# **Branding Implications of Programmatic Advertising**

# – a study of retargeting



Anders Munkesø Kjærbøll

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## Abstract

As consumers are moving towards a digital media-consuming world, advertisers follow with ever more sophisticated marketing tools to utilize the new technological potentials to reach their audiences. With the large amounts of data available to track campaign performance and attribute success based on digital interactions with consumers, the speed at which a brand needs to adapt to this new context has consequences for brand management.

With all this data available, marketers are able to steer their campaigns to target potential customers that have visited their website with banner ads on any website they visit subsequently, be it news sites, social networks, cooking or DIY sites etc.

This media buying strategy, called retargeting, has proven to be extremely efficient from a ROI perspective, but might have negative consequences in terms of consumers becoming aware of these targeted ads. Due to this awareness, some consumers might infer that a persuasive attempt to make them buy from a brand is being deployed which activates a consumer's *persuasion knowledge*.

Via a retargeting experiment, this study explores this consequence and how consumers are affected by retargeting from an attitudinal and persuasive perspective.

The findings confirm this hypothesized consequence as *persuasion knowledge* is found to be activated to a higher degree for respondents that are treated with a high frequency of targeted ads during the experiment where they are compared with a group which receives low frequency and a control group which receives none targeted ads. Furthermore, qualitative data about the respondents' beliefs and opinions about retargeting are analyzed to explore the triggers and pitfalls of retargeting.

The findings from this study have implications for research within digital advertising as it proves the applicability of attitude theory and persuasion knowledge as well as both managerial implication for campaign execution and brand management as negative consequences of retargeting are discovered.

**Keywords:** Retargeting, Programmatic Buying, Persuasion Knowledge, Theory of Reasoned Action, Mere Exposure Effect, Effective Frequency, Online Consumer Behavior, Internet Advertising

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## Introduction

Today's digital landscape is growing exponentially with new technological business opportunities such as Uber, AirBnB and Snapchat opening up at an unprecedented pace and being valued at astronomical sums within few years of existence (Pascale, 2014).

The ad tech industry is part of this boom, as it is fueling the growth of many of these companies by presenting new media for advertisers to reach their audiences. Most noteworthy, this is facilitated via the conglomerates of Google and Facebook, which respectively are generating 89.5% and 90.5% of the revenue from advertising, but also together with lots of other ad tech vendors (see appendix 1 for an overview). This development has major implications for how brands are built via digital advertising and therefore calls for further explorative studies in this new research corridor.

From a practical perspective, the increasing complexity has made the role of marketing managers more demanding and non-transparent when facing decisions about optimal media budget allocation (WARC, 2014).

The nature of online media is quantitative and, thereby, all media-spend is measurable to some degree. Consequently, the focus of many digital marketers is drawn towards metrics such as click through rates (CTR), last click attribution and campaign ROI when deciding which channels represent the optimal media plan (Lewis, Rao & Lewis 2014; Cheong, Gregorio & Kim 2010).

Retargeting, which is a tactic used by advertisers to target users who have visited their homepage with banner ads on the subsequent websites they visit, often proves to be one of the media buying tactics performing best when looking at ROI metrics in the media plan evaluation.

A consumer will typically experience this tactic when surfing the web where a product or brand ad impression from a recently visited homepage will appear at a high frequency. The same ad impressions will, in some cases, relentlessly appear whether the consumer is reading the news, checking Facebook or looking at the weather forecast, as examples.

This tactic is made possible through a new advertising technology called *programmatic buying*, which is growing rapidly and is forecasted to represent 60% of all digital ad spend by 2017 (WARC, 2014).

Several concerns related to retargeting have been raised by researchers and media experts who claim that brand deteriorating effects are risked as potential customers may feel stalked by this aggressive campaign tactic although its immediate ROI is promising (Tucker, 2011; Berendt, Günther & Spiekermann, 2005; Ponemon Institute, 2010).

Another issue with retargeting is its intrusion on society and "*the right to be left alone*" (Acquisti & Spiekermann, 2011). This is also a concern shared by the ad tech industry, which among several individual initiatives have provided the opportunity for users to opt out of their default data collecting permission which provides data for retargeting via the AdChoices service (see appendix 2).

Furthermore, targeted online ads have under certain conditions been found to activate the concept of persuasion knowledge when retargeting becomes too intrusive (Goldfarb & Tucker, 2011) which may indicate that potential customers are lost behind the promising ROI facade. Valid questions to ask in relation to this are whether a retargeting campaign only targets individuals that have shown a high interest in the advertised brand, what is the value added of the campaign and are some of these highly interested consumers getting second thoughts after being intensively retargeted?

However, due to the yet early days of online advertising many of these concerns are poorly supported by data; especially in relation to brand measures and what effect retargeting can have on the customers who are allegedly not interested in or annoyed by the repeated targeted ads, and in relation to how their attitude towards purchasing from the advertised brand is affected.

# **Research questions**

In response to the uncertainties and potential risks of new advertising technology introduced above, this study will investigate the brand specific implications, in terms of attitudinal and behavioral parameters, of targeted high-frequency exposure caused by different retargeting tactics. This leads to the research question of the study which is:

# "What is the effect of retargeting on behavioral brand attitudes and persuasion knowledge of people who are intensively retargeted?"

To answer this, attitudes of individuals who have been exposed to retargeting of different degrees need to be studied across product categories to document an aggregate and comparable effect. Furthermore, the concept of persuasion knowledge needs to be further investigated as this concept could potentially be an accurate indicator of the privacy sphere breach that some people may feel when the same ad, keeps showing up due to retargeting.

This leads to the following sub-questions:

- *i.* How does retargeting affect attitude toward recommending brand x?
- ii. To what extent is persuasion knowledge activated by means of retargeting?
- iii. How does persuasion knowledge affect attitude toward recommending brand x?
- *iv.* How does different frequency of retargeting rates affect attitudes and persuasion knowledge?
- v. What triggers awareness about retargeting and how is it perceived and reacted to by consumers?

# **Definitions of key terms**

*Impression:* a term used for quantifying the number of banner exposures – as an example a campaign can be evaluated by how many impressions it delivered within a target audience.

**Conversion:** a conversion is typically a desired action that results from a campaign (e.g. a hotel booking, newsletter sign-up, lead, order confirmation etc.). It will often be used to evaluate the performance of a campaign by looking at the last banner interaction before the conversion occurred which can either be a banner click (post-click conversion) or a banner impression (post-view conversion).

*Click through rate (CTR):* a metric used to measure the effectiveness of a banner by calculating the percentage of banners that are clicked on. A benchmark for conventional desktop banners is 0.1% i.e. 1 click out of 1,000 impressions.

**Display:** a term used for desktop banner advertising as opposed to online mobile and video advertising.

*Viewability:* a metric used to describe the amount of impressions that were displayed within the viewable area of a browser window. The industry standard is that 50% of a banner must be "inscreen" for 1 continuous second before it can be counted as viewable.

Theory of Reasoned Action (TRA): an attitude model developed by Aijzen & Fishbein (1980).

**Persuasion Knowledge Model (PKM):** a model developed by Friestad & Wright (1994) to predict how consumers react to persuasive attempts in advertising.

*Mere exposure effect:* a theory developed by Zajonic (1968) to describe how exposure of any object can improve a person's preference toward that object.

**Programmatic Buying:** an advertising technology used to buy ad impressions. When a person enters a web-page, an auction takes place within 100 milliseconds where different advertisers bid for winning an ad placement on that page to serve their ad when the page loads.

# Background

The idea behind this study derives from the researcher's job as a digital media trader at a media agency, where knowledge about the ROI and effectiveness behind retargeting campaigns sparked the wondering if the numbers left out some of the bigger picture, especially in relation to a branding perspective.

Within this job, many clients (i.e. represented as marketing managers) have asked similar questions as this study will try to answer, in relation to their concerns about excessive use of retargeting and the consequences of targeting their core customers at high frequencies.

As a media agency's role is to advice clients in the media buying strategy, there is as such no risk of bias toward proving whether retargeting is good or bad from what is being studied in this master thesis.

Furthermore, this study has been carried out without receiving any support nor data from the media agency and brands involved, as it from the beginning to end has been the researchers own project. This means that there are no external stakeholders who have been granted influence to shape the project in any direction or been given the right to censor the findings or conclusion.

### **Contributions and Positioning**

As answering this research questions has relevance to both academia in terms of exploring advertising and consumer behavior in a digital context, and managerial relevance for the marketing managers that needs data to support their judgements about retargeting, the following will present the study's contribution and positioning from these two perspectives.

#### **Theoretical relevance**

So far online advertising research is arguably in a premature state where corporations such as Google, Oracle, ComScore etc. have taken the lead in understanding consumer behavior in the digital ecosystem ahead of most research (Lewis et al., 2013). Most academic research in this field has used laboratory settings to construct experiments, as examples, some studies have manipulated content on downloaded websites or programmed games and quizzes to understand online consumer behavior in a controlled environment and used fictional brands as stimuli (Edwards, Li & Lee, 2013; Lambrecht & Tucker, 2013; Hervet, Guérard, Tremblay & Chtourou, 2011). Many of these studies can be criticized for not providing realistic conditions for the participants and for being outdated due to the rapid development of online advertising.

Furthermore, most of this research arguably lacks practical insights about online consumer behavior and measurements. As an example, one of the most frequently referenced studies (151 cited references according to Google Scholar) concerns pop-up ads (Edwards, Li & Lee, 2005), that today are far less frequent in online media and could be argued to have an entirely different obtrusiveness effect than the most common display ads - the Interactive Advertising Bureau (IAB) standard formats of 160x600, 300x250, 728x90 pixels - that are placed around and in between content.

Another concern with existing studies of online advertising is the question of advertising incremental value and the issue of respondent exogeneity (Lewis et al., 2013). As the point at which a consumer is targeted usually derives from a genuine interest in a brand or a topic, e.g. when visiting a travel agency homepage or a travel blog in the planning process of a vacation, the consumer will naturally have a high affinity for travel before being exposed to a travel ad, making

the effect of the ad difficult to measure and to compare with a control group. From a research perspective, this makes the framing of respondents a key criteria in order to obtain valid data that can be used to document and to isolate the contribution of advertising towards "low-funnel", i.e. high intent, consumers via retargeting.

This precaution is in some cases overlooked in current research as exemplified in this quote:

"Measuring the online sales impact of an online ad or a paid-search campaign in which a company pays to have its link appear at the top of a page of search results is straightforward: We determine who has viewed the ad, then compare online purchases made by those who have and those who have not seen it."

M. Abraham, 2008. Harvard Business Review

As Lewis et al. (2013) points out, this statement leads to sample bias as specific search behavior typically is a result of awareness about the product which triggered the search query and that a user that sees a search ad thereby has a much higher inferred probability of purchasing than the general population who did not see the ad. As a contribution to the validity of current theory, this, and other sampling issues of online advertising will be confronted in this study.

Although some studies of online display advertising have measured brand indicators such as awareness, preference and purchase intent (Lambrecht & Tucker, 2013; Baron, Brouwer & Garbayo, 2014; Tutaj & Reijmarsdal, 2012), this has been done for either a single brand and/or in a controlled environment which questions the generalizability.

Another thing that has been neglected in online advertising research is the impact of frequency. As more precise targeting possibilities now are available to plan for an effective and differentiated frequency for each potential customer, a gap in this research area currently exist.

Given this lack of research, this study will provide cross category empirical data from a realistic browsing test environment.

#### Managerial relevance

Marketing managers are lacking clear guidance in media mix decisions and are in most cases subject to use of gut feeling about retargeting. Many who are new to this tool are skeptical and fear brand deteriorating effects caused by high frequency of targeted ads, or that they will not be able to control which websites their brand appear (since retargeting only focus on targeting the user, and not the context) or that colliding ads will waste budgets as a retargeting tactic in some cases can cause several of the same ads to appear on one page due to targeting intensity (WARC, 2014). Yet, of 598 marketing managers asked, the consensus about the efficiency of targeting seems to be clear as shown in figure 1:



#### Figure 1 - Most important factor behind a successful advertising campaign

Figure 2 – Most important factor behind a successful advertising campaign

Source: WARC, 2014

Furthermore, in a survey among 90 organizations constituting a total annual media budget of \$150m, made by Ponemon Institute, more than 70% of the CMO's that participated in the survey agreed that targeted online ads increase marketing and sales performance.

On the other hand, the same CMOs estimated that only 1,8% of their marketing budget was currently spent on targeted/behavioral online ads as seen in figure 2.



# Figure 2 – Average budget for marketing, online advertising and behaviorally targeted advertising (\$1,000,000 omitted)

This number is expected to increase, but a clear contradiction currently exists between these two statistics, which is why this field needs to be investigated further from a managerial perspective, and to challenge the doubts that is holding the CMO's back from using this technology.

Source: Ponemon Institute, 2013

## **Theory and Concepts**

As this study seeks to investigate online consumer behavior, several theoretical concepts are worth discussing in relation to building hypotheses and designing a questionnaire for the experiment that will be carried out in this study.

First, relevant research on *online advertising* needs to be identified and discussed. Second, as attitude formation is the object of measurement, a clear stance on how *brand attitudes* are perceived and measured in this study is necessary. Third, as *persuasion knowledge* appears to be a valid parameter to answer the research question, a definition of this concept and how it can be applied to this study will need to be discussed. Fourth, a brief discussion of *effective frequency* is required in order to legitimate the value/effect on attitude change and behavior attributed by retargeting.

#### Online advertising research and the effect of advertisement exposure

To be able to study the effect of retargeting, it is first important to understand if online banner advertising even has an effect on consumers decision-making and which types of effects are present.

Advertising, whether being in the form of print media, TV commercials or online ads, can from a theoretical perspective be defined as a paid persuasive communication attempt (Richards & Curran, 2002). Following this, advertising relies on some underlying principles that will determine its effectiveness. McGuire's Information Processing Paradigm (1976) describes this effectiveness from a probability perspective which arguably captures the overall dynamics of advertising's effectiveness and its success rate.

McGuire uses the sequential formula  $P(p) \times P(a) \times P(c) \times P(y) \times P(r) \times P(b) =$  behavior, where:

P(p) = Probability of being presented to a message

P(a) = Probability of paying attention to the message communication

P(c) = Probability of comprehending the message communication

P(y) = Probability of yielding to the message communication

P(r) = Probability of retaining the intention

P(b) = Probability of behaving

As this formula suggest, even in a very optimistic scenario where each of McGuire's steps had a 50% probability of occurring ( $P = 0.5^6$ ) only 1.56% of the people receiving this message or ad would end up acting on the message, as e.g. could be buying a product, signing up for a test drive or changing attitude towards a brand or its positioning etc.

This ground principle within advertising has its applicability to online display ads as well. Here the steps are further granulated and divided into specific actions and events, as an example the action of paying attention to an ad and then clicking on it which will be discussed in the following. One last remark to McGuire's Information Processing Paradigm in perspective of online advertising is that retargeting typically is deployed to increase the probability of the last steps being successful as e.g. retaining top of mind brand awareness in the final steps of a purchase decision can prove to be a very efficient communication tactic.

Following this, an easy way to determine if a banner ad has an effect is to look at how often it is clicked out of all the ad impressions that are being served for a campaign, however, with average click through rates of 0,1% for display ads (,), i.e. the percentage of display ads that are being clicked, it does seem questionable if people even notice these ads. Adding to this, that 8 percent of internet users account for 85 percent of banner ad clicks (ComScore, 2009). So although clicks are an easy to understand metric, since an ad must have been noticed if it was clicked, clicks are at the same time unreliable as frequent "clickers" will skew any sample. Furthermore, clicks are sometimes mistaken as in the case of e.g. intrusive formats that expand over editorial content will have unintentional clicks. Similarly, clicks from smartphones also often happens accidentally which has been coined as the phenomenon "fat fingers effect" (Adams, 2013) adding additional measurement errors.

In comparison to display ads, text ads on Google have an average click through rate of 2,0% (Google, 2010), i.e. 20 times higher than the average for banner ads.

Since Google as the leading online media organisation attributes the advertising value to the last ad clicked before a purchase is made as a standard measure, it becomes questionable to online marketers when looking at this difference in click through rates if display advertising even has a cost effective role in creating advertising value.

Another issue with display advertising raised is the proposed "banner blindness" phenomenon that suggests consumers are subconsciously avoiding looking at banner ads (Hervet, Guérard & Tremblay, 2011).

Furthermore, retargeting is a controversial topic in terms of attribution, since targeting people who are already interested in buying a product leaves the question if they would have bought the product in any case, so no wonder the ROI of retargeting campaigns looks good. And more importantly, if retargeting may have caused a negative impact in cases where the person targeted decides not to buy the product because she/he felt forced to act or stalked by a continuous flow of ads.

This leads to the discussion of what has so far been investigated within online display advertising.

Lewis, Rao & Riley (2013) has used an econometric approach to document if display ads even have an effect on sales. Luckily this is the case although the measurable effects are marginal, with high standard deviation error margins, and with several measurement problems encountered. Their study uses campaign data from Yahoo alone which leaves out campaign interactions that the sampled users might have been exposed to elsewhere, requiring high amounts of campaign data to establish significance and prove an aggregate effect. Some external factors from this study are, however, relevant to consider. *Activity bias*, which is based on the difference between people who spend a lot of their leisure time online and people who does not, may explain difference in preference and awareness as some brands are e.g. more heavily advertised online than offline, and is arguably a source of bias in any online advertising study. It is based on the following two premises (Lewis et. al, 2013):

a. since one has to be browsing online to see ads, those browsing more actively on a given day are more likely to see your ad

b. active browsers tend to do more of everything online, including buying goods, clicking links and signing up for services

This finding is supported by the brand-building study conducted by Draganska, Hartmann & Stanglein (2014) where lift in awareness attributed by display ads are found to be lower for active online users than for people that e.g. mostly consume TV, making activity bias a relevant control variable.

Baron, Brouwer & Garbayo (2014) find that full-screen interactive formats, which are often considered interruptive as they expand over the editorial content of a web page, delivers highest likability and scores highest on brand connection compared to other display formats. They also find that brand recall increases and that different full-screen interactive formats and standard display ad formats (IAB formats) increase ad likeability and purchase intent. Translating this finding into the proposed problems with retargeting, the question of what it takes before ads becomes intrusive or interrupting, as retargeting ads may be considered, remains unclear based on this study.

Another indirect effect appears to be search queries that are found to be triggered by banner ads. Lewis, Rao & Riley (2011) finds a lift in search propensity of 5.4% for brand relevant keyword search queries among users exposed compared to users who were not exposed in another Yahoo experiment. For people that are being retargeted, this lift is significantly higher according to a study made by ComScore (2010) that over a 4 week period of retargeting saw an average lift of 1,046% in branded search queries among the people being retargeted by banner ads.

Recently, several eye-tracking studies have investigated how much attention is paid to banner ads and measured the resulting memory, comprehension of message and attitude towards the advertised brand (Chatterjee 2008; Lee & Ahn 2014; Hervert et. al 2011; Wang, Shih & Peracchio 2013; Barreto, 2013). Most interestingly, all these eye-tracking studies share the consensus that the majority of ads are actually viewed and thereby rejects the postulated banner blindness syndrome - e.g. as found by Hervert et. al (2011) that 82% of participants attending their experiment fixated on at least one of the four banner ads per webpage.

Although most banner ads are viewed for a short while, Wang et. al (2013) find that even at subliminal fixation levels (i.e. when the exposure duration is less than 50 miliseconds) banner ads

may act as perceptual primes which enhance consumer preference for the advertised brands in their experiment. This effect is found due to the processing fluency model which suggests that *the mere exposure effect* of ads can shape positive associations to a stimuli (Wang et. al, 2013).

Zajonic (1968) introduced the theory behind the *mere exposure effect*, which has since then been exhaustively tested and proven robust across different experimental conditions (Bornstein & D'Agostino, 1992).

In short, this theory predicts that exposure of any object affects preference toward that object, and that frequent exposure builds up this effect. As mentioned, this effect has been proven applicable across different research areas, and in relation to its relevancy for this study, it has been found to affect attitude formation (Grush, 1976).

Bornstein & D'Agostino (1992) tested this for stimuli at supraliminal (500 milliseconds) and subliminal (5 milliseconds) levels using polygons, photographs and Welsh figures (a pool of 400 figures developed for personality tests by Welsh & Barron in 1949) as stimuli. In these experiments, they found liking to increase by up to 25% for respondents that were exposed twenty times under the subliminal condition of the experiment compared to those that only received one exposure (the respondent groups were divided into stimulus exposure frequencies of 0, 1, 5, 10 and 20). This is a significant increase considering that those respondents were not even able to re-call any of the exposures, see figure 3 below for a summary of Bornstein & D'Agostino's findings.

Yoo, Bang & Kim (2009) confirms this finding with their experiment about the repetition-variation hypothesis applied to South Korean fashion brands. Although the effect is lower on the measured variables as the respondents are familiar with the brands prior to the experiment in contrast to using polygons, Welsh figures etc., the results still point in the same direction.



Figure 3 – Summary of findings from Bornstein & D'Agostino's eye tracking experiment\*

Source: Copy of figures presented in the article by Bornstein & D'Agostino (1992)

\*N = 120 undergraduates. All their findings were found significant at p-values ranging from p = .001 to p = .07

In the case of retargeting, the effect of repeated exposure may have a positive effect from this perspective. Interestingly, if a high proportion of the advertising value is considered to derive from a perceptual prime rather than from communicating a deeper message to resonate with consumers at the right time in the right context, retargeting may truly prove to be an effective communication tactic, also from a branding perspective.

Fixation duration, however, is an obstacle that needs to be attended to some degree in order to maximize the usefulness of these insights, as shorter fixation time seems to be more effective than longer from a liking perspective. Across several of the eye-tracking studies, a reverse U shaped relation between fixation duration and liking was found (Bornstein & D'Agostino, 1992; Wang et. al, 2013; Lee & Ahn, 2014). This relation still requires further research to explain, although the current

explanation relates to a postulated boredom effect, i.e. that the respondents of those studies at some point become negative in their evaluation when the stimuli is repeated too many times (Bornstein & D'Agostino, 1992).

Yet, in Bornstein & D'Agostino's study (1992), memory variables scored higher for longer fixation duration, which could have different implications for a practical use.

Currently, an increasing focus within the industry evolves around viewability measurement as a large proportion of the banner ads bought are never viewable (AdExchanger, 2015). This will for instance be the case if a page loads with a banner at the bottom which the user might never see if she/he does not scroll down. The IAB standard for a viewable ad impression is defined as 50 percent of the banner must be in-screen for at least one second, however, the industry benchmark is currently at 50.1% viewability for publishers and 39.9% for Ad Networks and Exchanges (Integral Ad Science, 2015). Interestingly, what the industry and the eye-tracking researchers are investigating seems to be going in two different directions when the end goal could be to define measurements for advertising quality and thereby come closer to prove the value of an ad impression.

From a liking perspective, Bornstein & D'Agostino's (1992) study also has implications for how the industry determines the value of ad impressions based on their viewability standard, since instances of subliminal levels of eye-fixation in fact may be possible outside the 'one second' threshold, which in the case of their study seem to be more effective than longer fixation duration. This is in part also recognized by the industry where e.g. Sherrill Mane, SVP of research, analytics and measurement at the IAB, states that viewability does not tell you if an ad was effective or not, rather it tells you something about the opportunity for an ad to be seen (AdExchanger, 2015).

Leading forward, banner ads does provide advertising value in several ways. Although not much attention is paid to these ads, the mere exposure effect clearly has an impact as attitudes are affected by banner ads even when they are not recalled (Wang et. al, 2013) which supports that retargeting can have a positive impact on attitudes.

#### **Brand attitudes**

Measuring attitudes toward brands have been a frequently studied topic in consumer behavior due to attitudes' strong causal relation with prediction of behavior (Olson & Mitchell, 1981). Attitudes have been used to quantify the so called components of brand equity (Keller, 1993) with measures such as liking, preference considerations etc. Other researchers have studied attitudes from a relational perspective of how consumers form relationships with their preferred brands (Fournier & Yao, 1997; Roberts, 2004) which similarly has been suggested to explain consumption. Although these interpretations all seem relevant to study, the brand attitudes studied in this case are concerned with the behavioral aspect in order to document an effect on behavior from retargeting activities. Emotional and cognitive brand attitudes may well be linked to behavior, however, predicting behavior is more specifically linked to the attitude toward performing a behavior (Aijzen & Fishbein, 1980), e.g. the attitude towards buying a new coffee machine.

However, cognitions are important in determining attitude towards behavior in terms of beliefs, e.g. a question to determine a person's attitude toward buying a specific vacuum cleaner could be formulated:

Buying vacuum cleaner x would save me time cleaning

Strongly agree \_\_\_\_\_ Strongly disagree

Worth noting is that formulating such specific question is typically based on the manufacturer's opinion of the most important benefits of the product, and should according to Ajzen & Fishbein (1980) rather be formulated based on consumer's salient beliefs. Carrying on, while the semantics of the questions can be characterized as evaluative, Breckler & Wiggins (1989) finds significant difference between evaluative and affective formulation in measuring attitude. An affective formulation could sound like this:

#### *Buying vacuum cleaner x would make me happy*

Strongly agree \_\_\_\_\_ Strongly disagree

Following this, these two types of formulations should not coexist in a questionnaire, which is considered in the research design process of this study's experiment.

Behavioral attitudes are in a simplified perspective determined by the expected positive/negative consequences of the outcome of performing the behavior which is further affected by the normative prescriptions of significant others, each with relative importance weights (Ajzen & Fishbein, 1980) as defined in the Theory of Reasoned Action (TRA):

#### Figure 4 – The Theory of Reasoned Action (TRA)



Source: replication of the original TRA model in "Understanding Attitudes and Predicting Social Behavior", Ajzen & Fishbein (1980)

Although Ajzen (1985) later modified the model to become the Theory of Planned Behavior (TPB) in order to account for Perceived Behavioral Control (PBC), this addition may not necessarily improve the predictability of the model when studying online consumer behavior. Hansen, Jensen & Solgaard (2003) tested the difference between the TRA and TPB approaches in the case of online grocery buying intention and found no significant predictability from adding PBC. Most significant in predicting behavior in their study, i.e. buyer intention (BI), was the subjective (SN). This may be due to the fact that grocery shopping to a large degree is a collective decision and significant others thereby have a lot to say, however, it is noteworthy that PBC did not add any significant predicting power.

With the TRA approach toward brand attitudes, it becomes more transparent to measure whether retargeting has a positive or negative impact in the consumer decision making from a brand attitude perspective. This is not to say that affective attitude measures such as liking or preference are irrelevant, but that the impact of retargeting on brand attitudes is best measured in terms of correlation by using behavioral intent as the unit of analysis in order to understand an effect closely linked to advertising value, e.g. added sales.

Although TRA may be criticized for not accounting for attitudes shifting in relevance over different stages of the purchase decision (Semon, 1969), consumers that are being retargeted are considered to be close to making a decision, i.e. beyond the awareness and need-recognition stage as they have visited the brand homepage before being retargeted. This leads to the assumption that by measuring attitude towards recommending buying brand x, the predictability of the model will remain constant in terms of attitudes measured.

To summarize the implications of the TRA for this study, the following two hypotheses are put forward:

H6: attitude towards recommend brand x is positively correlated with brand recommendation intent

H7: subjective norm is positively correlated with brand recommendation intent

Which will be used to answer *sub-question i*.

#### Persuasion knowledge

The Persuasion Knowledge Model (PKM) was developed in order to describe and predict consumer's response to persuasive tactics deployed by advertisers. The theory claims that consumers may obtain knowledge about persuasion attempts, when ulterior motives from an influencing agent

become accessible, and use this in their evaluation of the agent's (or advertiser's) communicated message. This knowledge can e.g. affect a consumer to devalue or discount information that relates to an advertised product, thereby affecting the consumer's attitude negatively as well as their purchase intent (Campbell, 1999). Worth noting is that the inference of persuasion made by the consumer is merely an intuitive perception (or guess) of the motives behind a message and is not necessarily an accurate analysis of what is really happening in the situation (Campbell & Kirmani, 2000).

The theory was developed by Friestad & Wright (1994), and has since then been used as a measure in 89 articles according to a recent literature review by Ham, Nelson & Das (2015).

Although 13 scales was developed by Friestad & Wirght to measure persuasion knowledge, none of the 89 subsequent studies has used this guideline, instead, each study has used their own developed context specific measurements to investigate persuasion knowledge which illustrates the novelty of research within this area (Ham et. al, 2015).

However, some studies has used a scale developed by Obermiller & Spangenberg (1998) that measures *advertisement skepticism*, which, although being conceptually different from persuasion knowledge, captures the *inference of manipulative intent* (IMI) that has its similarities to persuasion knowledge.

As with persuasion knowledge, the level of IMI being activated also depends on the cognitive capacity the consumer has available during a persuasive attempt. As an example of this influence, Hossain & Saini (2014) found that cognitive capacity was higher in the evening, and thereby found higher ad skepticism among their respondents during the evening in their study (see figure 5).

#### Figure 5 – Ad skepticism measured during the day



Source: Hossain & Saini (2014), N = 94 under graduates, note that y-axis begins at 3.7 and not 0

To conclude the dynamics of PKM, the point at which persuasion knowledge activates seems to depend on both the *accessibility*, i.e. awareness, about a persuasion attempt, and on the abovementioned *cognitive capacity* available to process the message (Campbell & Kirmani, 2000) as shown in figure 6:

#### Figure 6 – A process model of consumers' use of persuasion knowledge



Source: Campbell & Kirmani, 2000

However, if a consumer has extensive *topic knowled*ge (Kachersky & Kim, 2011) about the value of a product, persuasion knowledge is found only to have limited impact on attitudes and behavior, which has to be considered in the selection of products and respondents in an experiment when measuring persuasion knowledge.

In relation to retargeting, persuasion knowledge becomes interesting to study as by definition this communication tactic is an attempt to persuade consumers to reconsider a brand or a specific product - after having visited a homepage without placing an order - and can thereby be characterized as a persuasive attempt made by the advertising agent.

Goldfarb & Tucker (2011) investigated retargeting and the relation between accessibility and inference of persuasion motives as shown in figure 6. By combining retargeting with contextual targeting, i.e. making the ad's targeting more obvious by matching the context of a webpage with the advertised brand, they show that persuasion knowledge is higher when retargeting becomes too obvious.

Similarly, Lambrecht & Tucker (2013) finds dynamic content optimized banner ads (DCO) that in their experiment display specific hotels a consumer has been looking at on a hotel brand's website to affect privacy concerns, as a proxy for persuasion knowledge, to a higher degree than generic banner ads from the same hotel brand.

Tutaj & Van Reijmersdal (2012) finds persuasion knowledge to be higher among respondents that were exposed to targeted banner ads compared to similar native ads, i.e. ads that are integrated in the editorial content, further pointing toward that cognitive accessibility of persuasive attempts have a positive relation with persuasion knowledge.

Based on this research, the following hypotheses are suggested:

H5: persuasion knowledge is negatively related with attitude towards recommending brand x

H6: persuasion knowledge is higher for respondents that are being exposed to a low frequency of targeted ads

H7: persuasion knowledge is highest for respondents being exposed to a high frequency of targeted ads

Reactance theory has also been applied in the study of online pop-up ads (Edwards, Li & Lee, 2005), which persuasion knowledge arguably is inspired by. However, Lambrecht & Tucker (2013) tests for both reactance and persuasion knowledge in their study, but find no significant change of reactance among their respondents. Reactance may thereby be excluded on the basis of their study although reactance might be worth studying in other aspects of online advertising. Measuring reactance effectively, of course, depends on how the questionnaire is formulated in order to capture these variables, but for the simplicity sake, focus will be emphasized on persuasion knowledge in this study.

Furthermore, it is expected that another variable that can affect accessibility of a persuasive attempt is the frequency at which a targeted ad appears in a browsing session, which will be discussed in the following, as high frequency is expected to enable accessibility to PKM.

These hypotheses will be used to answer sub-questions ii and iii.

#### **Effective frequency**

In traditional media planning, much effort is put into determining the optimal campaign frequency which is estimated as a static figure or interval (Krugman, 1972). The effective frequency is based on the principle of the S-shaped advertising response curve (see figure 7), where a certain number of exposures are required to break through the media noise before an ad will have an impact whereas at a certain frequency this effect starts to wear out and adding additional exposures (or ad spend) will be less effective (Jones, 1995).

Figure 7 – The advertising response curve



Source: Schroer (1989)

Since programmatic buying enables advertisers to apply behavioral data and control frequency down to each individual reached, some aspects of frequency are worth reevaluating.

Indeed, the advertising effect will possibly start to wear out after exposure number 5 for a given consumer, however, the top 100 individuals that are most likely to convert based on retargeting segmentation data, are still relatively inexpensive to reach with a frequency above 50. This means that the worn out effect at this frequency still is valuable due to the high probability of conversions occurring among these individuals.

Yet, in order to determine the effective frequency, attribution is a prerequisite that divides marketers. Although conversions can be linked to ad exposure and ad clicks in online advertising, the choice of metric has significant impact on establishing an optimal frequency. The following two frequency distribution graphs from two retargeting campaigns displays this issue, where the first attributes all credit to the last ad click before the conversion (i.e. the sale) as metric (PC = post-click) while the second uses last ad impression (PV = post-view).

The blue line illustrates frequency buckets where e.g. 24.000 unique users received one ad impression and so on, the green line shows the number of conversions in each of these frequency buckets. The last bucket captures users who have received a frequency of 50 and above.



#### Figure 8 – Post-view conversions and unique user count per frequency bucket

Clearly, the frequency distribution seems somewhat optimal for figure 8 where conversions relatively follows the size of the impression buckets, indicating that the right users received the right amount of impressions. The 8.000 most valuable users that received >50 frequency also provided a relative high conversion rate, so overall a good result in terms of frequency distribution when using post-view conversions as a metric.

Had post-click conversions been the metric as in figure 9, the frequency distribution would not have been as optimal. This is mainly due to the fact that ads must be clicked before a post-click conversions is counted, recall that the proportionate benchmark for clicked display ads is 0,1%, making post-click conversions rare.



#### Figure 9 – Post-click conversions and unique user count per frequency bucket

Therefore, although retargeting provides interesting avenues of sophisticated targeting possibilities, the divided measurement approaches of online attribution remains an obstacle when e.g. determining the effective frequency.

In sum, frequency is an interesting variable to test in an experiment regardless of attribution issues described. As targeting the right users with the right message via retargeting seems to be effective, it leads to the following hypothesis:

# H4: one targeted impression per page view has a positive impact on attitude toward recommending brand x

However, it might be the case that too high frequency can be perceived as annoying or lead to ad irritation and thereby affect attitudes negatively (Greyser, 1970; Tsang & Liang, 2004) if every page view is covered with suspiciously targeted ads. Given this, the hypothesis follows:

H3: high frequency exposure has a negative impact on attitude towards recommending brand x

That negative brand attitudes may be formed due to overexposure is hypothesized mainly based on the study by Greyser (1970), this effect may, however, be canceled by *the mere exposure effect* which can make it difficult to measure exactly how ad irritation works. Additionally, the frequency of repeated targeted ads that is required to trigger irritation for an individual is difficult to forecast and may be enhanced by variables such as creative execution and message of the ad. In the experimental nature of this study, high frequency is proposed as four targeted ads that in the experiment will appear on three consecutive web pages as part of the stimuli.

Furthermore, H3 and H4 will be used to answer sub-question iv.

# **Theoretical framework**

As a result of the theory discussed and the proposed hypotheses, the research model has been designed based on TRA with the addition of stimuli conditions and the external variable of Persuasion Knowledge. The control variables, as mentioned, are Activity Bias and Online Ad Irritation. The overview of the hypotheses can be found in figure 10:

#### Figure 10 – Hypotheses about retargeting



Activity Bias & Online Ad Irritation

TRA and not TPB is used as the basis of the research model as no significant model improvement was found from adding PBC according to the e-commerce study made by Hansen, Jensen & Solgaard (2003).

It is also worth noting that PBC, would it have been part of the model, is expected to be stable across these three relatively involving purchase decisions that are being examined in the experiment which is described in the following chapter.

# Methodology

The first question that needs to be asked before conducting this study may well be one of the most difficult to answer which is; "how can the effect of retargeting objectively be compared and measured?". As will be discussed in the following, there does not exist a perfect way of doing this, and the studies that so far have tried to measure the effect of targeted online ads have done so with different methods which can all be criticized from different aspects. Thus, the aim of the following methodology is to account for as many of these measurement aspects as possible by providing a type of framing that have not been used in this research context before.

### **Experiment - a randomized control trial**

Due to several limitations of investigating retargeting in a realistic setting, the study will rely on an experiment being carried out designed as a randomized control trial in order to measure a relative effect between different treatment groups. This is done in order to facilitate some critical measurement problems which are discussed in the following.

First of all, although endless measurement opportunities exists within online advertising, measuring the exact value each retargeting ad impression attributes to a consumer's brand perception or probability of converting is rather complicated as described earlier.

Furthermore, as each consumer is tracked prior to a conversions it appears that every consumer has a distinctive path through touch points of paid and organic ad and brand interactions. Below is an example of how such paths to conversions (or leads) could look for an advertiser based on campaign tracking (see table 1).

Adding to this that the consumer typically will encounter retargeting on different devices, i.e. *cross-device*, an initial interaction could be on a smartphone, then on a tablet and later on a desktop etc., it makes keeping track of the different interactions problematic. Not to mention all offline interactions a consumer may encounter during this journey which are not measured.

For a marketer, the diversity of these paths and their endless combinations are difficult to act upon. It is especially difficult to make clear evaluations of the different advertising channels' performance based on these paths which often ends with the assumption that the last paid interaction before the conversion receives full credit. Similar to the interactions within a soccer team where the striker typically will receive most credit for the goals scored, although every player might have contributed.

The first path in table X.X serves as an example of the attribution problem for display advertising, as a user in this case sees four display ads and then clicks on an affiliate ad (which can be anything from a Google search ad, price comparison site ad, e-mail marketing ad etc.). Here the "last interaction" method discounts any value the display ads might have added prior.

#### Table 1 - Path-To-Conversion example (last 5 interactions)

Last 5 Interactions	🕶 Leads (Standard)
Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> Affiliate Click	4
Direct -> Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> Direct	4
Natural Search Generic -> Natural Search Generic -> Natural Search Generic -> Direct	3
Affiliate Click -> Affiliate Click	3
PPC Brand Click -> Natural Search Generic -> Natural Search Generic	2
Natural Search Generic -> Natural Search Generic -> PPC Brand Click	2
PPC Generic Click -> Natural Search Generic -> Natural Search Generic	2
Display Click -> Display Click -> Display Click	2
Natural Search Generic -> PPC Generic Click -> Natural Search Generic	2
Display Click -> Display Click -> Display Click -> Display Click -> Display Click	2
PPC Brand Click -> PPC Brand Click -> Natural Search Generic	2
Display In-Screen Impression -> Display In-Screen Impression -> Direct -> Display In-Screen Impression -> Direct	2
Referrer Other -> PPC Brand Click	2
Display In-Screen Impression -> Display Impression	2
Natural Search Generic -> Natural Search Generic -> PPC Generic Click -> Natural Search Generic -> Natural Search Generic	2
Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> PPC Generic Click	2
PPC Brand Click -> Display In-Screen Impression -> PPC Brand Click	2
Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> Display In-Screen Impression -> Referrer Other	2
PPC Brand Click -> PPC Brand Click -> Direct	2
Direct -> Display In-Screen Impression -> Direct	2
PPC Brand Click -> PPC Brand Click -> PPC Brand Click	2
Natural Search Brand -> Natural Search Brand	2
PPC Generic Click -> PPC Generic Click -> Natural Search Generic	2
Natural Search Generic -> Direct -> Direct	2
Direct -> Direct -> Direct -> Display In-Screen Impression -> Direct	2
Natural Search Generic -> Natural Search Generic -> Natural Search Generic -> PPC Brand Click -> PPC Brand Click	2
Natural Search Generic -> Natural Search Generic -> Natural Search Generic -> PPC Brand Click -> Natural Search Generic	2
Referrer Other -> PPC Generic Click -> PPC Generic Click -> PPC Generic Click -> PPC Generic Click	1

This complexity also adds to the issue of user comparability, since measuring the effect retargeting has on users to some extent is dependent on their prior path and how far they are in their consumer journey.

Making a real life experiment based on this premise would require a sample of potential consumers that all were at the same stage in their paths with similar prior exposure, which from a practical perspective would be unfeasible to acquire in terms of obtaining a statistically significant sample and control group.

This has clear implications for the choice of methodology for this study as to how the effect of retargeting can be measured. From this perspective; the premise in any retargeting experiment must be set as similar as possible for respondents in order for data to be comparable.

#### Data collection and sampling technique

As a heterogeneous sample is desirable in order for the data to be representative, the aim of the respondent recruiting process was based on covering the demographic composition of the Danish online population. The latest data suggests that 90% of the Danish population is online based on Nielsen and Schrøder's report (2014), suggesting that the actual population demographics of Denmark is very similar to the online population. In order to achieve this composition, age and gender was asked at the beginning of the questionnaire, and along the sampling process these different age and gender quotes were distributed equally to the different experiment groups.

Respondents with professional experience within digital advertising were excluded from the sample due to their expected knowledge and awareness of retargeting which would lead to sample bias.

As a result, the following sample composition was collected as seen in table 2 and figure 11

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Female	39	46,4	46,4	46,4
	Male	45	53,6	53,6	100,0
	Total	84	100,0	100,0	

**Table 2 - Sample Gender Compositions** 

Figure 11 – Sample Population Pyramid



In the initial data collecting phase, respondents were recruited in order to test the user-friendliness and reliability of the questionnaire and experiment – these respondents are not counted in the final sample.

From here, adjustments to the questionnaire were made, and respondents were recruited via email and a Facebook event. As the Facebook event was made public, any person that attended would by default share their participation in the event with their network and thereby provide a reach beyond the friend invitations sent out to begin with.

The questionnaire was also posted on a local resident Facebook page with 1,800 members, which accounted for the largest contribution with 28 of the responses.

#### **Control variables**

Several variables are worth controlling for in the experiment. Since activity bias may have impact on the result, a question related to weekly/daily online dwell time was asked at the beginning of the questionnaire to control for activity bias in the results. In this case, respondents with high online

usage were expected to have been more exposed to the selected ads which may lead them to have had higher predetermined preferences than compared to respondents with low online usage.

As was discussed in the attitude paragraph, the formulation of attitude related questions are based on evaluative characteristics in order to ensure conformity in the results.

As a final control variable, ad irritation is included in order to detect potential bias in the results from respondents that in general are more annoyed by online advertising than others.

Since this study concerns banner advertising, it is stressed that the respondent should not base their evaluation of ad irritation on streaming services such as YouTube and Spotify etc., as these may enforce greater irritation than banner ads since exposure in many cases are forced. As an example; YouTube serves "non-skippable" ads where a 15 second commercial needs to be viewed before the content will load, and as another example, the free version of Spotify interrupts streaming with radio ads. These types of forced exposure may cause higher or different ad irritation than the banner ads and are due to this kept out of the study to avoid answers that are not related to banner ads.

Apart from the overall control variables, the potential bias that may exist for respondents that have personal knowledge about the three products is also taken into consideration. After the participants provided feedback answers to the three purchase decisions, a question was asked if they did own a Circolo, Sony Xperia Z3+ or had traveled with Lufthansa within the last 6 months.

#### Browsing experiment design

In order to facilitate a common premise for the respondents prior to stimuli, the experiment is centered on the outcome of brand recommendation to the respondents' aunt which is at a specific stage in three different purchase decisions.

More specifically, after having filled the initial information on demographics and internet usage, the respondents were asked to imagine that their "not so internet-savvy" aunt had asked them to help her out with three purchase decisions.
The three things the aunt is looking to order is a capsule coffee machine (Circolo by Nestlé Dolce Gusto), a new smartphone (a Sony Xperia Z3+) and a flight ticket to USA (with Lufthansa) which she has made some research for online.

As part of this research the aunt has been looking at different review sites. She therefore wants to show a few things that she have been looking at during her research, and wishes a second opinion based on this content.

These three products/services have been selected as they all require some level of involvement to buy, which is necessary for retargeting to be activated – i.e. based on the assumption that with low involvement decisions the advertiser will rarely have enough data to retarget consumers. Another criterion for choosing these three products/services is that they represent three different categories, which will generate more generalizable results than if only one category had been investigated.

Via the questionnaire a link to a browsing simulation is provided where the respondents is able to go through nine web pages with instructions that have been selected by the aunt.

In order to limit cognitive capacity so that the respondents would not pay too much attention to the ads, they were asked to look at specific phrases in the presented review web pages in relation to the aunt's research. These phrases were marked with red squares as in the example below.

The marking may impose a less realistic condition, but the advantage of this, apart from the above argument, is to minimize the respondent dropout rate during the experiment, as the experiment includes nine full-page reviews that might have become too tedious and time consuming for the respondents to read from start to end (see exhibit 1).

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Exhibit 1 – mock up from the experiment showing the use of red highlighting square

*Source: mock-up from the experiment* 

# Framing and the external party premise of including "the aunt"

Mainly, the "aunt framing" has been chosen to minimize bias from the respondent' personal preferences and supposedly un-present needs for the selected products and to have respondents consider actual purchase decisions for a person (the aunt) that have these needs, as an external party.

Furthermore, this method was chosen to simulate retargeting as it is expected to appear when a person is in a decisive stage of looking for information about specific products/services. And, in the

case of the experiment, is being retargeted from recently visited brand homepages, as would be the case in broad terms for a real online decision journey setting.

# **Experiment conditions**

As the experiment conditions are aimed at being as similar to the conditions under which a consumer most likely would experience retargeting, the experiment is based on a plausible decision journey, during which, different alternatives are evaluated.

There exists many different models to describe the online consumer journey, and for good reason, as each journey often is a unique combination of different touch points in different sequences. One overall thing to say about online consumer journeys is that a consumer moves from being in a passive stage until some kind of trigger happens and the consumer become more active in his/her behavior as a need is recognized. This active phase can include different search activities as different alternatives are being evaluated which often will include a visit to the considered brand's homepage. Furthermore, decisions will often also be based on independent sources such as review sites, price comparison sites etc. (Edelman, 2010), which is why 9 review sites are selected for the experiment browsing session.

To simulate the three conditions that the respondents are placed in, three browsing simulations are created each with different frequency of retargeted ads.

Table 3 provides an overview of these three conditions, where each web page has room for 1-3 ad placements and have a specific context, e.g. a travel or a review site. For further details please see Appendix 3:

#### Table 3 - Conditions of the experiment

Conditions	Web page 1	Web page 2	Web page 3	Web page 4	Web page 5	Web page 6	Web page 7	Web page 8	Web page 9	Total
Ad placements	2	1	2	2	2	1	3	2	2	17
Page context	Capsu	le coffee revi	ew site	Smar	Smartphone review site			rline review s	ite	
Group 1 - high frequency										
- Nestlé Circolo ad	2	1	1	0	0	0	0	0	0	4
- Sony Xperia Z3+ ad	0	0	0	2	1	1	0	0	0	4
- Lufthansa ad	0	0	0	0	0	0	2	1	1	4
Group 2 - low frequency										
- Nestlé Circolo ad	0	1	0	0	0	0	0	0	0	1
- Sony Xperia Z3+ ad	0	0	0	0	1	0	0	0	0	1
- Lufthansa ad	0	0	0	0	0	0	0	1	0	1
Group 3 - control	No targeted ads									

After the browsing tour, the respondents were asked attitudinal questions in relation to recommending three brands that the aunt was considering (see appendix 3), in relation to attitude towards recommending each brand, subjective norm and recommendation intent.

Following this, persuasion knowledge is measured by asking respondents questions about privacy concerns online and their opinion about targeted ads.

The participants were asked about their overall impression of targeted ads and how these ads affect their behavior online and their relation to the brands behind the targeted ads.

Questions related to ad irritation was also included to be used as a control variable.

At the end of the questionnaire, three open-ended questions were asked in relation to the respondents own opinion about targeted ads, how their online browsing is affected as they know companies are tracking them, and how they perceive the brands that use this advertising tactic.

This was done in order to gain a qualitative data pool which can be used to verify if, indeed, persuasion knowledge and frequency are primary or significant concerns to plan for and to see which further topics needs to be investigated.

## Considerations for using the Likert scale

Following the approach used in the TRA model (Aijzen & Fishbein, 1980), the questionnaire for this study uses a 5-point Likert scale for the research model related questions. These questions are based on a proposed sentence followed by the options ranging from strongly disagree to strongly agree with that sentence.

As the responses generated from a Likert scale in this case are *ordinal* values, i.e. categories with a ranking order, a general concern with this measurement method is that the absolute value between each category is unknown.

As an example, it is not possible to predict if the distance between "agree" to "strongly agree" is the same as the distance between "disagree" to "strongly disagree" and whether each respondent perceives the distance the same way (Jensen & Knudsen, 2009). This is a compromise, which is required to make in order to measure attitudes, as these by nature are difficult to accurately quantify. One thing that can improve the reliability of the Likert scale results is the response order. According to studies made in the US, a suggested tendency for respondents to read the question from left to right has been found (Chan, 1991; Friedman, Herskovitz & Pollack 1994).

Furthermore, mixing the order of the scale in different questions from negative to positive evaluation options will generate biased results, suggesting that a consistent scaling order system is most appropriate.

Since respondents tend to have an easier time agreeing with a statement than taking a stand against the proposed sentence (Chan, 1991), the positive options are placed to the right to ensure that respondent will first consider the negative options before the positive, as respondents are expected to read the options from left to right.

It could also be argued that consistent scaling order may cause "survey fatigue", i.e. a welldocumented phenomenon that occurs when respondents get tired of answering a long questionnaire (Lavrakas, 2008). However, the downside of designing a questionnaire with mixed sequences, i.e. from positive to negative and negative to positive, would be that respondents might become confused, and since the length of the questionnaire requires roughly 10 minutes to complete the risk of survey fatigue should be limited in comparison to a longer survey.

Based on this and the above arguments, a consistent order is chosen from negative to positive options.

## **Questionnaire design summary**

Following the above described design, the questionnaire is divided into four parts as shown in figure 12.

The sequence of questions have been design to minimize ques that could impact answers and perception of stimuli. As an example, the ads are not mentioned until attitudes, SN and BI questions have been asked. Questions about ad irritation are also moved to the last part of the questionnaire, as well as the open questions about how the data collection by advertisers is perceived etc.





It was expected that the shifting between experiment and questionnaire that is required in part II would be an obstacle that would affect the response rate negatively, but is a crucial part required in the experiment in order to answer the research question making it a necessary tradeoff between quality and quantity in the sample size.

## Perspectives on methodology

Several studies of online consumer behavior rely on interpretivistic methods as they investigates concepts from consumer behavior such as Online Brand Communities (Kim, Phelps & Lee, 2013),

hedonic vs. utilitarian online shoppers (Lim, 2014), word-of-mouth in social networks (Kozinets, Valck, Wojnicki & Wilner, 2010) etc.

This is quite a contrast to the methods used in programmatic advertising. In some cases, algorithms are designed to calculate the probability that a person will click an ad and convert afterwards based on up to 14,000 parameters (Eckersley, 2010). These could include time of day, time since last unfinished basket visit, previous interactions with campaign ads, predicted in-screen time for the ad on auction, plugins and fonts installed in browser, screen resolution, geography based on IP, semantic analysis of the site where the ad is served and the list goes on.

The significant difference between how researchers are studying online consumer behavior and how the industry systematically works with big data to understand consumers does not have to exclude one or the other in gaining a deeper understanding of how ads affect brand perception. It is, however, important for this study to measure an effect, which leads to a more explanatory and positivistic approach for the quantitative analysis that will follow the data collection.

As the last part of the questionnaire investigates how consumers become aware and respond to retargeting via open ended questions, a more explorative data sample is also used. This is included to answer sub-question V (*"What triggers awareness about retargeting and how is it perceived and reacted to by consumers?"*) and is also used to guide future studies.

This data is especially relevant to discover sources of the potential negative effects retargeting can have on consumers, apart from persuasion knowledge, which is why the three open ended questions might lead to a different pattern in how a negative experience is triggered and how it may affect behavior.

As respondents were asked to provide anecdotal answers to summarize these experiences, a coding of these answers is included to structure and analyze the data. Accordingly, the analysis of the qualitative beliefs and attitudes about retargeting will open up for a less explanatory and more interpretive analysis of these answers.

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# **Data sorting**

Following the sampling of the questionnaires, some precautions are taken to ensure the usefulness of the data input for the analyses and to minimize sample bias. To achieve this, adjustments for control variables as well as valid responses are made to sort the data.

The control variables that were found relevant under the theoretical framework are *activity bias* and *online ad irritation* which in the following will be analyzed for their impact on the results.

As respondents with recent personal experience with the products/service are considered biased, their responses in relation to the product and service related questions are excluded, which for the TRA questions (attitude, subjective norm and behavioral intent) results in the following valid sample which is summarized in table 4.

Group		Ν	
control	Circolo TRA responses	27	
	Sony TRA responses	28	
	Lufthansa TRA	24	
	responses	24	
	Valid N (listwise)	23	
high frequency	Circolo TRA responses	25	
	Sony TRA responses	24	
	Lufthansa TRA	22	
	responses		
	Valid N (listwise)	21	
low frequency	Circolo TRA responses	30	
	Sony TRA responses	31	
	27		
	responses		
	Valid N (listwise)	26	

#### Table 4 – Sample bias sorting

Based on this, some answers from 14 out of 85 respondents are excluded in the questions related to those of the products they had recent personal experience with. Although it is difficult so say from a statistically significant standpoint if these answers were biased, it is noteworthy that most of these respondents were found to be have higher attitude scores than the means for those products, which supports the decision of an exclusion of those answers.

## **Control variables adjustments**

Concerning activity bias, it was proposed that high browsing activity would have a positive effect on responses for those respondents who browse more than others as suggested by Lewis, Rao & Riley (2013).

This relates to the fact that if a person browses more than the average, this person will be relatively more exposed to brands that advertise online, leading to more positive attitudes towards those brands than for those that are less active online.

To check for activity bias, a correlation between attitude towards recommending each product and hours spent browsing per week is calculated with the following results:

## Table 5 – Correlation of browsing hours per week and attitude towards recommending brands

			Circolo A	Sony A	Lufthansa A
Spearman's rho	Browsing hours per week	Correlation Coefficient	-,075	,103	-,006
		Sig. (2-tailed)	,503	,352	,958
		Ν	82	83	73

As indicated, no significant correlation was found which might be due to the relative high browsing activity that was found among most respondents – 75% of the sample claimed to spend more than 14 hours browsing per week (see appendix 4 for more detailed results).

Following this, activity bias is not considered as a valid control variable for the following results.

Another proposed control variable was the *online ad irritation*. This was measured via a question of general perceived irritation of online ads. After correlating these answers with attitudes towards the products/service in the experiment, no significant correlations were either found as shown in table 6.

			Circolo Attitude	Sony Attitude	Lufthansa Attitude
Spearman's rho Ad irritati	Ad irritation	Correlation Coefficient	,181	,023	-,021
		Sig. (2-tailed)	,099	,834	,847
		Ν	84	84	84

#### Table 6 – Correlation of ad irritation and attitude towards recommending brands

Interestingly, of the 22 respondents that stated highest ad irritation (the "very annoying" option) in the questionnaire, only three were placed in the high frequency group and splitting out the correlations by group did not improve the correlation results.

As a consequence of the lack of correlation, online ad irritation is discarded as a control variable that is relevant to adjust for in this study. For complete results of responses in relation to ad irritation, see appendix 5.

# **Findings**

In the following part, the findings of the experiment will be presented. As the goal of the experiment has been to test the hypotheses to answer the research question, the first part of this chapter will go through the data on each hypothesis with related statistics.

Since the findings of this study also include qualitative data from the last three questions in the questionnaire, the second part of this chapter will include findings from these replies.

The questionnaire was made in Danish, which for the purpose of this study has been translated in the following. For the Danish version of the questionnaire see appendix 3, here a link to the actual questionnaire and experiment is also provided.

# **Findings part I**

The aim of part I is to answer the sub-questions I to IV (see page 6) as all these questions relates to the hypotheses proposed in the research model (figure 10).

For the data analysis, IBM Statistics SPSS 22 and Microsoft Excel's Data Analysis application was used.

# Hypotheses testing – H1 and H2 (partly supported)

In order to investigate H1 and H2 (see below), a mean comparison is made between the control-, low frequency- and high frequency groups. To remind what these hypotheses state, the following box with H1 and H2 is included below. This box will also be included for the following hypothesis tests.

H1: persuasion knowledge is higher for respondents that are being exposed to a low frequency of targeted ads

H2: persuasion knowledge is highest for respondents being exposed to a high frequency of targeted ads

In the questionnaire, three questions were asked to measure Persuasion Knowledge. By comparing the mean response of each question by group, the following results are found (see table 7).

Recall that there does not exist a standard for measuring persuasion knowledge, leading researches to create their own context related questions that can be considered to capture the *inference of manipulative intent (IMI)* as was described in the theoretical framework. Thus, the following three questions were selected for the purpose and context of this experiment.

In order to later be able to compare the results from these questions with other similar studies of persuasion knowledge, the question about privacy concern is included, as the same question was asked in Lambrecht and Tucker' study of retargeting (2013) in relation to persuasion knowledge. Lambrecht and Tucker (2013), however, uses the survey platform "Mechanical Turk" in their sampling, which typically will provide respondents from third world countries to answer a questionnaire for 20 cents and as a result their data should be treated with caution, despite their results being peer reviewed and published in the Journal of Marketing.

Table 7 – H1 and H2 data o	n Persuasion Knowledge
----------------------------	------------------------

Groups	To what exte	To what extent do you agree with these statements?						
	[When browsing the	[I am concerned for my						
1 = strongly disagree	web I usually notice ads	private data when	[When browsing the					
5 = strongly agree	that keep appearing]	browsing the web]	web I don't notice ads]					
control	4,07	3,07	3,61					
low frequency	4,19	3,19	3,26					
high frequency	4,44	3,24	2,96					
Total mean	4,23	3,17	3,29					

As cognitive capacity is under the same condition for each group, the main effect on persuasion knowledge derives from *accessibility*, which is manipulated by the number of targeted ads each group receives in the experiment.

As mentioned, the three questions asked all relates to accessibility in the Persuasion Knowledge Model, but in a context of online targeted ads.

Although the differences are relatively small between each group, it is noteworthy that the mean response follow the same order for each question from low to high accessibility from the control to low frequency to high frequency group. Most notable is the difference in the last question where the mean is 18% lower for the high frequency group than the control group in relation to how much the respondents agrees with the statement "when browsing the web I <u>don't</u> notice ads".

The question now becomes if the difference between the mean of the control and high frequency group is significant which can be tested via an independent sample t-test with equal variance assumed. The null-hypothesis in this case states that there is no significant difference between the means of the two independent groups.

The results of such test is presented in table 8 and 9.

#### Table 8 – Group statistics of t-test

Group		N	Mean	Std. Deviation	Std. Error Mean
"When browsing the web I <u>don't</u>	control	28	3,607	1,2274	,2320
notice ads"	high frequency	25	2,960	1,2741	,2548

Group Statistics

Based on the initial results, the difference in standard deviations between the groups appear to be small which indicates a sound basis for using the two independent samples t-test with assumed equal variance.

The homogeneity of variance assumption is further accounted for by Levene's test which returns a high p value (0.768) as seen in table 9, thereby discarding that the variance is unequal.

#### Table 9 – t-test: Two independent samples assuming equal variance

		Levene's Tes of Var	st for Equality iances	t-test for Equality of Means			
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference
"When browsing the web I <u>don't</u> potice ads"	Equal variances assumed	,088	,768	1,882	51	,066	,6471
	Equal variances not assumed			1,878	49,837	,066	,6471

Independent Samples Test

Concerning the t-test, a *t value* of 1.882 is found which result in a *p value* of 0.066. Depending on which confidence interval is used to test the null-hypothesis, this *p value* can either reject the null-hypothesis at 0.1 confidence level or confirm it at 0.05 or 0.01 levels.

When comparing means between other groups there are not found any significant difference at 0.1 confidence level leaving this result to be the closest to rejecting the null-hypothesis.

Before running these statistical tests of the means, H1 and H2 could arguably be confirmed, since they are true based on the difference in means for each group in relation to every question. However, only H2 is statistically confirmed by a t-test as a significant difference only was found between the control and high frequency group for the question of "when browsing the web I don't notice ads" with a high confidence level of 0.1.

This leads H1 and H2 to be partly supported based on the difference in means and the one case of significant difference between groups.

#### Hypotheses testing – H3 and H4 (partly supported)

The next hypotheses tested relates to the proposed impact of frequency on the respondents' attitude toward recommending each of the three brands in the experiment.

H3: high frequency exposure has a negative impact on attitude towards recommending brand x

H4: one targeted impression per page view (i.e. low frequency) has a positive impact on attitude toward recommending brand x

With the similar procedure as for the test of H1 and H2, a comparison of group means is required to test these hypotheses, the mean attitudes for each group by brand is shown in table 10.

## Table 10 – Frequency's impact on brand attitudes

Row Labels	Average of Circolo Attitude	Average of Sony Attitude	Average of Lufthansa Attitude
control	2,67	3,07	3,92
high frequency	2,36	3,33	3,77
low frequency	3,13	2,97	3,89
Grand Total	2,74	3,11	3,86

As the mean values does not follow a clear pattern a cross the groups as was seen in the comparative analysis of H1 and H2, it is questionable if a generalizable conclusion can be made concerning frequency's impact on brand attitudes in the case of retargeting.

Some explanations for these mixed results are worth considering:

- The smallest variation between the groups is found for Lufthansa which has a relatively high attitude score across each group. Due to this high score it might be the case that the effect of the stimuli is too low to be measureable after 0-4 targeted ads as a pre-existing favorable attitude is dominating the respondents' replies
- 2. The Circolo ad contains a promotion message which at high frequency might strengthen the perception of persuasion compared to a branding ad, as it has a "call to action" element that might increase accessibility for persuasion knowledge as will be shown in the following hypothesis test. This could explain

why the means in the case of Circolo follows the expected pattern from control to high frequency group

3. The Sony ad contains a branding related message, and might be more difficult to identify as an ad because of the white background in the image that makes it blend in to the review sites more discrete than the other ads. In that case the stimuli of the ad might be less eye-catching and thereby provide shorter fixation time that may have a positive effect subconsciously where the mere exposure effect is amplified by frequency which could explain the highest attitude score for the group that received high frequency of the Sony ad

As these explanations are plausible, yet un-supported, a definite confirmation of H3 and H4 across all three brands is not valid. However, H3 and H4 are supported in the case of Circolo based on the comparative mean data, which leads to a partial confirmation of these hypotheses.

To dig a bit further in case of Circolo, it is again worth looking at the difference between means for this product which can be tested for significance. This is done by testing the null-hypothesis of zero variance between the three groups and there attitude towards Circolo. In fact, this might be interesting to test for the other products as well. Thus, the independent sample t-test is performed to compare each group's mean attitude within each product. As a result, the p-values for each of these comparisons is shown in table11 (see appendix 6 for all calculations and results of this test apart from the two-tailed pvalues).

P values	A C Circolo	A LF Circolo	A HF Circolo	A C Sony	A LF Sony	A HF Sony	A C Lufthansa	A LF Lufthansa	A HF Lufthansa
A C Circolo									
A LF Circolo	0,118								
A HF Circolo	0,317	0,014							
A C Sony									
A LF Sony				0,736					
A HF Sony				0,383	0,255				
A C Lufthansa									
A LF Lufthansa							0,921		
A HF Lufthansa							0,627	0,680	

Γable 11 - t-tests of inde	pendent sample	es based on grou	ups and attitude scores*

\*Table 11 uses abbreviations for attitude ("A"), group (control, low frequency, high frequency are abbreviated "C", "LF" and "HF") followed by product. As mentioned, comparisons between groups are only made within each product.

As can be seen form table 11, the null-hypothesis of zero variance between samples can only be rejected in the comparison of the mean attitude in the low and high frequency groups of Circolo at 0.05 confidence level (p-value of 0.014) which supports H3. The comparison between low frequency and the control group is close to reaching a confidence level of 0.1 but is slightly off, which otherwise had added validity to H4.

With this extra check, H3 and H4 are still only partly supported as the hypotheses only passes the significance test in the case of Circolo.

#### Hypotheses testing – H5 (partly supported)

In order to answer this study's research question, H5 is a critical test to see if retargeting can have a negative impact on brand attitudes via triggering persuasion knowledge (attitudes are abbreviated to "A" in the tables).

H5: persuasion knowledge is negatively related with attitude towards recommending brand x

To test this hypothesis, a correlation is calculated between the Persuasion Knowledge questions and brand attitudes (see table 12). The use of Spearman's correlation is chosen because of the issue of distance between the ordinal values which are expected not to behave linearly. Due to this, Spearman's correlation is chosen instead of Pearson's as it uses a monotonic function, i.e. a function between ordered sets which is applicable to ordinal values (Jensen & Knudsen, 2009).

			Circolo A	Sony A	Lufthansa A
Spearman's rho	[When browsing the web I usually notice ads that	Correlation Coefficient	-,070	,054	, <mark>073</mark>
1	keep appearing]	Sig. (2-tailed)	,567	,656	,547
	[I am concerned for my private data when	Correlation Coefficient	-,250	,026	,123
1	browsing the web]	Sig. (2-tailed)	, <mark>037</mark>	,829	,312
	[When browsing the web I don't notice ads]	Correlation Coefficient	-,002	-,089	-,090
1		Sig. (2-tailed)	,988	,462	,459

Table 12 – Correlation between persuasion knowledge and brand attitudes

\*Correlation is significant at the .05 level (2-tailed).

As seen in table 12 a significant negative correlation is found between attitude towards recommending Circolo and the second question about persuasion knowledge: "I am concerned for my private data when browsing the web". This correlation is found when analyzing the entire sample, but since the high frequency group seemed to be affected relatively more based on the mean attitude, a correlation just for this group is included below to examine this further (see table 13).

Table 13 – Correlation between persuasion knowledge and brand attitudes (high frequency group)

			Circolo A	Sony A	Lufthansa A
Spearman's rho	[When browsing the web I usually notice ads that	Correlation Coefficient	,027	,231	-,145
	keep appearing]	Sig. (2-tailed)	,897	,268	,489
	[I am concerned for my private data when browsing the web]	Correlation Coefficient	-,412	,029	,304
		Sig. (2-tailed)	,041	,892	,140
	[When browsing the web I don't notice ads]	Correlation Coefficient	,022	,039	,145
		Sig. (2-tailed)	,916	,854	,490

\*Correlation is significant at the .05 level (2-tailed).

With the group specific sample adding a higher negative correlation is found at -0.412 which is significant at 0.05 confidence level. With this result, it appears that the Circolo ad provides a higher level of accessibility compared to the other ads, which makes the effect of Persuasion Knowledge more apparent and measurable. Although this is not the case for the other brands, the hypothesis is partly supported as a significant negative correlation was found for the Circolo ad.

#### Hypotheses testing – H6 (supported)

As part of designing of the research model has been to apply the Theory of Reasoned Action approach, H6 examines the predictability of behavioral intent (BI) as a result of attitude toward the behavior (A). In this case, BI is the measured intent of the respondents to recommend each of the products/services in the experiment while A is the attitude towards this behavior.

#### *H6: attitude towards recommend brand x is positively correlated with brand recommendation intent*

In order to establish if this hypothesis is supported, a correlation between attitude and behavioral intent is measured across the sample by brand (see table 14).

## Table 14 – Correlation between brand attitudes (A) and brand recommendation intent (BI)

			BI Circolo	BI Sony	BI Lufthansa
Spearman's rho	Circolo A	Correlation Coefficient	,750		
		Sig. (2-tailed)	,000		
	Sony A	Correlation Coefficient		,831	
		Sig. (2-tailed)		,000	
	Lufthansa A	Correlation Coefficient			,700
		Sig. (2-tailed)			,000

\*\*Correlation is significant at the .01 level (2-tailed).

Since relatively strong correlations are found across each brand for attitude and behavioral intent, with significance at 0.01 level, H6 is confirmed.

## Hypotheses testing – H7 (supported)

Similar to H6, the link between subjective norm (SN) and behavioral intent (BI) is investigated to establish the predictability of applying the TRA to the research model.

*H7: subjective norm is positively correlated with brand recommendation intent* 

Following the same method as used for testing H6, a correlation is calculated between subjective norm and behavioral intent for each brand (see table 15).

## Table 15 – Correlation between subjective norm (SN) and brand recommendation intent (BI)

			BI Circolo	BI Sony	BI Lufthansa
Spearman's rho	Circolo SN	Correlation Coefficient	,501		
		Sig. (2-tailed)	,000		
	Sony SN	Correlation Coefficient		,489	
		Sig. (2-tailed)		,000	
	Lufthansa SN	Correlation Coefficient			,578
		Sig. (2-tailed)			,000

\*\*Correlation is significant at the .01 level (2-tailed).

Since all correlations are found to be significant at the 0.01 level, H7 is confirmed, which concludes the research model and the applicability of the TRA design.

## **Findings part II**

This part of the findings will answer the last of the sub-questions, i.e. sub-questions V: "What triggers awareness about retargeting and how is it perceived and reacted to by the consumer?".

Due to the exploratory nature of this question, several ways of presenting the findings will be included in this part to provide a holistic answer to the sub-question.

First off, to answer this question, it is worth looking at to what extent the ads were noticed in the three groups as this would be the first step in triggering conscious awareness about retargeting.

Figure 13 shows the result by group of how many respondents that noticed ads in the experiment.



## Figure 13 – Responses to "did you notice any ads in the experiment?" by group

As shown, the majority of respondents did not notice any ads throughout the nine web pages and 17 ad placements that were shown in the experiment. This finding is in line with the results from another similar study (Hervet et. al, 2011), where as low as 26% of the participants recalled ads in an experiment with 8 web pages. These percentages does of course not say anything about how much attention was paid to the ads as this might have been the case even though the respondents does not recall them.

Worth noting is the high re-call rate for the control group. One explanation could be related to the dummy ads that were used under this condition that might have been more eye-catching than the retargeting ads. A sample of these dummy ads can be found in appendix 7.

However, when comparing the high frequency group with the low frequency group a clear difference is present, suggesting that retargeting does trigger awareness and attention to ads to a higher degree at a relatively higher frequency.

More specifically, there might be particular episodes outside the experiment where this awareness is triggered due to other factors than high frequency exposure. This requires open-ended questions to explore which is why the responses of the last three questions has been coded accordingly.

Throughout the three questions, the respondents were encouraged to use examples of episodes where they had experienced retargeting. If a specific product or brand was mentioned, this was coded. A total of twenty respondents (23% of the sample) were able to provide product or brand related examples. As a result of this coding process see table 16.

Row Labels	Count of brand/product mention
Zalando	5
clothing	3
Bootz.com	2
flight ticket	2
automotive	2
accessories	1
Audi	1
baby stuff	1
bicycle equipment	1
Camera bag	1
car rental	1
coat	1
Den Blå Avis	1
dietary supplements	1
Elgiganten	1
Ellos	1
hotels.com	1
madress	1
MBA education	1
Merell sandals	1
momondo	1
Nicehair	1
Opel	1
public service	1

## Table 16 – Product and Brand codes from the open ended questions

Punkt1	1
Sarenza	1
shoes	1
Trustpilot	1

Apart from a few brands and products a great diversity seem to exist between which episodes are recalled by the respondents. However, some patterns are visible which requires further sorting to clarify. As a result, the codes are comprised into brand and product meta codes, i.e. categories, which provides the following distribution as found in table 17.

#### Table 17 – Meta codes (categories) from the open ended questions

Row Labels	Count of Category	
Clothing	1	7
Automotive	!	5
Travel	4	4
Electronics	:	3
Personal care	:	2
Education	:	1
Furniture	:	1
Public service	:	1
Sport	:	1

As it appears, clothing related episodes were recalled most frequently. As one of the respondents mentions, this might be due to the product specific banners that are used by the clothing ecommerce sites, in this case Bootz.com:

*"It can be really annoying and boundary-crossing. Bootz are especially annoying to show up everywhere with <u>ads for a specific piece of clothing</u>, which I earlier had looked at on their webpage..."* 

#### Source: Respondent [7/28/2015 18:26:35]

The type of banner the respondent is mentioning is called Dynamic Creative Optimization (DCO) as these type of banners are designed in real time based on the specific products a consumer has looked at on a webpage. The respondent's clear description of the episode might be possible due to the very personal type of banner a DCO presents which may attract more attention, and even suspicion (Lambrecht & Tucker, 2013), than more generic retargeting banner ads (AdOps Insider, 2011).

This leads to the second part of sub-question V which relates to how consumers perceive retargeting.

Since a general opinion among the respondents would answer this part of the question, a semantic analysis of each response was conducted in order to categorize responses into general opinions ranging from "very negative" to "positive" ("very positive" was not found applicable to any of the answers). As the questions vary, and this categorization is not applicable for question two, the findings of this analysis are presented per question.

The first of the three questions (Q1) reads:

"What is your opinion about the fact that data about your online behavior is being collected and used to present you with targeted ads?"

See table 18 for the responses.

#### Table 18 – Semantic analysis of Q1 responses

Row Labels	Count of Q1 evaluations	%
positive	26	31%
inconclusive	21	25%
negative	30	36%
very negative	3	4%
(blank)	4	5%
<b>Grand Total</b>	84	100%

As these results show, there appears to be three larger groups of opinions with the addition of a few respondents that were very negative in their response. As an overall finding it is interesting to see that the majority of the respondents does not clearly state to have a negative attitude towards data collection for the purpose of targeted ads, i.e. retargeting.

In addition to these groupings, a thematic coding approach was used to identify which topics the respondents discussed in their answers to Q1. The results of this analysis can be found in table 19 that includes the ten most frequent codes, see appendix 8 for the full list.

Row Labels	Count of Q1 codes
relevant ads	13
annoying	12
frightening	7
understandable	5
free content	4
helpful	4
right to be left alone	4
already bought product	3
possibility to opt out	3
Adblocker	2

From the positive themes, the most frequent code from these responses is that relevant ads are more interesting to receive as a consumer. Free content was also mentioned as a positive outcome although it is not directly linked to allowing the data collection. Some respondents found it helpful to have promotions appear in ads from brands they often buy from, and that these ads makes the evaluation of alternatives more easy. Some respondents also claimed to be understandable to why companies are using this advertising technology.

From the negative themes, annoyance was most frequently mentioned in different variations as an opinion toward the question. Several respondents found it "frightening" that their data is being collected, which might have something to do with a lack of understanding of how this type of data collection works, i.e. how it is collected, stored and used. As an extreme example, one respondent mentioned that since the questionnaire was made in the survey tool Google Forms, all the data would eventually be used by Google for advertising purposes later on which is an example of the *data paranoia* that some people are affected by, likely due to episodes such as the NSA scandal.

In the second of the three questions (Q2), the respondents were asked:

"Being aware that this data is being collected for advertising purposes, have you intentionally browsed the web in a different way than what you normally would?"

This was asked to explore what reactions that the awareness about data collection might evoke. In order to create an overview of these codes, the responses were first categorized according to whether this awareness had any effect on browsing behavior at all. See table 20. for the results.

## Table 20 – Response to Q2 coded by effect on browsing behavior

<b>Row Labels</b>	<b>Count of Q2 codes</b>	%
Inconclusive	3	4%
No	51	61%
Yes	27	32%
(blank)	3	4%
<b>Grand Total</b>	84	100%

As shown in table x.x, a relatively large group (32%) were affected in their browsing as they were aware that data is being collected. This is an important finding in relation to what consumer's attitude toward retargeting might result in. As more specific examples were provided, an additional coding was made to map out the responses, see table 21.

#### Table 21 – Response to Q2 coded by examples of reactive behavior

Row Labels	Count of Q2 codes	% of total sample
cookie deletion	11	13%
Adblock	7	8%
incognito browsing	5	6%
change browser	2	2%
price discrimination	2	2%
avoid competitions	1	1%
cookie deletion not related to ads	1	1%
lack of technical knowledge	1	1%
only want data collection that favors me	1	1%
opt out	1	1%
Grand Total	32	38%

Most commonly mentioned was deletion of cookies as a way to avoid annoying ads or as a general browser hygiene action.

Adblock was mentioned by seven respondents as a tool they use to block ads from loading when browsing the web. This is slightly below the estimates for the Danish population where it is estimated that 17% of the population uses a type of ad blocker according to Opeepls (Markedsføring, 2014), while another, more recent survey by Danske Medier measured 14 % of the population to use a type of ad blocker (Danske Medier, 2015). As these were open ended questions it might of course have been the case that not all respondents that use ad blocker mentioned it, also, age and gender was according to Opeepls survey a determining factor as especially young males represented a high proportion of Adblock users.

Furthermore, a few respondents mentioned that they expected to be price discriminated if they searched for a specific flight which might be a legit concern as many ecommerce sites such as e.g. Amazon has been caught in differentiating prices for each consumer based on different data about the consumer (Forbes, 2014).

In the final of the three open ended questions (Q3) the respondents were asked the following:

#### "How do you perceive those brands that aggressively follow you with their ads?"

Although this question may bias the replies due to the negative wording, its goal was to help the respondent elicit the situation at which retargeting might become too intrusive and to see what stated effect this might have on the respondent's attitude toward the brand involved.

Similar to Q1 the responses were first coded based on a semantic analysis ranging from "very negative" to "positive" as can be seen in table 22.

#### Table 22 – Semantic analysis of Q3 responses

Row Labels	<b>Count of Q3 evaluations</b>	%
Positive	12	14%
Inconclusive	32	38%
Negative	32	38%
Very negative	5	6%
(blank)	3	4%
Grand Total	84	100%

Following this, a large group of respondents appears to have a negative perception of aggressive retargeting. However, this leads to the question of what defines 'aggressive retargeting', as the observed brand attitudes in the high frequency condition groups did not score significantly lower across all brands compared to the low frequency group in part I of the findings.

When comparing these results to another survey made in the US asking respondent how they in general felt about brands that used retargeting (Adroit, 2014) the number of negative responses seem to be slightly higher, which might be due to the negative formulation (see appendix 9 for results of the US survey).

Again, more specific codes about how exactly aggressive retargeting is perceived is useful to answer the sub-question. In table 23, a thematic coding is presented similar to that of Q1.

Row Labels	<b>Count of Q3 codes</b>	% of total sample
annoying	14	17%
have not experienced it	13	15%
does not affect me	12	14%
professionalism	4	5%
has opposite effect	3	4%
understandable	3	4%
makes the brand seem cheap	2	2%
give consumers space to choose	2	2%
manipulative	1	1%
gotten used to it	1	1%

#### Table 23 – Thematic codes of Q3 responses (top 10 most frequent codes)

Most frequently, respondent found the brands that use aggressive retargeting tactics to be annoying while at least 15% of the sample stated they had never experienced retargeting.

A significant part of the respondents claimed that this type of advertising did not have an effect on their purchase decision whereas the remaining responses were quite diverse.

Interestingly, two respondent mentioned that they perceived the brands that use retargeting as "cheap" which might be worth to investigate further. This could explain the lack of retargeting being used by luxury brands such as Gucci, Louis Vuitton etc., as they might fear this kind of response among their consumers where it could be devastating for their brand equity.

# **Summary of findings**

Prior to presenting the findings it was established that the proposed control variables of *activity bias* and *ad irritations* were not providing a significant impact on the findings of this study, and they were as a result excluded.

From the findings presented in part I evidence is found in favor of the proposed hypotheses which appear to have been relevant to investigate as all of them were either fully or partly supported. Persuasion Knowledge was found to be activated and in a way that could be manipulated by *accessibility* – in line with what the PKM theory suggest – which in the experiment was controlled by frequency. Although Persuasion Knowledge only was found to have a significant negative impact on the measured attitudes in the case of Circolo, the hypothesis was partly supported which is an important finding to answer the research question. The Circolo ads in particular proved to be relevant for this experiment across each of the hypotheses when other products did not produce as strong results.

As a summary of the results in part I, the research model is re-introduced below (figure 13) with the status of each hypothesis tested.



## Figure 13 – Research model with findings

Concerning the findings in part II, it became clear based on the responses that retargeting ads are being noticed more when they continue to appear with a targeted message. This may of course be due to the effect of "breaking through the noise" of ads online, but also seems to be related to the targeting of these ads when comparing the low and high frequency groups' responses to whether they noticed any ads in the experiment.

Also from the second part of the findings, it became clear that the kind of 'retargeting' the respondents were able to recall to a great degree related to shopping sites such as Zalando and Bootz. Following this, there seems to be quite different opinions about whether the use of retargeting is perceived positively or negatively by the respondents, as the largest group of responses were neither positive nor negative towards the use of data for targeted ads.

When comparing the quantitative and qualitative data on the attitude towards retargeting, it also becomes questionable how much reliability should be granted to the negative comments in the open ended questions. This is because the high frequency group did not seem to be performing far worse than the control group on the attitudes towards recommending the brands, and since the most negative responses came from respondents in the control group.

# Validity of findings

In this study both quantitative and qualitative data have been analyzed in various ways and applied to a hypothesized research model. Due to this dynamic approach it is important to keep track of what is being measured and how it helps answer the research question. This is especially the case since retargeting by its nature is difficult to observe and examine in a realistic environment, which is why a discussion of the validity of the findings is required.

Concerning *content validity*, i.e. if the questionnaire provides adequate coverage of the research question (Saunders, Lewis & Thornhill, 2009), the premise of the experiment in the light of the results is worth discussing.

As the issues with placing respondents in a realistic retargeting situation lead to a setup where the respondent should imagine that their aunt needed advice for three purchase decisions, some trade-

offs were made between how the questionnaire was perceived and the usefulness of the answers. It is clear that the perception of advising an aunt may seem abstract and generate confusion among some respondents. Based on the results, it is however, perceived as a successful priming method as the effects being measured yielded significantly different results among the three groups of respondents. Since the questionnaire was conducted, it has also been confirmed via conversation with respondents, that the idea of referring to the aunt was correctly understood during the experiment, yet it did not reveal the intentions behind the prime, which was to secure a common premise for evaluating each brand based on the aunt's current needs.

Adding further perspective to *content validity*, the inclusion of different brands in the study made ground for the research question to be studied in different contexts. This research design yielded a diversified data output for the analysis and helped to answer the research question, which proved useful as the different brands gave different results yet similar tendencies in the hypotheses tests.

Another thing to discuss in relation to *content validity* is the use of ordinal values. As the purpose of this study is to measure an effect, the results depends on the type of values produced as the output. Although ordinal values does not make sense to describe mathematically, they have the clear advantage of giving respondents a comparative set of options to describe their opinion. Since the effect then can be found in the comparative approach to analyzing this data, the findings are considered as valid indications of the respondent's opinions and attitudes measured in relation to answering the research question.

The underlying construct of Persuasion Knowledge and how it should be measured in relation to retargeting, is also relevant to discuss concerning *content validity*. As the concept of Persuasion Knowledge still is developing, there are not yet clear guidelines as to how it should be measured (Campbell, 2000). The theory circles around the point at which a consumer becomes aware of a persuasive attempt which can by initiated by various emotions and environmental triggers.

The TRA also needs to be addressed in terms of construct validity. Although correlations were strongest for this part of the research model, a general critique of TRA is the similarity between how questions are formulated and thereby understood by respondents as this might be part of the reason behind the seemingly good fit of the model. Especially between attitude towards behavior and behavioral intent, similarities between these question formulations do exist. However, subjective norm that arguably is quite different still had a high significant correlation with behavioral intent which serves supports the validity. Furthermore, considerations were also made to overcome this bias of the model as evaluative formulations were consistently used.

A question related to privacy concern was used in this study as it proved effective in the Lambrecht & Tucker (2013) experiment which these findings can be compared with. Also, questions related to if the ads were being noticed were used to measure persuasion knowledge as an add-on to existing measurements ques which seemed to provide similar results when comparing the mean values of the three groups of respondents. This suggests that accessibility is in fact captured by asking respondents these types of questions which may be considered for future studies of retargeting as a valid construct.

Concerning *predictive validity*, i.e. the predictability of the research model based on correlations, the TRA variables of attitude towards behavior and subjective norm proved to have the strongest predictive power in the research model with their prediction of behavioral intent as was shown in the correlation tables presented in the findings part I.

Ad irritation was found not to have a significant predictive power related to brand attitudes which is an interesting "non-finding" although it contradicts the *predictive validity* of including this control variable in the research model to begin with. The same goes for activity bias, which might be due to the relatively high browsing time across respondents – it might be possible that had the sample been more diversified among browsing hours per week this control variable would potentially have added predictive value.

The *predictive validity* related to H5 was only partly supported as Circolo was the only brand that established a significant negative correlation at 0.05 confidence level as hypothesized.

Preece (1982), among other statisticians, point out the pitfalls of relying on a paired samples t-test, and the fact that if a result is found to be statistically significant it is considered as a universal truth. Although a p-value of 0.01 sound promising it does not say anything about the probability that a result is due to chance (Preece, 1982). Neither does it provide basis for a rational inference of causality, i.e. that a group of respondents receiving high frequency of targeted ads alone causes a negative brand attitude. However, this statistical method is considered relevant for the analysis as a best alternative for providing conclusive findings of the related hypotheses.

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Another thing worth discussing in relation to validity is the sample size. It is clear that a larger sample always is desirable, but in the case of limited resources to gain access to a larger sample, the compromise becomes to ensure enough respondents to be able to establish significant conclusions, which for the most part of this study was possible.

The experimental nature of this study has required dedication from the respondents which compared to a more simple questionnaire presumably have meant that a lot of respondents dropped out during the experiment for various reasons. On the other hand, the dedication required to complete the questionnaire also means that whatever bias may exist in the answers should be limited as no incentives to complete the questionnaire were provided, i.e. a high level of sincerity is assumed to have been in place for the respondents that completed the questionnaire. This sincerity also appears to be present when looking at the response rate for answers in the last three open ended questions, where only three out of the 85 respondents chose not to type anything in those boxes. This could also be interpreted as the questions being relevant or engaging for the respondents to voice their opinion among those respondents that committed to finish the questionnaire and experiment.

# Discussion

On a more general discussion level of the findings, the choice of banners and brands appears to have had a significant impact on the results, which leads to some limitations of the generalizability of the results.

In the case of Circolo, it appeared that the research model and proposed hypotheses had a good fit, however, for the other two brands, the hypothesized impact of frequency and Persuasion Knowledge on attitude could not be significantly supported for parts of the model.

As was proposed during the analysis, an explanation of the mixed results may relate to the creative execution and message of the ads if *accessibility* is triggered to a higher degree for e.g. a promotion banner that might seem pushy rather than for a generic branding banner. This finding is to some extent similar to the observed differences in Lambrecht & Tucker's (2013) study where Persuasion Knowledge was measured higher for respondents that were exposed to specific hotel offers via a DCO banner in comparison to those respondents who received generic hotel branding banners, due to the higher *accessibility* to the persuasive attempt in the hotel specific banners.

Although the results from the Circolo ads may provide some room for generalizability, there still remains further questions to be answered in relation to e.g. how a brand manager at Nestlé should react to these findings. Does the negative impact that retargeting has on some consumers decrease total sales or does it ruin long-term brand relationships with existing customers or make the brand seem cheap to others, these are all relevant questions which would require research beyond the scope of this study to answer.

It is perhaps in the reverse u-shaped relation between fixation time and liking which is found across several eye tracking- and *mere exposure effect* studies that some of the answers lie. In the cases where retargeting helps brands grow market share after making the shift from less targeted media buying strategies to programmatic buying and retargeting (Merchenta, 2015), it is clear that a positive effect of better targeting in these cases outweighs any negative impact that may arise among the minority of consumers. In light of that, the findings of this study should be seen as guidelines to define the negative effect of retargeting and potentially as first step in finding the balance between frequency, creative execution and targeting that is most effective.

As a further discussion of the *mere exposure effect's* role in retargeting and these findings, the inclusion of the *Reticular Activation System* theory could be relevant as it suggest that the brain automatically filters information and controls attention based on what has significance (Pribram & McGuinness, 1975). As an example, some might start noticing and paying more attention to ads for a product they just bought or has some kind of relation to. This effect would be highly relevant in explaining if more attention is paid to retargeting banners than non-targeted banners. The application of this theory would potentially add perspective to the findings of this and other retargeting studies and help further the understanding of what impact a DCO banner has due to the targeted message specificity of these type of banners and retargeting banners in general.

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### **Theoretical implications**

This study has confirmed that Persuasion Knowledge is a relevant topic to study when analyzing targeted ads. It is, however, questionable if it in any case will be determining for how online ads are perceived and how they can have a negative impact on brand attitudes.

As only few specific brands were mentioned by the respondents when asked if they could re-call a retargeting episode, what triggers annoyance with retargeting may to a higher degree be related to those ads that can be compromising in the way they reveal personal information about the consumer. This could be an ad a dieting product, medicine or even a wedding ring, however, this kind of retargeting experience would be difficult to replicate in an experiment. Lambrecht & Tucker's (2013) experiment did try to study if DCO ads would evoke higher Persuasion Knowledge than generic ads (they used *privacy concern* as a proxy for Persuasion Knowledge), which they found to be the case. However, as the DCO ads were predefined they presumably may have had a limited effect compared to a realistic scenario where DCO banners are build based on which product-webpages consumers actually visit and are interested in.

Based on this study, the mix of the effects from the *mere exposure effect* and Persuasion Knowledge seems to be shaping the results which should be a learning for any future studies of targeted online advertising where any of these effects are measured.

From an attitude perspective, a strong correlation was found when applying the TRA, which serves as solid example of how this model can be successfully incorporated in a new digital advertising context which is also highly relevant for future studies.

## **Managerial implications**

It is important to note that retargeting by its nature is being credited a lot of sales that would have happened anyway as it is targeting a group of consumers that are close to making a purchase decision, especially with the use of conventional attribution modelling such as last click or view. From a managerial perspective, it will ideally be worth looking at the incremental value that retargeting add when deciding how much budget should be allocated to this media buying tactic, before taking the findings of this study into consideration.

From there on, this study has revealed that a negative impact of retargeting in some cases exist. Whether this negative effect outweighs the benefits of gaining high exposure toward "must win" customers is an individual decision that depends on the type of brand that is being represented and the communication tactic that is used, i.e. is it a promotion or branding message and at which frequency etc. which even might be a too simplified view.

Concerning high intent customers, retargeting may also play an important role in helping to close sales and grow market share when only few or none competitors are using retargeting in this part of a consumer journey, where top of mind brand performance might be key to the decision outcome.

It would of course be great to have a formula to calculate in which cases retargeting becomes a liability for the brand, and in which cases it serves as a sound exchange between lost brand equity among few consumers and added sales from others. However, the reality of digital marketing and the complexity of branding makes this formula tricky and it will require a brand and campaign specific study to reveal how persuasion knowledge and frequency is affecting brand attitudes negatively for each case.

For companies that are representing high-end luxury brands, the clock is ticking when less expensive competitors utilized the high potential of retargeting while these companies refuse to take the risk. On the other hand, companies such as e.g. Zalando who are saturating the potential of retargeting while not being aware of the consequences will end up wasting their advertising budget. Additionally, it is likely that they will decrease their rate of returning customers in the long run due to a supposedly high level of *inference of manipulative intent* among their existing customers. This is of course depending on whether the Circolo case can be translated to Zalando, which seems plausible since five out of the 20 respondents that were able to recall a situation where they experience retargeting, mentioned Zalando.

For any company, the decision to use retargeting, and at what level, will be an individual case where all these considerations should be taken into account and investigated in order to find the optimal use of this media buying strategy.

## Conclusion

In this study, the effect of retargeting on behavioral brand attitudes and persuasion knowledge was measured in a retargeting experiment. Overall, high frequency appeared to both enhance persuasion knowledge and affect attitudes negatively. This answers the research question in short, although further conclusions can be drawn from the findings.

The degree to which this negative effect may impact attitudes towards the brands which use retargeting must depend on several aspects since the use of different brands and banners yielded different results, and since the open-ended responses highlighted different kinds of concerns in relation to being retargeted. As an example, some respondents felt that retargeting made the brand seem cheap or manipulative while other respondents claimed retargeting did not affect them.

From a frequency perspective, the results show a positive effect of limiting the retargeting exposures to a few during a browsing session meaning that not every webpage a consumer visits has targeted ads. This was the case for the low frequency group, which to some degree is possible to control via programmatic buying.

Moreover, it was found that the creative execution may increase *accessibility* as a key variable for Persuasion Knowledge, e.g. when specific products that a person has looked at appear in the banner, which from a frequency perspective needs to be taken into consideration.

In sum, this study provides evidence that retargeting may affect brand attitudes negatively and that Persuasion Knowledge can be activated as a result of high frequency targeted ads. As behavioral intent also is part of the research model, and is correlated with attitude and subjective norm with high coefficients, conclusions on how recommendation intent and potentially sales are affected may be drawn from this study, but with several limitations and should be seen in a broader perspective as discussed in relation to the implications.

## Limitations

Indeed, several considerations has been made to make the experiment feasible which have imposed several limitations on the findings.

As mentioned the aim has been to provide as realistic as possible conditions for the respondents, however, retargeting as it is experienced in real life is extremely individual. It can be different in form of its frequency and recency between exposure, which context it appears in, on how many devices it is present and different types of execution (e.g. via web-tv ads, banner ads, Facebook, Google search ads and recently Spotify audio ads).

This has clear limitations of the direct transfer of the findings in this study to any multichannel media buying strategy. Yet, as was stated in the problem definition, the aim has been to isolate and measure an effect that can be compared relatively between groups that very simply have been distinguished by the frequency of targeted ads as stimuli.

As such, this limitation was found necessary, and yet has its usefulness in confirming the underlying hypotheses behind the research question in a realistic and plausible retargeting simulation of the last steps in an online consumer journey.

## **Future research**

For future studies, it will be worth looking at least at three things based on the findings of this studies; integrating theoretical approaches with industry research, investigate the effect of frequency and how to plan accordingly, further examine and monitor persuasion knowledge in online advertising – these three things will briefly be discussed in the following.

Distinctive differences exist between theory and practice when it comes to the view on banner advertising and the approaches used to measure the effect and value of this medium. As was found when digging into the existing online advertising research, the eye-tracking experiments, and then looking at how the industry uses last click attribution and defines measures such as viewability, it is clear that a gap between the two paths exist. For any future research, both from academia and industry, it seems to be beneficial to unite these two approaches to add further depth to the measurement- and prove of online advertising value.

With these joint approaches, it will become clearer how to e.g. determine the effective frequency, and plan a differentiated cap between customer segments after intent data, context, creative execution etc., while taking the reverse u-shaped relation between fixation duration and liking into account as described in the *mere exposure effect* experiments. An advertiser will in this example be able to prioritize a high frequency banner targeting towards customers with a high probability of buying while less probable buying customers will receive a lower frequency.

Only few studies have so far used a qualitative approach to study persuasion knowledge (Ham & Nelson, 2015), and thus far, not in the context of online advertising. Although this study provides an analysis of qualitative data related to emotional responses to targeted ads, it is still early to say exactly how persuasion knowledge should be measured in the context of retargeting based on these findings. Many methodological considerations was taken in the design of this study to provide an accurate proposal of how retargeting should be measured, however, different aspects could be illuminated when exploring how the beliefs and deeper values of consumers are affected, and in relation to this, how a brand relationship might suffer as a consequence. These are, perhaps, the necessary research steps that in the future needs to be taken to explore underlying causes behind this new advertising technology and its promising ROI.

### References

Aaker, D. A. (2009). *Managing brand equity*. Simon and Schuster.

Acquisti, A., & Spiekermann, S. (2011). Do interruptions pay off? Effects of interruptive ads on consumers' willingness to pay. *Journal of Interactive Marketing*, *25*(4), 226-240.

Adams, A. R. (2013). Mobile Advertising, University of Texas, URL: <u>http://repositories.lib.utexas.edu/bitstream/handle/2152/22389/adams-mastersreport-</u> 2013.pdf?sequence=1 [retrieved 07.07.15]

AdExchanger (2015). *Defining Viewability: 'The Opportunity To Be Seen Can't Tell You If An Ad Worked Or Not'*, URL: <u>http://adexchanger.com/online-advertising/defining-viewability-the-opportunity-to-be-seen-cant-tell-you-if-an-ad-worked-or-not/</u> [retrieved 20.09.15]

AdOps Insider (2011). *Dynamic Creative Optimization – where online data meets advertising creative*, URL: <u>http://www.adopsinsider.com/ad-ops-basics/dynamic-creative-optimization-where-online-data-meets-advertising-creative/</u> [retrieved 11.08.15]

Adriot (2014). Survey Results: How Consumers Perceive Remarketing, *Adroit 2014*, URL: <u>http://learn.adroitdigital.com/How-Consumers-Perceive-Remarketing.html</u> [retrieved 04.10.15]

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior (pp. 11-39). *Springer Berlin Heidelberg*.

Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behaviour.

Baron, S. D., Brouwer, C., & Garbayo, A. (2014). A model for delivering branding value through highimpact digital advertising. *Journal of Advertising Research*, *54*(3), 286-291.

Bornstein, R. F., & D'Agostino, P. R. (1992). Stimulus recognition and the mere exposure effect. *Journal of personality and social psychology*, *63*(4), 545.

Breckler, S. J., & Wiggins, E. C. (1989). On defining attitude and attitude theory. Attitude, structure and function, 42-61.

Brehm, J. W. (1966). A theory of psychological reactance. New York.

Campbell, M. C. (1999). Perceptions of price unfairness: antecedents and consequences. *Journal of marketing research*, 187-199.

Cheong, Y., De Gregorio, F., & KiM, K. (2010). The Power of Reach and Frequency In the Age of Digital Advertising Offine and Online Media Demand Different Metrics. *Journal of Advertising research*, *50*(4), 403-415.

Cho, C. H., Lee, J. G., & Tharp, M. (2001). Different forced-exposure levels to banner advertisements. *Journal of Advertising Research*, *41(4)*, *45-56*.

ComScore (2009). comScore and Starcom USA Release Updated "Natural Born Clickers" Study Showing 50 Percent Drop in Number of U.S. Internet Users Who Click on Display Ads, URL: https://www.comscore.com/Insights/Press-Releases/2012/4/For-Display-Ads-Being-Seen-Matters-More-than-Being-Clicked [retrieved 13.09.15]

comScore (2010). When Money Moves to Digital, Where Should It Go?

Danske Medier (2015). *Danske Medier ser på ad blocking,* URL: <u>http://danskemedier.dk/nyhed/danske-medier-ser-paa-ad-blocking/</u> [retrieved 14.08.15]

Day, G. S. (1972). Evaluating models of attitude structure. *Journal of Marketing Research*, Vol. IX (August 1972), 279-286.

Debatin, B., Lovejoy, J. P., Horn, A. K., & Hughes, B. N. (2009). Facebook and online privacy: Attitudes, behaviors, and unintended consequences. *Journal of Computer-Mediated Communication*, *15*(1), 83-108.

Draganska, M., Hartmann, W. R., & Stanglein, G. (2014). Internet Versus Television Advertising: A Brand-Building Comparison. *Journal of Marketing Research*, *51*(5), 578-590.

Eckersley, P. (2010, January). How unique is your web browser?. In *Privacy Enhancing Technologies* (pp. 1-18). Springer Berlin Heidelberg.

Edelman, D. C. (2010). Branding in the digital age. Harvard business review,88(12), 62-69.

Forbes (2014). *Different customers, different prices thanks to big data,* URL: http://www.forbes.com/sites/adamtanner/2014/03/26/different-customers-different-prices-thanks-to-big-data/ [retrieved 12.08.15]

Fournier, S., & Yao, J. L. (1997). Reviving brand loyalty: A reconceptualization within the framework of consumer-brand relationships. *International Journal of Research in Marketing*, *14*(5), 451-472.

Friedman, H. H., Herskovitz, P. J., & Pollack, S. (1994). The biasing effects of scale-checking styles on response to a Likert scale. *In Proceedings of the American statistical association annual conference: survey research methods(Vol. 792).* 

Friestad, M., and P. Wright. 1994. The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research, 21, no. 1: 1-31.* 

Goldfarb, A., & Tucker, C. (2011). Online display advertising: Targeting and obtrusiveness. *Marketing Science*, *30*(3), 389-404.

Goldfarb, A., & Tucker, C. E. (2011). Online advertising, behavioral targeting, and privacy. *Communications of the ACM*, *54*(5), 25-27.

Google (2010). CTR Benchmark for PPC campaigsn, *Google Support*, URL: <u>http://www.google.com/support/forum/p/AdWords/thread?tid=7aeb3290fd8feccb&hl=en</u> [retrieved: 14.06.15]

Grush, J. E. (1979). Attitude formation and mere exposure phenomena. *Personality and Social Psychology Bulletin*, *5*, 154-159.

Ham, C. D., Nelson, M. R., & Das, S. (2015). How to Measure Persuasion Knowledge. *International Journal of Advertising*, 34(1), 17-53.

Hansen, T., Jensen, J. M., & Solgaard, H. S. (2003). Consumer Online Grocery Buying Intention: A TRA Versus TPB Approach, *Copenhagen Business School, Open Archive* 

Heinz, S., Hug, M., Nugaeva, C., & Opwis, K. (2013, April). Online ad banners: the effects of goal orientation and content congruence on memory. In *CHI'13 Extended Abstracts on Human Factors in Computing Systems* (pp. 1875-1880). ACM.

Hervet, G., Guérard, K., Tremblay, S., & Chtourou, M. S. (2011). Is banner blindness genuine? Eye tracking internet text advertising. *Applied Cognitive Psychology*, *25*(5), 708-716.

Hossain, M. T., & Saini, R. (2014). Suckers in the morning, skeptics in the evening: Time-of-Day effects on consumers' vigilance against manipulation. *Marketing Letters*, *25*(*2*), *109-121*.

Integral Ad Science (2015). Media Quality Report – Q2 2015, URL: <u>http://integralads.com/quarterly/</u> [retrieved 20.09.15]

Jensen, J. M., & Knudsen, T. (2009). *Analyse af spørgeskemadata med SPSS: teori, anvendelse og praksis*. Syddansk Universitetsforlag.

Jones, J. P. (1995). Single-source research begins to fulfill its promise. *Journal of Advertising Research*.

Kachersky, L., & Kim, H. M. (2010). When consumers cope with price-persuasion knowledge: The role of topic knowledge. *Journal of Marketing Management*, *27*(1-2), 28-40.

Keller, K. L. (1993). Conceptualizing, measuring, and managing customer-based brand equity. *The Journal of Marketing*, 1-22.

Kirmani, A., & Zhu, R. (2007). Vigilant against manipulation: The effect of regulatory focus on the use of persuasion knowledge. *Journal of Marketing Research*, 44(4), 688-701.

Krugman, H. E. (1972). Why three exposures may be enough. *Journal of Advertising Research*, *12*(6), 11-14.

Lambrecht, A., & Tucker, C. (2013). When does retargeting work? Information specificity in online advertising. *Journal of Marketing Research*, *50*(5), 561-576.

Lavrakas, P. J. (2008). Encyclopedia of survey research methods. Sage Publications.

Lee, J., & Ahn, J. H. (2012). Attention to banner ads and their effectiveness: An eye-tracking approach. *International Journal of Electronic Commerce*, *17*(1), 119-137.

Lewis, R. A., Rao, J. M., & Reiley, D. H. (2011, March). Here, there, and everywhere: correlated online behaviors can lead to overestimates of the effects of advertising. *In Proceedings of the 20th international conference on World wide web (pp. 157-166). ACM.* 

Lewis, R., Rao, J. M., & Reiley, D. H. (2014). Measuring the Effects of Advertising: The Digital Frontier. *In Economics of Digitization. University of Chicago Press.* 

Margarida Barreto, A. (2013). Do users look at banner ads on Facebook? *Journal of Research in Interactive Marketing*, 7(2), 119-139.

Markedsføring(2015).AdBlockingkommersnigende,URL:http://markedsforing.dk/artikler/digitalt/ad-blocking-kommer-snigende[retrieved 12.08.15]

McCoy, S., Everard, A., Polak, P., & Galletta, D. F. (2007). The effects of online advertising. *Communications of the ACM*, *50*(3), 84-88.

McGuire, W. J. (1969). The nature of attitudes and attitude change. *The handbook of social psychology*, *3*(2), 136-314.

McGuire, W. J. (1976). Some internal psychological factors influencing consumer choice. *Journal of Consumer research*, 302-319.

Merchenta (2015). *Case studies*, URL: <u>http://www.merchenta.com/retargeting/case-studies/</u> [retrieved 27.09.15]

Nielsen, R. K., & Schrøder, K. C. (2014). Danskernes brug af digitale medier og nyheder 2014. *Roskilde Universitet.* 

Obermiller, C., and E.R. Spangenberg. 1998. Development of a scale to measure consumer skepticism toward advertising. *Journal of Consumer Psychology 7, no. 2: 159-86.* 

Olson, J. C., & Mitchell, A. A. (1981). Are product attribute beliefs the only mediator of advertising effects on brand attitude?. *Journal of Marketing Research, Vol. XVIII (August 1981), 318-32* 

Pascale, F. (2014). *Introduction to Exponential Thinking and Technology*. Singularity University, URL: <u>http://blog.finette.com/introduction-to-exponential-thinking-and-technology/</u> [retrieved 28.07.15]

Preece, D. A. (1982). T is for trouble (and textbooks): a critique of some examples of the pairedsamples t-test. The Statistician, 169-195.

Pribram, K. H., & McGuinness, D. (1975). Arousal, activation, and effort in the control of attention. *Psychological review*, 82(2), 116.

Roberts, K. (2005). Lovemarks: The future beyond brands. PowerHouse Books.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students, 5/e*. Pearson Education India.

Schroer, J. C. (1989). Ad spending: growing market share. Harvard business review, 68(1), 44-48.

Schumann, J. H., von Wangenheim, F., & Groene, N. (2014). Targeted online advertising: Using reciprocity appeals to increase acceptance among users of free web services. *Journal of Marketing*, *78*(1), 59-75.

Tene, O., & Polenetsky, J. (2012). To Track or Do Not Track: Advancing Transparency and Individual Control in Online Behavioral Advertising. *Minn. JL Sci. & Tech.*, *13*, 281.

Tsang, M. M., Ho, S. C., & Liang, T. P. (2004). Consumer attitudes toward mobile advertising: An empirical study. *International Journal of Electronic Commerce*, *8*(*3*), *65-78*.

Tutaj, K., & van Reijmersdal, E. A. (2012). Effects of online advertising format and persuasion knowledge on audience reactions. *Journal of Marketing Communications*, *18*(1), 5-18.

Tutaj, K., & van Reijmersdal, E. A. (2012). Effects of online advertising format and persuasion knowledge on audience reactions. *Journal of Marketing Communications*, *18(1)*, *5-18*.

Weng, L. J., & Cheng, C. P. (2000). Effects of response order on Likert-type scales. *Educational and psychological measurement, 60(6), 908-924.* 

Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of personality and social psychology*, *9*(2p2), 1.

## Appendix

## Appendix 1 – the ad tech vendors in the Display LUMAscape

This image maps out all the different ad tech vendors that potentially takes a cut of a online campaign's media spend to facilitate the delivery of display ads. All these vendors stand between the marketer on the one hand and the publisher and consumer on the other.



Source: LUMA Partners, 2015, URL: http://www.lumapartners.com/lumascapes/display-ad-tech-lumascape/

### Appendix 2 – How a browser is tracked by ad tech companies

A typical web browser can be monitored by 100+ companies for data collection purposes, some of which are even able to infer associated devices via an IP based statistical ID making these companies able to match tablet, smartphone, home-/work-desktop to one person and collect data whenever a device is being used. Below is an example of how the opt out service can look, where some of the companies starting with "a" are listed:

Virksomhed	Til/Fra	Status	Info
4W MARKETPLACE SRL	🖲 Til 🔘 Fra	?	
Accordant Media	🖲 Til 🔘 Fra	<b>Ø</b>	V
Acxiom	🖲 Til 🔘 Fra	<b>Ø</b>	•
ad4mat®	🖲 Til 🔘 Fra	?	
AddThis (formerly Clearspring)	🖲 Til 🔘 Fra	<b>Ø</b>	•
ADEX	◯ Til ◉ Fra	8	
Adform	🖲 Til 🔘 Fra	0	•
adGENIE	🖲 Til 🔘 Fra	?	•
ADITION	🖲 Til 🔘 Fra	<b>Ø</b>	•
AdLantic	🖲 Til 🔘 Fra	?	
Admeta	🖲 Til 🔘 Fra	?	
Adobe	🖲 Til 🔘 Fra	<b>Ø</b>	•

Aktiver eller deaktiver alle virksomheder

Example of how many companies are dropping 3rd party cookies on a web browser when visiting a Danish news site (this was found using the Ghostery app for Google Chrome):



### Appendix 3 – Questionnaire and Experiment from start to end

## Spørgeskema om online forbrugsadfærd

Tak fordi du vil deltage i denne undersøgelse!

Undersøgelsen omhandler online forbrugsadfærd, hvor især beslutningsprocessen for handel på nettet vil blive undersøgt.

Spørgeskemaet tager cirka 5 til 10 minutter at gennemføre, og alle svar vil blive behandlet anonymt.

NB: Da der indgår visuelt indhold, er det nødvendigt at gennemføre dette eksperiment på enten en computer eller tablet og altså ikke via en smartphone.

\* Required

#### Indledende spørgsmål - del 1 af 4 \*

Køn

- Mand
- Kvinde

#### Alder \*

- 🔘 0-19 år
- 0 20-29
- 30-39
- 0 40-49
- 0 50-59
- 60+

#### Hvor mange dage om ugen surfer du på nettet? \*

Med "surfe" menes; tjekke Facebook, læse nyheder, se vejrudsigten osv.

- 🔘 0 til 1 dag
- 2 til 3 dage
- 🔘 4 til 5 dage
- alle ugens dage

#### På de dage hvor du surfer på nettet, hvor mange timer vil du tro du i gennemsnit bruger? \*

- mindre end 10 minutter
- en halv time
- 1 til 2 timer
- 2 til 4 timer
- mere end 4 timer

Continue »

8% completed

## Hjælp din tante med at træffe det rigtige valg - del 2 af 4

I denne del skal du forestille dig, at din tante har bedt dig om hjælp til at træffe nogle beslutninger på nettet

Forestil dig, at din tante lige er gået på pension, og at hun kan betegnes som en kvalitetsbevidst person der gennem et langt arbejdsliv har sparet op til nu at kunne nyde tilværelsen.

Hun har nu været på udkig efter at købe 3 ting:

- 1. En kapsel kaffemaskine
- 2. En ny smartphone
- 3. En flyrejse til USA

Hun har derfor kigget på nogle anmeldelser, som hun nu vil vise dig. Derfor bedes du klikke på linket nedenfor og følge vejledningen. Kom derefter tilbage til denne side og fortsæt i spørgeskemaet.

https://docs.google.com/presentation/d/1BizkPyVansdL1pzMe6C-rEDDAhr6zahkxeW-FJKLb\_I/edit?usp=sharing

« Back Continue » 16% completed



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Eksperiment om online forbrugeradfærd   Tryk venligst på Image: Present Image: Oppe i højre hjørne   Introduktion   Din tante vil nu bede dig læse uddrag af nogle anmeldelser   Hun har markeret den tekst du bedes læse med en rød firkant	
Tryk venligst på <b>Present o</b> ppe i højre hjørne <b>Introduktion</b> Din tante vil nu bede dig læse uddrag af nogle anmeldelser Hun har markeret den tekst du bedes læse med en rød firkant	Eksperiment om online forbrugeradfærd
<b>Introduktion</b> Din tante vil nu bede dig læse uddrag af nogle anmeldelser Hun har markeret den tekst du bedes læse med en rød firkant	Tryk venligst på 🛛 🔽 Present 👻 oppe i højre hjørne
Din tante vil nu bede dig læse uddrag af nogle anmeldelser Hun har markeret den tekst du bedes læse med en rød firkant	Introduktion
Hun har markeret den tekst du bedes læse med en rød firkant	Din tante vil nu bede dig læse uddrag af nogle anmeldelser
	Hun har markeret den tekst du bedes læse med en rød firkant
Som nævnt er din tante på udkig efter en ny kaffemaskine, en ny smartphone og en flybillet til sin ferie i USA	Som nævnt er din tante på udkig efter en ny kaffemaskine, en ny smartphone og en flybillet til sin ferie i USA

De følgende tre slides omhandler:

Anmeldelser af kapsel kaffemaskiner

(Læs det afsnit der er markeret med en rød firkant)

agstestere advaren: Kaps × +					
🛞 politiken.dk/forbrugogliv/forbrug/tjekmad/ECE2214047/smagstestere	-advarer-kapselkaffe-er-kaffens-daasemad/		⇒ C ] C Search	☆ ê ↓ ♠ ❷ G	
	POLITIKEN = SEKTIONER Q SØ	IG V DIT POLITIKEN - MERE -	KØB ABONNEMENT LOG IND		
Annor			Annonce	í .	
& FÅ FN	»Der er langt fra rigtig espresso til ka or nomt at lave kanselkaffe. Det er no	apselvarianten, men man må sige, at ok derfor, så mange danskore køber	& FÅ EN		
CIRCOLO	kapselmaskiner. Men uanset hvor me	eget de reklamerer for det, smager de	CIBCOLO"		
TIL SPECIALPRIS	ikke fantastisk, selv om de skal have	ros for at lave pæn crema. Hvis jeg sk	ulle TIL SPECIALPRIS		
	vælge imellem en mand, der lignede kanselmaskine, og en nørd, der forste	George Clooney, og som havde en od at betjene en rigtig espressomaski			
399 KD	ville jeg vælge den sidste. Men jeg er	også kæreste med en ingeniør«.	309 km		
	De to dommere kritiserer mange af k	afferne for at være baseret på for hår	dt		
LÍ	ristede bønner. Marie Holm siger:	antonie for al tare substor partor ha	1. Di		
	LÆS OGSÅ Test: Én Billig Cola lig	ht er (næsten) lige så god som origina	len		
	. In indumentation and in the second in fact	atambles de bases sistede beffer ma			
	»Jeg indrømmer, at jeg personing for nogle af de kaffer, der er med i testen	etrækker de lysere ristede kaner, mei 1. er ikke bare mørkristede, men eksti	remt		
	hårdt ristede. Det kan være, fordi det	t er den type ristning, de fleste dansk	ere		
*Så længe lager haves	foretrækker, men det kan altså også v dårlig smag fra ikke så gode banner.	være noget, man gør for at skjule en	*Så længe lager haves		
NESCAFÉ	uaring sinag na ikke sa goue oonner«		NECTOR		E.
Bolce	»Man betaler meget for kapslerne – j bønner«, supplerer Mira Arkin.	penge, som dermed ikke er gået til go	de <b>Gusto</b>		
	Endelig hæfter de kaffeslubrende sm	agsdommere sig ved, at ingen af			
	kapselkafferne virker rigtig friske.	0 0 0			
	LÆS OGSÅ Bulletproof coffee: Kan	det holde mig kørende hele			
	formiddagen?				
	»Espressobønner kan normalt kun h	olde deres aroma i seks uger, når de e	r		
	blevet ristet – de her kapsler kan hol også flere af dem, der smager støved	de sig meget længere, men der er alts e og lidt hengemte. Som kaffens	â		
	dåsemad«.				
	Research: Benedikte Lundberg og K	aroline Krog Vind			
					*
					X
wingsmarttv.dk/vores-families-erfaringer-med-nespres	sso-kaffernaskine-del-1-af-2/		T C Q Search		-
For	siden Seneste Nyheder – Anmelde	lser v Tins & tricks v Alle udsend	lelser y Om y Q		
101	such seneste rijnead - rannende	Desumine må jag darfar arkanda at			
· · · · · · · · · · · · · · · · · · ·		espressomaskinerne var lige "hardcore"	nok for		
	S FA EN	mig – det lugter grimt når man rister bø og gav mig ikke nogen "hallelujah"-oplev	relse at		
	IL SPECIALPRIS	smage det, måske fordi jeg i forvejen dr	Ikker		
		gou kane.	Den DEFINITIVE guide: MacBook		
	Så tænge lager havos	Flere foreslog at jeg skulle prøve en Nespresso-maskine – du ved, den type	Air eller MacBook Pro Retina –		
		maskine, hvor du i reklamerne ser Georg	vælge?		
	Gusto	Clooney putte en lille kapsel i en maskin trykke på en knap og hupti vupti har har	e, feb 17, 2014 (9) 7 (0) 13300 1 en		
		god kop kaffe.	Et af det oftest forekommende spørgsmål til Apples MacBook computere er: hvilken skal jeg have,		-
Jeg bl	lev nysgerrig og endte med at købe en brug	t model, så for 1.500 kr. fik jeg erhverv	MacBook Air eiler MacBook Pro? Det er én ting at		
topm kapsl	odellen med mælkebeholder og dertil bestil er med alskens forskellige kaffesmage.	ite jeg sa Nespressos startpakke med 25	0		
Nu ha	ar jeg brugt den i nogle uger og jeg må sige	e, at jeg er positivt overrasket. Jeg havde	en		
forve	ntning om "sådan nogle kapsler" ville smag tationer	e ligesom den dårlige kaffe man køber p	à		
curres.	autore:	0			4
Sm	nager Nespresso godi	t?			
Jeg ei	r vant til god kaffe – normalt bruger jeg selv	v gode bønner fra en specialforretning i '	/ejle		
jeg e (Madi præci	r vant til god kaffe – normalt bruger jeg selv am Blå) og en Mokkamaster – dvs. filterkaff is den gode kaffe, jeg gerne vil have. Det ør	v gode bønner fra en specialforretning i ' e – med rigtig gode resultater. Det giver hurtigt – hæld vand og kaffe i – tænd og	/ejle lige 1 2		
Jeg ei (Madi præci minu	r vant til god kaffe – normalt bruger jeg seh am Blå) og en Mokkamaster – dvs. filterkaffe s den gode kaffe, jeg gerne vil have. Det er tter senere har jeg en frisk kop kaffe.	v gode bønner fra en specialforretning i ' e – med rigtig gode resultater. Det giver hurtigt – hæld vand og kaffe i – tænd og	/ejle lige 2		
Jeg e (Mada præci minu Jeg k	r vant til god kaffe – normalt bruger jeg seh am Blå) og en Mokkamaster – dvs. filterkaff is den gode kaffe, jeg gerne vil have. Det er tter senere har jeg en frisk kop kaffe. an godt li' at jeg med alm. filterkaffe kan la	v gode bønner fra en specialforretning i i e – med rigtig gode resultater. Det giver hurtigt – hæld vand og kaffe i – tænd og ve et ekstra stærk kop, hvis jeg har lyst.	/ejle lige Jeg		
Jeg e (Madi præci minu Jeg k kan g Comve	vant til god kaffe – normalt bruger jeg sek m Bå) og en Mokkamaster – dvr. filterkafft is den gode kaffe, jeg gerne vil have. Det er tter senere har jeg en frisk kop kaffe. an godt li' at jeg med alm. filterkaffe kan la odt li' at det ikke sviner, jeg kan godt li 'at ndt er det gods juft begeranser – nonle vil s	y gode bømner fra en specialforretning i i e - med rigtig gode resultater. Det giver hurtigt - hæld vand og kaffe i - tænd og ve et ekstra stærk kop, hvis jeg har lyst. det er billigt. Jeg kan godt li 'at det er h ige kedelidt - at man io hverken kan hav	/ejle jeg jeg jeg sartig.		
Jeg s tMadi præcu jeg k kan g Omve espre	vant til god kaffe – normalt bruger jeg selv m Bå) og en Mokkamaster – dvs. filterkaffe is den gode kaffe, jeg gerne vil have. Det er tter senere har jeg en firsk kop kaffe. an godt li' at jeg med alm. filterkaffe kan la odt li' at det ikke sviner. Jeg kan godt li' at nidt er det også lidt begrænset – nogle vil s so, cappuchino eller lign. på en filtermask	y gode bønner fra en specialforretning i i e - med rigtig gode resultater. Det giver hurtigt - hæld vand og kaffe i - tænd og ve et ekstra stærk kop, hvis jeg har lyst. det er billigt. Jeg kan godt i i at det er h ge kedleljt - at man jo hverken kan law ine. Det kan man både med alm.	/ejle jeg jeg irtig. i lattë,		

Læs del 2 af artiklen her.

Hvis man sammenligner og sætter det op på en skala med Mokkamaster filterkaffe i midten, så kan vi placere de rigtige espressomaskiner ude til venstre og Nespresso ude til højre.

88





Anmeldelser af smartphones

(Læs det afsnit der er markeret med en rød firkant)







De følgende tre slides omhandler:

Anmeldelser af flyselskaber

(Læs det afsnit der er markeret med en rød firkant)









Spørgeskema om onl	ine forbrugsadfærd
Din mening om din tantes m Din tante fortæller dig nu, at hun overvejer at køb smartphone'en Sony Xperia Z3+ samt en flybillet Ud fra de få indtryk din tante netop har givet dig, uenig i de følgende udsagn. « Back Continue »	uligheder - del 3 af 4 pe kapsel kaffemaskine Circolo fra Nestlé, t med Lufthansa. bedes du derfor tage stilling til om du er enig eller 25% completed
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## Spørgeskema om online forbrugsadfærd \* Required

Din mening om din tantes muligheder - del 3 af 4

## Kapsel kaffemaskine - Nestlé Dolce Gusto Circolo



#### Hvor enig er du i disse udsagn? \*

...At anbefale min tante Circolo kaffemaskinen vil være en god idé

	Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$

\*

...Min nærmeste omgangskreds ville synes jeg bør anbefale min tante Circolo kaffemaskinen

Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$

#### Ejer du selv en Circolo kapsel kaffemaskine? \*

Continue »

- 🔵 Ja
- Nej

« Back

Din mening om din tantes muligheder - del 3 af 4

## Ny smartphone - Sony Xperia Z3+



#### Hvor enig er du i disse udsagn? \*

...At anbefale min tante Sony Xperia Z3+ vil være en god idé

Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
0	0	0	0	0

\*

...Min nærmeste omgangskreds ville synes jeg bør anbefale min tante Sony Xperia Z3+

Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
0	0	0	0	0

#### Ejer du selv en Sony Xperia Z3+? \*

- 🔘 Ja
- Nej

140	Back	
<b>%</b>	Dauk	

Continue »

## Din mening om din tantes muligheder - del 3 af 4

## Flybillet til USA - Lufthansa



#### Hvor enig er du i disse udsagn? \*

...At anbefale min tante at flyve med Lufthansa vil være en god idé

Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
$\bigcirc$	$\odot$	$\bigcirc$	$\bigcirc$	$\odot$

\*

...Min nærmeste omgangskreds ville synes jeg bør anbefale min tante at flyve med Lufthansa

Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
$\odot$	$\odot$	$\odot$	$\odot$	$\odot$

Har du selv inden for det sidste år fløjet med Lufthansa til USA? \*

$\bigcirc$	Ja

🔘 Nej

« Back

Continue »

\* Required

## Din mening om din tantes muligheder - del 3 af 4

#### Hvilke af disse brands regner du med at anbefale din tante? \*

Jeg regner med at anbefale:

	Helt usandsynligt	Usandsynligt	Hverken eller	Sandsynligt	Meget sandsynligt	
Nestlé Dolce Gusto Circolo	$\odot$	$\odot$	$\bigcirc$	$\bigcirc$	$\odot$	
Sony Xperia Z3+	$\odot$	$\odot$	$\odot$	$\odot$	$\bigcirc$	
Lufthansa flybillet 🛛 🔘		0 0		$\odot$	$\bigcirc$	
« Back Cont	tinue »				58% completed	

## Spørgeskema om online forbrugsadfærd

## Din mening om reklamer på nettet - del 4 af 4

I den sidste del af dette spørgeskema vil du blive spurgt om dine holdninger til reklamer på nettet.

Det er vigtigt at du ser bort fra streamingtjenester som eksemepelvis Spotify og YouTube da disse ikke er en del af undersøgelsen.

« Back	Continue »
--------	------------

## Din mening om reklamer på nettet - del 4 af 4

### Bemærkede du reklamerne i anmeldelserne? \*

Continue »

JaNej

« Back

Din mening om reklamer på nettet - del 4 af 4

Hvad synes du om disse reklamer?



Hvor interessante synes du at disee tre reklamer er på en skala fra 1 til 5 hvor 5 er mest interessant?\*

	1	2	3	4	5
Lufthansa	0	0	0	0	0
Sony Xperia Z3+	0	0	0	0	0
Nestlé Circolo	0	0	0	0	0

« Back

Continue »

\* Required

## Din mening om reklamer på nettet - del 4 af 4

Hvad er din mening om disse udsagn om reklamerne i anmeldelserne? \*

	Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
Jeg fandt reklamerne relevante	0	0	0	۲	0
Jeg fandt reklamerne irriterende	0	0	0	۲	0
« Back C	ontinue »				91% completed

\* Required

#### Din mening om reklamer på nettet - del 4 af 4

#### Hvad er din mening om disse udsagn?\*

	Helt uenig	Delvist uenig	Hverken eller	Delvist enig	Helt enig
Når jeg surfer på nettet tænker jeg ikke over de reklamer jeg får	0	0	0	0	0
Jeg er bekymret for min private data når jeg surfer på nettet	0	0	0	0	0
Når jeg surfer på nettet bemærker jeg at visse reklamer bliver ved at dukke op	0	0	0	0	0

#### Din holdning til reklamer på nettet \*

Efter min mening er bannerreklarner på nettet generelt:

- Meget irriterende
- Lidt irriterende
- Jeg bemærker dem ikke
- O Nogle gange brugbare
- Ofte brugbare
- Other:

Hvad synes du om, at der samles data om din adfærd på nettet for at målrette reklamer til dig? \* Brug gerne et eksempel hvis du har oplevet at blive forfulgt af en reklame

Velvidende at disse data bliver opsamlet, har du i visse tilfælde bevidst surfet (anderledes end du ellers ville) ud fra denne viden?  $^{\ast}$ 

Har du eksempelvis undgået at besøge en hjemmeside eller slettet dine cookies for at undgå disse målrettede reklamer?



Har du oplevet dette fra en bestemt annoncør/brand (giv gerne et eksempel)? Og hvad synes du om de annoncører der benytter denne målretning

« Baok Submit

100%: You made it

Never submit passwords through Google Forms.

link to questionnaire:

https://docs.google.com/forms/d/1CUoP1msWJbB8fYrPW1vBAzMq5vko9DNffrrXUidn9S8/viewfor

<u>m</u>

## Appendix 4 – Responses to initial questions (gender, age, online activity)

	6	Indledende spørgsmål -	61.J	Hvor mange dage om ugen surfer du på	På de dage hvor du surfer på nettet, hvor mange timer vil du tro du i
7/20/2015 15:52:42	Group	del 1 af 4	Alder	nettet?	gennemsnit bruger?
7/28/2015 15:55:45	1	Kvinde	20-29	alle ugens dage	z ur4 urrei
7/20/2015 10:05:09	1	Mand	20-29	alle ugens dage	2 til 4 times
7/20/2015 16:05:50	1	Mand	20-29	alle ugens dage	2 til 4 timer
//28/2015 16:08:43	1	Mand	40-49	alle ugens dage	2 til 4 timer
//28/2015 16:11:22	1	Kvinde	30-39	alle ugens dage	1 til 2 timer
//28/2015 16:14:56	1	Mand	30-39	alle ugens dage	mere end 4 timer
//28/2015 16:15:07	1	Kvinde	30-39	alle ugens dage	mere end 4 timer
/28/2015 16:17:03	1	Mand	30-39	alle ugens dage	mere end 4 timer
/28/2015 16:22:40	1	Kvinde	20-29	alle ugens dage	1 til 2 timer
/28/2015 16:34:03	1	Kvinde	50-59	alle ugens dage	mere end 4 timer
/28/2015 16:43:28	1	Kvinde	60+	alle ugens dage	1 til 2 timer
/28/2015 16:46:28	1	Mand	60+	alle ugens dage	1 til 2 timer
/28/2015 16:56:10	1	Kvinde	30-39	alle ugens dage	en halv time
/28/2015 17:10:58	1	Mand	30-39	alle ugens dage	1 til 2 timer
/28/2015 18:26:35	1	Kvinde	30-39	alle ugens dage	2 til 4 timer
/28/2015 19:09:13	1	Kvinde	20-29	alle ugens dage	2 til 4 timer
/28/2015 21:03:45	1	Mand	50-59	alle ugens dage	1 til 2 timer
/28/2015 23:58:02	1	Kuinda	20.20	alle ugens dage	2 til 4 timer
/20/2015 25.50.02	1	Mand	20-29	alle ugens dage	z ul 4 umer
/23/2013 0:25:49	1	Kuinda	20-29	ane ugens dage	1 til 2 timer
/29/2015 /:14:04	1	Kvinde	30-39	ane ugens dage	1 til 2 timer
/29/2015 10:25:00	1	r.vinde	40-49	ane ugens dage	1 til 2 timer
/29/2015 10:32:26	1	Mand	30-39	alle ugens dage	en halv time
/29/2015 10:35:18	1	Mand	50-59	alle ugens dage	en halv time
/29/2015 10:52:01	1	Kvinde	30-39	alle ugens dage	1 til 2 timer
/29/2015 15:39:40	2	Mand	60+	4 til 5 dage	en halv time
/29/2015 18:31:42	2	Kvinde	30-39	alle ugens dage	2 til 4 timer
/29/2015 23:15:56	2	Mand	40-49	alle ugens dage	en halv time
/31/2015 0:01:58	2	Kvinde	50-59	4 til 5 dage	1 til 2 timer
/20/2015 23:08:06	0	Kvinde	20-29	alle ugens dage	2 til 4 timer
/20/2015 23:24:03	0	Kvinde	30-39	alle unens dage	1 til 2 timer
/20/2015 23:49:46	0	Mand	20-29	alle ugens dage	1 til 2 timer
/21/2015 5:58:14	0	Kyinde	50.50	alle ugens dage	1 til 2 timer
/21/2015 0.50.14	0	Mand	60.	A til 5 dage	on halu time
/21/2015 0.51.01	0	Kuindo	20.20	allo ucons dago	t til 2 timer
/21/2015 9.15.19	0	Kvinue	20-29	alle ugens uage	1 di 2 diriei
/21/2015 10:05:28	0	Kvinde	20-29	4 til 5 dage	1 til 2 timer
/21/2015 19:39:36	0	Kvinde	20-29	alle ugens dage	1 til 2 timer
/22/2015 8:10:20	0	Mand	60+	alle ugens dage	en haiv time
/22/2015 11:30:02	0	Mano	40-49	alle ugens dage	2 til 4 timer
/22/2015 22:01:33	0	Kvinde	20-29	alle ugens dage	en halv time
/22/2015 23:16:29	0	Mand	60+	4 til 5 dage	en halv time
//24/2015 7:33:24	0	Kvinde	30-39	alle ugens dage	1 til 2 timer
/24/2015 10:04:11	0	Mand	60+	alle ugens dage	1 til 2 timer
//24/2015 11:17:53	0	Mand	30-39	alle ugens dage	1 til 2 timer
/24/2015 21:19:40	0	Mand	40-49	alle ugens dage	en halv time
/25/2015 11:54:33	0	Kvinde	60+	alle ugens dage	1 til 2 timer
/25/2015 15:50:26	0	Mand	20-29	alle ugens dage	1 til 2 timer
/28/2015 11:55:05	0	Kvinde	20-29	alle ugens dage	2 til 4 timer
/29/2015 19:40:51	0	Mand	30-39	alle ugens dage	en halv time
/29/2015 23:15:15	0	Kvinde	20-29	alle ugens dage	1 til 2 timer
/30/2015 3:18:12	0	Mand	30-39	alle ugens dage	2 til 4 timer
/30/2015 9:22:44	0	Kvinde	20-29	alle ugens dage	1 til 2 timer
/31/2015 9.27.50	0	Mand	20-20	alle ugens dage	2 til 4 timer
/31/2015 0-55-22	0	Mand	20.20	alle ugens dage	1 til 2 timer
/31/2015 10:06:26	0	Kvinde	20-29	alle unens dage	1 til 2 timer
08.01.2015 10:00:20	0	Kuinda	20-29	alle ugens dage	a til 4 timer
08.01.2015.20:17	0	Mand	20-29	alle ugens dage	2 til 4 timer
03-01-2015 21:24	0	mano	20-29	ane ugens dage	2 til 4 timer
07-02-2015 21:52	1	Kvinde	20-29	alle ugens dage	2 til 4 timer
07-03-2015 06:20	1	Mand	20-29	alle ugens dage	mere end 4 timer
07-03-2015 18:33	1	Mand	20-29	alle ugens dage	1 til 2 timer
07-03-2015 18:58	1	Mand	50-59	alle ugens dage	1 til 2 timer
07-04-2015 17:15	1	Kvinde	20-29	alle ugens dage	2 til 4 timer
07-07-2015 10:21	1	Mand	30-39	alle ugens dage	1 til 2 timer
07-08-2015 08:00	1	Mand	20-29	alle ugens dage	1 til 2 timer
07-11-2015 21:35	2	Mand	20-29	alle ugens dage	2 til 4 timer
07-12-2015 03:17	2	Mand	20-29	alle ugens dage	mere end 4 timer
07-12-2015 07:54	2	Mand	50-59	4 til 5 dage	en halv time
07-12-2015 11:59	2	Mand	30-39	alle ugens dage	2 til 4 timer
07-12-2015 13:06	2	Mand	40-49	alle ugens dage	2 til 4 timer
07-12-2015 21:34	2	Mand	60+	alle ugens dage	en halv time
/17/2015 14-06-10	2	Mand	20-20	alle ugens dage	2 til 4 timer
/17/2015 16:22:02	2	Mand	20-29	alle ugens dage	en halv time
/17/2015 10:22:03	2	Mand	20-29	alle ugens dage	mare and 4 times
/17/2015 21:42:54	2	Mand	20-29	alle ugens dage	mere end 4 umer
/1//2015 22:38:41	2	mand	20-29	ane ugens dage	mere end 4 timer
/18/2015 9:47:39	2	Kvinde	20-29	alle ugens dage	∠ til 4 timer
/18/2015 17:48:49	2	Kvinde	60+	alle ugens dage	en halv time
/19/2015 22:27:17	2	Kvinde	20-29	4 til 5 dage	en halv time
/20/2015 2:39:49	2	Kvinde	50-59	alle ugens dage	1 til 2 timer
/21/2015 10:31:03	2	Kvinde	50-59	alle ugens dage	en halv time
/21/2015 20:38:19	2	Kvinde	50-59	alle ugens dage	2 til 4 timer
/21/2015 21:21:24	2	Kvinde	50-59	alle ugens dage	1 til 2 timer
/22/2015 19:26:43	2	Mand	50-59	alle ugens dage	1 til 2 timer
/22/2015 20:13:55	2	Kvinde	50-50	2 til 3 dane	en halv time
/28/2015 21:32:50	2	Mand	60+	4 til 5 dage	en halv time
7/31/2015 10:04:56	2	Mand	60+	A til 5 dage	en halv time



## Appendix 5 – The respondents' opinion about online ads and ad irritation

NB: 1 is "very annoying", 5 is "often useful"

#### Din holdning til reklamer på nettet\*

Efter min mening er bannerreklamer på nettet generelt:

- Meget irriterende
- Lidt irriterende
- Jeg bemærker dem ikke
- Nogle gange brugbare
- Ofte brugbare
- Other:

		Din holdning til reklamer
Timestamp	Group	på nettet
7/28/2015 15:53:43	1	1
7/28/2015 16:03:09	1	3
7/28/2015 16:05:50	1	4
7/28/2015 16:08:43	1	3
7/28/2015 16:11:22	1	2
7/28/2015 16:14:56	1	2
7/28/2015 16:15:07	1	Relativt nemme
7/28/2015 16:17:03	1	3
7/28/2015 16:22:40	1	2
7/28/2015 16:34:03	1	2
7/20/2015 16:43:20	1	2
7/28/2015 16:45:28	1	1
7/20/2015 16:56:10	1	
7/28/2015 17:10:58	1	1
7/20/2015 17:10.58	1	1
7/20/2015 10:20:35	1	1
7/28/2015 19:09:15	1	1
7/28/2015 21:05:45	1	1
7/20/2015 25:58:02	1	1
7/29/2013 0.23.49	1	2
7/29/2015 7:14:04	1	4
7/29/2013 10:23:00	1	1
7/29/2015 10:32:26	1	1
7/29/2015 10:35:18	1	1
7/29/2015 10:52:01	1	4
7/29/2013 13:39:40	2	1
7/29/2015 18:51:42	2	2
7/29/2015 23:15:56	2	2
7/31/2015 0:01:58	2	2
7/20/2015 23:08:06	0	2
7/20/2015 23:24:03	0	2
7/20/2015 23:49:46	0	2
//21/2015 5:58:14	0	4
7/21/2015 8:51:01	0	3
7/21/2015 9:13:19	0	2
7/21/2015 10:05:28	0	Det atnænger n
7/21/2015 19:39:36	0	2
7/22/2015 8:10:20	0	2
7/22/2013 11:30:02	0	2
7/22/2015 22:01:33	0	1
7/22/2013 23.10.29	0	2
7/24/2015 7:55:24	0	2
7/24/2015 10:04:11	0	1
7/24/2015 11:17:55	0	4
7/24/2013 21:19:40	0	1
7/25/2015 11:54:55	0	2
7/29/2015 11:55:05	0	1
7/20/2015 11:55:05	0	1
7/29/2015 19:40:51	0	2
7/30/2015 3:18:12	0	1
7/30/2015 9:22:44	0	2
7/31/2015 9:27:59	0	3
7/31/2015 9:55:23	0	1
7/31/2015 10:06:26	0	2
08-01-2015 20:17	0	3
08-01-2015 21:24	0	4
07-02-2015 21:52	1	leg har blokere
07-03-2015 06:20	1	3 Seg nur biokere
07-03-2015 18:33	1	2
07-03-2015 18:58	1	A
07-04-2015 17:15	1	3
07-07-2015 10:21	1	4
07-08-2015 08:00	1	1
07-11-2015 21:35	2	4
07-12-2015 03:17	2	Bruger Addblock
07-12-2015 07:54	2	2
07-12-2015 07:54	2	4
07-12-2015 13:06	2	2
07-12-2015 21:34	2	2
7/17/2015 14:06:19	2	2
7/17/2015 16:22:03	2	2
7/17/2015 21:42:54	2	4
7/17/2015 22:38:41	2	1
7/18/2015 9:47:39	2	4
7/18/2015 17:48:49	2	2
7/19/2015 22:27:17	2	Generelt er ien
7/20/2015 2:39:49	2	1
7/21/2015 10:31:03	2	4
7/21/2015 20:38:19	2	2
7/21/2015 21:21:24	2	2
7/22/2015 19:26:43	2	1
7/22/2015 20:13:55	2	2
7/28/2015 21:32:59	2	2
7/31/2015 10:04:56	2	2

## Appendix 6 – T-tests of independent samples based on groups and attitude scores

t-test: To stikprøver med ens varians			t-test: To stikprøver med ens varians			t-test: To stikprøver med ens varians		
	1.15 C 1	A 115 Ct - 1			4.15.0		1.01.01	A 1 5 1 01
with the later and i	A LF CIFCOIO	A HF CIrcolo	Minimizer and	A C Sony	A LF Sony	Ministry Incomendi	A C Luttnansa	A LF Luttnansa
Middelværdi	3,133	2,30	Varians	1,190	2,900	Middelværdi	3,917	3,009
Observationer	1,292	1,24	Observationer	1,100	1,000	Observationer	1,036	0,949
Duliavariana	1.269	25	Observationer	1 202	51	Dulieverieee	24	27
Puljevarians	1,200		Puljevarians	1,303		Puljevarians	0,990	
	52					Hypotese for forskel i middelværdi	10	
	55			0,000		ig to the t	49	
P(Trant) on balat	2,550		P(T c - t) on balat	0,330		P(Test) on balat	0,100	
P(I <= t) en-halet	1,007		F(I<=t) en-halet	1,500		F(I<=c) en-halet	1,677	
C-KHUSK EN-HAIEL	1,290		(Trant) to helpt	1,072		C-KITLISK EN-ITALEL	1,077	
P(I<=I) to-halet	0,014		P(I<=t) to-halet	0,730		P(I<=I) to-halet	0,921	
t-kntisk to-halet	1,074		t-kritisk to-nalet	2,002		t-kritisk to-halet	2,010	
t-test: To stikprøver med ens varians			t-test: To stikprøver med ens varians			t-test: To stikprøver med ens varians		
	A LF Circolo	A C Circolo		A C Sony	A HF Sony		A C Lufthansa	A HF Lufthansa
Middelværdi	3,133	2,667	Middelværdi	3,071	3,333	Middelværdi	3,917	3,773
Varians	1,292	1,154	Varians	1,180	1,101	Varians	1,036	0,946
Observationer	30	27	Observationer	28	24	Observationer	24	22
Puljevarians	1,227		Puljevarians	1,144		Puljevarians	0,993	
Hypotese for forskel i middelværdi	0		Hypotese for forskel i middelværdi	0		Hypotese for forskel i middelværdi	0	
fg	55		fg	50		fg	44	
t-stat	1,588		t-stat	-0,880		t-stat	0,489	
P(T<=t) en-halet	0,059		P(T<=t) en-halet	0,191		P(T<=t) en-halet	0,314	
t-kritisk en-halet	1,297		t-kritisk en-halet	1,676		t-kritisk en-halet	1,680	
P(T<=t) to-halet	0,118		P(T<=t) to-halet	0,383		P(T<=t) to-halet	0,627	
t-kritisk to-halet	1,673		t-kritisk to-halet	2,009	)	t-kritisk to-halet	2,015	
t-test: To stikprøver med ens varians			t-test: To stikprøver med ens varians			t-test: To stikprøver med ens varians		
	A HF Circolo	A C Circolo		A LF Sony	A HF Sony		A LF Lufthansa	A HF Lufthansa
Middelværdi	2,36	2,667	Middelværdi	2,968	3,333	Middelværdi	3,889	3,773
Varians	1,24	1,154	Varians	1,566	1,101	Varians	0,949	0,946
Observationer	25	27	Observationer	31	24	Observationer	27	22
Puljevarians	1,195		Puljevarians	1,364		Puljevarians	0,947	
Hypotese for forskel i middelværdi	0		Hypotese for forskel i middelværdi	0		Hypotese for forskel i middelværdi	0	
fg	50		fg	53		fg	47	
t-stat	-1,011		t-stat	-1,151		t-stat	0,416	
P(T<=t) en-halet	0,159		P(T<=t) en-halet	0,127		P(T<=t) en-halet	0,340	
t-kritisk en-halet	1,299		t-kritisk en-halet	1,674		t-kritisk en-halet	1,678	
P(T<=t) to-halet	0,317		P(T<=t) to-halet	0,255		P(T<=t) to-halet	0,680	
t-kritisk to-halet	1,676		t-kritisk to-halet	2,006		t-kritisk to-halet	2,012	

## **VIND STORE PENGE. RIGTIG STORE PENGE** Hæve-/sænkeborde fra 2.695,i puljen fredag Vi har SPIL NU > 15.000 kr... Hvis du har en idé, der giver god arbejdslyst Læs mere EUROUNCHPO OVERRASKENDE MEGET PENGE PÅ DIN KONTO I LØBET AF 1-2 DAGE. ANSØG HER Ekspres Bank 💋 -

## Appendix 7 – The control group's dummy ads




ALTID NOGET AT KOMME EFTER I NETTO



## Appendix 8 – Responses from the last three open ended questions with coding

	Hvad synes du om, at der samles data om din adfærd på nettet for at målrette reklamer		brand/pro	EV	Velvidende at disse data bliver opsamlet, har du i visse tilfælde bevidst surfet (anderledes end du ellers		brand/produc	EV	Hvordan opfatter du de brands der aggressivt forfølger dig på nettet		brand/prod
Timestamp	til dig?	code1	duct1	1	ville) ud fra denne viden?	code2	t2	2	med deres reklamer? Jeg ville ikke drømme om at købe	code2 decent	uct2
7/28/2015 15:53:43	Opvejes i vid udstrækning af gratis indhold.	free content		р	Ja, ofte. Ikke umiddelbart. Har dog på et			y	produkter fra firmaer, som ikke opfører sig ordentligt på nettet.	marketing behavior	
7/28/2015 16:03:09	Jeg synes som sådan at det er ok, så længe jeg har mulighed for at fravælge at der samles data	optout		D	tidspunkt haft fravalgt at fx facebook måtte målrette reklamer	opt out		n	jeg har ikke oplevet	have not experienced	
1/20/2010 10/00/05	Positivt. Uanset hvad vil der være reklamer, og jeg foretrækker de er			P	- Contraction	opeoue			Jeg nur nute opieret		
7/28/2015 16:05:50	tilfældige.	relevant ads		р	Nej.			n	Professionelle.	sm	
7/28/2015 16:08:43	Som udgangspunkt helt i orden, så længe der ikke samles personlige oplysninger. Problemet er at reklameme ikke kan se om jeg HAR købt produktet eller IKKE ØNSKER at købe produktet (f.eks. hvis jeg har kigget på det og fundet ud af, at det ikke passer til mig).	already t bought product		i	Nej - det har jeg ikke og tror jeg heller ikke jeg vil gøre.			n	Det afhænger af annoncøren, men der skal ikke meget negativt til, før annoncøren også bliver opfattet negativt. Men jeg opfatter Amazon hverken negativt eller positivt pga deres målrettede annoncer. Blillige, de må have et særligt behov	depends on advertiser	
7/28/2015 16:11:22	Bemærker det sjældent			i	Nej			n	for at benytte så aggressiv markedsføring.	cheap	
7/28/2015 16:14:56	Det giver målrettet annoncering. Hvis man ikke ønsker dette, kan man io altid surfe privat.	relevant ads		D	Ja, hvis jeg vil vide hvad den rigtige pris er, surfer jeg nogle gange privat.	price discrimination based on behavior, incognito		v	For mit vedkommende er det oftes Hotels.dk der kommer op, da jeg rejser 2 uger pr. måned. Så det er okav.		hotels.com
7/28/2015 16:15:07	Det er ret irriterende, forstyrrende og foruroligende.	intrusive, worrying		n	Jeg for progger at indrette mig med apps, slette specifikke cookies, slöfte indstillinger hvor jeg kan og ind i mellem sköfte browser, maskine, logge ind via forskellige ernaladresser mv. Desuden arbeider min partner med IT sikkenhed og vi har meget sjov med at forsøge at regne systemene for indsamling af brugeroplysninger ud. Uden dog rigtig at have nogen formemleske af at "vinde" - vi har ingen illusioner om anonymitet.	cookie deletion, change browser		у	Pisse initerende : (		
7/28/2015 16:17:03	Det er irriterende, og jeg opter ud hvis jeg kan. Har fx optet ud hos Google.	opt out		n	Nei			n	Hvis det sker bliver jeg mindre tilbøielig til at overveie brandet.		
7/28/2015 16:22:40					*				X		
7/28/2015 16:24:02	or vol ot vilkår	fron contont			noi				irriterende - søger selv på produkter -	does not	
772072012 10:3 1:03	Jeg bryder mig ikke om at blive registreret, når jeg ikke selv har tilmeldt mig. Jeg registrerede det første gang, da jeg sidste år søgte på Merell		Merell						Jeg undgår indkøb hos annoncører som laver aggressiv reklarne. F.eks.	avoid	Ellos,
7/28/2015 16:43:28	sandaler.		sandals Camera	n	Har slettet cookies	cookie deletior	1	У	Ellos og Sarenza	brands	Sarenza
7/28/2015 16:46:28	Topmadras	annoving	madress	i	Nej			n	Ligegyldigt	affect me	
7/20/2015 15 55 10	Det irriterer mig at det antages, at jeg er så blank/uintelligent - at jeg vil vælge noget bare fordi det	insinuating the consumer is									
7/20/2013 10:30:10	Jeg bruger diverse add blokkere og suffer anonymt via vpn når jeg kan, da jeg ikke syntes om at der indsamles data om min færden på	adblock,		VI	ne,				negativt, men også vel vidende om at det er det eneste de kan gøre i kampen om kunderne på nettet. De har kun få sek, til at overbevise os om et køb, og her vinder de noget mere	understanda	
//28/2015 17:10:58	nettet. Det er virkelig imterende og grænsesoverskridende. Bootz er virkelig slemme til at dukke op overalt med reklamer for et specifikt stykke tøj, som man tudilgere har kigget på på deres hjemmeside. Det er den eneste tjeneste, jeg aktivt har forsøgt at begrænse. En anden ulempe er at de data, der bliver indsamlet er baseret på ens bagudrettede historik. Søger man for eksempel på en type bog på Amazon, vil man fremadrette kun blive eksponeret for denne bog og genre. Man bliver således kke eksponeret for nye genre eller ideer på Amazon lignende type Upenseter, hvilket er en anden	annoying, DCO, limiting		n	ja mange mange. Jeg har bevidst forsøgt at slette coockies for at se, om det havde betydning for prisen på en flybillet, efter jeg havde besøgt den samme side flere	cookie		У	tid. Bootz giver mig trang til at smide min computer i havnen i ren frustration. Har man først kigget på et stykke tøj hos dem, dukker det op overalt i reklamer. Det er virkelg manipulerende. Virksomheder, der	ble	
7/28/2015 18:26:35	begrænsende faktor.	diversity of ads	Bootz	n	gange og prisen begyndte at stige.	deletion, price discrimination	flight ticekt	y	benytter sädanne aggressive metoder er belastende.	manipulative , annoying	Bootz
			-		-						

p = positive, i = inconclusive, n = negative, vn = very negative, y = yes, n = no

7/28/2015 19:09:13	Jeg bryder mig ikke om det. Jeg bryder mig generelt ikke om reklamer, jeg ikke selv kan vælge om jeg vil se dem eller ej.			n	Aldrig.		n	Jeg kommer hurtigt til at tænke noget grimt om den målgruppe de prøver at ramme	insinuating the consumer is stupid	
7/28/2015 21:03:45	Det er ok - jeg vil jo under ingen omstændigheder kunne undgå reklamerne Log grupp det er for frækt, sådan	relevant ads		р	Nej - aldrig		n	Det er er ok at de målretter reklame. Om jeg ser den samme reklame mange gang, eller forskellige reklamer mange gange er hip som hap Dueket		
	når man har været ind på en onlineshop så skal jeg se reklamer fra det indtil næste gange jeg							Elgiganten Nicehair Jeg synes ikke det okay, får ikke lyst	does not	Punkt1, Elgiganten,
7/28/2015 23:58:02	besøger en ny onlineshop	annoying		n	Ja det har		у	til at købe noget	affect me	Nicehair
7/29/2015 0:25:49	Det er ok			p	Ja		y	Jeg ignorerer dem	affect me	
7/29/2015 / . 14.04	Gratis' skal jo betales på en eller				Nej				does not	
7/29/2015 10:25:00	anden made	rree content		1	Nej		n	lænker ikke over det	have not	
7/29/2015 10:32:26	Det er skræmmende	frightening		n	Jeg sletter cookies	cookie deletion	i	Det kan jeg ikke huske.	experienced it	
7/20/2015 10:35:19	Det er helt utilstedeligt. Jeg ønsker	right to be left alone,			Noi			De er hamrende irriterende! Ved ikke	annoying, have not experienced	
7/29/2015 10:55:01	at være anonym. Til tider kan det være meget rart hvis der dukker reklamer op jeg kan bruge til noget. Synes det er lidt skræmmende, at min PC husker hvis jeg fx googler smykker / løbesko, at der så kommer smykke og løbeskoreklamer på facebook og BT.	relevant ads, frightening		i	Nej		n	om jeg nar opievet det. Det kan godt virke lidt aggressivt og være en smule interende.	annoying	
1/29/2013 10:32:01	Jeg synes det er irriterende og uinneligt, og at det bør stoppe via lovgivning. Særligt irriterende er det reklamer, som man ikke kan afmelde. Eksempelvis får jeg næsten dagligt en mal fra et firma. Når jeg bruger knappen til at afmelde får jeg besked på at siden ikke kan vises. Jeg har skrevet til firmæt here gange og bedt dem sket migt mallisten, men der sker intet og jeg får stadig deres mal. Nu har jeg klaget til	annoying, unfair, needs legislation, email			Ja, forstået på den måde og jeg hel undlader at åbne konkurrencer og tilbud, fordi det i reglen betyder, at man dagen efter får utallige henvendelser fra firmaer, man aldrig har hørt om eller har bed tom at få lilbud fra. Jeg er opmærksom på, at det er "det med småt" Så det for "det nemmere at undgå	avoid		vers en smole interente.	annoying	
7/29/2015 15:39:40	forbrugerombudsmanden Det er for mig ok. Jeg oplever dog	marketing		vn	disse reklamer og tilbud.	competitions	У	se ovenfor		
	tit, at jeg modtager reklamer for ting også efter, at jeg har købt dem, hvilket betyder, at de mister	already bought			Jeg har ikke surfet anderledes, men det sker, at jeg sletter mine cookies (dog ikke primært	cookie deletion not related to		Jeg er ikke så påvirket af banner- reklamer, men det har i hvert fald ikke	does not	
7/29/2015 23:15:56	At færdes på nettet er ikke som at færdes privat - det bør man være klar over.	understanda ble		i	Ja. Jeg sletter naturligvis jævnligt cokkies.	cookie deletion	y	De benytter blot de muligheder, som den digitale verden giver. Anders: Interessant, at du anvender er googleværktøj til din undersøgelsel Google er jo netop kendt for sin evne til at analysere opsamlede adfærdsøtat (de tracker jo eksempelvis også denne undersøgelse) for at kunne tilbyde annoncører måltettede reklamer til enkeltbrugere.	understanda ble, Google tracking paranoia	Google
7/31/2015 0:01:58	Irriterende	annoying		n	Ja		у	ikke lyst til at handle hos dem!	lose interest	
								dem hvor jeg ikke har interesse i det	that are not	
//20/2015 23:08:06	Ukay, hvis det tungerer. Jeg bryder mig ikke om at der lagres data over hvilke hjernmesider jeg besøger. Jeg kan godt se fra firmaernes side, at de når ud ril den rette målgruppe, men dette børe ikke være nok grund til	right to be left alone, understanda		p	Nej.		n	udbudte produkt. De giver mig en dårlig opfattelse af netop deres firma. Jeg bryder mig ikke om aggresiv markedsføring, hvilket jeg synes dette hører ind under. Jeg kunne sagtens vælge netop et sådan	negative perception, aggressive	
7/20/2015 23:24:03	at tillade denne overvågning. Det er okay til en vis grad. Jeg synes det skal være et valg. Jeg er glad for spørgsmål angående cookies, da jeg selv kan vælge hvilke sider, der følger mig. Når det bliver påtvungent, så kan man starte en diskussion omkring kontrol. Jeg vil have et sekvalgt	opt out, cookie policy, right to be left		i	Nej Ja, det har jeg gjordt utallige gange. Jeg vil kun have at de data, der bliver indsamlet kan	only want data collection that	n	firma fra ved et køb på nettet. Det er irriterende og for meget. Giv forbrugeren et valg. Det giver også dit	advertising annoying, give consumers space to	
7/20/2015 23:49:46	privatliv.	alone haven't		р	have en positiv affekt på mit liv.	favors me	у	brand et bedre omdømme.	choose have not	
7/21/2015 5:58:14	Tænker jeg ikke videre over Jeg var på jagt efter en ny bil. I en	considered it		i	nej		n	har jeg ikke været udsat for	experienced it	
7/21/2015 8:51:01	op vedrørede Audi. Måske det vurderedes at jeg tilhørte Audi segmentet. Jeg er generelt ikke generet af målrettede reklamer. Det bør gøre reklamerne mere	segmentatio n	car, audi	р	Nej, så smart er jeg ikke.	lack of technical knowledge	n	Jeg synes ikke at jeg er blevet forfulgt aggressivt. I så fald har jeg ikke lagt mærke til det.	have not experienced aggressive retargeting	
7/21/2015 9:13:19	relevante, men generelt foretrækker jeg selv at samle information ved større købsbeslutninger. Det generer mig ikke at der indsamlet information om mig.	relevant ads, give consumers space to choose		р	Nej.		n	Ikke anderledes end andre brands. Ved rejsebureauer virker det dog som om det er mindre kendte og billigere brands jeg modtager reklamer fra.	cheap	

7/21/2015 10:05:28	Det er fint til en vis grad, da de reklamer jeg får er relevante for mig. Men det kan gøres bedrefymere optimalt fra virksomhedemes side, då jeg ikke altid er i målgruppen for et bestemt produkt. Et eksempel: Jeg købte for flere måneder siden en jakke på bombarderet med jakkeannoner alle steder. Deudover er det foræmerende at man fx på facebook fra anoncer for babyting, kosttilskud og andet, der ikke er relevante for folk i min omgangskreds. At min personlige data bliver videresolgt til telefonsælgere efter at have udfyldt en formular på nettet er neg på grænsen.	relevant ads, already bought product, inappropriat e facebook ads, PII	Facebook, coat, baby stuff, dietary supplement s		Jeg surfer ikke anderledes, men har haft adblock slået til.	adblock		n	Detailmandel på nettet, fx tøj og cykeludstyr. Der ikke nogen bestemt annoncar, det virker til at de alle går ret aggressivt til værks. Typen af produkt kan selvfølgelg være afgerende, da tøj er et produkt man køber løbende. Er døg i tviv om selve annoncerne har en effekt på om jeg vælger at bruge en bestemt uldyder, da ting som service, udbud, pris og gratis fragt er vitgtiger. Leg bruger fx. Cykelpartner til cykeludstyr fordi jeg ankr handet hos dem før og været tilfreds med pris og leveringstid, og ijke ppa. deres mange annoncer, som jeg prøver at ignorere. At jeg har brugt dem til at starte med er en blanding af google-særch (at de dukker op i starten af en google søgning) og trust pilot. Det kunne tænksa stig gvælger en anden leverandør næste gang fordi deres annoncer intrer rmig.	does not affect me	Clothing, bicycle equipment, Google search, Trustpilot
									Zalando fylder skærmbilledet med sko, jeg har klikket ind på. Det er lidt en slags påtvunget window shopping, her er det skoene, der gentagende		
	Generelt er jeg af den mening, at online reklamer er effektive og velkomne. Hvis skærmbilledet skal vises til andre, kan det dog føre til	can be embarresing							gange popper op i siden af browseren, og ikke dig, der går forbi butiksvinduet igen og igen.	"enforced	Zalando,
7/21/2015 19:39:36	pinlige øjeblikke, hvis nogle 'uheldige' reklamer forfølger dig.	if discovred by others		i	Ja. med en privat session.	incognito		v	Det mærkeligste jeg har oplevet, er annoncer fra DBA.	window shoppina"	Den Blä Avis, shoes
7/22/2015 8:10:20	Negativt	-,		n	Ja			ý	Irriterende	annoying	
		fee content,							They have access to my browsing data. Zalando is one site that is very		
7/22/2015 11:30:02	It is the price for free content. Sometimes it's helpful because you	understanda ble		i	Yes.			y	aggressive in retargeting, it bothered me first, but now I am used to it.	gotten used to it	Zalando
	might find a better offer even though you already forgot that you were actually looking for the				V TI 0.11				What comes to my mind is Zalando. They have quite aggressive ads. Also car brands especially Opel. But most		Zalando,
7/22/2015 22:01:33	nuisance	annoying		i -	adblocker installed	adblock		у	blockers.	adblock	, Opel
	Ambivalent, fordi 1) det er måske nyttigt men 2) måske går jeg glin	helpful, limiting								have not experienced	
7/22/22/5 22 46 22	af helt andre reklamer, som også	diversity of								aggressive	
//22/2015 23:16:29	kunne være nyttige.	ads		1	nej			n	Jeg har prøvet det i forbindelse med private leder uddannelser. Deres	retargeting	
									eneste kommentar, da vi er et hel hold der 'klager' over at det er for		MBA
7/24/2015 7:33:24	Det er ok!			р	Nej. Ja. bestemt: Jeg bruger			n	meget. " Men det virker"		education
7/24/2015 10:04:11	Virkelig irriterende. I et oplyst land som Danmark behaver vi ikke de konstante pårnindelser om, hvad vi kan kobe. Den almene viden om hvad vi kan opsoge for at få viden om produkter vi påtænker at anskaffe os, er relativ udbredt og for det meste behaver vi ikke reklamer for at vide hvad vi skal gøre. Søgefaciliteterme er også en ting der gør at vi hurtigt kan skaffe os viden om specifikke produkter. Der kan være undtagelser: Markedsføring af nyskabende og nytænkende produkter, introduktion af nye tiltag indenfor fødevarer, sundhed, sygdom - dvs. public service information.	public service information is exempted	public service	vn	forskellige browsere, F.eks, kun Mozilla ti Facebook, DT og EB fordi jeg kan blokker erklamer. Google kun til medier (f.eks. Maps, Krak, YouTube og Wikipedia) og Explorer til faciliteter tilknyttet min Microsoft konto (outlook.dk, Windows Phone). Browseme er desuden indstillet til dels at forhindre pop-up vinduer, dels til at slette alle cookies hver gang jeg lukker dem. Med andre ord har jeg vænnet ming til at tænke selektivt for at minimere de mange reklamer. Erfaringen viser mig det ikke er nogen god idé at knytte al sin surf til bare én browser.	change browser	BT.dk, EB.dk, Wikipedia, Krak.dk, Google, YouTube, Outlook,	у	Det har nærmest den modsatte effekt at de er der, ikke et brand jeg ville undersoge forst. Målrettede reklamer er blevet en svabe, der omklamrer en stærden på nettet selvom vikke er i "købe-mode". Reklamer har i forvejen en dominerende rolle i vores hverdag og annoncørene bruger tämhaje budgetter for at få vores opmærksomhed, både på nettet, i bybliedet, tv-kanaler, transportsektoren - overalt På mig har det fået den effekt, at jeg er blevet reklamesbild, og jeg foretager bevidst fravalg som konsekvens, f.eks. ser jeg kke reklamefinsårerede tv-kanaler. Men generelt mener jeg vi bleva reklamet til det irrinale uanset hvor vi bevæger os hen.	opposite effect, ads are everywhere, does not affect me	
									smart markedsføring og stalking. De		
	Det er en uundgäelig del af den forretningsmodel, der i dag er den	understanda			Nej. Min adfærd er ikke påvirket				neste rammer den dog okay, og nogle gange vil jeg endda sige at de kunne	professionali	
7/24/2015 11:17:53	dominerende på internettet.	ble		i .	af dette.			n	være mere agressive.	sm	
7/24/2015 21:19:40	Utilstædeligt	e		n	og vælge en anden vej.			у	Lavt. De sender et utroværdigt signal.	hy	
7/25/2015 11:54:33	ikke så godt			n	ja			у	irriterende	annoying	
1120/2010 10100120	Synes ikke godt om! Og tit er de				•						
7/28/2015 11:55:05	overhovedet ikke relevante og kommer kun op fordi man lige skulle søge noget op på Google Ved at det bliver gjort men kan	dislike, often not relevant	Google	n	Nej, men jeg sletter cookies løbende	cookie deletion		n	Jeg prøver at ignorere dem og bruger en Ad blocker	adblock, try to ignore	
	ikke gøre så meget ved det, i nogle tilfælde, falder man jo over dem, trykker vidre på reklamen, Man er jo en forbruger, målrette marketing er kommet for at blive, selv om det nogle gange er pisse	understanda			Nej det har jeg ikke, for min skyld må du følge med lige så meget de vil, kan bruge andre netværk former hvis jeg ikke vil have det. men sletter altid mine					have not experienced	
7/29/2015 19:40:51	irriterende.	ble		n	cookies	cookie deletion		n	Ikke lige hvad jeg kan huske af.	it	
	Jeg bryder mig ikke om det. Jeg er opmærksom på hvordan min data bliver brugt til at målrette reklamer til mig, derfor tager jeg nogle forbehold. Bl.a. minimerer jeg personlige informationer på min facebook profil. Formentlig på grund af den sparsomme persondata, få i gø vist meget genenske reklamer, målrettet en stereotyp kvinde i slutningen af 20'erme. Det er for det meste reklamer for baby udstyr (jeg har nigen bam) og modetøj (som jeg	dislike, often			Jeg udfylder dette spørgeskema					annoyed by	
7/20/2015 23:15:15	ikke bryder mig om)	not relevant		n	i et incognito vindue lige pur s)	incognito		v	leg bliver ikke irriteret på brandet	the brand	

	Meget imod. Jeg bruger diverse plugins for at undgå det, men er ærgerlig over at det overhovedet er nødvendint. Plugins: NoScript og				Ja, alt hvad jeg absolut ikke vil have delt bliver gjort i et seperat Pritave Browsing vindue (stadia med NoScrint og ußlock			Ekstremt negativt og jeg gør meget ud af at undgå dem - specielt som kunde, og stemmer også meget	annoved by	
7/30/2015 3:18:12	uBlock	adblock		n	plugins)	incognito	у	negativt i meningsmålinger	the brand	
7/30/2015 9:22:44	Jeg synes det er irriterende.	annoying		n	cookies.	cookie deletion	i	Momondo fx. Jeg synes de spilder deres penge,	creepy	momondo
7/31/2015 9:27:59	Jeg er ligeglad			i	Nej		n	deres reklamer popper først op efter jeg har besøgt dem alligevel. :)	does not affect me	
7/31/2015 9:55:23	Ubehageligt	un-pleasent		n	Nej, det er en kamp, man ikke kan vinde		n	Påtrængende	intrusive	
	Fornuftigt, da du på denne måde kun får reklarner der henvender sig	relevant						Det er meget afhængig af omfanget.		
	til dig og har din interesse. Man kan argumentere for, at nogle reklamer	ads, sometimes						Zalando har jeg oplevet være for aggressive. Bortset fra det, så synes		
7/31/2015 10:06:26	følger en for længe, hvorved det	wasted		2	Nei		n	jeg det er helt fint. De bruger blot den viden, som de har om dig	professionali	Zalando
7/51/2015 10:00:20		inequency		P	ivej.			viden, som de har om dig.	have not	Zalaliuo
08-01-2015 20:17	noget jeg tænker videre over Skræmmende at de "ved" så	avoided		i	Nej		n	HAr jeg ikke oplevet	it	
08-01-2015 21:24	meget, men det bekymrer mig ikke.	frightening		i	Nej		n	Det er OK med mig.		
					Nej, eftersom jeg ikke får			Det lyder ubehageligt, men jeg har	have not experienced	
07-02-2015 21:52 07-03-2015 06:20	Lidt skræmmende. -	frightening		n	reklamerne. -	adblock	n	ikke selv prøvet det. -	it	
07-03-2015 18:33	Det er selvfølgelig et kæmpe problem.	problematic		n	Det tror jeg ikke		n	Har adblocker, er ikke så mange reklamer der kommer ind.	adblock	
07-03-2015 18:58	Lidt træls Jeg synes overordnet det er fint	annoying		n	nej Jeg sletter tim tider cookies		n	ikke særligt		
	da der under alle omstændigheder				men det er mere af			Jeg kan ikke komme i tanke om		
	kan være relevante for mig. Dog	relevant			kan se hvad der ellers dukker			hvis jeg gjorde, ville jeg ikke synes det	experienced	
07-04-2015 17:15	skræmmende hvor gode de fleste er til at gætte mit behov.	ads, frightening		р	op. Jeg arbejder i reklamebranchen.	cookie deletion	n	var rart og formentlig blive frastødt af det.	aggressive retargeting	
	Hvis jeg skifter mellem porno siderne og til sportssider, følger								have not	
07-07-2015 10:21	f.eks. fuckbook eller fuckbuddy eller asjandating efter mig			i	Nei		n	Har ikke oplevet	experienced	
07-08-2015 08:00	Jeg synes det er problematisk med	problematic			Nei			Det er irriterende	annoving	
07-08-2015 08:00	Det okay. Jeg kan selv fjerne dem,	problematic						får mindre lyst til at købe deres	opposite	
07-11-2015 21:35	nvis jeg synes			р	nej		n	produkter	does not	
07-12-2015 03:17 07-12-2015 07:54	Det er okay. Det er lidt skræmmende	frightening		p n	Nej. Nej		n n	Ingen forskel. Ja,	affect me	
07-12-2015 11:59	Helt fint			p	Enkelte gange		y	Jeg tænker ikke negativt om brandsne.		
	Det hiælper alligevel ikke meget								Have	
	når kæresten eller ungerne bruger	often not in						Jeg har flere gange valgt produkter fra	times	
07-12-2015 13:06	for sko eller lign.	audience		i	ja		у	op og blokker for artikler.	products	
	Det er OK.							Aggressiv forfølgelse har negativ	opposite	
07-12-2015 21:34				р			1	virkning. Det er ret nemt at gennemskue	effect	
								reklamer baseret på browsing. Det generer mig ikke at se reklamer fra		
	Det er helt fint, jeg vil hellere se				Jea bruaer incoanito hvis iea			Zalando med et par sko som jeg kiggede på sidste uge, det er bare en	understanda ble. does	
7/17/2015 14:06:19	reklamer for produkter jeg kunne finde på at købe, end omvendt	relevant ads		n	ikke vil have data indsamlet om	incognito	v	del af markedsføring i den digitale tidsalder	not affect	Zalando
7/17/2015 16:22:03	Ikke altid			i	nej	inco ginco	n	X Så længe det ikke er for pågående så		Lulunuo
	Det er ofte gavnligt. Fx hvis jeg har				Nej jeg surfer altid som jeg			har jeg intet imod det. Der er en værdi		
	ser jeg efterfølgende dette produkt	helpful,			oplysninger der bliver opsamlet			interesse, så derfor er det muligt den		
7/17/2015 21:42:54	i bannere. Det har jeg det ikke så skidt med.	relevant ads		р	om mig.		n	stadig eksisterer bagefter.	helpful	
	Salg af disse data - hvilket bl.a. er lovligt i USA - bekymrer mig				Nej, men har brugt værktøjer til					
7/17/2015 22:38:41	derimod en del. Det gør mig ikke noget. Nogen			р	at skjule min online-færden.		у	Irriterende. Ihærdige og nogen gange irriterende.	annoying	
7/18/2015 9:47:39	gange er det en fordel at få målrettede annoncer.	relevant ads. helpful		D	Nei		n	Men jeg ser ikke overordnet negativt på dem.	annoving	
7/10/2010 511/105	Jeg har ikke følt mig forfulgt af en	uus, neipiui		P	nej			puldern	annoying	
	reklamer som jeg absolut ikke									
	ok at der samles data om min							det var tilfældet ville jeg lukke for alle	experienced	
//18/2015 17:48:49	adfærd.	relevant ads		р	Nej		n	Tror at jeg er blevet reklameblind -	it	
	Ligeglad. Jeg ville aldrig tage en reklame fra internettet seriøst -							kan ikke nævne et mærke eller et firma, der viser reklamer på	have not experienced	
7/19/2015 22:27:17	uanset hvem eller hvad der blev reklameret for.	does not affect me		i	Nei.		n	internettet og slet ikke om jeg ser nogle oftere end andre.	it, does not affect me	
	Det er meget generende, at man skal blive ved med at se reklamer									
	for noget man blot har været inde									
	generende, hvis andre har lånt ens									
	uinteressante sider							bliver disse hjemmesider ved med at		clothing,
7/20/2015 2:39:49		annoying		n	Nej		n	dukke på, hvilket er træls	annoying	accessories
	Tanken om overvågningen er skræmmende - på den anden side									
	er det da lidt smart at få reklamer/tilbud på noget, som man							Det vigtigste for mig er, at de overholder den lovgivning der findes.		
	netop er i gang med at undersøge mhn evt køb - har bl.a. oplevet	frightening	flight ticket,		Nej - men jeg har en ide om, at jeg geme blive mere bevidst om			Umiddelbart vil jeg ikke bryde mig om et højere niveau/en større mængde af		
7/21/2015 10:31:03	flyrejser, billeje, salg af kjoler. Det er okav, men også spøist. Fy	relevant ads	clothing	р	at slette cookies.	cookie deletion	n	reklamer end den jeg får nu.		
	har jeg engang på min søn pc'er	not in tare t								
7/21/2015 20:38:19	efterfølgende kjolereklamer :-)	audience		р	Nej		n	Spøjst		
//21/2015 21:21:24	Angreb på den personlige frihed	rigth to be		n	nej		n	jeg fravælger så vidt muligt deres	opposite	
//22/2015 19:26:43	Alt for aggressiv markedsføring	left alone annoying,		n	nej		n	produkter	effect	
7/22/2015 20:13:55	træls, burde ikke være tilladt uden godkendelse fra forbruger	should not be legal		n	siger generelt nej til cookies		n	bryder mig ikke om det, undgår dem, fx ved google-søgninger		Google
7/28/2015 21:32:59	Ikke helt i orden			n	Har slettet cookies	cookie deletion	у	Ikke i orden		
	Det er bekymrende, og burde ikke	worrying, should not								
1	kunno sko	he legal		n	la		v	Irriterende	annoving	

Appendix 9 – Figure from Adroit's study of peoples' perception of retargeting

## If you did notice the ads, how did you feel about the brand after seeing those ads?



Source: Adriot 2014