

# Enhancing marketing through artificial intelligence and analytics

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<p>The aim of this thesis is to study the extremely current phenomenon of artificial intelligence and how it is utilised in marketing. This study will be conducted with company X as the commissioning company and the author aims to understand company X's current utilisation of AI, the challenges they face and what does the future for them look like with artificial intelligence. This thesis is a as qualitative research, and the data is collected through secondary and primary research methods.</p> <p>The theoretical framework introduces the reader to artificial intelligence and its subsets. To tie the topic into marketing the author also discusses digital marketing, content marketing, search engine marketing and AI marketing. The data was collected with desktop research and analysed through secondary data analysis methods.</p> <p>The primary data was collected mainly through a focus group with experts on the topic from company X. The study provides an understanding how artificial intelligence is utilised in company X's digital marketing, the challenges they face with it and recommendations for the commissioning company on how they could better their marketing with artificial intelligence.</p> <p>The thesis concludes with the author discussing on the used methodology, key findings, and her reflections on her own learning. Company X enhances marketing with AI mainly through outside service providers. There are several restrictions company X need to take into consideration before applying AI solutions into marketing. Due to this, they are not aware of many AI tools.</p> <p>The project will be given to the commissioning company, and they can utilise it for educational purposes. This thesis was conducted mainly between August 2021 and November 2021.</p>	
<b>Keywords</b> Artificial intelligence, algorithm, benefits, data analysis, deep learning, digital marketing, machine learning	

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# **1 Introduction**

The first chapter of this thesis will discuss the thesis topic and present the commissioning company. The reader will be familiarized with the backgrounds of the thesis and the benefits it will produce to the case company, reader, and the writer. In addition, the writer explains the project scope, key concepts, and the anticipated benefits this thesis will provide as well as the risks that might occur while doing the thesis. This chapter will offer necessary knowledge of the topic so that the reader can comprehend the scope of the study and the field it operates.

## **1.1 Background**

Artificial intelligence is an extremely current topic and different size organizations are already implementing it to their marketing strategy to improve the customer journey and sales. Artificial intelligence can be defined as computer science that performs tasks that humans think is intelligence and are typically completed by humans (Overton 2018). With the help of AI marketing is evolving rapidly and it provides various benefits that traditional marketing doesn't. As artificial intelligence develops, so does the ways of collecting data, interpreting it, and using it for improving marketing strategies as well as better understanding customers.

Even though the concept of AI has been around for more than 60 years, only during the past few years' organisations have really studied and understood what artificial intelligence is and what benefits and challenges it offers (Goetz 2018). The commissioning company has invested a lot into analytics which will surely create a good foundation for this thesis.

The author herself has had an interest in artificial intelligence and different ways of utilizing data for marketing purposes for some time now. She saw this as a great opportunity to study more about it and further her knowledge on such current and revolutionary topic.

## **1.2 Research Question**

The purpose of this thesis is to examine the current phenomenon of artificial intelligence and analytics and how it can be used to enhance marketing. The research will be conducted with a commissioning company, but due to confidentiality obligations the commissioning company will be referred to as company X in this study. This thesis will provide the commissioning company analysis of how they currently utilize AI, recommendations of

new and suitable ways to implement artificial intelligence and analytics in their marketing strategy and generally an opportunity for the employees to learn more about artificial intelligence and the possibilities it offers to transform businesses.

The research question (RQ) for this thesis is:

How can the commissioning company enhance their marketing with artificial intelligence and analytics?

The following are the investigative questions (IQ) of this thesis:

IQ 1. How does Company X currently utilize AI and analytics in its marketing?

IQ 2. What kinds of artificial intelligence methods are suitable for company X to use to enhance marketing?

IQ 3. What kind of challenges company X may face with artificial intelligence?

IQ 4. What does the future look like for company X with artificial intelligence?

Table 1. Overlay matrix

<b>Investigative question</b>	<b>Theoretical Framework</b>	<b>Research Methods</b>	<b>Results chapter</b>
IQ 1. How does company X currently utilize AI and analytics in its marketing?	Artificial intelligence, big data, machine learning, analytics	Qualitative desktop research methods  Primary research methods	3, 5
IQ 2. What kinds of artificial intelligence methods are suitable for company X to use to enhance marketing?	Insight from commissioning company's marketing team	Qualitative analysis  Secondary data collection methods  Desktop research	3, 5
IQ 3. What kind of challenges company X may face with artificial intelligence?	Insights from marketing team from the commissioning company	Desktop research  Primary research methods	3, 5
IQ 4. What does the future look like for company X with artificial intelligence?	Insights from marketing team from the commissioning company	Desktop research  Primary research methods	3, 5

### **1.3 Demarcation**

In this thesis the author focuses on defining what artificial intelligence is, how it is utilized for marketing purposes, how it is currently used in the commissioning company and on ways to enhance the commissioning company's marketing with the help of artificial intelligence and analytics. In other words, the aim for this thesis is to specify benefits of analytics and artificial intelligence in marketing, study what the future looks like for the commissioning company with artificial intelligence in the marketing field and what kinds of challenges there are with artificial intelligence.

The author has a professional interest in the current topic of artificial intelligence and analytics and hopes to further her education and knowledge on the topic. After graduation her aim is to work in the customer relationship and marketing field with a particular understanding on the technological side of marketing and take advantage of what she learns with this study.

### **1.4 International Aspect**

The international aspect of the thesis will come from the commissioning company that provides their offering to foreign organizations that operate in Finland; thus, the marketing also takes place at an international level.

### **1.5 Benefits**

This thesis will offer benefits to the commissioning company, marketing specialists, fellow students, and the author herself. Different departments of the commissioning company will gain knowledge on artificial intelligence and its subsets, analysis of their usage of artificial intelligence thus far, recommendations of how they can better the marketing with AI, what kinds of challenges there are with AI and what is the next step they could take with AI in order to enhance marketing. Marketing specialists and fellow students will gain knowledge on AI and different ways to implement it to marketing. As this thesis provides the basic information on artificial intelligence it can be a great learning tool to ease into the topic.

Lastly, the author of this thesis gains valuable information and knowledge on artificial intelligence and analytics, how to collect data, analyse the data and professionalism by working with a commissioning company. This thesis will be valuable for career pursuing in digital business technologies and can be applied broadly in any industry or business.

## 1.6 Risks and Risk Management

One of the main risks concerning the research process is whether I will get enough data and find suitable results for my research questions. I am confident that I will find enough theoretical literature for my topics, but I need to find concepts and ways how to enhance company X's marketing strategy with AI and analytics. Of course, some unexpected risks and issues may arise, but I am confident that all of these issues are solvable.

## 1.7 Key Concepts

**Artificial intelligence (AI)** the term artificial intelligence was first introduced in 1956 by John McCarthy. Even though the term artificial intelligence has been used for many decades it is still hard to find a definition of AI that is universally accepted. The general perception is that artificial intelligence is computer science that can perform something humans think is intelligence and that usually requires human brain. These tasks include visual observation, complex planning, decision-making and interpretation between languages. (Overton 2018.)

**An algorithm** is a step-by-step problem-solving method executed as a computer program. The correct result is returned in an expected amount of time. Algorithms deal with accuracy and performance. With artificial intelligence algorithms solve different mathematical problems and communicate it to machines. (Heineman 2021.)

**Data analysis** methods are nowadays typically performed with computers or as another mechanical process. Data analysis is the process of describing raw data into small number of statistics that describe several aspects of the dataset. In data analysis specialized computer systems distils the dataset into usable information that can be used in the future. (Burns, Bush & Veeck 2017,317.)



**Marketing** is a formal business orientation that focuses on consumer dominance. Marketing is all different activities a company embarks to please individual and organisational objectives. Marketing process includes planning and executing an idea, pricing, promotion, and distribution of the idea to consumers or businesses. (Lancaste & Reynolds 2013.)

**Benefits** can be defined as creating helpful results, advantages or effects that will be valuable for various parties.

**Machine learning** is a function of artificial intelligence (AI) in which computer algorithms progress through experience. Machine learning centres on the development of computer programs that learn from the surrounding environment without human intervention. (Anirudh 2019.)

## 1.8 Commissioning company

As already mentioned, due to confidentiality obligations the commissioning company will be referred to as company X in this study. Company X is one of the largest pension insurance companies in Finland. Company X's headquarters is in the greater Helsinki area and in 2020 it employed between 500-600 people. Company X has been trusted with the providing of pensions to around half a million future pensioners (Company X 2021).

Pension insurance companies' responsibility is to manage the statutory earnings-related pensions (TyEL) and their operations are controlled through national legislation (Tela 2021). Self-employed persons' pension act (YEL) is also statutory and must be taken when the entrepreneurial activities meet the prescriptions in the law. Company X's mission is to ensure that their customers get the pension they have earned. The pensions insurance sector has 2,5 million insured, 1,9 million pensioners, and the total confirmed income of 92,0 billion euros. Pensions paid in 2020 was 28,7 billion euros and the total pension funds were approximately 225 billion euros.

The pension insurance sector is subject to fierce competition and forces companies to compete with each other and at the same time operate as cost-efficiently as possible. This means, that they cannot compete with the actual product but rather with customer bonuses and excellent customer service. Insurance companies can offer various service solutions, and some can specialize in certain industries and be able to provide special knowledge to customers.

The commissioning company has invested into analytics in the recent years, which creates a good foundation for this thesis. The company X is excited about this partnership and expects insights of the current phenomenon of artificial intelligence and new suitable AI methods they could utilize in their marketing strategy. In addition to this, thesis can be used as a learning tool to introduce the topic to the company's employees in different departments.

## 2 What is Artificial Intelligence?

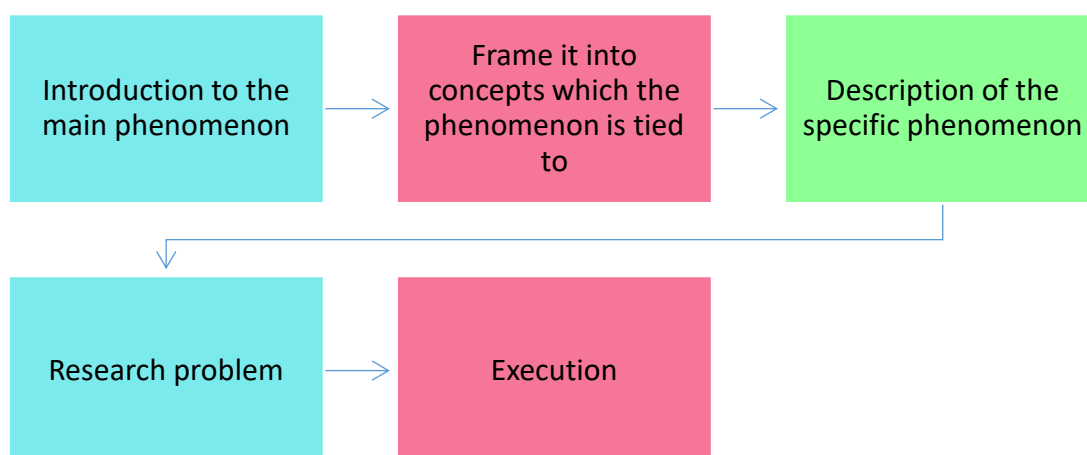


Figure 1. Theoretical framework

This chapter focuses on understanding what artificial intelligence and analytics are, introduces the reader with the main concepts of AI and explains what kinds of data is used in artificial intelligence. The author also discusses what marketing is and how benefits and advantages for marketing purposes are generated with the help of AI. She furthermore examines what the challenges of AI are and what is the future of marketing like with AI. The figure 1 above demonstrates the theoretical framework that the author has built for this thesis. As seen from the figure the theoretical framework will advance in a logical order.

When reading and talking about different aspects of marketing, the word artificial intelligence is something you see and hear plenty of nowadays. However, the topic is quite hard to grasp on. While writing this thesis artificial intelligence and its subsets machine learning and deep learning are extremely current topics in marketing industry. AI offers enormous number of opportunities, for people who understand the impact and the opportunities it presents (Sterne 2017).

The general perception is that artificial intelligence is computer science where machines perform tasks that typically require human brain. These tasks include visual observation, complex planning, decision-making and interpretation between languages, to name a few. The concept was first introduced by John McCarthy in 1956. (Overton 2018.) In this thesis the machines referred to are computers. In its most basic form of AI is applying an algorithm to a data to discover patterns we cannot perceive (Struhl 2017). With artificial intelligence machines can understand the world around them and based on what they have learned they can make decisions and take action (Marr 2020). AI can be divided into two types: weak and strong. In strong AI machines become self-aware and comprehend what

is happening, while in weak AI machines focus only on certain tasks. At the moment, AI is in the weak stage and researchers are uncertain whether it can ever reach the strong stage. (Taulli & Oni 2019.)

During the last decades businesses have started to capture large volumes of data, which has been crucial for the enormous leaps in AI in the recent years. Without data there would not be any of the breakthroughs of AI that we have had. Today data guides how businesses operate on an everyday basis. The figure 2 below showcases the different things data can be.

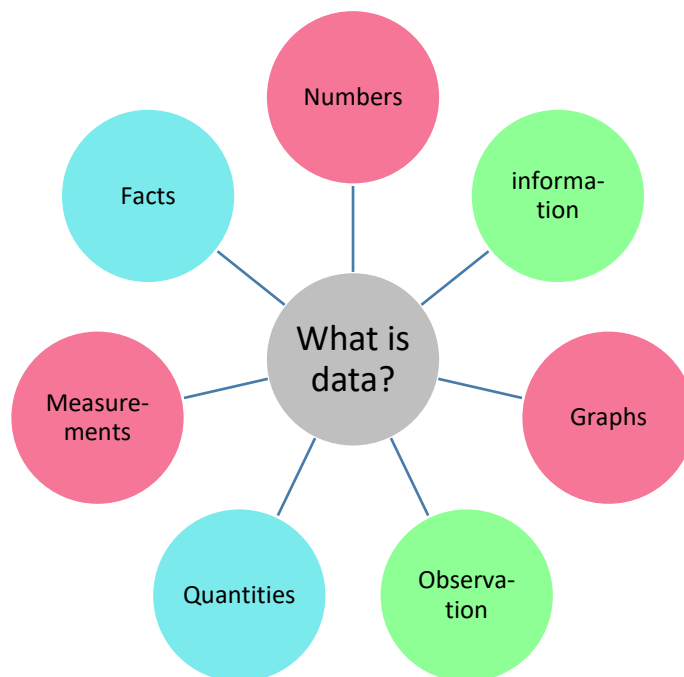


Figure 2. Explanation of what is data

To be able to use artificial intelligence there needs to be a lot of data, especially “Big Data”. Big Data explains analysis techniques and methods that exploit the data that is collected by businesses. With Big Data marketing specialists can gather insights on trends and patterns and improve communication to customers by analysing complicated data sets. Big Data has three dimensions: data volume, data velocity and data variety. Data volume refers to the growing amount of data at hand, which can be challenging in terms of capacity and costs. However, next-level databases and cloud computing have decreased challenges in this area (Taulli & Oni 2019). Data velocity shows the present accessibility to real-time analytics and data variety expresses the variety of the data and how new unstructured data has potential too. (Chaffey & Ellis-Chadwick 2019.) Unstructured data can be complex, and it cannot be stored in a traditional database. For example, images, videos, audio notes, emails, social media data and documents are unstructured data.

Whereas structured data is highly specific and more traditional one such as excel files or customer data. (Marr 2020.)

One of the main components of AI is algorithms. An algorithm is a set of orders implemented as a computer program that will give back a correct result in an expected amount of time. Algorithms solve various mathematical problems and pass on the data to machines. Algorithms handle correctness and performance. (Heineman 2021.)

In AI, technology itself does not have as big role as the application does. Despite that, AI world consists of AI and wide range of models and technologies. These can be divided into two categories: machine learning and deep learning (Taulli & Oni 2019). The main components of AI are data, compute resources, algorithms, and the ability to connect them together (O'Reilly Media 2017).

## 2.1 Machine Learning

A digital marketing evangelist at Google, Avinash Kaushik has stated that: “Artificial intelligence is an intelligent machine and machine learning is the ability to learn without being explicitly programmed.” Machine learning, which is a subset of artificial intelligence can be defined as computers using a particular data set to determine how to perform a specific function. Machines learn by examples and progress by performing a similar task in the future (Subramanian & Amit 2018). Machine learning is not an innovation and there have been various uses for this technology for decades. There are proven benefits machine learning offers, such as cost savings, different revenue opportunities and risk observing. (Taulli & Oni 2019.)

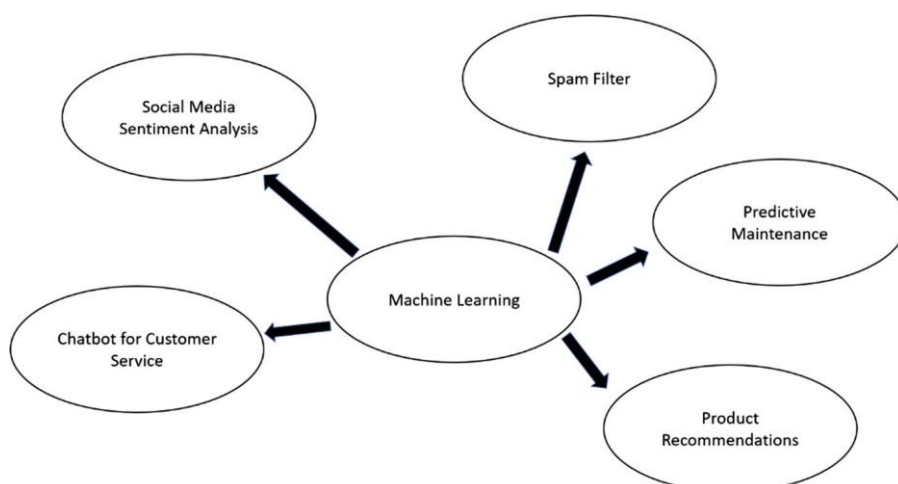


Figure 3. Applications for machine learning.

A systematic approach is crucial to get the anticipated results with applying machine learning to a problem. The machine learning process can be divided into five steps:

**1. Gathering and organizing data**

There needs to be data to apply machine learning to a problem and preferably not in an organized order as the machine learning algorithm could notice this as a pattern. The data will be analyzed, and its quality will be assessed to ensure its utility.

**2. Deciding an algorithm**

When deciding what algorithm to use, there is not always a logical choice. The algorithm that will be used will include an experimental approach.

**3. Training the algorithm**

After choosing an algorithm it will be trained in order to create a relationship in it. The training data is approximately 70% of the whole dataset. For example, you want to study the value of a used phone with a machine learning system. Some features needed to build the algorithm can involve the manufacturing year, model, average usage time per day and condition. After the training data is processed, the weights for every one of the factors are calculated by the algorithm. In this example the algorithm chosen is a linear regression algorithm. The general form of a linear regression model is:

$$Y = m * x + b$$

In this statical tool Y is the variable being studied, m will tell what multiplier effect variable x will have to the value of y and b is a constant term, which is value of Y without effect of other variables, that is where x is zero. The linear regression model may also contain a number of variables on the right side of the equation, where the multiplier will always tell what effect the variable in question has to the value of Y. (Wilson, Beal-Hodges, Keating, Keating, & Hodges 2012.)

**4. Testing the algorithm**

With the remaining 30% of the dataset, the algorithm is tested. The test should tell whether the algorithm is accurate or not.

**5. Adjusting the algorithm**

The final step of the machine learning process is to modify the values of parameters in the algorithm if needed.

The algorithms in machine learning differ from the traditional ones as the computer will start to learn after the data is processed and not before. The figure below shows the main categories of machine learning, and the author discusses about them in a more detailed manner later. (Taulli & Oni 2019.) Various industries are already implementing machine learning to solve problems, such as banking and financial services, insurance, and healthcare to name a few. When ML algorithms are trained properly, they can perform same tasks as humans. Currently the main platforms used for machine learning are Python, R, SPSS, and SAS. (Subramanian & Amit 2018.)

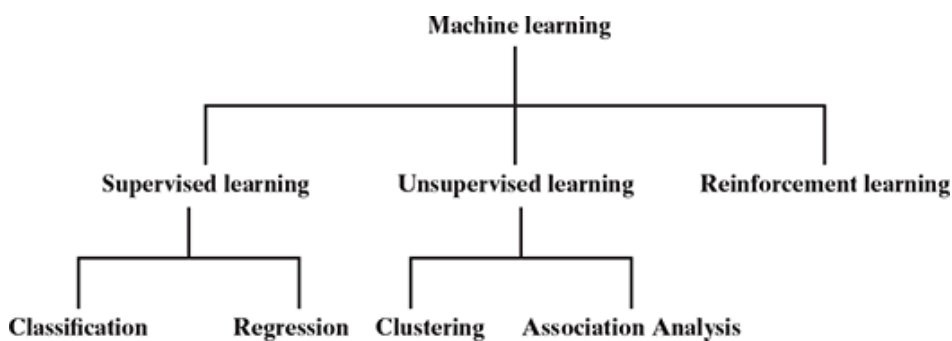


Figure 4. Types of machine learning

After studying the large entity of artificial intelligence, the author wanted to elucidate the differences between the terms AI, machine learning and analytics with an example. A company with an electronic appointment calendar can use analytics to report the number of customers making appointments. With advanced analytics they can cluster customers by patterns of the different appointments booked. Using machine learning the company can predict the appointment the customer will chose. Lastly, with artificial intelligence the company can identify the customer's need and recommend an ideal solution. (Overton 2018.)

## 2.2 Supervised and Unsupervised Learning

In supervised learning machines learn from past experience of how a certain task needs to be executed. The data used is labelled and a large amount of data available is a requirement. However, in most cases the existing data is not labelled, and it takes a lot of time to label a huge dataset. Linear regression model is one of the most used algorithms for supervised machine learning. Another method used in supervised learning is classification.

The supervised learning process starts with labelled training data that includes knowledge of past outcomes. From the training data machine forms an anticipated model, which can be used on test data to give label for every document in the test data. (Subramanian & Amit 2018.) Taulli & Oni (2019) gave an example on supervised learning where someone had a set of photos of thousands of dogs. The dogs' breeds were identifiable from each photo, so the data was considered labelled. As the data is labelled the machine can then study the chosen variable. The result from supervised machine learning is easy to analyse as the correct answer is already known. Other examples of supervised learning are the ability to predict results of a game or categorising whether a set of emails are spams or not (Subramanian & Amit 2018).

In unsupervised learning or in other words the descriptive model the data is unlabelled and there is not training data to learn and make a prediction from. To discover patterns, deep learning algorithms are used. The most used approach in supervised learning is clustering and another worth mentioning is association analysis. (Taulli & Oni 2019.) The objective in unsupervised learning is to find patterns from a given dataset and customer segmentation is in a crucial role (Subramanian & Amit 2018). To be successful with unsupervised learning there needs to be huge amount of data. The more there is data the easier it is to identify patterns. (Rose 2020.)

As mentioned, the most used unsupervised learning method is clustering. In clustering the goal is to categorize alike objectives together and dislike objectives in separate clutters. Distance is one of the resemblance measures that is most used in clustering. Clustering is regularly used in customer segmentation to help improve target market messaging. As group that has many similarities is likely to share interests. (Subramanian & Amit 2018.)

The other approach in unsupervised learning is association analysis. The general formula is that if X occurs, then it is likely that Y occurs as well (Taulli & Oni 2019). In other words, the goal is to recognize associations between data elements.

Noticeably there is a clear difference between supervised and unsupervised learning. With supervised learning the answer is already known for the examples at hand. However, with huge datasets it is more effective to teach a machine what you want it to know. In unsupervised learning the answer is not known, and the machine is asked to study the dataset and then teach you what it discovers. (Sterne 2017.)



## **2.3 Reinforcement Learning**

Reinforcement learning is a machine learning technique where a machine gets feedback on how it is performing. This is the most complicated machine learning technique to understand or to apply. When a machine completes a sub-task successfully the machine will receive a reward and when a sub-task fails there is no reward. This learning process will continue until the whole task is completed in a chosen way set by the system creator. (Subramanian & Amit 2018.)

Reinforcement learning is used when the data is not labelled or classified. The algorithms of reinforcement learning will complete the classification. An algorithm used in reinforcement learning can be for example Q-learning. With Q-learning data collecting steps can be avoided as the machine will produce its personal data as it goes through the trial-and-error process. (Rose 2020.)

## **2.4 Deep Learning**

Deep learning is a subfield of machine learning and a specific machine learning technique. It is a complicated topic and a field that is continuously developing. Machine learning and deep learning are often confused with one another. Both topics have numerous similarities and are fairly complicated. Like machine learning deep learning requires enormous amount of data. With deep learning machines are capable of finding patterns and relationships in the data, which can be impossible for humans to do. (Taulli & Oni 2019.) Deep learning can perform broad range of tasks or problems that involve learning, such as interpreting speech, images, or text (Marr 2020).

An artificial neural network (ANN) with various hidden layers is also referred as deep learning (Rose 2020). Artificial neural network (ANN) has been created on the base of biological neural network. In ANN the neuron is in a digital form. In artificial neural network neurons are connected together, they take input, complete a process on it and then produce an output (Anderson 2020).

Deep learning has been applied to topics such as healthcare and specifically detecting Alzheimer's disease as well as to trying to decrease energy consumptions by improving efficiency. Even though deep learning is a fascinating field and there are constantly new innovations and breakthroughs from it, it is still in a growing phase and requires people who have great knowledge about it working on it, which is not easy. (Taulli & Oni 2019.)

## **2.5 Marketing**

Today marketing is happening everywhere, with traditional forms as well as in new forms such as in websites and different social media platforms. Marketing is not only selling and advertising as some may think. It is a social and organisational process where companies engage with customers to form a strong relationship with them in order to create customer value and in return the company will receive value from customers.

Kotler, Armstrong, & Opresnik, (2018, 30) explain the marketing process in five steps and how it is used to create value for customers. At first there needs to be understanding of customer needs and wants as well as the marketplace they operate in. Then you will design a marketing strategy and plan, that focuses on building customer value. The marketing strategy will define the customers and how it will generate value. After that you will produce a comprehensive marketing program that will produce the anticipated value to target customers. The fourth step of the marketing process, which is also seen as the most important one, is to engage with customers and build and manage a strong and lasting relationship with them. The final step of the marketing process contains receiving value from customers. This can be from sales, market shares or profits.

Over the past years, businesses have invested in marketing increasingly because all the benefits it offers. For example, with a working marketing strategy business can increase sales, earn trust among customers, built good reputation, which will attract new audiences, test new concepts to learn what works and find your target marketplace. One of the major benefits of marketing is that it provides the opportunity to track and measure results. There are many digital tools for it and artificial intelligence is often utilized in marketing analytics.

## **2.6 Digital Marketing**

Technology has been around for many decades now. During this time there have been enormous developments in marketing technology and digital marketing. Digital marketing can be defined as the process of reaching marketing objectives through using digital media, data, and technology. (Chaffey & Ellis-Chadwick 2019.) Currently digital marketing is growing faster than any other form of marketing (Kotler, Armstrong, & Opresnik, 2018).

Nowadays digital marketing is happening everywhere and not only by communicating through an internet website. With the developments of different devices, such as smartphones, laptops, and tablets, there are new channels for communication. These

forms of interaction are referred as the 5 Ds of digital marketing. (Chaffey & Ellis-Chadwick 2019, 5.)

**Digital devices** are the devices used to communicate with businesses. These include smartphones, gaming devices, laptops, and tablets to name a few. With the technological development these devices are more accessible and provide a great platform for marketing. (Chaffey & Ellis-Chadwick 2019, 5.)

**Digital platforms** are the places where the interaction on the digital devices is mostly happening. It can be either on different apps or websites. Currently, the most popular digital platforms include Facebook, Instagram, YouTube, TikTok, Vimeo, Google, and Twitter. Businesses have seen the possibilities these platforms offer and are utilising these channels strongly in their marketing strategies. (Chaffey & Ellis-Chadwick 2019, 6.)

**Digital media** are the other communication channels used to reach and engage with customers besides digital platforms. These can be for example email marketing, search engines and social networks. (Chaffey & Ellis-Chadwick 2019, 6.)

**Digital data** is the information businesses gather from visitors or customers on their websites or platforms. The digital data is used for advertising and building a relationship with the possible customers. However, the data gathering process is nowadays more difficult as customer data is protected by law in many countries. (Chaffey & Ellis-Chadwick 2019, 6.)

**Digital technology** is used for generating interactive marketing experiences in the different digital platforms and medias. Most known digital technologies are social media, smartphones, and artificial intelligence. (Chaffey & Ellis-Chadwick 2019, 6.)

There are constantly new digital marketing opportunities and possibilities arising for different size of businesses. From an organization's point of view digital marketing offers many different benefits. Businesses can create a customer led business as well as recognize, foresee, and fulfil customer needs efficiently (Chaffey & Smith 2017). In addition to this, businesses can interact with customers at any time or any place through their digital devices, digital marketing is cost effective, and the return of investment (ROI) is brilliant. The core of digital marketing is content marketing, social media, and search engine marketing. (Chaffey & Ellis-Chadwick 2019.)

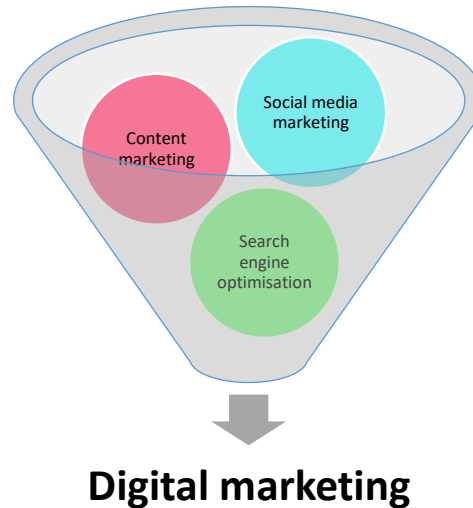


Figure 5. Fundamentals of digital marketing

In this technological and digital era marketing focus has shifted drastically from traditional marketing to digital marketing. Advertising used to be considered the best marketing method as it costs the most. However, the effectiveness of paid advertising has been decreasing drastically in the recent years. Businesses are not able to produce enough measurable results with paid advertising anymore. This has led marketers to seeking new alternatives for it. Currently, the focus with marketing relies strongly on content marketing. Businesses' emphasis is on creating content to consumers on each stage of the customer journey. (Lieb & Szymanski 2017.)

Today, every Internet browser has the option to block online advertisements and consumers are utilizing it increasingly. For example, in 2014 almost 12% of online ads were blocked with the plug-ins Internet browsers offer and due to this almost 18,5 billion USD was lost for advertising. This has made the competition for consumers' attention even more intense. In addition, consumers are demanding businesses for more engaging encounters. (Lieb & Szymanski 2017.)

## 2.7 Content Marketing

Content marketing is not a new concept as brands have been creating and publishing for example newsletters and other types of content for many decades now (Lieb & Szymanski 2017). Content marketing can be defined as a form of digital marketing that includes creating content, publishing it, and promoting it. It involves a lot of work, but it is necessary in order to build a strong connection with the target customers. (Rouhiainen 2019b.) Content can be in static form such as blog posts or in interactive form like videos or Instagram stories (Chaffey & Ellis-Chadwick 2019).

Content marketing can often be confused with content strategy, or the terms are used interchangeably. Content strategy is the phase where the content information is planned, developed, and managed. Content strategy includes content development, delivery, and the capacity to reach business objectives by increasing the weight of content. Without content strategy content marketing will not be efficient. Nonetheless, up to 75% of businesses are executing content marketing without a strategy. (Lieb & Szymanski 2017.)

### **2.7.1 Social Media Marketing**

Social media marketing involves creating content on different digital platforms and medias as well as engaging with customers via their digital devices (Kotler, Armstrong, & Opresnik 2018). It is crucial for businesses to be on social media as it is filled with potential customers and with a right strategy marketing objectives can be achieved with it.

As earlier mentioned, some of the most popular digital media platforms are Facebook, Instagram, YouTube and TikTok to name a few. Patel (Patel 2021) demonstrates that incorporating five core pillars to a company's social media marketing can help them shine at it. First and foremost, you need to have a social media marketing strategy. Without it, it is hard to stay consistent with your content. The social media marketing strategy should have clear and measurable goals and a step-by-step plan how to reach them. The second step is to plan the desired content. The focus with the content should be quality and that it is in line with your business's values. When you have delivered content to current and potential customers you need to engage with them and listen to the feedback they are providing. The next step is to analyse and collect data from the content you have delivered. After analysing your own content and competitors, you can understand user behaviour, find the most suitable platforms for your company, and refine strategy if needed. Finally, it is worthwhile to consider advertise on social media while searching for your audience. With advertising you can also increase and build brand recognition and loyalty.

### **2.7.2 Search Engine Marketing**

Search engine marketing is the process of gaining visibility on a search engine, for example Google when typing an exact keyword. The goal is to get the user to visit the wanted website. Search engine marketing can be paid such as paid search (Pay-per-click PPC) and paid-for inclusion feeds or organic like search engine optimisation (SEO). (Chaffey & Ellis-Chadwick 2019, 28.)

Search engine marketing is the main digital marketing channel for acquiring customers. Search engine optimization's (SEO) goal is to achieve the highest ranking in the organic listing on the search engine when typing a certain keyword. The organic position changes regularly and an algorithm matches the top position with a page that has the most relevancy with the key phrase. Above the organic listing is always the paid search result (PPC), because when the paid website is the most noticeable the search engine will gain additional ad revenue (Chaffey & Smith 2017, 368-370).

## **2.8 Artificial Intelligence and Digital Marketing**

Experts on different fields see that artificial intelligence has the possibility to recognize patterns and has a huge impact on understanding marketing and sales data and discovering trends (King 2019). Artificial intelligence with digital marketing provides the capability for businesses to match information about their product with the potential customers in a way they are most likely to consume. The AI powered machines are constantly working to deliver advertising to the right customers at the right time. Artificial intelligence is used for many marketing purposes to gain competitive advantage. (Sterne 2017.)

Different size companies in various industries all over the world are already implementing artificial intelligence and its subsets in marketing strategy to improve business success, enhance performance and to create a more successful company. For marketing purposes artificial intelligence is used for collecting data, bettering customer understanding, forecasting market trends, automation, optimizing marketing campaigns, and delivering a personalized customer experience. (Marr 2020.) There are already plenty of research that indicates that applying AI applications to marketing businesses can: improve communication to the customer, create targeted and personalized campaigns and deliver customer service interactions for example via chatbots (Chaffey & Ellis-Chadwick 2019).

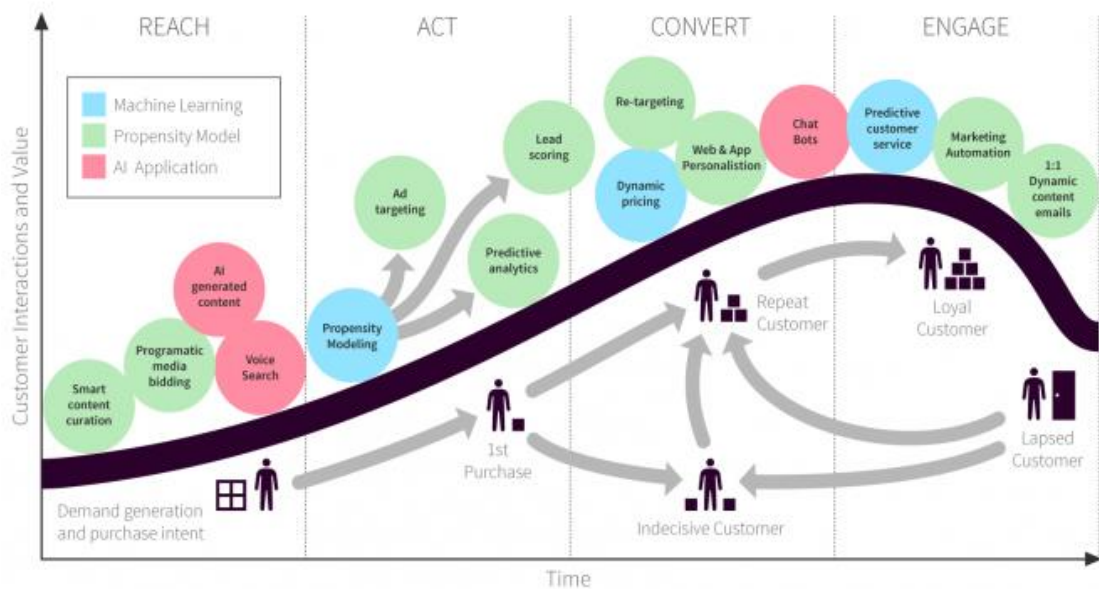


Figure 6. AI applications in digital marketing through the customer lifecycle

As the figure 6 above shows AI applications in marketing are used through the four phases of customer lifecycle: reach, act, convert and engage. Each phase features AI applications in different forms. The most used AI applications in digital marketing currently are ad targeting, web and app personalization, voice search such as Amazon Alexa, chat-bots and marketing automation.

Some marketing technology firms are building their personal AI-based systems, and others are building general AI systems for multiple purposes. Salesforce.com, a customer relationship management platform, offers customers the possibility to create their own customized AI-powered apps. The most used and beneficial outcomes of the AI-powered apps involve recommendations, forecasting and predictive scoring. (Salesforce.com 2021.) Another company that has applied AI successfully is Adobe, who has its own marketing cloud that allows world's leading brands to co-operate in identifying and improving customer experiences (Sterne 2017).

If a business has been collecting large amounts of data for the last decade, it is possible for them to build their own AI systems. However, it should be carefully considered as it is not cheap or easy. (Sterne 2017.) As AI is developing so fast it is crucial for businesses to have an AI strategy to get it serve the main business needs (Marr 2020).

Although many businesses see the opportunities and benefits artificial intelligence could offer to them and to their marketing strategy, they are not currently gathering enough or

the right kind of data. Also, marketing teams are struggling to have all the customer data in one place which has created some problems in utilizing AI in marketing (Sterne 2017). AI can also make some employees worried that they are being replaced by machines. On the other hand, others who have the needed skills and ability to interpret the data may not comprehend the importance of it. This has caused a situation where many organizations lack the required AI and data skills needed to succeed in the up-and-coming AI driven world. (Marr 2020.)

### **2.8.1 The Future of AI Marketing**

As we know, we cannot predict the future, however, many experts have estimated how digital marketing and specifically AI marketing would look like in the future. It is already known, how powerful artificial intelligence is, and it will open doors no one had even predicted. Lasse Rouhiainen, an international expert on artificial intelligence, predicted how different digital marketing activities could look like. Several of these AI marketing tools are already tested or implemented in some countries. (Rouhiainen 2019.)

Lasse Rouhiainen believes that online content creation will mostly be done by voice and most computers will not have keyboards. Google searches will be conducted by voice and then Google will deliver search results. Content creation on different digital platforms such as Facebook and Instagram will be AI-generated, and the apps will analyse what kind of content is engaging the best with your own Facebook or Instagram followers. Analytics will be analysed with AI methods. Predictive analytics will also be used, and it will give valuable recommendations and suggestions based on previous data. (Rouhiainen 2019a.)

According to Davenport, Guha, Grewal & Bressgott (2020) AI will have an impact especially on marketing strategies, sales processes, customer service and understanding customer behaviours. Another department AI will influence is the sales. It is predicted that salespeople will be supported by an AI agent that will monitor telephone conversations in real time. Next the AI agent might be able to analyse the customer's voice and then guide the salesperson during the conversation and offer feedback before the next cold call.

The most influential examples of AI-based services come unsurprisingly from tech world. Tech world has delivered more intelligent, thoughtful, and customized services to consumers. There has been a pattern that where the tech world goes other industries follows shortly after. Nowadays in the marketing and customer service field the customer is in the forefront and offering them personalized service is one of the key elements to succeed in it. The use of AI is essential for providing customers that kind of service that is wanted and



desired today. (Marr 2020.) With all the possible opportunities with AI, we can see how artificial intelligence is changing the face of marketing.

### **3 Commissioning Company and AI**

With the technological revolution and the development of digital devices businesses have shifted companies marketing strategy to more digital oriented. Thus, new ways to improve and automate marketing is sought constantly. Methods using artificial intelligence and its subsets are being implemented to marketing in order to improve communication with customers, create targeted and personalized campaigns and deliver customer service at any time or any place for example via chatbots.

As earlier mentioned, the commissioning company will be referred to as company X or just as commissioning company due to confidentiality agreements. In this chapter the author discusses how and why the commissioning company has started their journey with artificial intelligence, what kinds of artificial intelligence applications they currently use and how did they end up choosing them, what kinds of results they have already achieved with them, and lastly, she examines the challenges the commissioning company has already faced with the implementation of AI and what they estimate the challenges could be in the future. The information and knowledge for this chapter is gathered from interviewing the experts of the commissioning company.

Digital marketing in company X has been fully outsourced until the recent years, which is why their own digital marketing solutions are still at the beginning stages. In the next few years company X wants to be able to recognize what in their digital marketing is possible to automate and what is best to be performed by themselves. They are still planning on outsourcing marketing but want to be more involved in their own marketing activities. As an insurance company their main focus is to provide customers with high-quality service and to ensure that their customers get the pension they have earned. Thus, company X sees that outsourcing marketing helps them to focus on providing customers the service and value they desire.

The commissioning company does not have their own AI-based systems and different artificial intelligence options are not actively developed or studied. However, they are using extensively different apps and solutions that have their own artificial intelligence solutions in marketing. So, the use of artificial intelligence in the commissioning company is mostly outsourced. For example, Facebook and Google are greatly utilized for marketing purposes as well as chatbots.

To gain the best results with the AI powered tools there must be a huge amount of data and it must be well analysed. Therefore, analytics is in a big role in company X. With analytics company X can develop their own activities and to see how customers react to their advertising and marketing. Company X perceives that formatting the overall view of analytics and receiving data from different sources so that it is reliable is something they need to improve on.

### **3.1 Facebook Marketing with Artificial Intelligence**

Facebook is a social networking service created in 2004. Today, Facebook is the largest social network globally, with almost 2.8 billion active users monthly. Facebook also owns popular digital platforms like WhatsApp, Instagram, and Messenger. (Statista 2021.) Facebook is a great platform for marketing, for people who have the required skills and knowledge for utilizing it. Because Facebook users voluntarily give information about themselves the marketing and other promotional tasks on Facebook can be more personalized. Facebook collects the data received from the users, and organizations' marketing departments can use it for their marketing activities.

As Facebook gathers a lot of data from its users, artificial intelligence and its subsets can be implemented in the networking service. Nowadays Facebook allows marketing teams to utilize its machine learning solutions in many ways. For example, letting Facebook learn from a certain data and discover consumer segments and then cluster customers into lookalike audiences. Another approach is to target all potential customers and then Facebook produces segments based on the response.

Facebook advertising and marketing can be done independently in Facebook and Facebook offers great tools for this, for instance Facebook Ads Manager, that helps create and manage Facebook ads. Additionally, there are chargeable tools that can create, automate, and analyse Facebook advertising for you.

Facebook is one of the most used digital marketing platforms for the commissioning company. Marketing is done by using two techniques. It is done directly by the company from Facebook as well as with a tool called Smartly.io. Company X believes that utilising Facebook with both techniques together and experimenting different operational models has been profitable for them.

As mentioned, the commissioning company's marketing team also uses Facebook independently by themselves. In Facebook they use targeting, to cluster customers into specific segments and to target advertising to them. Alongside targeting they use Facebook's tool to create lookalike audiences from the audiences they have already build to find similar consumers that can be potential customers.

Smartly.io is an automation software developed to help businesses launch and optimize campaigns on Facebook (Smartly.io 2021). From Smartly.io the commissioning company uses an automated marketing tool. For example, when the company posts an advertisement on Facebook with a specific hashtag Smartly.io will recognize that the post belongs to a certain campaign and will automatically promote the post. Additionally, Smartly.io will by itself take all the posts with the same hashtag and rotate them in advertising. Hence the personally done advertisements are capitalized with the help of Smartly.io, which can optimize the visibility of the posts that are working well.

### **3.2 Search Engine Marketing**

Company X utilises Google's search engine marketing (SEM) and search engine optimization (SEO) in their digital marketing activities. The goal with SEM and SEO for company X is to gain visibility in Google when a certain keyword related to the insurance field is typed. Company X generates as much as possible verbal alternatives and descriptive text to Google and then Google's algorithm will start to test which ones of them work the best and makes the combinations of them of the keywords as well.

With SEO businesses have the opportunity to build long-term brand awareness, grow the target audiences and earn more income. When a business is one of the first results in search pages without paid advertising it is often considered trustworthy, and it will improve the credibility of a business. Thus, it is important to constantly update the research keywords. Using SEO in your company's marketing strategy does not cost anything and your company can find new customers organically. (Muthoni 2021.)

Additionally, company X uses search engine marketing that is also known as paid pay-per-click (PPC) advertising in Google. PPC is an online marketing method, where each time someone clicks your ad, you pay. The PPC ads rank top of the search engine above the organically generated results. Even though, PPC does not arouse the same type of trustworthiness and credibility as organically generated leads it still provides many benefits for businesses. For example, with PPC companies can generate more leads and traffic

to their website, you only pay when people click the ad and see your content and lastly, you can target the right people at the right time. (Weisbach 2017.)

Company X has invested a lot of time into search engine marketing and search engine optimization and has had good success with it. Company X is constantly in the top results when googling different keywords related to the insurance sector. Using SEO and SEM together increases company X's visibility in Google and drives more traffic to their website.

### **3.3 Chatbots**

Chatbots are one version of the internet bots. They are an automated software solution that can have online conversations through text with website visitors. These are commonly used for customer service assistance and helping with searching information from a certain website. The use of chatbots by organizations has been increasing a lot in the recent years and businesses are building their own chatbots specifically designed to interact with their customers. To get the chatbot to have meaningful conversations with consumers it needs to be provided with prior conversation logs alongside with reason codes and suitable answers for regular questions. Then, the machine will utilize machine learning and begin learning from actual customers. (Sterne 2017.) Even though automated solutions, like chatbots are progressively implemented to businesses' websites and other digital platforms it is essential to ensure that they deliver value to the company as well as to customers (Chaffey & Ellis-Chadwick 2019).

The use of chatbots at the commissioning company were initially started to provide assistance for customer service at their own website. Behind the chatbot there is a bot whisperer that teaches the bot how to answer different questions. At the company utilizing chatbots is still an ongoing process, which is why it has been put into action in stages. Currently, they are planning to expand the use of chatbots for sales assistant as well, which can also act as a marketing method. Thus far, the chatbot has not been selling huge amounts, but they are constantly feeding it with new scripts for it to perform the sales process even better.

Other bot solutions that are used by the commissioning company are more on the traditional side. For example, consumers answer to only one or two simple questions and then the bot moves forward with easily and visually present options to the consumers. At the end, the goal is that the consumer will buy the product/service they are offering.

The chatbots company X are currently using have great own analytics and they offer insight on how customers answer to the questions asked and if there are clear improvement objectives it can be easily modified. Company X has found chatbots to be successful for them and are currently discussing the potential to add another type of internet bot to their marketing strategy.

Even though, the chatbots offer benefits for company X there are already some identified challenges with it. Chatbots need to be taught how to answer to questions and you need to feed all the possible solutions for it, which is still a working process. However, there are existing improvement processes how to advance it and its performance is constantly monitored.

### **3.4 Possible Next Steps Utilizing AI and Analytics in Marketing**

As explained in the previous chapter the possibilities for AI in marketing are limitless and it will most likely revolutionize and change digital marketing. Nonetheless, businesses struggle to find the most suitable ways to utilise it for their company's needs. Companies want to utilise AI powered tools in marketing because of all the benefits it offers, thus, outsourcing artificial intelligence marketing activities is appealing for businesses.

There has been a lot of discussions in company X on the new ways to exploit artificial intelligence in their marketing, but they are still on the planning phase. However, there are various steps to be taken in big businesses like company X before applying a new AI powered tool into marketing strategy. Still, new suitable opportunities are continuously looked into and there are already some interesting possibilities company X is considering.

Company X has had discussions with outside service providers that utilise artificial intelligence powered tools and analytics to add to their marketing strategy. One solution that is being considered would provide them even more information about people who visit their website, for example they would know if they were already their customers and other valuable information that could be used with personalization or just generally for marketing purposes. With these types of solutions, there are many options how to use the data in practise. The challenge related to these types of tools is that they can only gather data if the website visitor is a bigger-class company and company X believes that their main target audience for digital marketing is smaller size businesses or entrepreneurs. This has created challenges in using these types of tools.

Another marketing situation Company X is seeking to find answers to with AI is the marketing for self-employed persons' pension act (YEL) insurance. Ideally the marketing would begin already before entrepreneurs or businesses have the business identity code. Without a business identity code, it is difficult to gather information about the new business. The goal is to get the customer to choose company X above the competitors, however, AI powered tools do not yet support this type of personalized marketing and customer segmentation. Finding an AI solution for this type of marketing would give company X a huge competitive advantage compared to competitors.

In the next few years company X hopes to understand better how customers behave on the purchase journey with the help of analytics. This would give them the opportunity to improve the purchase journey and to get even more customers to finish the journey and to buy their product. As data and analytics are utilized with so many different platforms and tools it would be beneficial for company X to have a centralized system that would collect all the received data into one place from the encounters. Whether the encounter was via chat, phone call, webinar, website visit, social media post a system that collects everything in one place would ease the analysis process.

Company X found it difficult to come up with new suitable AI solutions to use in marketing due to the various privacy protections and concealments of personal data. These legislations are arguably going to tighten, and it is hard to predict what type of tools can be used in the future. Company X states that building their own AI solutions would be extremely costly and it is uncertain how long they can be utilised due to the tightening laws. Therefore, outsourcing digital marketing activities that are powered by AI has been the preferred operating model. Of course, some of the tools currently used can be even more effectively applied and need to be evaluated regularly.

### **3.5 Challenges with AI and Analytics**

People working in the line of business and marketing experts recognise the opportunities artificial intelligence has to offer but has different challenges they face trying to utilize it. One of the main challenge company X has with AI is the legal aspect of collecting data and using it. Company X's line of business is strictly regulated by laws; thus, they cannot exploit all means of artificial intelligence and machine learning to their marketing strategy. This is a problem that is not easily solved. In the future privacy protections and concealments of personal data will most likely tighten even more, which will have an effect on applying artificial intelligence in marketing.

The privacy protections and concealments of personal data significantly affect company X's opportunities to take advantage of Facebook's artificial intelligence applications. One of the challenges with Facebook lookalike audiences is that not all of the Facebook data is in Europe and company X need to carefully assess what kind of data can be used in Facebook. This has led to ongoing discussions with the legal side on what kind of permissions they have in using the personal data and business information in Facebook. Company X's legal department continuously discusses and evaluates on the trustworthiness of what Facebook informs about their data processing places and storages. Company X's legal department has taken the policy to respect the privacy of consumers and not use any untrustworthy data for marketing purposes. This of course affects, to the possibilities to experiment more with different tools that uses customer data, such as Facebooks lookalike audiences. Countless other businesses use all available data in digital marketing regardless of privacy protections and concealments of personal data.

As already mentioned, company X does not have a centralized system for collecting, analysing, and interpreting data from encounters on different platforms. Therefore, the data is gathered from many different systems, so it is difficult to know what the right place is to collect the information from. In addition to this, marketing success ratings differ from system to system, which creates challenges in monitoring the operations. A centralized system would gather data into one place, therefore implementing AI solutions to it would be easier as well as monitoring performance ratings.

Artificial intelligence and machine learning solutions are often large and absorbed entities and it is hard to find the right place to start building them. The focus with AI solutions should be on receiving concrete answers on what works and what does not. Company X has received very convincing consultations on how AI and ML solutions should be organized into purchase channels, however, their concrete use is extremely challenging. From the organization's point of view, the subject needs to be in small segments as it is a long-term process to get it function in a way that it will provide tangible benefits. For example, machine learning solutions in company X's website can provide them some information on customers' behaviour to a certain extent, but they have not built triggers points to the website where customers could provide them valuable answers. The reason for this is that the website is not built for gathering data for marketing automation purposes. To utilise the website more with AI and ML would require building a designated data gathering process to the website, which company X has not thought about when building it. This creates AI marketing a much wider entity that is often talked about.



Most of the digital marketing activities are outsourced, so that professionals in that field can find the best solutions for them. Company X believes that it is not reasonable for them to have special expertise in all sectors, such as artificial intelligence. With the digital revolution, and the rise of AI powered tools this might change in the future.

## 4 Methodology

This thesis was completed with qualitative research as the main research method and in this chapter, the author discusses her reasoning for selecting it as well as explain the benefits it offered in the data gathering process. In addition, she reviews the validity and reliability of the thesis.

This thesis was conducted with qualitative research methods and qualitative desktop research analysis. As the author wanted to examine AI and its possibilities to enhance marketing for company X, she came into a conclusion, that qualitative research methods would be the most suitable for the thesis.

**Qualitative research methods** deal with gathering, analysing, and interpreting data that is collected by observing what people say and do. It helps to understand theories and experiences. In qualitative research the researcher only knows partly what she is looking for and the data received is mainly from words. (Burns, Bush & Veeck 2017, 144.)

The author's main focus was in gathering data with qualitative desktop research methods to have a clear understanding on artificial intelligence, AI applications and how they are used in digital marketing. The additional information and company X related data was gathered through primary research, specifically with a focus group. The primary research provided practical examples of how businesses utilise AI and AI powered tools in their digital marketing. During the primary research process the author realized in practise the advantages and defects faced with AI.

### 4.1 Thesis Writing Phases

The figure below explains the different phases of the thesis writing process. The author saw it necessary to divide the thesis into segments and explain them in a more detailed manner. The figure 7 below covers the research design. In the first phase the main data source was theoretical literature, specifically high-quality books. The data was collected with secondary desktop research methods and analysed with secondary data analysis methods. The first phase introduces the main topic of the thesis AI & digital marketing. In the second phases the data is collected with a focus group and the data is analysed with qualitative data analysis methods. This phase seeks to answers to the main research question as well as all of the IQ's. Lastly, the final phase will deliver the key outcomes of the study and provide additional answers to the main research question. Both secondary data methods are used as well as primary data methods.

Research phase	Phase 1	Phase 2	Phase 3
•Data source	•Theoretical literature (books, articles)	•Company X	•Theoretical literature (books, articles), company X
•Data collection method	•Secondary data collection methods, literature review	• Primary research methods, Interview & focus group	•Secondary data collection methods and analytics
•Data analysis method	•Secondary data analysis, theoretical framework	•Qualitative analysis methods	•Qualitative methods, qualitative desktop methods
•Relationship to investigative questions	•IQ	•IQ1, IQ2, IQ3 IQ4	•IQ3, IQ4

Figure 7. Thesis writing phases

## 4.2 Secondary Research

The main topic of this thesis was artificial intelligence and finding ways to utilize it for marketing purposes. As AI is a topic that has been studied by researchers and professional for many decades, I already knew that secondary data research would be in a pivotal role in gathering the needed data for this thesis. That is why I believe it is significant to understand what it is and explain it.

Secondary data is data that already exists, and it is previously obtained by someone else than the researcher, it is intended for other purpose than the research project at hand. So, the data that is already published referred as secondary data. The data can be books, articles, online sources, videos or statics and reports. Today, secondary data can be found from many sources and it easily accessible. Often secondary data is used in various marketing research projects. Secondary data can be obtained within an organization, which makes it internal secondary data or outside the organization, which is referred as external secondary data. (Burns, Bush & Veeck 2017, 117-120.)

In this thesis the data collected was with secondary research method is external data. As one of the main disadvantages of secondary data is the lack of information desired to evaluate the credibility of the data described, it was important that during the research process, I carefully assessed the quality, validity, and reliability of each source. AI as a

topic is hard to grasp on and occasionally, I struggled with the complicatedness of academic texts. After long research process I found the most suitable books and academic articles. For this thesis Taulli & Oli's and Chaffey & Ellis-Chadwick's books offered the most valuable and used secondary data.

### **4.3 Primary Research**

Primary data is the information and insights that is collected and developed specifically for a certain research project. Obtaining primary data is far more complex and time consuming than collecting secondary data. (Burns, Bush & Veeck 2017, 117.) Primary data can be collected by asking questions, conducting interviews, observing, and conducting experiments (Walliman 2010).

#### **4.3.1 Interviews**

When planning this thesis process, I was still uncertain if I would be conducting interviews or writing this thesis based on data from high-quality sources and the material provided to me from the commissioning company. Early in the thesis process I realized that I need to conduct interviews to gather any sorts of data on my topic from the commissioning company. My contact person for this thesis was the marketing manager of company X and he recommended me the interviewees that would have the most knowledge on my topic. In total I had four persons I interviewed, one of the interviews was done one-on-one and the other interview was conducted in a focus group setting.

Focus groups is a commonly used qualitative research technique, where a small group of people are together, and it is guided by a mediator. This approach ensures that the discussion is concentrated on the area of interest. Focus groups should be used when the main objective of the research is to explore or describe something. In focus groups the conversation is unstructured and instinctive, and the goal is to gather relevant information related to the research problem. From focus groups you can gather information from a narrow sample of interviewees. The information can arouse ideas and you can increase your knowledge and insights on the chosen topic. Focus groups are proven to be incredibly efficient at providing usable insights. The advantages focus groups offer include new and fresh ideas, the opportunity to observe the participants and they allow an easy access to a specific respondent group. Even though, focus groups offer many advantages there are some disadvantages as well, such as they do not form representative samples, so the generalization of findings must be done with caution, the success of focus groups relies

heavily on the moderator and interpreting the findings from the focus group can be difficult. (Burns, Bush & Veeck 2017, 149-152.)

The focus group I had was conducted via Teams-meeting due to the prevailing Covid-19 situation. The focus group I had was fairly small there were three employees from different departments in company X. There was company X's customer data project manager, temporary leader of customer relations development, leader of the digital sales virtual team and communications manager that had a variety of expertise related to my research questions. As the moderator of the focus group, I had planned the topic and questions I wanted to focus on to have a successful focus group. The discussion was recorded, so that I can reflect and come back to the information and insights during the thesis writing process.

#### **4.4 Validity and Reliability**

Validity of the research refers to the relevancy of the methods used, correctness of the analysis of the results and generalisability of the outcomes. To assess whether the research is valid you need to consider if the measures used in the research truly measure what they are anticipated to, are the results analysed accordingly and can the research results be generalized. (Saunders & Thornhill 2016, 202.) The validity of this thesis was constantly assessed during the thesis process.

To ensure validity of the research, I explored and used various sources such as academic books, study material and primary sources. During my data gathering process I constantly reflected my research questions to the data I was collecting to ensure that the results I was getting was measuring what it was supposed to. My strategy while gathering the data was to search through many reliable sources in order to gain perspective and common point of views.

Reliability of the research describes whether it is replicable and consistent. If the research design can be replicable and if it will deliver same key outcomes, the research is seen as reliable. Common threats to the reliability of a research are participant error, participant bias, researcher error or research bias. (Saunders & Thornhill 2016, 202-203.) In the process of gathered data I read several theoretical literatures and articles and evaluated whether the theories, ideas, and methods were repeated in similar circumstances. In my opinion the secondary data was reliable, however, some academic books referred to profitable sources, which made me question if the sources were fully reliable. Nonetheless, I believe the chosen sources were the most suitable for this thesis and enhanced the qual-

ity greatly. The primary data was mainly gathered in a focus group setting. As the mediator of the focus group, I had the questions planned and I had a clear vision of the objectives I was seeking to find answers to. If I would have had other participants with similar knowledge on the topic, I believe the information and key findings would still be the comparable.

## 5 Conclusions

This chapter will evaluate the whole thesis process; provide the key findings for the investigative questions and offer some recommendations on ways to implement artificial intelligence to company X's marketing. The author also provides recommendations for later studies and reflect on her own learnings during this thesis process.

### 5.1 Key Findings

The purpose of the research was to examine artificial intelligence and its use in marketing. In addition to this, the author wanted to provide insights on the subject for company X and new possible ways to implement it to their marketing strategy. Through the theoretical literature review the author understood how AI powered tools are already revolutionising digital marketing and the opportunities it offers to analyse and automate almost every digital marketing activity. With the primary research the author gathered information of company X's current situation with utilising AI in marketing, the challenges they face with it and what are the possible next ways of using AI in marketing.

The author began the research by studying AI and its subsets. Artificial intelligence can be defined as computer systems undertaking tasks that normally require human brain. With artificial intelligence computers can for example perform visual and voice recognition and interpret languages. From the marketing point of view artificial intelligence allows marketing teams to identify customer's needs and provide them with recommendations. When AI is investigated in a more detailed manner the subject becomes more difficult to grasp. AI can be divided into two subsets: machine learning and deep learning. There are two core types of machine learning, supervised and unsupervised. In supervised learning machines use labelled data and learn from experience to execute a certain task. Whereas in unsupervised learning the data is unlabelled and with algorithms and deep learning algorithms are used to discover patterns. The main difference is that in supervised learning the answer is already known and in unsupervised learning it is not, and the machine will study a given dataset and then teach what it has discovered. It is inevitable that machines can perform tasks that used to require humans. When machines are precisely trained and there is enough big data AI powered tools and solutions can give an enormous competitive advantage to businesses operating at any section.

The author saw it important to also study digital marketing and AI enhanced marketing. This helped the author to discover practical examples of the possibilities AI has for marketers. The core of digital marketing is content marketing, social media marketing, and

search engine marketing, strong focus is on content marketing. The competition for consumers attention is fierce and businesses need to offer engaging encounters to them. Artificial intelligence powered marketing solutions are capable of recognizing patterns, and help marketers uncover trends and understand marketing and sales data. Automating as many marketing activities as possible gives marketing teams the opportunity to focus on creating engaging content to consumers. The possibilities with AI marketing are endless and finding the most suitable ways to utilise it in your business can give you a huge competitive advantage.

The first investigative question focused on analysing company X's current situation utilising artificial intelligence in their marketing. The focus group conducted in the primary research phase gave the author clear understanding of the company X's present state. Company X has outsourced most of their digital marketing activities; therefore, they do not have their own AI systems nor are they planning on developing their own. Nonetheless, artificial intelligence solutions are utilised in their marketing in various ways. Facebooks AI solutions are used to cluster customers into specific segments and to target advertising to them. Together with Facebooks own AI solution company X has used Smartly.io's service to automate campaigns. Company X also actively uses search engine marketing in Google. The organic and free way to generate traffic (SEO) is used alongside with the paid pay-per-click (PPC) advertising in Google. Company X has had good results with SEM and ranks high in all insurance field related keywords.

In addition to the already mentioned solutions, company X uses chatbots at their website as customer service and sales assistant. The results with chatbots have not been the greatest yet, but the usage of chatbots is still an ongoing process and company X is constantly working on improving them. Company X believes that they do not need to be AI marketing specialist, which is why they have outsourced these activities. Nevertheless, they are going to stay up to date with the new and upcoming AI innovations and if they are suitable, they can implement them into their marketing strategy.

The second investigative question needed desktop research and the insights from company X to collect information of suitable ways to use artificial intelligence in company X's marketing. In a big organisation like company X starting to use new AI powered technologies requires approval from many departments and is a long process. Nonetheless, the author gathered ideas of the best ways to utilise artificial intelligence in company X's marketing.



Currently, mostly outsourcing marketing activities that utilise artificial intelligence has been suitable for company X. They do not need to be specialist on the topic, which is why getting the help needed from a specialist has been crucial for them. AI powered tools are utilised mainly through digital marketing platforms such as Facebook and Google. Additionally, chatbots provide rudimental customer service, which has been useful. The author recommends expanding AI powered marketing to other similar platforms such as LinkedIn and Instagram. Most small businesses and entrepreneurs use LinkedIn for professional networking and finding possible new employees. With targeted advertising in LinkedIn company X can target specific groups there and reach out to new audiences. Targeting advertising in Instagram should fit company X as well. Instagram is owned by Meta Platforms, that was formerly Facebook Inc. Thus, Instagram and Facebook use the same advertising and targeting system. As company X is already familiar with Facebooks AI powered tools and has outside help with it, Instagram would be the next logical step.

The third investigative question looked into the recognized challenges company X has with utilising artificial intelligence for marketing purposes. The main challenges company X has with AI are the trustworthiness of data received from different platforms and not having a centralized system to gather and storage marketing related data. As company X's line of business is strictly regulated by laws, they cannot exercise all means of artificial intelligence and machine learning as other companies that do not have the same kind of legislation restrictions. Company X wants to maintain its position as a dependable company; therefore, their legal department has their own guidelines and regulations related to data use. Company X's legal department has taken the policy to respect the privacy of consumers and not use any untrustworthy data for marketing purposes gathered for example from Facebook. This of course, affects to the possibilities to experiment more with various tools that uses Facebook's customer data, such as building lookalike audiences and targeting advertising.

The other main challenge was with not having a centralized system that collects all the received data into one place from encounters on different digital platforms. Having all the data in one place would make it easier to interpret, analyze and use the data. Company X hopes and dreams that in the future they would have their own centralized data gathering system that would utilize artificial intelligence.

The last investigative question aimed to find answers to what the future with AI looks like for company X and find new ways to use artificial intelligence powered tools in their marketing. As the author is not an expert on AI related tools it was not the easiest to come up

with recommendations for new tools to utilise. Specially, the restrictions and legal aspects brought various challenges for the author with the recommendations.

The author saw it necessary for company X to learn more hands on about artificial intelligence and constantly educate themselves on the subject. Specially, marketing professionals need to individually learn what artificial intelligence is and how it can be utilised for marketing purposes. It is a lot easier to use artificial intelligence solutions independently when you understand the concept and how it generates results. Businesses in general should not be scared about the technological revolution, instead they should be willing to learn and discover new technologies. Even though the companies that have had the biggest success with AI are not in the insurance field, the path these companies are building with artificial intelligence is eventually what digital marketing will look like.

As mentioned earlier, the next logical step in AI powered marketing would be utilising LinkedIn and Instagram. Similar tools are already used in company X's marketing; therefore, they have an idea how the tools work and what type of results can be expected with them. As company X already uses outside service providers for the other AI powered solutions, this could be a considerable start with LinkedIn and Instagram as well. Artificial intelligence and machine learning will change how marketing is done; therefore, the sooner company X can build or buy their own centralized data system the faster they are able to utilise AI even more in marketing. Of course, this will not happen overnight and requires countless hours of work, but the planning and introduction of the system should start as soon as possible.

In conclusion, the author believes she was able to gather valuable knowledge on the subject and provide perceptiveness to the commissioning company through her research. Company X notices the possibilities of AI marketing, but still hesitates to fully dive into it by themselves. Of course, the legal restrictions and challenges company X is facing, has an effect to their utilisation of artificial intelligence. It goes without saying that the author's thesis does not remove all the company X's problems with the artificial intelligence, but hopefully they got a comprehensive introduction to the subject and some new ideas how they could continue to develop their utilisation of artificial intelligence in marketing.

## **5.2 Recommendations for Later Studies**

As artificial intelligence is such an advancing field the author recommends especially everyone working in the line of business and marketing experts to familiarize themselves with

the topic. As mentioned throughout this thesis artificial intelligence has the potential to revolutionize how businesses operate on every department. Therefore, the author recommends company X to keep educating their employees on the topic and the appointed teams should experiment with different AI powered tools to find the ones that suit best for their company. Utilising third parties such as universities with the experiments and studies is recommended for company X, because it is cost effective, and you minimize the workload from your part.

As technology is taking over businesses, employees need to be willing to learn about different technologies and how they operate. Technological revolution should be seen as a positive and innovative subject. Management has a big role in leading the company towards a more technologically working work environment and their attitude on the subject reflects vividly on the employees. Thus, the education about technological revolution and artificial intelligence should start from the management.

### **5.3 Learning Outcomes**

Writing this thesis on such a current topic gives the author various benefits and opportunities in her personal career. During this thesis process she gained great foundation to build her knowledge on artificial intelligence and its subsets as well as transforming business with digital technologies. The author familiarized herself with the present trends and challenges of AI and understands the various possibilities there are for it in the future.

The secondary research phase felt overwhelming and endless at times, due to the difficulties of grasping all the information related to artificial intelligence and its subsets. The author had to conduct various theoretical literature reviews to find suitable resources. This improved greatly the authors researching skills, patience, and the will to finish what she had started. Leading the focus group was a new situation for the author and taught her tools to independently gather all the needed data and to analyze it.

The whole thesis process served as an excellent learning experience. It involved a lot of planning and professionalism working with a commissioning company. The author was not aware of the legislation restrictions and how they may affect to the possibilities to enhance marketing. This taught the author that some companies cannot be creative as far as the marketing tools are considered. She also gained knowledge on how to manage a research project and her time management skills advanced and the ability to prioritize what is the most important. Nevertheless, the topic was not an easy one and it required much more time and effort than the author had initially expected. Although, the thesis process

was full of ups and downs the author plans on developing her understanding and skills on the phenomenon and possibly focus her masters' studies on the topic.

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## **Appendices**

### **Attachment 1. Interview questions**

1. How is artificial intelligence currently used in company X?
2. What types of solutions are suitable for company X?
3. Why are the AI solutions outsourced in your company?
4. Does company X plan on building own AI systems and if not, why?
5. What are the future plans for using AI solutions in company X?
6. What are the challenges with utilising artificial intelligence and machine learning in your company's marketing strategy?
7. Does different legislations affect to your AI use?