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Boerman, S.C.; Smit, E.G.

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Advertising and privacy: an overview of past research and a research agenda

Sophie C. Boerman[a] and Edith G. Smit[b]

[a]Strategic Communication, Wageningen University & Research, Wageningen, The Netherlands; [b]Amsterdam School of Communication Research (ASCoR), University of Amsterdam, Amsterdam,The Netherlands

ABSTRACT

By looking back at 40 years of research in the International Journal of Advertising (IJA), we provide a state-of-the-art of advertising research addressing (consumer) privacy. A systematic literature review of 84 IJA publications that address privacy in their content shows an increase of attention to privacy in advertising research. The review also reveals that privacy is connected to many different *advertising formats* and generally discussed in three ways: in the discussion of the *context* of advertising (i.e. ethics and regulations), in connection to *personal traits* that distinguish different consumers, and to explain advertising responses and *effects*. Theoretically, studies often draw upon the privacy paradox, privacy calculus model, personalization(-privacy) paradox, and persuasion knowledge model. Based on this review and current developments, we develop a research agenda for future advertising research addressing privacy, focusing on personalization in the public domain, privacy cynicism, and possible future constraints to personalization.

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Introduction

Digital communication and technological advances have enabled advertisers to collect, store, extract, infer, use, sell, and share consumer information to personalize and tailor advertising messages. However, these data-driven possibilities also come with an important challenge: dealing with consumer privacy. Although consumers understand that personalized advertising can have benefits – such as more personally relevant ads and economic benefits – many also voice considerable concerns about their privacy due to the continuous collection and use of personal data (Boerman, Kruikemeier, and Borgesius 2017; Morimoto 2021). Finding the balance between profit and consumer privacy may be one of the most important current challenges for advertisers.

CONTACT Sophie C. Boerman sophie.boerman@wur.nl Strategic Communication, Wageningen University & Research, Wageningen, The Netherlands

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The purpose of this article is to provide a state-of-the-art of research into privacy in the context of advertising, focusing on the *International Journal of Advertising* (IJA). We first define the concept of privacy. Subsequently, by means of a systematic literature review, we identify and discuss in which contexts and how privacy was covered in advertising research. Finally, based upon the review and current developments, we develop a research agenda for future advertising research addressing privacy.

Defining privacy

Because the concept of (consumer) privacy in the context of advertising relates to the collection, use, and dissemination of information, it is often referred to as 'information privacy' or 'data privacy'. Although many *IJA* articles mention privacy, it is rarely defined. Definitions of information privacy vary and range from 'the right to be left alone' (Warren and Brandeis 1980–1891, 193) to 'being in control of information that is available about oneself' (Buchholz and Rosenthal 2002, 35; see Rapp et al. 2009 for an overview of different definitions). However, a common definition of (information) privacy is 'the claim of individuals, groups, or institutions to determine for themselves when, how, and to what extent information about them is communicated to others' (Westin 1967, 7, e.g. in Bao et al. 2019; Wottrich, Verlegh, and Smit 2017; Zarouali et al. 2019). Central to this definition is individuals' right and ability to have control over the flow of information about them (Nissenbaum 2009).

Systematic literature review

To gain insight into how privacy was covered in 40 years of *IJA*, we conducted a systematic literature review of the *IJA* database. In January 2022, we searched for all *IJA* articles that mentioned the word 'privacy', which resulted in 109 articles.

We excluded three irregular articles (i.e. one obituary, one book review, and one call for papers) and coded the number of times the word 'privacy' appeared in different elements (e.g. title, abstract, results) of the remaining 106 articles (see coding scheme in Table 1 in Online Appendix). Based upon this systematic review, we excluded 22 articles that only mentioned privacy in the references, in the author biography, in additional information (e.g. footnotes or appendix), or to acknowledge that the privacy of research participants was respected or that specific privacy settings were a reason to exclude participants. This resulted in a total of 84 articles that substantively address privacy in the content of the article (articles with * in reference list or Online Appendix) published in *IJA* (in print or online) between 1986 and 2021.

Historical overview of privacy-related articles in *IJA*

Figure 1 illustrates that the number of articles that address privacy increased over time, with 52% being published since 2014, showing the growing importance of the topic. The majority of the 84 articles (60%) mentions privacy only once ($n = 34$, 41%), twice ($n = 10$, 12%) or three times ($n = 6$, 7%). The word 'privacy' appears in five titles (including two editorials), nine abstracts, and six keyword lists. Interestingly,

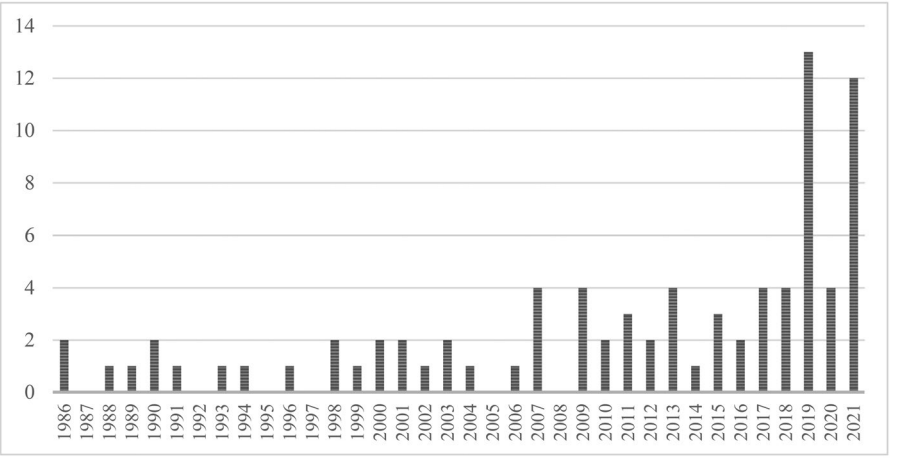

Figure 1. Number of *IJA* articles addressing 'privacy' per year.

editor-in-chief Taylor has put privacy on the agenda by encouraging and discussing research into privacy in 12 different editorials between 2009 and 2021. 17 articles cover the construct elaborately, mentioning privacy more than ten times in their content. Table 2 in the Online Appendix presents an overview of these articles including their focus.

Our review of the 84 articles reveals that privacy is connected to many different *advertising formats* and generally discussed in three ways: in the discussion of the *context* of advertising (i.e. ethics and regulations), in connection to *personal traits* that distinguish different consumers, and to explain advertising responses and *effects*.

Advertising formats

The studied advertising formats all involve the collection, extraction, and use of personal information. Early articles address privacy in the context of direct marketing (i.e. one-to-one communication techniques, such as targeted mail, telephone calls, or in-person solicitation; Hailey 1989; Fullerton and Nevett 1986; Korgaonkar, Karson, and Lund 2001), SMS advertising (Barnes 2002; Carroll et al. 2007; Muk 2007), electronic word-of-mouth (Strutton, Taylor, and Thompson 2011; Chu and Kim 2011), and social media advertising (Jung et al. 2016; Knoll 2016; Van Noort, Antheunis, and Verlegh 2014).

With technological advancements and increased use of 'big data', advertising strategies have become more personalized, which is also reflected in the topics addressed in relation to privacy, such as personalized promotions and recommendations (Kim, Song, and Lee 2019; Puzakova, Rocereto, and Kwak 2013), online personalized advertising (e.g. Bang et al. 2019; Ham 2017; Wottrich, Verlegh, and Smit 2017; Zarouali et al. 2019), and location-based advertising (Jung and Heo 2022; Ketelaar et al. 2017). The most recent formats include mobile advertising (Shin et al. 2020), programmatic TV advertising (Malthouse, Maslowska, and Franks 2018), digital out-of-home advertising (Lee and Cho 2019), synced advertising (Segijn and Voorveld 2021), augmented

reality advertising (Uribe, Labra, and Manzur 2022), artificial intelligence in advertising (Wu et al. 2022), and deepfakes (Kietzmann, Mills, and Plangger 2021). Additionally, whereas privacy was connected to e-commerce in the context of consumer trust in the online environment and safe credit card transactions in 2000 (Morrison and Svennevig 2000; Morrison and Firmstone 2000), in 2022 it is discussed in the context of artificial intelligence driven recommendation agents (Kim, Kang, and Bae 2022).

Privacy in context

In the broader context of advertising, privacy is addressed in relation to advertising ethics and regulations. Throughout the years, *IJA* published several perspectives, commentaries, and essays that address privacy in relation to advertising laws and regulations, mostly focusing on data protection and consumers' right to privacy (e.g. Hailey 1989; Hoy, Childers, and Morrison 2012; Hondius 1986; Kassaye 1999; Morrison and Firmstone 2000; Koslow and Stewart 2022). Regulations are sometimes combined with a discussion of technological developments, such as security and data collection on the internet (Kassaye 1999; Ranchhod 1998), programmatic TV advertising (Malthouse, Maslowska, and Franks 2018), and digital media environments (Koslow and Stewart 2022).

Several studies also emphasize that privacy invasion is a particularly important risk for children, even if (self-)regulations try to protect them (e.g. Hoy, Childers, and Morrison 2012; Shin, Huh, and Faber 2012; Shin et al. 2020; Zarouali et al. 2019).

Privacy-related consumer traits

Overall, studies report that consumers are worried about privacy invasions by companies and have concerns about their privacy in the context of (online) advertising (e.g. Morimoto 2021; Youn and Kim 2019). Privacy issues regarding advertising also appear to play an important, negative role in consumer wellbeing (Gilbert et al. 2021).

Privacy is also connected to personal traits identifying various types of consumers that respond to advertising differently. In the context of customer relationship management (CRM), Fletcher (2003) presented a privacy grid of different segments of consumers varying in their privacy awareness and trust in companies. In the context of eWOM, Bao et al. (2019) argued that children have different privacy needs than adults.

The role of privacy in advertising effects

Research also addressed how consumer privacy concerns and attitudes can explain advertising responses and effects. Several studies have shown that personalized advertising – such as online behavioural advertising and location-based advertising – raises privacy concerns and perceived risks (i.e. privacy infringement), which consequently instigate ad avoidance and feelings of intrusiveness, and negatively influence advertising outcomes (e.g. Ham 2017; Jung and Heo 2022; Morimoto 2021). These negative responses can be mitigated or resolved by perceived personal relevance (Youn and

Shin 2020), trust in the company (Jung and Heo 2022), and increasing consumer control (Kim, Song, and Lee 2019).

Finally, research also combines the notions of traits and effects, by demonstrating that the effects of advertising are dampened when people experience high(er) levels of privacy concerns (e.g. Jung et al. 2016; Van Noort, Antheunis, and Verlegh 2014; Wottrich, Verlegh, and Smit 2017).

Theories related to privacy

Theoretically, studies addressing privacy often rely on the privacy paradox, privacy calculus model, and personalization(-privacy) paradox, all of which reflect the trade-off of the benefits and risks of data-driven advertising. The *privacy paradox* involves the discrepancy between consumers' privacy concerns and actual privacy behaviour, for instance when disclosing their information to advertisers or in response to campaigns (see e.g. Van Noort, Antheunis, and Verlegh 2014; Wottrich, Verlegh, and Smit 2017; Youn and Shin 2020). The *privacy calculus model* is used to understand how people weigh the benefits and risks of (personalized) advertising (e.g. Jung and Heo 2022; Segijn and Voorveld 2021; Youn and Shin 2020; Zarouali et al. 2019). Relatedly, the *personalization(-privacy) paradox* reflects the common finding that data-driven advertising can have positive and negative outcomes, as privacy risks and concerns coincide with benefits such as personal relevance (e.g. Kim, Song, and Lee 2019; Morimoto 2021; Puzakova, Rocereto, and Kwak 2013; Youn and Kim 2019). Finally, several studies used the *persuasion knowledge model* to investigate the relationship between consumers' knowledge of advertising tactics and their privacy concerns or privacy risk perceptions (e.g. Ham 2017; Morimoto 2021; Youn and Kim 2019; Youn and Shin 2020).

Research agenda

Personalization in the public domain

With the continuous technological developments in data-driven personalization and computational advertising, consumer privacy will remain an important issue in future advertising research. One important development is the growing use of personalized advertising in public spaces such as in-store personalization (Hess et al. 2020; Esch et al. 2021) and digital out-of-home displays (Lee and Cho 2019). Digital out-of-home displays can even be equipped with sensors and cameras to be able to capture and record extensive information such as who is looking at the sign, for how long and at what time of the day (Lee and Cho 2019). These personalization formats are especially interesting as the personalization does not present itself on personal screens (e.g. smartphones or laptops), but in public spaces, and thus is visible to others. Such practices stimulate a debate about privacy on a much broader level, in which consumers do not only worry about privacy invasions by companies collecting and using their personal data, but also about others being able to see personally targeted messages (social presence, see e.g. Hess et al. 2020). More research is needed to understand how different stakeholders deal with personalization in public spaces.

Coping with privacy cynicism

Another important issue is privacy fatigue (Choi, Park and Jung 2018) or privacy cynicism (Van Ooijen, Segijn and Opree 2022). Consumers increasingly feel that they cannot control their personal information, feel powerless, and mistrust the platforms and companies handling their data. As trust between companies and consumers is critical (Malthouse and Li 2017), and trust influences people's responses to advertising (Jung and Heo 2022), it is vital to understand how consumer privacy cynicism develops and how this influences trust and advertising outcomes. Research could also investigate how companies may handle privacy issues, mitigate privacy cynicism, and improve trust, for instance by increasing transparency (Helberger et al. 2020).

Dealing with constraints to personalization

Finally, there are important developments that may even ban or limit personalized advertising to the benefit of consumer privacy. Consumers may not continue to allow their personal information to be used for the purpose of advertising (Koslow and Stewart 2022) and the use of personal information may be more constrained by laws and regulations protecting consumer privacy. Since the General Data Protection Regulation (GDPR) in the EU, there have been worldwide developments in data protection regulations (see e.g. Harnowo 2021; Kourinian 2021; Page 2022). In addition, big tech companies also focus more on consumer privacy: Apple now requires opt-in consent before tracking users, and Google announced to eliminate third-party cookies from its Chrome browser and to stop selling ads based on individuals' browsing activity across multiple websites (Kourinian 2021). Moreover, a draft of the Digital Services Act (DSA) by the European Parliament even bans personalized advertising based on sensitive information, such as information about a person's health, religion, or sexual orientation (Goujard 2022).

Dutch publisher NPO tested the effects of removing third party tracking and using contextual targeting, which involves displaying specific ads based on the content of the environment (e.g. content of the website or online video) or other contextual factors such as the current time or weather. Their study showed that contextual targeting was surprisingly effective, as it led to higher click through rates and revenues than non-contextual targeting (Ryan 2020). This example proves the possible benefits of contextual targeting to present relevant ads without using personal data. If these developments continue, future research should examine the effects of other ways of targeting, such as contextual targeting, to find other effective solutions for advertisers that do protect consumer privacy.

Disclosure statement

The authors declare that there is no conflict of interest.

Notes on contributors

Sophie C. Boerman (PhD, University of Amsterdam) is associate professor of Persuasive Communication, Strategic Communication Group, Wageningen University & Research.

Edith G. Smit (PhD, University of Amsterdam) is a full professor and chair of Persuasion & Consumer Empowerment, Amsterdam School of Communication Research (ASCoR), University of Amsterdam.

ORCID

Sophie C. Boerman http://orcid.org/http://orcid.org/0000-0002-2453-1493
Edith G. Smit http://orcid.org/http://orcid.org/0000-0002-6913-4897

Data availability statement

The data that support the findings of this study are available from the corresponding author (SB).

References

**IJA article mentioning privacy in content*.

*Bang, H., D. Choi, B.W. Wojdynski, and Y.I. Lee. 2019. How the level of personalization affects the effectiveness of personalized ad messages: The moderating role of narcissism. *International Journal of Advertising* 38, no. 8: 1116–38.

*Bao, T., T.L.S. Chang, A.J. Kim, and S.H. Moon. 2019. The characteristics and business impact of children's electronic word of mouth in marketing communications. *International Journal of Advertising* 38, no. 5: 731–59.

*Barnes, S.J. 2002. Wireless digital advertising: Nature and implications. *International Journal of Advertising* 21, no. 3: 399–420.

Boerman, S. C., S. Kruikemeier, and F.J.Z. Borgesius. 2017. Online behavioral advertising: A literature review and research agenda. *Journal of Advertising* 46, no. 3: 363–76.

Buchholz, R.A., and S.B. Rosenthal. 2002. Internet privacy: Individual rights and the common good. *SAM Advanced Management Journal* 67, no. 1: 34–40.

*Carroll, A., S.J. Barnes, E. Scornavacca, and K. Fletcher. 2007. Consumer perceptions and attitudes towards SMS advertising: Recent evidence from New Zealand. *International Journal of Advertising* 26, no. 1: 79–98.

Choi, H., J. Park, and Y. Jung. 2018. The role of privacy fatigue in online privacy behavior. *Computers in Human Behavior* 81: 42–51.

*Chu, S.C., and Y. Kim. 2011. Determinants of consumer engagement in electronic word-of-mouth (eWOM) in social networking sites. *International Journal of Advertising* 30, no. 1: 47–75.

Esch, P.V., Y. Cui, and S.P. Jain. 2021. Stimulating or intimidating: The effect of AI-enabled in-store communication on consumer patronage likelihood. *Journal of Advertising* 50, no. 1: 63–80.

*Fletcher, K. 2003. Consumer power and privacy: The changing nature of CRM. *International Journal of Advertising* 22, no. 2: 249–72.

*Fullerton, R.A., and T.R. Nevett. 1986. Advertising and society: A comparative analysis of the roots of distrust in Germany and Great Britain. *International Journal of Advertising* 5, no. 3: 225–41.

*Gilbert, J.R., M.B.R. Stafford, D.A. Sheinin, and K. Pounders. 2021. The dance between darkness and light: A systematic review of advertising's role in consumer well-being (1980–2020). *International Journal of Advertising* 40, no. 4: 491–528.

Goujard, C. 2022. European Parliament pushes to ban targeted ads based on health, religion or sexual orientation. https://www.politico.eu/article/european-parliament-bans-use-of-sensitive-personal-data-for-targeted-ads/. (accessed June 23, 2022).

*Hailey, G.D. 1989. The Federal Trade Commission, the Supreme Court and restrictions on professional advertising. *International Journal of Advertising* 8, no. 1: 1–15.

*Ham, C.D. 2017. Exploring how consumers cope with online behavioral advertising. *International Journal of Advertising* 36, no. 4: 632–58.

Harnowo, P. 2021. Devil in the data. Overhauling Asia's data privacy frameworks. *Asia Business Law Journal*. https://law.asia/data-privacy-framework-asia/.

Helberger, N., J. Huh, G. Milne, J. Strycharz, and H. Sundaram. 2020. Macro and exogenous factors in computational advertising: Key issues and new research directions. *Journal of Advertising* 49, no. 4: 377–93.

Hess, N. J., C. M. Kelley, M. L. Scott, M. Mende, and J.H. Schumann. 2020. Getting personal in public!? How consumers respond to public personalized advertising in retail stores. *Journal of Retailing* 96, no. 3: 344–61.

*Hondius, F.W. 1986. Transparency and perspective. *International Journal of Advertising* 5, no. 3: 247–60.

*Hoy, M.G., C.C. Childers, and M. Morrison. 2012. The evolution of self-regulation in food advertising: An analysis of CARU cases from 2000–2010. *International Journal of Advertising* 31, no. 2: 257–90.

*Jung, A.R., and J. Heo. 2022. The effects of mobile phone use motives on the intention to use location-based advertising: The mediating role of media affinity and perceived trust and risk. *International Journal of Advertising* 41, no. 5: 930–47.

*Jung, J., S.W. Shim, H.S. Jin, and H. Khang. 2016. Factors affecting attitudes and behavioural intention towards social networking advertising: A case of Facebook users in South Korea. *International Journal of Advertising* 35, no. 2: 248–65.

*Kassaye, W.W. 1999. Sorting out the practical concerns in World Wide Web advertising. *International Journal of Advertising* 18, no. 3: 339–61.

*Ketelaar, P.E., S.F. Bernritter, J. van't Riet, A.E. Hühn, T.J. van Woudenberg, B.C. Müller, and L. Janssen. 2017. Disentangling location-based advertising: The effects of location congruency and medium type on consumers' ad attention and Brand choice. *International Journal of Advertising* 36, no. 2: 356–67.

*Kietzmann, J., A.J. Mills, and K. Plangger. 2021. Deepfakes: Perspectives on the future "reality" of advertising and branding. *International Journal of Advertising* 40, no. 3: 473–85.

*Kim, H.Y., J.H. Song, and J.H. Lee. 2019. When are personalized promotions effective? The role of consumer control. *International Journal of Advertising* 38, no. 4: 628–47.

*Kim, J., S. Kang, and J. Bae. 2022. The effects of customer consumption goals on artificial intelligence driven recommendation agents: Evidence from Stitch Fix. *International Journal of Advertising* 41, no. 6: 997–1016.

*Knoll, J. 2016. Advertising in social media: A review of empirical evidence. *International Journal of Advertising* 35, no. 2: 266–300.

Kourinian, A. 2021. How expansion of privacy laws, AdTech standards limits third-party data use for retargeting. https://iapp.org/news/a/how-the-expansion-of-data-privacy-laws-and-adtech-standards-limits-companies-ability-to-use-third-party-data-for-retargeting/. (accessed June 23, 2022).

*Korgaonkar, P., E. Karson, and D. Lund. 2001. Direct marketing: A comparison of Hispanic and non-Hispanic perspectives. *International Journal of Advertising* 20, no. 1: 25–47.

*Koslow, S., and D.W. Stewart. 2022. Message and media: The future of advertising research and practice in a digital environment. *International Journal of Advertising* 38, no 1: 827–849.

*Lee, H., and C.H. Cho. 2019. An empirical investigation on the antecedents of consumers' cognitions of and attitudes towards digital signage advertising. *International Journal of Advertising* 38, no. 1: 97–115.

Malthouse, E. C., and H. Li. 2017. Opportunities for and pitfalls of using big data in advertising research. *Journal of Advertising* 46, no. 2: 227–35.

*Malthouse, E.C., E. Maslowska, and J.U. Franks. 2018. Understanding programmatic TV advertising. *International Journal of Advertising* 37, no. 5: 769–84.

*Morimoto, M. 2021. Privacy concerns about personalized advertising across multiple social media platforms in Japan: The relationship with information control and persuasion knowledge. *International Journal of Advertising* 40, no. 3: 431–51.

*Morrison, D.E., and J. Firmstone. 2000. The social function of trust and implications for e-commerce. *International Journal of Advertising* 19, no. 5: 599–623.

*Morrison, D.E., and M. Svennevig. 2000. Introduction: The futura.com project. *International Journal of Advertising* 19, no. 5: 555–64.
*Muk, A. 2007. Consumers' intentions to opt in to SMS advertising: A cross-national study of young Americans and Koreans. *International Journal of Advertising* 26, no. 2: 177–98.
Nissenbaum, H. 2009. *Privacy in context*. Stanford, CA: Stanford University Press.
Page, R. 2022. The state of privacy regulations across Asia. https://www.csoonline.com/article/3655968/the-state-of-privacy-regulations-across-asia.html. (accessed June 23, 2022).
*Puzakova, M., J.F. Rocereto, and H. Kwak. 2013. Ads are watching me: A view from the interplay between anthropomorphism and customisation. *International Journal of Advertising* 32, no. 4: 513–38.
*Ranchhod, A. 1998. Advertising into the next millennium. *International Journal of Advertising* 17, no. 4: 427–46.
Rapp, J., R. P. Hill, J. Gaines, and R. M. Wilson. 2009. Advertising and consumer privacy. *Journal of Advertising* 38, no. 4: 51–61.
Ryan, J. 2020. Update (Six Months of Data): Lessons for growing publisher revenue by removing 3rd party tracking. https://brave.com/publisher-3rd-party-tracking/. (accessed June 23, 2022).
*Segijn, C.M., and H.A. Voorveld. 2021. A first step in unraveling synced advertising effectiveness. *International Journal of Advertising* 40, no. 1: 124–43.
*Shin, W., J. Huh, and R.J. Faber. 2012. Developmental antecedents to children's responses to online advertising. *International Journal of Advertising* 31, no. 4: 719–40.
*Shin, W., M.O. Lwin, A.Z. Yee, and K.M. Kee. 2020. The role of socialization agents in adolescents' responses to app-based mobile advertising. *International Journal of Advertising* 39, no. 3: 365–86.
*Strutton, D., D.G. Taylor, and K. Thompson. 2011. Investigating generational differences in e-WOM behaviours: For advertising purposes, does X=Y? *International Journal of Advertising* 30, no. 4: 559–86.
*Uribe, R., R. Labra, and E. Manzur. 2022. Modeling and evaluating the effectiveness of AR advertising and the moderating role of personality traits. *International Journal of Advertising* 41, no. 4: 703–30.
*Van Noort, G., M.L. Antheunis, and P.W. Verlegh. 2014. Enhancing the effects of social network site marketing campaigns: If you want consumers to like you, ask them about themselves. *International Journal of Advertising* 33, no. 2: 235–52.
Van Ooijen, I., C.M. Segijn, and S.J. Opree. 2022. Privacy cynicism and its role in privacy decision-making. *Communication Research*, 009365022110609.
Warren, S. D., and L.D. Brandeis. 1890–1891. Right to privacy. *Harvard Law Review* 4, no. 5: 193–220.
Westin, A. 1967. *Privacy and freedom*. New York: Atheneum.
*Wottrich, V.M., P.W. Verlegh, and E.G. Smit. 2017. The role of customization, Brand trust, and privacy concerns in advergaming. *International Journal of Advertising* 36, no. 1: 60–81.
*Wu, L., N.A. Dodoo, T.J. Wen, and L. Ke. 2022. Understanding Twitter conversations about artificial intelligence in advertising based on natural language processing. *International Journal of Advertising* 41, no. 4: 685–702.
*Youn, S., and S. Kim. 2019. Newsfeed native advertising on Facebook: Young millennials' knowledge, pet peeves, reactance and ad avoidance. *International Journal of Advertising* 38, no. 5: 651–83.
*Youn, S., and W. Shin. 2020. Adolescents' responses to social media newsfeed advertising: The interplay of persuasion knowledge, benefit-risk assessment, and ad scepticism in explaining information disclosure. *International Journal of Advertising* 39, no. 2: 213–31.
*Zarouali, B., K. Poels, M. Walrave, and K. Ponnet. 2019. The impact of regulatory focus on adolescents' evaluation of targeted advertising on social networking sites. *International Journal of Advertising* 38, no. 2: 316–35.