reward (2,63) and showing they are an expert (2,5) rank the lowest. The interaction on LI with autonomous driving content takes place mostly through the feed, merely 45% of the participants are members in a LI group dealing with self-driving car content, which additionally expresses their low engagement, but contradicts the motivation to gain up to date information and exchanging information with experts on the topic. An explanation could be simply the lack of awareness that those groups exists. Additionally, online information sources are easily replaceable which tempts the users to habitually change between multiple available sources, which is supported by the manifold sources those users have. Finally, 65% of the participants are employed in the business sector, which suggests a quick information consumption in order to gain an overview and stay ahead in this rapidly changing sector.

Generally, certain characteristics of the posts are more important to the low engaging user than previous discussed motivational factors (Figure 20), which can be derived from the higher average score ($3,25 > 2,97$). In line with the selective consumption of content is the high preference for currently relevant (4,11) and generally interesting topics (4,05). Moreover, personal factors which allow the assumption about the quality of the information provided, such as the person is known for relevant content (3,65) or the person who posts works for a key player (3,63), are relevant for the low engaging user to engage with a post. Subitems which express the previous engagement with a post by other users do not seem to have a strong impact on the engagement of this subgroup.

Figure 20: Reasons to engage with a certain post, participants who mostly read the headlines

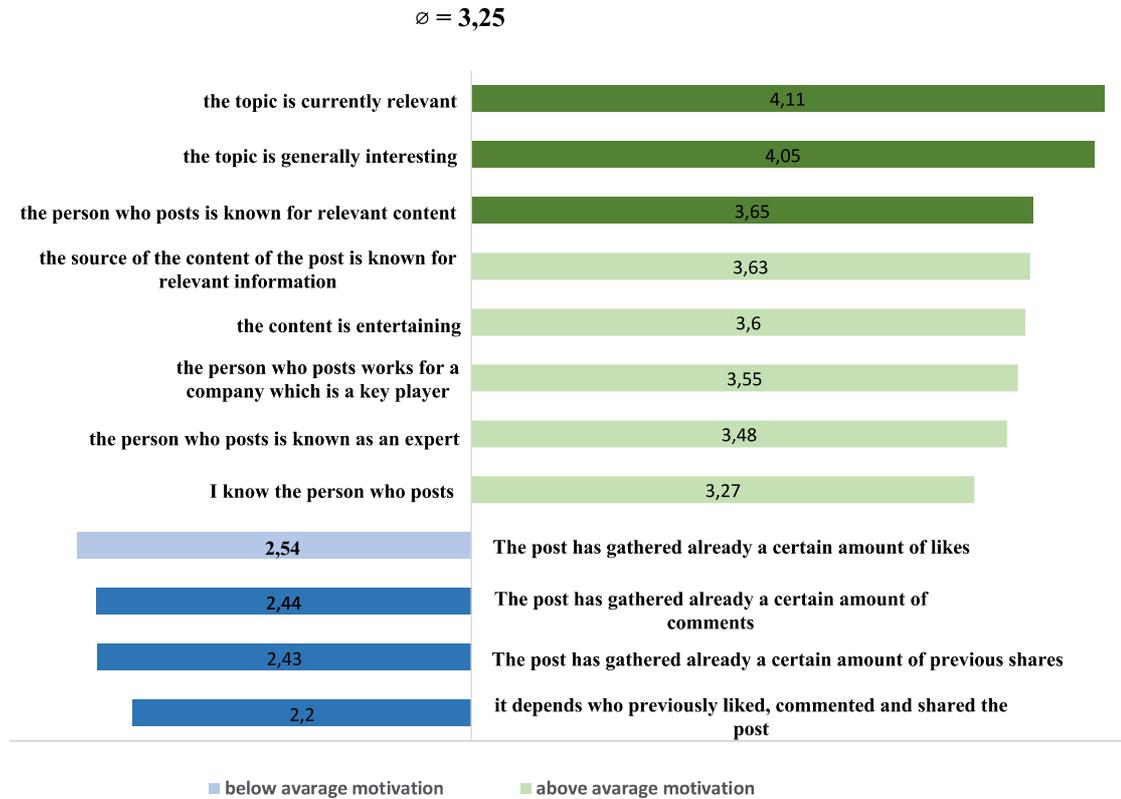
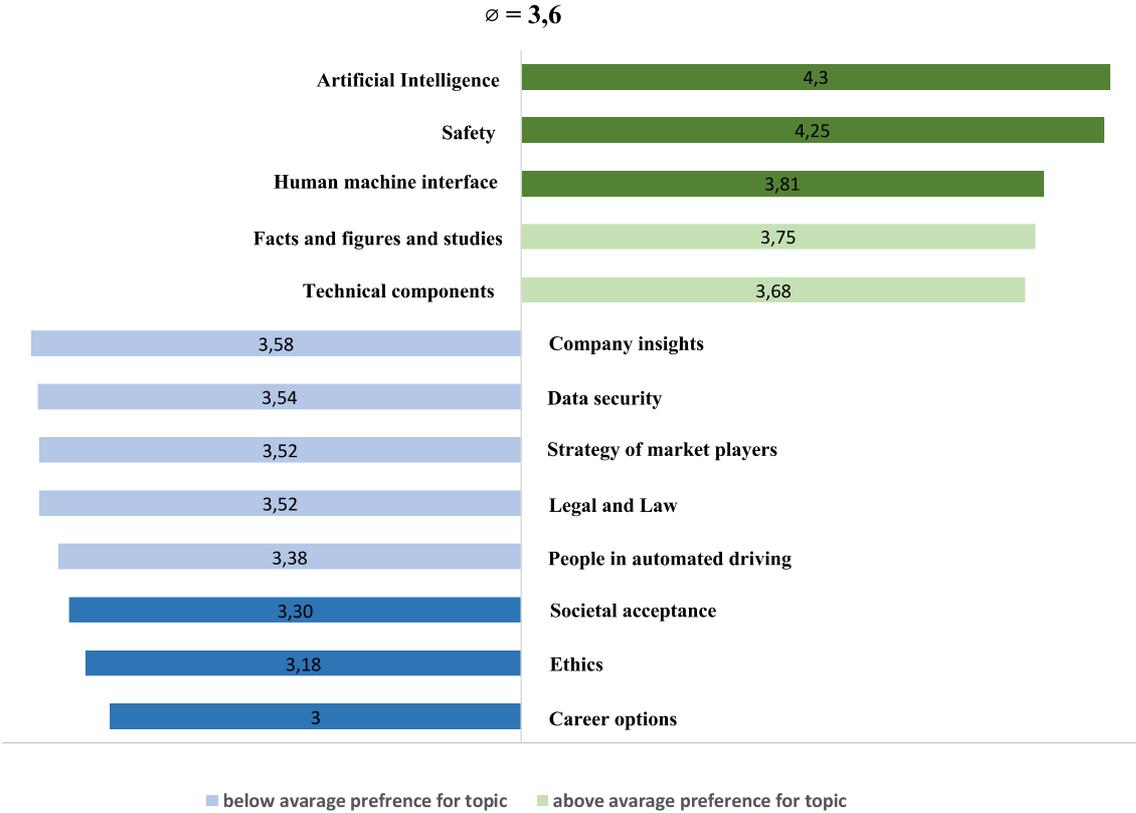


Figure 21 displays the most significant topics for LI users, who mostly solely read the headlines. The topic is evaluated as the most relevant factor within the low engaging users, as it records the highest average score of 3,6, compared to the other three perspectives, namely the overall motivation to engage, topic and the format of the content.

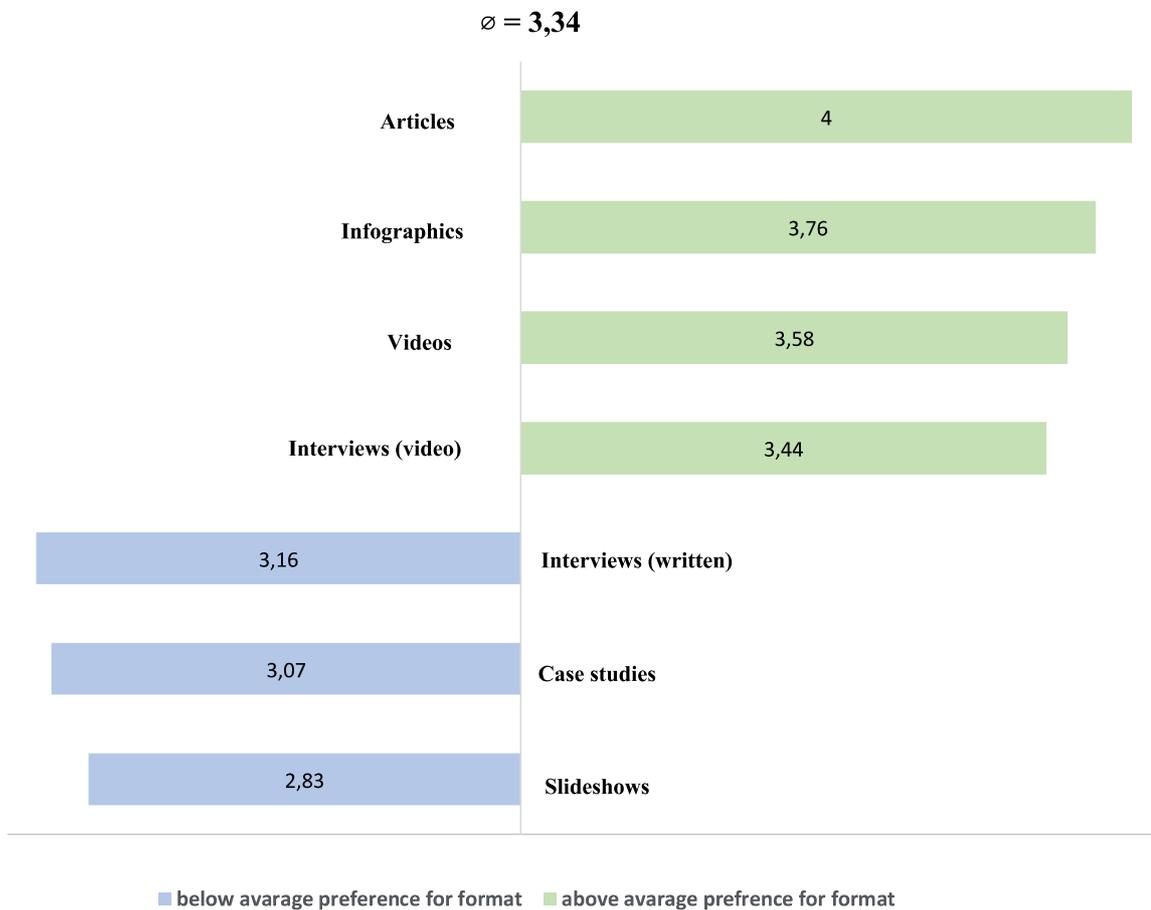
Figure 21: Most relevant topics for participants mostly reading the headlines



Artificial intelligence (4,3), Safety (4,25) and the human machine interface (3,81) depict the most relevant topics for the relatively young audience, while societal acceptance (3,3), ethics (3,18) and career options (3) rank at the bottom. Surprisingly, company insights and strategical content rank in the midfield, although the audience consist mainly of young business people. Apparently, those topics are covered in a sufficient way in other information channels, consequently they do not rank at the top on LI. Especially technical topics seem to be highly relevant and the topic safety, as all of those aspects are highly relevant to assess whether a new technology is ready to be launched. Artificial intelligence reaches the highest score which underlines its uprising importance in various fields, especially in the application of a technology which is supposed to serve the mass market. Another striking result is the high ranking of safety (4,25) and the low ranking of societal acceptance (3,30). Although one could assume those topics are linked, it seems that societal acceptance is a consecutive topic, which will reach importance when self-driving cars are ready to be commercially launched. Ethics (3,18) do not concern the subgroup much and career options (3) are definitely important to young business people,

but apparently not in the LI feed or within the groups, where self-driving car topics are dealt with.

Figure 22: Preferred format of participants mostly reading the headlines

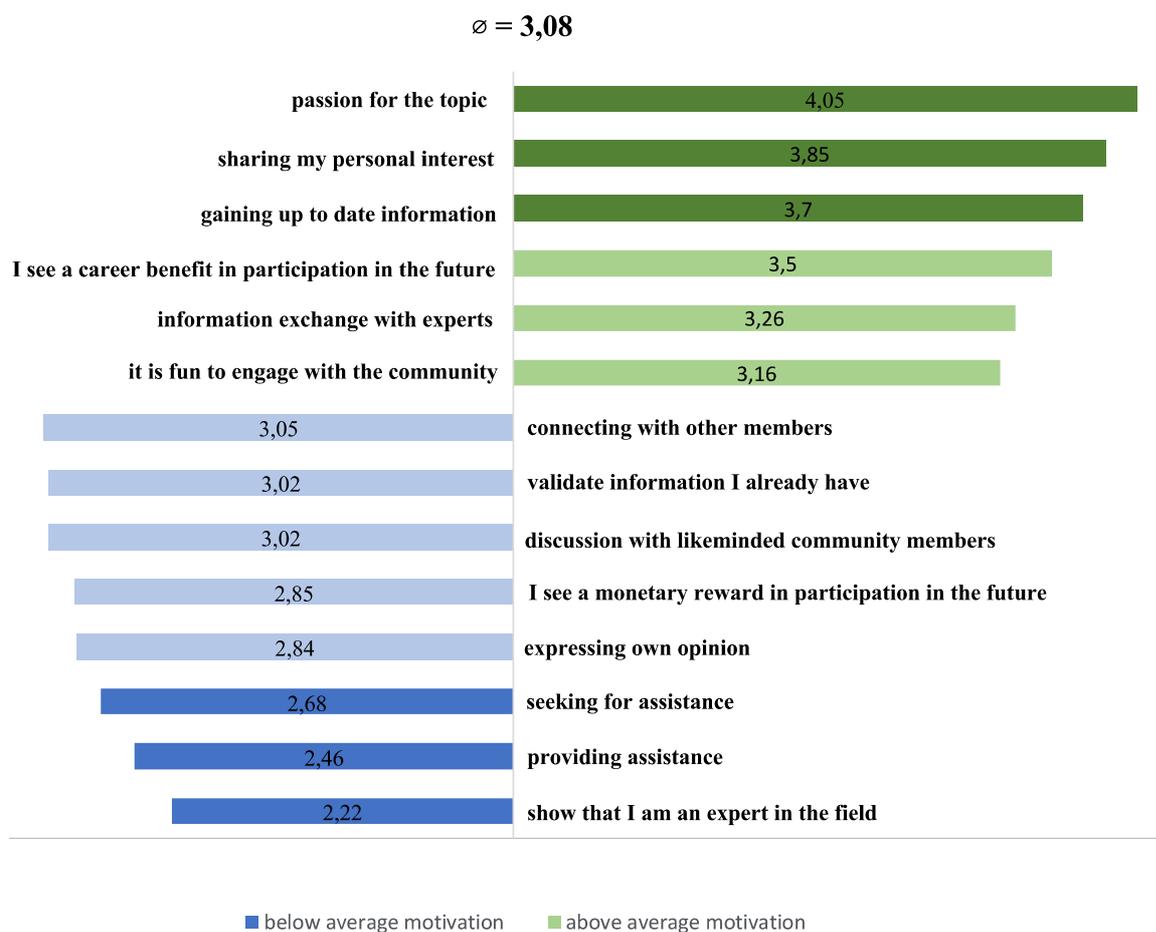


Closing the examination of the low engaging users, the format of the posts on LI achieves the second highest average score with 3,34. Articles are the most popular format (4) and visual content follows with infographics (3,76) and video material, e.g. interviews. So, either formats which contain condensed information or format which provides easy digestible information is preferred by this subgroup. Slideshows (2,83) and case studies (3,07) are not very popular, which might be caused by the general the length of the format, which is more extensive than the popular ranked items.

5.4.2. Participants predominantly consuming the content

39% of all participants mostly consume the automated driving content on LI, meaning they read the article or watch the video. The following figure 23 displays the relevance of motivational factors for participants who mostly consume the self-driving car content on LI. The average score of 3,08 is slightly higher compared to the participants who mostly just read the headlines (2,97), which has been discussed in the previous chapter.

Figure 23: Motivational factors for engagement for participants who mostly consume the content



The most important motivational factors to engage with the content on LI are passion for the topic (4,05), sharing personal interest (3,85) and gaining up to date information (3,7). Not only are the scores on average above the ones of the previous group but also depicts sharing personal interest a highly relevant motivational factor to engage with the content. The items which are ranked above the average indicate, that this subgroup is more involved in the topic and seem to have an intrinsic motivation to generally engage with the community by exchanging information with other interested members. Their overall

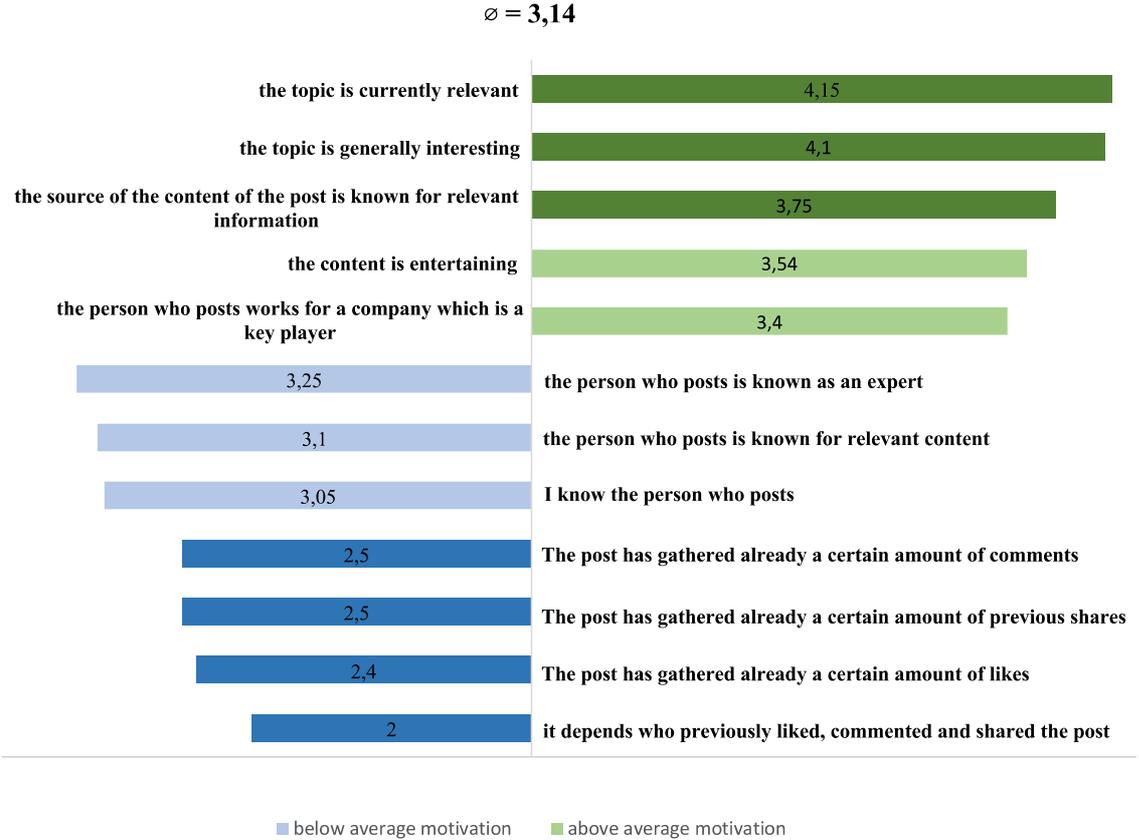
focus is placed on the raw information and not on the personal opinion, as this subitem ranks relatively low (2,84) compared to the information exchange (3,26). Moreover, providing (2,46) and seeking (2,68) for assistance and the reputational factor, by showing that a participant is an expert in the field (2,22), rank the lowest, which emphasizes the impression, that for this subgroup LI serves as an information source, rather than as a platform where reputation is build or help is sought and provided.

In addition, this subgroup shows differences in the demographical factors. Whereas the first examined subgroup majoritarian consists of young professionals in an entry level position in the business sector, in the second subgroup, two thirds are young professionals or higher advanced in their career. 55% of the participants are employed in a technical field dealing with automated driving. Their frequency of consumption of automated driving content is slightly higher, 23% (first examined subgroup 15%) consumes automated driving content more than twice per week on LI. The knowledge sources of the first two subgroups are both relatively diverse, however the users of the second subgroup consume less television (10% compared to 40%) and prefer expert magazines (55% compared to 35%). Moreover, is the second subgroup more represented in LI groups (55%), compared to the first group (45%).

Hence, those results display, that people who consume the content, are also more active on LI, due to the longer employment in the field of automated driving and the higher proximity to the field of automated driving. They are more active on LI than the young professionals from the first subgroup, which is indicated by the frequency of usage and the higher membership rate in LI experts' groups.

Concerning the characteristics of a certain post (figure 24), subgroup one and two rate the current relevance of a certain post (e.g. the fatal Uber crash) as the highest motivational factor with a score of 4,15 followed by the general interest for a topic. However, the second subgroup tends to derive credibility about the quality of the content from the source of a post (3,75), e.g. a study from a well know institute or a consulting firm rather than from the person who posts it (3,1 and 3,25). In contrast, the first subgroup values the person behind the content slightly higher (3,65). Both subgroups are in line regarding the prior interaction of a post. The number of previous likes (2,4), comments (2,5), shares (2,5) or who has engaged before with the post (2), rank at the bottom and do not seem to have a meaningful impact on the engagement of the second subgroup.

Figure 24: Motivation to engage with a certain post, participants who mostly consume the content



Once more, the topics safety (4,45) artificial intelligence (4,25) and the human machine interface (3,85) but also legal and law (3,85) rank at the top (figure 23). Hence, the three most important topics are the same as in the first subgroup, although among them they rank a bit differently.

Legislative topics are perceived just as important as the human machine interface, which once again indicates a general higher involvement in the world of self-driving cars of the second subgroup, which observes the sphere of automated driving with a wider angle by also taking other related factors into account. Hence, the most engaging topics are the ones which are paramount to advance the product life cycle of automated driving. Contrary to subgroup one, societal acceptance (3,35) is not perceived as engaging and the topics ethics (3,15), people in automated driving (3,1) and career options (2,95) depict the weakest subitems in the second subgroup. Soft topics, at least for this stage of the development of new technology, do not attract significant interest among the second subgroup.

Figure 25: The relevance of topics to engage with self-driving car content for subgroup two

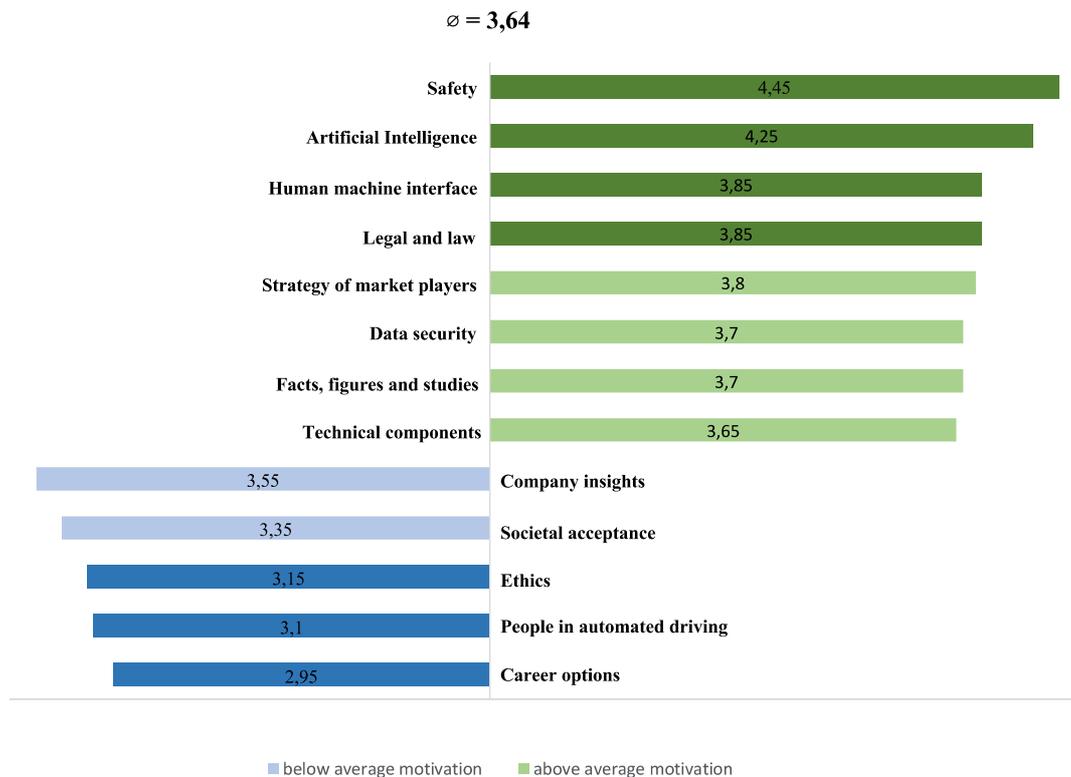
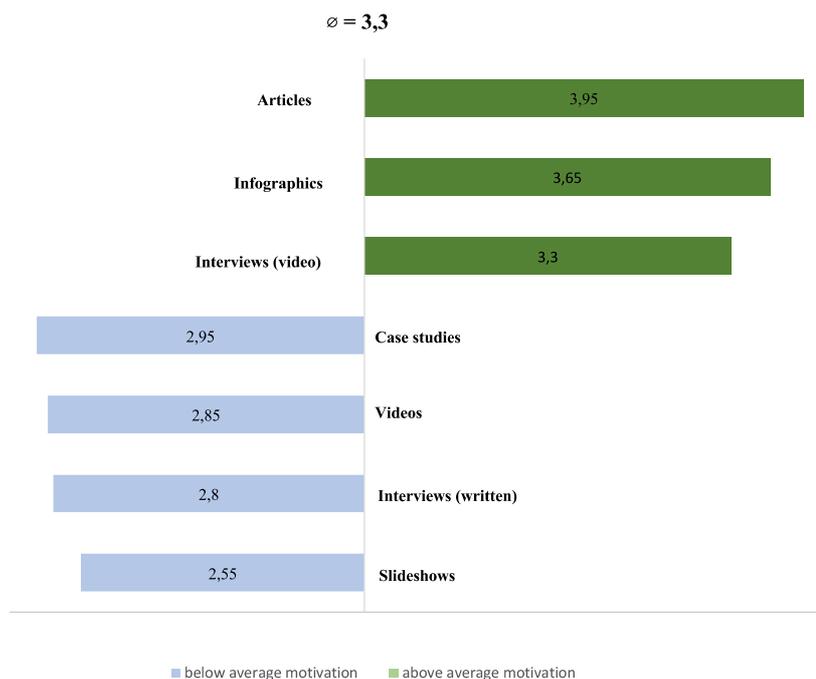


Figure 26 displays the formats participants in the second subgroup prefer.

Figure 26: Content format participants of subgroup 2 prefer



Compared to the first subgroup it can be observed that the average score (3,3 subgroup one and 3,36 subgroup two) as well as the preference for certain formats do not significantly differentiate. Hence, yet again are formats with condensed information (articles 3,95) and easily obtainable information (infographics 3,65 and video interviews 3,3) the most popular subitems in this category.

Striking is the difference between written interviews and video interviews, which supports the claim, that passively consumable content is preferred as it was already discovered in the first subgroup.

5.4.3. Participants engaging with the content

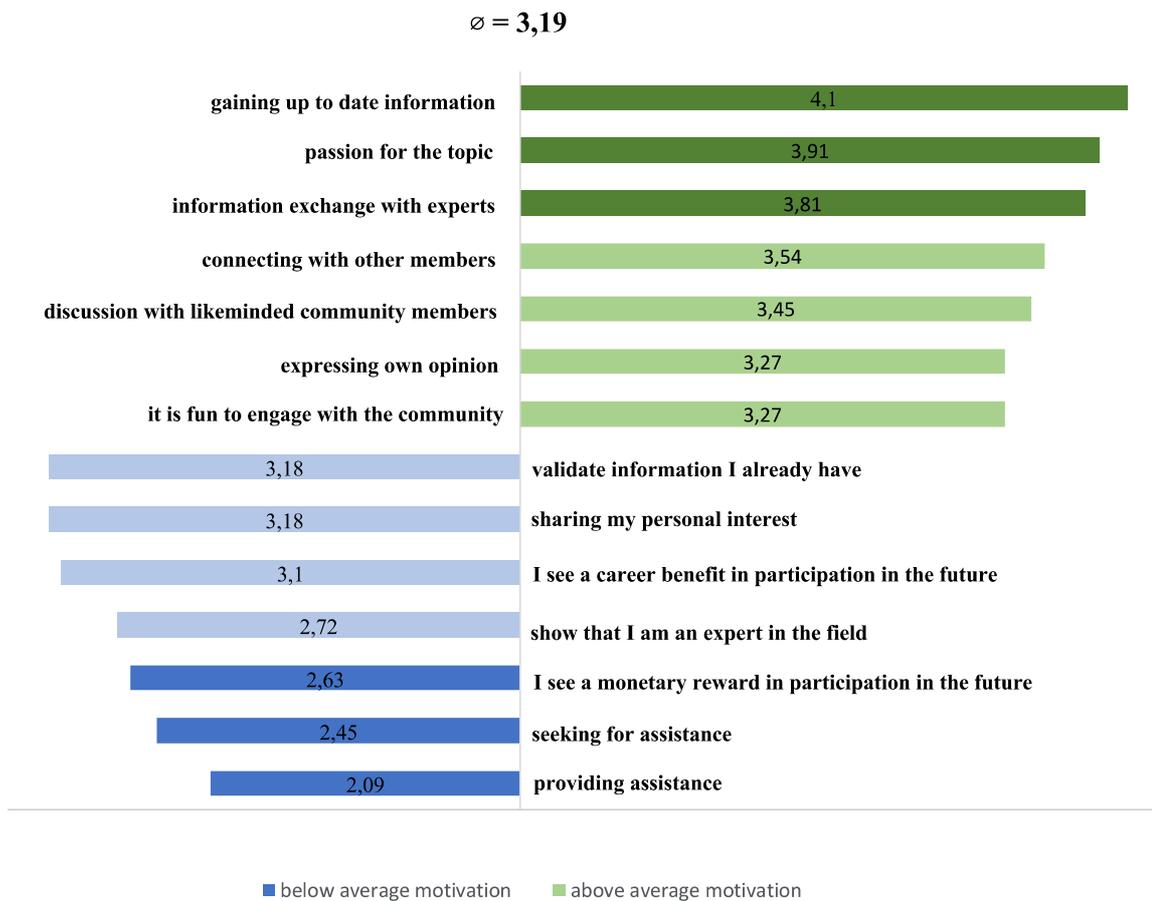
The last observed subgroup contains participants, which usually consume but also engage with the content on LI. 28% of the participants of the survey are members of this third subgroup.

The average score of motivational factors of this subgroup is the highest among the three subgroups (first subgroup 2,97, second subgroup 3,08 and third subgroup 3,19), which indicates that the more a subgroup is engaged, the greater is the relevance of the motivational factors (figure 25). The strongest subitems of motivational factors are again gaining up to date information (4,1), passion for the topic (3,91) and the information exchange with experts (3,81). The interaction (3,45) and connections (3,54) with other members motivate those LI users as well. Once more is providing (2,09) and seeking assistance (2,45) rated as the least relevant subitems.

Therefore, it can be concluded that LI does not serve as a platform for such kind of interaction. Moreover, is the expected future monetary reward rated low (2,63), which is in line with the previously observed subgroups and emphasizes LI role as information exchange and networking platform. Although merely 27% of the members of the subgroup use LI more than twice per week, 81% of this subgroup are represented in groups dealing with self-driving car content. Their information sources are diverse but focused on quality content, as 73% use expert magazines as an information source. 45% work directly in the technical field of automated driving (Automotive and IT) and 55% are above the career level of a young professional and the majority deals with autonomous driving for more than two years. Thus, it can be suggested, that the engagement increases the longer the user is active in the field.

Figure 27 illustrates the motivational factors for participants which consume and engage with the content on LI. Members of this subgroup rate the credibility of a person for relevant content as the crucial reason to engage with a post (4). After that ranks once more the general interest of the topic (3,91) and the relevance of the topic (3,81).

Figure 27: Motivation to engage with content of subgroup three

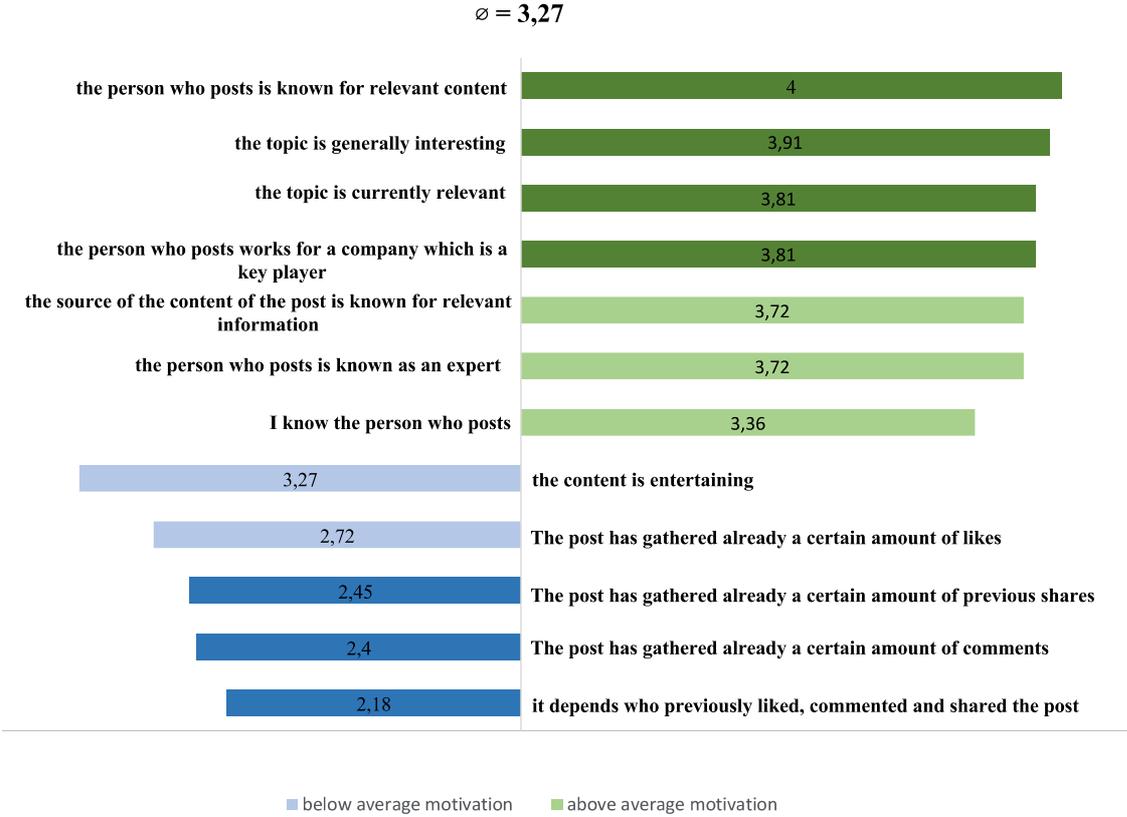


Another reputational aspect, which motivates users to engage is the employer of the person who shares the content (3,81). From this ranking one can derive that the overall reputation of the person posting, which can be expressed through job position, employer or previously shared valuable insights, is relevant to this subgroup. As observed before in the other two subgroups, prior interaction with posts not motivate users to engage with a certain post.

Figure 28 illustrates the relevance of certain topics for subgroup three. Highly relevant are topics dealing with technical components (4,47). As observed before, artificial intelligence (4,27) and the human machine interface (3,9) are important aspects regarding

the engagement. Interesting insights can be detected, since strategical topics (4) rank high and safety is still a relevant, but not the most relevant topic (3,81) as it was observed in the previous groups. This composition of preferences might be explained by the previously mentioned majority of professionals in their later career levels dealing directly with automated driving. Topics dealing with ethics (3,18), legal and law (3,08) and career options (2,63) do not seem to be strongly engaging for the third subgroup.

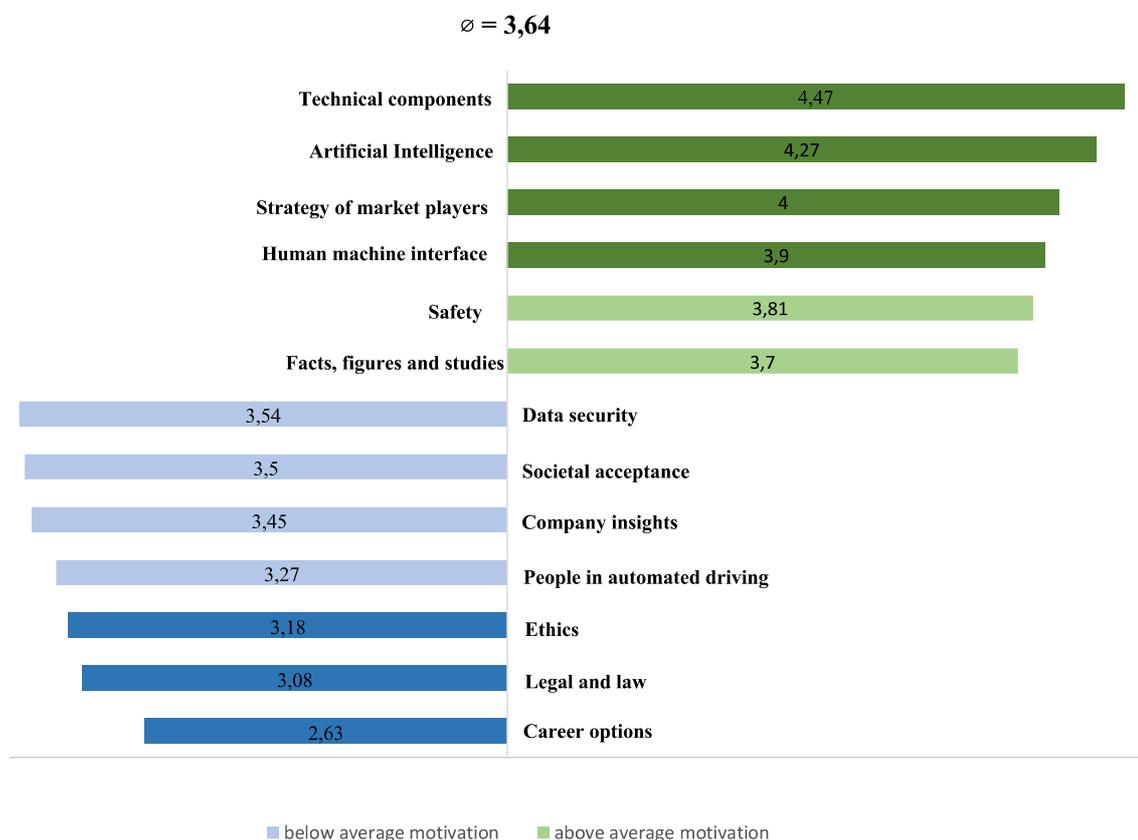
Figure 28: Motivation to engage with a certain post for subgroup three



Member of this subgroup rate the credibility of a person for relevant content as the most motivational factor (4). After that rank once more, the topic is generally interesting (3,91) and the relevance of the topic (3,81). Another reputational aspect, which motivates users to engage is the employer of the person who shares the content (3,81). From this ranking one can derive that the person who posts and all information revealed, and the history of former posts has a positive impact on the engagement of members in this subgroup. As observed before prior interaction with posts does not motivate those subgroup members to engage with a certain post.

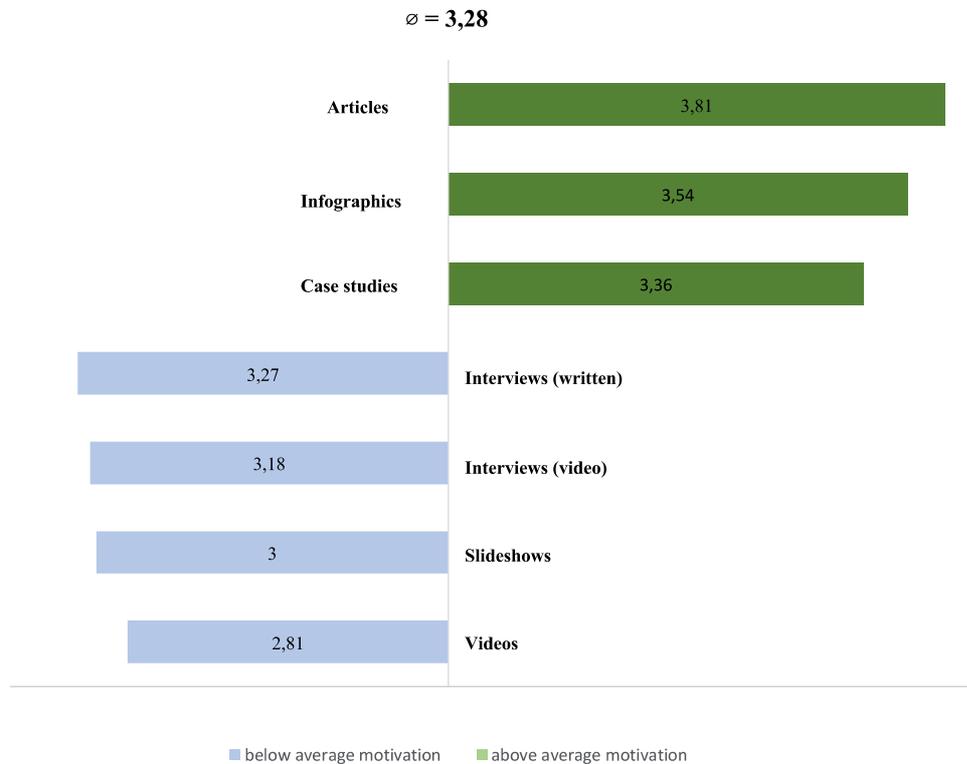
Figure 29 illustrates the relevance of certain topics for subgroup three. Highly relevant are topics dealing with technical components (4,47). As observed before, artificial intelligence (4,27) and the human machine interface (3,9) are important aspects regarding the engagement. Interesting insights can be detected, since strategical topics (4) rank high and safety is still a relevant, but not the most relevant topic (3,81) as it was observed in the previous groups. This composition of preferences might be explained by the previously mentioned majority of professionals in their later career levels dealing directly with automated driving. Topics dealing with ethics (3,18), legal and law (3,08) and career options (2,63) do not seem to be strongly engaging for the third subgroup.

Figure 29: The relevance of topics to engage with self-driving car content for subgroup three



Again, one can observe, that articles are the most preferred content format (3,81) followed by infographics (3,54) and case studies (3,36) (figure 30). This subgroup is interested in high quality content, which is mostly delivered through those formats and since videos (2,81) and slideshows (3) mostly contain less in-depth information, a lower ranking can be observed.

Figure 30: Content format participants of subgroup three prefer



5.4. Analysis of the interdependencies of motivational factors which lead to engagement on LI

Due to the limited number of survey participants, a deeper statistical analysis of interdependencies via correlations between the factors and their subitems would not lead to reliable and robust results. Hence, the sample is examined by significant correlations between the subitems within the four factors influencing engagement. Those four factors have already been investigated for their relevance to enhance engagement in the previous part of the analysis.

The sample size leads to a df (degree of freedom) = 49 and according to Pearson every correlation of $r > 0.27$ is statistically relevant (Saunders, Lewis & Thornhill, 2009). Table 6 outlines the correlations of the motivational factors according to the scale of Baldus' et al. (2014), with the average overall score (1 to 5) in the brackets. The numbers in brackets depict the weighted average of the subitems within the whole sample.

Correlations with marked with one star (*) depict a correlation of $p < 0,05$ and with two (**) stars of $p < 0,01$.

Table 6: Motivational factors influencing engagement according to Baldus' et al. (2014) scale

1	gaining up to date information (3,72)
2	validate information I already have (3)
3	sharing my personal interest (3,17)
4	information exchange with experts (3,27)
5	discussion with likeminded community members (3,03)
6	expressing own opinion (2,88)
7	seeking for assistance (2,68)
8	providing assistance (2,21)
9	passion for the topic (3,62)
10	connecting with other members (3,24)
11	it is fun to engage with the community (3,17)
12	I see a monetary reward in participation in the future (mid-long term) (2,58)
13	I see a career benefit in participation in the future (mid-long term) (3,03)
14	show that I am an expert in the field (2,49)

Table 7: Correlations of motivational factors

	1	2	3	4	5	6	7	8	9	10	11	12	13
1													
2	0.33*												
3	0.13	0.25											
4	0.17	0.23	0.21										
5	-0.18	-0.08	0.34*	0.31*									
6	-0.01	0.00	0.49**	0.23	0.45**								
7	-0.12	-0.30*	-0.06	0.27	0.13	0.20							
8	-0.20	-0.25	0.20	0.17	0.39**	0.28	0.57**						
9	0.31*	0.24	0.35*	0.27	-0.06	0.03	-0.02	0.04					
10	0.06	0.20	0.12	0.36**	0.45**	0.28*	0.29*	0.42**	0.28*				
11	-0.17	0.20	0.19	-0.17	0.32*	0.30*	0.05	0.19	0.05	0.44**			
12	0.03	0.23	0.18	0.12	-0.03	-0.03	0.26	0.17	0.09	0.20	0.24		
13	0.25	0.22	0.12	0.17	-0.13	-0.06	0.23	0.13	0.38**	0.43**	0.23	0.66**	
14	0.00	0.24	0.01	0.43**	0.17	0.10	0.39**	0.40**	0.27	0.51**	0.15	0.40**	0.44**

Various significant (* = $p < 5\%$ and ** = $p < 1\%$) correlations between the motivational factors can be identified. Several of them depict weak positive correlations, which rank just slightly above Persons required $r > 0,27$. The motivation to engage is mostly gaining relevant information (1), passion for the topic (9) and the exchange of information with experts (4). Taking the strongest significant correlations into account, the motivational factors sharing personal interest (3) and expressing the own opinion (6) correlate strongly. Subitem 6 can be seen as a primary stage to item 3, which explains the medium correlation of $r = 0,49$. LI does not seem to be a channel for seeking (7) and providing (8) assistance,

since both aspects score low in the ranking and have a moderate strength correlation of $r = 0,57$. Several members, who look for an extension of their network (10) seem to also have an interest to be perceived simultaneously as experts in their field (14), as $r = 0,51$ suggests. In addition it can be assumed that their objective is to use the opportunity to leverage that positive reputation jobwise (14) in the future (13) $r = 0,44$, which consequently could lead to a monetary benefit in the future (12) $r = 0,66$. Hence, items concerning high quality information are the most relevant subitems leading to engagement of professionals on LI. LI is mainly used as source for information, rarely soft factor, like providing help or expressing one's opinion, are items which rank the lowest. Especially the reputational factors, which could have a career benefit in the future are motivating in an interdependent manner to engage, in case they are relevant to the other members. The following tables display the overall rating of the reasons to engage with a certain post and their correlations.

Table 8 and 9 illustrate the insights concerning the factors of a post.

Not only rank the topic is generally interesting (1) and the topic is currently relevant (2) on top of the scale, they also depict a notably strong correlation of $r = 0.66$, which underlines the high relevance for information.

Table 8: Factors of a post influencing engagement

1	the topic is generally interesting (3,98)
2	the topic is currently relevant (4,09)
3	the person who posts is known for interesting/relevant content (3,54)
4	the source of the content of the post is known for relevant information (3,68)
5	the person who posts is known as an expert (3,47)
6	the person who posts works for a company which is a key player (3,5)
7	I know the person who posts (3,25)
8	The post has gathered already a certain amount of likes (2,54)
9	The post has gathered already a certain amount of comments (2,5)
10	The post has gathered already a certain amount of previous shares (2,49)
11	it depends who previously liked, commented and shared the post (2,15)
12	the content is entertaining (3,46)

Factor (3) and (4) dealing with the source of a post, show a medium strong correlation of $r = 0,44$, suggesting that users taking both aspects, the person (3) and the source (4) into account to assess the credibility of a source. Moreover, the reputation of a person as an

expert (5) and the company the person is working for (6) have an effect into the same direction ($r = 0,42$). As already observed in the subgroups, the previously perceived engagement (8,9,10,11) is firstly not relevant for the engagement of a professional and secondly, the strong correlations between the item (8) and (9) and (9) and (10) underline this finding.

Table 9: Correlations between factors of a post

	1	2	3	4	5	6	7	8	9	10	11
1											
2	0.66**										
3	0.09	-0.03									
4	0.27	0.29*	0.44**								
5	0.20	0.27	0.27	0.22							
6	0.16	0.19	0.15	-0.05	0.42**						
7	0.08	0.01	0.21	0.15	0.13	-0.14					
8	-0.03	-0.17	0.33*	0.18	0.15	0.11	-0.06				
9	-0.01	-0.03	0.12	0.26	0.12	-0.18	0.18	0.65**			
10	-0.09	-0.06	0.03	0.07	0.09	-0.13	0.05	0.58**	0.80**		
11	-0.02	0.10	0.07	0.01	0.06	0.14	0.03	0.40**	0.44**	0.50**	
12	0.13	0.12	0.13	0.05	-0.04	0.13	0.19	0.02	0.04	0.13	0.16

The following tables 10 and 11 deal with the effect of the most common topics on LI on the engagement of professionals.

Table 10: Relevance of topics in the context of self-driving vehicles (relevance score calculated weighted average in a scale from 1-5)

1	Ethics (3,23)
2	Legal and Law (3,52)
3	Safety (4,18)
4	Societal acceptance (3,36)
5	Strategy of market players (3,53)
6	Insights about companies (3,54)
7	People in automated driving (3,33)
8	Sensors and other technical components (3,60)
9	Data security (3,47)
10	Artificial Intelligence (4,2)
11	Human machine interface (3,78)
12	Facts and Figures, Studies (3,70)
13	Career options (2,84)
14	Most recent topics (e.g. the Uber crash) (3,56)

The most relevant topics for professionals are artificial intelligence (10), safety (3) and the human machine interface (11), as already observed in the subgroups of the three types of engagement in the previous chapter.

Table 11: Correlations between topics

	1	2	3	4	5	6	7	8	9	10	11	12	13
1													
2	0.50**												
3	0.22	0.60**											
4	0.01	0.16	0.13										
5	-0.16	0.10	0.34*	0.17									
6	-0.05	0.06	0.17	-0.14	0.63**								
7	0.02	-0.08	0.03	0.11	-0.09	-0.09							
8	0.08	0.18	0.22	-0.10	0.13	0.30*	0.29*						
9	0.02	0.38**	0.41**	0.27	0.30*	0.09	0.26	0.53**					
10	0.00	0.32*	0.39**	0.15	0.35*	0.32*	0.23	0.48**	0.42**				
11	-0.06	0.14	0.32*	-0.10	0.32*	0.45**	0.23	0.40**	0.33*	0.36**			
12	-0.30*	-0.21	0.09	0.14	0.33*	0.16	-0.02	0.10	0.24	0.08	0.16*		
13	-0.05	0.20	0.27	0.25	0.38**	0.36**	-0.07	0.11	0.19	0.25	0.26	0.29*	
14	-0.04	0.23	0.36**	0.17	0.35*	0.32*	0.07	0.01	0.04	0.18	0.32	0.33*	0.29*

Career options (13), as well as the less rational topic ethics (1) and societal acceptance (4) rank at the bottom. Users interested in ethics (1) show a medium correlation of $r = 0,5$ to the topic legal and law (2), which indicates that those two topics are included in a similar field of interests for certain LI users. A even stronger correlation can be detected between legal (2) and safety topics (3) ($r = 0,6$). Striking is the negative correlation between ethics (1) and studies (12) with $r = -0,3$. This weak negative correlation indicates, that the preferences between this soft and the rational numeric topic tend to work in opposite directions. The subitem strategy (5) can be seen as a subcategory of company insights (6) which might explain the medium strong correlation of $r = 0,63$. The topic strategy (5) shows many significant, but weak correlations with various other topics (3, 9-14). This aspect underlines its relevance and that it is included in different areas, as weak correlation with e.g. Data security (9), career options (13) and recent topics (14) can be detected. Since topics 9-11 can be clustered under the term IT, they also show weak to medium tendencies with the field of strategy.

Finally, the formats of the content are observed in table 12 and 13. Users prefer articles (1) before (7) infographics and (5) videos. Slideshows (6) and case studies (2) are not rated as the least popular in this comparison. Articles(1) and written interviews (3) usually contain a high density of information, which could explain the weak correlation of $r = 0,39$.

Table 12: Formats of Content

1	Articles (4)
2	Case studies (3,06)
3	Interviews (written) (3,08)
4	Interviews (Video) (3,36)
5	Videos (3,58)
6	Slideshows (2,78)
7	Infographics (3,66)

Since slideshows (6) are not covering topics in such depth, a weak negative correlation can be observed ($r = - 0,31$). Since the formats of category (4) and (5) are the same, but the distinction is rather topic wise, one can observe a medium strong relationship of $r = 0,64$.

Table 13: Correlations of formats of Content

	1	2	3	4	5	6
1						
2	0.11					
3	0.39**	0.11				
4	0.05	-0.09	0.24			
5	-0.07	-0.26	0.04	0.64**		
6	-0.31*	-0.11	0.25	-0.04	0.02	
7	0.14	0.12	0.20	0.08	-0.04	0.15

5.5. Insights of open ended questions

User outlined the facilitation of dynamic diffusion of the topic self-driving cars on LI, which shows LI's significance as a tool to accelerate innovations and support the progress of the product life cycle. The dissemination of knowledge takes place amongst others, via CM initiatives and therefore depicts valid information an integral element to increase the engagement of professionals.

LI as a knowledge source (in the feed and in the groups) depicts for the users an accumulation of potentially relevant knowledge sources, which could be described as a meta source of knowledge. The LI feed seems to give an overview over the topics and serves as a pool of sources from which the user then can select one source for in-depth information. Hence, the supplementary characteristic of LI as a knowledge source is emphasized, which adds to the explanation of the predominant low engagement of professionals on LI. Professionals themselves wish for more discussions and easier access to specialists. There is a chance for increasing the engagement, by identifying those professionals, who are interested in an active exchange and bring them together, in a separate LI group for instance. This would lead to a smaller group of specialists, but simultaneously a more engaged one.

Chapter 6: Discussion

The discussion of the research begins by pointing out the main findings of the investigation of the four factors motivating professionals to engage in each of the three observed types of engagement, in order to answer the research question: *Which factors motivate professionals to engage with self-driving car content on LI?* Moreover, their academic importance for the refinement of Baldus' et al (2014) scale is outlined and the managerial implications are elaborated. Afterwards limitations of the study are instanced, which lead to suggestions for future research.

The data suggest, that the extend of the engagement deepens on the involvement in the job, meaning time spend in the field related to automated driving and career level. If those participants can be located outside the automated driving subject area, at the beginning of their career, engagement can be considered as low. They mostly just scroll through their LI feed without consuming the content. Those characteristics apply to the first subgroup (39% of participants). Those LI members are mostly located in the business sector (65%), 70% of them are 29 or younger, which is reflected in the lower career level, where solely 28% are above the career level of a professionally experienced. Their LI usage is limited to two times or less per week (85%) and 45% being members in LI groups dealing with automated driving. Their knowledge sources are diverse and therefore easily exchangeable, especially in the online context, hence the selectivity of consumed content

can be assumed as high. Switching costs between various online platforms are zero, since it depicts little effort to use a different website, which underlines the exchangeability of knowledge sources. 65% do not expert magazines as a knowledge source, which suggests, that this subgroup is mostly interested in gaining a general overview about the topic. Those factors give an idea about the behavior of users which only read the headlines and the utilization of LI, which reminds of the usage of the social media channel Instagram, where users also mostly scroll through their feed.

LI members, which predominantly consume the content (39% of participants) and represent the second subgroup in this study, are mostly employed in the technical sector (55%), and two thirds have a career level of a professionally experienced or higher employee. Their LI behavior is characterized by a slightly higher LI usage (23% use LI more than twice per week, compared to 15% in subgroup one) and greater representation in LI groups (55% compared to 45% in subgroup one). They also seem to be more interested in in-depth insights, since an increase of 20% to subgroup one in using expert magazines can be detected. LI users engaging (like, comment, share) with the provided content depict 22% of the survey participants, and form the third subgroup. 65% are on a career level above a young professional and 55% work in the field of automated driving. A slight increase of 4%, compared to the second subgroup, can be observed in the frequency of using LI more than twice a week, but the intensity seems to be higher, since 81% of the participants are members in one or more LI groups dealing with automated driving. 73% of them use expert magazines on a regular basis, which displays the demand for high quality information in this subgroup. Their average scores within the four sections are the highest, which suggests that due to the higher involvement in the field of self-driving cars, the engagement is overall the highest among the three subgroups.

Examining the factors, which motivate the users to engage with the content dealing with autonomous vehicles, members of all three subgroups are in consensus that “gaining information”, “passion for the topic” and “information exchange with experts” constitute the most relevant motivational factors to engage with the content. The motivational factor “showing that I am an expert in the field”, “expecting a monetary reward”, “expressing the own opinion” and “seeking” as well as “providing assistance” rank in all three subgroups and overall at the bottom. Thus, by LI members is the pure information exchange perceived as the essential motivation to engage with automated driving content. Soft factors, like helping and asking for aid or reputational factors play overall a

tangential role. This finding is also supported by the insights gained through the open-ended question, where it was stated that LI serves as a gathering point for several knowledge sources. From this pool of knowledge source the user then selects the most appealing one in order to obtain in-depth insights. Simultaneously, they wish for more involving discussions and contact to experts from the field.

However, if the members are interested in being “perceived as an expert”, they often also intent to extend their network, which is indicated by the moderate correlation of $r = 0,51$. This leaves the opportunity to leverage this positive reputation job wise, which might lead to a “monetary benefit in the future”.

Taking a deeper look at the subitems which can be derived from a post, the factors dealing with “currently relevant information” and the “topic is generally interesting” rank overall at the top, which supports once more the demand for high quality information. The correlation of $r = 0,66$ between the factors “the topic is generally interesting” and “the source is known as known for relevant content” emphasizes this suggestion. Subgroup one and two also take information related to the person who posts (their career level and the company the person who posts) into consideration and often assess those factors together and derive relevance from it ($r = 0,42$). Neither of the subgroups perceive any of the prior engagement (who previously engaged or the number of previous likes, comments or shares) as relevant, which suggests, that previous engagement does not work as a multiplier for engagement in the future.

Observing the most common topics dealt with on LI concerning automated driving, the overall relevance of artificial intelligence, and the human machine interface can be concluded. Safety as well as legal and law play for the first subgroup an important role, while in the last group rated technical components as the most engaging topics in automated driving. Soft topics, like ethics, societal acceptance and career topics are ranked at the bottom and seem to be linked, which the correlations between ethics and legal and law ($r = 0,5$) as well the between legal and career topics ($r = 0,6$) indicate.

Even a slight negative correlation between ethics and facts and figures of $r = - 0,3$ can be observed, which gives an indication, that technical and societal topics might address people with opposing interest.

Concerning the influence of the format of the post on the engagement, the three subgroups are in line with their preference. Articles and infographics constitute the most preferred formats, while slideshows are commonly perceived as the least preferred format. Hence, content with a high density of information is rated at the top, content with less information at the bottom, which once more highlights the finding, that LI users are mainly interested in high quality information. The first subgroup also highly values videos, which allows the suggestion, that within this subgroup easily consumable content is preferred.

The importance of those findings lies within the understanding of factors influencing the engagement of the three subgroups. The findings can be divided into academic refinements and managerial implications.

Baldus et al. (2014) as well as Zaglia (2013) called for refinement of their research in online brand communities. Their setting deviates from the underlying research. Both were observing larger online communities, in online panels, group and focus interviews, leading to a broad view on engagement. The researchers suggested observing different types of subgroups, e.g. dealing with certain topics, in order to refine the scale, understand which motivational factors prevail in which setting and how stable those factors are. Their advice is followed in this research. This study aims to contribute to the aforementioned claim, by observing a special field, namely the topic of self-driving cars, in a narrow target group (professionals) on one social media channel (LI) at the beginning of the product life cycle of a disruptive technology. In addition, the research suggests widening the perspective of factors motivating engagement, by observing the components of a post, the topic and the content format. The results indicate, that those perspectives add meaningful insights by pointing out which aspects need to be considered or neglected. The insights range from e.g. the importance of the topics of safety and the little interest for ethics.

From a managerial perspective, various implications can be derived. In order to reach the desired audience, one has to understand in what way certain subgroups consume the provided content and their preferences in terms of topics and format. The results from the analysis suggest a refined picture by distinguishing the users which just scroll through the feed in comparison with the professionals, which consume and engage with the content. An efficient content marketing, which corresponds to the needs and behavior of a target group, especially when serving as a knowledge source on LI, avoids redundancy and

satisfies the needs of the LI users. The presented insights could serve as a preliminary stage in the creation of personas, which would allow a more effective targeting of the desired segment by increasing engagement with suitable content marketing initiatives.

By following the main requirements of content marketing, namely delivering relevant and timely content, the motivation to engage with the provided content can be enhanced. However, content consumption has to be measured in an appropriate way.

Overall one can say, that the engagement on LI is low. Merely 22% of participants engage with the content, while still 61% consume the content. Hence, suitable measurements need to be put in place, such as bounce rate or time on the website. Using likes, comments and shares as KPI's reflects a distorted and insufficient picture of engagement. In addition, 78% use LI twice or less per week, which gives an indication how often a new post is needed. LI is mostly used as complementary knowledge source, which means that other sources of knowledge online (wired, the verge, business insider) and offline sources (expert magazines and newspapers) as well as personal knowledge sources (colleagues and conferences) accompany the pool of knowledge sources in the field of automated driving. Therefore, it is indispensable to observe the action of the competing knowledge sources in order to maintain a competitive edge through unique industry insights.

This study is subject to miscellaneous limitations. First of all is the setting of the study narrow, due to the target group (professionals), the topic (automated driving) and the social media channel (LI). Nevertheless, it must be mentioned that this precise perspective was a recommendation by Baldus et al. (2014). The scope of the observations gets limited further by the demographic composition of the respondents to the survey. With 75% male respondents, and more 63% being younger than 30 years as well as 60% working the business sector, the sample narrows. In addition, just 33% are employed directly in the field of automated driving, but most of them for less than 3 years and 87% of the responses coming from European countries, underline that the perspective on the issue is limited. Moreover, the sample size of the survey already depicts the reserved engagement on LI. The amount of 51 responses indicates certain tendencies, however a larger sample, which is more diverse in terms of gender, age, origin, professional field would lead to a more refined and robust picture of the underlying research question.

Therefore, different starting points for future research can be outlined. Other than the larger and more diverse sample size, a test of the correlations between the subitems of the

four different aspects causing engagement would provide valuable insights. So far, the subitems within the four sections have been tested for their interdependencies. Future research could, for instance, address the question, what kind of format participants would like to consume, in case they prefer the topic artificial intelligence, or what motivational factors are most relevant for mid aged IT employees from North America. The answers to those questions would increase the understanding of the customer, which could raise the quality of target-oriented content marketing initiatives and also increase the engagement of certain LI users.

This study constitutes a contribution to the refinement of Baldus' et al. (2014) scale, however, further observations in different settings, such as deviations in topic, channel and target group necessary are suggested. This would contribute to test the stability of the motivational factors and the suggested extended factors. Topics which are more creative or perceived as more emotional on a different channel, such as Facebook could lead to different results. An aim could be to create selective personas according to the observed field, which would allow target-oriented creation of content with the right topic in a suitable format.

Chapter 7: Conclusion

LI users are highly selective in terms of content consumption. They show predominantly low engagement and the majority is focused on the pure information exchange. Hence, various conclusions can be derived. Since most of the users consume the content, it is paramount to deliver up to date information. The strongest motivation factors deal with the information exchange, as three subgroups rated high quality information as the main reason to engage with a content. Which also indicates, that content dealing with currently relevant topics works best. One measurement to ensure the user that high-quality content is delivered to attract them, is by utilizing the reputation of a person, company or research institution by mentioning them in the post. This can be a highly value adding approach, as it has been detected that LI users deploy LI as a gathering point for possible interesting sources so that they can select the most worthwhile content.

Topics of that content are preferably in the field of artificial intelligence, human machine interface, technology and safety. So-called soft topics, like ethics and societal acceptance play a subordinate role, which could be explained due to the early stage of the product

life cycle of automated driving and its not foreseeable timespan until it will be commercially launched.

Regarding the format of the content, it is recommended to use articles and infographics as those formats were the highest ranked in all three groups. Focusing on the group, which solely reads the headlines, infographics are especially suitable as they deliver dense information in a format which can be easily scanned. For this subgroup, videos are also highly valued.

Information provided on LI should be disjunct, which means the information should either be exclusive or not covered by any other information sources simultaneously. Since LI users utilize diverse knowledge sources, namely online and offline channels as well as personal sources, they are solely engaging with content which contributes added value. Especially online knowledge sources depict zero switching costs, which emphasizes the need for relevant content in order to keep the users attracted. The exchangeability of the knowledge sources can be categorized as one of the major challenges that needs to be tackled. Therefore, it is advisable to also observe the competing sources in order to maintain a competitive advantage by providing unique industry insights.

A distinct definition of the target group on LI is indispensable, since the behaviour varies between simple scrolling through headlines, consuming the content and engaging with the content. The assimilation could be, for instance, to create easily consumable content targeting the young professionals in the format of videos or longer articles with a high density of information targeting more experienced professionals in the field. This approach would increase the relevance of the content for the audience and avoid redundancy, which ultimately increases the engagement.

Regarding the different possible personas, the research has also revealed a relation between the career status and the engagement. The longer a user has been working in the field of automated driving, the greater was his engagement and representation in groups. Hence, those experienced professionals can be especially well targeted in LI groups, and not only in the feed like the young professionals which mostly solely scroll through their LI feed.

Hereby, the engagement has to be measured in a way other than solely counting likes, comments and shares. Those metrics do not seem suitable as the overall engagement is relatively low, whereas many users still consume the content. Moreover, did the research show that previous shares, likes or comments of a post do not act as a multiplier for future engagement. The proper tracking of the origin of users as well as the time spent

consuming the content are more reliable measures to define the target group and provide content which is complying with the demand.

Concluding, it can be said that LI has great potential to engage professionals with content marketing initiatives, in case the content fits the desired criteria of the targeted audience, in terms of topic, format and latest insights.

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Appendix

Appendix A: Survey: Engagement of Self Driving Cars Content on LinkedIn

1. For how long have you been dealing with the topic self driving cars

- < 1 year
- 1-3 years
- 3+ years

2. What is YOUR MOTIVATION to engage (click on a link, like, comment or share) on LinkedIn with the topic of automated driving and discuss it with other members? Please rate from 1 (does not motivate me at all) - 5 (is a strong motivation)

	1	2	3	4	5
gaining up to date information	<input type="radio"/>				
validate information I already have	<input type="radio"/>				
sharing my personal interest	<input type="radio"/>				
information exchange with experts	<input type="radio"/>				
discussion with likeminded community members	<input type="radio"/>				
expressing own opinion	<input type="radio"/>				
seeking for assistance	<input type="radio"/>				
providing assistance	<input type="radio"/>				
passion for the topic	<input type="radio"/>				
connecting with other members	<input type="radio"/>				
it is fun to engage with the community	<input type="radio"/>				
I see a monetary reward in participation in the future (mid-long term)	<input type="radio"/>				
I see a career benefit in participation in the future (mid-long term)	<input type="radio"/>				
show that I am an expert in the field	<input type="radio"/>				

Other (please specify)

3. What are the reasons for you to engage (click on a link, like, comment or share) with a specific post?
Please rate from 1 (is not relevant at all) - 5 (is highly relevant)

	1	2	3	4	5
the topic is generally interesting	<input type="radio"/>				
the topic is currently relevant	<input type="radio"/>				
the person who posts is known for interesting/relevant content	<input type="radio"/>				
the source of the content of the post is known for relevant information	<input type="radio"/>				
the person who posts is known as an expert	<input type="radio"/>				
the person who posts works for a company which is a key player	<input type="radio"/>				
I know the person who posts	<input type="radio"/>				
The post has gathered already a certain amount of likes	<input type="radio"/>				
The post has gathered already a certain amount of comments	<input type="radio"/>				
The post has gathered already a certain amount of previous shares	<input type="radio"/>				
it depends who previously liked, commented and shared the post	<input type="radio"/>				
the content is entertaining	<input type="radio"/>				

Other (please specify)

4. Which of the following topics are the most relevant to you with regards to automated driving? Please rate from 1 (not relevant at all) - 5 (highly relevant)

	1	2	3	4	5
Ethics	<input type="radio"/>				
Legal and Law	<input type="radio"/>				
Safety	<input type="radio"/>				
Societal acceptance	<input type="radio"/>				
Strategy of market players	<input type="radio"/>				
Insights about companies	<input type="radio"/>				
People in automated driving	<input type="radio"/>				
Sensors and other technical components	<input type="radio"/>				
Data security	<input type="radio"/>				
Artificial Intelligence	<input type="radio"/>				
Human machine interface	<input type="radio"/>				
Facts and Figures, Studies	<input type="radio"/>				
Career options	<input type="radio"/>				
Most recent topics (e.g. the Uber crash)	<input type="radio"/>				

Other (please specify)

5. Please rate what kind of content format you prefer. 1(do not consume it at all) - 5 (is my favorite way of content consumption)

	1	2	3	4	5
Articles	<input type="radio"/>				
Casestudies	<input type="radio"/>				
Interviews (written)	<input type="radio"/>				
Interviews (Video)	<input type="radio"/>				
Videos	<input type="radio"/>				
Slideshows	<input type="radio"/>				
Infographics	<input type="radio"/>				

Other (please specify)

6. How do you usually engage with self driving car content on LinkedIn

- I usually read the headline
 I usually consume the content and comment or discuss
- I usually consume the content
 I usually consume the content and share the content with my network
- I usually consume the content and press the like button
- Other (please specify)

7. How often per week do you usually consume self driving car content on LinkedIn?

- < 1 per week
- 1-2 per week
- 3-4 per week
- 5+ per week

8. What is usually your main source source of knowledge when it comes to self driving cars

- LinkedIn groups
- LinkedIn feed
- colleagues
- expert magazines
- conferences
- television
- The Verge
- Business Insider
- Wired
- Newspapers like the New York Times
- 2025AD
- Other source of knowledge (websites, media, etc.)

9. What are your points of contact with self driving cars on LinkedIn?

- LinkedIn feed
- LI group: Automated Vehicles and platforms
- LI group: Self driving cars
- LI group: Connected and autonomous vehicles
- LI group: Connected Car - driverless, telematics, infotainment autonomous vehicles
- LI group: TaaS Technology - CAVs, EVs, Battery/Energy Technology, Infrastructure, MaaS and Future Mobility

10. Personal information

- female
- male

11. How old are you?

- 18-29
- 30-39
- 40-49
- 50-59
- 60+

12. Where are you from?

- | | |
|---|---|
| <input type="radio"/> Germany | <input type="radio"/> Africa |
| <input type="radio"/> Europe | <input type="radio"/> South and Central America |
| <input type="radio"/> India | <input type="radio"/> Oceania |
| <input type="radio"/> China | <input type="radio"/> North America |
| <input type="radio"/> Other Asian Country | |

13. In which field are you working/ studying?

- | | |
|--|--|
| <input type="radio"/> IT | <input type="radio"/> Marketing |
| <input type="radio"/> Automotive | <input type="radio"/> Sales |
| <input type="radio"/> Legal and Law | <input type="radio"/> Business Development |
| <input type="radio"/> Consulting | |
| <input type="radio"/> Other (please specify) | |

14. What is your career level?

- | | |
|--|-------------------------------------|
| <input type="radio"/> Student | <input type="radio"/> Manager |
| <input type="radio"/> Intern | <input type="radio"/> Director |
| <input type="radio"/> Young professional | <input type="radio"/> Self employed |
| <input type="radio"/> Professionally experienced | |
| <input type="radio"/> Other (please specify) | |

15. How many employees does company you work for have?

- | | |
|--|--|
| <input type="radio"/> not employed | <input type="radio"/> 501- 1.000 employees |
| <input type="radio"/> <50 employees | <input type="radio"/> 1001- 5.000 employees |
| <input type="radio"/> 51- 200 employees | <input type="radio"/> 5.001 - 10.000 employees |
| <input type="radio"/> 201- 500 Employees | <input type="radio"/> 10.000+ employees |

16. We highly value your opinion, please tell us your thoughts on the content of self driving cars on LinkedIn, the behavior and dynamics on LinkedIn, your suggestions for improvement and other aspects not covered in this survey. Thank you very much for your participation and time!

Appendix B: Engagement Concepts and Definitions in the Marketing literature

Table 14: Concepts, Definitions and Research types on Engagement

Author(s)	Research type	Concept	Definition	Dimensionality
Brodie et al. (2011)	Conceptual	Customer engagement	A motivational state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object (e.g. a brand) in focal brand relationships.	Multidimensional: 1. Cognitive; 2. Emotional; 3. Behavioral
Hollebeck (2011a)	Conceptual	Customer brand engagement	The level of an individual customer's motivational, brand-related and context-dependent state of mind characterized by specific levels of cognitive, emotional and behavioral activity in brand interactions.	Multidimensional: 1. Cognitive; 2. Emotional; 3. Behavioral
Hollebeck (2011b)	Empirical: Qualitative	Customer brand engagement	A customer's level of cognitive, emotional and behavioral investment in specific brand interactions.	Multidimensional: 1. Cognitive; 2. Emotional; 3. Behavioral
Phillips and McQuarrie (2010)	Empirical: Qualitative	Advertising engagement	"Modes of engagement" are routes to persuasion.	Multidimensional: Consumers engage ads to: 1. Immerse (C); 2. Feel (E); 3. Identify (E); 4. Act (B)
Brodie et al. (2013)	Empirical: Qualitative	Consumer engagement	A multidimensional concept comprising cognitive, emotional, and/or behavioral dimensions, [which] plays a central role in the process of relational exchange; where other relational concepts are engagement antecedents and/or consequences in iterative engagement processes within the brand community.	Multidimensional: 1. Cognitive; 2. Emotional; 3. Behavioral
Calder, Mathhouse, and Schaedel (2009)	Empirical: Quantitative	Online engagement	A second-order construct manifested in various types of first-order 'experience' constructs, with 'experience' being defined as "a consumer's beliefs about how a (web)site fits into his/her life."	Multidimensional: 1. Stimulation & inspiration (E); 2. Social facilitation (E); 3. Temporal (C); 4. Self-esteem & civic mindedness (E); 5. Intrinsic enjoyment (E); 6. Utilitarian (C); 7. Participation & socializing (B); 8. Community (E) Multi-dimensional (inferred): 1. Cognitive 2. Emotional; 3. Behavioral
Avnet and Higgins (2006a)	Conceptual	Engagement	When people pursue a goal in a manner that sustains their orientation (e.g. eagerly if they have a promotion focus; vigilantly if they have a prevention focus), they experience their engagement in that goal pursuit more strongly than they do when pursuing the goal in a way that is at odds with or disrupts their orientation (e.g. pursuing a goal eagerly if their orientation is more preventative). When the manner of their goal pursuit fits their orientation, they experience a stronger evaluative reaction to the activity.	Multidimensional: 1. Utilitarian (C); 2. Hedonic (E); 3. Social (B/E)
Algesheimer, Dholakia, and Herrmann (2005)	Empirical: Quantitative	Brand community engagement	Positive influences of identifying with the brand community through the consumer's intrinsic motivation to interact/co-operate with community members.	Multidimensional: 1. Utilitarian (C); 2. Hedonic (E); 3. Social (B/E)
Abdul-Ghani, Hyde, and Marshall (2010)	Empirical: Qualitative	Engagement	Requires consumer connection (e.g. with specific media).	Multidimensional: 1. Utilitarian (C); 2. Hedonic (E); 3. Social (B/E)
Sprott, Czellar, and Spangenberg (2009)	Empirical	Brand engagement in self-concept	An individual difference representing consumers' propensity to include important brands as part of how they view themselves.	Unidimensional (E)
This study	Empirical	Consumer brand engagement	A consumer's positively valenced cognitive, emotional and behavioral brand-related activity during, or related to, specific consumer/brand interactions.	Multidimensional (*): 1. Cognitive processing (C); 2. Affection (E); 3. Activation (B)

Notes—proposed 'engagement' dimensionality: C: Cognitive; E: Emotional; B: Behavioral; (*): The proposed engagement dimensionality was determined in the course of the scale development procedures, rather than pre-determined before conducting the analyses.

(Hollebeck et al., 2011)

Appendix C: Overview of Studies in Marketing on Engagement

Table 15: Studies in Marketing on consumer engagement with different foci

Authors	Construct	Dimensions	Paper Type
I. Engagement with a brand, firm, or organisation			
Patterson et al., 2006	Consumer engagement	Absorption, dedication, interaction, vigour	Conceptual
Bowden, 2009	Consumer engagement process	N/A	Conceptual
*Sprott, Czellar, and Spangenberg, 2009	Brand engagement in self-concept	Emotional	Quantitative
Mollen and Wilson, 2010	Engagement	Affective, cognitive	Conceptual
van Doorn et al., 2010	Consumer engagement behaviours	Behavioural	Conceptual
Verhoef, Reinartz, and Krafft, 2010	Consumer engagement	Behavioural	Conceptual
Brodie et al., 2011	Consumer engagement	Behavioural, cognitive, affective	Conceptual
Hollebeck, 2011a	Consumer-brand engagement	Behavioural, cognitive, affective	Conceptual
Hollebeck, 2011b	Consumer-brand engagement	Behavioural, cognitive, affective	Qualitative
Gambetti et al., 2012	Consumer-brand engagement	Experiential, social	Qualitative
Kumar, Pozza, and Ganesh, 2013	Customer engagement value	Behavioural, emotional	Conceptual
Kaltecheva, Patino, Laric, Pitta, and Imparato, 2014	Customer engagement	Behavioural, cognitive, affective	Conceptual
Franzak, Makarem, and Jac, 2014	Brand engagement	Behavioural, cognitive, affective	Conceptual
Hollebeck and Chen, 2014	Brand engagement	Behavioural, cognitive, affective	Qualitative
*Hollebeck et al., 2014	Consumer-brand engagement	Behavioural, cognitive, affective	Quantitative
Jaakkola and Alexander, 2014	Consumer engagement behaviour	Behavioural	Qualitative
Sarkar and Sreejesh, 2014	Active customer engagement	Behavioural and cognitive	Quantitative
*Vivek et al., 2014	Consumer engagement	Behavioural, cognitive, affective, social	Quantitative
Wallace, Buil, and de Chernatony, 2014	Consumer engagement	Behavioural	Quantitative
II. Engagement with a(n) (online) brand community			
Wirtz et al., 2013	Online brand-community engagement	Behavioural, cognitive, affective	Conceptual
Algesheimer et al., 2005	Brand-community engagement	Motivational	Quantitative
Gummerus, Lijander, Weman, and Pihlström, 2012	Consumer engagement	Behavioural	Quantitative

Kuo and Feng, 2013	Brand-community engagement	Interactive	Quantitative
Habibi, Laroche, and Richard, 2014	Brand-community engagement	Practices	Qualitative
* Baldus et al., 2015	Online brand-community engagement	Motivational	Quantitative
III. Engagement with other foci			
Higgins and Scholer, 2009	Consumer engagement with a goal pursuit	Sustained attention	Conceptual
Calder et al., 2009	Consumer engagement with a communication medium	Experiential, social	Quantitative
Phillips and McQuarrie, 2010	Engagement with advertising	Behavioural, affective, transporting, identification	immersive, Qualitative
Scott and Craig-Lees, 2010	Audience engagement with an entertainment piece	Emotional	Quantitative
Calder et al., 2013	Consumer engagement with a product or service	Civic, identity, intrinsic enjoyment, social, utilitarian	Quantitative
* Schivinski et al., forthcoming	Brand-related content on social media	Behavioural	Quantitative
IV. Engagement with multiple engagement foci			
Gambetti and Graffigna, 2010	Engagement	N/A	Review
Brodie et al., 2011	Consumer engagement	Behavioural, cognitive, affective	Qualitative
Vivek et al., 2012	Consumer engagement	Behavioural, cognitive, affective, social	Qualitative
Dessart et al., 2015	Consumer engagement	Cognition, affect, and behaviours	Qualitative
* Indicates scale development studies			

(Dessart et al. 2016)