NO AD BLOCKERS FOR OLD MEN? DEMOGRAPHIC EVIDENCE FOR AD BLOCKER USAGE FROM GERMANY

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ABSTRACT

Web users are turning to ad blockers to avoid ads because they perceive them as an invasion of privacy, as annoying or as slackening their internet browsing experience. There has been significant research into factors driving ad blocker adoption. In this paper, the author will highlight significance correlation between ad blocker usage and age. The author conducted an online survey and built two groups, ad blocker users and non-users. When checking for significant differences in the demographic data, the author has found significant difference in the age of ad blocker users.

KEYWORDS

Ad Blocking, Online Advertising, Online Ads, Advertising Avoidance

1. INTRODUCTION

Attention is the currency, digital advertising is dealing with (Stourm & Bax, 2017). In the attempt of getting this crucial resource, different actors play a central role in the digital advertising ecosystem (Stallone & Klaas, 2019). This ecosystem highlights how digital advertising has become the vital source of revenue for the supply side containing the publishers, who are monetizing their web traffic (Brinson, Eastin, & Cicchirillo, 2018). To thwart the display of advertisement, numerous companies and organizations have focused on the development of systems (Post & Sekharan, 2015): In this paper, we will call them *ad blockers*.

The number of internet consumers adopting ad blocking has grown worldwide over the past five years and as the internet consumers become increasingly conscious of the possibility of ad blocking, even higher adoption rates must be expected globally (Tudoran, 2019).

This research contributes to the literature on online consumer behavior by highlighting demographic evidence of ad blocker usage. The author do so by analyzing a dataset from a German online survey and showing how the self-reported age correlates with the self-reported usage of ad blockers on desktop devices.

2. LITERATURE REVIEW

This review investigates the literature on ad blockers. The author selected peer-reviewed articles from four bibliographic databases (IEEE Xplore, Sage journals online, Science Direct & Google Scholar). The author considered peer-reviewed journals and conference proceedings based on their knowledge validity and their highest impact on the research field. To ensure the relevance of the articles in this study, the author used a combination of four keywords, contained at least in the abstract of the selected articles. The search of articles was limited to English & German speaking journals between 2007 & 2019. The rationale is to capture the latest change in investigating ad blockers.

1. *ad blocker*
2. *adblocker*
3. *ad blocking*
4. *adblocking*

2.1 Ad Blocker

In the *legal* field, academic literature tries to understand the implications of using ad blocker from the perspective of a whole country and/or from the publisher as an affected actor of the digital advertising ecosystem (Abrahamsen, 2017; Barbacovi, 2016; Lu, 2017; R. Miller, 2017; R. A. Miller, 2018).

Economic analyses show models on how the usage of ad blockers is affecting the players involved (Aseri, Dawande, Janakiraman, & Mookerjee, 2018; Bounie, Vallrie, & Quinn, 2017; Despotakis, Ravi, & Srinivasan, 2017; Jain, Czerwinski, Song, & He, 2010; Miklosik, Kuchta, & Zak, 2018; Ray, Ghasemkhani, & Kannan, 2017; Streitz & Tynan, 2016) with game theoretical approaches.

Scholars in the *technological* field research on how to develop either new ad blocking or anti ad blocking solutions (Backes, Bugiel, Styp-Rekowsky, & WiBfeld, 2017; Ikram & Kaafar, 2017a, 2017b; Jalba, Olteanu, & Draghici, 2016; Lashkari, Seo, Gil, & Ghorbani, 2017; Mughees, Qian, & Shafiq, 2017; Mughees, Qian, Shafiq, Dash, & Hui, 2016; Nithyanand et al., 2016; Tramèr, Dupré, Rusak, Pellegrino, & Boneh, 2018; Wills & Uzunoglu, 2016).

Researches in the *behavioral* field contains researches into the identification of factors influencing the usage of ad blockers. The most important factors leading the use of ad blocker are the needs for security/privacy, for avoiding further interruption online and for page loading speed (Boerman, Kruikemeier, & Zuiderveen Borgesius, 2018; Brinson et al., 2018; Mccoy, Everard, Polak, & Galletta, 2007; Redondo & Aznar, 2018; Zhao et al., 2017).

2.2 Age and Ad Blocker Usage

Young reported in his study, that “older individuals tended to report using ad blockers less [than younger individuals]” (Young, 2016). In another research it has been stated that there are no significant differences younger and older adults with respect to privacy concerns and privacy protective behaviors (Boerman et al., 2018)— both motivational factors for the usage of ad blockers as stated before. A significant difference was shown by Zhao et al., which stated that “people who are younger than 34 are more likely to use ad blockers” (Zhao et al., 2017). eMarketer states in its study of 2017 that “ad blocking continues to be far more prevalent among younger people” (eMarketer, 2017). Within their study, Despotakis et al. implied, by citing the PageFair and Adobe report that older non-ad blocker users would never use an ad blocker (Despotakis et al., 2017; PageFair & Adobe, 2015). Only the data of PageFair & Adobe could represent the reality, since every other research represented self-reported data on the usage of ad blocker.

3. RESEARCH METHOD

3.1 Data Collection

AdDefend designed a questionnaire, Appinio distributed the final questionnaire online to the Appinio panel members and managed the collection, monitoring, and processing of the data. AdDefend is an independent platform for ad block advertising that displays ads to users of ad blockers. That way, publishers remonetize their content with ads, advertisers have the opportunity to address this target group and users keep free access to their favorite content. Appinio is a German market research company.

Data for the study was collected with an online questionnaire targeted for Internet users from Germany. The survey resulted in 1511 valid responses. The questionnaire contained 22 questions about their internet consumption on desktop devices. The survey has been conducted during the second half of December 2018 to be sure to have a high density of ads shown to the participants due to the Christmas-related advertisement.

3.2 Participants

1761 panelists completed the questionnaire. 250 subjects were invalidated for having inconsistently and/or incompletely responded to the questions.

4. RESULTS

4.1 Descriptive Results

The final sample consisted of 1511 subjects (56% males and 44% females), with the following age distribution: 13% under 18 years of age, 34% aged between 18 and 24, 28% aged between 25 and 34, 15% aged between 35 and 44 and 9% above 45. Almost 48% of respondents reported to consume internet content multiple hours a day, 16% one hour a day, 16% multiple hours per week and almost 20% less than the above. Regarding ad blocker usage, 50% of the subjects were current users and 50% of the subjects were not current users.

4.2 Differences in Age

The author conducted first a t-test to explore any significant difference in age between the two groups of respondents. The author detected a significant result, which is shown in Table 1.

Table 1. Ad Blocker Use t-test

	Ad Blocker Use			
	Yes		No	
	Mean	SD	Mean	SD
Age	26.97	9.371	28.29	11.797

Ad blocker users are significantly younger ($p < 0.05$), which is also stated in Table 2 with a correlation value of 0.062.

Table 2. Ad Blocker and age correlation

		Variables	
		Ad Blocker Use	Age
Ad Blocker Use	Correlation	1	-0.062*
	Significance (two-sided)		
Age	N	1511	1511
	Correlation		1
	Significance (two-sided)	-0.062*	
	N	1511	1511

* $p < 0.05$

These results do not differ from the ones presented by (Young, 2016). The following article shows a lower significance ($p < 0.05$ versus $p < .01$) as well as a lower β (-0.012 versus -0.093) than the mentioned one, which the Young identified running a simple binary regression explaining the fact of using an ad blocker by the age of the user (Young, 2016). The main difference though lies in the methodology: Whilst AdDefend surveyed exclusively about ad blocker usage, Young used data of YouGov for an annual report that “looks to map the changing ecology of news across countries” (Young, 2016). Another difference is, of course, the time stamp of the survey: YouGov’s survey was taken in January 2015, AdDefend distributed it in December 2018 – almost four years.

5. DISCUSSION

5.1 Conclusion

This very first analysis of ad blocker use in Germany showed that there is almost no difference to other studies done in the United Kingdom and the United States. In this paper, the author highlighted the lack of thorough analysis of the influence of age on the usage of ad blockers. It confirms what has been found up until now in literature but shows a slight less intense correlation between the two variables, which can be due to cultural but also to simple sample differences.

5.2 Further Research

In this paper, the author showed the need for a thorough focus on the effects of age on ad blocker usage. To be able to identify the differences between younger and older users better, scholars should investigate the differences in motivational factors of ad blocker usage between the two groups: Are there the same significant differences within the sub-group of millennials and silver surfers? Besides the differences in age, the author suggests to move on with more analyses from other countries: Are there any differences from a cultural perspective? Ad blocker demographics should therefore remain a crucial focus in this field of academia.

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