Use of Personal Data in Digital Advertising
Study of Millennials’ Attitudes

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### Abstract

The aim of my research is to identify the attitudes of millennials towards advertisers accessing and using their personal data. Overview of industry literature sources and previous research suggests that advertising has become very focused on the use of personal data. It is widely used by a lot of advertisers in order to reach the target audience more effectively.

Media and legislators have shown their concern regarding the lack of regulation in the way advertisers access user’s personal data. Millennials are considered to be confident users of online services and platforms and are comfortable with the reality of the digital landscape and data security. I questioned businesses’ stereotypes and the assumptions, and wanted to see if they are correct.

Questions that I am looking to answer with this research are in line with an emerging trend of shaping digital advertising around consumers’ choices, rights and preferences; and shifting focus away from individual needs of businesses.

I have conducted a quantitative research of 198 respondents, resulting in a representative sample of the population.

My research has shown that millennials are predominantly concerned about their data being used by advertisers. Only 40% of respondents enjoy seeing personally relevant ads online, which is an interesting and helpful finding, as a lot of brands assume the opposite and try to make advertising more personalised and relevant.

These findings could be very useful for advertisers when they decide how to approach data targeting for millennials of particular age group and gender.

### Keywords/tags

**Advertising, Data Privacy, Millennials**

### Miscellaneous

(Confidential information)
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Definitions

**3rd Party Data** - Anonymous data that can be purchased to make a profile stronger. For example, purchasing demographic and shopping behavior data to create an even richer profile.

**DMP (Data Management Platform)** - A technology that can ingest data from 1st, 2nd, and 3rd party data sources in order to create and activate audience segments.

**DSP (Demand-Side Platform)** - A technology that allows programmatic access, buying, and bidding of digital advertising inventory.

**General Data Protection Regulation (GDPR)** - New regulation intended to strengthen and unify data protection for individuals within the European Union (EU). Will enter into application in May 2018 and will have implications on how marketers use customer data.

**Impressions** - An impression measures the number of times a page or advertisement is theoretically viewed. There is no action from the user. The number of impressions is used to measure reach.

**Optimization** - The act of refining digital marketing activities to improve performance.

**Programmatic Advertising** - Technology that lets the machines do the ad buying, decisioning and activating.
1 Introduction

Businesses are trying to develop stronger connections with their customers, resulting in brand loyalty, larger market share, and profit growth.

Changes in content consumption habits have affected marketers - we are no longer able to successfully reach consumers in a simple funnel. The steps between awareness and purchase are now incredibly varied, and they frequently overlap.

Marketers used to design a linear purchase path along which to lead consumers, but nowadays the consumer owns the journey. This development has created new difficulties for marketers.

Companies are continuously investing in technology and building strategies to better understand their customers and deliver personalised digital experiences. Many of their tactics include advanced advertising solutions and complex media strategies, that take advantage of valuable data and insights brands have on their customers. Data helps advertisers to control messaging, refine their target audiences and increase return on investment. (Zarouali, Ponnet, Walrave, & Poels 2017, 53)

Digital advertising is very often the main point of contact consumers have with a brand. That is why many companies have focused their media strategies on building an engaging online experience for their customers. (Saadeghvaziri, Dehdashti & Reza Kheyrkhah Askarabad 2013, 99)

Online advertising is an extremely powerful tool for brands to target the right audience, make a first impression, introduce new products, convey the message, entertain, communicate the value proposition.

Consumer behaviors are changing as devices continue to transform our lives, and more advertising channels become available. Brands advertise on mobile, desktop, connected TVs, though search, display, video advertising, as well as social media and many more.

Every single one of those channels requires a different approach. Users interact with each of these screens and ad types differently. For example, users tend to be more engaged on their mobile phones. According to Smith (2011) shows that the younger
generation uses their mobile phones as the primary device to communicate, discover and consume content.

In addition to a more complex media landscape, audience is extremely segmented as well, which presents further challenges to advertisers. It is essential for them to identify who their target audience of potential buyers are and figure out how they behave within the online environment. Understanding their attitudes towards advertising and could have a significant impact on the effectiveness of brand’s marketing activities. (Ducoffe 1995, 8)

In order to develop a successful approach and reach potential buyers, advertisers rely on technology that effectively incorporates big data.

Brands are continuously adjusting to the evolving media landscape, and social networks have become an essential part of a media mix for many businesses. Social networks have large amounts of frequent users and very detailed databases.

These social networks are used by millions of customers for communication, entertainment and content discovery. Recognising a need in the market, social networks developed advertising products that offer precise audience targeting according to specific demographics, social connections, interests, habits and provide advertisers with the capacity to reach their consumers with higher on-target audience accuracy.

Prior studies indicate that many customers have negative opinions about online advertising due to its repetitive and intrusive nature. Unfavourable opinions of online advertising can be projected onto the brand represented in the ad. (Smith 2011, 489)

The aim of my research is to identify the attitudes of millennials towards advertisers accessing and using their personal data. Overview of industry literature sources and previous research suggests that advertising has become very focused on the use of personal data. It is widely used by a lot of advertisers in order to reach the target audience more effectively.

Media and legislators have shown their concern regarding the lack of regulation in the way advertisers access user’s personal data.

Millennials are considered to be confident users of online services and platforms and are comfortable with the reality of the digital landscape and data security.
I questioned businesses’ stereotypes and the assumptions, and wanted to see if they are correct.

Questions that I am looking to answer with this research are in line with an emerging trend of shaping digital advertising around consumers' choices, rights and preferences; and shifting focus away from individual needs of businesses.

This findings could be very useful for advertises when they decide which data to use when trying to target a particular age group and gender.

2 Theoretical Framework

Digital advertising is the second-largest category of media ad spend globally and is only slightly behind television advertising. Brands who advertise online value an opportunity to gain insights into their customers' behaviours, test new strategies, create consistent and personalised experiences. (McCoy, Everard, Galletta & Moody 2017, 19)

Over the past decade, we have seen a vast change in the consumption habits of customers. For many years consumers only saw ads on TV or in newspapers. Limited advertising channels created a lot of competition between brands for print and TV placements, and costs got inflated.

With the Internet entering our daily lives, advertising space became available online for a fraction of the price of a standard TV buy and a lot of marketing budgets have been shifted to the desktop banner and video ads. With the growing popularity of smartphones, mobile has become the primary channel that we use to communicate and consume content online.

It became more challenging for advertisers to reach their customers in this complex and fragmented digital landscape. Social media platforms have an extremely high amount of frequent users who continuously share a variety of personal data that could be leveraged by advertisers. Programmatic TV.
Video content is not anymore consumed just on TV. Major broadcasters have On-Demand apps and websites with films and TV shows available to the viewer at any time on their mobile phone, laptop, or connected TV.

It is undeniable that digital advertising is highly beneficial for brands, helping them reach their target audience on every screen, device and channel. Therefore it is imperative to understand what is audience's perception of the advertising strategies used and is the audience even receptive to the ads that are targeted at them.

Advertisers target a wide variety of audiences: young adults, millennials, families, professionals, older generation, and many more. All of them use devices and channels in a different way.

Each of those target audiences would have different preferences when it comes to how they experience online space and interact with brands. Businesses spend an immense amount of time an effort into refining their targeting and messaging.

While a lot of corporate and agency research is focused on specific industries and products, on a larger scale it is vital for every digital marketer to gain an understanding of attitudes various age and gender groups of consumers have towards targeted and personalised ads.

This knowledge could potentially have a significant effect on the way brands execute their marketing strategies, in order to increase the positive response from customers. (Ducoffe 1995, 4)

2.1 Digital Advertising Landscape

Digital advertising market has been rapidly evolving since 1993. Ongoing advancements in technology and rapid adoption of the Internet created a market that continually changes and innovates. Businesses had to incorporate new methods and processes in order to stay competitive.

Throughout the 1990s, advertising inventory was purchased directly by brands. As the demand grew, agencies started entering the business of online advertising, building a bridge between brands and media owners - publishers.
Advertising space on websites (referred to as Inventory) would be sold based on an agreed price per thousand impressions - CPM (Cost per Mile).

Publishers’ inventory became more accessible with the help of media agencies. A surge in advertising investment led to a rapid increase in content and variety of sites created. (Gonzalez-Cabañas & Mochón 2016, 5)

In 2010s direct buying became virtually impossible due to saturation of the market, so brands and agencies employed technically advanced trading teams to use Demand Side Platforms (DSPs).

For a long time, TV was the medium to reach and engage audiences, but with the explosion of touchpoints, advertisers have been challenged to leverage of-fline and online data to deliver engaging, relevant, and personalized experiences to audiences. They incorporate behavioural data to construct a seamless experience across the entire customer journey to drive higher efficiency and performance.

Nowadays businesses have access to a variety of tools and services that help them maximise return on their advertising investment: media agencies, a network of publishers who own websites and manage advertising space on them, Demand-Side Platforms (DSPs), Data Management Platforms (DMPs).

In addition to the technology layer, brands also rely on media agencies and professionals who specialise in programmatic advertising. They are continually monitoring a variety of performance metrics for every single digital campaign, ad, and strategy.

Digital advertising has become notably agile - in the past, a lot of campaigns have been analysed only after they have finished and budgets were already spent.

Nowadays performance data is accessible in real-time for every single impression, view, and interaction a customer has with the ad. Advertisers continuously A/B test different channels, creatives and target audiences, and trade budgets daily, shifting the investment towards the most cost-effective strategies.
2.2 Audience Targeting

Digital advertising is built on businesses using personal data of Internet users. Decision making in advertising campaigns is done by an algorithm that is processing large amounts of data, to generate and test personalised tactics for each user. This approach is proven to be more efficient and lead to a higher ROI. (Grether 2016, 39)

Online platforms invest a lot into detailed data collection and analysis. When a brand creates an advert they have a very clear understanding who their potential customers are. For budget-saving reasons, the brand would aim to display the advert only to those customers, instead of everybody on the Internet.

For example, a luxury cosmetics brand would seek to reach professional women in the 30-45 age group. Traditional advertising channels like magazines and TV would struggle to identify those potential customers and provide targeting that is precise. That is why businesses have been shifting budgets to digital advertising, where large amounts of user data available are readily available in well-packaged easy-to-target audience segments. (Goldfarb & Tucker 2012, 65)

Technology has evolved to serve brands' needs, and advertising became automated, with programmatic advertising using algorithms to target users most cost-effectively and serve them ads using sophisticated algorithms. It makes the process of serving a large number of different ads to customers incredibly easy, no matter how complex the strategy and varied audience targeting is. (Grether 2016, 42)

Brands have an extensive network of media owners and data companies that collect users' browsing behavior and identify their interests. This data is recorded in the form of “Cookies” from desktop computers and as “Device IDs” from mobile users. Publishers record and analyse their visitors' data based on the type of content these users consume. Based on this data publishers make probabilistic assumptions about what kind of interests these users have. Then they assign and store users' cookies or device IDs in particular audience segment based on the interest indicated.

These audience segments are known as publishers' first-party data. By analyzing past purchase, click and viewing actions, data companies can determine users' interests and needs. (Goldfarb & Tucker 2012, 82)
Data Management Platforms (DMPs) store, process and analyse users' data. Users are allocated to relevant audience segments, including age, gender, occupation, relationship status, income, and many more.

Demographic data is usually declared by the user when they create an online account or make a purchase online. This data enables brands to identify particular types of user segments and reach a correct type of prospecting customers for each campaign and advert. (Gonzalvez-Cabañas & Mochón 2016, 4)

As online data became a profitable business, third-party data suppliers increased their offering and became a vital part the advertising landscape. Programmatic technology has automated the process of purchasing inventory, targeting users and measuring campaign performance.

Despite all of the technological and professional resources, audience targeting still requires a lot of planning and preparation. Businesses leverage their understanding of consumer behaviour and use it to achieve a measurable increase in sales.

Advertising campaigns are tested and analysed in order to refine the targeting and optimise activity towards the best performing strategies. Even though this process is expensive and requires a lot of resources, it has demonstrated a direct and positive impact on advertising ROI. Therefore, getting access to large amounts of relevant and well-segmented user data is seen as a competitive advantage by a majority of businesses in every industry. (Gonzalvez-Cabañas & Mochón 2016, 7)

For digital marketers, it is crucial to tie together web analytics and advertising to narrowly focus on key users when driving online actions. Carefully crafted user segmentation helps them to carry out effective direct response campaigns and drive users to actions. Marketers use performance data to learn and optimize campaigns effectively.

Audience Segment Targeting allows advertisers to reach a set of users who demonstrate a specific behavior or brand affinity. Segments are built based on user’s declared demographic information, their online activity, purchase and location data. It provides a more accurate behavioral representation of the user. (Grether 2016, 44)
Advertisers create various audience segment targeting strategies to test and move budgets towards the best performing combinations.

Analysis and segmentation helps brands to build focused audience strategies, then pushing it out for activation through media and marketing channels. Many advertisers store and use their own 1st party data - site visits, purchase history, subscription information. It enables them get the most robust and compelling insights into their consumers and behaviors.

Advertising activity aims to create a personalised and relevant experience for each user, but studies have shown that consistent display of persuasive ads results in a negative attitude by the viewer. (McCoy, Everard, Galletta & Moody 2017, 24) This creates a challenge for a lot of businesses.

2.3 Online Data Privacy

Advertising technology has been rapidly developing over the last decade, creating a very competitive and saturated marketplace of consumers' data and online behaviours. Its benefits are recognised by major corporations and billions of annual advertising budgets are invested programmatically.

As with many other disruptive technologies, regulations and legislation are created only when the technology is already widely adopted and becomes mainstream. Digital advertising and its extensive use of personal data is not an exception.

Research shows that over sixty percent of users have concerns regarding their privacy online. If the user is not sure about the security of a media platform where the ad is shown, their impression of the advertised product can be negatively affected. (Liao, Liu & Chen 2011, 702)

Digital experts are focusing a lot on the importance of data security, with a significant portion of studies looking at the safety of online transactions. Legislation holds online businesses responsible for ensuring the safety of individual's financial information.
Users' personal information deserves to have the same level of protection provided by brands and publishers, to improve customer experience and build a trusting relationship between the parties. (Liao, Liu & Chen 2011, 710)

A challenge that a lot of users face is a difference between "perceived" and "actual" they have over their data. (Hoadley, Xu, Lee & Rosson 2010, 53) In many cases, lack of privacy is concealed by an overwhelming amount of text websites, and social networks have in their Terms and Conditions. Legislators and the general public are more and more frequently raising concerns about their data privacy.

Media platforms need to become more transparent and take responsibility for the way they approach information security. Users should be guaranteed access to clear information about the commercial use of their data, as well as the right to control it.

In 2017 major news outlets started covering stories about data protection and Internet privacy. Government officials started paying increased attention to large technology companies that gather, use and sell personal data of their customers. It became clear that legislators and the general public did not have a full understanding of advertising technology and personal data economy.

Large industry-leading companies, like Facebook and Google, have been criticised and put under pressure to make significant improvements in the way they handle their users' data.

European Union is known for leading initiatives related to data protection. This year General Data Protection Regulation (GDPR) had a profound effect on the whole digital landscape. After four years of development, the GDPR is coming into force on 25 May 2018 and provides businesses a set of mandatory rules for sharing, controlling and processing user's personal data online.

While GDPR only protects only data of EU citizens, it already has a global effect. Most online services and data handling parties had to make significant changes to their User Agreements, that apply to all territories.

The whole digital landscape is currently changing and adapting to this first wave of a proactive approach to data regulation. These initiatives and media attention has a
potential to deepen understanding of online privacy and digital advertising strategies by the general public. (Hoadley, Xu, Lee & Rosson 2010, 60)

Questions that I am looking to answer with this research are in line with an emerging trend of shaping digital advertising around consumers' choices, rights and preferences; and shifting focus away from individual needs of businesses.

2.4 Millenials

In this research, I focus on millennials as a target audience. Millennial generation has been raised with Internet and technology at their fingertips, and they are perceived to be extremely comfortable with sharing their information online.

Communication devices are highly adopted by Millennials, ninety-seven percent of their generation owns a computer and ninety-four percent owns a smartphone. They use the Internet every day, discover brands and purchase products on e-commerce platforms more than any other age group. (Smith 2011, 489)

Due to the fact that researchers typically use the early 1980s as starting birth years and early 2000s as ending birth years of Generation Y, audience segments used to target this age group would include users from 18 to 34 years old.

Even from everyday observation, it is clear that there would be a noticeable contrast between how an 18 and a 34-year-old use their devices and interacts with brands. Therefore, I fo-cus my research on this age group to see if there is a difference between the attitu-des of a younger and older half of the audience.

I also aim to measure if there is any difference between views of females and males in this age group. A large number of advertisers expect millennials to be comfortable sharing their data and having an understanding of how advertisers use their data.
3 Methodology

Two different methods of research are usually used in research: qualitative and quantitative. Using quantitative research method, empirical data is gathered and analysed from a large audience sample in order to amounts to answer deterministic questions this to questions when using quantitative research method.

The qualitative research, on the other hand, includes detailed and descriptive data in form of words and sentences collected from a smaller population than quantitative research (Saunders, Lewis & Thornhill, 2009).

My research aim was to identify the attitude of millennials towards the use of personal data in digital advertising, therefore the quantitative method is used in this study.

3.1 Research Design

I have decided to create a web questionnaire. Saunders, Lewis & Thornhill (2009) suggest that respondents are subjected to less pressure through online questionnaires, and therefore you can expect fair and honest answers. I also believed that an online questionnaire would be easier to distribute to a large number of people within a targeted audience, which should improve the response rate and an overall sample size.

To gather the empirical data on the attitudes of millennials is, I developed a questionnaire using SurveyMonkey platform (Appendix 1). The questionnaire was filled by anonymous respondents in the questions were clear and straightforward.

In anonymous questionnaires, people more frequently give honest answers to questions, which helps to avoid the biased influence.

I have decided to build questionnaire with closed questions, give the respondents multiple choice answers. According to Saunders, Lewis & Thornhill (2009), this helps to shorten the amount of time people spend taking the questionnaire, minimising the “drop-off rate” and the risk of having incomplete questionnaires. Because the answers are predefined, the obtained data is much easier to compare.
I aimed to formulate the questions as clearly as possible, in order to avoid incorrect interpretations by the respondent. To ensure the reliability of the information received, all questions were made mandatory. I decided to ask the questions in English language.

Saunders, Lewis & Thornhill (2009) suggested that long questionnaires reduce the amount and quality of responses, compared to short questionnaires, so I tried to ask only a necessary amount of questions required.

My research aim was to identify the attitude of millennials towards the use of personal data in digital advertising. I have used the qualitative method of research and conducted an online questionnaire that consisted of seven questions (Appendix 1).

First two questions asked the respondent to indicate their Age and Gender. In the following 4 questions, respondents were asked definitive Yes or No questions about their concerns regarding the use of personal data online, their understanding how advertisers use it, whether or not respondents make efforts to prevent advertisers from getting their data, and whether they enjoy seeing personally relevant ads online.

In the last question of the study, I asked respondents to choose types of data that they would be comfortable with advertisers using for ad targeting.

In addition to analysing overall results, I believe it would be useful to gain insights on the differences and similarities between genders, as well as younger (18-24) and older half (25-34) of the audience demographic.

4 Results and Interpretation

The online questionnaire had 198 respondents and it was limited only to people within the targeted age group. The survey has been shared across various student and professional forums, and social media networks. I have reached people in a number of different social circles. This approach delivered a very varied sample.
Below I analyse the results for each question of the survey and provide descriptive comparisons.

**Q1 Please indicate your age**

Respondents were given two answers: 18-24 and 25-34.

114 respondents belonged to be 18-24 age group (57.58% of respondents) and 84 respondents (42.42%) identified their age between 25 to 34 years old. These numbers confirm that both age groups are well represented in the study (Figure 1).

**Figure 1. Percentage of respondents in each age group**

![Bar chart showing age groups and percentages.]

The most represented Age and Gender combination of respondents is 18-24 Females (Figure 2), accounting for 63.16%. Both genders were equally represented in the second age group (25-34).

**Figure 2. Amount of Male and Female respondents in each age group**
Q2 Please indicate your gender

Repondents were given 2 answers: Male and Female.

Out of the total number of respondents Females accumulated for 58.59% and males for a 41.41%. Still both genders individually had a significant amount of respondents, making the study representative for both Males and Females.

It is important to remember that the overall results could be slightly skewed towards responses of Females, due to the that they take up a bigger part of the sample.

Figure 3. Total percentage of Male and Female respondents
Q3 Are you concerned about your online data being used by advertisers?

This was a definitive “Yes or No” question.

64% of the respondents identified that they are concerned about their online data being used by advertisers.

Figure 4. Total percentage of Concerned (Yes) vs Non-concerned (No) respondents
In the third question older half of the millennial respondents (25-34) showed a slight difference in their answers, indicating to be 5% more concerned about their online data being used by advertisers then 18 to 24-year-olds.

Figure 5. Percentage of Concerned (Yes) vs Non-concerned (No) respondents in each Age Group

Both Males and Females showed similar responses, saying that they are concerned in 62.2% and 66.38% of their answers respectively.
Figure 6. Percentage of Concerned (Yes) vs Non-concerned (No) respondents in each Gender group

Q4 Do you understand how advertisers access your online data?
This was a definitive “Yes or No” question.

Overall 63.13% of respondents indicated that they do you have an understanding of how advertisers access their online data.
Both age groups identified similar understanding of how advertisers get access to their data, with 62.28% of 18-24 millennials answering “Yes” to the research question, and 64.29% of 25-34 millennials gave the same answer.
When looking at the differences in the results between genders, 7% more Males indicated an understanding of how advertisers use their data.

Figure 9. Percentage of respondents who indicated understanding (Yes) vs those who did not (No) in each Gender group

Q5 Do you take any specific measures to limit the amount of personal data you make available to the advertisers?

This was a definitive “Yes or No” question.

61.11% of the respondents answered “Yes” to the above question.
Interestingly, much larger percentage of 25-34 age group indicated that they take measures to protect their data, over a 10% more then respondents in 18-24 group.

Figure 11. Percentage of respondents who take measures to protect their data (Yes) vs those who do not (No) in each Age Group
Even more significant difference can be seen on Figure 12, when the answers to the question are compared between Males and Females. 70.73% of Males tend to take measures to protect their data, 16% more than Females.

Figure 12. Percentage of respondents who take measures to protect their data (Yes) vs those who do not (No) in each Gender group

Q6 Do you enjoy seeing personally relevant ads online?

This was a definitive “Yes or No” question.

Only 41.41% of total amount of respondents indicated that they enjoy seeing personally relevant ads online.
Both age groups answered similarly to this question, with only 3% difference.

Figure 13. Total percentage of respondents who enjoy seeing personally relevant ads (Yes) vs those who do not (No)

Figure 14. Percentage of respondents who enjoy seeing personally relevant ads (Yes) vs those who do not (No) in each Age Group
This question also has been answered in a similar way they both genders.

Figure 15. Percentage of respondents who enjoy seeing personally relevant ads (Yes) vs those who do not (No) in each Gender Group

Q7 Please choose the types of online data you are comfortable with advertisers accessing and using in their targeting

Respondents were given a list of data types to choose from. They can either mark single or multiple data types, or answer “None of the Above”.

Answer options included: Age, Gender, Education Level, Occupation, Income, Relationship Status, Interests and Hobbies, Previous Purchases, None of the Above.

As shown in Figure 16, more than half of all respondents indicated that they are comfortable with their Age and Gender data being used advertisers. Similarly Interests and Hobbies data type was chosen by 49%.

Education Level and Previous Purchases data types have been chosen by 30.30% at 35.85% respondents respectively.
Quarter of the respondents were comfortable with sharing their occupation data, in 24.75%.

The most sensitive data types to be used by advertisers proved to be respondent’s Income (7.58%) and Relationship Status (11.62%).

Quarter of the respondents (24.24%) indicated that they are not comfortable with sharing any type of data with advertisers in order to receive targeted ads.

Figure 16. Total percentage of respondents who are comfortable with each data type to be used by advertisers

Below are chosen data types divided by the age groups 18-24 and 25-34 (Table 1.). Younger millennials showed to be significantly more comfortable with sharing Age, Gender, Education Level and Interests and Hobbies data.

The most significant difference was in the amount of respondents choosing “None of the Above” as an answer to you this final question. 25 to 34-year-olds chose “None of the above” in 36% of their answers, 22% more than 18 to 24-year-olds.
Table 1. Percentage of respondents who are comfortable with each data type to be used by advertisers compared by the Age Group

<table>
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<th>Data Type:</th>
<th>AGE</th>
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<th>EDUCATION LEVEL</th>
<th>OCCUPATION</th>
<th>INCOME</th>
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<td>18 – 24</td>
<td>62.28%</td>
<td>63.16%</td>
<td>36.84%</td>
<td>27.19%</td>
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<td>25 – 34</td>
<td>45.24%</td>
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<th>Data Type:</th>
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<th>PREVIOUS PURCHASES</th>
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<td>18 – 24</td>
<td>12.28%</td>
<td>53.51%</td>
<td>38.60%</td>
<td>14.91%</td>
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<tr>
<td>25 – 34</td>
<td>10.71%</td>
<td>44.05%</td>
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When comparing the answers by Males and Females (Table 2), Males indicated to be more comfortable than Females with Occupation, Income, Relationship Status and Previous Purchases data types being used by advertisers.

Table 2. Percentage of respondents who are comfortable with each data type to be used by advertisers compared by Gender

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<th>OCCUPATION</th>
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<tr>
<td>Male</td>
<td>51.22%</td>
<td>53.66%</td>
<td>32.93%</td>
<td>34.15%</td>
<td>14.63%</td>
</tr>
<tr>
<td>Female</td>
<td>57.76%</td>
<td>56.90%</td>
<td>28.45%</td>
<td>18.10%</td>
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<td>Male</td>
<td>15.85%</td>
<td>48.78%</td>
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<tr>
<td>Female</td>
<td>8.62%</td>
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<td>31.90%</td>
<td>23.28%</td>
</tr>
</tbody>
</table>
5 Conclusions and Future Suggestions

The aim of my research was to identify the attitudes of millennials towards advertisers accessing and using their personal data. Overview of industry literature sources and previous research suggests that advertising has become very focused on the use of personal data. It is widely used by a lot of advertisers in order to reach the target audience more effectively.

Media and legislators have shown their concern regarding the lack of regulation in the way advertisers access user’s personal data. Millennials are considered to be confident users of online services and platforms and are comfortable with the reality of the digital landscape and data security. I challenged businesses’ stereotypes and the assumptions, and wanted to see if they are correct.

My research has shown that millennials are predominantly concerned about their data being used by advertisers. They do have an understanding of how advertisers access their data, and Males show a slightly higher level of understanding.

Quite a lot of the millennials take specific measures to limit the amount of personal data available to advertisers, but Males are making significantly more effort to protect their data.

Only 40% of respondents enjoy seeing personally relevant ads online, which is an interesting and helpful finding, as a lot of brands assume the opposite and try to make advertising more personalised and relevant.

Every second millennial is be comfortable with advertisers using age, gender and interests data. They are least comfortable with being targeting based on income and relationship information.

Younger half of the millennial generation is more comfortable with sharing data with advertisers. And females are less likely to be comfortable with a variety of precise data types being used by advertisers, in comparison to males.

This findings could be very useful for advertisers when they decide which data to use when trying to target a particular age group and gender. This research only answers
limited amount of questions, but could serve as a starting point for more detailed qualitative research in the future, as well as quantitative research for other age groups.
References


Appendices

Appendix 1.

Questionnaire

Consumer Attitudes Towards the Use of Personal Data in Digital Advertising

1. Please indicate your age
   - [ ] 18 - 24
   - [ ] 25 - 34

2. Please indicate your gender
   - [ ] Male
   - [ ] Female

3. Are you concerned about your online data being used by advertisers?
   - [ ] Yes
   - [ ] No

4. Do you understand how advertisers access your online data?
   - [ ] Yes
   - [ ] No

5. Do you take any specific measures to limit the amount of personal data you make available to the advertisers?
   - [ ] Yes
   - [ ] No
6. Do you enjoy seeing personally relevant ads online?
   ○ Yes
   ○ No

7. Please choose the types of online data you are comfortable with advertisers accessing and using in their targeting

☐ Age
☐ Gender
☐ Education Level
☐ Occupation
☐ Income
☐ Relationship Status
☐ Interests and Hobbies
☐ Previous Purchases
☐ None of the Above