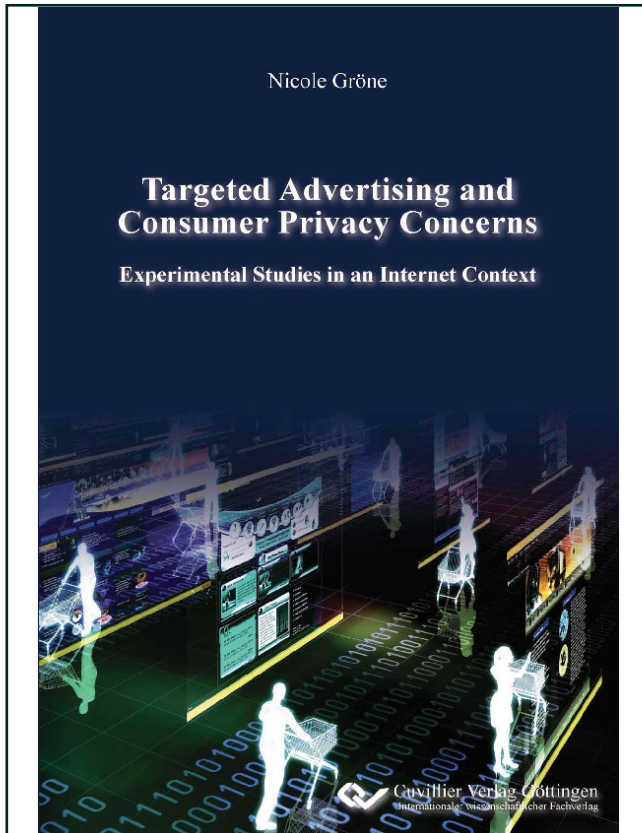




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Targeted Advertising and Consumer Privacy Concerns
Experimental Studies in an Internet Context



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1. Introduction

1.1 Targeting as a Controversial Means to Increase Advertising Revenues

“Half of the money I spend on advertising is wasted and the trouble is, I don’t know which half.”
– John Wanamaker²

Within the marketing mix, the Internet is becoming increasingly important. The Internet already constitutes the second largest advertising medium after TV, and while advertising revenues from traditional media have stagnated, online advertising revenues are expected to grow continuously (Interactive Advertising Bureau 2011). The rise of the Internet and online marketing expenditures has fueled a new area of entrepreneurship and the formation of a “free online services” industry used by billions of people. Some of those businesses offer an entirely new type of service to consumers, such as online communities, search engines, and online messaging. Other free services complement or substitute for existing offline services such as news websites, price comparison portals, and route planners. Nearly all of those businesses depend on advertising revenues in order to be able not to charge their visitors for using their websites (Chickering and Heckerman 2003). A study commissioned by the Interactive Advertising Bureau (IAB) estimates the 2010 consumer surplus generated by advertising-supported Internet business models in the U.S. and in 19 European countries³ to account for 100 billion EUR. On average, this is nearly 40 EUR per online household per month (Interactive Advertising Bureau 2010a).

However, many of those free content business models are struggling financially. Newspapers especially have difficulties replacing their declining sales and print advertising revenues with online advertising revenues (Spiegel Online 2009; Szoka 2009). Prices to advertise online, often denoted as cost per mile (CPM), are usually lower than traditional media CPM. In this context, online display advertising is also often claimed to have an effectiveness problem, having lost its

² U.S. department store owner of the 19th century.

³ France, Germany, Russia, Spain, UK, Bulgaria, Croatia, Denmark, Finland, Greece, Hungary, Italy, Netherlands, Poland, Romania, Slovakia, Sweden, Switzerland, Turkey

ability to attract attention and interest (Bhatnagar and Papatla 2001). Results from eye tracking studies show that people avoid looking at banner ads. While 97 percent of viewers look at TV advertisements (ads), only 50 percent of online surfers look at banner ads displayed to them (Drèze and Hussherr 2003). Click-through rates of online advertisements usually fall below .8 percent (Dahlen 2001; Manchanda et al. 2006). Thus, companies that advertise on the Internet increasingly request more effectiveness and efficiency, which creates price pressure for websites offering advertising space (Manchanda et al. 2006). Therefore, particularly online firms offering free content need to provide powerful marketing tools to advertisers to be able to sustain their own business models.

Behavioral targeting has recently emerged as a major trend within online marketing. It is predicted to account for one-fourth of total U.S. display advertising revenues by 2012 (Hallerman 2008). Behaviorally targeted advertising aims at making advertisements more relevant to surfers by increasing the correspondence between users' interests and the ads displayed to them (Hof 2008; Kazienko and Adamski 2007). This is a substantial innovation of media planning, which has traditionally consisted in placing advertisements on websites based on their audiences' demographics (Kazienko and Adamski 2007). Although for many years marketers have argued that activities, interests, and opinions can be much more effective than demographics in understanding consumers (e.g., Cunningham and Crissy 1972; Dutta-Bergman 2006; Plummer 1974; Weinstein 1987), media planning based on demographics has been carried out due to a lack of viable alternatives. Targeted advertising now enables advertisers to target consumers based on different criteria, because through behavioral targeting, websites can create anonymous surfer profiles comprising their supposed interests and characteristics. This is typically achieved by placing cookies in surfers' web browsers tracking their online surfing behavior. The resulting anonymous surfer profiles are mostly generated and employed across many different websites, which are usually organized in advertising networks such as the Google advertising network, the Yahoo network, or Germany's Ad Audience. Based on those behavioral profiles and with the help of modern advertising delivery

systems, a website can then exclusively display an advertisement to a specific consumer segment (Chickering and Heckerman 2003; Szoka 2009). Studies sponsored by targeting firms report substantial increases in click rates of up to 1000 percent through behavioral targeting (e.g., Yan et al. 2009). Thus, the selective delivery of display ads reduces waste on the part of the advertiser and allows websites to charge higher prices for advertisements displayed to their visitors (Chickering and Heckerman 2003; Iyer, Soberman, and Villas-Boas 2005).

However, whereas targeting has emerged as a promising tool for websites to better monetize their content, it appears that consumers predominantly reject it. Recent academic studies find that most consumers are concerned about their privacy with regard to behavioral targeting (Alreck and Settle 2007; McDonald and Cranor 2010). In a survey by the University of Pennsylvania, 66 percent of American adults indicated they did not want marketers to tailor advertisements to their interests (Turow et al. 2010). Alreck and Settle (2007) report that more than half of online surfers believe that online tracking should be illegal. With regard to existing marketing-related privacy literature, these findings suggest that targeting entails risks to marketers because, in general, privacy concerns can lead to harmful consumer reactions, such as website avoidance or negative word of mouth (e.g., Chellappa and Sin 2005; Sheehan and Hoy 1999; Wirtz and Lwin 2009). Therefore, for marketers and publishers employing behavioral targeting, it is indispensable to find ways to mitigate consumers' rejection of behavioral targeting.

Doing so is also highly advisable in light of increasing pressure for privacy regulations. Member states of the European Union are currently implementing the so-called e-Privacy Directive 2009/136/EC (European Union 2009) into national laws, which contain requirements regarding consumers' opt-in for specific targeting practices. In the U.S., the Federal Trade Commission (FTC) is currently promoting a so-called "Do Not Track" proposal, which suggests the installation of a nationwide opt-out tool through which consumers can restrict the collection of information about their web browsing behavior (Federal Trade Commission

2010). Considering that a study conducted by New Media Age (Bearne 2009b) found that 72 percent of online surfers favored opting-out of receiving targeted online advertising such regulation would most likely lead to a drop in advertising revenues if websites do not find mechanisms to mitigate consumers' rejection or, conversely, increase their acceptance of targeting.

Overall, considering that targeting is a major trend within online marketing, there is a striking lack of research on how to reconcile the interests of the Internet industry and consumers' interests. In fact, those interests are not necessarily opposing. While consumers appear to dislike targeting due to privacy concerns, they also do not want to pay for online content or services (Dou 2004; Pauwels and Weiss 2005). Therefore, developing mechanisms to increase consumers' acceptance of targeting as an "alternative online currency" supporting free content appears to be in the best interest of both consumers and online firms.⁴

1.2 Research Scope

Constructive research in the field of online targeting and consumer privacy concerns is necessary to sustain and improve the usability of targeted advertising as a powerful marketing tool and as a means to improve revenues from websites. Targeted advertising is an extremely new research field. The first isolated articles on targeted advertising in marketing and IS journals were published starting in the middle of the first decade of the 2000s (e.g., Alreck and Settle 2007; Iyer, Soberman, and Villas-Boas 2005). The past two years have seen a sudden growth of journal articles and working papers on targeted advertising (e.g., Dwyer 2011; Goldfarb and Tucker 2011a, 2011b; Lambrecht and Tucker 2011; McDonald and Cranor 2009, 2010; Tucker 2011; Turow et al. 2010), several of which were published in high-profile journals and presented at renowned international scientific conferences, which demonstrates the high relevance of the topic.

⁴ Of course, targeting is not only an issue in the context of free online content and services. However, most content websites rely on advertising revenues as primary source of income, which I will further elaborate in section 2.1. Therefore, in addition to reducing waste of advertising budget, targeting serves the important indirect function of funding (free) online content—a function, that is central to the motivation and the research model of this dissertation.

However, so far, the main focus of research has been on survey-based studies describing consumer privacy concerns vis-à-vis targeted advertising (e.g., Dwyer 2011; McDonald and Cranor 2009, 2010; Turow et al. 2010) and the related challenges for marketers and websites (e.g., Goldfarb and Tucker 2011a; Tucker 2011). In fact, in a groundbreaking study on targeting and obtrusiveness of display advertisements, Goldfarb and Tucker (2011a) suspect that privacy concerns might negatively affect advertising effectiveness. However, their data are purely observational and do not allow validating this assumption by studying consumers' cognitive processes. Also, their study refers to contextual targeting, i.e., matching an advertisement to the context of a website, which can be considered less privacy intrusive than behavioral targeting. Consequently, the cognitive mechanisms related to privacy concerns, consumers' attitude toward targeting, and advertising effectiveness are currently not well understood. Therefore, in recent commentaries on their article, several researchers, including Goldfarb and Tucker themselves, stress the importance of research on the underlying cognitive mechanisms regarding advertising effectiveness and potential privacy concerns (Goldfarb and Tucker 2011b; Lodish and Reed II 2011). While no study has investigated how privacy concerns affect consumers' perceptions of targeted ads, there is an even more striking lack of research on how marketers can address consumers' privacy concerns and increase the acceptance of behavioral targeting in order to avoid potential harmful consequences. In fact, while the challenges related to targeting have received increasing academic attention this aspect that has been neglected in the burgeoning scholarly discussion on privacy and online advertising so far.

To fill this research gap, related research areas provide some direction. In customer relationship management (CRM), public policy, and information systems (IS) research, the issue of personalized marketing⁵ and consumer privacy concerns has received substantial academic attention. Several studies have explored factors affecting consumers' provision of information for personalized

⁵ Please note that personalization and targeting are two distinct, but related, marketing practices. With both requiring consumer information, targeting refers to selectively displaying advertisements to specific consumer segments whereas personalization also implies changing the content of advertisements based on user profiles (see also section 2.1.2).

marketing in the context of direct mail (e.g., Milne and Gordon 1993; Phelps et al. 2000) and e-commerce (e.g., Hui et al. 2007; Ward, Bridges and Chitty 2005). Assuming that consumers perform a utilitarian cost-benefit trade-off with regard to their privacy (e.g., Chellappa and Sin 2005; Xie, Teo, and Wan 2006), these studies found that in addition to sufficient privacy protection, consumers require benefits in exchange for providing information, such as financial rewards including coupons or discounts (e.g., Hann et al. 2007; Hui, Teo, and Lee 2007; Milne and Gordon 1993). However, the applicability of these findings in the context of targeted advertising is limited, because providing consumers with monetary benefits is hardly implementable on non-e-commerce websites, and even more important, doing so would further reduce net advertising revenues from websites.

Instead, applying findings from social psychology to the context of targeted advertising and free content websites appears highly suitable, because previous research has shown that they can be very powerful in marketing. For example, research in the context of pay-what-you-want pricing mechanisms has shown that due to fairness considerations, consumers voluntarily pay something for a service received, even if they do not have to (Kim, Natter, and Spann 2009). Given that, for example, members of the Online Publisher Alliance, including The New York Times, The Wall Street Journal, Time Inc., and ESPN, alone invested 500,000 million USD in the creation of content (Mickey 2008), it is surprising that this finding has not yet been applied to the context of free online content and the acceptance of (targeted) advertising. Against this background, I complement the common economic utilitarian perspective on factors to increase consumers' acceptance of personalized or targeted advertising with a social psychological perspective which includes perceptions of fairness and reciprocity. By doing so, I also advance existing consumer behavior research in an Internet context which explores consumers' so-called online "free mentality" (e.g., Dou 2004).

Like any research project, research on mechanisms to increase the acceptance of targeting should be in line with marketing ethics. However, as information privacy constitutes a highly sensitive issue that is of great concern to individuals, I

believe it is particularly important to explicitly define normative requirements that targeted advertising needs to fulfill. In fact, the financial and world economic crisis of 2008/09 has succinctly shown that respecting ethical standards is an important cornerstone of the stability of our market economy. Not every action that is technically legal is ethically justifiable. This holds particularly true in areas that are shaped by numerous and frequent technological and product innovations that often outpace legislation, such as online marketing and consumer privacy. Thus, for free market agents such as online firms to act responsibly, it is important to have some clear guidelines. Integrative social contracts theory (ISCT) constitutes a theory of business ethics that can be applied to a wide range of marketing issues (Dunfee, Smith, and Ross 1999). As consumers' privacy concerns are closely related to fairness perceptions (Ashworth and Free 2006; Culnan and Armstrong 1999), ISCT is particularly apt for studying targeted advertising because it allows incorporating social (fairness) norms as ethical decision guidelines (Dunfee, Smith, and Ross 1999; Donaldson and Dunfee 1994).

Against this background, the research objectives of this doctoral thesis are as follows:

1. To examine how privacy concerns related to targeting practices affect consumers' perceptions of targeted advertisements, a proven mediator of advertising effectiveness.
2. To identify and test mechanisms which increase the acceptance of targeted advertising and meet normative requirements as indicated by ISCT.
3. To test whether the identified mechanisms improve consumers' perceptions of targeted advertisements.
4. To investigate the underlying cognitive processes that might explain the effects of the mechanisms on consumers' acceptance and perceptions of targeted advertisements.

To attain my research goals, I conducted two experimental studies, a laboratory experiment and a large-scale field experiment. As a result of the combination of

real behavioral data and self-reported data, my findings are particularly robust and may stimulate the debate on consumer privacy, advertising effectiveness, and the funding of free content websites among academics, practitioners, and regulators.

1.3 Proceedings of the Dissertation

The following chapter of this dissertation introduces the targeting of online advertising, at first from a managerial⁶ and then from an academic perspective. As a basis for a scientific exploration of online targeting, section 2.1 provides a practical background by introducing fundamental aspects of targeted online advertising: *categories of online advertising* and *pricing models* (section 2.1.1), which constitute aspects that are particularly important for publishers exploiting online advertising as a revenue source; different *targeting methods* (section 2.1.2) that are a means for advertisers to reduce waste; and legal limitations on targeted advertising (section 2.1.3). In section 2.2, I outline how targeting may increase advertising effectiveness by mapping targeting onto advertising effectiveness models and by summarizing findings of studies on targeting effectiveness. In section 2.3, I review studies on the mediation effect of attitude toward advertising on advertising effectiveness and I highlight why privacy concerns can constitute a risk to targeting effectiveness.

In chapter 3, I provide a comprehensive overview of research on consumer privacy concerns. In particular, I describe the construct of consumer privacy concerns, theories that are popular in consumer privacy research, and findings on antecedents, consequences, and moderators of consumer privacy concerns in an Internet context. Finally, within a social exchange framework, I systematically present findings on factors influencing the provision information for personalized marketing. These findings constitute an *empirical basis* for my research model.

To set an *ethical foundation* for my research model, in chapter 4 I conceptualize targeted advertising as a social contract between a website and its surfers. After a

⁶ Although the focus of section 2.1 is to provide some practical background, I also refer to academic studies whenever possible.

short description of the most important ideas related to the concept of a social contract, I present integrative social contracts theory (Donaldson and Dunfee 1994; 1995) as a theory of business ethics from which I derive a set of tangible normative minimum requirements for my research. Then, I show that mechanisms to increase the acceptance of targeting are in line with ISCT if they are compatible with specific fairness norms.

In chapter 5, I introduce my research model by returning to the social exchange framework. Specifically, I derive tangible, managerially operational mechanisms to increase the acceptance of targeting and to improve consumers' perceptions of targeted advertisements from fairness theories. This way, I account for the requirements previously derived from ISCT. I set up hypotheses that relate to both, the (direct) effect of tangible mechanisms on the target variables in my research model (i.e., stimulus-response- (SR-) level hypotheses), as well as consumers' underlying cognitive processes (i.e. stimulus-organism-response- (SOR-) level hypotheses).

In chapter 6, I present the design and the results of two experimental studies, a laboratory experiment and a large-scale field experiment, which serve to test my hypotheses on both an SR-level through rigorous chi-square testing and multivariate analysis of variance procedure, and an SOR-level through maximum likelihood-based structural equation modeling procedures. As my studies yielded a very rich data set, I also perform further exploratory analyses, which go beyond my core research questions.

In chapter 7, I summarize and interpret the most important findings of my hypotheses tests and exploratory analyses. Furthermore, I discuss their numerous theoretical implications and their tangible managerial implications. I conclude by outlining the limitations of my studies and describing avenues for future research.