Nordic Journal of Media Management

Issue 1(2), 2020, DOI: 10.5278/njmm.2597-0445.4600

Research article

Towards a Video Consumer Leaning Spectrum: A Medium-Centric Approach

Sylvia Chan-Olmsted [1], Lisa-Charlotte Wolter [2] and Elisa Dorothee Adam [3*]

[1] Media Consumer Research, University of Florida, Florida, US. Email: chanolmsted@jou.ufl.edu
[2] Brand & Consumer Research, Hamburg Media School, Hamburg, Germany. Email: l.wolter@hamburgmediaschool.com
[3] Hochschule Hamm-Lippstadt, Hamm, Germany. Email: elisa.adam@stud.hshl.de (*Corresponding author)

Abstract:

Purpose: As TV and digital video converge, there is a need to compare advertising effectiveness, advertising receptivity, and video consumption drivers in this new context. Considering the emerging viewing practices and underlying theories, this study examines the feasibility of the traditional notion of differentiating between lean-back (LB) and lean-forward (LF) media, and proposes a revised approach of addressing video consumption processes and associated advertising effectiveness implications.

Methodology: An extensive, systematic literature review examines a total of 715 sources regarding current lean-back/lean-forward media research and alternative approaches as by (1) basic terminologies, (2) limitations of lean-back/lean-forward situations, (3) advertising effectiveness implications, (4) video-specific approaches.

Findings/Contribution: Key differences between lean-back and lean-forward video consumption are presented. A conceptual integration of video ad receptivity/effectiveness drivers is proposed to guide future media and marketing research and practice. Video consumption today is no longer lean-back or lean-forward, but a "leaning spectrum" with two dimensions: leaning direction and leaning degree. Designing video content today requires focusing on consumption drivers and platform synergies for owning the "leaning spectrum".

Keywords: Video Consumption; Media Platform Research; Advertising Effectiveness; Advertising Receptivity; Leaning Spectrum.

To Cite This Article: Chan-Olmsted, S., Wolter, L.-C., & Adam, E. D. (2020). Towards a Video Consumer Leaning Spectrum: A Medium-Centric Approach. *Nordic Journal of Media* Management, 1(2), page 129-185. DOI: 10.5278/njmm.2597-0445.4600

1. Introduction

The video landscape has been radically altered with a shift from linear, live TV to time-shifted and on-demand video (Abreu et al., 2017). Facing a proliferation of viewing options, there is increasing competition with regards to audience attention and marketing budgets (Köz & Atakan, 2018). Whilst streaming continues to rise, TV still dominates the video landscape – for broadcast TV and as a device for online TV (Nielsen, 2020). The advantage of TV as a "reach-oriented brand builder" will diminish as the TV audience ages and younger audiences shift their video consumption to digital (Bulgrin, 2019), which is accompanied by a shift of ad expenditures: In 2019, US ad expenditures for TV were four times higher than for online video (OV); by 2021, this lead will have flattened to being only three times higher (Zenith, 2019). Whilst confidence in TV remains to be high, marketers are still somewhat cautious about OV, possibly due to measurement issues of OV ad effectiveness (Bulgrin, 2019).

Hence, there is a great interest in comparing video platform effects. Given both within-media and cross-media synergies (Naik & Peters, 2009), it is vital to find and adjust the optimal media mix, for which TV and digital in combination may be the key ingredients (Snyder & Garcia-Garcia, 2016). To fine-tune this media mix, both video formats should be comparable with regards to ad effectiveness. Besides quantitative measures it is crucial to compare platforms for brand effects (Weibel et al., 2019) and to study antecedents such as platform attributes and perceptions (Köz & Atakan, 2018), platform choice determinants, and ad receptivity (Modenbach & Neumüller, 2020). Thus empirically, there is a need to reconcile a medium-centric and a consumer-centric perspective. There is also a need to revisit the existing assumptions associated with the traditional TV and OV viewing conditions.

Research reveals both similarities and differences for TV and OV ads (Köz & Atakan, 2018): Whilst both formats evoke positive emotions, thereby increasing memorability (Powers et al., 2012), TV may be more effective for brand credibility (Kicova et al., 2020), attitude (cognitive, emotional, conative) and attention (Weibel et al., 2019). Due to different receptive styles, attention is much more easily captured by TV than by online ads (Köz & Atakan, 2018). There are also inconclusive results. For recall and recognition, some studies find TV to be more effective (Roozen & Meulders, 2015), yet Weibel et al. (2019) show differences for implicit ad awareness. For quantitative measures (penetration, uplift, ROI), industry studies find TV to be more effective in the short-run (IAB, 2017; Modenbach & Neumüller, 2020). However, an academic longitudinal study finds OV ads to be highly effective and efficient, yet with quicker saturation (Shaikh et al., 2019).

In 2008, web usability consultant Jakob Nielsen coined the distinction between lean-back (LB) legacy media (print, TV) and lean-forward (LF) digital media to describe contemporary media usage (Deuze, 2016). This dichotomy is widespread in the media industry to study UX design and ad effects. For example, SevenOne Media found that the activation level with LF media was higher than with LB media for genre content, just opposite as found for video ads (Modenbach & Neumüller, 2020).

Yet today, established video usage patterns coexist with new ones (Cha, 2013), as viewers adapt their behaviors based on their needs and prolific options available, giving rise to cross-device usage and multiscreening (Neate et al., 2017). In a converging video landscape, traditional theories of media consumption and ad effectiveness may be insufficient. The LB/LF dichotomy may not capture the novel, more engaging and immersive viewing experience, which may be termed as "laid-back" (Jones et al., 2003) or "lean-in" mode (Vosmeer & Schouten, 2014). In other words, the whole notion of differentiating the LB/LF video consumption experience needs to be re-examined.

Therefore, this study will systematically review conceptual and empirical literature on video consumption and associated ad conditions to assess: (1) how LB and LF video consumption activities differ, (2) what the drivers for LB/LF differences are, (3) how ad effectiveness is explained in the video context, and (4) what the ad implications are from the proposed LB/LF notions.

2. Review of video consumption perspectives

To unearth the characteristics of video consumption holistically, we will first re-contextualize LB/LF in a nexus of theories and alternative approaches through an extensive review of relevant literature. Thereby, single theories are subsumed to general approaches and even broader perspectives. Figure 1 shows the visual classification of the various approaches. Overall, there are media universal approaches rooted in the pre-digital age. Some focus one single medium like TV (silo view), others are also applied to explain digital media usage (general view). Within the digital media sphere, some models take a silo view on one particular channel (e.g. website), others uphold a media dichotomy whilst more recent ones recognize media convergence.

From a consumer perspective, there are three ways to look at media usage. The first aspect is media selection as explained by theories of program choice. The second aspect focuses media/ad receptivity. The third aspect entails explicit media/ad effectiveness approaches. Notably, this directional categorization is not an absolute condition: models may equally explain medium choice, reception and effectiveness. Figure 1 situates the models in the domain that is most often discussed.

Unlike empirical models, the medium-centric LB/LF paradigm draws a distinction between LB legacy media and new LF media to describe media usage (Dewdney & Ride, 2013). Although the prevalent LB/LF distinction may aid UX design (Gurrin et al., 2010), the medium distinction primarily describes the characteristics of two media formats consumed in a certain receptive state. Thus, LB/LF orients toward a medium-centric model for both ad receptivity and ad effectiveness. Therefore, this study conceptualizes media usage along a passive-active continuum. Specifically, it depicts the overall scholastic perspectives on media usage by assuming video audiences as either passive, active or somewhere in between (Table 1). We will expand on each approach next.

2.1. Passive audience approach

First, scholars claiming audience passivity (Elliott, 1974) recognize consumers' passive channel switching (Goodhardt et al., 1987) or online users' passive interaction in a virtual setting (Gilroy et al., 2012). Empirically, the passive media research stream is concerned with context structures (Cooper, 1993) or message structures (Omar et al., 2016).

2.2. Active audience approach

Active audience scholars conceptualize audience activity as intentionality and selectivity – posited by uses & gratifications theory (UGT) (Blumler, 1979) or mood management theory (Zillmann, 2000) –, as mental constructivism (Fiske, 2010; Hess et al., 2005; Robert & Dennis, 2005), or as activism in the form of user agency (Van Dijck, 2009) or interactivity (Pavlou & Stewart, 2000).

2.3. Medium approach

The medium view encompasses functional cognitive models, which may focus on the individual yet with little emphasis on the activity level (Debue & Van de Leemput, 2014), and also approaches claiming coexistence of audience activity and passivity (Hearn, 1989; Pagani et al., 2011).

Table 1. Scholastic approaches to media consumption, receptivity and effects[1]

Passive audience	Active audience	Medium view
• **Audience passivity:** channel switching (Goodhardt et al., 1987); or passive web interaction (Gilroy et al., 2012)	• **Semiotic:** media interpreted as "text" in the consumer's mind (Cohen, 2002; Fiske, 2010)	• **Socio-cognitive:** individual motivations and social influences (Ajzen, 1991; Gandy, 1984; Zeithaml, 1988)
• **Message/ ad structures:** context (Chun et al., 2014), content, specifics, mechanisms of media messages/platforms (Omar et al., 2016; Köz & Atakan, 2018); complexity (Chun et al., 2014); S-O-R-notion (Tang et al., 2015)	• **Cognitive-constructivist:** media arousal (Zillmann, 1983), affect (Forgas, 2001), engagement (Hollebeek et al., 2016), involvement (Perse, 1990), immersion (Hess et al., 2005), flow (Csikszentmihalyi, 1990)	• **Cognitive:** cognitive load/ absorption (Debue & Van de Leemput, 2014); information-processing (Scholten, 1996), brain structures (Vecchiato et al., 2013); attention (Reeves et al., 1999); recall (Lang et al., 1999)
• **Media structures:** structural factors, e.g. availability, scheduling, cost, demographics (Cooper, 1993; McCarty & Shrum, 1993)	• **Economic (micro):** utilitarian view on media effects from a consumer perspective (Ducoffe, 1996; Bellman et al., 2012)	• **Person-centric:** media orientation (Hearn, 1989); dispositions (Preston & Claire, 1994), demographics (Cartocci et al., 2016)
• **Economic (macro):** utilitarian view on media from a creator perspective (Kaid, 2002; Sethuraman et al., 2011)	• **Socio-constructivist:** media perceptions formed by social context/experiences (Robert & Dennis, 2005)	• **Medium-centric:** media usage upon media characteristics (Köz & Atakan, 2018), LB/LF (Nielsen, 2008)
• **Media habits:** formation of habits/ repertoires (Gandy, 1984; Taneja et al., 2012; Silverstone & Haddon, 1996)	• **Motivation:** utilitarian/hedonistic motivation (Tamborini et al., 2010), mood optimization (Zillmann, 2000)	• **Media multitasking:** multi-device motivations (Lin, 2019), receptivity (Aagaard, 2015), effects (Segijn & Eisend, 2019)
• **Media adoption:** medium-centric view on media adoption (Davis, 1989)	• **Uses & gratifications:** motives and effects of media use (Katz et al., 1973; Rubin, 1981)	• **Media synergies:** cross-platform effects (Voorveld, 2011)
• **Generation effects:** media generation-dependency (Aroldi & Colombo, 2007: Bolin & Westlund, 2009)	• **User agency:** consumer's active role from a sociological or "prosumption" perspective (Van Dijck, 2009)	• **Contingency view:** audience activity as variable (Biocca, 1988); contingent UG models (Levy, 1983)
	• **Interactive:** consumer's interactive role from a psychological (Pavlou & Stewart, 2000) or UX perspective (Gurrin et al., 2010)	• **Integrative models:** integrated views, e.g. structural/ individualistic (Heeter, 1985), generation-/medium-centric (Westlund & Ghersetti, 2015)

2.3.1. User-centric approach

The *user-centric* perspective is concerned with active vs. passive audience orientation. Focusing the individual, UG theorists – despite their general "active audience" notion – distinguish instrumental vs. ritualized viewing needs, suggesting active vs. passive viewing types. Some scholars study dispositional (Preston & Claire, 1994) or psychographic/attitudinal viewer characteristics (Ferguson & Perse, 2000), both with media general (Hawkins et al., 2005) or digital focus (Pagani et al., 2011), including UG motives for YouTube usage (Khan, 2017; Xu, 2014). Other scholars attribute audience orientation to generation effects (Westlund & Weibull, 2013).

2.3.2. Medium-centric approach

The *medium-centric* view, capturing the LB/LF distinction, attributes user activity/passivity to the medium itself. First, there is the notion of an audience shift from passive to active (Jenkins, 2006).

[1] Note. Table 1 includes example references. For extended overview see appendix.

New technologies have enabled media users to be more selective and self-directed as consumers or as producers (Livingstone, 2013). Recognizing that TV and digital media coexist, some link passive media usage to TV and active instrumental usage to digital media (Papacharissi & Rubin, 2000).

There are also holistic views: integrative UG models (Webster & Wakshlag, 1983), socio-cognitive models comprising structural/social and individual elements (LaRose, 2010), or a model reconciling the generation-centric and medium-centric view (Ghersetti & Westlund, 2016). Some UG theorists claim audience activity variable (Blumler, 1979). The activity level may vary among viewers, also dependent upon the functionality of the medium in a given situation (Levy, 1983). The contingency view further claims a variable viewing mode (Biocca, 1988): different types of activity as a function of audience orientation and the stage of communication sequence (Levy, 1983). Steiner and Xu (2018) propose a viewer attentiveness spectrum in the context of binge-watching.

Hence, there are several alternative views for addressing today's video consumption behavior and its ad related impacts. With convergent media marked by synergies (Naik & Peters, 2009) and increasing user interactivity (Pavlou & Stewart, 2000), the dichotomous approach of LB/LF related explainers needs a re-examination, considering ad receptivity and effectiveness.

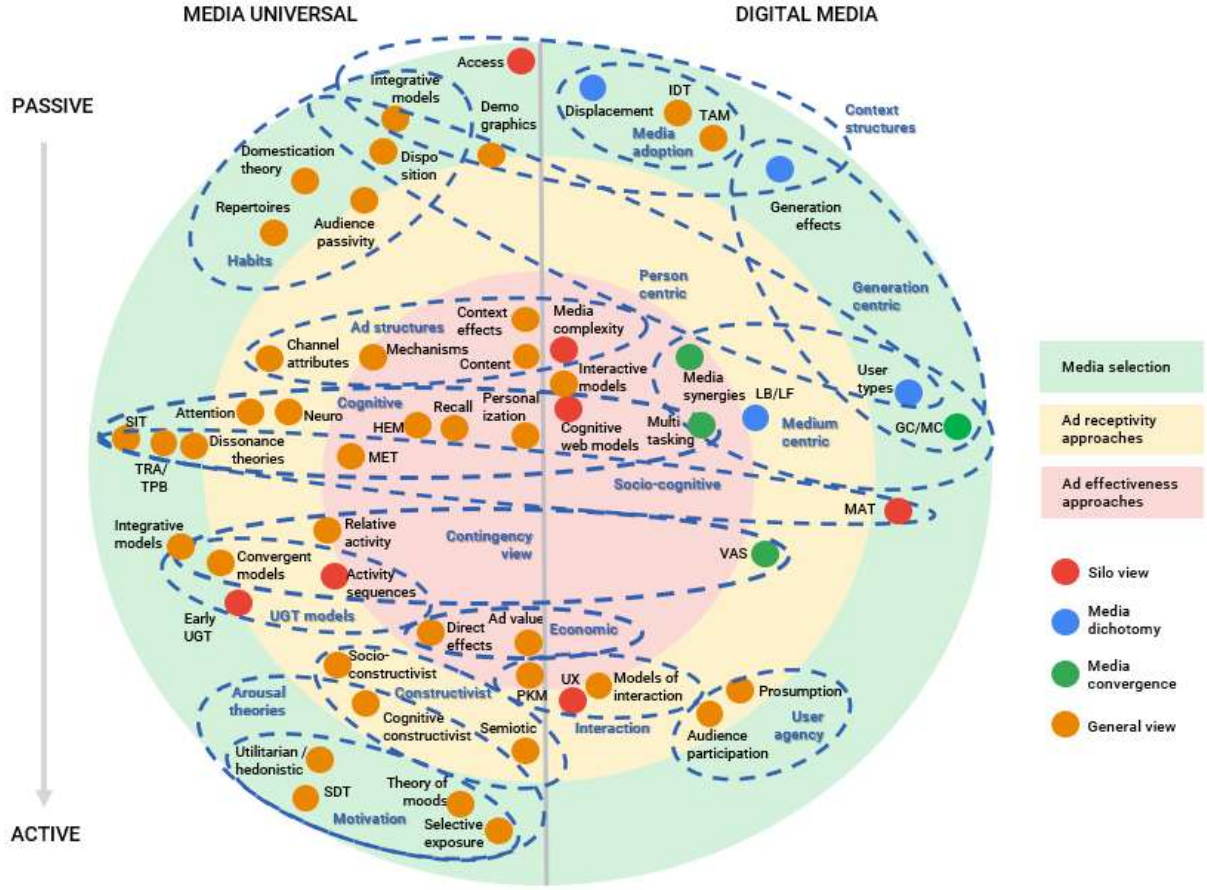

Figure 1. Classification of approaches to media selection, ad receptivity and ad effectiveness[2]

[2] *Abbreviations*. GC/MC (generation-centric/medium-centric); HEM (hierarchical effect models); LB/LF (lean-back/lean-forward); MAT (media attendance theory); MET (means-end theory); PKM (persuasion knowledge model); SDT (self-determination theory); SIT (self-identity theory); TAM (technology acceptance model); TPB (theory of planned behavior); TRA (theory of reasoned action); UGT (uses & gratifications theory); UX (user experience); VAS (viewer attentiveness spectrum)

3. Research method

To address the four research questions, we conducted an extensive, systematic literature review of academic literature (empirical studies, theoretical/conceptual papers) and non-academic sources, mainly from the fields of media/communication, marketing, advertising, psychology, media sociology and UX. The process started with pre-defining relevant themes further clustered in three main areas (general, media specific, ad specific) (Figure 4). Guided by these themes, a keyword analysis was conducted, considering both English and German literature. The consulted databases included Web of Science, PSYNDEX and Google Scholar. For scholarly work, the focus was on peer-reviewed articles.

The initial search phase generated a total of 655 sources, which were reviewed for duplicates and screened by abstract (academic) or by introduction (non-academic). Next, literature was restructured for theoretical integration: Sources were assigned to one (or in the case of integrative approaches to several) of the subcategories under "passive", "active" and "medium" approaches (Figure 4; Table 1). Except themes specified for video usage only, the collected literature covered media general perspectives. This allowed that for each theme there was a solid base for detailed review, yet those themes with a broad literature base were to be examined further. Hence, for each theme/pre-defined aspect, literature was screened for and prioritized by the topics of video, TV vs. OV comparison, ad effects and LB/LF (Figure 4).

From reviewed articles, secondary references were considered when applicable, resulting in a total of 715 sources from 223 journals and 33 conference papers, published between 1961 and 2020 (Figure 2). The variety of papers employing different quantitative (e.g. survey, experiment) and qualitative methods (e.g. interviews, theoretical/conceptual papers) (Figures 5) as well as additional non-academic literature allowed for synthesizing insights from different perspectives and to gain a holistic understanding of the topic. To address the four research questions, key aspects and drivers of LB/LF consumption, ad receptivity and ad effectiveness were identified. Specific relevant literature to each topic/question informed the corresponding discussion.

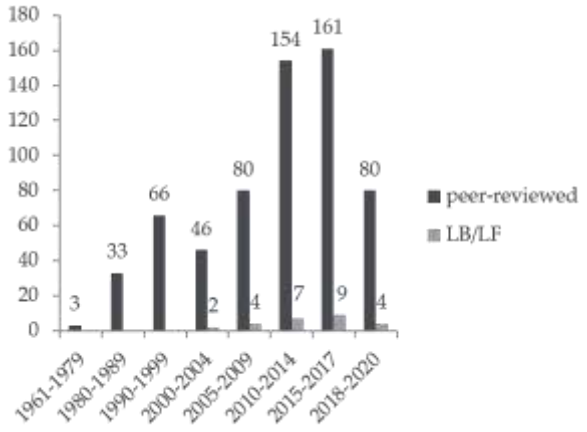

Figure 2. Peer-reviewed articles by year of publication

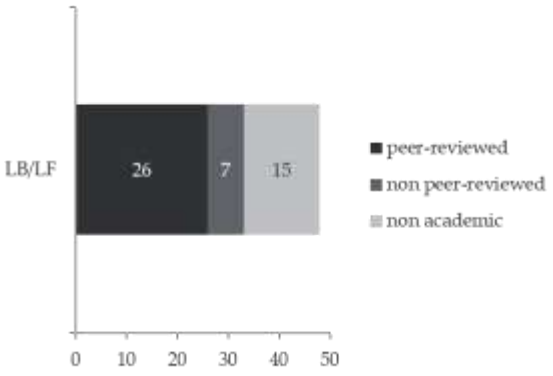

Figure 3. Literature mentioning LB/LF by source category

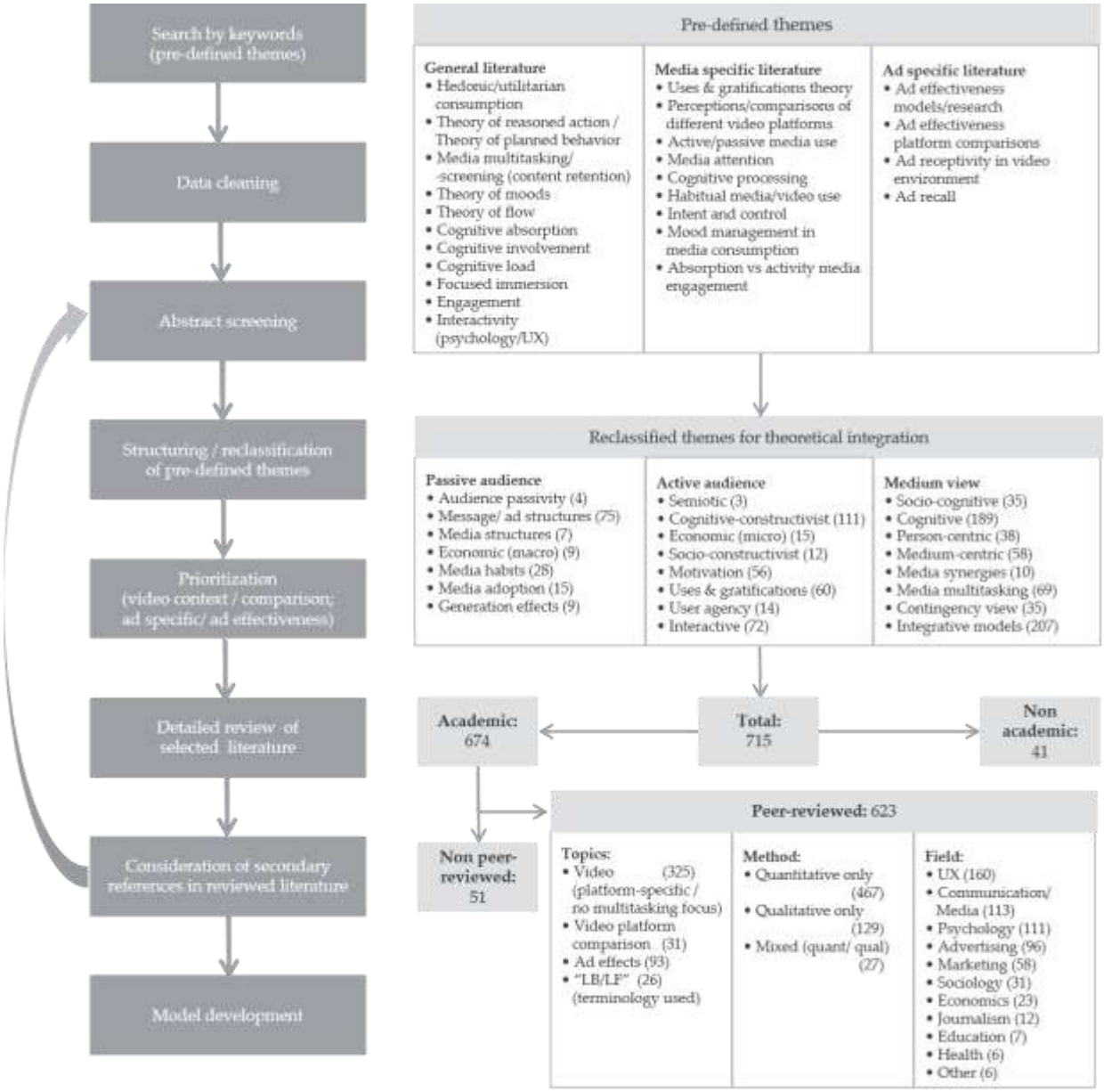

Figure 4. Process of systematic literature review

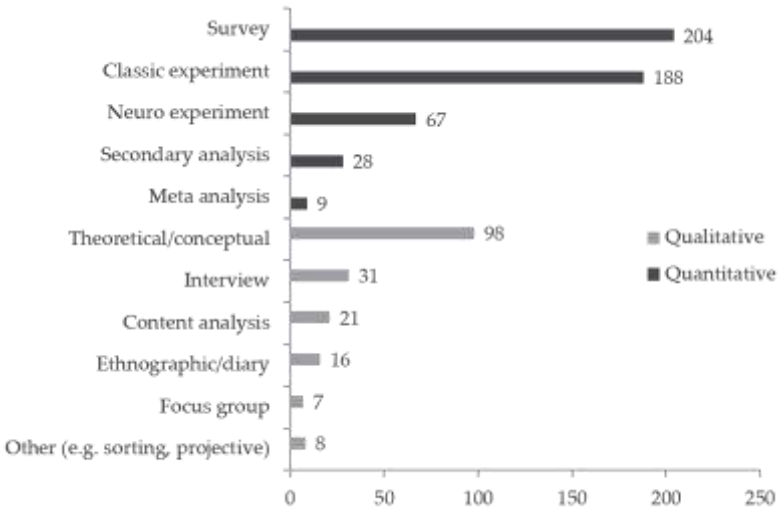

Figure 5. Reviewed literature by methods used

4. Results

4.1. Key differences between LB/LF

Overall, LB media are characterized by a passive consumption mode in a relaxing environment with limited engagement possibilities (Eide et al., 2016). In contrast, LF media is marked by a non-linear structure and interactivity/controllability (Schwan & Riempp, 2004), thereby requiring active decision-making and encouraging active viewer engagement (Eide et al., 2016). The short content format on mobile devices (Eide et al., 2016) means more active control of the information flow for LF media (Groot Kormelink & Costera Meijer, 2020).

The literature review shows that LB and LF video consumption generally varies in the following five aspects: attention (degree of absorption and activity); interaction (degree of active/passive control and engagement); timing (length of use); cognition (load and tempo); and emotion (affective state and intensity). We will elaborate on each aspect next.

4.1.1. Attention

First, LB and LF video consumption demand different levels and amounts of attention. Attention is defined as the amount of "conscious thinking" during ad processing (Heath, 2009). LF media are consumed in shorter time span (Taylor, 2019), often interrupted by switching activities (Cui et al., 2007). This LF scanning mode contrasts with LB consumption mode that comes with a longer attentional span (Eide et al., 2016), resulting in three possible attentional styles: intentional "focused" viewing of scheduled shows; "decompression" viewing for diversionary reasons (relaxing/time-passing); TV "ambient viewing" that enables multitasking (Phalen & Ducey, 2012). As attention levels fluctuate during video viewing (Lang, 1995), we need to differentiate attention amount from attention intensity. Whilst LB experiences might deliver higher attention amount over time, LF experiences might have higher attention intensity in shorter time span.

4.1.2. Interaction

LB and LF viewing styles yield different degrees of activity and control along a reactive-active spectrum of interaction. It is argued that viewers can be passive or active at different points (Rubin, 1984) and that audience activity varies by consumer, context, content (Costello & Moore, 2007) and by genre (Wilson, 2016). Rather than a shift from passive to active viewing (Jenkins, 2006), we find a technology-enabled shift from active consumption to interactivity (Astigarraga et al., 2016).

Interactivity is defined as "responsiveness", the degree to which the user can influence media form and content (Miller, 2011). Compared to passive LB media (Jones et al., 2003), LF media yield more interactive possibilities (Vosmeer & Schouten, 2014). New interactive devices (iTV) bring the LB and LF experience closer: More choice options come with the burden of finding said content, which contradicts the LB nature of TV (Mitchell et al., 2011). For the "active audience" (Oh & Sundar, 2015), interactivity is enjoyable, but it is also emotionally and cognitively demanding (Bowman et al., 2017). Notably, there is a trend towards integrating content management technologies into the LB environment (Gurrin et al., 2010). Overall, video consumption is rarely simply passive or active, but a degree of interaction between audience and content/platform. Technology advancement may gradually change the experience and expectation of interaction during video use, thereby diminishing LB/LF differences.

4.1.3. Timing

LB and LF video usage vary in length of consumption time. A comfortable LB setting enables a longer consumption period (Eide et al., 2016), whilst LF is linked to quicker, time-bound consumption (Hernandez & Rue, 2015). However, video recording and more recent downloading and streaming

technologies allow for fast-forward content, altering consumers' perception of control and time spent (Bury & Li, 2015; Schwan & Riempp, 2004). Notably, the amount of time spent on consuming certain media (TV or digital) in either LB or LF fashion does not reflect the varying degrees of attention and interest involved (Groot Kormelink & Costera Meijer, 2020).

Moreover, multi-device usage during TV ad exposure is altering time perception (Chinchanachokchai et al., 2015), thereby lessening the LB/LF differences (Lohmüller et al., 2019). With social media video/stories (Taylor, 2019), social media today can quite possibly be experienced as LB, making the time issue become more complex.

4.1.4. Cognition

LB/LF viewing styles differ in two cognitive factors: *cognitive involvement* (the intensity of cognitive activity devoted to an issue/activity) (Matthes, 2011) and *cognitive load* (the amount of cognitive resources required for task performance) (Hinds, 1999). Also, whilst instrumental motivation positively relates to elaboration, ritualistic viewing encourages distracting behaviors. With less required mental resources (LB), viewers are more able/likely to multitask (Sun et al., 2008).

For video design, intrinsic (i.e. perceived enjoyment) and extrinsic (i.e. perceived ease of use) motivators are crucial (Jung & Walden, 2015), the latter being particularly relevant to highly cognitive demanding LF media. Maximizing states of flow and minimizing cognitive load should be the goal (Gurrin et al., 2010). Well-designed content and interactivity can reduce overall cognitive load to facilitate information-processing (Schwan & Riempp, 2004). However, there are also moderating factors such as habitual/binge viewing, or multitasking propensity. Altogether, whilst LF-oriented platforms might generally require more cognitive load, good design could alleviate that deficit, making LB-LF differences less pronounced.

4.1.5. Emotion

There are two aspects of affect: emotions are more short-lived feelings (e.g. happy, sad, ecstatic) as an expressive reaction to external stimuli; moods are diffuse longer-lasting emotional states (either positive or negative) (Siemer, 2005). Due to different motivations, LB and LF video consumption might deliver different emotional states. Whilst relaxation might trigger positive "witness" emotions, more engaging LF experiences allow for "participatory" emotions which may be more intense and satisfying (see Oliver & Raney, 2011). Being present in both leaning orientations, literature is inconclusive regarding the intensity of such emotions in LB/LF contexts. Some suggest that LB leads to more positive emotions, yet it is equally possible that LF experiences are perceived more intense.

4.2. *Key LB/LF consumption drivers and associated theories*

The literature review identifies five key drivers of LB or LF video behaviors: physicality, ritualism, intent, content, and engagement (P.R.I.C.E.) (Figure 6). Each factor will be explained next drawing on constructs/frameworks that offer insights about the relationships between these factors and the video consumption behaviors.

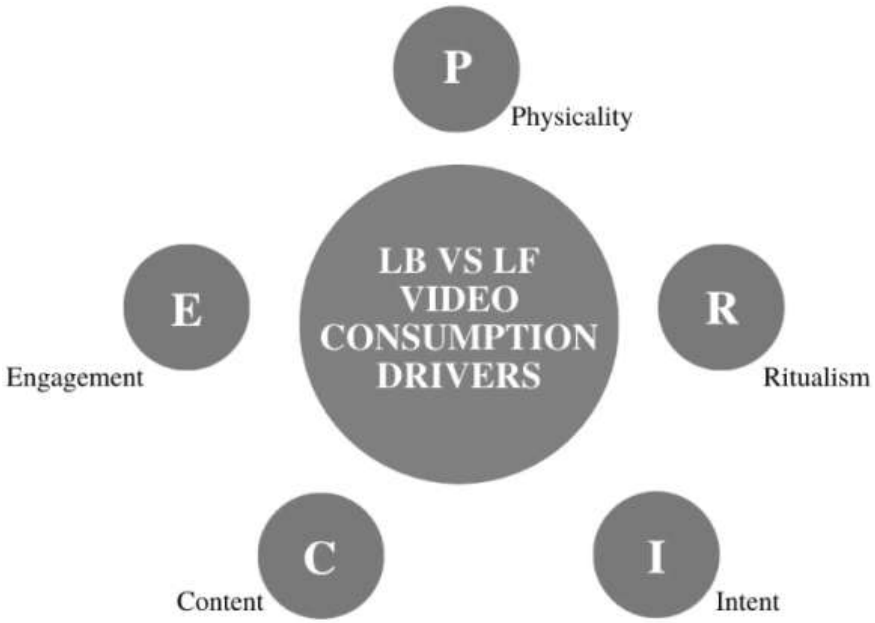

Figure 6. LB vs. LF video consumption drivers (P.R.I.C.E.)

4.2.1. Physicality

Literature shows that physical orientation and interaction with the platform/device, physical setting and interaction level, physical interface, and spatial distance may affect the leaning direction and degree. First, LB/LF differ in terms of body postures (Dewdney & Ride, 2013). LB physical postures are comfortable since LB is intended as passive consumption, often associated with certain places and appointment times; smartphone usage is often leisurely, snackable, unplanned, and in "stand-up" consumption mode (Hernandez & Rue, 2015).

In terms of posture and activity level, some define an intermediate viewing style as with the tablet (Eide et al., 2016). Notably, the physical consumption mode relates to a certain cognitive mode (Hernandez & Rue, 2015), formed by the physical demands of the medium/content enabling different degrees of physical control (Bowman et al., 2017): By manipulating controllers, viewers can develop mental models that associate their movements with on-screen actions, potentially decreasing the perceived physical demands.

Platform may determine the likely engagement level, in terms of spatial distance (Li et al., 2016) and screen size (Rigby et al., 2016). Whilst larger screens are favored for an immersive LB viewing experience (Rigby et al., 2016), this is also possible with mobile TV when placed in a cradle and wearing sound headphones (Cui et al., 2007). Usually, small mobile devices are used for watching short videos (Ley et al., 2013). Although smaller screens attract more focused viewing (Phalen & Ducey, 2012), they elicit less emotional and cognitive arousal (Reeves et al., 1999). This effect generally occurs regardless of content, yet it may be increased by highly arousing content (Reeves et al., 1999).

Overall, physical environment and sensory interactions dictate the LB/LF orientation/effects through certain mental modes. However, there might be generational differences as a higher degree of interactivity might become ritualistic for the younger generation of video users.

4.2.2. Ritualism

A viewer's preference for ritualized media use will impact LB/LF platform choice. Habitual consumption is a passive form of media usage that refers to stable usage patterns formed by social contexts (Wood et al., 2002). Habit formation is initially goal-driven, being consciously based on previous activities' outcome; once formed, habitual media usage occurs automatically (Ghersetti & Westlund, 2016). Theory of media attendance holds that people facing an abundant media choice will likely resort to viewing patterns rather than choosing new media requiring active thinking (LaRose & Eastin, 2004). Ritualized viewing is medium-oriented and associated with LB TV (Rubin, 1983), reducing the weight of intent and cognitive load. Yet, ritualized viewing continues to be different for younger video generations (Im et al., 2019).

4.2.3. Intent

Being essential for the LB/LF tendency, intentionality is associated with goals/gratifications sought from media consumption, as posited by UGT or mood management theory. Both frameworks offer useful insights on video consumption "intent" as discussed in the following.

4.2.3.1. Uses & gratifications theory

According to UGT (Katz et al., 1973), people select media upon certain needs or gratifications. There are two types of TV/video viewing (Phalen & Ducey, 2012): Ritualistic viewers are medium-oriented, watching video content on their favored screen available (TV), often for time consumption, relaxation, escape and entertainment. Instrumental, content-oriented viewers seek a specific content/genre regardless of medium, driven by non-escapist, information-seeking or learning motivations, thus being more actively engaged. Whilst online usage is said to be motivated by information-seeking and essentially goal-directed, TV in the form of channel surfing is "curiously unplanned" (Taylor & Harper, 2003).

UGT offers support for the assumption of TV as a passive LB medium. Content-driven users might see gratifications in using LF video sources with more options. Yet, this linkage could not be empirically confirmed as an absolute dichotomy (Astigarraga et al., 2016). Motives for TV and for internet are to some degree similar (Ferguson & Perse, 2000). Mobile video usage is often for unplanned time-filling, whilst the LB TV setting is also associated with "appointment viewing" (with others or with oneself) (Phalen & Ducey, 2012; see Hernandez & Rue, 2015). Particularly with media convergence, the media/user dichotomy may no longer be valid: YouTube video consumption is also found to be motivated by actual LB motivations, i.e. relaxation, entertainment and time-passing (Khan, 2017; Xu, 2014). Apparently, the Internet has become a more balanced medium to gratify both instrumental and ritualistic motives (Metzger & Flanagin, 2002).

4.2.3.2. Mood management theory

According to mood management theory (Knobloch-Westerwick, 2007), media selection (e.g. LB/LF) is motivated by affect optimization goals: Stressed individuals may lean towards soothing media stimuli; bored individuals may favor arousing content. In contrast, the mood-congruence approach posits that individuals select media reflecting their current mood (Greenwood, 2010). Here, selective-exposure theory (Zillmann, 2000) assumes that viewers will seek media aligned with their attitudes. As there is empirical support for both mood-congruence effects (Chen et al., 2007) and for mood management theory, it is possible that viewers in a bad mood may vary or combine their mood regulation strategies (Knobloch-Westerwick, 2007).

Applying mood management theory to video consumption suggests that: 1) video consumption can be used as a means for mood regulation, 2) there are inconsistent findings about what kind of content is chosen for mood adjustment (affect optimization vs. congruence), 3) there are gender differences in media usage for mood management, and 4) meaningfulness, besides hedonic motivators, might also play a role.

Intentionality, either motivated by gratifications or mood regulation, may drive video platform choice. Yet, it is too simplistic to associate certain gratifications or mood regulation strategies with only a LB or LF platform. Both types of intent can be present in both LB/LF media, albeit LF behavior may yield a higher degree of intentionality. The amount of attention paid to both types of content is the same, but the intensity of attention varies (Yao, 2018), potentially influencing further psychological and behavioral outcomes. Overall, intent is said to be more important than attention nowadays (Yao, 2018).

4.2.4. Content

The nature of video content directly affects an audience's cognitive load and intent/goal attainment. For example, sports have LF content but may be viewed on LB TV. One way to explain a viewer's leaning degree/direction during video usage is through the construct of *cognitive absorption*: the state of being consciously involved in an interaction with almost complete attentional focus (Oh et al., 2010). Specifically, in a state of *focused immersion*, all attentional resources are focused on a particular task, reducing the level of cognitive burden of task performance (Agarwal & Karahanna, 2000). Individuals are highly engaged so as to lack temporal and spatial awareness (Zha et al., 2018).

Oh and Sundar (2015) hold that medium-based interactivity may enhance cognitive absorption due to immersive entertainment, which enriches the UX and stimulates participatory emotions. Hsu and Lin (2017) note that media content needs to be built to fit users' needs in order for cognitive absorption and repeated use to occur. Overall, literature on "video content" as a driver of cognitive absorption suggests that: 1) a video content's ability to offer an immersive state would reduce cognitive load, 2) a video content's ability to heighten enjoyment could increase its consumption time, and 3) both sensory and cognitive aspects (e.g. control) contribute to cognitive absorption.

4.2.5. Engagement style/propensity

Within the interaction mechanism offered by different video platforms, an audience's engagement propensity might affect the degree in which they interact with the media. Scholars have negated the notion of an audience's orientation as a dichotomy between passive TV viewers and active internet users (Astigarraga, et al., 2016; Van Dijck, 2009). Rather, users may exert a specific behavior upon the context, thus make their selection upon the functionality of each medium in that particular situation (Costello & Moore, 2007). This suggests that the engagement style/propensity might influence one's LB/LF tendency. Engagement is defined as the amount of "subconscious feeling" during ad processing (Heath, 2009).

Consumers with high "activity" engagement style might lean toward LF video consumption, whereas those with "absorption" engagement style would prefer LB use. The engagement factor, along with differences in intent and content, have the potential to turn a typically LB video platform into a more LF experience. Furthermore, Will (2012) suggests that LF and LB are not "different media" per se, but different engagement styles which viewers will exhibit under certain conditions and cues. LF media are associated with high-activity engagement styles (i.e. frequent task-switching) and low sustained attention (Cui et al., 2007). LB media have a high-absorption engagement style, with concentrated and long-term sustained attention. Notably, such a typically LB high-absorption engagement style is also evident in binge-viewing behavior (Phalen & Ducey, 2012). Absorption and activity can be considered engagement style dimensions, each conceptualized as a continuum.

4.3. *Ad receptivity and ad effectiveness in the context of video consumption*

To understand the implications of ad effectiveness in the context of LB/LF video consumption re-examination, this section discusses the factors that are relevant to both ad receptivity and ad effectiveness, particularly in video consumption scenarios.

4.3.1. Ad receptivity

Ad receptivity is defined as "the extent to which consumers pay attention to and are favorably disposed and responsive to advertising" (Bailey et al., 2014). Receptivity has a direct link to attention (Ducoffe & Curlo, 2000) and viewer immersion (Buchanan, 2006). Therefore, it is crucial to determine when users will be more receptive towards ad content. Along with video consumption mindsets and motivations, ad receptivity shifts throughout the day (IAB, 2019). Overall, literature suggests six factors of video ad receptivity: mood, needs/goals/motivators, platform/device, interactivity, multitasking, and relevancy in terms of content, location, situation, and timing (Magna Global, 2019; IAB, 2019; Duff & Segijn, 2019).

4.3.2. Ad effectiveness

Ad responsivity is said to follow a hierarchical process (Scholten, 1996): cognitive, affective, and behavioral. Within the cognitive step, attention to and elaboration of ad content is influenced by characteristics of the ad, of the viewer, and of the situation (physical setting; characteristics of the medium and media/program context; number, sequence and placement of the ad) (De Pelsmacker et al., 2002).

A meta-analysis of literature on online ads (Liu-Thompkins, 2018) identifies positive ad effects, but also moderation effects by product category, customer segment, and ad format. It also notes the attention-deficit disadvantage of online ads (LF). For a virtual environment, there are generational differences regarding ad integration and interactivity. Brand interactivity may enhance memory and brand attitude, whilst integration of ads in online content may impair memory with no effect on brand attitude among heavy online users (Daems et al., 2019).

Overall, literature suggests four factors to impact the cognitive, affective and behavioral level: content, context, consumer, and product (Duff & Segijn, 2019). We will consider each factor as an essential driver of ad effectiveness/recall next.

4.3.2.1. Content

From the perspective of content, research shows that video format, congruency, certain emotional appeals, message elaboration, and creativity might play a role in the process. Li and Lo (2014) show that long ads drive recognition; mid-roll ads lead to better brand recognition than pre-roll and post-roll ads due to attention spillover; post-roll ads may enhance brand recognition in an incongruent context, yet the opposite holds true for mid-roll ads. Hence, different strategies should be employed for long-form vs. short-form video content. TV exposure may increase brand opinion and purchase intent, whilst mobile/digital drive unaided awareness (IAB, 2017). Users can be targeted with different ad purposes for LB/LF contexts to benefit from the prevalent user preferences and behavioral effects in each consumption style.

The mood congruency-accessibility hypothesis assumes that congruency between the evoked mood and the ad content ad may be conducive for ad processing, recall and brand/ad attitude. The effect is generally proven, yet with some boundary conditions. Congruence effects on recall are particularly strong for an involving program (see review Chun et al., 2014) due to carry-over effects

towards the ads (Arrazola et al., 2013). However, incongruent ad content may appear more original and generate higher recall through contrast effects (Arrazola et al., 2013; De Pelsmacker et al., 2002). Moreover, congruence effects may not accrue in an online environment, considering that ad integration has a negative effect on memory (Daems et al., 2019). The congruency effect shows also generational differences, as ad recall is higher for older audiences in a congruent context and for younger people in a contrast context (De Pelsmacker et al., 2002). Finally, with second-screen usage during TV consumption, congruency effects might be less substantial.

Furthermore, effective emotional appeals tend to generate high arousal and feature more complex emotions like humor (Campbell et al., 2017). It is found that humor may influence message recall, possibly because the persuasive power is higher for humorous messages than for serious content, mediated by processes such as the reduction of counter-argumentation or social presence (Zhang & Zinkhan, 1991). Yet, humor distracts attention from context information, which manifests in impaired explicit memory (recognition) whilst implicit memory remains unaffected, thus humor might well increase brand evaluations or purchase intentions (Strick et al., 2009).

Lord and Burnkrant (1993) propose that TV viewing processing is impacted by a "triad of viewer involvement": program involvement, viewer involvement in the ad, and the ad's inherent attention-engaging capacity. The more a consumer is engaged/interacts with a message, the higher the processing level. This might contribute to higher brand recognition (Hang, 2016). Moreover, ad-context congruence may encourage message elaboration due to priming effects (Stipp, 2018).

Finally, a previous review on ad creativity by Lehnert et al. (2013) finds positive effects on ad receptivity for attention, processing motivation and intensity, and positive outcomes on recall, recognition, ad attitudes, product evaluation, or emotional reactions. Mixed results are found for brand attitudes and purchase intention. The authors themselves provide further empirical findings: Whilst creative ads exhibit higher recall, repeated exposures may reduce this advantage. The novelty in the ad can enhance encoding and create a distinctive memory trace for easier recall. However, creativity has less influence on long-term recall. Additionally, attention-getting elements enhance brand recognition and recall, yet they are more intrusive and annoying (Goldstein et al., 2014).

4.3.2.2. Context

Various contextual factors might also affect the outcome of advertising during video consumption. For example, co-viewing is found to reduce ad effectiveness (Bellman et al., 2012): The "mere presence" effect may distract each co-viewer's attention from the screen. The social presence creates extra demands on limited cognitive resources that might otherwise be used for ad encoding and storage. However, conversing about an ad may aid processing and recall.

Mood can also be a driver of ad receptivity and recall (De Pelsmacker et al., 2002): According to the feelings-as-information theory, people in a positive mood tend to avoid all stimuli that may alter their mood. This lower attention to mood-incongruent ads for a positive context will lead to less ad recall. The opposite effect is found for negative or neutral moods.

Besides the level of emotions, viewers are influenced by the dynamic variation of emotions in an ad (Teixeira et al., 2012). Pavelchak et al. (1988) show that recall is negatively related to emotional intensity and highest in neutral mood, and that unpleasant feelings decrease motivation. Yet, highly arousing content (i.e. sports) may shift attention to content and away from ads.

4.3.2.3. Consumer

There might be individual differences in how viewers react to ads. For instance, audience propensity to ad-skipping and channel-zapping may reduce ad effectiveness (Bellman et al., 2012). Zapping may be affected by perceived negativity of the ad, value of the ad, media usage, and demographics (Chan-Olmsted et al., 2019). Ad avoidance is also likely induced externally by interstitial in-stream ads that evoke an experiential flow, which leads to low recall (Clark et al., 2018). Ad processing in such highly immersive settings is more complicated due to limited cognitive capacity (Roettl & Terlutter, 2018): The more attentional capacity is needed for the media activity, the less capacity will be left for ad processing. Cognitive capacity may also vary among individuals. In contrast, it has been argued that multitasking may prevent viewers from switching during commercial breaks, and that while another device keeps them engaged, viewers might still be able to pay attention to peripheral ad cues (Duff & Segijn, 2019).

4.3.2.4. Product

Product category involvement might mediate ad receptivity/effectiveness (De Pelsmacker et al., 2002). That is, the level of involvement influences processing motivation centrally or peripherally, which will yield different ad recall levels for highly involved (contrast effect) vs. lowly involved viewers (congruent contexts facilitate ad processing). It has been found that high personal relevance (i.e. involvement) leads to voluntary selection of the ad, whilst little personal relevance would have to be encountered by employing attention-getting devices (Lord & Burnkrant, 1993). Whilst highly arousing content (i.e. sports) may shift attention to content and away from ads, it has been argued that ads placed in a sports program could trigger immediate search when the advertised product fits viewer needs (e.g. pizza delivery) (Duff & Segijn, 2019).

4.4. *An integrated video consumption spectrum and its ad effectiveness implications*

Literature holds that ad effectiveness is affected by mood, attention, ad receptivity (general/contextual), content (cognition/absorption), interaction, and physical environment (platform/device/co-viewing). To better capture the whole ecosystem, it is along these six basic ad effectiveness drivers and their interactions that LB/LF video consumption needs to be examined.

4.4.1. Mood

In both video consumption experiences, mood and emotion play a role regarding ad awareness effects. Strong brand/ad attitude and recall can be achieved through engaging ads (Wang, 2006) – here, LB behavior will more likely leverage absorption engagement. Generally, intense video-evoked emotions are not conducive for ad effectiveness. Only negative emotions, albeit eliciting less attention (due to avoidance tendencies), may generate higher recall (Reeves et al., 1991). Whilst mood might help viewers be more receptive, it might not enhance recall – content and context would carry the weight for ad effectiveness.

4.4.2. Intent

Intent affects all aspects that differentiate LB from LF consumption: attention, interaction, time, cognition, and emotion. Here, LF media haven often been studied with respect to sharing intention, which may be influenced by the perception of locus of control, usefulness, ease of use, altruism and attitudes towards video content (Yang & Wang, 2015). More generally, cognitive processing is a matter of individual cognitive load, being related to viewing intention, content and context. To achieve high recall, content and context need to be matched with viewer intent. Ad effectiveness is not simply a

question of cognitive load as by platform, but depends on the interactions between intent, content, and context (Duff & Segijn, 2019).

4.4.3. Attention

Attention is the first gate to cross for ad effectiveness, whereby context is an important factor (Hawkins et al., 2005). LB-style ads, embedded in an immersive movie context, are mostly viewed entirely (Hemdev, 2018). There is consensus that the narrative, cognitively absorbing TV format garners longer attention spans, whilst OV formats are built for shorter attention spans and higher cognitive activity. Here, we propose differentiating attention amount from attention intensity. Despite longer attention spans for TV, there is also unfocused "ambient" viewing (Phalen & Ducey, 2012). Besides, there might be less a need for attention with high immersion (as immersion reduces attentional demand). For TV, recall is higher than attention (Lang et al., 1999), as memorization is more easily rendered when immersion reduces cognitive load. In contrast, immersion is found to impair brand recall for OV ads (Van Langenberghe & Calderon, 2017). Here, information-processing might be slowed by the enjoyment (Nelson et al., 2004), which might be more intense due to a higher activation and absorption level in OV viewing mode. Although attention is the key to enter the cognitive space, attention along with engagement do not necessarily lead to memory (Rossiter et al., 2001). Ad effectiveness may be more affected by the immersive power of the video or the sensory, cognitive absorption (e.g. control and interaction) enabled by the ad.

4.4.4. Interaction

Interactivity, control, and engagement are relevant dimensions of OV experiences. Controllability like allowing viewers to actively click on the ad enhances viewing time and recall (Clark et al., 2018). However, interaction may lead to less cognitive absorption, thus being less conducive for ad effectiveness. There are two issues here regarding ad effectiveness. First, the assessment of effectiveness depends on the metrics. An active audience might offer more holistic brand benefits than simply recall (Pavlou & Stewart, 2000). Most studies on LF-oriented ad effectiveness focus short-term effects like recall (Cauberghe & De Pelsmacker, 2010; Van Langenberghe & Calderon, 2017). However, carryover and long-term ad effects also need to be assessed (Sethuraman et al., 2011). Besides, factors like ease of use, UX, and flow might lessen the cognitive load of active decisions and control. This may change over time as younger media consumers are conditioned to multitask and to engage with content/platform, gradually reducing LB/LF differences.

4.4.5. Physicality

Physicality matters in two ways: spatial relationship and interaction efforts. LF video consumption tends to have more intimate spatial relationship with the content but higher level of interaction efforts. Future research on the spatial issue of ad effectiveness should consider content and product type. Regarding interaction effort, ad interactivity can be divided into structural and experiential dimensions (Liu & Shrum, 2002). The structural aspect addresses the physical interaction and the cognitive efforts of the interaction. The experiential aspect concerns the UX of physical interaction, also considering engagement propensity to affect ad effectiveness (Liu & Shrum, 2002). No significant linkage between LB/LF video consumption and ad effectiveness regarding physicality is identified. The key is the design of physical device, space, and interface.

4.4.6. Content

Content affects people's goal/intent attainment of the LB/LF video experience and contributes to ad effectiveness in two aspects: cognitive processing and mood/emotion. However, there is no clear evidence on which consumption style works best. Examining ad content from the perspectives of

attention-getting strategies, engagement tactics, and creative cross-ad coordination, LF-oriented platforms may offer more flexibility. As emotional appeals can enhance ad effectiveness, it is vital how the ad video content arouse (variation of) emotions. Again, literature does not suggest that either LB or LF video experience delivers a superior environment for emotion arousals or variation.

Research suggests that consumers are less tolerant of intrusion in an online environment (Logan, 2013), given mental avoidance and a reluctance to engage (Rejón-Guardia & Martínez-López, 2013). Hence, a LF video environment faces more content challenges. Next, there are positive synergistic effects of cross-media strategies (Khajeheian & Ebrahimi, 2020; Snyder & García-García, 2016; Voorveld, 2011). Finally, ad congruity reduces perceived ad intrusiveness given interactive video experiences (Daems et al., 2019).

4.4.7. Context

Regarding ad-context congruence, early studies find congruent ads superior to incongruent ads; recent ones show nuanced effects for interactions with arousal and goal relevance (Van't Riet et al., 2016). Contextual program involvement may positively impact memory and attitudes (Tavassoli et al., 1995). Context is becoming more complex with the fragmentation of devices and content options (Liu-Thompkins, 2018). Co-viewing and multitasking impact ad receptivity, especially in LB situations. Hence, examining LB/LF differences is less important than examining how contextual factors affect ad effectiveness, and how different platforms, with their engagement and context propensity, may maximize synergistic effects.

5. Discussion

5.1 Theoretical implications

This study aims to explore the traditional assumptions between LB and LF video media and ad effectiveness implications. With converging video media platforms, changing video use behavior, and increasing interactivity, the literature reviewed shows potential alternative views in addressing today's video consumption and its ad related impacts. In particular, the current study systematically reviews conceptual and empirical literature on video media consumption and associated ad conditions to investigate: (1) how LB and LF video consumption activities differ, (2) what the drivers for LB/LF differences are, (3) how ad effectiveness is explained in the video use context, and (4) what the ad implications are from the proposed LB/LF notions.

Five major differences between LB and LF video consumption styles are identified: attention, interaction, timing, cognition, emotion. Notably, these differences might be generational, becoming less pronounced as interactivity develops through multiplatform usage/experience and technological advances.

Our analysis suggests that video consumption is not simply passive or active, but a degree of interaction between audience and content/platform. The differences between LB and LF video usage are increasingly blurry as video/platform technologies continue to advance and consumers adapt their behaviors. As living rooms are being transformed into digital media hubs with multiple screens and easy-to-navigate interfaces, there will be different shades of LB/LF behaviors depending on the mode of attention and interaction. The use of mobile platforms further complicates the process as a dichotomous condition. Devices may be LB and LF at the same time, allowing for shifting modes during consumption (Eide et al., 2016). Video consumption is no longer passive or active, but a "leaning spectrum".

Regarding ad effectiveness, attentional style is crucial. However, there is no linear relationship between attention and memory (Rossiter et al., 2001). There has been evermore literature on the importance of intent vs. attention and proposing better ad effectiveness measures than attention-based metrics (Duff & Segijn, 2019). Rather than attention, intent seems to be crucial to influence the leaning direction; physicality, content, ritualism, and engagement propensity may affect the leaning degree. On the other hand, ad receptivity is not constant but affected by demographics, moods, contextual relevance, mindsets, and motivations (Magna Global, 2019; IAB, 2019; Taylor et al., 2011). Ad effectiveness is affected by attention, mood, ad receptivity, physicality, content/absorption, and interaction (Duff & Segijn, 2019). Well-designed video content and interactive UX can reduce cognitive load, facilitating information-processing. Context is the all-encompassing crucial factor.

This research contributes to the discourse on video platform comparison based on LB/LF and related approaches. From an extensive interdisciplinary overview, a new integrative conceptual framework appropriate for video platform management is proposed. The assumed LB and LF dichotomy should be moving toward a leaning spectrum affected by intent, experience, and context. In addition to existing contingent models, it is of theoretical importance to recognize such interdependencies and to build and empirically test models integrating all four factors. The literature review indicates that more research is needed on the issue of emotions differentiated by user intention and intensity during video consumption. Research should also address whether and under which conditions interactivity leads to deeper or rather shallow processing (Oh & Sundar, 2015). A meta-analytic investigation could be a fruitful avenue.

In terms of limitations, to obtain a broad topical overview, this study encompasses academic literature and nonacademic practical sources due to the high relevance of LB/LF in media practice. Academically, this may raise some quality concerns in conceptual elaboration and empirical rigor.

5.2 Practical implications

Whilst there are already some fluid theoretical conceptualizations of viewing behaviour (Steiner & Xu, 2018), the LB/LF dichotomy is still widespread within UX literature. Practitioners designing viewing content or technologies must note that a clear distinction might not be realistic. For ad effectiveness, in the digital video era marked by cross-platform fluidity and message fragmentation, it is less meaningful to compare between LB and LF consumption styles. On a macro-level, it has been argued that too many marketers focus on (absolute) brand awareness measures instead of (relative) relationship measures (Esch et al., 2006). Therefore, neither is it valuable to emphasize a metric like recall, as focused in many LB/LF-related ad studies. Notably, there is no significant positive or negative linkage between LB/LF video consumption and ad effectiveness.

For an ad to be effective, it needs to enter information-processing through the gate of "sense of presence" and "attention". Firstly, exposure is not attention, which varies in amount and intensity. In terms of presence or exposure in a TV setting, most models neglect that lower cognitive load is conducive to distraction (multitasking). The challenge is to achieve active viewability in a multiscreen environment (Segijn, 2017). Therefore, marketers need to consider new viewer expectations for device- and context-specific ad experiences. LB-style spots will not work on LF media which can rather benefit from capabilities such as interactivity or precise targeting to enhance ad relevance and engagement. Here, social TV is a new format that unites former LB and LF watching styles through experiential engagement (Pagani & Mirabello, 2011). Stated negative effects on ad effectiveness by social TV (just as with coviewing) (Bellman et al., 2017) might be outweighed by optimized integration of interactive features to enhance viewer experience (Pynta et al., 2014). Moreover, internet-enabled devices allow for emotional-targeted advertising (algorithm-driven targeting advertising as by users' emotions), being an unexplored academic field, but potentially an effective strategy to match content and creative

elements with consumer. Overall, there are greater design and content challenges for the LF-style due to the inherent cognitive load and ad avoidance tendency.

For marketers to see how particular platforms contribute to their marketing objectives, it is vital to understand contextual factors such as media multitasking and the interaction of intent, mood/emotion, and other fundamental video consumption drivers. The key is to see how single platforms contribute to the long-term brand benefits synergistically. The point should be about owning the "leaning spectrum", by creating/marketing content and context to cover the range of needs by contexts and consumer segments.

References[3]

*Aagaard, J. (2015). Media multitasking, attention, and distraction: A critical discussion. *Phenomenology and the Cognitive Sciences*, *14*(4), 885-896. Doi: 10.1007/s11097-014-9375-x

Abreu, J., Nogueira, J., Becker, V., & Cardoso, B. (2017). Survey of catch-up TV and other time-shift services: A comprehensive analysis and taxonomy of linear and nonlinear television. *Telecommunication Systems*, *64*(1), 57-74. Doi: 10.1007/s11235-016-0157-3

Agarwal, R., & Karahanna, E. (2000). Time flies when you're having fun: Cognitive absorption and beliefs about information technology usage. *MIS Quarterly*, *24*(4), 665-694. Doi: 10.2307/3250951

*Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179-211.

*Aroldi, P., & Colombo, F. (2007). Generational belonging and mediascape in Europe. *Journal of Social Science Education, 6*(1), 34-44. Retrieved from https://tinyurl.com/veas2re

Arrazola, M., de Hevia, J., Reinares, P., & Reinares Lara, R. (2013). Do new forms of television advertising occasion better recall than traditional advertising spots? *International Journal of Advertising*, *32*(2), 281-300. Doi: 10.2501/ija-32-2-281-300

Astigarraga Agirre, I., Pavon Arrizabalaga, A., & Zuberogoitia Espilla, A. (2016). Active audience? Interaction of young people with television and online video content. *Communication & Society, 29*(3), 133-147. Retrieved from https://dadun.unav.edu/handle/10171/41801

Bailey, A. A., Mishra, A., & Tiamiyu, M. F. (2016). Green advertising receptivity: An initial scale development process. *Journal of Marketing Communications*, 22(3), 327-345. Doi: 10.1080/13527266.2014.904812

Bellman, S., Robinson, J. A., Wooley, B., & Varan, D. (2017). The effects of social TV on television advertising effectiveness. *Journal of Marketing Communications, 23*(1), 73-91.

Bellman, S., Rossiter, J. R., Schweda, A., & Varan, D. (2012). How coviewing reduces the effectiveness of TV advertising. *Journal of Marketing Communications, 18*(5), 363-378. Doi: 10.1080/13527266.2010.531750

Biocca, F. (1988). Opposing conceptions of the audience: The active and passive hemispheres of mass communication theory. *Annals of the International Communication Association*, *11*(1), 51-80. Doi: 10.1080/23808985.1988.11678679

[3] If not quoted in the text, example references from Table 1 are marked with *.

Blumler, J. G. (1979). The role of theory in uses and gratifications studies. *Communication Research*, *6*(1), 9-36. Doi: 10.1177/009365027900600102

*Bolin, G., & Westlund, O. (2008). Mobile generations: The role of mobile technology in the shaping of Swedish media generations. *International Journal of Communication*, *3*, 17. Retrieved from http://ijoc.org/index.php/ijoc/article/view/440

Bowman, N. D., Wasserman, J., & Banks, J. (2017). *The video game demand scale: Developing a metric to assess the cognitive, emotional, physical, and social demands of video game play*. May, International Communication Association.

Buchanan, K. (2006). *Beyond attention-getters: Designing for deep engagement* (Doctoral dissertation, Michigan State University. Department of Counseling, Educational Psychology & Special Education).

Bulgrin, A. (2019). Why knowledge gaps in measurement threaten the value of television advertising: The best available screen for brand building is at a crossroads. *Journal of Advertising Research*, *59*(1), 9-13. Doi: 10.2501/jar-2019-008

Bury, R., & Li, J. (2015). Is it live or is it timeshifted, streamed or downloaded? Watching television in the era of multiple screens. *New Media & Society*, *17*(4), 592-610. Doi: 10.1177/1461444813508368

Campbell, C., Mattison Thompson, F., Grimm, P. E., & Robson, K. (2017). Understanding why consumers don't skip pre-roll video ads. Journal of Advertising, 46(3), 411–423. Doi: 10.1080/00913367.2017.1334249

*Cartocci, G., Cherubino, P., Rossi, D., Modica, E., Maglione, A. G., Di Flumeri, G., & Babiloni, F. (2016). Gender and age related effects while watching TV advertisements: An EEG study. *Computational Intelligence and Neuroscience, 2016*. Doi: 10.1155/2016/3795325

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. Doi: 10.1016/j.intmar.2010.07.003

Cha, J. (2013). Predictors of television and online video platform use: A coexistence model of old and new video platforms. *Telematics and Informatics, 30*(4), 296-310. Doi: 10.1016/j.tele.2013.01.001

Chan-Olmsted, S. M., Chung, Y., Lan, X., & Wolter, L. C. (2019). *Ad avoidance predictors: An ad blocker user perspective*. Paper presented at 2019 American Academy of Advertising annual conference, March, Dallas.

Chen, L., Zhou, S., & Bryant, J. (2007). Temporal changes in mood repair through music consumption: Effects of mood, mood salience, and individual differences. *Media Psychology*, *9*, 695-713. Doi: 10.1080/15213260701283293

Chinchanachokchai, S., Duff, B. R., & Sar, S. (2015). The effect of multitasking on time perception, enjoyment, and ad evaluation. *Computers in Human Behavior*, *45*, 185-191. Doi: 10.1016/j.chb.2014.11.087

Chun, Y. K., Song, H. J., Hollenbeck, C. R., & Lee, J.-H. (2014). Are contextual advertisements effective? *International Journal of Advertising, 33*(2), 351-371. Doi: 10.2501/IJA-33-2-351-371

Clark, K. R., Leslie, K. R., Garcia-Garcia, M., & Tullman, M. L. (2018). How advertisers can keep mobile users engaged and reduce video-ad blocking: Best practices for video-ad placement and delivery based on consumer neuroscience measures. *Journal of Advertising Research*, *58*(3), 311-325. Doi: 10.2501/JAR-2018-036

*Cohen, J. (2002). Deconstructing ally: Explaining viewers' interpretations of popular television. *Media Psychology*, *4*(3), 253-277. Doi: 10.1207/S1532785XMEP0403_03

Cooper, R. (1993). An expanded, integrated model for determining audience exposure to television. *Journal of Broadcasting & Electronic Media, 37*(4), 401-418. Doi: 10.1080/08838159309364232

Costello, V., & Moore, B. (2007). Cultural outlaws: An examination of audience activity and online television fandom. *Television & New Media, 8*(2), 124-143. Doi: 10.1177/1527476406299112

Cui, Y., Chipchase, J., & Jung, Y. (2007). Personal TV: A qualitative study of mobile TV users. In *European Conference on Interactive Television* (pp. 195-204), May. Springer. Doi: 10.1007/978-3-540-72559-6_21

Daems, K., De Pelsmacker, P., & Moons, I. (2019). The effect of ad integration and interactivity on young teenagers' memory, brand attitude and personal data sharing. *Computers in Human Behavior*, *99*, 245-259. Doi: 10.1016/j.chb.2019.05.031

*Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319-340. Doi: 10.2307/249008

De Pelsmacker, P., Geuens, M., & Anckaert, P. (2002). Media context and advertising effectiveness: The role of context appreciation and context/ad similarity. *Journal of Advertising*, *31(2)*, 49-61. Doi: 10.1080/00913367.2002.10673666

Debue, N., & Van de Leemput, C. (2014). What does germane load mean? An empirical contribution to the cognitive load theory. *Frontiers in Psychology*, *5*, 1099. Doi: 10.3389/fpsyg.2014.01099

Deuze, M. (2016). Living in media and the future of advertising. *Journal of Advertising, 45(3)*, 326-333. Doi: 10.1080/00913367.2016.1185983

Dewdney, A., & Ride, P. (2013). *The digital media handbook*. Routledge.

*Ducoffe, R. H. (1996). Advertising value and advertising on the web-Blog@ management. *Journal of Advertising Research*, *36*(5), 21-32. Retrieved from https://tinyurl.com/wretu8z

Eide, M., Sjøvaag, H., & Larsen, L. O. (2016). Journalism re-examined: Digital challenges and professional reorientations – Lessons from Northern Europe. *Intellect*, 2016.

Elliott, P. (1974). Uses and gratifications research: A critique and a sociological alternative. In J. G. Blumler, & E. Katz (Eds.), *The uses of mass communications: Current perspectives on gratifications research*, *3*, (pp. 249-268). Sage.

Esch, F. R., Langner, T., Schmitt, B. H., & Geus, P. (2006). Are brands forever? How brand knowledge and relationships affect current and future purchases. *Journal of Product & Brand Management*, 15(2), 98-105. Doi: 10.1108/10610420610658938

Ferguson, D. A., & Perse, E. M. (2000). The world wide web as a functional alternative to television. *Journal of Broadcasting and Electronic Media, 44*(2), 155-74. Doi: 10.1207/s15506878jobem4402_1

Fiske, J. (2010). *Television culture*. Routledge.

Forgas, J. P. (2001). The affect infusion model (AIM): An integrative theory of mood effects on cognition and judgments. In L. L. Martin, & G. L. Clare (Eds.) (2013), *Theories of mood and cognition: A user's guidebook* (pp. 49-65). Retrieved from https://psycnet.apa.org/record/2001-16267-005

Gandy, O. (1984). Is that all there is to love? Values and program preference. In S. Thomas (Ed.), *Studies in communication and technology* (pp. 207-219). Ablex.

Ghersetti, M., & Westlund, O. (2016). Habits and generational media use. *Journalism Studies, 19*(7), 1039-1058. Doi: 10.1080/1461670X.2016.1254061

Gilroy, S., Porteous, J., Charles, F., & Cavazza, M. (2012). Exploring passive user interaction for adaptive narratives. In *Proceedings of the 2012 ACM international conference on Intelligent User Interfaces* (pp. 119-128), February. Retrieved from https://tinyurl.com/r3cg7tx

Goldstein, D. G. et al. (2014). The economic and cognitive costs of annoying display advertisements. *Journal of Marketing Research, 51*, 742-752. Doi: 10.1509/jmr.13.0439

Goodhardt, C. J., Ehrenberg, A. S. C., & Collins, M. A. (1987). T*he television audience: Patterns of viewing* (2nd ed.). Gower.

Greenwood, D. (2010). Of sad men and dark comedies: Mood and gender effects on entertainment media preferences. *Mass Communication and Society, 13*(3), 232-49. Doi: 10.1080/15205430903186526

Groot Kormelink, T., & Costera Meijer, I. (2020). A user perspective on time spent: Temporal experiences of everyday news use. *Journalism Studies*, *21*(2), 271-286. Doi: 10.1080/1461670X.2019.1639538

Gurrin, C., Lee, H., Caprani, N., Zhang, Z., O'connor, N., & Carthy, D. (2010). Browsing large personal multimedia archives in a lean-back environment. In *International Conference on Multimedia Modeling* (pp. 98-109). Springer. Doi: 10.1007/978-3-642-11301-7_13

Hang, H. (2016). Interactivity and its implications for understanding children's responses to online game advertising. In P. Messaris, & L. Humphreys (Eds.). *Digital media, transformations in human communication*. Peter Lang. Retrieved from https://tinyurl.com/wqyfg8s

Hawkins, R. P. et al. (2005). What produces television attention and attention style? Genre, situation, and individual differences as predictors. *Human Communication Research*, *31*(1), 162-187. Doi: 10.1111/j.1468-2958.2005.tb00868.x

Hearn, G. (1989). Active and passive conceptions of the television audience: Effects of a change in viewing routine. *Human Relations, 42*(10), 857-875. Doi: 10.1177/001872678904201001

Heath, R. (2009). Emotional engagement: How television builds big brands at low attention. *Journal of Advertising Research*, *49*(1), 62-73. Doi: 10.2501/S0021849909090060

*Heeter, C. (1985). Program selection with abundance of choice: A process model. *Human Communication Research*, *12*(1), 126-152.

Hemdev, A. (2018). What's the difference between OTT and online video? *Zyp Media*. Retrieved from http://blog.zypmedia.com/ott-vs-online-video

Hernandez, R. K., & Rue, J. (2015). *The principles of multimedia journalism: Packaging digital news*. Routledge.

Hess, T. J., Fuller, M. A., & Mathew, J. (2005). Involvement and decision-making performance with a decision aid: The influence of social multimedia, gender, and playfulness. *Journal of Management Information Systems*, *22*(3), 15-54. Doi: 10.1348/000711005X81133

Hinds, P. (1999). The cognitive and interpersonal costs of video. *Media Psychology, 1*(4), 283-311. Doi: 10.1207/s1532785xmep0104_1

*Hollebeek, L. D., Conduit, J., & Brodie, R. J. (2016). Strategic drivers, anticipated and unanticipated outcomes of customer engagement. *Journal of Marketing Management, 32*(5-6), 393-398. Doi: 10.1080/0267257X.2016.1144360

Hsu, M.-H., & Lin, H.-C. (2017). An investigation of the impact of cognitive absorption on continued usage of social media in Taiwan: The perspectives of fit. *Behaviour & Information Technology*, *36*(8), 768-791. Doi: 10.1080/0144929X.2017.1288267

*Huskey, R., Wilcox, S., & Weber, R. (2018). Network neuroscience reveals distinct neuromarkers of flow during media use. *Journal of Communication*, 1-24. Doi: 10.1093/joc/jqy043

IAB (2017). *Cross-media ad effectiveness study*. [Report]. Retrieved from https://tinyurl.com/upgtpyx

IAB (2019). *A day in the life of video viewers. The influence of consumer motivations/mindset on digital video and ad receptivity.* [Report]. Retrieved from https://www.iab.com/insights/day-in-life-video-viewers/

Im, H., Song, H., & Jung, J. (2019). The effect of streaming services on the concentration of digital music consumption. *Information Technology & People, 33*(1), 160-179. Doi: 10.1109/ascc.2015.7244792

Jenkins, H. (2006). *Convergence culture: Where old and new media collide*. New York University Press.

Jones, M., Buchanan, G., Jain, P., & Marsden, G. (2003). From sit-forward to lean-back: Using a mobile device to vary interactive pace. *Proceedings of Mobile HCI*, September 8-11, Udine, Italy, 390-394. Doi: 10.1080/0267257X.2018.1477818

Jung, E. H., & Walden, J. (2015). Extending the television brand: An examination of why consumers use broadcast network web sites. *Journal of Broadcasting & Electronic Media*, *59*(1), 94-111. Doi: 10.1080/08838151.2014.998229

*Kaid, L. L. (2002). Political advertising and information seeking: Comparing exposure via traditional and Internet channels. *Journal of Advertising*, *31*(1), 27-35. Doi: 10.1080/00913367.2002.10673658

Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly*, *37*(4), 509-523. Retrieved from https://www.jstor.org/stable/2747854

Kicova, E., Bartosova, V., & Popp, J. (2019). The impact of TV advertising on brand credibility. In *International Conference on Applied Economics* (pp. 605-614), June. Springer, Cham. Doi: 10.1007/978-3-030-38253-7_39

Khajeheian, D., & Ebrahimi, P. (2020). Media branding and value co-creation: Effect of user participation in social media of newsmedia on attitudinal and behavioural loyalty. *European Journal of International Management*, in press, Doi: 10.1504/EJIM.2020.10020735

Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube? *Computers in Human Behavior, 66,* 236-247. Doi: 10.1016/j.chb.2016.09.024

Knobloch-Westerwick, S. (2007). Gender differences in selective media use for mood management and mood adjustment. *Journal of Broadcasting & Electronic Media*, *51*(1), 73-92. Doi: 10.1080/08838150701308069

Köz, Z., & Atakan, S. (2018). Online versus traditional: A comparison of consumer perceptions of Youtube and TV ads. *Pazarlama ve Pazarlama Araştırmaları Dergisi, Sayı, 21*, Ocak 2018, 29-50. Retrieved from http://www.pazarlama.org.tr/dergi/yonetim/icerik/makaleler/148-published.pdf

Lang, A. (1995). Defining audio/video redundancy from a limited-capacity information processing perspective. *Communication Research, 22*(1), 86-115. Doi: 10.1177/009365095022001004

Lang, A., Zhou, S.-H., Schwartz, N., Bolls, P.-D., & Potter, R.-F. (1999). The effects of edits on arousal, attention, and memory for television messages: When an edit is an edit can an edit be too much? *Journal of Broadcasting & Electronic Media, 44*(1), 94-109. Doi: 10.1207/s15506878jobem4401_7

LaRose, R. (2010). The problem of media habits. *Communication Theory, 20*(2), 194-222. Doi: 10.1111/j.1468-2885.2010.01360.x

LaRose, R., & Eastin, M. S. (2004). A social cognitive theory of Internet uses and gratifications: Toward a new model of media attendance. *Journal of Broadcasting & Electronic Media, 48*(3), 358-377. Doi: 10.1207/s15506878jobem4803_2

Lehnert, K., Dill B. D., & Carlson, B. D. (2013). Advertising creativity and repetition. *International Journal of Advertising*, *32*(2), 211-231. Doi: 10.2501/IJA-32-2-211-231

Levy, M. R. (1983). Conceptualizing and measuring aspects of audience 'activity'. *Journalism Quarterly*, *60*(1), 109-115. Doi: 10.1177/107769908306000118

Ley, B., Ogonowski, C., Hess, J., Reichling, T., Wan, L., & Wulf, V. (2013). Impacts of new technologies on media usage and social behaviour in domestic environments. *Behaviour & Information Technology*, *33*(8), 815-828. Doi: 10.1080/0144929X.2013.832383

Li, A. X., Lou, X., Hansen, P., & Peng, R. (2016). Improving the user engagement in large display using distance-driven adaptive interface. *Interacting with Computers, 28*(4), 462-478. Doi: 10.1093/iwc/iwv021

Li, H., & Lo, H. Y. (2015). Do you recognize its brand? The effectiveness of online in-stream video advertisements. *Journal of Advertising*, *44*(3), 208-218. Doi: 10.1080/00913367.2014.956376

*Lin, T. T. (2019). Why do people watch multiscreen videos and use dual screening? Investigating users' polychronicity, media multitasking motivation, and media repertoire. *International Journal of Human–Computer Interaction*, *35*(18), 1672-1680. Doi: 10.1080/10447318.2018.1561813

Liu, Y., & Shrum, L. J. (2002). What is interactivity and is it always such a good thing? Implications of definition, person, and situation for the influence of interactivity on advertising effectiveness. *Journal of Advertising*, *31*(4), 53-64. Doi: 10.1080/00913367.2002.10673685

Liu-Thompkins, Y. (2018). A decade of online advertising research: What we learned and what we need to know. *Journal of Advertising, 48,* 1-13. Doi: 10.1080/00913367.2018.1556138

Livingstone, S. (2013). The participation paradigm in audience research. *The Communication Review*, *16*(1-2), 21-30. Doi: 10.1080/10714421.2013.757174

Logan, K. (2013). And now a word from our sponsor: Do consumers perceive advertising on traditional television and online streaming video differently? *Journal of Marketing Communications, 19*(4), 258-276. Doi: 10.1080/13527266.2011.631568

Lohmüller, V., Eiermann, P., Zeitlhöfler, P., & Wolff, C. (2019). Attention guidance in second screen applications. In *Proceedings of Mensch und Computer 2019* (pp. 179-187). Doi: 10.1145/3340764.3340788

Lord, K. R., & Burnkrant, R. E. (1993). Attention versus distraction: The interactive effect of program involvement and attentional devices on commercial processing. *Journal of Advertising*, *22*(1), 47-60. Doi: 10.1080/00913367.1993.10673396

Magna Global, IPG Media Lab and Pandora (2019). *Ad receptivity, deconstructed. The when, where, what of digital audio and video* [Study]. Retrieved from https://bit.ly/329Lf3c

Matthes, J. (2011). The affective underpinnings of hostile media perceptions: Exploring the distinct effects of affective and cognitive involvement. *Communication Research, 40*(3), 360-387. Doi: 10.1177/0093650211420255

*McCarty, J. A., & Shrum, L. J. (1993). The role of personal values and demographics in predicting television viewing behavior: Implications for theory and application. *Journal of Advertising*, *22*(4), 77-101. Doi: 10.1080/00913367.1993.10673420

Metzger, M. J., & Flanagin, A. J. (2002). Audience orientations toward new media. *Communication Research Reports, 19*(4), 338-351. Retrieved from https://tinyurl.com/r8rl9ke

Miller, V. (2011). *Understanding digital culture*. Sage.

Mitchell, K., Jones, A., Ishmael, J., & Race, N. J. P. (2011). Social TV: The impact of social awareness on content navigation within IPTV Systems. *ACM Computers in Entertainment*, *9*(3), art. 19. Doi: 10.1145/2027456.2027465

Modenbach, G., & Neumüller, G. (2020). *Video impact*. SevenOne Media. [Report]. Retrieved from: https://www.sevenonemedia.de/research/werbewirkung/video-impact

Naik, P. A., & Peters, K. (2009). A hierarchical marketing communications model of online and offline media synergies. *Journal of Interactive Marketing*, *23*(4), 288-299. Doi: 10.1016/j.intmar.2009.07.005

Neate, T., Jones, M., & Evans, M. (2017). Cross-device media: A review of second screening and multi-device television. *Personal and Ubiquitous Computing, 21*(2), 391-405. Doi: 10.1007/s00779-017-1016-2

Nelson, M. R., Keum, H., & Yaros, R. A. (2004). Advertainment or adcreep game players' attitudes toward advertising and product placements in computer games. *Journal of Interactive Advertising*, 5(1), 3-21. Doi: 10.1080/15252019.2004.10722090

Nielsen (2008). *Maximize your TV advertising effectiveness TV brand effect: Branding best practices*. [Report]

Nielsen (2020, February 11). Playback time: Which consumer attitudes will shape the streaming wars? *Insights: Media*. Retrieved from https://bit.ly/3a5nmga

Oh, J., & Sundar, S. S. (2015). How does interactivity persuade? An experimental test of interactivity on cognitive absorption, elaboration, and attitudes. *Journal of Communication, 65*(2), 213-236.

Oh, J., Bellur, S., & Sundar, S. S. (2018). Clicking, assessing, Immersing, and sharing: An empirical model of user engagement with interactive media. *Communication Research, 45*(5), 737-763. Doi: 10.1111/jcom.12147

Oliver, M. B., & Raney, A. A. (2011). Entertainment as pleasurable and meaningful: Identifying hedonic and eudaimonic motivations for entertainment consumption. *Journal of Communication, 61*, 984-1004. Doi: 10.1111/j.1460-2466.2011.01585.x

Omar, A., Sarif, S. M., & Shiratuddin, N. (2015). *Advertising theories in impulse purchase elements for iTV advertisement*. Retrieved from: http://repo.uum.edu.my/15680/1/PID216.pdf

Pagani, M., Hofacker, C. F., & Goldsmith, R. E. (2011). The influence of personality on active and passive use of social networking sites. *Psychology & Marketing*, *28*(5), 441-456. Doi: 10.1002/mar.20395

Papacharissi, Z., & Rubin, A. M. (2000). Predictors of internet use. *Journal of Broadcasting & Electronic Media*, *44*(2), 175-196. Doi: 10.1207/s15506878jobem4402_2

Pavelchak , M. A., Antil, J. H., & Munch, J. M. (1988). The Super Bowl: An investigation into the relationship among program context, emotional experience, and ad recall. *Journal of Consumer Research*, *15*(3), 360-367. Doi: 10.1086/209172

Pavlou, P. A., & Stewart, D. W. (2000). Measuring the effects and effectiveness of interactive advertising: A research agenda. *Journal of Interactive Advertising*, *1*(1), 61-77. Doi: 10.1080/15252019.2000.10722044

*Perse, E. M. (1990). Audience selectivity and involvement in the newer media environment. *Communication Research, 17*(5), 675-697. Doi: 10.1177/009365090017005005

Phalen, P. F., & Ducey, R. V. (2012). Audience behavior in the multi-screen "video-verse". *International Journal on Media Management*, *14*(2), 141-156. Doi: 10.1080/14241277.2012.657811

Powers, T., Advincula, D., Austin, M. S., Graiko, S., & Snyder, J. (2012). Digital and social media in the purchase decision process: A special report from the advertising research foundation. *Journal of Advertising Research*, *52*(4), 479-489. Doi: 10.2501/jar-52-4-479-489

Preston, J. M., & Clair, S. A. (1994). Selective viewing: Cognition, personality and television genres. *British Journal of Social Psychology*, *33*(3), 273-288. Doi: 10.1111/j.2044-8309.1994.tb01025.x

Pynta, P. S., Hier, J., Millward, E., & Silberstein, R. (2014). The power of social television: Can social media build viewer engagement? A new approach to brain imaging of viewer immersion. *Journal of Advertising Research*, *54*(1), 71-80. Doi: 10.1080/00913367.1994.10673443

Reeves, B. R., Newhagen, J., Maibach, E., Basil, M., & Kurz, K. (1991). Negative and positive television messages: Effects of message type and context on attention and memory. *American Behavioral Scientist*, *34*(6), 679-694.

Reeves, B., Lang, A., Kim, E. Y., & Tatar, D. (1999). The effects of screen size and message content on attention and arousal. *Media Psychology*, 1(1), 49-67. Doi: 10.1207/s1532785xmep0101_4

Rejón-Guardia, F., & Martínez-López, F. J. (2013). Online advertising intrusiveness and consumers' avoidance behaviors. In F. J. Martínez-López (Ed.), *Handbook of Strategic e-Business Management* (pp. 565-586). Doi: 10.1007/978-3-642-39747-9_23

Rigby, J. M., Brumby, D. P., Cox, A. L., & Gould, S. J. (2016). Watching movies on Netflix: Investigating the effect of screen size on viewer immersion. In *Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct* (pp. 714-721), September. Doi: 10.1145/3210825.3210832

Robert, L. P., & Dennis, A. R. (2005). Paradox of richness: A cognitive model of media choice. *IEEE Transactions on Professional Communication*, *48*(1), 10-21. Doi: 10.1109/tpc.2004.843292

Roettl, J., & Terlutter, R. (2018). The same video game in 2D, 3D or virtual reality: How does technology impact game evaluation and brand placements? *PLoS ONE, 13(7)*, e0200724. Doi: 10.1371/journal.pone.0200724

*Rogers, E. (1995). *Diffusion of Innovations.* (4th ed.). Free Press.

Roozen, I., & Meulders, M. (2015). Has TV advertising lost its effectiveness to other touch points? *Communications, 40*(4), 447-470. Doi: 10.1515/commun-2015-0019

Rossiter, J. R., Silberstein, R. B., Harris, P. G., & Nield, G. (2001). Brain-imaging detection of visual scene encoding in long-term memory for TV commercials. *Journal of Advertising Research*, *41*(2), 13-21. Retrieved from https://tinyurl.com/wy3kary

*Rubin, A. M. (1981). An examination of television viewing motivations. *Communication Research*, *8*(2), 141-165. Doi: 10.1177/009365028100800201

Rubin, A. M. (1983). Television uses and gratifications: The interactions of viewing patterns and motivations. *Journal of Broadcasting, 27*(1), 37-51. Doi: 10.1080/08838158309386471

Rubin, A. M. (1984). Ritualized and instrumental television Viewing. *Journal of Communication, 34*(3), 67-77. Retrieved from https://psycnet.apa.org/record/1985-13929-001

Shaikh, N. I., Hada, M., & Shrestha, N. (2019). Allocating spending on digital-video advertising: A longitudinal analysis across digital & television. *Journal of Advertising Research*, *59*(1), 14-26. Doi: 10.2501/jar-2018-038

Scholten, M. (1996). Lost and found: The information-processing model of advertising effectiveness. *Journal of Business Research*, *37*(2), 97-104. Doi: 10.1016/0148-2963(96)00058-6

Schwan, S., & Riempp, R. (2004). The cognitive benefits of interactive videos: Learning to tie nautical knots. *Learning and Instruction, 14*, 293-305. Doi: 10.1016/j.learninstruc.2004.06.005

Segijn, C. M. (2017). Second screen advertising: A typology of multiscreening. *Advertising in New Formats and Media: Current Research and Implications for Marketers*, 77-96. Doi: 10.1108/978-1-78560-313-620151003

*Segijn, C. M., & Eisend, M. (2019). A meta-analysis into multiscreening and advertising effectiveness: Direct effects, moderators, and underlying mechanisms. *Journal of Advertising*, *48*(3), 313-332. Doi: 10.1080/00913367.2019.1604009

Sethuraman, R., Tellis, G. J., & Briesch, R. A. (2011). How well does advertising work? Generalizations from meta-analysis of brand advertising elasticities. *Journal of Marketing Research, 48,* 457-471. Doi: 10.1509/jmkr.48.3.457

Siemer, M. (2005). Moods as multiple-object directed and as objectless affective states: An examination of the dispositional theory of moods. *Cognition & Emotion, 19*(6), 815-845. Doi: 10.1080/02699930541000048

*Silverstone, R., & Haddon, L. (1996). Design and the domestication of information and communication technologies: Technical change and everyday life. In R. Mansell, & R. Silverstone (Eds.), *Communication by Design* (pp. 44–74). Oxford University Press.

Snyder, J., & Garcia-Garcia, M. (2016). Advertising across platforms: Conditions for multimedia campaigns: A method for determining optimal media investment and creative strategies across platforms. *Journal of Advertising Research, 56*(4), 352-367. Retrieved from https://tinyurl.com/wps2h6g

Steiner, E., & Xu, K. (2018). Binge-watching motivates change: Uses and gratifications of streaming video viewers challenge traditional TV research. *Convergence*, 1354856517750365. Doi: 10.1177/1354856517750365

Stipp, H. (2018). How context can make advertising more effective. *Journal of Advertising Research, 58*(2), 138-145. Doi: 10.2501/jar-2018-022

Strick, M., Holland, R. W., Van Baaren, R., & Van Knippenberg, A. (2009). Humor in the eye tracker: Attention capture and distraction from context cues. *The Journal of General Psychology: Experimental, Psychological, and Comparative Psychology*, 137(1), 37-48. Doi: 10.1080/00221300903293055

Sun, S., Rubin, A. M., & Haridakis, P. M. (2008). The role of motivation and media involvement in explaining internet dependency. *Journal of Broadcasting & Electronic Media, 52*(3), 408-431. Doi: 10.1080/08838150802205595

*Tamborini, R., Bowman, N. D., Eden, A., Grizzard, M., & Organ, A. (2010). Defining media enjoyment as the satisfaction of intrinsic needs. *Journal of Communication*, *60*(4), 758-777. Doi: 10.1111/j.1460-2466.2010.01513.x

*Taneja, H., Webster, J. G., Malthouse, E. C., & Ksiazek, T. B. (2012). Media consumption across platforms: Identifying user-defined repertoires. *New Media & Society*, *14*(6), 951-968. Doi: 10.1177/1461444811436146

*Tang, J., Zhang, P., & Wu, P. F. (2015). Categorizing consumer behavioral responses and artifact design features: The case of online advertising. *Information Systems Frontiers*, *17*(3), 513-532. Doi: 10.1007/s10796-014-9508-3

Tavassoli, N. T., Shultz, J. C., & Fitzsimons, J. G. (1995). Program involvement: Are moderate levels best for ad memory attitudes toward the ad? *Journal of Advertising Research*, *35*(5), 61-72. Retrieved from https://tinyurl.com/wpotpk3

Taylor, A., & Harper, R. (2003). Switching on to switch off. In R. Harper (Ed.), *Inside the smart home* (pp. 115-126). Springer. Doi: 10.1007/1-85233-854-7_7.pdf

Taylor, D. G., Lewin, J. E., & Strutton, D. (2011). Friends, fans, and followers: do ads work on social networks? How gender and age shape receptivity. *Journal of Advertising Research*, *51*(1), 258-275. Retrieved from: https://pdfs.semanticscholar.org/a913/596386edaa3bd4839f1930aac5723387faea.pdf

Taylor, K. (2019). 'On-demanding': 12 social media trends that are opening up new opportunities for advertisers. *Journal of Digital & Social Media Marketing*, *7*(1), 28-34. Retrieved from https://tinyurl.com/rr26xp7

Teixeira, T., Wedel, M., & Pieters, R. (2012). Emotion-induced engagement in internet video advertisements. *Journal of Marketing Research, 49*(2), 144-159. Doi: 10.1509/jmr.10.0207

Van't Riet, J., Hühn, A., Ketelaar, P., Khan, V.-J., Konig, R., Rozendaal, E., & Markopoulos, P. (2016). Investigating the effects of location-based advertising in the supermarket: Does goal congruence trump location congruence? *Journal of Interactive Advertising, 16*(1), 31-43. Doi: 10.1080/15252019.2015.1135089

Van Dijck, J. (2009). Users like you? Theorizing agency in user-generated content. *Media, Culture & Society, 31*(1), 41-58. Doi: 10.1177/0163443708098245

Van Langenberghe, A. N. K., & Calderon, S. D. P. (2017). *A cross-platform study of brand recall in online video advertising* [Master's thesis]. BI Norwegian Business School. Retrieved from: https://tinyurl.com/vee33l8

*Vecchiato, G., Cherubino, P., Trettel, A., & Babiloni, F. (2013). *Neuroelectrical brain imaging tools for the study of the efficacy of TV advertising stimuli and their application to neuromarketing*. Springer. Doi: 10.1007/978-3-642-38064-8

Voorveld, H. A. (2011). Media multitasking and the effectiveness of combining online and radio advertising. *Computers in Human Behavior*, *27*(6), 2200-2206. Doi: 10.1016/j.chb.2011.06.016

Vosmeer, M., & Schouten, B. (2014, November). Interactive cinema: Engagement and interaction. In *International Conference on Interactive Digital Storytelling* (pp. 140-147). Springer. Doi: 10.1007/978-3-319-12337-0_14

Wang, A. (2006). Advertising engagement: A driver of message involvement on message effects. *Journal of Advertising Research*, 46(4), 355-368. Doi: 10.2501/s0021849906060429

Webster, J. G., & Wakshlag, J. J. (1983). A theory of television program choice. *Communication Research*, *10*(4), 430-446. Doi: 10.1177/009365083010004002

Weibel, D. et al. (2019). TV vs. YouTube: TV advertisements capture more visual attention, create more positive emotions and have a stronger impact on implicit long-term memory. *Frontiers in Psychology*, *10*, 626. Doi: 10.3389/fpsyg.2019.00626

Westlund, O., & Ghersetti, M. (2015). Modelling news media use: Positing and applying the GC/MC model to the analysis of media use in everyday life and crisis situations. *Journalism Studies, 16*(2), 133-151. Doi: 10.1080/1461670X.2013.868139

Westlund, O., & Weibull, L. (2013). Generation, life course and news media use in Sweden 1986–2011. *Northern Lights: Film & Media Studies Yearbook*, *11*(1), 147-173. Doi: 10.1386/nl.11.1.147_1

Will, C. (2012). Engagement styles: Beyond 'lean forward' and 'lean back'. *Johnny Holland*. Retrieved from http://johnnyholland.org/2012/03/engagement-styles-beyond-lean-forward-and-lean-back/

Wilson, S. (2016). In the living room: Second screens and TV audiences. *Television & New Media*, *17*(2), 174-191. Doi: 10.1177/1527476415593348

Wood, W., Quinn, J. M., & Kashy, D. A. (2002). Habits in everyday life: Thought, emotion, and action. Journal of Personality and Social Psychology, 83(6), 1281-1297. Doi: 10.2501/JAR-2019-012

Xu, X. (2014). The new relevance: Motives behind YouTube use [Master's thesis]. *Theses, 64*, University of Missouri. Retrieved from https://irl.umsl.edu/cgi/viewcontent.cgi?article=1064&context=thesis

Yang, H. C., & Wang, Y. (2015). Social sharing of online videos: Examining American consumers' video sharing attitudes, intent, and behavior. *Psychology & Marketing, 32*(9), 907-919. Doi: 10.1002/mar.20826

Yao, R. (2018, June 28). The future of content, Part II: The Intention Gap & New Content Formats. *Medium - IPG Media Lab*. Retrieved from https://bit.ly/2vMQZ7b

*Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *Journal of Marketing*, *52*(3), 2-22. Doi: 10.1177/002224298805200302

Zenith (2019, Sept 16). Online video viewing to reach 100 minutes a day in 2021. *News*. Retrieved from https://www.zenithmedia.com/online-video-viewing-to-reach-100-minutes-a-day-in-2021/

Zha, X., Yang, H., Yan, Y., Liu, K., & Huang, C. (2018). Exploring the effect of social media information quality, source credibility and reputation on informational fit-to-task: Moderating role of focused immersion. *Computers in Human Behavior, 79*, 227-237. Doi: 10.1016/j.chb.2017.10.038

Zhang, Y., & Zinkhan, G. M. (1991). Humor in television advertising: The effects of repetition and social setting. In R. H. Holman, & M.R. Solomon (Eds.), *NA-Advances in Consumer Research, 18* (pp. 813-818), Provo, UT: Association for Consumer Research. Retrieved from https://tinyurl.com/rfog4mz

*Zillmann, D. (1983). Television viewing and arousal. *Television and behavior: Ten years of scientific progress and implications for the eighties*, *2*, 53-67.

Zillmann, D. (2000). Mood management in the context of selective exposure theory. *Annals of the International Communication Association, 23*(1), 103-123. Doi: 10.1080/23808985.2000.11678971

Appendix

Passive Audience

Approach		Description	General references	Digital references
Audience passivity	Absolute audience passivity	passive "flowing" from program to program; or passive interaction in a web environment	Goodhardt et al. (1987); Elliott (1974)	Gilroy et al. (2012)
Media context	Media access	structural factors, e.g. availability, scheduling, cost	Cooper (1993); McCarty & Shrum (1993)	Rein & Venturini (2018)
	Generation effects	varying needs, interests, habits within and across generations	Aroldi & Colombo (2007); Poalses et al. (2015)	Bolin & Westlund (2009); Bondad-Brown et al. (2012)
Economic (macro) view	Direct effects	quantitative analysis of viewer behavior: channel traffic/ exposure, willingness-to-pay, ad elasticities; ROI	Kaid (2002); Sethuraman et al. (2011)	De Lara et al. (2017); Holz et al. (2015); Ley et al. (2014); McKenzie et al. (2017); Nam et al. (2013); Shaikh et al. (2019); Upreti et al. (2017)
Media adoption	Technology acceptance model	technology is accepted upon perceived usefulness and perceived ease of use	Davis (1989)	Cha (2013a); Jung & Walden (2015); Yang & Wang (2015); Yangyin & Changbin (2016)
	Displace-ment	cannibalism of older by newer media		Cha (2013a,b,c); Cha & Chan-Olmsted (2012); Dimmick et al. (2000); Ferguson & Perse (2000); Greer & Ferguson (2001): Lowenstein-Barkai & Lev-On (2018)
	Innovation diffusion theory	factors on innovation adoption: relative advantage, complexity, compatibility, trial ability, observability	Rogers (1995)	Cha (2013a)
	Niche theory	different forms of media serve different gratification opportunities		Cha (2013b); Dimmick, et al. (2000, 2004)

Approach		Description	General references	Digital references
Media habits	Media repertoires	media consumers hold certain media or channel repertoires	Gandy (1984); Lundy et al. (2008); Taylor & Harper (2003)	Luthar & Crnic (2017); Taneja et al. (2012); Sin & Vakkari (2017)
	Domesti-cation theory	how media habits are formed on an individual level	Silverstone & Haddon (1996)	Courtois et al. (2014); Hjorth (2008)
Ad structures	Condition-ing theory	underlying stimulus-organism-response-assumption (S-O-R)	Mehrabian & Russell (1974)	Hossain et al. (2012); Omar et al.(2016); Tang et al. (2014)
	Context effects	ad-context congruence	De Pelsmacker et al. (2002); Hawkins et al. (2005); Norris & Colman (1993); Pavelchak et al. (1988)	Arrazola et al. (2016); Belanche et al. (2017); Chun et al. (2014); Daems et al. (2019); Li & Lo (2017); Rumpf et al. (2015); Stipp (2018); Van't Riet et al. (2016)
		location effects		Fang et al. (2013); Nelson et al. (2004); Van't Riet et al. (2016)
	Content	content (emotional vs. Informative), genre, creativity, or structural features (e.g. edits, size, format, pacing and animation)	Bellman et al. (2019); Lang (1990, 1995); Lang et al. (1993, 1996, 1999, 2000, 2007); Lehnert et al. (2013); Reeves et al. (1999); Stanca et al. (2012)	Bruce et al. (2017); Bulgrin (2019); Goldstein et al. (2014); Kuisma et al. (2010); Lee & Hong (2016); Li & Lo (2017); Omar et al. (2016); Quesenberry & Coolsen (2019); Smith et al. (2012); Southgate et al. (2010); Sundar & Kim (2005)
	Mecha-nisms	mere-exposure effect	Grimes & Kitchen (2007); Kwak et al. (2015); Zajonc (1968)	Lim et al. (2015)
		wear-out effect	Calder & Sternthal (1980); Lehnert et al. (2013)	Chen et al. (2014); Lee et al. (2015)
		engagement effect	Wang (2006)	Bruce et al. (2017); Teixeira et al. (2012)
	Complexity	message/channel complexity, ease of use	Lang et al. (2007); Pieters et al. (2010); Chun et al. (2014)	Cauberghe & De Pelsmacker (2010)
	Channel attributes	perceived characteristics of a certain message channel		Danaher & Rossiter (2009); Köz & Atakan (2018)

Active Audience

Approach		Description	General references	Digital references
User agency	Pro-sumption	user agency defined in terms of economic production	Te Walvaart et al. (2019)	Sparviero (2019)
	Audience partici-pation	user agency defined in terms of production from a cultural point of view (audience engagement)	Holmes (2004); Jenkins (2006); Livingstone (2013)	Deuze (2016); García-Avilés (2012); Gjoni (2017); Li (2016); Moe et al. (2015); Selva (2016); Vaccari et al. (2015); Van Dijck (2009)
Interactive		consumer's interactive role as opposed to a stimulus-response model or media-focus		Pavlou & Stewart (2000); Fortin & Dholakia (2005); Liu & Shrum (2002)
	Interactive advertising model	integrates structural (ad elements) and functional (UG) perspective	Rodgers & Thorson (2000)	
	Persuasion knowledge model	interactional relationship between agents (marketers) and targets (consumers): knowledge of ad persuasion tactics affects consumers' responses	Bolatito (2012); Friestad & Wright (1994)	Omar et al. (2016)
	User Experience (UX)	factors affecting UX: sensory, emotional, cognitive, and social	Bosshart & Macconi (1998); Reeves et al. (1999)	Gilroy et al. (2012); Gurrin et al. (2010); Omar et al. (2016); Park et al. (2011); Paterson (2017); See-To (2012); Sutcliffe & Hart (2017)
Economic (micro) view	Adver-tising value model	derived from UGT; ad value as the perception of ''relative worth or utility of advertising" (Ducoffe, 1995)	Ducoffe (1995); Ducoffe & Curlo (2000)	Ducoffe (1996); Logan (2013); Logan et al. (2012)
	Direct effects: behavioral	ad avoidance/ ad skipping practices due to message intrusion	Bellman et al. (2012)	Arantes et al. (2016); Chan-Olmsted et al. (2019); Clark et al. (2018); Hussain & Lasage (2014); Libert & Van Hulle (2019); Logan (2011, 2013); Rejón-Guardia & Martínez-López (2013); Tang et al. (2014)

Approach		Description	General references	Digital references
Semiotic	Interpretive	media are interpreted as "text"	Cohen (2002); Fiske (2010)	Reinhard (2011); Sharma & Gupta (2015)
Cognitive-Constructivist	Arousal	bodily energization for psychological and motor activity; antecedent to engagement	Broach et al. (1995); Lang (1990); Lang et al. (1995, 1999); Mattes & Cantor (1982); Perse (1996); Reeves et al. (1999); Singh & Churchill (1987); Zillmann (1983)	Bulgrin (2019); Im et al. (2015)
	Engage-ment	"psychologically based willingness to invest in the undertaking of focal interactions with particular engagement objects" (Hollebeek et al., 2016, p. 2)	Heath (2009); Hernandez et al. (2013); Hollebeek et al. (2016); Kuvykaite & Taruté (2015); Peacock et al. (2011); Smith & Gevins (2004); Wang (2006)	Dhoest & Simons (2016); Gómez et al. (2019); Guo & Chan-Olmsted (2015); Li et al. (2016); Pagani & Mirabello (2011); Pynta et al. (2014); Selva (2016); Steele et al. (2013); Teixeira et al. (2012)
	Involve-ment	"cognitive, affective, and behavioral participation during and because of exposure'' (Rubin & Perse, 1987, p. 247)	Greenwood & Long (2009); Lord & Burnkrant (1993); Matthes (2011); Perse (1990); Perse (1998); Putrevu & Lord (1994); Rubin & Perse (1987); Sundar & Kim (2005); Tavassoli et al. (1995)	Belanche et al. (2017); Oh et al. (2018); Park & Goering (2016); Stewart et al. (2019); Sun et al. (2008); Tukachinsky & Eyal (2018); Wang et al. (2009)
	Focused immersion	fully immersed state that people experience when they act with total involvement, e.g. media usage	Hess et al. (2005); Kim et al. (2017)	Buchanan (2006); Cypher & Richardson (2006); Mazzoni et al. (2017); Oh et al. (2017); Pynta et al. (2014); Tan et al. (2015); Zha et al. (2018)
	Theory of flow	state of optimal experience through total engagement and absorption	Csikszentmihalyi (1990); Daft & Lengel (1986)	Daems et al. (2019); Danaher & Rossiter (2011); Huskey et al. (2018a, b); Hsu et al. (2012); Jin (2012); Kim & Han (2012); Liu & Shiue (2014); Mollen & Wilson (2010); Nakatsu et al. (2005); See-To (2012); Yang et al. (2017)
	Affect Infusion model	integrative theory of mood: effects on cognition and judgments	Forgas (2001)	Lowry et al. (2014)

Approach		Description	General references	Digital references
Socio-Constructi-vist	Social presence theory (SPT)	media differ in their ability to convey the psychological perception of other peoples' physical presence		Hwang & Lim (2015); Perse & Courtright (1993); Robert & Dennis (2005)
	Media richness theory	extends SPT: media differ in their ability to facilitate understanding by "information richness"	Daft & Lengel (1986)	Robert & Dennis (2005); Yangyin & Changbin (2016)
	Channel expansion theory	"richness perceptions" for a media channel are influenced by specific experiences	Carlson & Zmud (1999)	Robert & Dennis (2005)
Uses & grati-fications	Early UGT/ general papers	(1) how do people use media to gratify their needs; (2) what are the motives for media use; (3) what are positive/ negative consequences of media use	Katz et al. (1973); Papacharissi & Mendelson (2007); Rubin (1981)	Papacharissi & Rubin (2000)
Motivation	Self-determination theory	utilitarian vs. hedonistic medium content chosen upon motivation (extrinsic vs. intrinsic)	Deci & Ryan (1985); Tamborini et al. (2010)	Wu & Lu (2013); Zimmer et al. (2018)
	Utilitarian vs. hedonistic	hedonic (image/value-expressive) vs. utilitarian (functional) ad appeals	Sirgy & Johar (1992); Chang (2004); Oliver & Raney (1988); Olney et al. (1991)	Cai et al. (2018); Kazmi & Abid (2016); Lai et al. (2009); O'Brien (2010); Wang et al. (2009); Yang et al. (2015)
	Theory of moods	media selection for mood optimization	Chang (2004); Chen et al. (2007); Dillman Carpentier et al. (2008); Hess et al. (2006); Knobloch (2003); Knobloch-Westerwick (2007); Roe & Minnebo (2000); Siemer (2005); Tafani et al. (2018); Zillmann (1988, 2000)	Bowman & Tamborini (2015); Greenwood (2010)
	Selective exposure theory	incorporates theory of moods; utilitarian (information) vs. hedonic (diversary) motivation	Norris et al. (2003); Perse (1998); Zillmann (2000)	Bowman & Tamborini (2015); Trilling (2014)

Medium view

Approach		Description	General references	Digital references
Cognitive approaches	Neural processes	brain related and physiological functions to explain media consumption behavior	Lang (1990); Nakano et al. (2013); Peacock et al. (2011); Reeves et al. (1999); Singh et al. (1988); Smith & Gevins (2004); Vecchiato et al. (2013)	Astolfi et al. (2008); Cartocci et al. (2016); Huskey et al. (2018a, b); Im et al. (2015); Pynta et al. (2014); Steele et al. (2013)
	Personali-zation	personalized ad messages		Kim & Han (2014); Pavlou & Stewart (200ß)
	Cognitive ad effec-tiveness models	empirical structural models that incorporate various cognitive elements (attitude/ information processing) and antecedents	Olney et al. (1991)	Bigne et al. (2019); Brettel et al. (2015); Cohen & Lancaster (2014); Hamouda (2018); Rossiter & Bellman (1999)
	Cognitive absorption	one of the operational terms for flow; the state where an individual is consciously involved in an interaction with almost complete attentional focus in the activity (Oh et al., 2010)		Agarwal & Karahanna (2000); Barnes et al. (2019); Debue & Van de Leemput (2014); Hsu et al. (2012); Hsu & Lin (2017); Lin (2009); McNiven et al. (2012); Oh & Sundar (2015)
	Cognitive load	amount of the information-processing system required to satisfy task performance expectations		Debue & Van de Leemput (2014); Hinds (1999); Homer et al. (2008); Roettl & Terlutter (2018); Xie et al. (2017)
	Hierarchi-cal effect models	stepwise information-processing from unawareness to action (e.g. Information processing model, McGuire, 1978)	see review Scholten (1996), e.g. Lavidge & Steiner (1961)	Omar et al. (2016); Yoo et al. (2004)
	Elaboration likelihood model (ELM)	dual-process model: central (elaborative) vs. peripheral (emotional) route; applied to media multitasking/cross-channel	Petty & Cacioppo (1986)	Angell et al. (2016); Jeong et al. (2012); Lim et al. (2015); Robert & Dennis (2005); Voorveld (2011); Wang et al. (2009); Zha et al. (2018)
	Recall	general empirical findings	Lang et al. (1995, 1999); Pavelchak, et al. (1988); Reeves et al. (1991)	Arrazola et al. (2013, 2016); Eisend & Tarrahi (2016); Roozen & Meulders (2015); Van Langenberghe & Calderon (2017); Weibel et al. (2019)

Approach		Description	General references	Digital references
Cognitive	Attention	general empirical findings	Hawkins et al. (1997); Krugman et al. (1995); Lang et al. (1999); Lord & Burnkrant (1993); Reeves et al. (1991, 1999); Thorson et al. (1985)	Brasel & Gips (2008); Hawkins et al. (2005); Kim (2011); Li et al. (2016); Wolf & Donato (2019)
		Theory of attention	Kahneman (1973); Bergen et al. (2005)	Angell et al. (2016); Duff & Sar (2015); Duff & Segijn (2019); Kazakova et al. (2015); Segijn et al. (2017a,b)
		Multiple resource theory	Basil (1994); Hawkins et al. (1997); Smith & Gevins (2004)	Garaus et al. (2017)
		Limited capacity model	Lang et al. (1995, 1999); Bergen et al. (2005); Smith & Gevins (2004)	Bellman et al. (2014); Chinchanachokchai et al. (2015); Duff & Segijn (2019); Garaus et al. (2017); Jeong & Hwang (2012); Segijn et al. (2017a,b)
Socio-cognitive	Dissonance theories	program choice explained upon beliefs and values	Gandy (1984)	
	Theory of reasoned action	media choice upon behavioural intention, influenced by subjective norm	Fishbein & Ajzen (1975); Golan & Banning (2008)	Choi et al. (2015); Ham et al. (2014); Kim et al. (2015); Lee & Lee (2011); Lee et al. (2014)
	Theory of planned behavior	media choice upon behavioural intention, influenced by subjective norm, and perceived behavioural control	Ajzen (1991); Nabi & Kremar (2009)	Leung & Chen (2017); Lin et al. (2015); Sanne & Wiese (2018); Tefertiller (2011); Troung (2009); Yang & Wang (2015)
	Media attendance theory	integrates UGT and Social Cognitive Theory (Bandura, 1984)	LaRose & Eastin (2004)	LaRose (2010); LaRose & Eastin (2004); Courtois et al. (2014)
	Social identity theory	the individual's various social identities influence media usage	Tajfel & Turner (1979)	Hu et al. (2017); Pagani et al. (2011); Tang et al. (2015)

	Approach	Description	General references	Digital references
Person-centric	Audience orientation	passive vs. active audience orientation, viewers select a particular channel yet engage to different degrees	Hearn (1989)	Bigne et al. (2019); Metzger & Flanagin (2002); Li (2016); Pagani et al. (2011); Pagani & Malacarne (2017)
	Dispo-sitions	psychological dispositions that determine media usage	Greenwood & Long (2009); Hawkins et al. (2005); Kremar & Greene (1999); Perse (1996); Preston & Clair (1994)	Guo & Chan-Olmsted (2015); Langstedt & Atkin (2013); Pagani et al. (2011); Shim et al. (2017)
	Demo-graphics	specific media/content preferences and receptivity due to age and gender	Cartocci et al. (2016); Hess et al. (2005); Uva et al. (2014)	Choi et al. (2009); Lin (2011); Logan et al. (2012); McMahan et al. (2009)
Medium centric (excl. UGT)	Medium centric	legacy media (i.e. newspapers, radio and TV) vs. digital media		Köz & Atakan (2018); Wilson (2016)
	Lean-back/ Lean-forward	LB: consumed in a relaxed state, less engagement opportunities (TV) vs. LF: consumed in an active manner, e.g. for information-seeking (newer media)	Nielsen (2008); Wickramasuriya et al. (2007)	Bartsch & Viahoff (2010): Cui et al. (2007); Deuze (2016); Dewdney & Ride (2013); Eide et al. (2016); Faltner & Mayr (2007); Groot Kormelink & Costera Meijer (2020); Gurrin et al. (2010); Hernandez & Rue (2015); Jansz (2005); Jones et al. (2003); Lohmüller et al.. (2019); Mitchell et al. (2011); Moe et al. (2015); Park & Kim (2016); Schwan & Riempp (2004); Segijn & Eisend (2019); Shin et al. (2015); Strover & Moner (2012); Taylor (2019); Vaccari et al. (2015); Vanattenhoven & Geerts (2015); Vosmeer & Schouten (2014); Wilson (2016); Yu et al. (2016)

Approach		Description	General references	Digital references
Media multi-tasking	Means end theory	ad content (means) must lead consumers to a desired end state	Zeithaml (1988)	Omar et al. (2016)
	Information processing			Christensen et al. (2015); Kazakova et al. (2015); Lui & Wong (2012)
		Dual-coding theor	Paivio (1986)	Jensen et al. (2015); Jeong & Hwang (2015)
	Attention			Aagaard (2015); Angell et al. (2016); Brasel & Gips (2011); Hassoun (2014); Holmes et al. (2012); Phalen & Ducey (2012); Vatavu & Mancas (2015); Yap & Lim (2013)
	Dimensions			Segijn (2017); Wang et al. (2015)
	Effects			Chinchanachokchai et al. (2016); Duff & Sar (2015); Duff & Segijn (2019); Garaus et al. (2017); Guo (2016); Jensen et al. (2015); Jeong & Hwang (2012, 2016); Segijn & Eisend (2019); Segijn et al. (2017a,b); Van Cauwenberge et al. (2014)
Media synergies	Economic approach	identifying the optimal media mix and determining the uplift effect of certain channels		Bollinger et al. (2013); McPhilips & Merlo (2008); Snyder & Garcia-Garcia (2016); Wakolbinger et al. (2009)
	Multiple source effect	cross-platform synergies	Naik & Raman (2003)	Kicova et al. (2020): Lim et al. (2015); Lowenstein-Barkai & Lev-On (2018); Zantedeschi et al. (2016)
	Synergy model	within-media and cross-media synergies		Naik & Peters (2009)
	Encoding variability theory	exposure to the same ad in multiple media leads to more complex information encoding, and a stronger information network	Stammerjohan et al. (2005)	Voorveld (2011)
	Repetition variation theory	multi-media messages trigger more positive affective reactions than repetitive single-medium exposure	Schumann et al. (1990)	Voorveld (2011)
	Differential attention theory	people pay less attention to a message when seen repeatedly	Unnava & Burnkrant (1991)	Voorveld (2011)

Approach		Description	General references	Digital references
General contigency approach (excl. UGT)	Relative audience activity	audience activity as a variable concept as opposed to an absolute condition	Biocca (1988)	Adams (2000); Astigarraga et al. (2016); Bardoel (2007); Bury & Li (2015); Costello & Moore (2007); Svoen (2007); Van Dijck (2009)
	Viewer attentiveness spectrum	viewers exhibit different levels of attention, developed on VOD		Steiner & Xu (2018)
UGT contigency approach	Activity sequences/ modes	viewers exhibit different viewing styles upon the stage of the communication sequence and viewing mode	Blumler (1979); Gantz & Wenner (1995); Levy (1983); Levy & Windahl (1984)	Godlewski & Perse (2010); Lin (1993); Park & Goering (2016)
	Convergent view	no clear distinction between viewing types (e.g. Bantz, 1982; Rubin, 1984); similar motives for the web as for TV (e.g. Dias, 2016); new gratifications for new media (Sundar & Limperos, 2013); alternative viewing types (Abelman & Atkin, 2010)	Bantz (1982); Hearn (1989); Levy (1983); Kim & Rubin (1997); Rubin (1984); Rubin & Perse (1987)	Abelman et al. (1997); Abelman & Atkin (2010); Billings et al. (2018); Cha (2013c); Dias (2016); Ferguson & Perse (2000); Hwang, et al. (2014); Khan (2007); Lin et al. (2018); Metzger & Flanagin (2002); Sundar & Limperos (2013); Rosenthal (2017); Xu (2014)

	Approach	Description	General references	Digital references
Integrative models		integrate several theories (e.g. structural and individualistic view, or media availability)	Cooper & Tang (2009); Heeter (1985); Owen et al. (1974); Ramaprasad (1995); Webster & Washlag (1983)	Cha (2013a); Courtois et al. (2014); Gómez et al. (2019); Guo & Chan-Olmsted (2015); Hautz et al. (2013); Kim & Han (2014); Mollen & Wilson (2010); Omar et al. (2016); Roozen & Meulders (2015); See-To (2012); Wang et al. (2009); Yang & Wang (2015)
	Integrative UGT models	integrate UGT and other theories/approaches (e.g. dispositions, TPB) or extended UG models	Bagdasarov et al. (2010); Kremar & Greene (1999); Perse (1996)	Choi et al. (2015); Dimmick et al. (2004); Ham et al. (2014); Hwang & Lim (2015); Kavanaugh et al. (2016); Kwak et al. (2015); Perse & Courtright (1993); Shao (2008); Shim et al. (2015); Yangyin & Changbin (2016); Yuan (2011); Zimmer et al. (2018)
	GC-/MC-model	integrates generation-centric and medium-centric view		Ghersetti & Westlund (2016); Westlund & Ghersetti (2015)

Further references[4]

**Abelman, R., & Atkin, D. (2000). What children watch when they watch TV: Putting theory into practice. *Journal of Broadcasting & Electronic Media*, *44*(1), 143-154. Doi: 10.1207/s15506878jobem4401_10

**Abelman, R., Atkin, D., & Rand, M. (1997). What viewers watch when they watch TV: Affiliation change as case study. *Journal of Broadcasting & Electronic Media*, *41*(3), 360-379. Doi: 10.1080/08838159709364413

**Adams, W. J. (2000). How people watch television as investigated using focus group techniques. *Journal of Broadcasting & Electronic Media*, *44*(1), 78-93. Doi: 10.1207/s15506878jobem4401_6

**Angell, R., Gorton, M., Sauer, J., Bottomley, P., & White, J. (2016). Don't distract me when I'm media multitasking: Toward a theory for raising advertising recall and recognition. *Journal of Advertising*, *45*(2), 198-210. Doi: 10.1080/00913367.2015.1130665

**Arantes, M., Figueiredo, F., & Almeida, J. M. (2016). Understanding video-ad consumption on YouTube: A measurement study on user behavior, popularity, and content properties. In *Proceedings of the 8th ACM Conference on Web Science* (pp. 25-34), May. Doi: 10.1145/2908131.2908159

**Arrazola, M., de Hevia, J., & Reinares, P. (2016). Which new forms of television advertising are most strongly recalled? A quantitative analysis. *Journal of Media Economics*, *29*(4), 153-166. Doi: 10.1080/08997764.2016.1239621

**Astolfi, L. et al. (2008). Neural basis for brain responses to TV commercials: A high-resolution EEG study. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, *16*(6), 522-531. Retrieved from https://ieeexplore.ieee.org/iel5/7333/4731271/04685627.pdf

**Bagdasarov, Z., Greene, K., Banerjee, S. C., Krcmar, M., Yanovitzky, I., & Ruginyte, D. (2010). I am what I watch: Voyeurism, sensation seeking, and television viewing patterns. *Journal of Broadcasting & Electronic Media*, *54*(2), 299-315. Doi: 10.1080/08838151003734995

**Bantz, C. R. (1982). Exploring uses and gratifications: A comparison of reported uses of television and reported uses of favorite program type. *Communication Research*, *9*(3), 352-379. Doi: 10.1177/009365082009003002

**Bardoel, J. (2007). Public service broadcasting in a multimedia environment. In N. Carpentier et al. (Eds.), *Media technologies and democracy in an enlarged Europe* (pp. 41-54). Tartu University Press. Retrieved from http://eprints.lse.ac.uk/3304/2/Media_technologies_and_democracy.pdf#page=41

**Barnes, S. J., Pressey, A. D., & Scornavacca, E. (2019). Mobile ubiquity: Understanding the relationship between cognitive absorption, smartphone addiction and social network services. *Computers in Human Behavior, 90*, 246-258. Doi: 10.1016/j.chb.2018.09.013

**Bartsch, A., & Viahoff, R. (2010). The use of media entertainment and emotional gratification. *Procedia Social and Behavioral Sciences, 5*, 2247-2255. Doi: 10.1016/j.sbspro.2010.07.444

**Basil, M. D. (1994). Multiple resource theory I: Application to television viewing. *Communication Research*, *21*(2), 177-207. Doi: 10.1177/009365094021002003

**Basil, M. D. (1994). Multiple resource theory II: Empirical examination of modality-specific attention to television scenes. *Communication Research*, *21*(2), 208-231. Doi: 10.1177/009365094021002004

**Belanche, D., Flavián, C., & Pérez-Rueda, A. (2017). Understanding interactive online advertising: Congruence and product involvement in highly and lowly arousing, skippable video ads. *Journal of Interactive Marketing, 37*, 75-88. Doi: 10.1016/j.intmar.2016.06.004

[4] Only additional references mentioned in appendix (peer-reviewed references, and non-peer-reviewed references if important conceptual work)

**Belch, G., & Belch, M. (2014). The role of new and traditional media in the rapidly changing marketing communications environment. *International Journal on Strategic Innovative Marketing, 1*, 130-136. Doi: 10.15556/IJSIM.01.03.001

**Bellman, S., Nenycz-Thiel, M., Kennedy, R., Hartnett, N., & Varan, D. (2019). Best measures of attention to creative tactics in TV advertising: When do attention-getting devices capture or reduce attention? *Journal of Advertising Research*, *59*(3), 295-311. Doi: 10.2501/JAR-2019-002

**Bergen, L., Grimes, T., & Potter, D. (2005). How attention partitions itself during simultaneous message presentations. *Human Communication Research*, *31*(3), 311-336. Doi: 10.1111/j.1468-2958.2005.tb00874.x

**Bigne, E., Andreu, L., Perez, C., & Ruiz, C. (2019). Brand love is all around: Loyalty behaviour, active and passive social media users. *Current Issues in Tourism*, 1-18. Doi: 10.1080/13683500.2019.1631760

**Billings, A. C., Broussard, R. M., Xu, Q., & Xu, M. (2019). Untangling international sport social media use: Contrasting US and Chinese uses and gratifications across four platforms. *Communication & Sport*, *7*(5), 630-652. Doi: 10.1177/2167479518790014

**Bolatito, O. (2012). Linkage between persuasion principles and advertising. *New Media and Mass Communication*, *8*, 7-12. Doi: 10.7176/vol8iss0pp7-11

**Bollinger, B., Cohen, M., & Jiang, L. (2013). *Measuring asymmetric persistence and interaction effects of media exposures across platforms*. Retrieved from: https://bit.ly/329kxHZ

**Bondad-Brown, B. A., Rice, R. E., & Pearce, K. E. (2012). Influences on TV viewing and online user-shared video use: Demographics, generations, contextual age, media use, motivations, and audience activity. *Journal of Broadcasting & Electronic Media*, *56*(4), 471-493. Doi: 10.1080/08838151.2012.732139

**Bosshart, L., & Macconi, I. (1998). Defining "entertainment". *Communication Research Trends*, *18*(3), 3-6.

**Bowman, N. D., & Tamborini, R. (2015). "In the Mood to Game": Selective exposure and mood management processes in computer game play. *New Media & Society*, *17*(3), 375-393. Doi: 10.1177/1461444813504274

**Brasel, S. A., & Gips, J. (2008). Breaking through fast-forwarding: Brand information and visual attention. *Journal of Marketing*, *72*(6), 31-48. Doi: 10.1509/jmkg.72.6.31

**Brasel, S. A., & Gips, J. (2011). Media multitasking behavior: Concurrent television and computer usage. *Cyberpsychology, Behavior, and Social Networking*, *14*(9), 527-534. Doi: 10.1089/cyber.2010.0350

**Brettel, M., Reich, J. C., Gavilanes, J. M., & Flatten, T. C. (2015). What drives advertising success on Facebook? An advertising-effectiveness model: Measuring the effects on sales of "likes" and other social-network stimuli. *Journal of Advertising Research*, *55*(2), 162-175. Doi: 10.2501/jar-55-2-162-175

**Brians, C. L., & Wattenberg, M. P. (1996). Campaign issue knowledge and salience: Comparing reception from TV commercials, TV news, and newspapers. *American Journal of Political Science*, *40*(1), 172. Doi: 10.2307/2111699

**Broach Jr, V. C., Page Jr, T. J., & Wilson, R. D. (1995). Television programming and its influence on viewers' perceptions of commercials: The role of program arousal and pleasantness. *Journal of Advertising*, *24*(4), 45-54. Doi: 10.1080/00913367.1995.10673488

**Bruce, N. I., Murthi, B. P. S., & Rao, R. C. (2017). A dynamic model for digital advertising: The effects of creative format, message content, and targeting on engagement. *Journal of Marketing Research*, *54*(2), 202-218. Doi: 10.1509/jmr.14.0117

**Bruner, G. D., & Kumar, A. (2000). Web commercials and advertising hierarchy-of-effects. *Journal of Advertising Research, Jan-Apr 2000*, 35-42. Retrieved from https://tinyurl.com/w9m38wk

**Cai, J., Wohn, D. Y., Mittal, A., & Sureshbabu, D. (2018). Utilitarian and hedonic motivations for live streaming shopping. In *Proceedings of the 2018 ACM international conference on interactive experiences for TV and online video* (pp. 81-88), June. Doi: 10.1145/3210825.3210837

**Calder, B. J., & Sternthal, B. (1980). Television commercial wearout: An information processing view. *Journal of Marketing Research*, *17*(2), 173-186. Doi: 10.1177/002224378001700202

**Carlson, J. R., & Zmud, R. W. (1999). Channel expansion theory and the experiential nature of media richness perceptions. *Academy of Management Journal*, *42*(2), 153-170. Doi: 10.5465/257090

**Celuch, K. G., & Slama, M. (1995). Cognitive and affective components of Aad in a low motivation processing set. *Psychology & Marketing*, *12*(2), 123-133. Doi: 10.1002/mar.4220120204

**Cha, J. (2013b). Do online video platforms cannibalize television? How viewers are moving from old screens to new ones. *Journal of Advertising Research*, *53*(1), 71-82. Doi: 10.2501/JAR-53-1-071-082

**Cha, J. (2013c). Does genre type influence choice of video platform? A study of college student use of internet and television for specific video genres. *Telematics and Informatics*, *30*(2), 189-200. Doi: 10.1016/j.tele.2012.09.003

**Cha, J., & Chan-Olmsted, S. M. (2012). Substitutability between online video platforms and television. *Journalism & Mass Communication Quarterly*, *89*(2), 261-278. Doi: 10.1177/1077699012439035

**Chang, C. (2004). How mood and ad-self-congruency affect the relative influence of hedonic ad appeals and utilitarian ad appeals on product evaluations. *ACR North American Advances*. Retrieved from http://www.acrwebsite.org/volumes/9003/volumes/v31/NA-31

**Chen, J., Yang, X., & Smith, R. E. (2016). The effects of creativity on advertising wear-in and wear-out. *Journal of the Academy of Marketing Science*, *44*(3), 334-349. Doi: 10.1007/s11747-014-0414-5

**Choi, Y., Kim, J., & McMillan, S. J. (2009). Motivators for the intention to use mobile TV: A comparison of South Korean males and females. *International Journal of Advertising*, *28*(1), 147-167. Doi: 10.2501/S0265048709090477

**Christensen, C. G., Bickham, D., Ross, C. S., & Rich, M. (2015). Multitasking with television among adolescents. *Journal of Broadcasting & Electronic Media*, *59*(1), 130-148. Doi: 10.1080/08838151.2014.998228

**Cohen, E. L., & Lancaster, A. L. (2014). Individual differences in in-person and social media television coviewing: The role of emotional contagion, need to belong, and coviewing orientation. *Cyberpsychology, Behavior, and Social Networking*, *17*(8), 512-518. Doi: 10.1089/cyber.2013.0484

**Cooper, R., & Tang, T. (2009). Predicting audience exposure to television in today's media environment: An empirical integration of active-audience and structural theories. *Journal of Broadcasting & Electronic Media*, *53*(3), 400-418. Doi: 10.1080/08838150903102204

**Courtois, C., De Grove, F., & De Marez, L. (2014). *The role of socio-spatial context in the habit-goal interface of audiovisual media consumption*. Retrieved from: https://bit.ly/2TgtIE0

**Cypher, M., & Richardson, I. (2006). An actor-network approach to games and virtual environments. In *Joint International Conference on CyberGames and Interactive Entertainment 2006 (CGIE2006)*.

**Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, *32*(5), 554-571. Doi: 10.1287/mnsc.32.5.554

**Danaher, P. J., & Rossiter, J. R. (2011). Comparing perceptions of marketing communication channels. *European Journal of Marketing*. Doi: 10.1108/03090561111095586

**De Lara, A., García Avilés, J. A., & Revuelta, G. (2017). Online video on climate change: A comparison between television and web formats. *Journal of Science Communication, 16*(1). Doi: 10.22323/2.16010204

**Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. Plenum.

**Dhoest, A., & Simons, N. (2016). Still 'watching'TV? The consumption of TV fiction by engaged audiences. *Media and Communication*, *4*(3), 176-184. Doi: 10.17645/mac.v4i3.427

**Dias, P. (2016). Motivations for multi-screening: An exploratory study on motivations and gratifications. *European Journal of Communication*, *31*(6), 678-693. Doi: 10.1177/0267323116674111

**Dillman Carpentier, F. R., Brown, J. D., Bertocci, M., Silk, J. S., Forbes, E. E., & Dahl, R. E. (2008). Sad kids, sad media? Applying mood management theory to depressed adolescents' use of media. *Media Psychology*, *11*(1), 143-166. Doi: 10.1080/15213260701834484

**Dimmick, J., Chen, Y., & Li, Z. (2004). Competition between the Internet and traditional news media: The gratification-opportunities niche dimension. *The Journal of Media Economics*, *17*(1), 19-33. Doi: 10.1207/s15327736me1701_2

**Dimmick, J., Kline, S., & Stafford, L. (2000). The gratification niches of personal e-mail and the telephone: Competition, displacement, and complementarity. *Communication Research*, *27*(2), 227-248. Doi: 10.1177/009365000027002005

**Dindar, M., & Akbulut, Y. (2016). Effects of multitasking on retention and topic interest. *Learning and Instruction*, *41*, 94-105. Doi: 10.1016/j.learninstruc.2015.10.005

**Ducoffe, R. H. (1995). How consumers assess the value of advertising. *Journal of Current Issues & Research in Advertising*, *17*(1), 1-18. Doi: 10.1080/10641734.1995.10505022

**Ducoffe, R. H., & Curlo, E. (2000). Advertising value and advertising processing. *Journal of Marketing Communications*, *6*(4), 247-262. Doi: 10.1080/135272600750036364

**Duff, B. R. L., & Sar, S. (2015). Seeing the big picture: Multitasking and perceptual processing influences on ad recognition. *Journal of Advertising*, *44*(3), 173-184.

**Duff, B. R., & Segijn, C. M. (2019). Advertising in a media multitasking era: Considerations and future directions. *Journal of Advertising*, *48*(1), 27-37. Doi: 10.1080/00913367.2014.967426

**Edell, J. A., & Burke, M. C. (1984). The moderating effect of attitude toward an ad on ad effectiveness under different processing conditions. In T. C. Kinnear (Ed.), *NA - Advances in Consumer Research, 11* (pp. 644-649), Provo, UT: Association for Consumer Research.

**Eisend, M., & Tarrahi, F. (2016). The effectiveness of advertising: A meta-meta-analysis of advertising inputs and outcomes. *Journal of Advertising*, *45*(4), 519-531. Doi: 10.1080/00913367.2016.1185981

**Engel, B. (2019). Mood management mit Medien. *Media Perspektiven*, *2*, 74-81.

**Engel, B., & Geißlitz, A. (2018). In the Mood: Wie wir mit Medien unsere Stimmung managen - eine Langzeitstudie zum Moodmanagement. *Planung und Analyse*, *6*, 53-55.

**Faltner, G., & Mayr, B. (2007). Digitales Fernsehen über das Festnetz von Telekom Austria: Ein Statusbericht. *e & i Elektrotechnik und Informationstechnik*, *124*(10), 323-327. Doi: 10.1007/s00502-007-0474-z

**Fang, Z., Yang, Y., Li, W., & Deng, F. (2013). Quantify sales impact of location-based advertising. *International Journal of Mobile Communications*, *11*(5), 513-529. Doi: 10.1504/IJMC.2013.056958

**Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, Addison-Wesley. Retrieved from https://philarchive.org/archive/FISBAI

**Fortin, D. R., & Dholakia, R. R. (2005). Interactivity and vividness effects on social presence and involvement with a web-based advertisement. *Journal of Business Research*, *58*(3), 387-396. Doi: 10.1016/S0148-2963(03)001061

**Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, *21*(1), 1-31. Doi: 10.1086/209380

**Gantz, W., & Wenner, L. A. (1995). Fanship and the television sports viewing experience. *Sociology of Sport Journal*, *12*(1), 56-74. Doi: 10.1123/ssj.12.1.56

**Garaus, M., Wagner, U., & Bäck, A. M. (2017). The effect of media multitasking on advertising message effectiveness. *Psychology & Marketing*, *34*(2), 138-156. Doi: 10.1002/mar.20980

**García Avilés, J. A. (2018). *Roles of audience participation in multiplatform television: From fans and consumers, to collaborators and activists*. Retrieved from: https://bit.ly/39LTvsY

**Geiger, S., & Newhagen. J. (1993). Revealing the black box: Information processing and media effects. *Journal of Communication, 43*(4), 42–50. Retrieved from https://tinyurl.com/wts7npe

**Gjoni, E. (2017). From passive viewers to content generators: Audience role on TV programs and online media. *Journalism*, *7*(2), 63-77. Doi: 10.17265/2160-6579/2017.02.001

**Godlewski, L. R., & Perse, E. M. (2010). Audience activity and reality television: Identification, online activity, and satisfaction. *Communication Quarterly*, *58*(2), 148-169. Doi: 10.1080/01463371003773358

**Golan, G. J., & Banning, S. A. (2008). Exploring a link between the third-person effect and the theory of reasoned action: Beneficial ads and social expectations. *American Behavioral Scientist*, *52*(2), 208-224. Doi: 10.1177/0002764208321352

**Gómez, M., Lopez, C., & Molina, A. (2019). An integrated model of social media brand engagement. *Computers in Human Behavior, 96*, 196-206. Retrieved from https://tinyurl.com/wjz525d

**Greenwood, D. N., & Long, C. R. (2009). Psychological predictors of media involvement: Solitude experiences and the need to belong. *Communication Research*, *36*(5), 637-654. Doi: 10.1177/0093650209338906

**Greer, C. F., & Ferguson, D. A. (2015). Tablet computers and traditional television (TV) viewing: Is the iPad replacing TV? *Convergence*, *21*(2), 244-256. Doi: 10.1177/1354856514541928

**Grimes, A., & Kitchen, P. J. (2007). Researching mere exposure effects to advertising: Theoretical foundations and methodological implications. *International Journal of Market Research*, *49*(2), 191-219. Retrieved from https://www.sciencedirect.com/science/article/pii/S0747563219300354

**Guo, M. (2019). Social television viewing with second screen platforms: Antecedents and consequences. *Media and Communication*, *7*(1), 139-152. Retrieved from https://tinyurl.com/s3at7qn

**Guo, M., & Chan-Olmsted, S. M. (2015). Predictors of social television viewing: How perceived program, media, and audience characteristics affect social engagement with television programming. *Journal of Broadcasting & Electronic Media*, *59*(2), 240-258. Doi: 10.1080/08838151.2015.1029122

**Ham, C. D., Lee, J., & Lee, H. S. (2014). Understanding consumers' creating behaviour in social media: An application of uses and gratifications and the theory of reasoned action. *International Journal of Internet Marketing and Advertising*, *8*(4), 241-263. Doi: 10.1504/ijima.2014.067652

**Hamouda, M. (2018). Understanding social media advertising effect on consumers' responses. *Journal of Enterprise Information Management*. Doi: 10.1108/JEIM-07-2017-0101/full/html?fullSc=1

**Hassoun, D. (2014). Tracing attentions: Toward an analysis of simultaneous media use. *Television and New Media*, *15*(4), 271-288. Doi: 10.1177/1527476412468621

**Hautz, J., Füller, J., Hutter, K., & Thürridl, C. (2014). Let users generate your video ads? The impact of video source and quality on consumers' perceptions and intended behaviors. *Journal of Interactive Marketing*, *28*(1), 1-15. Doi: 10.1016/j.intmar.2013.06.003

**Hawkins, R. P., Pingree, S., Bruce, L., & Tapper, J. (1997). Strategy and style in attention to television. *Journal of Broadcasting & Electronic Media*, *41*(2), 245-264. Doi: 10.1080/08838159709364404

**Hernandez, J., Liu, Z., Hulten, G., DeBarr, D., Krum, K., & Zhang, Z. (2013). Measuring the engagement level of TV viewers. In *2013 10th IEEE International Conference and Workshops on Automatic Face and Gesture Recognition (FG)* (pp. 1-7), April. IEEE. Retrieved from https://tinyurl.com/vhvsotu

**Hess, J. D., Kacen, J. J., & Kim, J. (2006). Mood-management dynamics: The interrelationship between moods and behaviours. *British Journal of Mathematical and Statistical Psychology*, *59*(2), 347-378. Doi: 10.1348/000711005X81133

**Hjorth, L. (2008). Being real in the mobile reel: A case study on convergent mobile media as domesticated new media in Seoul, South Korea. *Convergence*, *14*(1), 91-104. Doi: 10.1177/1354856507084421

**Holmes, M. E., Josephson, S., & Carney, R. E. (2012). Visual attention to television programs with a second-screen application. In *Proceedings of the symposium on eye tracking research and applications* (pp. 397-400), March.

**Holmes, S. (2004). 'But this time you choose!' Approaching the 'interactive'audience in reality TV. *International Journal of Cultural Studies*, *7*(2), 213-231. Doi: https://tinyurl.com/w4jhp9k

**Holz, C., Bentley, F., Church, K., & Patel, M. (2015). "I'm just on my phone and they're watching TV": Quantifying mobile device use while watching television. In *Proceedings of the ACM International Conference on Interactive Experiences for TV and Online Video* (pp. 93-102), June. Doi: 10.1145/2745197.2745210

**Homer, B. D., Plass, J. L., & Blake, L. (2008). The effects of video on cognitive load and social presence in multimedia-learning. *Computers in Human Behavior*, *24*, 786-797. Doi: 10.1016/j.chb.2007.02.009

**Hossain, M. D., Kim, J. K., Lee, J. Y., & Kim, K. J. (2012). Impacts of cognitive media attributes and motivation on IPTV adoption: exploring the moderating effects of agricultural information. *Information Development*, *28*(4), 300-315. Doi: 10.1177/0266666912446496

**Hsu, C. L., Chang, K. C., & Chen, M. C. (2012). The impact of website quality on customer satisfaction and purchase intention: Perceived playfulness and perceived flow as mediators. *Information Systems and e-Business Management*, *10*(4), 549-570. Doi: 10.1080/0144929X.2017.1288267

**Hu, M., Zhang, M., & Wang, Y. (2017). Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework. *Computers in Human Behavior*, *75*, 594-606. Doi: 10.1016/j.chb.2017.06.006

**Huskey, R., Craighead, B., Miller, M. B., & Weber, R. (2018a). Does intrinsic reward motivate cognitive control? A naturalistic-fMRI study based on the synchronization theory of flow. *Cognitive, Affective, & Behavioral Neuroscience*, *18*, 902-924. Doi: 10.3758/s13415-018-0612-6

**Huskey, R., Wilcox, S., & Weber, R. (2018b). Network neuroscience reveals distinct neuromarkers of flow during media use. *Journal of Communication*, 1-24. Doi: 10.1093/joc/jqy043

**Hussain, D., & Lasage, H. (2014). Online video advertisement avoidance: Can interactivity help? *Journal of Applied Business Research (JABR)*, *30*(1), 43-50. Retrieved from https://tinyurl.com/v7kujwj

**Hwang, Y., & Lim, J. S. (2015). The impact of engagement motives for social TV on social presence and sports channel commitment. *Telematics and informatics*, *32*(4), 755-765. Doi: 10.1016/j.tele.2015.03.006

**Hwang, Y., Kim, H., & Jeong, S. H. (2014). Why do media users multitask? Motives for general, medium-specific, and content-specific types of multitasking. *Computers in Human Behavior*, *36*, 542-548. Doi: 10.1016/j.chb.2014.04.040

**IAB (2018a). *Building 21st century brands: Video creative innovation*. [Whitepaper]. Retrieved from https://tinyurl.com/upgtpyx

**IAB (2018b). *Ad receptivity and the ad-supported OTT video viewer*. [Study]. Retrieved from https://www.iab.com/insights/day-in-life-video-viewers/

**Im, C. H., Lee, J. H., & Lim, J. H. (2015). Neurocinematics based on passive BCI: Decoding temporal change of emotional arousal during video watching from multi-channel EEG. In *2015 10th Asian Control Conference (ASCC)* (pp. 1-3), May. IEEE. Doi: 10.1109/ascc.2015.7244792

**Jansz, J. (2005). The emotional appeal of violent video games for adolescent males. *Communication Theory*, *15*(3), 219-241. Retrieved from https://tinyurl.com/wq3zh8m

**Jensen, J. A., Walsh, P., Cobbs, J., & Turner, B. A. (2015). The effects of second screen use on sponsor brand awareness: A dual coding theory perspective. *Journal of Consumer Marketing*. Doi: 10.1108/JCM-02-2014-0861

**Jeong, S. H., & Hwang, Y. (2012). Does multitasking increase or decrease persuasion? Effects of multitasking on comprehension and counterarguing. *Journal of Communication*, *62*(4), 571-587. Doi: 10.1111/j.1460-2466.2012.01659.x

**Jeong, S. H., & Hwang, Y. (2015). Multitasking and persuasion: The role of structural interference. *Media Psychology*, *18*(4), 451-474. Doi: 10.1080/15213269.2014.933114

**Jeong, S. H., & Hwang, Y. (2016). Media multitasking effects on cognitive vs. attitudinal outcomes: A meta-analysis. *Human Communication Research*, *42*(4), 599-618. Doi: 10.1111/hcre.12089

**Jin, S. A. A. (2012). "Toward integrative models of flow": Effects of performance, skill, challenge, playfulness, and presence on flow in video games. *Journal of Broadcasting and Electronic Media*, *56*(2), 169-186. Doi: 10.1080/08838151.2012.678516

**Kahneman, D. (1973). *Attention and effort* (vol. 1063). Prentice-Hall.

**Kavanaugh, A. L., Sheetz, S. D., Sandoval-Almazan, R., Tedesco, J. C., & Fox, E. A. (2016). Media use during conflicts: Information seeking and political efficacy during the 2012 Mexican elections. *Government Information Quarterly*, *33*(3), 595-602. Doi: 10.1016/j.giq.2016.01.004

**Kazakova, S., Cauberghe, V., Pandelaere, M., & de Pelsmacker, P. (2015). Can't see the forest for the trees? The effect of media multitasking on cognitive processing style. *Media Psychology*, *18*(4), 425-450. Doi: 10.1080/15213269.2015.1006789

**Kazmi, S. H. A., Zeng, H., & Abid, M. M. (2016). Effects of hedonism and utilitarianism in advertising in e-business equity. In *2016 8th International Conference on Intelligent Human-Machine Systems and Cybernetics (IHMSC)* (vol. 2, pp. 582-585), August. IEEE. Doi: 10.1109/IHMSC.2016.232

**Kim, J., Ahn, S. J. G., Kwon, E. S., & Reid, L. N. (2017). TV advertising engagement as a state of immersion and presence. *Journal of Business Research*, *76*, 67-76. Doi: 10.1016/j.jbusres.2017.03.001

**Kim, G., & Lee, J. H. (2011). The effect of search condition and advertising type on visual attention to Internet advertising. *Cyberpsychology, Behavior, and Social Networking*, *14*(5), 323-325. Doi: 10.1089/cyber.2010.0075

**Kim, J., & Rubin, A. M. (1997). The variable influence of audience activity on media effects. *Communication Research*, *24*(2), 107-135. Doi: 10.1177/009365097024002001

**Kim, S., Lee, J., & Yoon, D. (2015). Norms in social media: The application of theory of reasoned action and personal norms in predicting interactions with Facebook page like ads. *Communication Research Reports*, *32*(4), 322-331. Retrieved from https://psycnet.apa.org/record/2014-19176-056

**Kim, Y. J., & Han, J. (2014). Why smartphone advertising attracts customers: A model of Web advertising, flow, and personalization. *Computers in Human Behavior*, *33*, 256-269. Retrieved from https://www.sciencedirect.com/science/article/pii/S074756321400020X

**Knobloch, S. (2003). Mood adjustment via mass communication. *Journal of Communication*, *53*(2), 233-250. Retrieved from https://psycnet.apa.org/record/2014-19176-056

**Kremar, M., & Greene, K. (1999). Predicting exposure to and uses of television violence. *Journal of Communication*, *49*(3), 24-45. Doi: 10.1111/j.1460-2466.1999.tb02803.x

**Krugman, D. M., Cameron, G. T., & White, C. M. (1995). Visual attention to programming and commercials: The use of in-home observations. *Journal of Advertising*, *24*(1), 1-12. Doi: 10.1080/00913367.1995.10673464

**Kuisma, J., Simola, J., Uusitalo, L., & Öörni, A. (2010). The effects of animation and format on the perception and memory of online advertising. *Journal of Interactive Marketing*, *24*(4), 269-282. Doi: 10.1016/j.intmar.2010.07.002

**Kuksa, I. (2009). Cultural use of cyberspace. In Oddey, A., & White, C. (Eds.), *Modes of Spectating*. Intellect (p. 89). Retrieved from https://tinyurl.com/rc4xs9e

**Kuvykaite, R., & Tarute, A. (2015). A critical analysis of consumer engagement dimensionality. *Procedia - Social and Behavioral Sciences, 213*, 654-658. Doi: 10.1016/j.sbspro.2015.11.468

**Kwak, H., Larsen Andras, T., & Zinkhan, G. M. (2009). Advertising to 'active' viewers: Consumer attitudes in the US and South Korea. *International Journal of Advertising*, *28*(1), 49-75. Doi: 10.2501/S0265048709090428

**Lai, Y. L., Kuan, K. K., Hui, K. L., & Liu, N. (2009). The effects of moving animation on recall, hedonic and utilitarian perceptions, and attitude. *IEEE Transactions on Engineering Management*, *56*(3), 468-477. Doi: 10.1109/tem.2009.2023454

**Lang, A. (1990). Involuntary attention and physiological arousal evoked by structural features and emotional content in TV commercials. *Communication Research*, *17*(3), 275-299. Doi: 10.1177/009365090017003001

**Lang, A., Chung, Y., Lee, S., Schwartz, N., & Shin, M. (2005). It's an arousing, fast-paced kind of world: The effects of age and sensation seeking on the information processing of substance-abuse PSAs. *Media Psychology*, *7*(4), 421-454. Doi: 10.1207/S1532785XMEP0704_6

**Lang, A., Dhillon, K., & Dong, Q. (1995). The effects of emotional arousal and valence on television viewers' cognitive capacity and memory. *Journal of Broadcasting & Electronic Media*, *39*(3), 313-327. Doi: 10.1177/009365095022001004

**Lang, A., Geiger, S., Strickwerda, M., & Sumner, J. (1993). The effects of related and unrelated cuts on television viewers' attention, processing capacity, and memory. *Communication Research*, *20*(1), 4-29. Doi: 10.1177/009365093020001001

**Lang, A., Newhagen, J., & Reeves, B. (1996). Negative video as structure: Emotion, attention, capacity, and memory. *Journal of Broadcasting & Electronic Media*, *40*(4), 460-477. Doi: 10.1080/08838159609364369

**Lang, A., Park, B., Sanders-Jackson, A. N., Wilson, B. D., & Wang, Z. (2007). Cognition and emotion in TV message processing: How valence, arousing content, structural complexity, and information density affect the availability of cognitive resources. *Media Psychology*, *10*(3), 317-338. Doi: 10.1080/15213260701532880

**Langstedt, E. R., & Atkin, D. J. (2013). An examination of personality traits and television viewing motives using patterns of interrelation and quadratic analysis. *Atlantic Journal of Communication*, *21*(5), 278-293. Doi: 10.1080/15456870.2013.842571

**Lavidge, R. J., & Steiner, G. A. (1961). A model for predictive measurements of advertising effectiveness. *Journal of Marketing*, *25*(6), 59-62. Doi: 10.1177/002224296102500611

**Lee, J., Ahn, J. H., & Park, B. (2015). The effect of repetition in Internet banner ads and the moderating role of animation. *Computers in Human Behavior*, *46*, 202-209. Doi: 10.1016/j.chb.2015.01.008

**Lee, J., & Hong, I. B. (2016). Predicting positive user responses to social media advertising: The roles of emotional appeal, informativeness, and creativity. *International Journal of Information Management*, *36*(3), 360-373. Doi: 10.1016/j.ijinfomgt.2016.01.001

**Lee, J., & Lee, M. (2011). Factors influencing the intention to watch online video advertising. *Cyberpsychology, Behavior, and Social Networking*, *14*(10), 619-624. Doi: 10.1089/cyber.2009.0305

**Lee, J., Ham, C. D., & Kim, M. (2013). Why people pass along online video advertising: From the perspectives of the interpersonal communication motives scale and the theory of reasoned action. *Journal of Interactive Advertising*, 13(1), 1-13. Doi: 10.1080/15252019.2013.768048

**Leenheer, R., & Geerts, D. (2014). *Using overlays and second screen to stimulate social interaction without compromising passive consumption.* 2nd International Workshop on Interactive Content Consumption at TVX'14, June 25, 2014, Newcastle, UK. Retrieved from: https://wsicc.net/2014/proceedings/wsicc2014_submission_4.pdf

**Leung, L., & Chen, C. (2017). Extending the theory of planned behavior: A study of lifestyles, contextual factors, mobile viewing habits, TV content interest, and intention to adopt mobile TV. *Telematics and Informatics*, *34*(8), 1638-1649. Doi: 10.1016/j.tele.2017.07.010

**Levy, M. R., & Windahl, S. (1984). Audience activity and gratifications: A conceptual clarification and exploration. *Communication Research*, *11*(1), 51-78. Doi: 10.1177/009365084011001003

**Li, Z. (2016). Psychological empowerment on social media: Who are the empowered users? *Public Relations Review*, *42*(1), 49-59. Doi: 10.1016/j.pubrev.2015.09.001

**Libert, A., & Van Hulle, M. M. (2019). Predicting premature video skipping and viewer interest from EEG recordings. *Entropy, 21*(10), 1014. Doi: 10.3390/e21101014

**Lim, J. S., Ri, S. Y., Egan, B. D., & Biocca, F. A. (2015). The cross-platform synergies of digital video advertising: Implications for cross-media campaigns in television, Internet and mobile TV. *Computers in Human Behavior*, *48*, 463-472. Doi: 10.1016/j.chb.2015.02.001

**Lin, C. A. (1993). Modeling the gratification-seeking process of television viewing. *Human Communication Research*, *20*(2), 224-244. Retrieved from https://tinyurl.com/wv8c39v

**Lin, H. F. (2009). Examination of cognitive absorption influencing the intention to use a virtual community. *Behaviour & Information Technology*, *28*(5), 421-431. Doi: 10.1080/01449290701662169

**Lin, H. H. (2011). Gender differences in the linkage of online patronage behavior with TV-and-online shopping values. *Service Business*, 5(4), 295. Doi: 10.1007/s11628-011-0115-9

**Lin, J. S., Chen, K. J., & Sung, Y. (2018). Understanding the nature, uses, and gratifications of social television: Implications for developing viewer engagement and network loyalty. *Journal of Broadcasting & Electronic Media*, *62*(1), 1-20. Doi: 10.1080/08838151.2017.1402904

**Lin, T. T., Younbo, J., & Sim, C. (2015). Towards an understanding of intention to use mobile videos: Impression management, perceived facilitation, and social norms. *Mobile Media & Communication*, *3*(1), 106-124. Doi: 10.1177/2050157914555426

**Liu, H. J., & Shiue, Y. C. (2014). Influence of Facebook game players' behavior on flow and purchase intention. *Social Behavior and Personality: An International Journal*, *42*(1), 125-133. Doi: doi:10.2224/sbp.2014.42.1.125

**Logan, K. (2011). Hulu.com or NBC? Streaming video versus traditional TV. *Journal of Advertising Research, 51*(1), 276-287. Doi: 10.2501/jar-51-1-276-287

**Logan, K., Bright, L. F., & Gangadharbatla, H. (2012). Facebook versus television: Advertising value perceptions among females. *Journal of Research in Interactive Marketing*, *6*(3), 164-179. Doi: 10.1108/17505931211274651

**Lowenstein-Barkai, H., & Lev-On, A. (2018). Complementing or substituting? News in an era of multiple platforms and second screens. *International Journal of Human–Computer Interaction*, *34*(10), 922-931. Doi: 10.1080/10447318.2018.1471571

**Lowry, P. B., Twyman, N. W., Pickard, M., & Jenkins, J. L. (2014). Proposing the Affect-Trust Infusion Model (ATIM) to explain and predict the influence of high and low affect infusion on Web vendor trust. *Information & Management*, *51*(5), 579-594. Doi: 10.1016/j.im.2014.03.005

**Lui, K. F., & Wong, A. C. N. (2012). Does media multitasking always hurt? A positive correlation between multitasking and multisensory integration. *Psychonomic Bulletin & Review*, *19*(4), 647-653. Doi: 10.3758/s13423-012-0245-7

**Lundy, L. K., Ruth, A. M., & Park, T. D. (2008). Simply irresistible: Reality TV consumption patterns. *Communication Quarterly*, *56*(2), 208-225. Doi: 10.1080/01463370802026828

**Luthar, B., & Črnič, T. O., (2017). Media repertoires and discursive communities: Studying audiences in the multimedia age. *Communications*, *42*(4), 415-439. Doi: 10.1515/commun-2017-0028

**Mazzoni, E., Cannata, D., & Baiocco, L. (2017). Focused, not lost: The mediating role of temporal dissociation and focused immersion on problematic internet use. *Behaviour & Information Technology*, *36*(1), 11-20. Doi: 10.1080/0144929X.2016.1159249

**McGuire, W. J. (1978). An information-processing model of advertising effectiveness. In H. L. Davis, & A. H. Silk (Eds.), *Behavioral and management science in marketing* (pp. 156-180). Ronald Press.

**McKenzie, J., Crosby, P., Cox, J., & Collins, A. (2019). Experimental evidence on demand for "on-demand" entertainment. *Journal of Economic Behavior & Organization, 161*, 98-113. Doi: https://tinyurl.com/r6y8zfj

**McMahan, C., Hovland, R., & McMillan, S. (2009). Online marketing communications: Exploring online consumer behavior by examining gender differences and interactivity within internet advertising. *Journal of Interactive Advertising*, *10*(1), 61-76. Doi: 10.1080/15252019.2009.10722163

**McNiven, M. D., Krugman, D., & Tinkham, S. F. (2012). The big picture for large-screen television viewing: For both programming and advertising, audiences are more attentive, more absorbed, and less critical. *Journal of Advertising Research*, *52*(4), 421-432. Doi: 10.2501/JAR-52-4-421-432

**Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. MIT Press.

**Moe, H., Poell, T., & Van Dijck, J. (2016). Rearticulating audience engagement: Social media and television. *Television & New Media*, *17*(2), 99-107. Doi: 10.1177/1527476415616194

**Mollen, A., & Wilson, H. (2010). Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, *63*(9-10), 919-925. Doi: 10.1016/j.jbusres.2009.05.014

**Myrick, J. G. (2015). Emotion regulation, procrastination, and watching cat videos online: Who watches Internet cats, why, and to what effect? *Computers in Human Behavior*, *52*, 168-176. Doi: 10.1016/j.chb.2015.06.001

**Nabi, R. L., Stitt, C. R., Halford, J., & Finnerty, K. L. (2006). Emotional and cognitive predictors of the enjoyment of reality-based and fictional television programming: An elaboration of the uses and gratifications perspective. *Media Psychology*, *8*(4), 421-447. Doi: 10.1207/s1532785xmep0804_5

**Naik, P. A., & Raman, K. (2003). Understanding the impact of synergy in multimedia communications. *Journal of Marketing Research*, *40*(4), 375-388. Doi: 10.1509/jmkr.40.4.375.19385

**Nakano, T., Kato, M., Morito, Y., Itoi, S., & Kitazawa, S. (2013). Blink-related momentary activation of the default mode network while viewing videos. *Proceedings of the National Academy of Sciences*, *110*(2), 702-706. Doi: 10.1073/pnas.1214804110

**Nakatsu, R., Rauterberg, M., & Vorderer, P. (2005). A new framework for entertainment computing: From passive to active experience. In *International conference on entertainment computing* (pp. 1-12), September. Springer. Doi: 10.1007/11558651_1

**Norris, C. E., & Colman, A. M. (1993). Context effects on memory for television advertisements. *Social Behavior and Personality*, *21*(4), 279-296.

**Norris, C. E., Colman, A. M., & Aleixo, P. A. (2003). Selective exposure to television programmes and advertising effectiveness. *Applied Cognitive Psychology: The Official Journal of the Society for Applied Research in Memory and Cognition*, *17*(5), 593-606. Doi: 10.1002/acp.892

**O'Brien, H. L. (2010). The influence of hedonic and utilitarian motivations on user engagement: The case of online shopping experiences. *Interacting with Computers*, *22*(5), 344-352. Doi: 10.1016/j.intcom.2010.04.001

**Olney, T. J., Holbrook, M. B., & Batra, R. (1991). Consumer responses to advertising: The effects of ad content, emotions, and attitude toward the ad on viewing time. *Journal of Consumer Research*, *17*(4), 440-453. Doi: 10.1086/208569

**Owen, B. M., Beebe, J. H., & Manning, W. G., Jr. (1974). *Television economics*. Lexington Books.

**Pagani, M., & Malacarne, G. (2017). Experiential engagement and active vs. passive behavior in mobile location-based social networks: The moderating role of privacy. *Journal of Interactive Marketing*, *37*, 133-148. Doi: 10.1016/j.intmar.2016.10.001

**Pagani, M., & Mirabello, A. (2011). The influence of personal and social-interactive engagement in social TV web sites. *International Journal of Electronic Commerce*, *16*(2), 41-68. Doi: 10.2753/JEC1086-4415160203

**Papacharissi, Z., & Mendelson, A. L. (2007). An exploratory study of reality appeal: Uses and gratifications of reality TV shows. *Journal of Broadcasting & Electronic Media*, *51*(2), 355-370. Doi: 10.1080/08838150701307152

**Park, D. Y., & Goering, E. M. (2016). The health-related uses and gratifications of YouTube: Motive, cognitive involvement, online activity, and sense of empowerment. *Journal of Consumer Health on the Internet*, 20(1-2), 52-70. Doi: 10.1080/15398285.2016.1167580

**Park, J. H., & Kim, M. K. (2016). Factors influencing the low usage of smart TV services by the terminal buyers in Korea. *Telematics and Informatics*, *33*(4), 1130-1140. Doi: 10.1016/j.tele.2016.01.001

**Park, D., Lee, J. H., & Kim, S. (2011). Investigating the affective quality of interactivity by motion feedback in mobile touchscreen user interfaces. *International Journal of Human-Computer Studies*, *69*(12), 839-853. Doi: 10.1016/j.ijhcs.2011.06.006

**Paterson, M. (2017). On haptic media and the possibilities of a more inclusive interactivity. *New Media & Society*, *19*(10), 1541-1562. Doi: 10.1177/1461444817717513

**Paivio, A. (1990). *Mental representations: A dual coding approach* (vol. 9). Oxford University Press.

**Peacock, J., Purvis, S., & Hazlett, R. L. (2011). Which broadcast medium better drives engagement? Measuring the powers of radio and television with electromyography and skin-conductance measurements. *Journal of Advertising Research*, *51*(4), 578-585. Doi: 10.2501/JAR-51-4-578-585

**Perse, E. M. (1996). Sensation seeking and the use of television for arousal. *Communication Reports*, *9*(1), 37-48. Doi: 10.1177/009365090017005005

**Perse, E. M. (1998). Implications of cognitive and affective involvement for channel changing. *Journal of Communication*, *48*(3), 49-68. Doi: 10.1111/j.1460-2466.1998.tb02759.x

**Perse, E. M., & Courtright, J. A. (1993). Normative images of communication media mass and interpersonal channels in the new media environment: Mass and interpersonal channels in the new media environment. *Human Communication Research*, *19*(4), 485-503. Doi: 10.1111/j.1468-2958.1993.tb00310.x

**Petty, R. E., Cacioppo, J. T., & Schumann, D. (1983). Central and peripheral routes to advertising effectiveness: The moderating role of involvement. *Journal of Consumer Research*, *10*(2), 135-146. Doi: 10.1086/208954

**Pieters, R., Wedel, M., & Batra, R. (2010). The stopping power of advertising: Measures and effects of visual complexity. *Journal of Marketing*, *74*(5), 48-60. Doi: 10.1509/jmkg.74.5.048

**Poalses, J., Joubert, J. P. R., & Nienaber, A. W. (2015). Generational emotive discrepancies in reaction to television advertising. *The Retail and Marketing Review*, *11*(2), 1-19. Retrieved from https://tinyurl.com/qwjopbl

**Putrevu, S., & Lord, K. R. (1994). Comparative and noncomparative advertising: Attitudinal effects under cognitive and affective involvement conditions. *Journal of Advertising*, *23*(2), 77-91.

**Quesenberry, K. A., & Coolsen, M. K. (2019). Drama goes viral: Effects of story development on shares and views of online advertising videos. *Journal of Interactive Marketing*, *48*, 1-16. Doi: 10.1016/j.intmar.2019.05.001

**Ramaprasad, J., Wu, L., & Gao, D. (1995). A conceptual framework for understanding the content of advertising: Its application to the specific case of Chinese television commercials. *Asian Journal of Communication*, *5*(1), 88-109. Doi: 10.1080/01292989509364715

**Rein, K., & Venturini, T. (2018). Ploughing digital landscapes: How Facebook influences the evolution of live video streaming. *New Media & Society*, *20*(9), 3359-3380. Doi: 10.1177/1461444817748954

**Reinhard, C. D. (2011). Studying the interpretive and physical aspects of interactivity: Revisiting interactivity as a situated interplay of structure and agencies. *Communications*, *36*(3), 353-374. Doi: 10.1515/comm.2011.018

**Rodgers, S., & Thorson, E. (2000). The interactive advertising model: How users perceive and process online ads. *Journal of Interactive Advertising*, *1*(1), 41-60. Doi: 10.1080/15252019.2000.10722043

**Roe, K., & Minnebo, J. (2007). Antecedents of adolescents' motives for television use. *Journal of Broadcasting & Electronic Media*, *51*(2), 305-315. Doi: 10.1080/08838150701304902

**Rogers, E. (1995). *Diffusion of Innovations.* (4th ed.). Free Press.

**Rosenthal, S. (2018). Motivations to seek science videos on YouTube: Free-choice learning in a connected society. *International Journal of Science Education, Part B*, *8*(1), 22-39. Doi: 10.1080/21548455.2017.1371357

**Rossiter, J. R., & Bellman, S. (1999). A proposed model for explaining and measuring web ad effectiveness. *Journal of Current Issues & Research in Advertising*, *21*(1), 13-31. Doi: 10.1080/10641734.1999.10505086

**Rubin, A. M. (2002). The uses-and-gratifications perspective of media effects. In J. Bryant & D. Zillmann (Eds.), *Media effects: Advances in theory and research* (2nd ed., pp. 525-48). Lawrence Erlbaum Associates, Inc.

**Rubin, A. M., & Perse, E. M. (1987). Audience activity and television news gratifications. *Communication Research*, *14*(1), 58-84. Doi: 10.1177/009365087014001004

**Rubin, A. M., Haridakis, P. M., & Eyal, K. (2003). Viewer aggression and attraction to television talk shows. *Media Psychology*, *5*(4), 331-362. Doi: 10.1207/S1532785XMEP0504_02

**Rumpf, C., Noël, B., Breuer, C., & Memmert, D. (2015). The role of context intensity and working memory capacity in the consumer's processing of brand information in entertainment media. *Psychology & Marketing*, *32*(7), 764-770. Doi: 10.1002/mar.20816

**Sanne, P. N., & Wiese, M. (2018). The theory of planned behaviour and user engagement applied to Facebook advertising. *South African Journal of Information Management*, *20*(1), 1-10. Doi: 10.4102/sajim.v20i1.915

**Schumann, D. W., Petty, R. E., & Scott Clemons, D. (1990). Predicting the effectiveness of different strategies of advertising variation: A test of the repetition-variation hypotheses. *Journal of Consumer Research*, *17*(2), 192-202. Doi: 10.1086/208549

**See-To, E. W., Papagiannidis, S., & Cho, V. (2012). User experience on mobile video appreciation: How to engross users and to enhance their enjoyment in watching mobile video clips. *Technological Forecasting and Social Change*, *79*(8), 1484-1494. Doi: 10.1016/j.techfore.2012.03.005

**Segijn, C. M., Voorveld, H. A. M., Vandeberg, L., Pennekamp, S. F., & Smit, E. G. (2017a). Insight into everyday media use with multiple screens. *International Journal of Advertising*, *36*(5), 779-797.

**Segijn, C. M., Voorveld, H. A., Vandeberg, L., & Smit, E. G. (2017b). The battle of the screens: Unraveling attention allocation and memory effects when multiscreening. *Human Communication Research*, *43*(2), 295-314. Doi: 10.1111/hcre.12106

**Selva, D. (2016). Social television: Audience and political engagement. *Television & New Media*, *17*(2), 159-173. Doi: 10.1177/1527476415616192

**Shao, G. (2008). Understanding the appeal of user-generated media: A uses and gratification perspective. *Internet research*. Doi: 10.1108/10662240910927795

**Sharma, P., & Gupta, P. (2015). Semiotic analysis of Indian television advertisements and its impact on consumers: An exploratory study. *ESSACHESS-Journal for Communication Studies*, *8*(1), 71-90. Retrieved from https://tinyurl.com/qomvzw5

**Shim, H., Oh, P., Song, H., & Lee, Y. (2015). An exploration of motivations for two screen viewing, social interaction behaviors, and factors that influence viewing intentions. *Cyberpsychology, Behavior, and Social Networking*, *18*(3), 158-164. Doi: 10.1089/cyber.2014.0543

**Shim, H., Shin, E., & Lim, S. (2017). What makes us two-screen users? The effects of two-screen viewing motivation and psychological traits on social interactions. *Computers in Human Behavior*, *75*, 339-346. Doi: 10.1016/j.chb.2017.05.019

**Sin, S. C. J., & Vakkari, P. (2017). Information repertoires: Media use patterns in various gratification contexts. *Journal of Documentation*. Retrieved from: https://bit.ly/2SEtciH

**Singh, S. N., & Churchill Jr, G. A. (1987). Arousal and advertising effectiveness. *Journal of Advertising*, *16*(1), 4-40. Doi: 10.1080/00913367.1987.10673054

**Singh, S. N., Rothschild, M. L., & Churchill Jr., G. A. (1988). Recognition versus recall as measures of television commercial forgetting. *Journal of Marketing Research, 25*(1), 72-80. Doi: 10.1177/002224378802500107

**Sirgy, M. J., & Johar, J. S. (1992). Value expressive versus utilitarian appeals: A reply to Shavitt. *Journal of Advertising*, *21*(2), 53-54. Doi: 10.1080/00913367.1987.10673054

**Smith, A. N., Fischer, E., & Yongjian, C. (2012). How does brand-related user-generated content differ across YouTube, Facebook, and Twitter? *Journal of Interactive Marketing*, *26*(2), 102-113. Doi: 10.1016/j.intmar.2012.01.002

**Smith, M. E., & Gevins, A. (2004). Attention and brain activity while watching television: Components of viewer engagement. *Media Psychology*, *6*(3), 285-305. Doi: 10.1207/s1532785xmep0603_3

**Southgate, D., Westoby, N., & Page, G. (2010). Creative determinants of viral video viewing. *International Journal of Advertising*, *29*(3), 349-368. Doi: 10.2501/S0265048710201221

**Sparviero, S. (2019). From passive consumption of media goods to active use of media brands: On value generation and other differences. *Communication and Society*, *32*(3), 67-78. Doi: 10.15581/003.32.3.67-79

**Stammerjohan, C., Wood, C. M., Chang, Y., & Thorson, E. (2005). An empirical investigation of the interaction between publicity, advertising, and previous brand attitudes and knowledge. *Journal of Advertising*, *34*(4), 55-67. Doi: 10.1080/00913367.2005.10639209

**Stanca, L., Gui, M., & Gallucci, M. (2013). Attracted but unsatisfied: The effects of sensational content on television consumption choices. *Journal of Media Economics*, *26*(2), 82-97. Doi: 10.1080/08997764.2013.785552

**Steele, L., James, R., Burrows, R., Mantell, D. L., & Bromham, J. (2015). The consumption of on-demand. *Journal of Promotional Communications*, *3*(1). Doi: 10.1016/j.jebo.2019.03.017

Steiner, E., & Xu, K. (2018). Binge-watching motivates change: Uses and gratifications of streaming video viewers challenge traditional TV research. *Convergence*, 1354856517750365. Doi: 10.1177/1354856517750365

**Stewart, K., Kammer-Kerwick, M., Auchter, A., Koh, H. E., Dunn, M. E., & Cunningham, I. (2019). Examining digital video advertising (DVA) effectiveness. *European Journal of Marketing, 53*(11), 2451-2479. Doi: 10.1108/EJM-11-2016-0619

**Strover, S., & Moner, W. (2012). Immersive television and the on-demand audience. In *62nd Annual Convention of the International Communication Association, Phoenix, AZ*. Retrieved from https://tinyurl.com/wspou9a

**Sundar, S. S., & Kim, J. (2005). Interactivity and persuasion: Influencing attitudes with information and involvement. *Journal of Interactive Advertising*, *5*(2), 5-18. Retrieved from https://tinyurl.com/wspou9a

**Sundar, S. S., & Limperos, A. M. (2013). Uses and grats 2.0: New gratifications for new media. *Journal of Broadcasting & Electronic Media*, *57*(4), 504-525. Doi: 10.1080/08838151.2013.845827

**Sutcliffe, A., & Hart, J. (2017). Analyzing the role of interactivity in user experience. *International Journal of Human–Computer Interaction*, *33*(3), 229-240. Doi: 10.1080/10447318.2016.1239797

**Svoen, B. (2007). Consumers, participants, and creators: Young people's diverse use of television and new media. *Computers in Entertainment (CIE)*, *5*(2), 5. Doi: 10.1145/1279540.1279545

**Tafani, E., Roux, E., & Greifeneder, R. (2018). In the mood for action: When negative program-induced mood improves the behavioral effectiveness of TV commercials. *Journal of Business Research*, *84*, 125-140. Doi: 10.1016/j.jbusres.2017.11.023

**Tajfel, H., & Turner, J. (1979). An integrative theory of intergroup conflict. In W. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations*. Brooks/Cole.

**Tan, W. K., Lee, P. W., & Hsu, C. W. (2015). Investigation of temporal dissociation and focused immersion as moderators of satisfaction–continuance intention relationship: Smartphone as an example. *Telematics and Informatics*, *32*(4), 745-754. Doi: doi:10.1016/j.tele.2015.03.007

**Tefertiller, A. (2017). Moviegoing in the Netflix age: Gratifications, planned behavior, and theatrical attendance. *Communication & Society*, *30*(4), 27-44. Doi: 10.15581/003.30.3.27-44

**Te Walvaart, M., Dhoest, A., & Van den Bulck, H. (2019). Production perspectives on audience participation in television: On, beyond and behind the screen. *Convergence*, *25*(5-6), 1140-1154. Doi: 10.1177/1354856517750362

**Thorson, E., Reeves, B., & Schleuder, J. (1985). Message complexity and attention to television. *Communication Research*, *12*(4), 427-454. Doi: 10.1177/009365085012004001

**Trilling, D. (2014). Grenzen der Selektivität: kann der Selective-exposure-Ansatz komplementäre und komplexe Nutzungsmuster erklären? In *Medienkonvergenz und Medienkomplementarität aus Rezeptions-und Wirkungsperspektive* (pp. 75-92), September. Nomos. Retrieved from: https://pdfs.semanticscholar.org/222a/a781ba523ee9f59598b74f5597b3eb24c1d2.pdf

**Truong, Y. (2008). An evaluation of the theory of planned behaviour in consumer acceptance of online video and television services. *The Electronic Journal Information Systems Evaluation*, *12*(2), 177-186.

**Tukachinsky, R., & Eyal, K. (2018). The psychology of marathon television viewing: Antecedents and viewer involvement. *Mass Communication and Society*, *21*(3), 275-295. Doi: 10.1080/15205436.2017.1422765

**Unnava, H. R., & Burnkrant, R. E. (1991). Effects of repeating varied ad executions on brand name memory. *Journal of Marketing Research*, *28*(4), 406-416. Doi: 10.1177/002224379102800403

**Upreti, B. R., Merikivi, J., Bragge, J., & Malo, P. (2017). *Analyzing the ways it has changed our tv consumption: Binge watching and marathon watching.* Retrieved from: https://bit.ly/2ucn33M

**Uva, T., Freitas, C. L. D., & Paiva, T. (2015). Neuroscience technologies in marketing: A study of gender and TV advertisements using electroencephalography. *International Journal of Technology Marketing*, *10*(4), 362-380. Doi: 10.1504/IJTMKT.2015.072181

**Vaccari, C., Chadwick, A., & O'Loughlin, B. (2015). Dual screening the political: Media events, social media, and citizen engagement. *Journal of Communication*, *65*(6), 1041-1061. Doi: 10.1111/jcom.12187

**Van Cauwenberge, A., Schaap, G., & Van Roy, R. (2014). 'TV no longer commands our full attention': Effects of second-screen viewing and task relevance on cognitive load and learning from news. *Computers in Human Behavior*, *38*, 100-109. Doi: 10.1016/j.chb.2014.05.021

**Vanattenhoven, J., & Geerts, D. (2015). Broadcast, Video-on-Demand, and other ways to watch television content. *Proceedings of the ACM International Conference on Interactive Experiences for TV and Online Video - TVX '15*, June. Doi: 10.1145/2745197.2745208

**Vatavu, R. D., & Mancas, M. (2015). Evaluating visual attention for multi-screen television: Measures, toolkit, and experimental findings. *Personal and Ubiquitous Computing*, *19*(5-6), 781-801. Doi: 10.1007/s00779-015-0862-z

**Wang, Z., Irwin, M., Cooper, C., & Srivastava, J. (2015). Multidimensions of media multitasking and adaptive media selection. *Human Communication Research*, *41*(1), 102-127. Doi: 10.1111/hcre.12042

**Wang, K., Wang, E. T., & Farn, C. K. (2009). Influence of web advertising strategies, consumer goal-directedness, and consumer involvement on web advertising effectiveness. *International Journal of Electronic Commerce*, *13*(4), 67-96. Doi: 10.2753/JEC1086-4415130404

**Wickramasuriya, J., Vasudevan, V., & Narasimhan, N. (2007). Interstitial interfaces for mobile media. In *Ambient Information* System, May. Retrieved from https://tinyurl.com/qkkcfcl

**Wolf, H. G., & Donato, P. (2019). Six-second advertisements on television: Best practices for capturing visual attention. *Journal of Advertising Research*, *59*(2), 196-207.

**Wu, J., & Lu, X. (2013). Effects of extrinsic and intrinsic motivators on using utilitarian, hedonic, and dual-purposed information systems: A meta-analysis. *Journal of the Association for Information Systems*, *14*(3), 1. Retrieved from https://aisel.aisnet.org/jais/vol14/iss3/1/

**Xie, H., Wang, F., Hao, Y., Chen, J., An, J., Wang, Y., & Liu, H. (2017). The more total cognitive load is reduced by cues, the better retention and transfer of multimedia learning: A meta-analysis and two meta-regression analyses. *PloS one*, *12*(8). Doi: 10.1371/journal.pone.0183884

**Yang, K. C., Huang, C. H., Yang, C., & Yang, S. Y. (2017). Consumer attitudes toward online video advertisement: YouTube as a platform. *Kybernetes*. Doi: 10.1108/K-03-2016-0038

**Yang, B., Kim, Y., & Yoo, C. (2013). The integrated mobile advertising model: The effects of technology-and emotion-based evaluations. *Journal of Business Research*, *66*(9), 1345-1352. Doi: 10.1016/j.jbusres.2012.02.035

**Yangyin, Z., & Changbin, J. (2016). Investigating the impact factors forming users' intention in utilizing live online platforms: Case study DouYu TV. In *2016 International Conference on Industrial Informatics-Computing Technology, Intelligent Technology, Industrial Information Integration (ICIICII)* (pp. 127-131), December. IEEE. Doi: 10.1109/iciicii.2016.0041

**Yap, J. Y., & Lim, S. W. H. (2013). Media multitasking predicts unitary versus splitting visual focal attention. *Journal of Cognitive Psychology*, *25*(7), 889-902. Doi: 10.1080/20445911.2013.835315

**Yoo, C. Y., Kim, K., & Stout, P. A. (2004). Assessing the effects of animation in online banner advertising: Hierarchy of effects model. *Journal of Interactive Advertising*, *4*(2), 49-60. Doi: 10.1080/15252019.2004.10722087

**Yu, E., Hong, A., & Hwang, J. (2016). A socio-technical analysis of factors affecting the adoption of smart TV in Korea. *Computers in Human Behavior*, *61*, 89-102. Doi: 10.1016/j.chb.2016.02.099

**Yuan, E. (2011). News consumption across multiple media platforms: A repertoire approach. *Information, Communication & Society*, *14*(7), 998-1016. Doi: 10.1080/1369118X.2010.549235

**Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, *9*(2), 1-27. Retrieved from https://psycnet.apa.org/journals/psp/9/2p2/1/

**Zantedeschi, D., Feit, E. M., & Bradlow, E. T. (2016). Measuring multi-channel advertising effectiveness using consumer-level advertising response data. *Management Science, 63*(8), 2706-2728. Doi: 10.1287/mnsc.2016.2451

**Zillmann, D. (1988). Mood management through communication choices. *American Behavioral Scientist, 31(3),* 327-340. Doi: 10.1177/000276488031003005

**Zimmer, F., Scheibe, K., & Stock, W. G. (2018). A model for information behavior research on social live streaming services (SLSSs). In *International Conference on Social Computing and Social Media* (pp. 429-448), July. Springer, Cham. Doi: 10.1007%2F978-3-319-91485-5_33

Biography:

Sylvia Chan-Olmsted is the Director of Media Consumer Research at the University of Florida. She teaches brand management and media management. Her research expertise includes digital/mobile media consumption, branding and strategic management in emerging media industries. Her current studies involve audience engagement and media brand trust conceptualisation/measurement, emerging media audience behavior and branded content. Dr Chan-Olmsted has conducted consumer research for the U.S. National Association of Broadcasters, the Cable Center, Nielsen, Google, Huffington Post, Bertelsmann (G+J), Association of Top German Sport Sponsors (S20 group) and various industry partners. She holds the Al and Effie Flanagan Professorship at UF.

Lisa-Charlotte Wolter is Head of the Brand & Consumer Research Department and NeuroLab at Hamburg Media School and courtesy Assistant Professor at the University of Florida. Her research focus is consumer engagement and effectiveness measurement. She holds an MBA from University of Hamburg and also studied at Copenhagen Business School and University of Technology Sydney. As a PhD she won a scholarship from Hubert Burda Media and focused her research on digital brand equity strategies. Having attained her PhD in Economics at the University of Hamburg in 2014, she is responsible for research projects with partners such as Google, Twitter or DIE ZEIT.

Elisa Dorothee Adam is a MSc student of Intercultural Business Psychology at University of Applied Sciences Hamm-Lippstadt/Germany. She has studied Cultural Studies and Business Management at Leuphana University Lüneburg/Germany, and holds a BSc in Business Psychology from University of Applied Sciences Bielefeld/Germany, having also studied at Teesside University/UK. From 2017-2019, she was granted a Deutschlandstipendium scholarship. Specializing in marketing during her studies, she has also some practical experience in marketing and market research, e.g. with Bahlsen company or currently as a freelancer for Interrogare institute. Recently, she has completed a research internship with Hamburg Media School.

Other Information:
Received: 5 April 2020, Revised: 21 May 2020, Accepted: 28 May 2020
Funding: This research was conducted in cooperation with Google Research Europe.
Authors declare no funding information.