Read. Click. Comment.

Understanding the uses and effects of interactive features in digital magazines

Rauwers, F.

Publication date
2019

Document Version
Other version

License
Other

General Introduction & Dissertation Outline

INTRODUCTION

In the last decade, a large number of well-established print magazine titles have been facing severe financial difficulties due to continued reductions in circulation and advertising revenues (Ember & Grynbaum, 2017; Stuart-Turner, 2018). Between 2007 and 2017, Dutch print magazine titles have lost about half of their print magazine readers, and advertising revenues have dropped with 58 per cent (Bakker, 2018; Wiegman & Punt, 2017). An identical pattern can be identified in other countries, like the UK and the United States (FIPP, 2015; Sweney, 2017). To cope with the resulting financial shortages, magazine publishers had to cut numerous jobs and sell off or close down several of their print magazine titles. For instance, in 2014 Sanoma (one of the largest magazine publishers in Europe) had to stop with the distribution of 32 of its 49 Dutch magazine titles, which resulted in the loss of about 500 jobs (Sanoma, 2013; 2014). Due to these drastic developments, magazine publishers are eagerly looking for new ways to make 'magazine reading' more attractive and most of them see in the digital magazine industry a valuable opportunity (Haughney, 2014; Malyarov, 2017).

Magazine publishers became interested in digital magazines due to the quick rise of the tablet after the introduction of the iPad in 2010: Within five years more than half of the households in the Netherlands (58%) and the United States (54%) owned a tablet (CBS, 2016; Deloitte Development LLC, 2015). In 2017 these numbers increased to respectively 72% and 70% (CBS, 2018; Pew Research Center, 2017). Besides this opportunity for a large audience reach, another advantage of the tablet is that it offers magazine publishers new and innovative ways to digitalize their content, for instance via the inclusion of audiovisual material. In an attempt to take advantage of these benefits, magazine publishers started to digitalize their magazines so that they can now also be consumed on tablets and on other digital devices like computers and smartphones.

In this dissertation a digital magazine is defined as an electronic bundle of content that is distributed via online media (e.g., tablets, smartphones, or restricted-access websites) and is released periodically (e.g., weekly or monthly) to subscribers in the form of issues (Johnson, 2011; Alliance for Audited Media, 2018). A digital magazine differs from a magazine's website as in the case of the latter the content is neither released periodically nor in the form of an issue. Additionally, most digital magazines replicate the appearance of well-established print magazine titles, like *TIME Magazine* and *Men's Health* (Alliance for Audited Media, 2018; Rondon, 2015), but there are also some stand-alone digital magazine titles that do not have a print counterpart (NOM, 2018), like the *iFly Magazine* and the *My Volvo Magazine*.

A vital difference between print and digital content is that digital content can be interactive via the implementation of a variety of interactive features (Karan, Park, & Xie, 2016; Labre & Walsh-Childers, 2003; Sundar & Kim, 2005). For instance, digital content can be enriched with audiovisual content, hyperlinks, comment buttons, poll buttons, and search functions (Schwartz & Kenny, 2005). More precisely, Bucy and Tao (2017) define these

interactive features as: "The technological attributes of mediated environments that enable […] interaction[s] between communication technology and users (e.g., via hyperlinks), or between users through technology (e.g., via social media buttons; p. 647)".

In the literature the influence of the presence of interactive features on consumer responses (e.g., content attitude, brand attitude, and purchase intention) has already been examined in a variety of digital contexts, like online advertising, websites, and digital TV (Brown, 2002; Campbell & Wright, 2008; Cauberghe & De Pelsmacker, 2010; Gao, Rau, & Salvendy, 2009; Sundar & Kim, 2005). However, currently we know little about the uses and effects of these features in the context of digital magazines. This knowledge is important, as 'reading a magazine' is typically characterized as a predominately passive and lean back behavior (Bronner & Neijens, 2006): Consumers read magazines to relax and pass the time. Consequently, this 'passive' nature of magazine reading might conflict with the 'active' nature of interactive features, as these features stimulate consumers to get more actively engaged with the digital content (i.e., consumers need to actually use the interactive features to profit from their benefits). Due to this contrast between the 'active' nature of interactive features and the 'passive' nature of reading magazines, it is questionable whether magazine readers are actually willing to use these interactive features, or that they perceive the features as out-of-place. In the case of the latter, consumers could simply ignore the features, or worse, their presence could elicit irritation, which might spill over to the magazine. Therefore, the central aim of this dissertation is to examine whether and how consumers use the interactive features that are placed in digital magazines and in what way the presence and use of these features affect consumer responses (e.g., attitudinal responses towards the content).

Different types of interactive features

The literature about interactivity has made a distinction between two types of interactive features: medium interactive features and human interactive features (Chung, 2008). Medium interactive features facilitate interactions between users and a digital platform (e.g., websites and digital magazines) by giving users some control over the content presentation or the content flow (Chung, 2008; Chung & Yoo, 2008). Examples of these features are interactive movie clip features and hyperlinks. The former allow users to get extra audiovisual information that is related to the magazine content (i.e., giving users some control over the content presentation), whereas the latter redirect users to certain pieces of magazine content (i.e., giving users some control over the content flow).

Human interactive features allow users to socially interact with other human beings, for instance via social media buttons (Chung, 2008; Chung & Yoo, 2008). In this dissertation the 'human interactive features' category is further divided into two subcategories, namely external and internal communication features. This distinction is based on the fact that some human interactive features facilitate social interactions *outside* the electronic environment of a digital magazine (i.e., external communication features), whereas others facilitate these

interactions *inside* the digital magazine itself (i.e., internal communication features). In the case of external communication features, all magazine-related social interactions take place on external platforms, like social media, which allows both readers and non-readers of the magazine to participate in these online discussions. Examples of external communication features are a Facebook button, which enables readers to participate in magazine-related discussions on the magazine's Facebook page, and a share button, which allows readers to share magazine articles with others via social media or by email. In the case of internal communication features all magazine-related social interactions take place inside the digital magazine itself and thus solely between magazine readers. Examples of internal communication features are a comment button, which allows readers to directly comment on a specific magazine article, and a poll button, which opens a small pop-up window in which a magazine-related question is posed. In this dissertation, consumer responses to medium interactive features and both types of human interactive features are examined and compared.

The impact of interactive features on consumer responses

Previous studies have demonstrated that the presence of interactive features could improve consumers' attitudinal responses towards the digital content in which they are placed (cf. Yang & Shen, 2018). For instance, Xu and Sundar (2014) revealed that consumers evaluated highly interactive websites more positively than less interactive websites[1]. However, there are also some empirical studies that have reported other findings, namely that the number of interactive features had no significant impact on consumers' attitudinal responses (e.g., Bezjian-Avery, Calder, & Iacobucci, 1998; Coyle & Thorson, 2001).

One of the possible explanations for these mixed findings is that some interactive features have a stronger ability to elicit interactivity perceptions than others (e.g., Voorveld, Neijens, & Smit, 2011), which reveals a distinction between 'objective interactivity' and 'perceived interactivity' (Song & Zinkhan, 2008). Perceived interactivity reflects the degree to which consumers *perceive* a specific piece of digital content as truly interactive, whereas objective interactivity describes the *potential* for interactivity (i.e., the number of interactive features that are present; Voorveld, et al., 2011; Wu, 2005). Empirical studies that have investigated the relation between these two constructs demonstrated that perceived interactivity mediates the effects of objective interactivity on consumers' attitudinal responses (e.g., Wu, 2005). This means that only when the interactive features are able to increase consumers' interactivity perceptions, this subsequently translates into more positive attitudes towards the content. However, we know little about which types of interactive features can elicit these stronger interactivity perceptions and why these higher levels of perceived interactivity are related to

[1] Interactivity was manipulated by varying the number of interactive features embedded in the website.

more positive attitudinal outcomes. Besides, the interactivity literature has also suggested several other mechanisms that might explain why different types of interactive features have a different impact on consumers' attitudinal responses, like social presence (i.e., being aware of the presence of others within a mediated environment) and perceived surprise (Eastin, 2006; Hutter, 2015). Therefore, the aim of this dissertation is not only to investigate the persuasive effects of different types of interactive features (medium and human interactive features) on consumers' attitudinal responses, but also to examine the mechanisms (perceived interactivity, social presence, and perceived interactivity) that underlie these effects.

In sum, the findings of this dissertation will make several contributions to the existing literature on interactive features. First of all, the findings will reveal whether previously found interactivity effects on consumers' attitudinal responses also apply to digital magazines. Secondly, the findings will form the foundation for a theoretical framework that provides insights into the underlying processes that mediate the relationship between the presence of interactive features and consumers' attitudinal responses. Lastly, the findings will contribute to the establishment of a more comprehensive typology of interactive features by comparing the effects of different types of interactive features. In addition, this knowledge will be relevant for digital magazine content publishers, as it will provide them insight into whether it is beneficial to enrich their content with interactive features, whether there are any negative side effects of including interactive features, and which types of interactive features are the most lucrative ones to implement.

FOCUS OF THIS DISSERTATION

In this dissertation, the central research aim is to examine the uses and effects of different types of interactive features that are placed in digital magazines. To fulfill this aim, the following six research questions will be addressed:

- **RQ1**: How do consumers evaluate the presence of interactive features in digital magazines?
- **RQ2**: To what extent do consumers use interactive features in digital magazines?
- **RQ3**: How does the presence of interactive features affect consumers' attitudes towards the content in which they are placed (editorial content or advertisements)?
- **RQ4**: To what extent can (a) perceived interactivity, (b) social presence, and (c) perceived surprise explain the effects of the interactive features on consumers' attitudinal responses?
- **RQ5**: How does actual 'use' of the features (vs. only passively observing them) affect the effects of the interactive features?
- **RQ6**: Do different types of interactive features have different effects on consumers' attitudinal responses – and if so, how can this be explained?

To answer the research questions in this dissertation, several studies were conducted. These studies are described in Chapters 2, 3, and 4. In these empirical studies, the following types of interactive features are examined: (a) medium interactive features, (b) external communication features, (c) and internal communication features. Specifically, it is examined how the inclusion of these interactive features in digital magazines affects various outcome measures (i.e., ad attitude, brand attitude, and digital magazine attitude), and the processes (i.e., perceived interactivity, social presence, and perceived surprise) that might underlie these effects.

OUTLINE OF THIS DISSERTATION

This dissertation consists of a collection of four chapters: an introduction chapter, three empirical study chapters, and a general conclusion & discussion chapter. The chapters are self-contained and all empirical chapters have been published, or have been submitted for publication, as single articles in international communication journals. The chapters of this dissertation can therefore be read individually. A short introduction of each chapter is presented below.

Chapter 2. The impact of human interactive features in digital magazine content

Chapter 2 aims to answer three questions: (1) Whether and how the inclusion of external and internal communication features in a digital magazine affects consumers' attitudes towards the magazine, (2) if perceived interactivity and social presence underlie these effects, and (3) whether these effects differ per type of interactive feature. To fulfill these research aims, a two-wave lab experiment was conducted in which 192 undergraduate students used a digital magazine app. In this app, the presence/absence of external and internal communication features was manipulated.

Chapter 3. The persuasive effects through perceived interactivity explained

This chapter investigates how previously found positive effects of perceived interactivity on consumers' attitudinal responses can be explained (e.g., Wu, 2005). To shed light on this topic, this chapter examines the explanatory power of two potential underlying mechanisms: perceived enjoyment (i.e., a positive emotion elicited by the mere execution of an activity) and flow experience (i.e., a state of mind experienced when being absorbed by an activity; Davis, Bagozzi, & Warshaw, 1992; Csikszentmihalyi, 1975). To test the explanatory power of both mechanisms, a longitudinal field experiment was conducted in which 197 magazine readers (i.e., a non-student sample) used a digital magazine app for several weeks.

Chapter 4. The impact of medium interactive features in digital magazine ads

This chapter investigates (1) how the presence of a medium interactive feature in a digital magazine advertisement affects consumers' ad and brand attitudes, (2) whether perceived interactivity and perceived surprise underlie these effects, (3) whether actual 'use' of the interactive feature (vs. passively observing it) affects the strength of these effects, and (4) how consumers evaluate the feature's presence in a digital magazine. To fulfill these research aims, two experiments were conducted. The first study was a field experiment in which 98 participants were exposed to an interactive or non-interactive version of a digital magazine advertisement. The second study was an online experiment in which 121 participants were exposed to the same interactive/non-interactive advertisement as in the first study, but half of the participants in the interactive condition were explicitly instructed to also actually use the interactive feature that was placed in the advertisement.

Chapter 5. Summary & General discussion

In this final chapter, the dissertation's main findings and conclusions are summarized. Furthermore, this chapter discusses the theoretical and practical implications of the findings, and it offers directions for future research.

METHODOLOGICAL APPROACH

A multi-method design was applied to test the conceptual framework of this dissertation. More specifically, the following types of experimental studies were used: a two-wave lab experiment (Chapter 2), a longitudinal field experiment (Chapters 2 and 3), and an online experiment with forced-exposure (Chapter 4). Data was collected via online surveys and with in-app analytics (i.e., digital data trackers). This combination of a multi-method design and different types of data enables an elaborative and thorough investigation into the uses and effects of interactive features that are placed in digital magazine content. Besides these theoretical contributions, this dissertation also makes a notable methodological contribution: It is one of the first to demonstrate that interactivity effects can also be examined in a real-life setting (i.e., a field experiment), which increases the generalizability of the results.

Furthermore, for the creation of the experimental conditions, a unique digital magazine app was developed in which the presence of the interactive features could be manipulated. With the app, a static PDF-file could be transformed into an interactive digital magazine via the inclusion of a variety of interactive features, like an interactive movie clip feature, a Facebook button, and a comment button. In addition, the digital magazine contained in-app analytics that registered all the activities that each user performed inside the magazine app, along with the date and time that the activities were executed. For example, a registered

user activity could appear as follows: ['USER1', 'ARTICLE_POLL_FILL', '66', 'YES' '2016-03-12 10:09:44'], revealing the performer of the activity (USER1), the activity itself (filling in the poll on page 66 with answer 'yes'), and the date and time of the execution of the activity (on March 12, 2016 at 10:09:44). These data gave crucial insights into what participants actually 'did' inside the magazine app (e.g., Did they use the interactive features? Did they follow-up the research instructions?), even when no researchers were physically present to check this (e.g., in the case of field research).

LITERATURE

Alliance for Audited Media (2018). *Digital issues*. Retrieved from https://knowledge.auditedmedia.com/consumer-magazines/magazine-digital-issues

Bakker. P. (2018). *Oplage papieren tijdschrift voorspelt geen zonnige toekomst voor de bladen*. Retrieved from https://www.svdj.nl/nieuws/oplage-papieren-tijdschrift -toekomst/

Bezjian-Avery, A., Calder, B., & Iacobucci, D. (1998). New media interactive advertising vs. traditional advertising. *Journal of Advertising Research*, *38*, 23-32.

Bronner, F., & Neijens, P. (2006). Audience experiences of media context and embedded advertising: A comparison of eight media. *International Journal of Market Research*, *48*(1), 81-100.

Brown, M. (2002). The use of banner advertisements with pull-down menus: A copy testing approach. *Journal of Interactive Advertising*, *2*(2), 57-65. doi:10.1080/15252019.2002.10722062

Bucy, E. P., & Tao, C. C. (2007). The mediated moderation model of interactivity. *Media Psychology*, *9*(3), 647-672. doi:10.1080/15213260701283269

Campbell, D. E., & Wright, R. T. (2008). Shut-up I don't care: Understanding the role of relevance and interactivity on customer attitudes toward repetitive online advertising. *Journal of Electronic Commerce Research*, *9*(1), 62-76.

Cauberghe, V., & De Pelsmacker, P. (2010). The effectiveness of telescopic ads delivered via interactive digital television: The impact of the amount of information and the level of interactivity on brand responses. *Journal of Interactive Marketing*, *24*(4), 297-308.

CBS (2016). *ICT, kennis en economie 2016*. Den Haag, The Netherlands: Centraal Bureau voor de Statistiek. https://www.cbs.nl/-/media/_pdf/2016/26/ike2016_web.pdf

CBS (2018). Mobile devide loging and break-off in individual surveys of Statistics Netherlands. Den Haag, The Netherlands: Centraal Bureau voor de Statistiek. https://www.cbs.nl/nl-nl/achtergrond/2018/06/smartphone-en-tablet-respons-bij-personenonderzoeken

Chung, D. S. (2008). Interactive features of online newspapers: Identifying patterns and predicting use of engaged readers. *Journal of Computer-Mediated Communication*, *13*(3), 658-679. doi:10.1111/j.1083-6101.2008.00414.x

Chung, D. S., & Yoo, C. Y. (2008). Audience motivations for using interactive features: Distinguishing use of different types of interactivity on an online newspaper. *Mass Communication and Society*, *11*(4), 375-397.

Coyle, J. R., & Thorson, E. (2001). The effects of progressive levels of interactivity and vividness in web marketing sites. *Journal of Advertising*, *30*(3), 65-77. doi: 10.1080/00913367.2001.10673646

Csikszentmihalyi, M. (1975). Play and intrinsic rewards. *Journal of Humanistic Psychology*, *15*(3), 41-63. doi:10.1177/002216787501500306

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, *22*(14), 1111-1132. doi:10.1111/j.1559-1816.1992.tb00945.x

Deloitte Development LLC (2015) *Digital democracy survey: A multi-generational view of consumer technology, media and telecom trends*. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/se/Documents/technology-media -telecommunications/Digital-Democracy-Survey-DDS_Executive_Summary_Report_Final_2015-04-20-tmt.pdf

Eastin, M. S. (2006). Video game violence and the female game player: Self- and opponent gender effects on presence and aggressive thoughts. *Human Communication Research*, *32*(3), 351-372. doi:10.1111/j.1468-2958.2006.00279.x

Ember, S. & Grynbaum M. M. (2017). *The not-so-glossy future of magazines*. Retrieved from https://www.nytimes.com/2017/09/23/business/media/the-not-so-glossy-future-of-magazines.html

FIPP (2015). *AAM: Magazine circulation drops 2.2 per cent*. Retrieved from https://www.fipp.com/news/industrynews/aammagazine-circulation-drops-22-per-cent

Gao, Q., Rau, P. L. P., & Salvendy, G. (2009). Perception of interactivity: Affects of four key variables in mobile advertising. *International Journal of Human-Computer Interaction*, *25*(6), 479-505. doi:10.1080/10447310902963936

Haughney, C. (2014). Celebrity magazine sales plummet on newsstands. Retrieved from https://www.nytimes.com/2014/08/08/business/media/newsstand-sales-of-celebrity-magazines-decline.html

Hutter, K. (2015). Unusual location and unexpected execution in advertising: A content analysis and test of effectiveness in ambient advertisements. *Journal of Marketing Communications*, *21*(1), 33-47. doi:10.1080/13527266. 2014.970823

Johnson, M. (2011). Real time content editing and filtering. U.S. Patent Application No. 12/912,290.

Karan, K., Park, C. S., & Xie, W. (2016). Online women's magazines: Differences in perceptions between print and online magazines among female readers. *Advances in Journalism and Communication*, *4*(01), 31.

Labre, M. P., & Walsh-Childers, K. (2003). Friendly advice? Beauty messages in web sites of teen magazines. *Mass Communication and Society*, *6*(4), 379-396.

Malyarov, N. (2017). *Are digital editions dead?* Retrieved from https://www.fipp.com/news/opinion/are-digital-editions-dead

NOM (2018). *NOM definities vaktijdshriften 2018 print oplage en digitaal*. Retrieved from www.nommedia.nl/2274863/HANDLEIDING_HOI_VAKTIJDSCHRIFTEN_2018.pdf?v=0

Pew Research Center (2017). *The typical American household contains multiple connected devices*. Retrieved from http://www.pewresearch.org/fact-tank/2017/05/25/a-third-of -americans-live-in-a-household-with-three-or-more-smartphones/ft_17-05-03_devices_share/

Rondon, M. (2015). *Magazine circ continues downward spiral: Publishers are making up for paid circ lossess with verified subs though*. Retrieved from www.foliomag.com/magazine-circ-continues-downward-spiral/

Sanoma (2013). S*anoma to rationalise Dutch magazine portfolio as part of consumer media redesign*. Retrieved from https://sanoma.com/release/sanoma-to-rationalise-dutch -magazine-portfolio-as-part-of-consumer-media-redesign/

Sanoma (2014). *Sanoma has reached an agreement to sell 19 Dutch magazine titles*. Retrieved from https://sanoma.com/release/sanoma-has-reached-an-agreement-to-sell-19-dutch-magazine-titles/

Schwartz, D., & Kenny, P. (2005). Method of producing and delivering an electronic magazine in full-screen format. U.S. Patent Application No. 10/828,252.

Song, J. H., & Zinkhan, G. M. (2008). Determinants of perceived web site interactivity. *Journal of Marketing*, *72*(2), 99-113. doi:10.1509/jmkg.72.2.99

Stuart-Turner, R. (2018). *Print continues decline in latest magazine ABCs*. Retrieved from https://www.printweek.com/print-week/news/1163651/print-continues-decline-in-latest-magazine-abcs

Sundar, S. S., & Kim, J. (2005). Interactivity and persuasion: Influencing attitudes with information and involvement. *Journal of Interactive Advertising*, *5*(2), 5-18. doi:10.1080/15252019.2005.10722097

Sweney M. (2017). *Death of magazines 'overplayed' as titles bid to fight Facebook effect*. Retrieved from https://www.theguardian.com/media/2017/dec/25/death-magazines-overplayed-titles-fight-back-facebook

Voorveld, H. A. M., Neijens, P. C., & Smit, E. G. (2011). The relation between actual and perceived interactivity. *Journal of Advertising*, *40*(2), 77-92. doi:10.2753/JOA0091-336

Wiegman, P. & Punt, B. (2017). *Help, de advertentiemarkt holt (achter-) uit!* Retrieved from https://www.adformatie.nl/media/help-de-advertentiemarkt-holt-achter-uit

Wu, G. (2005). The mediating role of perceived interactivity in the effect of actual interactivity on attitude toward the website. *Journal of Interactive Advertising*, *5*(2), 29-39. doi:10.1080/15252019.2005.10722099

Xu, Q., & Sundar, S. S. (2014). Lights, camera, music, interaction! Interactive persuasion in e-commerce. *Communication Research*, *41*(2), 282-308. doi:10.1177/0093650212439062

Yang, F., & Shen, F. (2018). Effects of web interactivity: A meta-analysis. *Communication Research*, *45*(5), 635-658. doi:10.1177/0093650217700748