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Abstract

The role of precisely targeted marketing has grown strongly with the rise of new media such as social media. It is possible to control in digital channels to whom one wants to show advertisements but creating the initial targeting parameters and marketing message can be difficult if one is not sure about the target audience.

APG, standing for automatic persona generation, enables the usage of existing digital data in persona creation process. With this technique it is possible to reveal fast and precisely up-to-date information of a company's target audience with accompanied attribute information. Creating marketing message for people-like personas has been shown a powerful method for communicating information on company's offering.

Each company has digital data on their customers gathered one way or another. Data used in this research consists of data gathered by a company called Elämyslahjat during the years on its website users. These data were used to develop personas and lists of characteristics with APG effectiveness of which was then again tested by recruiting thirty marketing professionals to write ads based on these personas and lists of characteristics to Facebook. After this the effectiveness of ads written for personas and for lists of characteristics were compared.

The results show that there might be potential for APG to act as a basis for more effective marketing due to its speed in persona creation and preciseness. There were differences between mean click-through-rates (CTR) of ads written for personas and for lists of characteristics. APG shows also potential with its speed to mold data into more understandable form as personas quite rapidly for the purposes of advertising and marketing. This enables the usage of precise target audiences which is a desirable in marketing.

The research shows that there is potential for persona-based advertisements as a marketing boosting element in digital environments. This has business-wise significance while it saves time and improves the efficiency of work done in ads creation.

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| Key words | social media, digital marketing, advertising, algorithms, Facebook, precision marketing, consumer behaviour |
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Tiivistelmä

Tarkkaan kohdennetun markkinoinnin merkitys on kasvanut voimakkaasti uusien medioiden, kuten sosiaalisten medioiden, esiinmarssin myötä. Digitaalisen markkinoinnin kanavissa on mahdollista tietää tarkasti kenelle mainos näkyy, mutta kohdentaminen ja viestin luominen saattaa silti olla hankalaa, jos ei ole varma kohdeyleisöstään.

APG, eli automaattinen persoonien luonti, mahdollistaa olemassa olevan digitaalisen tiedon käyttämisen persoonien luontiprosessissa. Tekniikan avulla on mahdollista selvittää nopeasti ja ajantasaisen tiedon avulla kulloinkin mielenkiinnon alla olevan yrityksen kohderyhmä ominaisuustietoineen. Mainosviestin luominen oikeiden ihmisten kaltaisille persoonille on havaittu tehokkaaksi tavaksi viestiä yrityksen valikoimasta.

Kaikilla yrityksillä on sähköistä dataa asiakkaistaan kerättynä tavalla tai toisella. Tutkimuksessa käytetty data koostui Elämyslahjat-nimisen yrityksen vuosien aikana keräämästä verkkosivujen käyttäjädatasta. Tämän datan avulla luotiin algoritmipohjaisesti persoonat ja ominaisuuslistaukset, joiden tehokkuutta mitattiin kolmenkymmenen markkinointiammatilaisen kirjoittamilla mainoksilla Facebookissa. Tutkimuksessa vertailtiin mainosten tehokkuutta kohderyhmissä, kun mainokset oli luotu persoonille tai ominaisuuslistauksille.

Lopputulokseksi osoittautui, että APG-metodilla saattaa olla potentiaalia mainosviestin tehostamisessa sen nopeuden ja tarkkuuden ansiosta, sillä erot persoonille kirjoitettujen mainosten klikkausprosentin (click-through-rate, CTR) ja ominaisuuslistauksille kirjoitettujen mainosten klikkausprosentin välillä olivat keskiarvoisesti olemassa. APG:n puolesta puhuu myös sen nopeus persoonien luomisessa, ja sitä kautta se voi olla apuna datan muokkaamisessa mainonnassa käytettävään muotoon. Tämä mahdollistaa tarkkaan rajatun kohderyhmän käyttämisen mainonnassa, mikä on yleisesti markkinoinnin alalla arvostettua.

Tutkimus antaa tuloksen siitä, että persoonapohjaisesti luoduilla mainoksilla on potentiaalia mainonnan tehostamisessa digitaalisessa ympäristössä. Tällä on liiketoiminnallista merkitystä aikaa säästävasti ja toiminnan tehoa nostavasti.

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| Avainsanat | sosiaalinen media, digitaalinen markkinointi, mainonta, algoritmit, Facebook, täsmämarkkinointi, kuluttajakäyttäytyminen |
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**UNIVERSITY
OF TURKU**

Turku School of
Economics

FROM GUESSES TO PERSONAS

**The Potential of Automatic Persona Generation (APG) in Targeting
Digital Advertising Messages**

Master's Thesis
in Marketing

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23.4.2020
Turku

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1 INTRODUCTION

1.1 Background of the Research

Customized, or personalized, marketing means that a company tailors one or more aspects of its marketing mix for individual customers (Dawn 2014). A lot of research has been done in the field of customized marketing messages and their effectiveness (Dawn 2014; Kaptein & Parvinen 2015; Radu & Maican 2015; Tran 2017; Esteves & Resende 2019; Shanahan et al. 2019) as well as within target audience and customer segmenting (Dibb 2001; Alderson 2006; Ortiz-Cordova & Jansen 2012; McDonald & Dunbar 2013; Dursun & Caber 2016; Boerman et al. 2017; Kotler & Armstrong 2018; Shanahan et al. 2019). However, studies which concentrate on the effectiveness of APG-based customized messages are scant or non-existent.

Scalable one-to-one marketing is probably every marketer's dream. Customizing marketing and advertisements for each recipient is tedious and time-consuming (Schreiner et al. 2019). It is not economically wise. Personas created based on actual user data are bringing us closer to the point where almost one-to-one marketing is possible. APG (Automatic Persona Generation) helps marketers, and others, create human-like representations of real people based on their behavior on various digital platforms in real-time (Salminen et al. 2018). APG stands for a method in which personas are created in real-time from actual data. Data may be from social media platforms, website analytics, or from any other platform or data source as long as the data has information on personal information such as age, gender, location, personal interests. These personas can be used for example in the creation of tailored advertisements for the people on whom personas were originally generated.

Tailored messages written to a particular, human-like persona with a face and name are thought to be more effective, more prone to be clicked on, than messages written based on a list of characteristics such as "this person likes football and cooking, age 35, male". Physical creation, e.g. writing, of a message is quite the same on both APG-based personas and characteristics listings. Difference can be found in the source material where personas have much richer data compared to a list of characteristics. Personas have personal information accompanied with facial images and descriptions about how people think of the world while a list of characteristics is just after what it is named. In this research customized or tailored advertisements are tested on social media. APG's speed in persona creation and updating them and consequent creation of customized marketing messages is something that has never been done in marketing before making this research a valuable addition for science. APG enables marketers to constantly update their per-

sonas in use by offering automated means to absorb vast amounts of user data from different digital marketing platforms and refine it to meaningful personas (Salminen et al. 2018).

Customizing marketing messages begins by audience segmentation. Marketer must be aware of one's audience's preferences and also this gives a marketer an advantage to target different messages for different audiences or user groups (Dibb 2001; Ortiz-Cordova & Jansen 2012; Kotler & Armstrong 2018). Segmenting the customer base acts as the basis for further targeting and message customization the ultimate form of which would be completely personalized messages, one-to-one communication. What makes marketing message personalization so desirable and wanted is that people usually receive and remember personalized messages better when compared to non-personalized message (Arora et al. 2008; Boerman et al. 2017). Marketers dream would be a constantly updating system where there would be a catalogue of each individuals personal preferences, backgrounds etc. on which marketing messages could be based.

In reality marketing in non-personal media is always more or less mass marketing. Customer or marketing message receiver segmentation is the first step towards a more personal way of communication albeit never to be fully reached. This has been traditionally made by guessing or with market research (Dibb 2001; Ortiz-Cordova & Jansen 2012; Kotler & Armstrong 2018). Market research tends to be slow in a world where ways of marketing and even channels develop faster than marketers can research their customers or potential customers. That's why a more rapid way of customer segmentation as the base of customized marketing messages has been called for.

1.2 The Aim of the Research and Its Structure

The aim of this thesis is to examine the effectiveness of customized marketing messages created with the assistance of data-driven personas (APG, or automated persona generation) compared to bare property or characteristics listings of consumers in social media advertising and to measure the value of APG to a marketer when reaching for different customer segments. Sub-questions are thus:

- How APG can boost the effectiveness (increase click-through-rate, CTR) of digital advertising compared to bare property lists of characteristics in social media advertising?
- What is the potential for APG to be a basis for creating customized marketing messages in social media?

Cross-testing is made for marketing messages and persona-based target groups as follows:

- targeted advertising to a certain persona
- targeted advertising to a property listing

Central theoretical setting of this study lies within persona utilization in customer or user segmentation (Cooper 1999; Tanudjaja & Mui 2002; Clarke 2015; Scott 2015; An et al. 2016; Zhang et al. 2016) and the effectiveness of targeted advertising (McDonald & Mouncey 2009; Wilson 2009; Bergemann & Bonatti 2011; Jansen et al. 2013; Kotler & Armstrong 2018). Here it is in focus to bring these two aspects together.

Methodology of this research is two-fold the first one being empirical data collection with Facebook advertising and the second being data analysis with statistical methodology. This is a case study where a company called Elämynslahjat is used as a subject to test APG's potential.

Here persona refers to a persona that has been created with an algorithm that has the ability to draw personas from social media or such platform user data that is formed based on real-life actions of social media users. Personas have properties such as personal image and name that lack from the bare property listings. Property list on the other hand is a collection of properties of a person without any further rich information of their appearance or name. Research is done in collaboration with Elämynslahjat which is an international organization selling experience gifts for mainly consumers.

Elämynslahjat has executed social media advertising, and other digital advertising, for years and during that time they have gathered a considerable amount of data about customer behavior in social media and on their website. Here, utilization of the existing customer statistics to automatically generate personas and then the operationalization of these personas as saved target groups in Facebook is being executed. Groups of marketing professionals are used to generate advertisements for personas and for property listings in order to test the performance of ads written for personas against a control group (ads created on the basis of property listings).

Technology used for persona creation is called Automated Persona Generation (APG). It is a rather new technology and it has been developed at the Qatar Computing Research Institute (Salminen et al. 2018). In short, APG uses, when possible, hundreds of millions of user interactions gathered from social media platforms. Vast use of data makes it possible to create such personas with precision and especially speed never reached before. Traditional personas, and marketing personas as well, have been made from scratch and on the basis of marketer's expertise. "I think my buyers are like this" is not the case with APG. APG makes it possible to know what kind of people internet users are. This helps

companies adapt their marketing. Personas have been previously created by hand which is time-consuming. APG offers an automated and fast way for generating personas.

Personas generated are aggregated data-driven personas which means that they are a combination of a set of different criteria. This is mainly due to the way data is presented in social media advertising platforms, as data gathered on Facebook, Google, or YouTube or other typical online platforms is aggregated and includes, for example, age ranges, not specific ages, in order to protect the privacy of individual users.

Personas in their original form have been mainly used in software development and user experience design (Cooper 1999). Customer segments' willingness to respond to advertisements is being measured, i.e. click on them, when they receive customized messages on social media.

The research gap this research fills can be found within the realm of automatically generated personas' use in creation of customized marketing messages. A lot of research has been done with personas (for example Cooper 1999, Pruitt and Adlin 2006, Matthews et al. 2012) and also within marketing (for example Tanudjaja and Mui 2002, Clarke 2015, Scott 2015, An et al. 2016, 2017, Zhang et al. 2016) and a lot of research has also been done about segmentation and personalized marketing communication (Alderson 2006; Bergemann & Bonatti 2011; Ortiz-Cordova & Jansen 2012; Jansen et al. 2013; Boerman et al. 2017; Kotler & Armstrong 2018). There is no research in which any data had been used as the basis for automated, algorithm-based persona creation and no such personas' effectiveness have been tested within marketing on social media and this is this thesis' research gap.

Presupposition in this thesis is that the effectiveness of ads created with the assistance of APG will be boosted since APG grinds huge amounts of real-life customer data from social media and the website that is the grounds for creating personas. This should also give the information to whom advertisements should be targeted in social media platforms. The overall and presumed potential for APG lies within its speed in creating personas from any given existing data which makes it possible to adjust personas quickly and test when necessary.

Chapter 2 gives a glimpse to the background of marketing effectiveness and measuring it while chapter 3 is written on the methodology of the study. Chapter 4 presents the results found during chapter 3 and chapter 5 concludes the study accompanied with summary.

2 **MARKETING EFFECTIVENESS AND APG**

2.1 **Marketing Effectiveness and Its Measurement**

2.1.1 Marketing Effectiveness

Effectiveness of marketing can be realized in various ways but McDonald and Mouncey (2009) offer one way for successful measuring of marketing effectiveness. They give twelve guidelines within which are based for the idea of competitive advantage that companies pursue:

1. Understand the sources of competitive advantage
2. Understand differentiation
3. Understand the environment
4. Understand competitors
5. Understand your own strengths and weaknesses
6. Understand market segmentation
7. Understand the dynamics of product/market evolution
8. Understand your portfolio of products and markets
9. Set clear strategic priorities and stick to them
10. Understand customer orientation
11. Be professional
12. Give leadership

This research assumes that some of these twelve points are known by the company under inspection (Elämyslahjat) but points 2, 3, 6, 7, 8, and 10 are in focus, 6 and 10 in particular. Company must differentiate from its competitors as such and with its products and services and one must also understand the environment where the company operates. Real-time purchase as well as real-time customer data help a company to better adapt to its changing environment (McDonald & Mouncey 2009).

Understanding market segmentation is one key point in McDonald and Mouncey's (2009) presentation. They state that the secret for success in marketing is to change the offer for each buyer or potential buyer. This is a direct derivation of the fact that not all customers are alike in a broad market. It is also important to recognize the difference between positioning and segmentation. A company may posit itself anywhere but and effective positioning helps developing successful customer segmentation as well. And once the segmentation is done, act accordingly meaning that the company must serve the segment to the fullest. According to McDonald and Mouncey (2009) this means understanding the market and how it works as well as having clear in mind that who buys,

where, when, what, why they buy it, and based on this information marketer should find for more people that closely resemble these customers and have similar needs.

The seventh point refers to the ever-changing markets where marketers must be quick and adopt to the change. One must not keep on the same way of doing or same concepts if and when the world around is constantly changing. The eighth point summarizes that a company and its set of products or services cannot be all to all people. One must know what they sell and to whom (McDonald & Mouncey 2009). The tenth point tells the marketer to listen to the customers in any way possible. After all, it is them who make the revenue, not the great products. Customers are the arbiters of quality and in the end they weight whether a product or a service is worth buying and even before that they weight whether a marketing message is worth reacting.

2.1.2 Measuring Marketing Effectiveness

Measuring the effectiveness of marketing is anything but simple. Yet some general metrics have been developed (Wilson 2009). Wilson (2009) presents four metrics that have been found useful when determining the effectiveness. They are:

1. Breaking down measures of marketing and sales effectiveness by the stages of the buying cycle
2. Implementing marketing measurement techniques across a wider organizational base
3. Managing the overall return on investment holistically across channels
4. Bringing multichannel metrics into the boardroom

The first point refers to the importance of the fact that a marketer must be aware of when and with what message people are reached in each stage of the buying cycle. Measuring is made possible with such metrics as cost-per-acquisition that determines the average cost of purchase. This can be measured in each stage of the buying cycle if the buying cycle is clear and communication can be determined between each stage.

The second point refers to a situation where the impact of multiple marketing initiatives are tracked within the sales cycle (Wilson 2009). The stimulus to, for example, buy can usually be determined but their combined strength cannot. People are reached multiple times and it is impossible to say which manner of communication made the sale in the end. This can be somewhat tackled with control groups, a widely used marketing effectiveness method. In its simplest for this means that one group gets a certain marketing message, the other group does not get it and the performance of these two groups is then compared (Wilson 2009). This way it is possible to say whether the original message had any effect whatsoever.

The third point takes into consideration that there are, usually, multiple channels acting simultaneously. It is noted that cross-channel effectiveness may be difficult to measure but it shall not prevent one from trying (Wilson 2009). Since the case is usually that no marketing channel works independently, which has led to expense-to-revenue kind of approach for the whole array of channel rather than channel by channel by some scholars. This way it is possible to better track the attribution of all the channels for the outcoming result such as revenue. When accompanied with econometrics methods that exclude some variables out of the equation it may be even more fruitful to summarize the effects created by each channel.

A widely used manner to monitor the market environment is market surveys (McDonald & Mouncey 2009). They are usually quite heavy procedures and tend to take some time from start to finish. Similar approach has also been used by for example Angulo-Ruiz et al. (2016) in their study of how different methods and channels of marketing can affect the study decisions of university students. Statistical analysis for website performance has also been executed (for example Lwin & Phau 2013).

2.2 Customer Behavior and Marketing Communications

Buying behavior works as the fuel for APG and from that data it manages to draw personas. Consumer buying behavior in general is defined for example (Stankevich 2017) and (Engel et al. 1995) who see it as “a search for, select, purchase, use, and dispose of goods and services in satisfaction of their needs and wants” (Stankevich 2017) and “the acts of individuals directly involved in obtaining and using economic goods and services, including the decision processes that precede and determine these acts” (Engel et al. 1995). During APG persona creation, consumer buying behavior is being used as the basis for customer segmentation and personification (Salminen et al. 2018).

Understanding customer behavior also helps understand the ways in which a marketer should communicate to these groups and somewhat predict their behavior (Barry & Howard 1990). This has direct link to traditional consumer behavior studies and models one of which is AIDA model (attention, interest, desire, action; Fig. 1) developed and first introduced by E. St. Elmo Lewis to visualize the physical or psychological steps a potential customer must take before purchase. Advertisements role is seen to be first in raising awareness, then creating interest, then desire, and finally initiate action/purchase (Im et al. 2019). AIDA was developed to visualize customers’ purchase behavior and later it has been used to explain the effectiveness of marketing and advertising (Wijaya 2012; Lemon & Verhoef 2016).

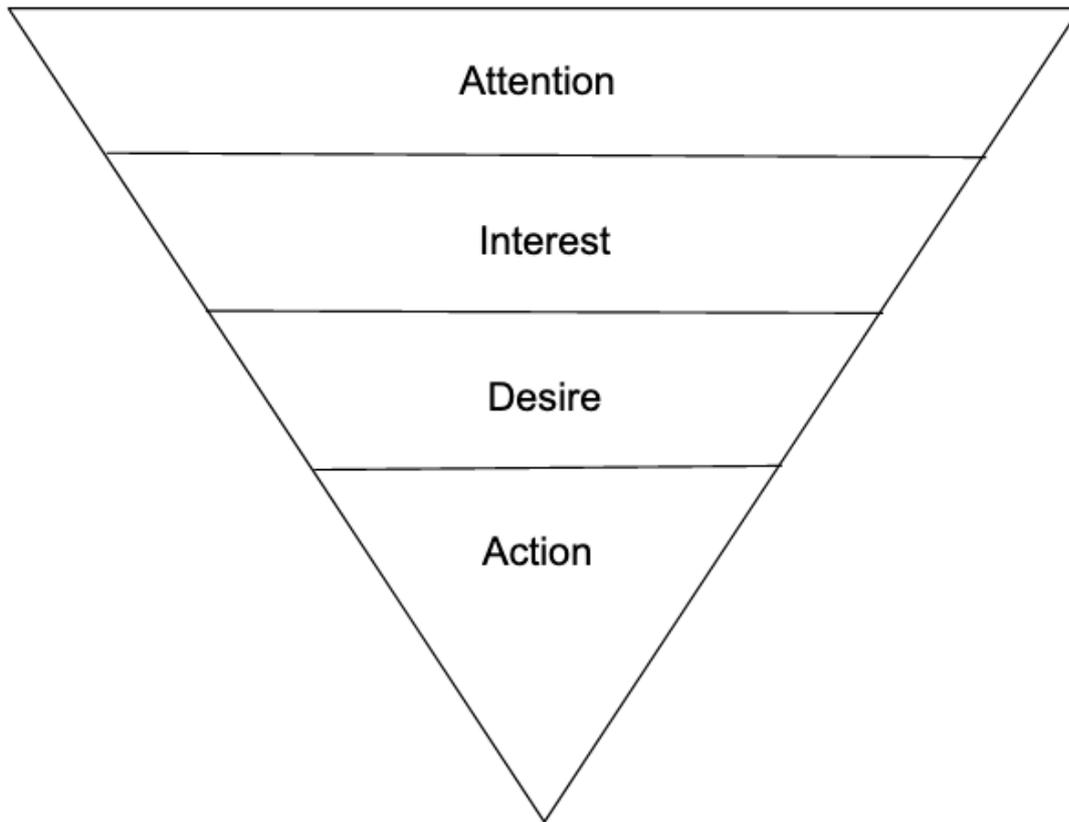


Figure 1. AIDA model. After Wijaya (2012).

Pre-purchase, purchase, and post-purchase phases are recognized as the stages of purchase process (Lemon & Verhoef 2016). In pre-purchase phase the potential customer goes through stages of product or service recognition, information gathering about the product or service, and consideration. Personas, being representations of real-life people, are seen as the most prominent people to take action on a marketing message that is being shown to them. Each real-life person, and therefore the built persona, has its own values, history as a consumer, personal characteristics, and attitudes that lead him/her towards the final action or purchase (Engel et al. 1995).

Advertising has been seen as a driving force for the receivers to make them act (Lavidge & Steiner 1961) and digital environment has brought its own flavor to the traditional purchase funnel thinking. Its validity has been questioned by some scholars (Jansen & Schuster 2011; Hall et al. 2016). To say the least, online marketing has at least changed the funnel and the environment in which people make decisions (Wolny & Charoensuksai 2014) but then again one has to remember that human's themselves and their characteristics remain the same no matter if the decision making is taking place on the internet or in an offline setting (Punj 2012).

The importance of producing just the right content for the potential customer in an online setting in the right time considering their phase or stage in the purchase funnel has

been noted (Rangaswamy et al. 2009; Wolny & Charoensuksai 2014). The boundary between online and offline environments gets somewhat fuzzy for the consumers and usually a mixture of online and offline touchpoints are encountered by customers before the final action or purchase (Rangaswamy et al. 2009). Thus, people may be familiar with the brand from multiple sources, not just the one a marketer thinks. For example a Facebook advertisement can act as an initiator in multiple stages of the purchase funnel (Facebook 2020) while other online or offline channel, including for example web search, can accompany the customer journey through the purchase funnel (Jansen & Schuster 2011).

Every consumer has its own motives, personal characteristics, and attitudes that have a significant effect on the decisions one makes and prior to that the ability of a person to recognize needs and find information to fulfill these needs and weigh between different solutions. Psychology plays a huge role and his/her experience in the buying process effects the ways one makes decisions (Smith & Rupp 2003). Despite all the critique towards traditional AIDA model in an online environment, it has been shown that the funnel represents people's real-life purchase behavior in an online environment thus still making it a tool for online purchase behavior studies (Jansen & Schuster 2011).

2.3 Segmentation and Personas

Roots of customized marketing and marketing messages lie in customer segmentation. Same ways of communication have been used in mass marketing in hope for big customer pool (Kotler & Armstrong 2018). The purpose of segmentation is important since it helps matching supply with demand (Alderson 2006). Tendency is that any given company is pursuing a certain segment of customers, not everyone on the planet. Companies group people in order to form one or more, internally homogenous groups of people that vary from any other given group by their product preferences, buying behavior, demographics etc.

Segmentation gives marketers certain advantages. It helps narrow the potential audience in order to reach potential customers with more preferable messages. If no segmentation is done, company's offer may be a little off from the target audience's preferences (Dibb 2001). McDonald and Dunbar (2013) have given five advantages for segmentation the goal of which can be understood in a deeper understanding of target audience:

- Recognizing differences in different customers is the key element for successful marketing. It helps companies get closer to the needs their customers.
- Segmentation helps companies find their niche. When companies' segmentation gets deeper, they can dominate within that particular segment which is not possible with the whole market.

- Segmentation allows companies to see which segment is giving the most profitable and have a huge competitive advantage. They can allocate resources to serve that specific segment.
- Segmentation helps companies serve markets different from their competitors’.
- A company can be marketed within a market segment if customers are understood, given products or services in a better way. This gives a company an edge over competitors.

Digital environments have made it possible to gather and use huge amounts of consumer data during the past few years. These data can be also used as the basis for consumer segmentation (Ortiz-Cordova & Jansen 2012). These consumer segments are quite easily produced, and data is offered by third party suppliers such as digital giants Facebook and Google. Data from companies’ own databases as well as freely available data sources is used by companies to form groups of customers. Data from social media platforms is becoming ever more important for individual companies and data from these platforms is used for example to recognize customers’ or potential customers’ age, gender, and behavior (Jansen et al. 2013). Segmentation based on prior buying behavior in accordance with current internet behavior is also used as grounds for segmentation (Dursun & Caber 2016). For example, Dursun and Caber (2016) use a hotel chain’s CRM data with website data to reveal customer segments that are the most or the least likely to stay at the hotel and spend the most or the least money there. They recognized eight segments within this data:

- loyal Customers
- loyal Summer Season Customers
- collective Buying Customers
- winter Season Customers
- lost Customers
- high Potential Customers
- new Customers
- winter Season High Potential Customers.

Nowadays it is important to define company’s target market. One must know their audience better than ever since people have become more demanding and they for example vote with their feet more easily. Groups or segments are used as the basis for differentiated, custom marketing communication. Just like developing a product for a certain segment of customers, marketing executed for a certain segment presumably increases its

effect (McDonald & Dunbar 2013). Segmentation and segments accordingly serve as the foundation for personas.

Persona is a fictitious representation of a known or presumed target audience member (Cooper 1999; Matthews et al. 2012), a representation of a larger user group (Nielsen & Storgaard Hansen 2014). It is a detailed consumer profile representing a specific group, or a segment, that has similar preferences, personalities, behavior etc. towards a certain service or product (Pruitt & Adlin 2006). Persona is a user archetype who is defined by its needs, goals, and tasks (Cooper 1999; Nielsen & Storgaard Hansen 2014). Using personas has originally been introduced in computer software design where the need for understanding user behavior is crucial in order to develop features and functionalities that the end users are willing to use. The concept of personas was first introduced in the book *The Inmates Are Running the Asylum* that also introduced the concept of goal-directed design which means that a piece of software has always a purpose in fulfilling the goals of its user in a simple manner (Cooper 1999).

Cooper's initial idea in goal directed design was that design process has to be done the user in mind and before programming and, especially virtual in the context of personas, design and program a piece of software with one user in mind (Cooper 1999). This idea was surprisingly new at the end of the 1990's. Developing personas, although initiated within the field of marketing, has been conducted in several other fields of research as well, including, among others, software industry, e-health, video games, and online security (Dantin 2005; Tychsen & Canossa 2008; Judge et al. 2012; Wärnestål et al. 2014; Anvari et al. 2015; Dupree et al. 2016; Zhang et al. 2016).

Creating personas is all about better understanding of a company's target audience (Pruitt & Adlin 2006). Traditional way of creating personas has been bare thinking. This is time consuming and unprecise. Using data sources for persona creation has enabled fact-based persona creation that takes into account actions already made by real people, by real customers or potential customers (Pruitt & Adlin 2006).

Personas are defined through their needs, goals, and tasks (Cooper 1999). Personas have also been seen as representations of customers with data (Pruitt & Adlin 2006). Personas have their origins in user experience design and software development (for example Cooper 1999, Rönkkö et al. 2004) but their use have been broadened to several fields of research and development such as video game development (Tychsen & Canossa 2008), health and security business (Jain et al. 2013; Wärnestål et al. 2014; Dupree et al. 2016), and also into the field of marketing (for example Tanudjaja and Mui 2002, Clarke 2015, Scott 2015, An et al. 2016, Zhang et al. 2016).

Marketing personas have been a method of describing the real, wanted, or imagined target audience since the 19th century. These marketing personas, or buyer personas, have been valuable tools for marketers and also for product designers and engineers since they

have been seen as an image of real-world people. Essentially, marketing persona is a representation of a potential buyer for a particular company's offering (Scott 2015). They are based on existing marketing data, for example sales data that may include information on what kind of people are buying a certain offering, but they may also be created or invented on the basis of marketer's own vision of what kind of people he or she thinks would be buying their offering.

Marketing/buyer personas have goals in their actions (Scott 2015). Each of these personas carry a biography in which there a information on their demographics, goals and aspirations, what is important for these people in each group, what kind of language they use i.e. is there a way to make them more comfortable by writing in a certain way, which channels they use where the marketer could reach them? This information has been traditionally gathered with interviews (Scott 2015). Interviews, reading magazines the buyers read, and monitoring channels they follow help marketers identify the way people behind personas act in different situations.

When persona creation is brought to digital environment, use of big data comes to play a role. Digital systems and algorithm-based creation methods make it easier for any given group to create personas from data they have on their customers or potential customers. It is this almost real-time persona creation which is enabled by digitalization that helps defining personas quickly and efficiently (Chapman & Milham 2006). Within marketing this means that personas can be generated quickly thus making it faster for content creators to create content for testing on digital platforms such as Facebook and Google.

Even in the beginning of search engines people have been familiar with the concept of the relevant results. As early as 2002 Tanudjaja and Mui (2002) figured out that personalized search results are the key for customer satisfaction. In their research on search engines they revealed the importance of customized search results on the basis of, for example, time and historical context. All factors, including these, are parts of the soup that finally boils to personified search results. In other words, search queries are filtered through individual user profiles and taxonomy systems (roughly synonymous with personas) to ensure relevant results for the user. This method works in two ways: user executes a search and algorithm gives the results. Then the user gives feedback to the system by clicking or not clicking the results. This tells the system whether the results have been relevant or not. Then the algorithm is adjusted to give better results for that particular user (Tanudjaja & Mui 2002).

2.4 Customized Marketing, Targeting, and Personalization

Customized marketing and personalizing marketing messages have been an everlasting goal since the early days of advertising. Back in the day when advertisements were presented on a stand outside a store, it was quite difficult to impress everyone walking by

with the same message. Magazines and newspapers as well as tv and radio channels have and have had their own target audiences but still the message is the same for each reader, watcher, and listener. They are mass medias and the same message is read by a set of different people. There is almost no user segmentation information available. Even in the early days of advertising research, there has been recognition given to the fact that the ad must catch the attention of its receiver before it can deliver its message (An et al. 2016, 2017). And already a hundred years ago, one problem catching people's attention was the number of different media which, as we know now in the digital age, has been growing ever so much.

Customized marketing in digital environments stands for the pursue of a company in which its goal is to tailor its marketing mix with a specific target audience in mind (Dawn 2014). Its goal is to find ways for delivering marketing messages for individuals in a way that is the most appealing for them. It aims to select best content for each individual based on individuals' differing properties (Kaptein & Parvinen 2015). When working in a non-digital environment, it is quite impossible to gather data on people's behavior when they see or hear advertisements. In digital environments this kind of data is gathered on regular basis from different kinds of actions people take on advertisements (Boerman et al. 2017; Schreiner et al. 2019).

In short, targeting improves the match between advertisement/message and the receiver (Bergemann & Bonatti 2011). This is found true in offline and online media. Customizing traditional, non-digital, marketing messages has shown positive impact on customer relationship and loyalty, better purchase intention (Schreiner et al. 2019). It is also found that people tend to be more negative towards customized marketing messages while customizing traditional letters has been found the most positively received way to use customized marketing messages (Yu & Cude 2009).

Expected benefits from personalized advertisements lie mostly within one to one marketing and customer relationship management (Vesanen 2007). This means mainly cost benefits for the advertiser and benefits for the customer through better match on communication and experience and receivers personal properties (Peppers & Rogers 1999; Panjwani et al. 2013). In online environment this means that personalized advertisements are usually generating more clicks on ads for example when compared to non-targeted, non-personalized message. In other words, advertisement is a better match with receiver's personal properties and his/her attention and response is easier to get.

In the era of digital marketing, the amount of data gathered from people on the internet has increased a lot compared to days when almost no data was gathered. Today's digital giants, Google and Facebook for example, are gathering a lot of data of their users and this data is being used for advertising and advertisement targeting purposes (Boerman et al. 2017). This information makes it possible to target marketing messages for example

for a woman who is 25 years old, lives in Helsinki, is interested in dogs, is married, and has visited advertiser's website within a week. Data to do this is gathered for example from users' web browsers, their login information, user information, and behavior inside and outside these services. And this data is from people who are not necessarily your customers yet.

Personalized marketing messages make it possible to communicate in a more personal manner and this is usually the outcome of well-performed segmentation and understanding the customer (McDonald & Mouncey 2009; Wilson 2009; Bergemann & Bonatti 2011). Personalization itself can be seen as using customer information while delivering a targeted message to a potential customer (Peppers & Rogers 1999). Personal communication is usually received and memorized better (Arora et al. 2008; Boerman et al. 2017). It feels that the advertiser is talking directly and specifically to the person seeing the ad. This gives the receiver a more trustful image of the advertiser and most of all in the modern era of internet advertising, it saves advertisers' money while the ad message is targeted to the right people at the right place at the right time.

"Know your audience." This has been and still is one of key points in marketing. As a marketer you have to know to whom you are marketing. What they like, how to get their attention, and how to pursue them to buy. Once this was, and to some extent still is, made by thinking who the people are potentially buying your offering. Marketing personas have been around as long as marketing but their basis have been created from scratch (Scott 2015). Marketing messages were built on these, sometimes possibly false, basis for each potential target audience. Today's digital marketing environment enables possibilities for creating and testing and iterating such marketing personas.

One might have an offering that is being marketed (advertised) in digital media and the outcoming results are used in refining personas. A lot of data is gathered by medias (Google and Facebook for example) and this data can be used in advertising purposes and in results' analysis. For example, demographic, socio-economic, and locational information are open for advertisers as aggregated data (Facebook 2019; Google 2019). Marketers can use these data to validate for example the effectiveness of ad texts to different target audiences. There is no need for guessing anymore.

This, on the other hand, makes it possible for marketers to customize messages for different target groups and they can be sure those ads are visible only for people in those groups in a way that has never been possible. Personalized marketing can be done even in a way where users' actions within a particular media (Google, Facebook etc.) are used as the targeting basis for advertising or their actions within separate websites are used as the basis for targeting. It is possible to create ads for people who have visited a particular product site in a web store and who are men aged 25-28 (Bergemann & Bonatti 2011; Boerman et al. 2017). This gives a whole new precision for customized marketing where

messages can be customized for extremely narrow set of people. Messages can be personalized to extent where they are almost tailored for each individual.

This study brings new insight on customized marketing messages and their effectiveness when created with the assistance of automated persona generation (APG). In this method data gathered while advertising on digital media is used as the basis for persona creation and these personas are further used as the basis for customized advertisements. This brings marketing to a new level of precision while introducing a potential tool for marketers to use their huge amounts of data to improve their on-going marketing (Salminen et al. 2018).

As a remark it could be said that based on prior research (for example Arora et al. 2008, McDonald and Mouncey 2009, Wilson 2009, Bergemann and Bonatti 2011, Boerman et al. 2017) it is clear that segmenting a company's customer base and creating personalized marketing messages based on that segmentation has a positive effect on the productivity of marketing. That is the main reason for segmenting customers in the first place and when personas may bring value on top of mere segmentation, using them is recommended.

2.5 Automated Persona Generation (APG)

Traditional way of creating personas is by manual work. One may think of a character and generate a persona based on that thinking (Cooper 1999; Pruitt & Adlin 2006) or based on data and manual work (Scott 2015). Problem with such persona generation methods has been that they are not based on first hand user data but rather on proxy data or some sort of indirect data and observations (Khalayli et al. 2007). An et al. (2016) presented a new method in which they were able to combine data considering demographic, topical interests, and link sharing from Facebook, Twitter, and YouTube. They were able to form personas based on these data in real-time.

An et al. (2016) combined millions of data points from hundreds of thousands of social media users to form personas in real-time and were the first to introduce the concept of Automated Persona Generation (APG). APG means a method in which personas can be created in real-time from actual data. Data may be from social media platforms or from any other platform. Framework for APG process is described below which was first introduced in this form by An et al. (2017). In Figure 2, V ($g \times c$ matrix) stands for the matrix that is composed of g (user groups) and c contents (An et al. 2017). An element for the matrix V may be any statistic representing user group g 's interaction with content c . User group g may be an individual person if such level data is available so APG method can be applied on individual level as well as aggregated-level data. Matrix V is equal to a few factors namely W , H , and ε where W represents how each user group is character-

ized by different patterns of content consumption. H represents common patterns in content consumption and ε in the error term (An et al. 2017). In matrices W and H letter p stands for the number of latent factors namely behavioral patterns.

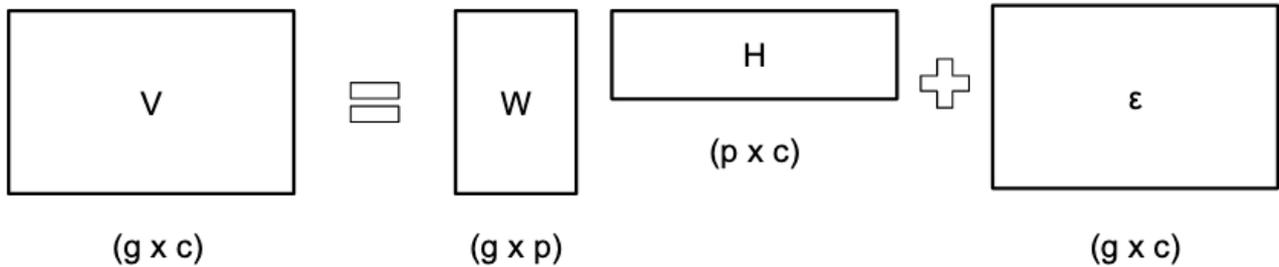


Figure 2. The composition of APG method (after An et al. 2017).

APG creates possibilities for different fields of study to use personas in a fast and flexible way. Using huge amounts of real-time data from different sources through, for example, social media platforms' API's enables seamless creation and updates to personas (An et al. 2016; An et al. 2017). Further examples of APG may be found for example in Salminen et al. (2018) where similar composition as in An et al. (2017) was used to generate culturally adaptive personas. APG's potential in customizing marketing messages, i.e. in advertisement creation, has not been tested and this is also the research gap this thesis is filling. Salminen et al. (2018) also summarize APG in five steps:

- data collection from social media platforms
- detection of distinct content interaction patterns by matching demographic groups and content
- detection of dominant demographic groups from the set of patterns of content interaction
- creation of persona prototypes by selecting demographic attributes
- enrichment of the prototypes with user attributes (e.g., name, photo).

3 METHODOLOGY

3.1 Context and the Environment

3.1.1 Context

Elämyslahjat is a multi-national, Finland-based e-commerce company and a part of Tinggly Group both of which concentrate mainly on selling experiences for gifts for a variety of target audiences (Elämyslahjat Oy 2020; Tinggly Ltd. 2020). No physical artefacts are sold. At the moment they operate in Finland, Estonia, Latvia, Lithuania, and Poland (Elämyslahjat Oy 2020) and they have over 1300 different experiences on sale. They operate mainly in an online environment, but they have three brick-and-mortar stores in Finland as well. Tinggly Group itself offers experiences in over 100 countries worldwide (Tinggly Ltd. 2020). This goes together with the idea of non-material gifts and their up-rising.

Some studies have shown, especially in the social media context, that giving a gift, no matter what it would be, is mostly about creating an experience for both the gift giver as well as the receiver (Chakrabarti & Berthon 2012). Following this, Elämyslahjat's slogan is "Anna elämyksiä, älä tavaraa" which translates to "Give experiences, not stuff". Elämyslahjat divides their experiences into several pre-targeted packages such as "gift for dad", "gift for mom", "gift for girlfriend", "gift for a person seeking culinary experience" etc. (Elämyslahjat Oy 2020). Everything Elämyslahjat sells is sent to buyer via email within minutes from purchase and speed is also one promotional aspect as well on their website.

Elämyslahjat has been using Facebook advertising since 2012 which makes it a prominent company for APG testing. The amount and date range of data in the realm of Facebook advertising is almost as long as it can be in Finland. The more data, the more reliable results when speaking of statistics.

In this research Elämyslahjat's social media, Facebook, advertising data is being used to test the possibilities of APG for a marketer. Data that has been used to create personas and property listings with APG has also been drawn from Elämyslahjat's Facebook advertising. Elämyslahjat produces a vast amount of multi-channel marketing and social media channels are one part of their marketing strategy. APG was first used for Elämyslahjat's website analytics data to form personas and property listings of their current customers. Key element was to recognize personas who buy the most. This face was not in the focus in this research, but it serves as the base for the second step in APG test utilization namely being the testing of personas and property listings with a set of ad writers to better recognize the possibilities of APG for better marketing. APG is automated and fast

and Elämyslahjat was used here to test whether it is also working as a tool for creating more effective marketing messages.

Data for the purposes of this research was collected with Elämyslahjat's Facebook Ads Manager (Facebook's advertising platform) during a Christmas campaign in December 2018 (December 9th - 24th 2018). The setting and data gathering are explained in more detail later in chapter 3.3.

3.1.2 Quasi Experiment Environment

The idea and the model of this research is presented in table 1. The aim of the research is fulfilled by answering two research questions which can be answered by empirical data collection and statistical evaluation. APG methods speed and usefulness in ad creation process are the main issues under inspection.

Table 1. Operationalization table.

| Aim of the research | Research questions | Theoretical background | How it is measured |
|---|---|--|---|
| Examine the effectiveness of customized marketing messages created with the assistance of data-driven personas (APG, or automated persona generation) compared to bare property or characteristics listings of consumers in social media advertising and to measure the value of APG to a marketer when reaching for different customer segments. | How APG can boost the effectiveness (increase click-through-rate, CTR) of digital advertising compared to bare property lists of characteristics in social media advertising? | APG's speed and preciseness in persona creation enables users of personas to make better decisions while creating ads compared to a situation when personas are not used in decision-making (chapters 2.1, 2.2, 2.3, 2.4, 2.5) | A test setting where marketing professionals create ads on social media for personas and for a list of characteristics. These ads are then run on social media and the results are analysed and compared. |
| | What is the potential for APG to be a basis for creating customized marketing messages in social media? | APG's potential in other fields of study has been proved and now it is tested in the realm of marketing (chapter 2.5) | Answer to research question 1 in accompany with results from studies on other fields of research. |

This study uses quasi experimental setting as its main approach to the subject. Quasi experiment differs from a traditional test setting in a way that it lacks randomness in its test setting (Shadish et al. 2002). Like any other test, quasi test tests whether it is possible to describe a causal hypothesis by altering or manipulating causes. The lack of random assignment is the only factor differing quasi experiments from traditional test settings. In this thesis the non-random factor is the people writing marketing messages since they were chosen within a pool of marketing experts. The main thing to measure was in any case the differing texts written on differing instructions and instructions were based on 1) persona data and 2) list of characteristics.

Quasi experiments in general are somewhat researcher dependent since the one conducting the study has to decide which factor are plausible after which one must use logic, design, and measurement to assess all possibilities and if they are causing any observable effect (Shadish et al. 2002). Quasi experiment can also be seen as falsificationist since it requires experimenters to identify a causal claim and examine and generate plausible alternative explanations that might falsify the claim at hand. The challenge might be that the quasi-experimental setting offers a credible proxy for any random assignment (Goldfarb & Tucker 2014). This poses a similar idea towards quasi experiment as for example (Shadish et al. 2002).

Goldfarb & Tucker (2014) have summarized quasi-experimental setting marking that each study using quasi-experimental setting should answer the following questions:

1. Research question: Do we care whether x causes y?
2. Identification strategy: Does x really cause y to shift?
3. Mechanism: Why does x cause y to shift?

This is classical, randomized test setting but with some conditions or doubts. Best quasi settings usually start with, not the data, but researchers asking themselves “Would someone care if I showed that x leads to y?” The objective would be to, of a quasi-experimental research, find an approximation of a random assignment (Goldfarb & Tucker 2014). In its simplest form, a quasi-experimental research setting consists of similar groups, control group and study group, which is different from randomized setting. This kind of setting has been used in marketing for example by Zhang (2010) whose test subjects were two kidneys from the same donor. This kind of approach has a presumption that there are similarities in the study (treatment) and control groups. Data analysis is usually performed with regression analysis to see whether the insertion of any wanted interference has had any effect on the performance of these two groups (Goldfarb & Tucker 2014).

This research utilizes a quasi-experimental environment to test whether a group of marketing professionals are able to produce advertisements for a given group more appealing or more efficiently with the help of APG-based personas rather than based on a list of characteristics.

3.2 Persona Creation with APG

APG method was used on website analytics data from Elämyslahjat and it generated two different personas, persona 1 and persona 2. Due to commercial secret restrictions, further thorough description on the algorithm is restricted. After Salminen et al. (2018) the persona creation process includes the following steps:

- Data collection from website analytics platforms
- detection of distinct content interaction patterns by matching demographic groups and content
- detection of dominant demographic groups from the set of patterns of content interaction
- creation of persona prototypes by selecting demographic attributes
- enrichment of the prototypes with user attributes (e.g., name, photo).

These steps and therefore the whole persona creation process was made prior to this study. In a similar way to Salminen et al. (2018) Elämyslahjat's Facebook advertising data was used by APG algorithm to generate personas utilized and tested in this study. As the output of APG method two personas were created, one male and one female (Fig. 3).

Jussi Mies, 38, Helsinki

Jussi on 38-vuotias mies, jonka kotipaikka on Helsinki ja työ todennäköisesti Esimies. Hän pitää aiheista "Lahja miehelle", "Lahjaideat" ja "Etusivu". Hän käyttää useimmiten Pöytäkone-laitetta vierailukseen Elämystaljat.fi-sivustolla. Hänen keskimääräinen vierailuajansa on 1,9 minuuttia, ja keskimäärin hän vierailee 4,9 sivulla. Useimmiten hän tulee lähteestä Google.

Työ Esimies
Koulutus Yliopisto
Parisuhde Naimisissa

Vierailut Sivulla

- Lahja pariskunnalle | Elämystaljat.fi - yli 1000 lahjaideaa!
- Joululahjat 2018 - Toteuta unelmat elämyksellä | Elämystaljat.fi - yli 1000 lahjaideaa!
- Isänpäivälahjat - lahja isälle | Elämystaljat.fi - yli 1000 lahjaideaa!
- Dinner in the Sky® | Elämystaljat.fi - yli 1000 lahjaideaa!
- Lahja kahdelle | Elämystaljat.fi - yli 1000 lahjaideaa!

Veera Nainen, 26, Helsinki

Veera on 26-vuotias nainen, jonka kotipaikka on Helsinki ja työ todennäköisesti Esimies. Hän pitää aiheista "Lahjakortti", "Lahjaideat" ja "Etusivu". Hän käyttää useimmiten Matkapuhelin-laitetta vierailukseen Elämystaljat.fi-sivustolla. Hänen keskimääräinen vierailuajansa on 3,4 minuuttia, ja keskimäärin hän vierailee 6,1 sivulla. Useimmiten hän tulee lähteestä Google.

Työ Esimies
Koulutus Yliopisto
Parisuhde Naimisissa

Vierailut Sivulla

- Isänpäivälahjat - lahja isälle | Elämystaljat.fi - yli 1000 lahjaideaa!
- Lahjat Helsingissä | Elämystaljat.fi - yli 1000 lahjaideaa!
- Lahja miehelle | Elämystaljat.fi - yli 1000 lahjaideaa!
- Kaikki elämystaljat | Elämystaljat.fi - yli 1000 lahjaideaa!
- Koe Lamborghiniin voimat Ahveniston moottoriradalla | Elämystaljat.fi - yli 1000 lahjaideaa!

Figure 3. Personas generated with APG (translated to Finnish).

3.3 Gathering Data

3.3.1 Creating the Ad Copy Texts

The initial data gathering process was as follows:

1. Personas and lists of characteristics created with APG
2. Deciding the best metric for monitoring advertisement performance
3. Deciding the variable to measure
4. Instructions written for marketing professionals to write ad texts

5. Mapping potential marketing professionals
6. Dividing participants into groups/workflows
7. Instruction distribution for participants
8. Texts received from participants
9. Campaigns, targeting, and ads created in Facebook's advertising system
10. Running the ads for data collection
11. Exporting the results for further analysis

In order to reach for the two personas generated with APG in Facebook, a base for a Facebook advertisement was created. This was done to standardize variables that are present in every Facebook advertisement. A Facebook ad in a desktop environment (link ad directing people to an external website) consists of, from top to bottom, a copy text (the variable in this study), an image, a headline text, and a possible description and a call-to-action (CTA) button beside it (Fig. 4). These elements are controlled and mandatory except from description.

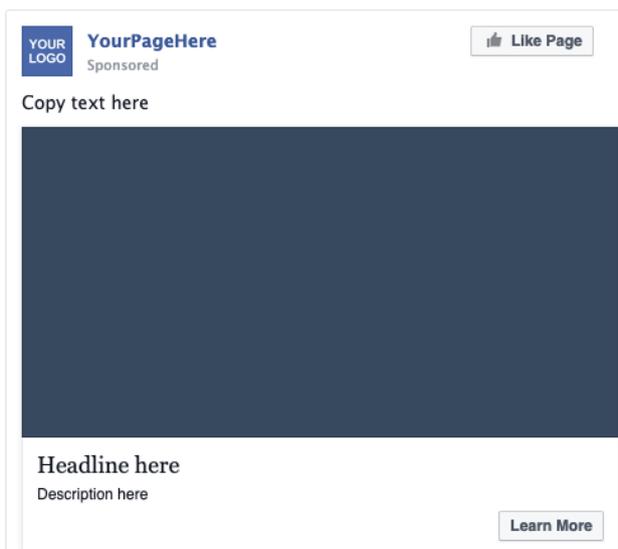


Figure 4. An example mockup of a Facebook advertisement in a desktop environment

To find out the significance of personified marketing messages in Facebook (McDonald & Mouncey 2009; Bergemann & Bonatti 2011; Ortiz-Cordova & Jansen 2012; McDonald & Dunbar 2013; Kaptein & Parvinen 2015), a test was performed. Test was a quasi-test which involved using marketing professionals as advertisement writers in two ways: writing advertisements/copy text for personas (two different personas) and for a control group (list of properties, two different lists with no persona information).

Test was made to gather data from Facebook to find out whether varying copy texts in ads based on the creation information (persona vs. list of characteristics) has significant

effect on the ad performance. Click-through-rate (CTR) was chosen as the significance metrics for the study since it gives the information on how many people of those who have seen the ad have clicked on the ad. CTR is hence the outcome metrics of Facebook ads in this study. Copy text, the text on top of the image, was the variable each marketing professional wrote for each persona and for each list of characteristics. A graphic representation of the data gathering is presented in figure 5.

The test included that a total of 34 marketing professionals were chosen and eventually divided into 4 groups (workflows). These people were recruited from researcher's near vicinity and they were chosen on the basis that they had to be marketing professionals who have experience in writing marketing messages. Background information such as experience in online marketing and with personas in years was also gathered as well as gender and age at the time. They were sent an email with a kind proposal to help in the research and instructions for creating ads (Appendix 1). Instructions were given in Finnish since ads were created in Finnish and for the Finnish market. Each flow had specific tasks in Finnish on how to create their copy texts in Finnish (Appendix 1). These instructions were sent for participants as Excel spreadsheets. Ad texts, created by the marketing professionals, were received via email. Same image was used for every advertisement run on Facebook as well as all other elements were standard besides copy text. These ad copy texts were later gathered, from emails sent by marketing professionals, in a separate spreadsheet to ease the ad creation process in Facebook's advertising system and to maintain information about which of the participants had written which text version.

If marketing professionals had any questions about the task, they were answered via email. Three of these 34 marketing professionals never sent their assignment and one's ad texts were rejected by Facebook's algorithm so in the end 30 texts were created in four workflows (Tab. 2). Anonymized set of background attributes of these marketing professionals is presented in table 2. In the end, 30 marketing professionals executed the given task. Each group had eventually their own flow of work, four workflows in total since there were four groups.

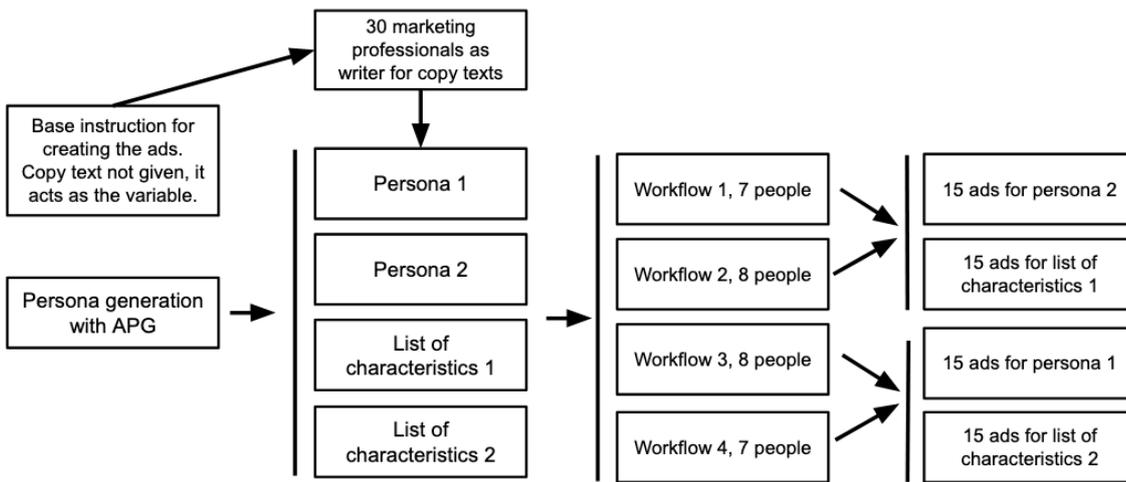


Figure 5. Flow chart of data gathering process.

Division into different workflows was made to prevent any bias in ads production. Four marketing professional groups were given flows for work. Flow 1 and flow 2 were the same as well as flow 3 and flow 4. Flows 1 and 2 had instructions to write ads for persona 1 and list of characteristics of persona 2, flows 3 and 4 had instructions to write ads for persona 2 and list of characteristics of persona 1. Personas and lists of characteristics are presented in Appendix 1.

The mix-up between workflow instructions was made to prevent people writing too similar ads for a persona and for a list of characteristics. Persona 1 was accompanied with character 2 and vice versa. Flow 1 had 7, flow 2 8, flow 3 8, and flow 4 7 writers. Only 30 of these people's ads were used since one was rejected by Facebook's advertising system. 15 writers were female and 16 were male. Genders were balanced between flows. Average experience of participants in online advertising was 3,95 years and experience using personas 1,93 years. Experiences in online advertising for identical workflows 1-3 and 2-4 were 3,73 and 4,13 years respectively. Individual characteristics of people creating ads (anonymized) are presented in detail in table 2. Hypothesis is:

- H1: Using automatically created personas (APG based) as the basis for creating advertisements on social media (Facebook) increase the effectiveness of the advertisements created when compared to ads created on the basis of property listings. This should be measured as increased click percentage (CTR) in persona-based ads compared to list of characteristics-based ads (control group) (Peppers & Rogers 1999; Bergemann & Bonatti 2011; Dawn 2014; Kaptein & Parvinen 2015; An et al. 2016).

H1's idea derives from the idea that people writing for personas write text more prone to influence the receiver than when written based on a list of characteristics (Cooper 1999;

Peppers & Rogers 1999; Bergemann & Bonatti 2011; Scott 2015). This assumption applies in other fields as well besides marketing. H1 is based on the idea that knowing your customers and targeting your marketing messages for them and people like them should give better results compared to random targeting (for example (Tanudjaja & Mui 2002; Chapman & Milham 2006; Pruitt & Adlin 2006; McDonald & Mouncey 2009; Dawn 2014; Kaptein & Parvinen 2015; Scott 2015; Boerman et al. 2017; Shanahan et al. 2019). In addition, writing marketing messages for personas is assumed to be more effective compared to writing them based on a list of characteristics. This is what is tested here.

Table 2. Characteristics of people who created the advertisements for the study.

Yellow rows were never received. The red row was disqualified by Facebook's advertising algorithm (profanity). The average experience in online marketing for flow 1 and 3 and 2 and 4 participants is presented also in the table.

| ID | Flow (1-4) | Age | Gender | Job title | Years of experience in online advertising | Experience with personas (1-4 where 4 is very experienced) |
|-----|------------|-------------|--------|-----------------------------------|---|--|
| P01 | 1 | 33 | Male | Digital Marketing Manager | 7 | 4 |
| P05 | 1 | 29 | Female | Business Developer | 2 | 4 |
| P09 | 1 | 31 | Female | Marketing Manager | 5 | 2 |
| P13 | 1 | 31 | Female | Lawyer | 1 | 1 |
| P17 | 1 | 25 | Female | Marketing student | 1 | 4 |
| P21 | 1 | | Male | | | |
| P25 | 1 | 25 | Female | Communication and GIS consult | 1 | 1 |
| P29 | 1 | 30 | Female | Visual designer | 2 | 1 |
| P03 | 3 | 30 | Male | Lead Digital Marketing Strategist | 3 | 1 |
| P07 | 3 | 48 | Male | Digital Marketing Entrepreneur | 10 | 3 |
| P11 | 3 | 23 | Female | Marketing Assistant | 1 | 3 |
| P15 | 3 | 28 | Male | Chief content strategist | 5 | 1 |
| P19 | 3 | 32 | Male | CEO | 6 | 1 |
| P23 | 3 | 30 | Male | Digital Performance Manager | 5 | 4 |
| P27 | 3 | 25 | Female | Project coordinator | 1 | 1 |
| P31 | 3 | 29 | Female | Digital Marketing Specialist | 6 | 1 |
| | | 29.93 | | | 3.73 | 2.13 |
| P02 | 2 | 28 | Male | Lead Digital Marketing Strategist | 5 | 1 |
| P06 | 2 | 30 | Male | Marketing Manager | 5 | 3 |
| P10 | 2 | 35 | Female | Digital Marketing Specialist | 2 | 2 |
| P14 | 2 | 27 | Female | Marketing Consultant | 5 | 2 |
| P18 | 2 | 30 | Female | Publicist | 3 | 1 |
| P22 | 2 | 34 | Male | Senior Manager | 7.5 | 3 |
| P26 | 2 | 31 | Male | Copywriter | 3 | 1 |
| P30 | 2 | | Male | | | |
| P33 | 2 | 32 | Male | Business Director | 6 | 1 |
| P04 | 4 | 28 | Male | Digital Content Manager | 5 | 1 |
| P08 | 4 | 35 | Male | Digital Marketing Entrepreneur | 4 | 3 |
| P12 | 4 | 29 | Male | Senior Consultant | 8 | 2 |
| P16 | 4 | 37 | Male | SEO Specialist | 4 | 3 |
| P20 | 4 | | Male | | | |
| P24 | 4 | 30 | Female | Product officer | 1 | 1 |
| P28 | 4 | 28 | Female | Lead visual designer | 3 | 1 |
| P32 | 4 | | Male | Digital Marketing Planner | | |
| P34 | 4 | 22 | Female | Digital Marketing Planner | 1 | 1 |
| | | 30.40 | | | 4.17 | 1.73 |
| | | average age | | | average experience in online advertising | average experience with personas (scale 1-4) |
| | | 30.17 | | | 3.95 | 1.93 |

3.3.2 Running the Ads on Facebook Advertising

After advertisements were created by our test groups, a set of Facebook advertisement targeting's were created according to each persona. These targeting's are called ad sets in Facebook Ads Manager and each ad set represents, in this case, a persona's or list of characteristics -person's information (gender, age, place etc.). A total of 12 ad campaigns and 60 ad sets and 60 ads were created, one ad in each ad set. Campaign includes an ad set or ad set's and an ad set includes an ad or ads (Fig. 6). All ad sets had people excluded who may be already familiar with Elämynslahjat. This means that people visiting Elämynslahjat's website during the previous 30 days or being a member of Elämynslahjat's mailing list were excluded from ad targeting in each ad set. This was done to prevent bias in ad performance since experience has shown people are more prone to click on something with which they are already familiar. Placement was chosen to be only in Facebook desktop or mobile environment after what was set by each persona's preferences to match each personas preference and to control the environment in which ads were shown. Altering the placement has significant effect on how the ads appear even though all texts and imagery would be the same.

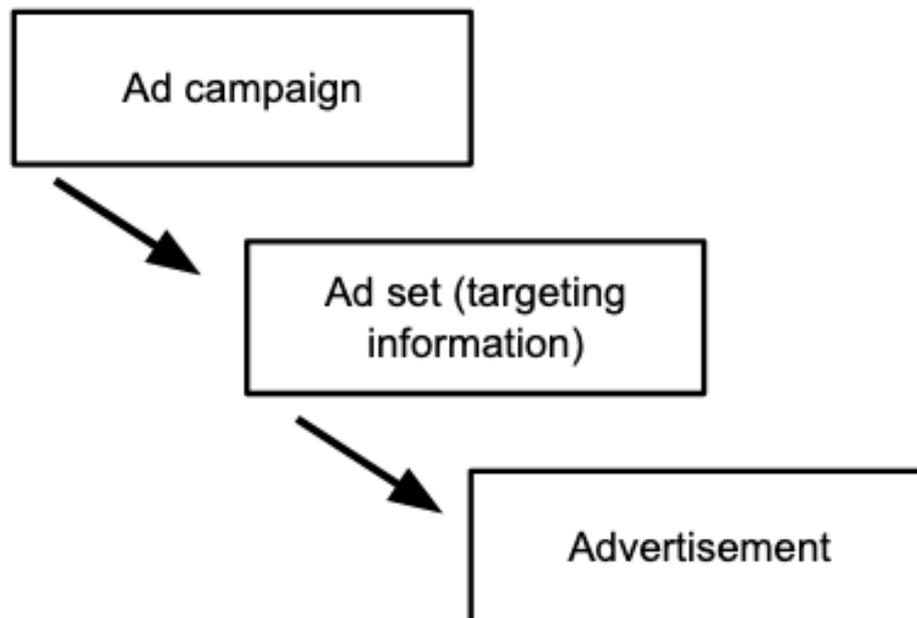


Figure 6. Hierarchy of Facebook advertising components

After setting this up, a split test was set up on campaign level. This was done in order to maintain an even ad distribution to target audience which may be quite easily compromised on Facebook when not using this test. Facebook split test tool works in a way that one can test the effectiveness of an ad creative. It makes it possible to show each ad evenly

to a target audience. Facebook's own algorithm does not show ads evenly to all people in any ad set but it tries to optimize ad performance itself. Split test was done to prevent this bias. There were 60 ads to test so the geographical area of our persona's was split. As can be seen from the persona instructions in Appendix 1, both personas generated by APG are from Helsinki area.

Finnish postal code system was used to balance the number of potential members of our persona groups in the Finnish capital area. Postal codes were hand-picked in a way that each of our six subdivisions (eventually to be used in campaign creation) had areas from all of municipalities in the capital area (Table 3). This was done to avoid bias in people's acceptance of ads in general. Hand-picking postal code areas was done to maintain even distribution of target audience members in each set of postal codes. That's why table 3 has varying amounts of postal codes in each segment since some postal areas have more people than others. Each of the six postal code areas were created with a target audience size of 1 600 people for the male persona and 1 300 for the female persona. This was 1/6 of the size of the entire target audience defined in Facebook

Different postal code areas presumably have different socio-economic characteristics, and randomizing geographical distribution was performed to avoid effects from it. Each municipality in the Helsinki area is represented in each of the six divisions. Each ad set was given a 14 days' time to run and a 50 € budget. Ads were run from midnight December 9th to midnight December 23rd, 2018. One campaign included 6 identical ad sets and each ad set had one individual ad in it. The amount of impressions was limited to a maximum of 5 impressions per 7 days. Ads were distributed in ad sets in a way that each campaign had ad sets including both types of ads. e.g. a campaign having 5 identical ad sets would have 2 ads written for personas and 3 ads written for list of properties or vice versa.

Table 3. Finnish postal code area division used as one parameter for ad distribution in Facebook.

| area 1 | area 2 | area 3 | area 4 | area 5 | area 6 |
|--------|--------|--------|--------|--------|--------|
| 00002 | 02230 | 00710 | 00400 | 00530 | 02200 |
| 00100 | 02240 | 00720 | 02320 | 00540 | 02160 |
| 00102 | 02250 | 00730 | 02330 | 00550 | 02170 |
| 01260 | 02260 | 00740 | 02340 | 00560 | 02180 |
| 01280 | 02270 | 00750 | 02360 | 02630 | 02120 |
| 01200 | 02280 | 00760 | 02380 | 02650 | 01230 |
| 00120 | 02290 | 00770 | 01700 | 01660 | 02140 |
| 00130 | 02300 | 00780 | 01710 | 01670 | 00190 |
| 02130 | 01490 | 00790 | 01720 | 00570 | 00200 |
| 02150 | 01510 | 00800 | 01730 | 00580 | 00210 |
| 01300 | 01520 | 00810 | 01740 | 00590 | 00220 |
| 01340 | 01530 | 00820 | 00410 | 01450 | 01680 |
| 01350 | 00960 | 00830 | 00420 | 01480 | 01690 |
| 01360 | 00970 | 00840 | 00430 | 00230 | 00350 |
| 01370 | 00980 | 00850 | 00440 | 00240 | 00360 |
| 01380 | 00990 | 02730 | 02600 | 00250 | 00140 |
| 01390 | 02860 | 02740 | 02610 | 00260 | 00150 |
| | 02920 | 02750 | 02620 | 00270 | 00160 |
| | 02940 | 02760 | 01630 | 00280 | 00170 |
| | 02970 | 02770 | 01640 | 00290 | 00180 |
| | 02980 | 00620 | 01650 | 00600 | 00930 |
| | 01750 | 00630 | 00500 | 00610 | 00940 |
| | 01760 | 00640 | 00510 | 02100 | 00950 |
| | 01770 | 00650 | 00520 | 02110 | 00900 |
| | 00860 | 00660 | | 02700 | 00910 |
| | 00870 | 00670 | | 02210 | 00920 |
| | 00880 | 00680 | | 00370 | 00300 |
| | 00890 | 00690 | | 00380 | 00310 |
| | 02780 | 00700 | | 00390 | 00320 |
| | 02810 | 02680 | | 02660 | |
| | 02820 | 02710 | | 01400 | |
| | | 02720 | | 01420 | |
| | | 01600 | | 00330 | |
| | | 01610 | | 00340 | |
| | | 01620 | | | |

A two-week time in December 2018 was chosen as the time period in which the ads were run. Running the ads means that during that time the ads were able to be visible to each respective target group. An ad being shown is also dependent whether a Facebook user is using Facebook during the time the ads are running. If one does not use the service, it is, of course, impossible to show him/her the ads within it. There were six ad campaigns on Facebook and the campaign objective for each campaign was reach. Reach was chosen as the campaign objective to prevent Facebook from optimizing advertisement only for those who are most prone to click on ads. Reach campaign format also enables frequency capping that prevents receivers from seeing the ads too often during a quite limited time of advertising (Facebook 2020). Campaign and ad set settings are listed below. These are settings that must be set every time a campaign and an ad set is set to run:

- Campaign:
 - Buying type: auction
 - Campaign objective: reach
 - No budget optimization was chosen
- Ad set:
 - Optimization for ad delivery: reach
 - Bid strategy: lowest cost
 - When you get charged: impressions
 - Delivery type: standard
 - Frequency cap: maximum of 5 impressions every 7 days

Ads were set to run all the time during the two-week period so no daily pacing was chosen i.e. ads could be shown at any hour of the day. Chosen placements were according to each persona's (Appendix 1) preferred device on Facebook feed (desktop or mobile). Ads were targeted on all operating systems since no preference was to be found in each persona. Each ad had, as shown in the tasks given to participants (Fig. 3):

- Copy text above the ad image (copy text varies between each writer)
- The ad image (same for all ads)
- Headline under the image (same for all ads)
- Call-to-action button beside the headline (same for all ads)
- Description was set not to appear on the ads, since it is not visible in most mobile ads and yet present in desktop ads.

After the ads had run, the data collected, namely CTR data for each ad, was exported from Facebook's advertising system as a .csv file for further analysis.

3.3.3 Collecting the Professional Views

In addition to quantitative data gathered with Facebook advertising, a dive into internet articles was performed. Several websites and blog posts from different actors in marketing were read through and analyzed. Since there is little to no scientific research on the subject at hand, automated personas, marketing companies' and agencies' material on the matter was used as grounds to reveal the meaning of personas in advertising. Personas as such are seen as important piece of ad creation process (for example Vinderslev 2015; Castillo 2018; Banicek 2019; Little 2019; Havice 2020).

This was done to back up the views that might come out of the quantitative analysis. Using automatically created personas as the basis for ads creation has applications specifically in real-life. Collecting was done by searching the internet for possible relevant

material. Click-through-rate improvement techniques were also investigated by analyzing blogs and writings by several marketing agencies and similar actors.

3.3.4 Researcher's Own Experience and Expertise

Researcher's own expertise on the subject matter has been of importance on a such topic that has not been scientifically studied too much in marketing. Researcher has worked in the field of digital marketing for four years since the study which has given him a considerable insight on the manners of working on that particular field. Working experience has considered creating advertisements for a range of different social media user groups as well as using digital advertising platforms for distributing the ads. Namely Facebook being one of those platforms. It has become clear that while an advertiser might think that "This is my target audience, and this is most appealing for them" is not necessarily even close to reality.

Digital platforms offer the possibility to test numerous versions of the same ad to find the best alternative for the target audience. Suitability can be tested with click rates or purchase rates, or with any given metric. Results of these tests are then used to repeat the best ways of connecting with the audience. It has come clear during researcher's own career that preferences tend to alter in the audience quite rapidly which makes it hard to say any waterproof truths of a certain audience's preferences in the long run. This is somewhat a problem because testing is never-ending, and tests reveal change in audience's preference after a while. They also reveal change in the audience itself after a while and these changes do happen.

In business environment testing is not done in a scientific way. Test in such an environment means that one figures out whether this or that works for this audience. It is also quite common that a customer company does not really know who the people are they are trying to reach in whichever media. A company selling logistics services may answer you that "They are logistics chiefs and CEO's" but this gives no information on the target audience itself. Being a CEO does not mean that you like golf or rock music, or that you read only news considering your own business. Companies have little to no idea on the personal traits of their customers which makes it difficult to create marketing messages most appealing for these people.

3.4 Analyzing the Data

3.4.1 Statistical Analysis

After data collection with Facebook advertising, the data gathered was ran through statistical analyses. As mentioned, CTR, or clickthrough-rate, was the metrics to monitor. For the purposes of the analysis, data was exported from Facebook's advertising system as

csv on advertisement level including CTR data as well as the information of the flow in which the ad had been written. The information whether the ad was written for a persona or for a list of characteristics was also preserved.

All statistical analyses were performed with SPSS v.25. To reveal the possible superiority of persona-based advertisements, variance analysis as well as t-test was performed for the data. Comparing means between advertisements written for personas and for lists of characteristics was considered to reveal the potential of persona-based ads if there was significant difference between them. T-test is used to reveal whether the possible difference between two means is a coincidence or not (Olkkonen & Saastamoinen 2012). Variance analysis on the other hand measures the dependence between two measured means. In this study it is measured whether it has an effect on the performance of the advertisements if ads are written for personas rather than for lists of characteristics. T-test has been used widely in marketing research and in measuring the effectiveness of marketing campaigns (for example Lwin & Phau 2013).

In addition to t-test and variance, non-parametric analysis methods were also applied. Such statistical analysis methods are commonly used with small sample sizes and with samples that are not or that cannot be assumed to possess normal distribution (KvantiMOTV 2014). Mann-Whitney, Kolmogorov-Smirnov, and Wald-Wolfowitz were also applied to the data since the sample size was quite small.

3.4.2 Analyzing the Qualitative Data

Internet blogs and similar writings were appropriately analyzed by reading them through to find cues of personas' meaning in advertising and the meaning of different CTR improvement techniques. A total of ten different articles or blog posts around the topic from several agencies and authors were analyzed to find answers to previous questions (Vinderslev 2015; Blinov 2017; Castillo 2018; Banicek 2019; Little 2019; Omneky 2019; Salenius 2019; Havice 2020; Markkanen 2020; Personas 2020). Articles were chosen in after a pre-examination to ensure there is something relevant in them to contribute this research at hand.

Textual analysis was made to reveal possible usage of personas in non-scientific environment and to reveal what kind of elements are used to increase click-through-rates by marketing agencies. Personas are seen by many actors as a recommended basis for understanding one's customers and their behavior on the internet and especially on marketing platforms and in social media (Vinderslev 2015; Blinov 2017; Banicek 2019; Salenius 2019; Havice 2020; Personas 2020).

The results of statistical and textual analyses are presented in chapter 4.

3.5 Reliability and Validity of the Study

Statistical methods used in this study are commonly used to measure differences between mean values of two or more separate variables (for example Olkkonen & Saastamoinen 2012). This way it gives this study method-wise validity. Research question set is simple and formulated in a way it can be answered with statistical methods after data collection. Quite simple setting with one measured variable, CTR, for which data has been collected and further analyzed. Data collection has been documented properly and executed with care. Analysis methods were chosen to best measure differences in mean values between two groups and data was gathered particularly for this purpose. Accompanied with study's reliability it should be noted that measuring CTR for a set of ads and for a defined audience might not be the only metric to measure. Social media platforms offer other performance metrics as well which may be considered of value in this kind of research.

Quantitative data has its own limitations by its conciseness. Using narrow number of marketing professionals as writers did not allow large scale data gathering which has an effect on the data and thus on the results of statistical analysis. This might have an effect on the fact that statistical significance was not reached in the analyses. This narrows the possibilities of reliable results.

Validity of the qualitative, article, analysis is also estimated. It was introduced to enforce the findings from quantitative analysis. Since the topic of automatically generated persona's usage in marketing is quite new, there is hardly any scientific literature on the topic. There are, though, writings made by various actors on the internet that serve as incremental data for statistical analysis. This applies also for methods and best practices for increasing CTR in an online setting which as a topic has been widely tested by practically any online marketing agency. It should also be noted that researcher's own background is in online marketing where such testing to increase CTR in an online environment is performed on daily basis and sometime multiple times a day based on current results. It should be mentioned that every writer in the industry most likely has their own perspective to the subject matter that with most certainty has an economical aspect to it.

Reliability of the study can be thought in two ways, namely data gathering process's reliability and analysis reliability. Ad creation process has been purposeful in a way that writers were chosen by their knowledge in online marketing. They had to have experience in digital marketing which makes them somewhat a homogenous group. Even with unified and well-defined personas as the basis for writing ads, each professional has their own touch to marketing and writing.

Chosen analysis methods are old and widely used while data gathering on Facebook may vary in time. This means for example that it is quite impossible to repeat the test setting for the same population since the study is platform dependent. Professionals who wrote the ads are developing as writers as well so repeating the setting just the way it has

been done is difficult. Narrow scale of data makes it, though, difficult to give assumptions on a larger scale. When mirrored to the hypothesis of this study, results may have been more reliable if data had been gathered with a larger number of marketing professionals as writers. This would have also made it possible to randomize the data gathering process and possibly add to the statistical analysis and its reliability via reaching for example statistical significance. Thus, the results of this study should be read with caution and keeping in mind the restriction created by the amount of data used in the analysis.

Presumption of normal distribution in the data is not present (Table 4). Skewness and kurtosis values differ from 0. This predicts problems in statistical analysis as well. Reliability is affected by this and also by the quite small data sample containing only 60 data points, 30 for personas and 30 for lists of characteristics. Increasing sample size might help reach normal distribution and statistical significance in the results.

Table 4. Skewness and kurtosis of the data.

| | <i>N</i> | <i>Minimum</i> | <i>Maximum</i> | <i>Mean</i> | <i>Std. Deviation</i> | <i>Skewness</i> | | <i>Kurtosis</i> | |
|------------|----------|----------------|----------------|--------------|-----------------------|-----------------|------------|-----------------|------------|
| | | | | | | | Std. Error | | Std. Error |
| <i>CTR</i> | 60 | 0 | 1.012891344 | 0.3037608623 | 0.3021972558 | 0.591 | 0.309 | -0.785 | 0.608 |

On the other hand, people who clicked or did not click the ads may or may not be using the platform at any given moment. They cannot be reached again. It is not known who the people are that saw the ads, only their defined parameters are known. Even if they were to be reached again, their life situation and interests, and way of living is probably developed to some direction. Statistical significance is not reached with any analysis methods used to analyze the data (presented in detail in chapter 4) which indicates the lack of total reliability.

In the case of qualitative data's and method's reliability, there are some details to be put forth. Terminology i.e. the way people write on digital marketing is quite unified although not strictly organized. Based on qualitative assessment through the articles used here it was ensured that the articles were talking about the same themes studied in this research, personas' usage in marketing and improving CTR. Qualitative analysis of the articles has its own limitations namely bias in using personas to improve results online which seems to be, according to the material, seen as plausible way of doing.

4 RESULTS

4.1 APG and the Effectiveness of Digital Advertising: Quantitative and Qualitative Examination

Results of the data gathering with Facebook advertisements is presented in table 5 with CTR values and additional information. Results in table 5 are presented on advertisement level and they are anonymized.

Table 5. Results of the data collections via Facebook advertising.

| Group- or persona-based | Reach | Impressions | Amount Spent (EUR) | Frequency | Clicks | CTR |
|-------------------------|-------|-------------|--------------------|-----------|--------|--------------|
| group | 197 | 971 | 16.60 | 4.93 | 2 | 0.2059732235 |
| persona | 89 | 305 | 5.52 | 3.43 | 3 | 0.9836065574 |
| group | 84 | 328 | 5.24 | 3.90 | 1 | 0.3048780488 |
| persona | 40 | 94 | 0.76 | 2.35 | 0 | 0 |
| group | 59 | 182 | 2.51 | 3.08 | 0 | 0 |
| persona | 235 | 1031 | 15.65 | 4.39 | 5 | 0.4849660524 |
| group | 67 | 205 | 3.23 | 3.06 | 0 | 0 |
| persona | 222 | 1285 | 22.42 | 5.79 | 10 | 0.7782101167 |
| group | 171 | 670 | 10.58 | 3.92 | 1 | 0.1492537313 |
| persona | 67 | 228 | 3.94 | 3.40 | 0 | 0 |
| group | 172 | 1100 | 17.12 | 6.40 | 3 | 0.2727272727 |
| persona | 69 | 201 | 3.23 | 2.91 | 0 | 0 |
| group | 81 | 240 | 3.81 | 2.96 | 1 | 0.4166666667 |
| persona | 165 | 1086 | 18.37 | 6.58 | 11 | 1.012891344 |
| group | 82 | 289 | 4.94 | 3.52 | 1 | 0.3460207612 |
| persona | 176 | 1015 | 17.46 | 5.77 | 8 | 0.7881773399 |
| group | 173 | 869 | 13.76 | 5.02 | 3 | 0.3452243959 |
| persona | 60 | 204 | 3.28 | 3.40 | 0 | 0 |
| group | 196 | 1224 | 20.92 | 6.24 | 9 | 0.7352941176 |
| persona | 86 | 278 | 4.89 | 3.23 | 0 | 0 |
| group | 90 | 311 | 5.24 | 3.46 | 1 | 0.3215434084 |
| persona | 237 | 1481 | 24.82 | 6.25 | 5 | 0.3376097232 |
| group | 83 | 300 | 4.81 | 3.61 | 2 | 0.6666666667 |
| persona | 188 | 944 | 13.45 | 5.02 | 7 | 0.7415254237 |
| group | 248 | 1024 | 15.66 | 4.13 | 7 | 0.68359375 |
| persona | 71 | 228 | 4.16 | 3.21 | 0 | 0 |
| persona | 90 | 318 | 5.65 | 3.53 | 0 | 0 |
| group | 61 | 194 | 2.98 | 3.18 | 0 | 0 |
| persona | 166 | 906 | 15.81 | 5.46 | 6 | 0.6622516556 |
| group | 90 | 319 | 5.66 | 3.54 | 1 | 0.3134796238 |
| persona | 170 | 706 | 10.53 | 4.15 | 2 | 0.283286119 |
| group | 179 | 794 | 12.19 | 4.44 | 1 | 0.1259445844 |
| persona | 80 | 316 | 5.64 | 3.95 | 0 | 0 |
| group | 147 | 903 | 13.99 | 6.14 | 5 | 0.553709856 |
| persona | 44 | 110 | 0.93 | 2.50 | 0 | 0 |
| group | 76 | 291 | 5.13 | 3.83 | 0 | 0 |
| persona | 182 | 674 | 10.09 | 3.70 | 5 | 0.7418397626 |
| group | 158 | 762 | 10.81 | 4.82 | 3 | 0.3937007874 |
| persona | 82 | 227 | 4.05 | 2.77 | 1 | 0.4405286344 |
| group | 80 | 269 | 4.82 | 3.36 | 0 | 0 |
| persona | 220 | 926 | 14.41 | 4.21 | 8 | 0.8639308855 |
| group | 108 | 437 | 7.81 | 4.05 | 0 | 0 |
| persona | 177 | 891 | 15.18 | 5.03 | 1 | 0.1122334456 |
| group | 222 | 1317 | 20.52 | 5.93 | 8 | 0.6074411541 |
| persona | 53 | 119 | 1.10 | 2.25 | 0 | 0 |
| group | 181 | 1000 | 15.89 | 5.52 | 1 | 0.1 |
| persona | 45 | 117 | 1.16 | 2.60 | 0 | 0 |
| group | 95 | 362 | 6.52 | 3.81 | 0 | 0 |
| persona | 251 | 1211 | 20.63 | 4.82 | 6 | 0.4954582989 |
| group | 28 | 74 | 0.57 | 2.64 | 0 | 0 |
| persona | 192 | 1038 | 16.58 | 5.41 | 6 | 0.5780346821 |
| group | 169 | 1009 | 15.28 | 5.97 | 6 | 0.5946481665 |
| persona | 84 | 289 | 4.69 | 3.44 | 0 | 0 |
| group | 175 | 972 | 16.79 | 5.55 | 4 | 0.4115226337 |
| persona | 93 | 252 | 4.57 | 2.71 | 0 | 0 |
| group | 78 | 263 | 4.76 | 3.37 | 1 | 0.3802281369 |
| persona | 198 | 1040 | 14.90 | 5.25 | 4 | 0.3846153846 |
| group | 103 | 436 | 7.73 | 4.23 | 2 | 0.4587155963 |
| group | 127 | 670 | 11.07 | 5.28 | 1 | 0.1492537313 |
| persona | 125 | 778 | 12.46 | 6.22 | 0 | 0 |
| AVERAGE | 129 | 601 | 9.72 | 4.23 | 2.53 | 0.30 |
| MIN | 28 | 74 | 0.57 | 2.25 | 0 | 0 |
| MAX | 251 | 1481 | 24.82 | 6.58 | 11 | 1.01 |
| STD | 62.16 | 395.72 | 6.47 | 1.20 | 3.04 | 0.30 |

The results of the t-test show that the average CTR, mean values in table 6, for ads written for personas is higher than the average CTR for ads written for lists of characteristics. Standard deviation for both ads written for personas and for lists of characteristics is quite high. This is, partially, due to the fact that both types of advertisements received CTR 0 % for some ads which is shown in the minimum values. Levene's test value for variance shows that dispersion between persona-based and list-of-characteristics-based ads is not equal i.e. variance between samples is not equal since F-value is above 10 and its significance value is 0.002. Equal variance is not assumed.

It should also be noted that t-test results suggest its significance value to be over 0.05 (Sig. 2-tailed). This means that there is no statistically significant difference between the mean values of CTR for persona-based ads and list-of-characteristics-based ads. Although persona-based ads have higher average CTR when compared to list-of-characteristics-based ads, the median value of persona-based ads is lower than for list-of-characteristics-based ads (Fig. 7).

Variance analysis shows similarly that there is no statistically significant difference between mean CTR values of persona-based and list-of-characteristics-based ads. F-value's significance is over 0.05 and hence the zero hypothesis is rejected (Table 6).

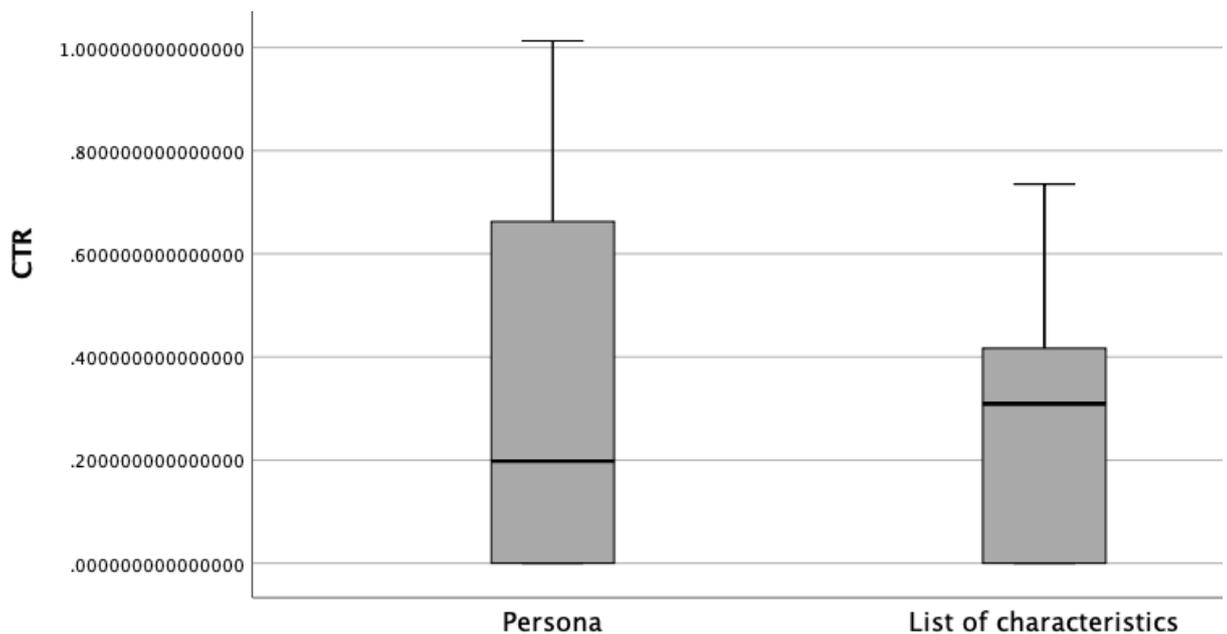


Figure 7. Boxplot for persona-based and list-of-characteristics-based ads' CTR values

Table 7 shows the results for non-parametric tests which were performed to ensure the validity of the results presented previously. Statistical significance is not reached here either for any of the tests. It can be seen that there seems to be no significant difference in CTR values depending on the way the ads were written although the fact still remains

that there is factual difference in mean values for the persona-based and list of characteristics-based advertisements.

Table 7. Non-parametric test results.

| Mann-Whitney | | | | | | | | |
|--|-------------------------|--------|-----------|---|------------------------|---|--------|------------------------|
| | | | | | Test Statistics (a) | CTR | | |
| Ranks | | N | Mean Rank | Sum of Ranks | Mann-Whitney U | | 449 | |
| CTR | Persona | 30 | 30.47 | 914 | Wilcoxon W | | 914 | |
| | List of characteristics | 30 | 30.53 | 916 | Z | | -0.015 | |
| | Total | 60 | | | Asymp. Sig. (2-tailed) | | 0.988 | |
| | | | | | | a) Grouping Variable: persona =1, list of characteristics=2 | | |
| Kolmogorov-Smirnov | | | | Wald-Wolfowitz | | | | |
| Test Statistics (a) | | | | Test Statistics (b) | | | | |
| | | CTR | | | | Number of Runs | Z | Asymp. Sig. (1-tailed) |
| Most Extreme Differences | Absolute | 0.233 | | CTR | Minimum Possible | 19 (c) | 3.125 | 0.001 |
| | Positive | 0.2 | | | Maximum Possible | 35 (c) | 1.042 | 0.851 |
| | Negative | -0.233 | | b) Grouping Variable: Persona =1, List of Characteristics=2 | | | | |
| Kolmogorov-Smirnov Z | | 0.904 | | c) There are 1 inter-group ties involving 22 cases. | | | | |
| Asymp. Sig. (2-tailed) | | 0.388 | | | | | | |
| a) Grouping Variable: Persona=1, List of Characteristics=2 | | | | | | | | |

It should be mentioned that after all there seems to be no statistically significant difference in the mean values of CTR based on the writing method, there is difference in mean values based on the method. although it not being statistically significant.

Based on these results it can be said that there is no statistically significant difference between average CTR of persona-based and list-of-characteristics-based ads which suggests that APG's boosting effect for writing advertisements is non-existent. However, it should be noted that there are higher CTR values for ads created with the assistance of personas when compared to list-of-characteristics-based ads (Table 6, Fig. 7). Mean for persona-based ads is 0.3230 % and mean for list of characteristics-based ads is 0.2845 %. There is, therefore, 11.9 % difference in the mean values depending on the writing process method This, on the other hand suggests, though not statistically significantly, that there is potential in persona usage in creating advertisements.

Since statistical significance tells the probability of the results being a coincidence, lack of statistical significance may be due to various sources. One such is the sample size, namely the number of ads created for the test (60) or the number of writer groups which

in this setting was two (four workflows with two similar flows equals two different writer groups). Multiplying the sample size for ads could reduce the possibility of chance in the results as well as increasing the number of ad writers.

Qualitative analysis of articles produced by several actor in the field of online marketing (Vinderslev 2015; Blinov 2017; Castillo 2018; Banicek 2019; Little 2019; Omneky 2019; Salenius 2019; Havice 2020; Markkanen 2020; Personas 2020) suggest that personas and in-depth understanding of one's target audience are seen as a way of improved marketing by marketing experts and agencies. Strong call-to-action prompts (Little 2019), improved copy texts and ad's targeting (Havice 2020), more relevant over all content for the target audience (Vinderslev 2015), and testing different kind of content for the target audience (Salenius 2019) are seen as possibilities for knowing the audience better which is the main idea in personas and in APG. Personalization is the key idea (Vinderslev 2015; Blinov 2017; Castillo 2018; Banicek 2019; Little 2019; Salenius 2019; Havice 2020; Personas 2020) which on the other hand has been proven to be successful approach for creating the most target audience appealing marketing messages (Arora et al. 2008; Dawn 2014; Kaptein & Parvinen 2015; Radu & Maican 2015; Boerman et al. 2017; Tran 2017; Esteves & Resende 2019; Shanahan et al. 2019).

4.2 Potential for APG in Creating Customized Marketing Messages in Social Media

As it has been noted by several researches (Arora et al. 2008; Dawn 2014; Kaptein & Parvinen 2015; Radu & Maican 2015; Boerman et al. 2017; Tran 2017; Esteves & Resende 2019; Shanahan et al. 2019), customized marketing messages is seen a powerful way to enhance comprehension among target audience's. To customize marketing messages, a marketer must be aware of the background and properties of the target audience to better answer to their needs. Segmentation and persona creation is traditionally done by market research (McDonald & Mouncey 2009; Wilson 2009) or by searching through a company's digital marketing platform, such as Facebook or website analytics, or by interviewing company personnel. This is tedious and time consuming and, at best, offers an approximation of the target audiences or personas.

Consumer behavior and consumers' preferences and personal traits are seen as a strong basis for targeting marketing messages and also for personas (Barry & Howard 1990). What APG offers to this is that it enables a fast, up-to-date and an accurate method to develop personas to be used, for example, in creating advertisements for social media the data being derived from which-ever digital platform. APG uses real consumer data from digital platforms to refine it to personas and thus to target audiences. Personas are representations of real-life people, in this case from digital platforms, that have name, face etc. human-like properties (Cooper 1999; Nielsen & Storgaard Hansen 2014). This makes

them more approachable for the user which in the case of this research is the professional writing the ads.

Increasing CTR is one of the ways to enhance the effectiveness of marketing in digital environments. It is seen as a metric for interest and resonance towards the ad (Blinov 2017; Banicek 2019; Little 2019) and being on the same pace with the person viewing the ad has been seen as a way to improve advertisement's effectiveness (Arora et al. 2008; Boerman et al. 2017). Fast, precise, and automated method that APG is makes the process from customer data to understanding one's customers to personas to more appealing ads faster and more precise than traditional methods presented for example by McDonald & Mouncey (2009) and Wilson (2009) and this is where lies the power of APG. Based on researcher's own experience in digital marketing and ad's creation it can also be said that making the ad creation process for customized and targeted advertisements as fluent and fast as possible is nothing short of an ideal situation. Surprisingly often the target audience is a guess derivation of digital user data if even that. Even more often advertisements are created product or service first and trying to apply that combination for a possible receiver which can be derived from actual digital user data by hand or verbally from a marketing or sales manager.

Potential of APG, therefore, lies within its ability to automate persona creation process from user data to actual personas thus enhancing the creation of audience-appealing advertisements. It is proven by this research, although not statistically significantly, that this process has a mean CTR-augmenting effect.

5 CONCLUSIONS AND DISCUSSION

5.1 Theoretical Implications

Understanding a company's customers and target audience has been seen as a key for better marketing (Dawn 2014; Kaptein & Parvinen 2015; Radu & Maican 2015; Boerman et al. 2017; Tran 2017; Esteves & Resende 2019; Shanahan et al. 2019) through marketer's ability to customize marketing messages for different kinds of receivers (Dibb 2001; Alderson 2006; Ortiz-Cordova & Jansen 2012; McDonald & Dunbar 2013; Dursun & Caber 2016; Kotler & Armstrong 2018). Using personas for creating advertisements has also been seen as a tool for making advertisements more appealing for the target audience (Cooper 1999; Tanudjaja & Mui 2002; Clarke 2015; Scott 2015; An et al. 2016; Zhang et al. 2016). Effectiveness of targeted advertising has also been put forth by for example McDonald & Mouncey (2009), Wilson (2009), Bergemann & Bonatti (2011), Jansen et al. (2013), and Kotler & Armstrong (2018). In this research it has been seen that using real-life user data as the basis for persona creation and further in creating advertisements for a well-defined group of people has a CTR-increasing effect showing increase in the interest towards the ads by different target audiences.

In this research it has been discovered that using personas based on real-life user data as the basis for ad's creation on social media has an effect in increasing receiver's interest towards the advertisements when compared to ads created based on lists of characteristics. This supports persona theories presented by (Cooper 1999) in other fields of study, tailoring marketing messages for a group of receivers to improve ad performance (Dawn 2014; Kaptein & Parvinen 2015), the role of market segmentation (McDonald & Mouncey 2009; Bergemann & Bonatti 2011; McDonald & Dunbar 2013) as well as theories in customer behavior (Barry & Howard 1990), and targeting's role in improving advertisement's effectiveness (Bergemann & Bonatti 2011).

This study enforces the views set by Bergemann & Bonatti (2011) on matching targeting effectively with marketing messages for a group of well-segmented audience. This study can be seen as a continuum for work by (Salminen et al. 2018) where a set of personas were created with APG testing its ability to create them. In this study personas' effectiveness in creating marketing messages was put to the test for the first time in an online setting and especially in social media context.

To sum up theoretical implications, a major theoretical finding lies in reinforcing the view of automated personas' usability as a tool for creating more effective marketing messages and especially with APG for the first time. Compiling prior theoretical findings on which this study stands it can be said that findings in this study strengthen them espe-

cially by combining prior researches' findings on customer behavior, segmentation, targeting audiences, using customized marketing messages, targeted marketing effectiveness, using personas for ad's creation.

5.2 Managerial Implications

Scalable one-to-one marketing is probably every marketers dream. Customizing marketing and advertisements is most often seen time-consuming and slow (Schreiner et al. 2019). For a company it is not economically wise. It takes human labor which is usually expensive. Marketers dream, no matter if it is a brand or a marketing agency, would be a constantly updating system where there would be a catalogue of each customer's or potential customer's personal preferences, backgrounds etc. leaning on which marketing messages could be planned and written.

Increasing receivers' interest towards advertisements is a key element for functional advertising no matter advertising being awareness-boosting or directing towards direct action such as purchase in an online store. Fast a/b-testing with varieties of content in online environment is seen as a useful tool in finding the most appealing content for a certain user group (Salenius 2019). User group then again might be a guess, or it could be based on hand-picked pieces of evidence from digital platforms. They are not personas and here APG could offer a solution: find out the most likely interested types of people automatically and creating easy to use criteria for ad creation for any marketer.

The APG's algorithm complies to a variety of source data like in this research website analytics data of people who had purchased gifts was used to make personas for Facebook advertising. Source data could be from any other platform as well like YouTube (Salminen et al. 2018) or any other digital platform. Here it has been shown that APG and further usage of data has potential in creating Facebook users' interest towards the ads.

Persona method has been quite tedious to use and time consuming (Pruitt & Adlin 2006). Well done it has helped to really form personas representing real-life people behind them. Poorly performed manual persona creation is time consuming and creates faulty personas which tend to lead to faulty results. APG's usage as a tool for creating targeting parameters and actual personas for Facebook advertising was based on real data of real people so there is little chance of misinterpretation which has been somewhat a problem before (Cooper 1999; Matthews et al. 2012). Of course, the quality of data affects the quality of personas created. Personas could have been presumptions before. Increasing CTR has been the focus in this research but APG could be used to create personas for other purposes as well such as website development and testing, offline marketing efforts, or perhaps for software development which has been the origin of persona thinking.

APG-based personas have been used in this research as a functional basis for effective marketing and that is also where the practical potential lies. A lot of companies have huge

amounts of data on their customers, their buying behavior, obstacles for buying, and on various other steps towards purchase. APG can be used to personify and reveal the traits of these people, common denominators in a fast and automated way. This gives the company, marketing especially, new tools for planning their overall communication strategies for more appealing messaging that has been proven effective in increasing purchase intention (Schreiner et al. 2019).

5.3 Limitations and Further Research Possibilities

Limitations derived from validity and reliability are addressed in detail in chapter 3.5. Limitations of the study considering results and derivations for further usage of APG are also present. APG was used in this study to test its ability to act as a CTR-increasing, interest-increasing, tool for creating advertisements on social media. Cautions should be taken while generalizing these results to other platforms of digital marketing although there might be potential in them as well.

It should be noted that while APG has been used to refine data to personas for further use in digital platforms and advertising on social media in this study, it also might have potential in other fields and media as well. Personas created could be used for example in personalizing websites or a/b-testing different website variations for different user. For a marketer, knowing to whom one is communicating is of utmost importance and this is where APG can help no matter which platform at hand. APG is based on the idea that it being an automated process creating always up-to-date personas gives marketers a possibility to adapt their marketing messages more rapidly over traditional ways e.g. market research (McDonald & Mouncey 2009; Wilson 2009). This information can be utilized in various places although it has been used in this study only on social media. The power of APG lies in speed and utilizing large amounts of data in persona creation.

In the future, APG's potential in social media advertising, similar setting than in this study, could be tested again to overcome limitations noted in this research. Study setting's effect on research data and results could be resolved, or diminished, while using a larger number of writers and a larger number of ads. This could enhance statistical significance problem present in this study. Using for example 100 writers with different backgrounds in marketing to write multiple ads for personas and lists of characteristics would increase the amount of data to be used in further analysis.

The amount of data could also help in increasing the reliability of the study. Statistical significance tells the probability of the results being a coincidence. Source for the lack of statistical significance in this study could be the sample size, namely the number of ads created for the test (60) or the number of writer groups which in this setting was two (four workflows with two similar flows equals two different writer groups including a total of 30 marketing professionals). Increasing the sample size considerably for ads could reduce

the possibility of chance in the results as well as increasing the number of ad writers. Lack of statistical significance has an effect on the reliability of the results of this study which implicates that results should be read with limitations in mind. It cannot be univocally said that results are as they are. Solving this problem in future study settings would help and it would also support the results generated in this study.

Background's effect on the results or ad performance could also be measured. It should be noted that a marketing professional with several years of experience in digital marketing is not necessarily at his/her best in writing ads based on tight criteria. Basic marketing or advertising principles such as clear call-to-action are surprisingly often forgotten. Using laymen to write ads for personas could also be tested as well as creating a control group of people who represent the personas to whom the ads are supposed to be written. It would be interesting to see if there would be any effect by writer's status. Creating ads for people like you, persona and a list of characteristics, would also give information for marketing research in general. It is not often when one has the opportunity to create advertisements for people like themselves. This is researcher's own perception while working in the industry.

APG's potential in different media could also be studied. Creating variations of website landing pages for different personas and testing their effectiveness would be an interesting topic and directly related to the field of marketing. By researchers own observations during the years in the industry, a/b testing of different landing pages is widely performed by marketers and there is different software for doing such efforts, but the initial setting is usually based on a hunch of possible receivers which is refined along the way. Using APG for initial website creation would be new and interesting domain. It could also be combined with social media, or other media, advertising that could be used to drive traffic to these landing pages. APG-based personas could be utilized in creation of social media as well and in combination with customized website performance it could give an insight of the whole purchase funnel from the first contact on social media to purchase on the website. APG could also be used as a tool for remarketing ads after people had first come to the original landing page. APG could be run through this first-landing data to reveal personal traits of those people for creating retargeting ads on social media and concordant landing pages. This would give even further understanding of the purchase funnel and test the abilities of APG in a more complex situation.

Personas' origins are in software development and in that realm APG's potential is yet to be tested. Modern applications gather a lot of data from their users and their actions within the application and also outside of it and this data could be used for persona creation. Customizing user experience within an application or a piece of software could be one use for APG. Solution could for example a method that tries to find key elements for growing user retention. Mobile applications have a tendency that they are downloaded

but never used, or using the application is ceased. APG-based personas' potential could be studied also in this field.

Directly connected to marketing and advertising would be a study where APG was used in an analogue media, for example a newspaper or radio. Personas could be based on brand's website user data and resulting personas could be used in traditional media advertising to study effectiveness of advertisements to different reader. Reader groups would, of course, be defined as personas. Measuring marketing effectiveness could be done by traditional methods such as queries among subscribers or depending on the research plan and types of advertisements used, alterations in website traffic. There would also be an interesting analog-to-digital aspect in this kind of research.

In the beginning of 2020, a new corona virus SARS-CoV-2, causing sickness called COVID-19, was spreading across the globe creating a global pandemic (Gorbalenya et al. 2020) and as of April 2020 the scientists are trying to solve the pandemic and find out its cause and spreading patterns. A lot of information is gathered on the patients that are tested for the virus infection as well as on people dead from the decease. Background information on the properties of people tested are also gathered. Doctors and other scientists are trying to resolve who are the people, or what kind of people, that are the ones that get sick from the virus and what kind of people are most prone to die from it. APG could also be used as an up-to-date method in browsing and filtering through these data. This kind of profiling has been done for example between blood group and COVID-19 susceptibility (Zhao et al. 2020) but real personas have not been utilized. With APG it could be possible to use growing data to automatically create personas giving health authorities the information they need to suppress the effects that this new virus has on the whole humankind. Personas have been previously utilized in health by for example Jain et al. (2013).

6 SUMMARY

Scalable one-to-one marketing is probably every marketer's dream. It has been noted that communicating to customers and potential customers in a way that they feel is personal is the most effective way of communication. Customizing marketing and advertisements for each recipient is although tedious and time-consuming. It is not economically wise for a company to use time and money to first figure out personas or target audiences by hand and then find the most suitable ways of communication for them.

Marketing effectiveness has been measured in several ways. Competitive advantage over others, the environment, and recognizing the needs of different people are seen as a few key elements in effective marketing and measuring these factors are seen as measuring marketing effectiveness. The secret for success in marketing has been seen by some as to change the offer for each buyer or potential buyer. This is a direct derivation of the fact that not all customers are alike in a broad market. This enables a marketer, and a researcher, to study differences in broad audiences for finding most effective ways of marketing and personalized messages are one such way of telling people about one's offering in an appealing manner.

Personas created based on actual user data are bringing us closer to the point where almost one-to-one marketing is possible. APG (Automatic Persona Generation) potentially helps marketers create human-like representations of real people based on their behavior on various digital platforms in real-time to be further used in creating effective advertisements or to be used in any other marketing effort. Data used in automated persona creation may be from social media platforms, website analytics, or from any other platform or data source as long as the data has information on personal information such as age, gender, location, personal interests, and it has a dimension of real-life people's behavior.

Personas themselves have been widely utilized before in various fields of research such as software development, marketing, health, video games, and online security. Data-based, automatically created, algorithmically created, personas' effectiveness in marketing has not been put to test before this research. Persona's origins lie in software development and user experience research. Automated persona generation as a tool for creating advertisements has been tested in this research for the first time as well as in the environment of social media.

Being able to communicate to varying target audiences with great precision is important in a world where communication channels, digital and analog, are numerous and the number is growing constantly. New channels, mostly digital and such as social media, have been growing during the past years. Some of them have reached status where billions of people around the globe are using them daily. Basically all media platforms gather vast

amounts of information on their users and their behavior within the platform and, to some extent, these platforms allow this information to be used in marketing purposes like precise targeting. Social media in its multiple forms has given people means of communication and sharing and for marketers it has given the possibility to reach for people in new media.

The aim of this research was to examine the effectiveness of customized marketing messages created with the assistance of data-driven personas (APG, or automated persona generation) compared to bare property or characteristics listings of consumers in social media advertising and to assess the value of APG to a marketer when reaching for different customer segments. Research questions of this study were that how APG can boost the effectiveness (increase click-through-rate, CTR) of digital advertising compared to bare property lists of characteristics in social media advertising, and what is the potential for APG to be a basis for creating customized marketing messages in social media.

First step in this study was to gather and use data from a company to create personas. To answer the questions above, personas were created based on existing website analytics data from a company called Elämyslahjat. APG revealed two personas from the data, one male, one female. These personas and lists of characteristics were given to marketing professional with instructions for ad creation. Marketing professionals were asked to join the project as writers and choosing them had some preliminary limitations such as they had to have experience in digital marketing for them to be able to write advertisements.

A total of thirty marketing professionals participated as writers and they created 60 advertisements. Advertisements created were thereafter run on Facebook according to personas' corresponding targeting parameters. Some advertisements were declined by Facebook and the number of those ads is taken into account in the research and in the total number of 60 ads. Results of this advertising period were then statistically analyzed to find possible potential differences in average CTR between ads written for personas and ads written for lists of characteristics.

Results were that there is difference between these two types of ads based on the writing process although statistical analyses give results with no statistical significance. Results show that advertisements written based on personas have, on average, higher CTR when compared to ads written based on lists of characteristics. This gives support for the thought that APG has potential in rising marketing effectiveness. It also supports earlier views on using personas in other fields of science where using them has been seen as an effective tool for understanding users and receivers.

Marketing and advertising effectiveness are also valued in companies and marketing agencies due to the fact that it is considered valuable to be able to create more value with the same or less input. Input could be seen for example as a reduced time and output as a

rise in sales or growing interest towards a company's offering. Making targeting and advertisement creation process more fluid has been seen by marketing agencies and consultants as a concern that would make day-to-day work much easier.

Some limitations in the research prevail. Test setting and the number of participating marketing professionals as well as the number of advertisements created could be greater in future research. This would, perhaps, enable more reliable statistical analysis and results. Testing with a bigger composition of marketing professionals and written ads would give future researchers more material for analysis. The amount of variation with a multitude of writers would be valuable in itself to even out possible bias in personal properties that prevail within the population of chosen marketing professionals. Setting has been in this study basically what is called an a/b test in digital marketing meaning that two different variations on a single advertisement are shown to a target audience and the appeal of the ads is measured afterwards. Here the amount of advertisements tested has been greater and it should be even greater in future settings.

Theoretical inspection shows that understanding a company's customers and target audience has been seen as a key for better marketing through marketer's ability to customize marketing messages for different kinds of receivers which enforces the views on matching targeting effectively with marketing messages for a group of well-segmented audience. Using personas for creating advertisements has also been seen as a tool for making advertisements more appealing for the target audience. In this research it has been seen that using real-life user data as the basis for persona creation and further in creating advertisements for a well-defined group of people has a CTR-increasing effect showing increase in the interest towards the ads by different target audiences.

In this research it has been discovered that using personas based on real-life user data as the basis for advertisement creation on social media has an effect in increasing receiver's interest towards the advertisements when compared to advertisements created based on lists of characteristics. This supports persona theories presented by other scholars in other fields of study, tailoring marketing messages for a group of receivers to improve ad performance, the role of market segmentation as well as theories in customer behavior, and targeting's role in improving advertisement's effectiveness.

It must be noted that this study has been implemented solely on social media and further research could be done in other media for marketing purposes to reveal APG's potential in those media as well. Research in other fields of science such as health, computer science, software development, and website development would give more detailed information on the potential of APG. The on-going Corona virus pandemic and resolving and curing such diseases could benefit from APG and its ability to process vast amounts of data into understandable personas. This might help health professionals understand

patterns of infection spread and it could also help them solve possible profiles of the people most prone to catch the virus and decease.

Hopefully studying personas' usage and potential in marketing continues and broadens outside social media or goes deeper within it. In the future the amount of data is not going to diminish but to grow. This data could be put into use for example by marketers. Potential is there and to make it more rapid for everyday use, automated methods such as APG could bring relief to marketers struggling with the amount of data and tedious means of using it.

REFERENCES

- Alderson, W. (2006). The Analytical Framework for Marketing. in B. Wooliscroft, R.D. Tamilia & S.J. Shapiro (eds.), *A Twenty-First Century Guide to Aldersonian Marketing Thought*, pp. 61–73, Springer-Verlag, New York.
- An, J., Cho, H., Kwak, H., Hassen, M.Z. & Jansen, B.J. (2016). *Towards Automatic Persona Generation Using Social Media. 2016 IEEE 4th International Conference on Future Internet of Things and Cloud Workshops (FiCloudW)*, 206–211, IEEE, Vienna, Austria.
- An, J., Kwak, H. & Jansen, B.J. (2017). *Personas for Content Creators via Decomposed Aggregate Audience Statistics. Proceedings of the 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining 2017 - ASONAM '17*, 632–635, ACM Press, Sydney, Australia.
- Angulo-Ruiz, F., Pergelova, A., Cheben, J. & Angulo-Altamirano, E. (2016). A cross-country study of marketing effectiveness in high-credence services, *Journal of Business Research*, 69(9), 3636–3644.
- Anvari, F., Richards, D., Hitchens, M. & Babar, M.A. (2015). *Effectiveness of Persona with Personality Traits on Conceptual Design. 2015 IEEE/ACM 37th IEEE International Conference on Software Engineering*, 263–272, IEEE, Florence, Italy.
- Arora, N., Dreze, X., Ghose, A., Hess, J.D., Iyengar, R., Jing, B., Joshi, Y., Kumar, V., Lurie, N., Neslin, S., Sajeesh, S., Su, M., Syam, N., Thomas, J. & Zhang, Z.J. (2008). Putting one-to-one marketing to work: Personalization, customization, and choice, *Marketing Letters*, 19(3–4), 305–321.
- Banicek, N. (2019). *How To Use Target Audience Persona To Create a Perfect Ad*. Accessed 16.4.2020. <https://smartyads.com/blog/how-to-use-target-audience-persona-to-create-a-perfect-ad/>
- Barry, T.E. & Howard, D.J. (1990). A Review and Critique of the Hierarchy of Effects in Advertising, *International Journal of Advertising*, 9(2), 121–135.
- Bergemann, D. & Bonatti, A. (2011). Targeting in advertising markets: implications for offline versus online media, *The RAND Journal of Economics*, 42(3), 417–443.
- Blinov, D. (2017). *How to Identify Your Buyer Personas Using Data*. Accessed 16.4.2020. <https://thefcompany.com/how-to-identify-your-buyer-personas-using-data/>
- Boerman, S.C., Kruikemeier, S. & Zuiderveen Borgesius, F.J. (2017). Online Behavioral Advertising: A Literature Review and Research Agenda, *Journal of Advertising*, 46(3), 363–376.
- Castillo, S. (2018). *Make it personal: Using marketing personas and empathy in your marketing*. Accessed 30.3.2020. <https://www.thinkwithgoogle.com/marketing-resources/data-measurement/marketing-personas-audience-research/>

- Chakrabarti, R. & Berthon, P. (2012). Gift giving and social emotions: experience as content: Gift Giving and Social Emotions, *Journal of Public Affairs*, 12(2), 154–161.
- Chapman, C.N. & Milham, R.P. (2006). The Personas' New Clothes: Methodological and Practical Arguments against a Popular Method, *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 50(5), 634–636.
- Clarke, M.F. (2015). *The Work of Mad Men that Makes the Methods of Math Men Work: Practically Occasioned Segment Design*. *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems - CHI '15*, 3275–3284, ACM Press, Seoul, Republic of Korea.
- Cooper, A. (1999). The Inmates are Running the Asylum. in U. Arend, E. Eberleh & K. Pitschke (eds.), *Software-Ergonomie '99*, vol. 53, pp. 17–17, Vieweg+Teubner Verlag, Wiesbaden.
- Dantin, U. (2005). *Application of personas in user interface design for educational software*. *Proceeding ACE '05 Proceedings of the 7th Australasian conference on Computing education*, vol. 42, 239–247, Australian Computer Society, Inc. Darlinghurst, Australia, Darlinghurst.
- Dawn, S.K. (2014). Personalised Marketing: Concepts and Framework. *Productivity*, 54(4), 370–378.
- Dibb, S. (2001). New millennium, new segments: moving towards the segment of one?, *Journal of Strategic Marketing*, 9(3), 193–213.
- Dupree, J.L., Devries, R., Berry, D.M. & Lank, E. (2016). *Privacy Personas: Clustering Users via Attitudes and Behaviors Toward Security Practices*. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems - CHI '16*, 5228–5239, ACM Press, Santa Clara, California, USA.
- Dursun, A. & Caber, M. (2016). Using data mining techniques for profiling profitable hotel customers: An application of RFM analysis, *Tourism Management Perspectives*, 18, 153–160.
- Elämyslahjat Oy. (2020). *Elämyslahjat 2020*. Accessed 9.3.2020. <https://www.elamyslahjat.fi/>
- Engel, J., Miniard, P. & Blackwell, R.D. (1995). *Consumer behaviour*, 1st edn. Forth Worth Texas, Dryden Press.
- Esteves, R.-B. & Resende, J. (2019). Personalized pricing and advertising: Who are the winners?, *International Journal of Industrial Organization*, 63, 239–282.
- Facebook. (2019). *Auta mainoksiasi löytämään ihmisiä, jotka pitävät yrityksistäsi*. Accessed 18.3.2020. <https://www.facebook.com/business/ads/ad-targeting>
- Facebook. (2020). *Set up a reach and frequency campaign*. Accessed 12.3.2020. <https://www.facebook.com/business/help/885674161555708?id=842420845959022>

- Goldfarb, A. & Tucker, C. (2014). Conducting Research with Quasi-Experiments: A Guide for Marketers, *SSRN Electronic Journal*.
- Google. (2019). *Me emme myy henkilötietojasi kenellekään*. Accessed 18.3.2019. <https://safety.google/privacy/ads-and-data/>
- Gorbalenya, A.E., Baker, S.C., Baric, R.S., Groot, R.J. de, Drosten, C., Gulyaeva, A.A., Haagmans, B.L., Lauber, C., Leontovich, A.M., Neuman, B.W., Penzar, D., Perlman, S., Poon, L.L.M., Samborskiy, D., Sidorov, I.A., Sola, I. & Ziebuhr, J. (2020). *Severe acute respiratory syndrome-related coronavirus: The species and its viruses – a statement of the Coronavirus Study Group*. *Microbiology*.
- Hall, A., Conway, T., Betts, P. & Parker, C. (2016). *From economic man to connected consumers. Proceedings of the 4th International Conference on Contemporary Marketing Issues (ICCM) 2016*, 53–58, Heraklion, Greece.
- Havice, J. (2020). *How To Create Customer Personas (with Actual, Real-Life Data*. Accessed 30.3.2020. <https://cxl.com/blog/creating-customer-personas-using-data-driven-research/>
- Im, I., Dunn, B.K., Lee, D.I., Galletta, D.F. & Jeong, S.-O. (2019). Predicting the intent of sponsored search users: An exploratory user session-level analysis, *Decision Support Systems*, 121, 25–36.
- Jain, R., Jalali, L. & Fan, M. (2013). *From health-persona to societal health. Proceedings of the 22nd International Conference on World Wide Web - WWW '13 Companion*, 1329–1334, ACM Press, Rio de Janeiro, Brazil.
- Jansen, B.J., Moore, K. & Carman, S. (2013). Evaluating the performance of demographic targeting using gender in sponsored search, *Information Processing & Management*, 49(1), 286–302.
- Jansen, B.J. & Schuster, S. (2011). Bidding on the buying funnel for sponsored search and keyword advertising, *Journal of Electronic Commerce Research*, 12(1), 1–19.
- Judge, T., Matthews, T. & Whittaker, S. (2012). *Comparing collaboration and individual personas for the design and evaluation of collaboration software. Proceedings of the 2012 ACM annual conference on Human Factors in Computing Systems - CHI '12*, 1997, ACM Press, Austin, Texas, USA.
- Kaptein, M. & Parvinen, P. (2015). Advancing E-Commerce Personalization: Process Framework and Case Study, *International Journal of Electronic Commerce*, 19(3), 7–33.
- Khalayli, N., Nyhus, S., Hamnes, K. & Terum, T. (2007). *Persona based rapid usability kick-off. CHI '07 extended abstracts on Human factors in computing systems - CHI '07*, 1771, ACM Press, San Jose, CA, USA.
- Kotler, P. & Armstrong, G. (2018). *Principles of marketing*, Seventeenth edition. Pearson Higher Education, Hoboken.

- KvantiMOTV. (2014). *Hypoteesien testaus - SPSS-harjoitus 2*. Accessed 30.3.2020. <https://www.fsd.tuni.fi/menetelmaopetus/hypoteesi/harjoitus2.html>
- Lavidge, R.J. & Steiner, G.A. (1961). A Model for Predictive Measurements of Advertising Effectiveness, *Journal of Marketing*, 25(6), 59.
- Lemon, K.N. & Verhoef, P.C. (2016). Understanding Customer Experience Throughout the Customer Journey, *Journal of Marketing*, 80(6), 69–96.
- Little, J. (2019). *What is Click Through Rate? Learn How to Increase It in 6 Steps*. Accessed 30.3.2020. <https://www.crazyegg.com/blog/click-through-rate/>
- Lwin, M. & Phau, I. (2013). Effective advertising appeals for websites of small boutique hotels, *Journal of Research in Interactive Marketing*, 7(1), 18–32.
- Markkanen, M. (2020). *Brand Lift -tutkimukset brändimainonnan mittaamisessa*. Accessed 30.3.2020. <https://parcero.fi/brand-lift-tutkimukset-brandimainonnan-mittaamisessa>
- Matthews, T., Judge, T. & Whittaker, S. (2012). *How do designers and user experience professionals actually perceive and use personas? Proceedings of the 2012 ACM annual conference on Human Factors in Computing Systems - CHI '12*, 1219, ACM Press, Austin, Texas, USA.
- McDonald, M. & Dunbar, I. (2013). *Market segmentation: how to do it, how to profit from it*, Revised 4th ed. John Wiley & Sons, Chichester.
- McDonald, M. & Mouncey, P. (2009). *Marketing accountability: how to measure marketing effectiveness*. Kogan Page, London.
- Nielsen, L. & Storgaard Hansen, K. (2014). *Personas is applicable: a study on the use of personas in Denmark. Proceedings of the 32nd annual ACM conference on Human factors in computing systems - CHI '14*, 1665–1674, ACM Press, Toronto, Ontario, Canada.
- Olkkonen, R. & Saastamoinen, K. (2012). *SPSS perusopas markkinatutkijoille*, 4th edn. Turun kauppakorkeakoulu, Turku.
- Omneky. (2019). *Four Ways to Use Buyer Personas to Increase CTRs*. Accessed 16.4.2020. <https://omneky.com/blog/personalization/four-ways-to-use-buyer-personas-to-increase-ctrs>
- Ortiz-Cordova, A. & Jansen, B.J. (2012). Classifying web search queries to identify high revenue generating customers', *Journal of the American Society for Information Science and Technology*, 63(7), 1426–1441.
- Panjwani, S., Shrivastava, N., Shukla, S. & Jaiswal, S. (2013). *Understanding the privacy-personalization dilemma for web search: a user perspective. Proceedings of the SIGCHI Conference on Human Factors in Computing Systems - CHI '13*, 3427, ACM Press, Paris, France.

- Peppers, D. & Rogers, M. (1999). *Enterprise one to one: tools for competing in the interactive age*, 1. Currency paperback ed. Currency Doubleday, New York, NY.
- Personas. (2020). *Persona-Based Marketing is the ABM You've Been Looking For*. Accessed 30.3.2020. <https://www.gopersonas.com/blog/persona-based-marketing-is-the-abm-youve-been-looking-for>
- Pruitt, J.S. & Adlin, T. (2006). Persona Conception and Gestation. *The Persona Lifecycle*, pp. 162–271, Elsevier.
- Punj, G. (2012). Consumer Decision Making on the Web: A Theoretical Analysis and Research Guidelines, *Psychology & Marketing*, 29(10), 791–803.
- Radu, L. & Maican, C. (2015). Personalization in E-commerce using profiles similarity, *Bulletin of the Transilvania University of Brasov*, 8(57), 275–280.
- Rangaswamy, A., Giles, C.L. & Seres, S. (2009). A Strategic Perspective on Search Engines: Thought Candies for Practitioners and Researchers, *Journal of Interactive Marketing*, 23(1), 49–60.
- Rönkkö, K., Hellman, M., Kilander, B. & Dittrich, Y. (2004). *Personas is not applicable: local remedies interpreted in a wider context. Proceedings of the eighth conference on Participatory design Artful integration: interweaving media, materials and practices - PDC 04*, vol. 1, 112, ACM Press, Toronto, Ontario, Canada.
- Salenius, T. (2019). *Tiedätkö, miten kiinnität kohderyhmäsi huomion Facebookissa? Case: tilastollinen A/B-testaus*. Accessed 30.3.2020. <https://parcero.fi/facebook-ab-testaus>
- Salminen, J., Şengün, S., Kwak, H., Jansen, B.J., An, J., Jung, S., Vieweg, S. & Harrell, D.F. (2018). From 2,772 segments to five personas: Summarizing a diverse online audience by generating culturally adapted personas, *First Monday*, 23(6).
- Schreiner, T., Rese, A. & Baier, D. (2019). Multichannel personalization: Identifying consumer preferences for product recommendations in advertisements across different media channels, *Journal of Retailing and Consumer Services*, 48, 87–99.
- Scott, D.M. (2015). *The new rules of marketing & PR: how to use social media, online video, mobile applications, blogs, news releases, and viral marketing to reach buyers directly*, Fifth edition. John Wiley & Sons, Inc, Hoboken, New Jersey.
- Shadish, W.R., Cook, T.D. & Campbell, D.T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth, Cengage Learning, Belmont, Calif.
- Shanahan, T., Tran, T.P. & Taylor, E.C. (2019). Getting to know you: Social media personalization as a means of enhancing brand loyalty and perceived quality, *Journal of Retailing and Consumer Services*, 47, 57–65.

- Smith, A.D. & Rupp, W.T. (2003). Strategic online customer decision making: leveraging the transformational power of the Internet, *Online Information Review*, 27(6), 418–432.
- Stankevich, A. (2017). Explaining the Consumer Decision-Making Process: Critical Literature Review, *Journal of International Business Research and Marketing*, 2(6), 7–14.
- Starch, D. (1914). *Principles of Advertising*, 1 st. Scott, Foreman, & Company, Chicago.
- Tanudjaja, F. & Mui, L. (2002). *Persona: a contextualized and personalized web search. Proceedings of the 35th Annual Hawaii International Conference on System Sciences*, 1232–1240, IEEE Comput. Soc, Big Island, HI, USA.
- Tinggly Ltd. (2020). *Tinggly Ltd. frontpage*. Accessed 10.3.2020. <https://www.tinggly.com/>
- Tran, T.P. (2017). Personalized ads on Facebook: An effective marketing tool for online marketers, *Journal of Retailing and Consumer Services*, 39, 230–242.
- Tychsen, A. & Canossa, A. (2008). *Defining personas in games using metrics. Proceedings of the 2008 Conference on Future Play Research, Play, Share - Future Play '08*, 73, ACM Press, Toronto, Ontario, Canada.
- Vesänen, J. (2007). What is personalization? A conceptual framework, *European Journal of Marketing*, 41(5/6), 409–418.
- Vinderslev, A. (2015). *Personas: Why They Matter to Your Native Advertising Strategy and How You Create Them*. Accessed 30.3.2020. <https://blog.nativeadvertisinginstitute.com/personas-why-they-matter-to-your-native-advertising-strategy-and-how-you-create-them>
- Wärnestål, P., Svedberg, P. & Nygren, J. (2014). *Co-constructing child personas for health-promoting services with vulnerable children. Proceedings of the 32nd annual ACM conference on Human factors in computing systems - CHI '14*, 3767–3776, ACM Press, Toronto, Ontario, Canada.
- Wijaya, B.S. (2012). The Development of Hierarchy of Effects Model in Advertising, *International Research Journal of Business Studies*, 5(1), 73–85.
- Wilson, H. (2009). Measuring the effectiveness of multichannel strategies. *Marketing accountability: how to measure marketing effectiveness*, pp. 236–257, Kogan Page, London.
- Wolny, J. & Charoensuksai, N. (2014). Mapping customer journeys in multichannel decision-making, *Journal of Direct, Data and Digital Marketing Practice*, 15(4), 317–326.

- Yu, J.H. & Cude, B. (2009). Hello, Mrs. Sarah Jones! We recommend this product. Consumers' perceptions about personalized advertising: comparisons across advertisements delivered via three different types of media, *International Journal of Consumer Studies*, 33(4), 503–514.
- Zhang, J. (2010). The Sound of Silence: Observational Learning in the U.S. Kidney Market, *Marketing Science*, 29(2), 315–335.
- Zhang, X., Brown, H.-F. & Shankar, A. (2016). *Data-driven Personas: Constructing Archetypal Users with Clickstreams and User Telemetry. Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems - CHI '16*, 5350–5359, ACM Press, Santa Clara, California, USA.
- Zhao, J., Yang, Y., Huang, H., Li, D., Gu, D., Lu, X., Zhang, Z., Liu, L., Liu, T., Liu, Y., He, Y., Sun, B., Wei, M., Yang, G., Wang, X., Zhang, L., Zhou, X., Xing, M. & Wang, P.G. (2020). *Relationship between the ABO Blood Group and the COVID-19 Susceptibility*. *Epidemiology*.

KOHDERYHMÄ A (Elämyslahjat.fi)

| | |
|-----------------------------|---|
| Ikä | 25-34 |
| Sukupuoli | Nainen |
| Kotipaikka | Helsinki |
| Vieraillut sivuilla: | Isänpäivälahjat - lahja isälle Elämyslahjat.fi - yli 1000 lahjaideaa! Lahjat Helsingissä Elämyslahjat.fi - yli 1000 lahjaideaa! Lahja miehelle Elämyslahjat.fi - yli 1000 lahjaideaa! Kaikki elämyslahjat Elämyslahjat.fi - yli 1000 lahjaideaa! Koe Lamborghiniin voimat Ahveniston moottoriradalla Elämyslahjat.fi - yli 1000 lahjaideaa! |
| Kiinnostunut aiheista: | Lahjakortti Lahjaideat Etusivu |
| Työ | Esimies |
| Koulutus | Yliopisto |
| Parisuhdetilanne | Naimisissa |
| Yleisin laite | Matkapuhelin |
| Keskimääräinen vierailuaika | 3,4 minuuttia |
| Keskimääräinen sivumäärä | 6,1 sivua |
| Liikenteen lähde | Google |
| Yleisökoko | 370,000 samankaltaista Facebook-käyttäjää |

Tab 4

MAINOS NÄYTTÄÄ TÄLTÄ:

| | Mainoksen teksti | | <- KIRJOITA KELTAISIIN SOLUIHIN |
|---|--|-------------------------|---------------------------------|
| 0 | Mainoksen otsikko | pituus maks. 40 merkkiä | <- KIRJOITA KELTAISIIN SOLUIHIN |
|  | Huom! mainoksen kuva ja linkki on valittu puolestasi kirjoitat siis tekstin ja otsikon teksti näkyy mainoksessa kuvan yläpuolella ja otsikko kuvan alapuolella koita tehdä tekstistä ja otsikosta mahdollisimman puhuttelevia kohderyhmällesi, jotta he klikkaisivat mainostasi! | | |
| 0 | | | |

Tab 5

FLOW 2

Persoonien käyttö verkkomainonnassa -tutkimus

Tämä tutkimus koskee persoonien käyttöä verkkomainonnassa - tehtäväsi on laatia oikea Facebook-mainos kahdelle kohderyhmälle. Toista kohderyhmää edustaa persoona, joka on *keksitty*, kyseistä kohderyhmää kuvaava henkilö. Persoonat on luotu Elämyslahjojen Google Analytics -datasta. Kiitos, että osallistut!

ps. Palkkioksi saat 20 euron Elämyslahjat-lahjakortin :)

OHJEET:

1. Klikkaa välilehteen "1. Kohderyhmä". Lue läpi kohderyhmän tiedot (käytä tähän n. 5 minuuttia).
2. Klikkaa välilehteen "2. Mainos kohderyhmälle". Kirjoita mainos kyseiselle kohderyhmälle. Koita tehdä mainoksesta mahdollisimman houkutteleva tälle kohderyhmälle. Kampanjan tavoite on mainostaa Elämyslahjojen avointa lahjakorttia tälle kohderyhmälle.
3. Toista vaiheet 1-2 eli kirjoita mainos persoonalle (välilehdet 3 ja 4).
4. Kun olet kirjoittanut mainoksen kullekin kohderyhmälle, tallenna tiedosto ja lähetä se Ilkalle: ilkka.kaate@parcero.fi

HUOM! Kirjoita mainokset parhaasi mukaan, sillä käytämme niitä oikeassa Facebook-kampanjassa!

Tab 1

| KOHDERYHMÄ A (Elämyslahjat.fi) | |
|--------------------------------|---|
| Ikä | 25-34 |
| Sukupuoli | Nainen |
| Kotipaikka | Helsinki |
| Vierailut sivuilla: | Isänpäivalahjat - lahja isälle Elämyslahjat.fi - yli 1000 lahjaideaa! Lahjat Helsingissä Elämyslahjat.fi - yli 1000 lahjaideaa! Lahja miehelle Elämyslahjat.fi - yli 1000 lahjaideaa! Kaikki elämyslahjat Elämyslahjat.fi - yli 1000 lahjaideaa! Koe Lamborghiniin voimat Ahveniston moottoriradalla Elämyslahjat.fi - yli 1000 lahjaideaa! |
| Kiinnostunut aiheista: | Lahjakortti Lahjaideat Etusivu |
| Työ | Esimies |
| Koulutus | Yliopisto |
| Parisuhdetilanne | Naimisissa |
| Yleisin laite | Matkapuhelin |
| Keskimääräinen vierailu-aika | 3,4 minuuttia |
| Keskimääräinen sivumäärä | 6,1 sivua |
| Liikenteen lähde | Google |
| Yleisökoko | 370,000 samankaltaista Facebook-käyttäjää |

Tab 2

| MAINOS NÄYTTÄÄ TÄLTÄ: | Mainoksen teksti | Mainoksen otsikko | pituus maks. 40 merkkiä | <- KIRJOITA Keltaisiin soluihin |
|---|--|-------------------|-------------------------|---------------------------------|
| 0 | | | | <- KIRJOITA Keltaisiin soluihin |
|  | Huom! mainoksen kuva ja linkki on valittu puolestasi kirjoitat siis tekstin ja otsikon teksti näkyy mainoksessa kuvan yläpuolella ja otsikko kuvan alapuolella | | | |
| | koita tehdä tekstistä ja otsikosta mahdollisimman puhuttelevia kohderyhmällesi, jotta he klikkaisivat mainostasi! | | | |
| 0 | | | | |

Tab 3

Jussi Mies, 38, Helsinki



Jussi on 38-vuotias mies, jonka kotipaikka on Helsinki ja työ todennäköisesti Esimies. Hän pitää aiheista "Lahja miehelle", "Lahjaideat" ja "Etusivu". Hän käyttää useimmiten Pöytäkone-laitetta vierailukseen Elämyslahjat.fi-sivustolla. Hänen keskimääräinen vierailuaikansa on 1,9 minuuttia, ja keskimäärin hän vierailee 4,9 sivulla. Useimmiten hän tulee lähteestä Google.

Työ Esimies
 Koulutus Yliopisto
 Parisuhde Naimisissa

Vierailut Sivulla

- Lahja pariskunnalle | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Joululahjat 2018 - Toteuta unelmat elämyksellä | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Isänpäivälahjat - lahja isälle | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Dinner in the Sky® | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Lahja kahdelle | Elämyslahjat.fi - yli 1000 lahjaideaa!

Yleisökoko

200,000 samankaltaista Facebook-käyttäjää

Tab 4

| MAINOS NÄYTTÄÄ TÄLTÄ: | | Mainoksen teksti | | |
|-----------------------|---|--|--|-------------------------|
| | | Mainoksen otsikko | | pituus maks. 40 merkkiä |
| 0 |  | | | |
| | | <p>Huom! mainoksen kuva ja linkki on valittu puolestasi kirjoitat siis tekstin ja otsikon teksti näkyy mainoksessa kuvan yläpuolella ja otsikko kuvan alapuolella</p> <p>koita tehdä tekstistä ja otsikosta mahdollisimman puhuttelevia kohderyhmällesi, jotta he klikkaisivat mainostasi!</p> | | |
| 0 | | | | |

Tab 5

FLOW 3

Persoonien käyttö verkkomainonnassa -tutkimus

Tämä tutkimus koskee persoonien käyttöä verkkomainonnassa - tehtäväsi on laatia oikea Facebook-mainos kahdelle kohderyhmälle. Toista kohderyhmää edustaa persoona, joka on *keksitty*, kyseistä kohderyhmää kuvaava henkilö. Persoonat on luotu Elämyslahjojen Google Analytics -datasta. Kiitos, että osallistut!

ps. Palkkioksi saat 20 euron Elämyslahjat-lahjakortin :)

OHJEET:

1. Klikkaa välilehteen "1. Persoona". Lue läpi persoonan tiedot (käytä tähän n. 5 minuuttia).
2. Klikkaa välilehteen "2. Mainos persoonalle". Kirjoita mainos kyseiselle persoonalle. Koita tehdä mainoksesta mahdollisimman houkutteleva tälle kohderyhmälle. Kampanjan tavoite on mainostaa Elämyslahjojen avointa lahjakorttia tälle kohderyhmälle.
3. Toista vaiheet 1-2 yleiselle kohderyhmälle (välilehdet 3 ja 4).
4. Kun olet kirjoittanut mainoksen kullekin kohderyhmälle, tallenna tiedosto ja lähetä se Ilkalle: ilkka.kaate@parcero.fi

HUOM! Kirjoita mainokset parhaasi mukaan, sillä käytämme niitä oikeassa Facebook-kampanjassa!

Tab 1

Veera Nainen, 26, Helsinki



Veera on 26-vuotias nainen, jonka kotipaikka on Helsinki ja työ todennäköisesti Esimies. Hän pitää aiheista "Lahjakortti", "Lahjaideat" ja "Etusivu". Hän käyttää useimmiten Matkapuhelin-laitetta vierailukseen Elämyslahjat.fi-sivustolla. Hänen keskimääräinen vierailuaikansa on 3,4 minuuttia, ja keskimäärin hän vierailee 6,1 sivulla. Useimmiten hän tulee lähteestä Google.

Työ Esimies
Koulutus Yliopisto
Parisuhde Naimisissa

Vierailut Sivulla

- Isänpäivalahjat - lahja isälle | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Lahjat Helsingissä | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Lahja miehelle | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Kaikki elämyslahjat | Elämyslahjat.fi - yli 1000 lahjaideaa!
- Koe Lamborghiniin voimat Ahveniston moottoriradalla | Elämyslahjat.fi - yli 1000 lahjaideaa!

Yleisökoko

370,000 samankaltaista Facebook-käyttäjää

Tab 2

Tab 1

| MAINOS NÄYTTÄÄ TÄLTÄ: | Mainoksen teksti | | | <- KIRJOITA KELTAISIIN SOLUIHIN | |
|---|-------------------|---|-------------------------|---------------------------------|--|
| 0 | Mainoksen otsikko | | pituus maks. 40 merkkiä | <- KIRJOITA KELTAISIIN SOLUIHIN | |
|  | | | | | |
| | | Huom! | | | |
| | | mainoksen kuva ja linkki on valittu puolestasi kirjoitat siis tekstin ja otsikon | | | |
| | | teksti näkyy mainoksessa kuvan yläpuolella ja otsikko kuvan alapuolella | | | |
| | | koita tehdä tekstistä ja otsikosta mahdollisimman puhuttelevia kohderyhmällesi, jotta he klikkaisivat mainostasi! | | | |
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Tab 3

FLOW 4

Persoonien käyttö verkkomainonnassa -tutkimus

Tämä tutkimus koskee persoonien käyttöä verkkomainonnassa - tehtäväsi on laatia oikea Facebook-mainos kahdelle kohderyhmälle. Toista kohderyhmää edustaa persoona, joka on *keksitty*, kyseistä kohderyhmää kuvaava henkilö. Persoonat on luotu Elämyslahjojen Google Analytics -datasta. Kiitos, että osallistut!

ps. Palkkioksi saat 20 euron Elämyslahjat-lahjakortin :)

OHJEET:

1. Klikkaa välilehteen "1. Kohderyhmä". Lue läpi kohderyhmän tiedot (käytä tähän n. 5 minuuttia).
2. Klikkaa välilehteen "2. Mainos kohderyhmälle". Kirjoita mainos kyseiselle kohderyhmälle. Koita tehdä mainoksesta mahdollisimman houkutteleva tälle kohderyhmälle. Kampanjan tavoite on mainostaa Elämyslahjojen avointa lahjakorttia tälle kohderyhmälle.
3. Toista vaiheet 1-2 eli kirjoita mainos persoonalle (välilehdet 3 ja 4).
4. Kun olet kirjoittanut mainoksen kullekin kohderyhmälle, tallenna tiedosto ja lähetä se Ilkalle: ilkka.kaate@parcero.fi

HUOM! Kirjoita mainokset parhaasi mukaan, sillä käytämme niitä oikeassa Facebook-kampanjassa!

Tab 1

| KOHDERYHMÄ B (Elämyslahjat.fi) | |
|--------------------------------|--|
| Ikä | 35-44 |
| Sukupuoli | Mies |
| Kotipaikka | Helsinki |
| Vierailut sivuilla: | Lahja pariskunnalle Elämyslahjat.fi - yli 1000 lahjaideaa! Joululahjat 2018 - Toteuta unelmat elämyksellä Elämyslahjat.fi - yli 1000 lahjaideaa! Isänpäivälahjat - lahja isälle Elämyslahjat.fi - yli 1000 lahjaideaa! Dinner in the Sky* Elämyslahjat.fi - yli 1000 lahjaideaa! Lahja kahdelle Elämyslahjat.fi - yli 1000 lahjaideaa! |
| Kiinnostunut aiheista: | Lahja miehelle Lahjaiheet Etusivu |
| Työ | Esimies |
| Koulutus | Yliopisto |
| Parisuhdetilanne | Naimisissa |
| Yleisin laite | Pöytäkone |
| Keskimääräinen vierailu-aika | 1,9 minuuttia |
| Keskimääräinen sivumäärä | 4,9 sivua |
| Liikenteen lähde | Google |
| Yleisökooko | 200,000 samankaltaista Facebook-käyttäjää |

Tab 2

| MAINOS NÄYTTÄÄ TÄLTÄ: | Mainoksen teksti | | | |
|---|-------------------|---|-------------------------|--|
| 0 | Mainoksen otsikko | | pituus maks. 40 merkkiä | <- KIRJOITA Keltaisiin Soluihin <- KIRJOITA Keltaisiin Soluihin |
|  | | <p>Huom! mainoksen kuva ja linkki on valittu puolestasi kirjoitat siis tekstin ja otsikon teksti näkyy mainoksessa kuvan yläpuolella ja otsikko kuvan alapuolella</p> <p>koita tehdä tekstistä ja otsikosta mahdollisimman puhuttelevia kohderyhmällesi, jotta he klikkaisivat mainostasi!</p> | | |
| | | | | |
| 0 | | | | |

Tab 3

Veera Nainen, 26, Helsinki 🔍



Veera on 26-vuotias nainen, jonka kotipaikka on Helsinki ja työ todennäköisesti Esimies. Hän pitää aiheista "Lahjakortti", "Lahjaideat" ja "Etusivu". Hän käyttää useimmiten Matkapuhelin-laitetta vieraillakseen Elämystlahjat.fi-sivustolla. Hänen keskimääräinen vierailuaikansa on 3,4 minuuttia, ja keskimäärin hän vierailee 6,1 sivulla. Useimmiten hän tulee lähteestä Google.

Työ 🔍 Esimies
Koulutus 🔍 Yliopisto
Parisuhde 🔍 Naimisissa

Vieraillut Sivulla 🔍 ?

- Isänpäivalahjat - lahja isälle | Elämystlahjat.fi - yli 1000 lahjaideaa!
- Lahjat Helsingissä | Elämystlahjat.fi - yli 1000 lahjaideaa!
- Lahja miehelle | Elämystlahjat.fi - yli 1000 lahjaideaa!
- Kaikki elämystlahjat | Elämystlahjat.fi - yli 1000 lahjaideaa!
- Koe Lamborghiinin voimat Ahveniston moottoriradalla | Elämystlahjat.fi - yli 1000 lahjaideaa!

Yleisökoko ?

370,000 samankaltaista Facebook-käyttäjää

Tab 4

| MAINOS NÄYTTÄÄ TÄLTÄ: | Mainoksen teksti | | <- KIRJOITA Keltaisiin soluihin |
|---|-------------------|--|---------------------------------|
| 0 | Mainoksen otsikko | | <- KIRJOITA Keltaisiin soluihin |
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Tab 5