Promoting the balance between online and offline

The influence of advertisements promoting digital detoxing on adolescents' attitude towards digital detoxing

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ABSTRACT

Society is more and more connected through digitalization with a constant need to pick up our phones, which in turn creates a constant need to stay in control of your phone. Mass media present unplugging from smartphones as a trendy way to reduce the negative impact from smartphone use on health-related outcomes. Telephone providers, such as Odido and Vodafone, partner up with or follow the example of these campaigns and created their own advertisements. While telephone providers profit from longer screentimes, they now advertise the message to lower these screentimes and to put your phone away once in a while. A lot of scientific research has been done on internet addiction with its risks and several methods to mitigate these risks, but not specifically on advertisements promoting a healthy online diet and their influence on adolescents. This research tries to fill this gap in literature. "How do advertisements from Odido and Vodafone, promoting digital detoxing, influence attitudes towards digital detoxing among adolescents?". With H1: When adolescents are exposed to advertisements from telephone providers promoting digital detoxing, their attitude towards digital detoxing will be more positive and H2: When adolescents are exposed to the campaign on digital detoxing promoted by Odido their attitude will be more positive than when exposed to the campaign of Vodafone. A quantitative methodology was used to test both hypotheses and answer the research question. This methodology employed a survey (N = 70) with pretest-posttest design, which includes questions before and after the exposure of the advertisement. A paired samples t-test was conducted to examine the difference between digital detoxing attitudes before and after the exposure to an advertisement about digital detox from a telephone provider, whether Odido or Vodafone. The digital detoxing attitude after seeing the advertisement appeared to be significantly higher compared to the participants' attitude before seeing the advertisement. An ANCOVA followed to research the difference in digital detoxing attitudes after the exposure to the advertisements about digital detoxing, comparing Odido and Vodafone. Between the different conditions, the advertisements from Odido compared to the one from Vodafone, there is no significant difference between the attitudes in the posttest. Thus, advertisements promoting digital detoxing have a positive influence on the attitude towards digital detoxing among adolescents.

KEYWORDS: *Digital Detoxing, Advertisements, Persuasion, Attitudes, Social Media*

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1. Introduction

Recent news articles are more often discussing about a digital balance, screentime reduction, disconnection, internet addiction or digital detoxing. Headlines in the Netherlands are for example from NRC (2024), “From 4 hours of screentime to 1,5: How I learned to stop scrolling”, from Trouw (2024) “Take away that phone now, says psychologist Jonathan Haidt, “social media is destroying our democracy and our children”” and from De Volkskrant (2024) “Your social media are locked until you've walked outside and put your hand on grass”. The articles discuss insights and tips in controlling online behavior.

And when googling internet addiction online, the first thing that pops up on your screen is the suggestion of online therapy along with advice, like starting your morning without your phone, it gives you options for self-help books or dumb phones, being devices with limited to no internet capacity, and digital detoxing retreats, travel accommodations without internet connection.

Along these suggestions, A Dutch media organization called Netwerk Mediawijsheid, , has come up with a model to ensure a digital balance. The organization is established at the initiative of the Ministry of Education, Culture and Science and co-funded by the European Commission's Safer Internet Centre. The model helps, by assessing your own health in three areas, you to determine how your digital balance is. Are you socially healthy, mentally healthy and physically healthy? Answer 21 questions to find out how your digital balance is. (Digitale Balans, 2024). After taking the self-test, it gives you personal tips helping you balance your online and offline world. For example, try smartphone-free dining with family and friends, turn of notifications to give your mind some rest or leave your phone outside your bedroom to sleep better.

The organization, not only gives personal feedback to achieve a digital balance, but also raises awareness and reflects a growing recognition of the impact that digital habits have on mental health issues. Organizations, like these, respond to the increasingly negative sides of internet and social media. The experience of being always connected is not solely a positive aspect of daily life, it is also associated with various negative consequences.

Society is more and more connected through digitalization with a constant need to pick up our phones, which in turn creates a constant need to stay in control of your phone. For example, for the current generation of young people, the cell phone is very important. It has almost become an extension of the body and part of their identity. Yet a majority of young adults consider their own screen use “too much,” according to 2020 research by Network Media Literacy. (Mediawijsheid, 2025). Our constant pull towards the digital world comes with negative effects, deteriorating physical health, mental health issues such as anxiety and depression, and social problems including isolation

and strained relationships. (Demirci et al., 2015). Studies that investigated depression symptoms found a decline in such symptoms after a digital detox intervention. (Radtke et al., 2022). Negative effects call for campaigns to strive for a healthier relationship between human and the internet, balancing the online world with the offline one. Thus, to promote people's well-being, campaigns advocate people to practice short-term periods of abstinence from social media and technology use, a practice known informally as a "digital detox". (Przybylski et al., 2021, p. 507). A process to be less dependent on the internet, the online world and technologies.

Mass media present unplugging from smartphones as a trendy way to reduce the negative impact from smartphone use on health-related outcomes. All aim to help people escape from everyday digital connectivity. (Radtke et al., 2022). Such media portrayals aim to help individuals escape from the pressures of everyday digital life, offering temporary relief from overstimulation, distraction, and the demand to always be available. Campaigns, articles, and influencers often frame digital detoxing not just as a health intervention, but as a form of self-care and personal empowerment.

Telephone providers, such as Odido and Vodafone, partner up with or follow the example of these campaigns and created their own advertisements. While telephone providers profit from longer screentimes, they now advertise the message to lower these screentimes and to put your phone away once in a while. The existing advertisement of Odido quotes "Sometimes not", wanting to convey to sometimes live in the moment and put your phone away. Odido says, "No matter how unlimited your data, or how endless the possibilities of your phone, put it away once in a while. Only then will you really enjoy the people around you." (Odido, n.d.). And the advertisement of Vodafone quotes "Sometimes you experience the most beautiful moments without a phone. Don't miss them." (Vodafone, n.d.). Thus, while these providers of internet and telephone services are reliant on their audience to be on their phones as much as possible to make a profit, even they want a healthier relationship between online and offline and offer the suggestion of digital detoxing.

It seems contradictory that telephone providers, whose revenue depends on digital engagement, encourage digital disconnection and detoxing. These advertisements can still serve strategic interests for the brands. Such initiatives enable the providers to enhance their brand image and demonstrate social responsibility by responding to increasing public concerns regarding mental health and digital wellbeing. Furthermore, these campaigns may contribute to fostering long-term customer loyalty by positioning the brand as caring and trustworthy. Importantly, through targeted messages that resonates with younger demographics, telephone providers can play a role in shaping adolescents' attitudes toward more mindful and balanced use of digital technology, thereby addressing a critical public health issue while maintaining brand relevance.

This raises the research question “How do advertisements from Odido and Vodafone, promoting digital detoxing, influence attitudes towards digital detoxing among adolescents?”. With finding a positive effect of these advertisements on adolescents it can be relevant to society, helping adolescents balance their smartphone use with physical, mental or social activities. The societal relevance of identifying a positive effect from digital detox advertisements, also lies in the potential to leverage such campaigns as effective tools for promoting healthier relationships between adolescents and the internet. Given the increasing concerns about the impact of excessive digital engagement on young people’s mental and physical well-being, expanding the use of these advertisements could contribute to raising awareness, encouraging more mindful technology use, and ultimately fostering digital habits that support overall health. By implementing and refining targeted messages through mass media and digital platforms, stakeholders, including policymakers, educators, and communication professionals, can work towards mitigating the negative consequences of constant connectivity and help cultivate a balanced digital environment for future generations.

Although there has been extensive scientific research on Internet addiction, including its causes, mental health risks and possible interventions, little attention has been paid to the role of advertising that promotes healthy online behavior, such as advertisements encouraging digital detoxing. This research addresses this gap by examining the extent to which such advertisements can influence adolescents' attitudes toward digital detoxing and the potential to reduce social media addiction. Existing research on digital detox interventions shows mixed results. Some studies report positive effects on health, self-control and social relationships, for example, while others find no or conflicting effects (Radtke et al., 2022). Within this context, it is of scientific interest to investigate in this research whether and how advertising, through storytelling on platforms such as Instagram, can stimulate a positive attitude towards digital detoxing among adolescents. This research thus contributes to the expansion of the literature at the intersection of social media addiction, advertising and digital detox intervention.

Chapter two provides an overview of the existing literature on these three main subjects, social media addiction, advertising and digital detoxing interventions. In addition, the research is socially relevant because of growing concerns about the impact of excessive social media use on the mental health of adolescents. In chapter three, the sampling method, the advertisements specifically used in this research and the variables in the survey will be discussed. By analyzing how these advertisements can contribute to awareness and attitude change in chapter four, this research might provide insights relevant to policymakers, educational institutions, parents and communication professionals. Moreover, it might provide insights on a valuable tool for the creative industry and media professionals who want to raise awareness of social issues through digital channels, this significance is dependent on the conclusion and discussion provided in chapter five.

2. Theoretical Framework

In today's digital world people are seeking more and more ways to break away from the constant pull of digital distractions. In an article Dr. Hronis (2024), offers insights and tips on breaking the cycle of endless scrolling on phones, social media and apps. "Don't be too hard on yourself if you struggle to stop scrolling," she says. "Social platforms are designed to keep us engaged for long periods, they're intentionally 'sticky'." The developers making these platforms understand human psychology and how the brain works. Their main goal is often to maximize profit, which means they need to keep us engaged with their apps for as long as possible. They know that using their apps gives us small dopamine hits, they design features like notifications to keep us coming back for more. Some psychologist tests and approved tips in the article are to set timers to limit your use or use the flight mode to create a barrier against automatic social media checking. Dr. Anastasia Hronis argues these strategies can be effective circuit breakers for managing your app use and think more critically about how you spend your time.

When not critically thinking about how you spend your time online, scientific literature speaks of the possibility of an Internet addiction, when a person no longer has control over his or her digital media use and it becomes a hindrance in daily life, neglecting other important activities in life and other clinically relevant negative consequences such as increased stress, anxiety and depression. (Hernández et al., 2022). Although this study was conducted during the COVID-19 pandemic, a period marked by unusually high levels of digital engagement due to lockdowns and remote learning, it still provides valuable insights into adolescents' digital behaviors. The unique context may have amplified certain patterns, such as increased smartphone reliance or emotional responses to online content, which may not fully represent behavior under normal conditions. However, the findings remain relevant, as they highlight the psychological mechanisms, that likely persist beyond the pandemic context.

But the term, Internet addiction, has been criticized for being too unspecific, which leads to a more content-specific addiction related to adolescents relationship with social media. Social media allows interpersonal communication which is more powerful in influencing individuals' attitude, compared to mass media outlets. (Le & Hancer, 2021, p. 513). However, their study primarily focuses on YouTube, a platform with different dynamics and usage patterns compared to Instagram, which is the central platform in the present research. Additionally, the study was conducted within the U.S. context, which may limit the direct applicability to adolescents in other cultural or media environments. Nonetheless, the underlying premise, that socially interactive platforms hold greater persuasive power than passive media, remains relevant across different platforms and cultural contexts.

Addictive social media use should be manifested by being preoccupied by social media, using social media in order to reduce negative feelings, gradually using social media more and more in order to get the same pleasure from it, suffering distress if prohibited from using social media, sacrificing other obligations and/ or causing harm to other important life areas because of the social media use, and desiring or attempting to control the use of social media without success. (Andreassen et al., 2017, p.288). This can be derived from a theory called Uses & Gratifications, commonly used in media and communication research. The theory assumes audiences seek out specific media to fulfill their needs. (Choi et al., 2016, p. 773). Although the theory is not confined to social media platforms, prior studies have applied the theory in this context. And while this study primarily investigates the social media platform Facebook, which may differ in user demographics compared to Instagram, the core assumptions of the theory translates well across social platforms. The theory explores motives for social media use and when a social media platform gratifies these needs, it is more likely for the audience to use the platform again and more frequently, the gratification belonging to a social media platform is related to the intensity of use. (Choi et al., 2016; Lin, 2022). The theory categorizes five gratification factors for any mass media as cognitive needs, affective needs, personal integrative needs, social integrative needs and tension release needs, the gratification factors have been modified based on the type of media. When applied to social media platforms, research had found information, convenience, entertainment, self-expression and social interaction as underlying motives. (Choi et al., 2016, pp. 773-776). Using social media in need to reduce negative feelings, through gratifying motives such as entertainment, passing time and self-expression, can gradually lead to addictive social media use.

Research shows that addictive social media use occurs among children, adolescents and adults alike. Younger people have quickly become accustomed to being constantly “online”, which increases their risk of addiction. (Andreassen et al., 2017, p. 288). Statistics of Instagram in 2024 also show that more than 60% of the users are younger than 34 years old and more than half of that percentage is between the ages of 18 and 24 years old. (Statista, 2024). Instagram’s audience is thus, mostly adolescents.

The risk of the occurring addiction is also greater for people who are totally absorbed in their online activities, being in a state of smartphone vigilance which is defined as an awareness that one can always get connected to others in combination with a permanent readiness to respond to incoming smartphone notifications (Johannes et al., 2019, p. 214). People who have a fear of missing out (called FOMO), because individuals who fear to miss out on social opportunities want to stay continually connected with others and updated about what others are doing which will lead to more addictive social media use (Beyens et al., 2016, p. 2). While Beyens et al.’s study primarily focuses on Facebook, which differs from Instagram, the underlying psychological mechanism of FOMO remains relevant. Instagram’s emphasis on visual storytelling and social updates may even intensify FOMO

among adolescents, making the findings applicable to understanding this trait. People who feel depressed or anxious and often check their social media for distraction and validation (Blackwell et al., 2017; Elhai et al., 2017). Although both of these studies were conducted within the U.S., where cultural norms around technology use, mental health, and social interaction may differ from other countries, the psychological mechanisms they highlight are broadly applicable. People who are impulsive and have less control over their own behavior (Błachnio et al., 2023). These traits are more frequently observed in adolescents compared to other age groups, as they tend to spend significantly more time online.

Being constantly online and using social media excessively also amplifies (health) risks. For example, excessive smartphone use is related to anxiety, depression symptoms and sleep problems (Demirci et al., 2015). Although this study focuses broadly on smartphone use rather than specific platforms, the findings remain relevant, as social media, particularly Instagram, is a core component of smartphone activity among adolescents. In addition, adolescents who experience more FOMO, who are often as a result addicted to social media, also suffer more stress, loneliness and depression (Hunt et al., 2018). While this study was conducted within the U.S. context, the psychological impact of FOMO appears to be a widely observed phenomenon in adolescents across digitally connected societies. And they are overall less satisfied with their lives. (Hawi & Samaha, 2017). Furthermore, adolescents with social media addiction often use multiple media at the same time or they use media during other activities, such as watching television or doing homework, called media multitasking. According to research, this can cause poorer learning performance, memory impairment and a decreased sense of connection. (Luo et al., 2022). While this study was conducted in China, where digital media usage patterns may differ from those in Western contexts, its longitudinal research design provides valuable insight into the cognitive and emotional effects of media multitasking.

When being aware of all these risks, adolescents might develop a desire to control their social media usage and create the urge to lower their screentime. The desire to control the use of social media can be seen in the form of a short-term abstinence from using social media and technology use. (Przybylski et al., 2021, p. 507). Although the study includes a broad age range of participants, from 17 to 56 years old, which may dilute age-specific patterns of behavior, its findings remain relevant. The core motivations for temporary disconnection, such as regaining focus or reducing stress, are particularly pertinent to adolescents aged 18 to 25, who are among the most active social media users and may be especially susceptible to digital overload. The desire to control social media use leads to the term digital detox, which is defined as a “period of time during which a person refrains from using their electronic devices, such as smartphones, regarded as an opportunity to reduce stress or focus on social interaction in the physical world”. (Radtke et al., 2022, p. 192). While this study draws from a large, cross-cultural sample spanning 11 countries, where terminology and interpretations of digital detoxing vary, this definition offers a clear and comprehensive description. Research shows that

several methods, not only short term abstinences, also called smartphone breaks, are effective in combating social media addiction and mitigating its negative effects, as follows deleting social media platforms, muting or blocking notifications, installing digital detox apps, such as Forest or Flipd, switching to lighter technology, such as dumbphones, reading self-help books, such as Jenny Odell's bestseller "How to do nothing: Resisting the Attention Economy", or watching the Netflix drama-documentary "The Social Dilemma" or other documentaries related to excessive social media usage or digital detoxing. (Syvertsen, 2023, pp. 658-659). Another research also found that these smartphone breaks, specifically limiting social media for at least 30 minutes a day, improves well-being. (Hunt et al., 2018). With the desire among adolescents to control their social media use, the news and the internet suggests more and more options and strategies to comply. The government and brands follow through the creation of campaigns and advertisements focused on digital detoxing.

Advertising, in general, is the placement of announcements and messages in time or space by business firms, nonprofit organizations, government agencies, and individuals who seek to inform and/or persuade members of a particular target market or audience regarding their products, services, organizations or ideas. Advertising is about creating, distributing, and promoting meanings, ideas, values, connotations, all intangible offerings that help us make consumption-related choices. Advertising is not only focused on the business sphere, but also in the cultural sphere, being close to the cultural and creative industries. (Miliopoulou, 2024).

Digital detoxing advertisements focus on the idea of limiting smartphone use or screentime and mitigating its negative effects, for example a Swedish screen-free campaign leading to an annual day without mobile phones. (Syvertsen, 2023, p. 662). These digital detoxing advertisements try to be another effective method, intending to inform, aware, educate or stimulate the target audience about their ideas on excessive smartphone use. Social advertising is a part of advertising intended to inform, aware, educate or stimulate the target audience about social cause or issue for the betterment of society (Sarmah & Singh, 2021, p. 2). Although the study is situated in the Indian context, where cultural norms and media consumption patterns may differ from those in Western Europe, their use of concrete case studies make the findings broadly applicable. Social advertising, unlike advertisements for the business sphere showcasing messages paid for by the individuals who need to advance, convince or advise the recipient about their items or services, it is about reaching a social advantage or cultural development. The primary goal of social advertising is to change behavior of the target audience. In order to change the behavioral aspect of the target audience a thorough understanding of a person's awareness level, his or her perception and attitude toward the various social advertisements must be understood. (Sarmah & Singh, 2021, p. 2). Social advertisements, such as digital detox campaigns, are trying to positively affect the target audience's attitude about a social issue, like excessive smartphone use or social media addiction and try to change the behavior of the target audience, for example persuading the target audience to use smartphone breaks and try digital detoxing.

Digital detoxing advertisements are a part of the persuasive communication framework. Persuasion is defined as ‘strategic behavior in presenting information designed to influence someone’s beliefs, attitudes, decisions, or actions’. (Aghazadeh et al., 2022, p. 146).. A digital detox campaign is designed to present information or a story which will influence the target audience’s attitude or behavior. The persuasion-communication matrix of McGuire (1969, 1978) includes five components of persuasive communication including (1) the source, (2) the message, (3) the message recipient, (4) the message channel, and (5) the message destination. While McGuire’s classic persuasion-communication model has been critiqued for being developed in a pre-digital media era, and thus potentially outdated in the context of today’s fast-paced and interactive media landscape, Aghazadeh et al.'s findings reaffirm its relevance. Their study demonstrates that the fundamental principles of message exposure, attention, comprehension, and attitude change remain applicable, even in contemporary digital advertising environments, making it a valuable theoretical lens for analyzing persuasive strategies in digital detox campaigns. The matrix, for this research, includes the telephone providers (1) telling adolescents (3) to have a positive attitude towards digital detoxing (2) through social advertisements on Instagram (4) which hopefully persuades adolescents to have a positive attitude towards digital detoxing, which maybe achieves more control over social media use among adolescents (5). This research focuses on influencing the individuals' attitudes, rather than the possibility of behavioral intentions or actual behavior. While persuasive messages can have a direct impact on attitudes, behavior is usually influenced by a range of additional factors and moderating variables, making it more difficult to measure and predict. Given this complexity, this research prioritizes attitude change as a measurable and meaningful outcome of the persuasive message.

Being a part of the persuasive framework, advertising always relies on some sort of emotional appeal. Advertising is more about persuasion and emotion than about information and reasoning, though both are required for a successful advertisement and should not be seen as contradictory. (Miliopoulou, 2024). The telephone providers, Odido and Vodafone, use Instagram to distribute this advertisement and the emotional impact of social media is widely documented (Miliopoulou, 2024). But, media landscapes change by the hour both globally and locally. Consumers often watch more than one screen at the same time, called media multitasking, and get exposed to advertising content from multiple sources, which is one more reason why advertising should be most creative, resonant, and captivating. (Miliopoulou, 2024). Audiences are less likely to pay attention to all these advertisements, which is why advertisements need more entertainment value to be persuasive. Both advertisements from the telephone providers use storytelling to keep their advertisements captivating for their audiences and to elicit emotional reactions. Storytelling holds immense persuasive power, having the ability to positively affect a person’s attitude or behavior. (Miliopoulou, 2024). Storytelling is “a narrative that receives a coherent form from interrelated actions and consequences in a chronological order that are so-called events, states, or situations that together shape a story”. Stories generate higher

levels of engagement, learning, persuasion, and inspiration for action than other communication forms, making them a “superior” means to reach the target audience and influence their attitude. (Kasilingam & Ajitha, 2022, p. 342). While this study draws from a communication-oriented framework rather than media-specific theories, which would align more closely with the present research including Instagram, it nonetheless provides meaningful insight into the persuasive strength of narrative advertisements. Furthermore, the context being based in the U.S. and the fact that approximately 35% of participants were over the age of 35 may limit the direct applicability to Dutch adolescent audiences. Demographic variables, such as age, can influence how humor or storytelling is perceived, potentially leading to different effects on attitude formation. (Kasilingam & Ajitha, 2022, p. 356). Though the central claim of this study, that stories are especially effective in shaping attitudes, remains relevant for understanding the strategy behind the digital detoxing advertisements targeting adolescents through platforms like Instagram.

H1: When adolescents are exposed to advertisements from telephone providers promoting digital detoxing, their attitude towards digital detoxing will be more positive

The Social Identity Theory considers how adolescents create their social identity through a process of self-categorization. (Leaper, 2011, pp. 362-363). Adolescents categorize themselves whether they belong or do not belong to certain social groups, being a part of the ingroup or outgroup. Examples include sports teams, religions, nationalities, occupations, sexual orientation, ethnic groups, age and gender. Social Identity Theory addresses the ways that social identities affect people's attitudes and behaviors. (Leaper, 2011, pp. 362-363). Although the theory itself originates from British social psychology, Leaper’s application of it is based in an American context and primarily situated within child development research, focusing more on younger populations rather than adolescents. Nevertheless, its core concepts, such as self-categorization and social comparison, remain highly relevant for understanding how adolescents relate to media content and navigate their identity in digital environments, like Instagram. The theory suggests that adolescents categorize themselves belonging to a social group, they are more likely to be affected by those in the same group. Adolescents are thus more affected by people being similar to themselves, with for example the same nationality or age.

Building on this, Social Learning Theory as Le and Hancer (2021, p. 514) explain how adolescents can adopt attitudes and behaviors of these influential ingroup members through observational learning. According to the Social Learning Theory, one can learn new behaviors from observing people. People undergo a series of cognitive processes including attention, retention, reproduction and motivation. Attention refers to the extent to which individuals are aware of their model’s behavior. Retention represents the ability of individuals to remember the observed behavior. Reproduction reflects the physical capability of the observers in imitating the model’s behavior.

Motivation means the willingness in emulating the behavior. (Le & Hancer, 2021, p. 514). Although the study by Le and Hancer is based on American participants and focuses specifically on YouTube vloggers rather than Instagram advertisements, the underlying mechanism of modeling remains relevant. Additionally, while their sample included a wide age range, from 18 to 73 years old, limiting the specificity to adolescent behavior, the core idea that individuals, especially younger audiences, internalize behaviors observed in relatable media figures supports the current study's focus on digital influence within adolescents. And together, the Social Identity Theory and Social Learning Theory suggest that adolescents not only identify with certain social groups but also learn and replicate behaviors observed online within those groups, particularly from members they perceive as similar.

Identification, as part of the Social Learning Theory, explains how adolescents develop their identity through observing and imitating characteristics. Identification with media personas can be categorized in three types of responses: liking, being like (similarity) and wanting to be like (modeling). (Le & Hancer, 2021, p. 515). Being like explains that people will consider their degree of similarity with sources, such as advertisements or movies, influencing their judgement. Consumers will identify more with ads that show an actor similar to themselves in for example age or ethnicity, enhancing their attitudes compared to ads featuring actors dissimilar to the consumer. (Sierra et al., 2009). However, this study was conducted in an American context and focused on a shoe advertisement, which may limit the direct applicability of the findings to other cultural settings or product categories, such as telephone providers, where factors influencing identification and attitudes might differ. Nonetheless, the underlying principle of identification remains relevant across contexts and can inform understanding of consumer attitudes in diverse advertising environments. Hence, when adolescents identify with a media persona in an advertisement, they are likely to learn their attitudes and might imitate them.

Further on, the Elaboration Likelihood Model (ELM) by Petty and Cacioppo (1986) explains the process by which advertisements lead to persuasion, which results in attitude formation or change in behavior. This model views a dual route of persuasive message processing, namely central and peripheral routes, representing two ways in which individuals process a message and their respective attitudinal or behavioral outcomes. Whether a peripheral or a central route is taken is determined by two dimensions of the elaboration likelihood, motivation, and ability to elaborate. The motivation is highly influenced by the personal relevance of the topic and the ability to elaborate is influenced by prior experience with the topic. (Li & See-To, 2024, p.40). Central route processing thus involves an active engagement of the recipient with the message including thoughtful deliberation and evaluation of the information. Instead with the peripheral route, they process the message heuristically without much cognitive effort, making simple inferences based on the appeal of the advertisement. Peripheral cues allow individuals to decide what attitudinal position to adopt without engaging in extensive processing. These cues are implicit, superficial aspects of the message and can affect responses even in

the absence of strong arguments. (Petty et al.,1981; Petty et al., 1983; Petty & Cacioppo, 1986). Although the ELM is a well-established theory, it was developed in a very different media landscape. Li and See-To (2024) update the model for contemporary contexts but focus their study on Facebook rather than Instagram, and their research is based in Hong Kong. Despite these contextual differences, the model's core concepts remain relevant for understanding how adolescents process digital advertisements today. Thus, in the absence of strong arguments, which applies to the advertisements from Odido and Vodadone, the response of the target audience of the advertisements is dependent on the appeal of the campaign, relying on peripheral cues. For example, source credibility and emotional appeal are involved in deciding what attitudinal position to adopt towards the brand and the subject of the advertisement, being digital detoxing.

Source credibility is one of the peripheral cues in processing an advertisement according to the Likelihood Model. (Li & See-To, 2024, p.40). Message source credibility refers to the degree of believability the message receiver ascribes to the message sender, thus whether the audience believes that message is reliant on the source. It's commonly identified that source credibility consists of two dimensions, being expertise and trustworthiness. Source expertise is defined as the perceived competence the message sender has on a particular knowledge area, especially those related to products or services. Source expertise could be manifested through one's status, for example, occupation and social experience. (Li & See-To, 2024, p.40). Odido has the fastest mobile network in the Netherlands for the second time in a row according to Ookla (April, 2025), a world leader in connectivity intelligence. Another benchmark organization, Umlaut (March, 2025), confirms the exceptional quality. As in 2024, research by Umlaut shows that Odido's internet services are the best in The Netherlands. And also Opensignal (March, 2025), independent global standard for analyzing consumers' connectivity experiences, crowns Odido as the best in mobile network in The Netherlands. Odido's expertise and their trustworthy network allow adolescents to adopt a positive attitude towards the message in the advertisement of Odido, without engaging in extensive processing.

Another peripheral cue in the Elaboration Likelihood Model is mood or emotion. This introduces the emotional appeals in advertising studies. The Odido advertisement uses a humour appeal, through for example using funny Snapchat filters and ridiculing the concept of online dating apps. Research shows that the effects of humour in advertising on consumer attitudes are stronger than that of most other persuasion tools. Further research indicates that humour above all positively influences attitude and has weaker effects on behavioural responses. (Eisand, 2018). However, humor is might largely be a matter of personal taste and cultural context, and since this study was conducted in Germany, its findings may not fully generalize to other populations. Nonetheless, the positive role of humor in shaping attitudes remains a valuable insight for broader advertising research.

Through identification with the media personas in the campaign of Odido, adolescents are more likely to have a higher motivation to pay attention to and comprehend the message. The adolescents will be more likely to adopt the central route, which creates a more stable attitude compared to a lower motivation to cognitively process the message in the campaign of Vodafone, using the peripheral route instead. Odido's expertise and trustworthiness, as a message source, will lead to a higher degree of credibility which positively influences message processing and attitude formation. And Odido's use of the humour appeal will also positively affect adolescents' attitude, compared to less emotional appeal in the campaign of Vodafone.

H2: When adolescents are exposed to the campaign on digital detoxing promoted by Odido their attitude will be more positive than when exposed to the campaign of Vodafone

3. Methodology

For this research a quantitative methodology was used to test the hypothesis and answer the research question. This methodology employed a survey with pretest-posttest design, which includes questions before and after the exposure of the advertisement. First a pilot study was conducted among peers to test the procedure with its exposure, manipulation check and survey questions to increase clarity, order and wording. After feedback, the tested and complete survey was sent out to gather the data needed on the attitude of adolescents towards digital detoxing advertisements.

The survey was spread using a snowball sampling method, sharing the link of the survey with the researchers' own network, being closely connected to the target audience of adolescents between the ages of 18 to 24 years old. Adolescence, includes the age range from 18 to 24 years old, is a unique and critical period of development during which unmet health needs and disparities in access to appropriate care, health status, and mortality rates are high. This is a time when purposeful prevention and intervention strategies may still alter trajectories and decrease threats to health along the adult life course. (Young Adult Health And Well-Being: A Position Statement Of The Society For Adolescent Health And Medicine, 2017). The link also included the urgence and question to further share the link to gather participants beyond the acquaintances of the researcher to reach the minimum sample size of at least 150 respondents.

In total a sum of 203 respondents were collected. The survey started with an introduction about the research purpose and included an informed consent form, when participants agreed upon the terms, the survey started with asking about the participants age, a demographic question related to the research. The average age was 21 years old.

The survey followed with asking questions, derived from prior studies in USA, China and Norway, about the participant's social media use, "How many hours a week is your screentime on average? Which social media apps control most of your screentime? Which motives do you have to use social media platforms? Does social media gratify your motives?" (Choi et al., 2016). "Do you participate in media multitasking, using multiple media at the same time?" (Luo et al., 2022). "Do you think you have a social media addiction?" and questions regarding the participant's possible social media addiction, "Are you preoccupied by social media? Do you use social media to reduce negative feelings? Do you suffer any distress when prohibited from using social media? Is social media causing harm to other important life areas? Do you desire to control the use of social media? Have you attempted to control the use of social media without success?" (Andreassen et al., 2017, p.288). The answer possibilities to these questions ranged from "definitely not" to "definitely yes", a 5-point Likert scale.

Followed by questions regarding smartphone vigilance, “Are you aware you can always get connected to others through social media? Are you ready to respond to incoming social media notifications within a few minutes?” (Johannes et al., 2019, p. 214). “Do you have a fear of missing out (FoMo)?” (Beyens et al., 2016, p. 2). These questions could be answered through a 5-point Likert scale, including “definitely not” to “definitely yes”. “Do you check your social media as a distraction? Do you check number of likes and comments under your social media posts?” (Blackwell et al., 2017; Elhai et al., 2017). With answering options going from “never” to “always”, as a 5-point Likert scale. “Do you think you are impulsive? With answers ranging again from “definitely not” to “definitely yes”. How much control do you think you have over your own behavior?” (Błachnio et al., 2023). With a 5-point Likert scale including the answering options ranging from “none at all” to “a great deal” “How satisfied are you with your life?” (Hawi & Samaha, 2017). With the answers ranging from “extremely dissatisfied” to “extremely satisfied”, a 5-point Likert scale.

The next questions were about the participants’ existing attitude regarding digital detoxing. Since there isn’t an existing scale related to digital detoxing, items were based on relevant literature. The following questions are meant to describe the willingness to try digital detoxing. “Are you willing to try any of the following digital detoxing methods?” With the answers being; taking smartphone breaks, deleting social media platforms, muting and blocking notifications, installing digital detox apps, such as Forest or Flipd, switching to lighter technology, such as dumbphones, reading self-help books regarding social media usage or watching documentaries regarding social media usage. (Syvertsen, 2023, pp. 658-659). And “To what extent have you used these digital detoxing methods to decrease social media and technology use?” (Przybylski et al., 2021) With a 5-point Likert scale ranging from “never” to “very frequently”.

The next 14 items described the participants attitude towards digital detoxing, with a 5-point Likert scale ranging from “strongly disagree” to “strongly agree”. These following items are derived from the study of Alam and other researchers (2022) on the attitude towards the Covid-19 vaccination. And while the Covid-19 vaccination is not specifically relevant to this research, the public attitude towards a solution for a society’s problem is, like digital detoxing might be a solution for social media addiction. “If I participate in digital detoxing, it will have positive effects on me”, “If more people in society would participate in digital detoxing, the number of people with a social media addiction will be reduced”, “Social media addiction can be controlled through digital detoxing methods”, “If more people in my social circle would participate in digital detoxing, I would be more likely to detox myself”, “If I do not start with digital detoxing, I might get a social media addiction”, “Social media addiction has serious consequences, which can be prevented through digital detoxing”, “Digital detoxing has a positive effect on life satisfaction”, “Digital detoxing is effective”, “Digital detoxing does not have adverse reactions or harmful consequences”, “I am scared to try digital detoxing”, “I do not need digital detoxing to control my social media usage”, “I prefer not to do digital detoxing, since

I don't experience social media addiction or any of its serious consequences", "Everyone should try digital detoxing" and "I would recommend digital detoxing".

These questions were meant to sketch the participant's online behavior, to show the possible reliance on their phone and the suggestion of willingness and positivity to digital detoxing upon seeing an advertisement related to the subject. After these survey questions, concluding the pre-test, the participants will be randomly exposed to one of the following advertisements:

The Odido advertisement called "Soms even niet.", which roughly translates to "Sometimes not."
https://www.instagram.com/reel/C4GU_Z9rpxx/?utm_source=ig_web_copy_link&igsh=MzRlODBiNWFlZA==

The video starts in a vinyl shop, showing an adolescent man and a text bubble saying "Een berichtje van Odido" (A message from Odido). The next shot shows the man grabbing his phone from his back pocket and then the phone comes into view showing a new match on a dating app. You see the man's surprised and happy reaction to the screen, which follows with a shot of an adolescent woman in a bus with a text bubble saying "Hee Juna hoe is t" (Hey Juna how are you), from Niels. The man comes back in view with another text bubble showing "Wat ben je aan het doen?" (What are you doing?) from Juna. The man takes a selfie with a new vinyl record in his hands and sends it to Juna. Juna comes back in view with the picture and a text bubble underneath saying "Lievelingsplaat gevonden!" (Found my favorite record!), from Niels. Niels is back in the picture walking down a shopping street and again takes out his phone from his back pocket, followed by a shot of his phone screen showing a incoming video call from Juna. He looks really happy and surprised, checks his hair in the shopping window and takes the call while walking in a bus. In the same shot that he walks in the bus, we see Juna coming off the bus while video calling showing her outfit. Next up, we see Niels again in a restaurant eating Noodles, while still on the phone. Next up, shows Niels close up with him eating the noodles and showing some kind of filter making fire coming out of his ears, with the phone still in shot. After that you see the phone screen of Juna with the video call and Niels with the filter on her screen and Juna's surprised laughing face in the corner of the call. She is in a supermarket at the fridges, where she leans against and also starts using a filter, making her wear a winter hat and showing snowflakes. Next up, we see Niels back at the restaurant laughing out loud and a woman next to him at another table giving him a weird look. Juna is back in the shot putting in her earphones, with above her some of the covers from songs. We see shots of both of them dancing down a street, while still video calling with each other day and night. After we see them both on an escalator in some kind of mall, Niels going up and Juna going down.

They see each other in real life, both surprised. We see the video call on the screen with both of them not paying attention to the phone anymore but looking away. We see a darker shot of both the

escalators and only showing them, removing all people and surroundings from the shot. Both lighting up and smiling. We see them both outside, meeting each other. They grab each other's hand and it shows how both of them put their phone away in their back pockets. Then them walking together, with Juna laying her head on Niels' shoulder.

The next shot is the Odido logo with underneath smaller saying "Mobiel, Glasvezel en TV" (Mobile, Fiberglass and TV). During the video there is back ground music, but with the last shots, we hear in the background while they are still video calling on the escalator "Unlimited van Odido, want soms heb je meer data nodig dan je denkt" (Unlimited from Odido, because sometimes you need more data than you thought), with them grabbing each other's hands we hear "En soms ook even niet" (And sometimes not) and with them putting their phones away "Het kan ook zo" (It can also be like this).

The caption underneath this Instagram reel says "According to @odidonederland, Unlimited data isn't about endlessly scrolling on your phone, but about never being restricted when it matters. Unlimited data is great, but it shouldn't hinder real connections.
#Odido #SomsEvenNiet"

The other is a Vodafone advertisement called "Soms beleef je de mooiste momenten zonder telefoon. Mis ze niet.", which translates to "Sometimes you experience the most beautiful moments without a phone. Don't miss them."
https://www.instagram.com/reel/DDPBS04NzF3/?utm_source=ig_web_copy_link&igsh=MzRlODBiNWFlZA==

This video starts with showing a boy laying on his bed, busy on his phone. Next an older woman, his mother comes into shot, looking worried. Again the boy on his phone is shown followed by his mother saying "Leg die telefoon weg. We zijn al laat…" (Put the phone away. We are already late…). We see the boy getting up from his bed and putting his phone down. Next we see the boy in a car backseat. He looks distresses, looking around and in his pockets. We see the front seat with his mother. The camera goes back to the boy saying "Stop! Mijn telefoon ligt nog thuis." (Stop! My phone is still at home). We see both his mother and an older man, his father, looking at each other. His dad raises his shoulders. The boy in the backseat looks upset and mad. Next up, they arrive at a house and see the boy getting out of the car. He walks past an old man, his grandfather, who pats him on the back to greet him. He ignores it and walks inside with his backpack. He puts his backpack on the ground and sits at the end of a bed on the ground. Next we see a girl throwing rocks at the window of the room. The boy looks up and opens the window. The girl looks at him at asks "Waarom app je me niet meer?" (Why don't you text me anymore?). The boy answers "Ben mijn mobiel vergeten" (Forgot my mobile). We see the boy and girl walking in a field, crossing a small river over a tree stick. They end up at an abandoned bus stop, while it's raining. They sit down next to each other taking shelter. The girl looks at him. The boy looks down at her phone looking at the locked screen. He holds up the

phone to the girls face, while she also holds the phone, to unlock the screen. They look at each other. The boy moves in, probably to kiss her. We see the mother cooking at home and the boy walks inside. The mother gives back his phone. He grabs his phone, showing some missed text messages. The boy kisses his mother on the cheeck, thanking her for his phone. While in the shot it says “Soms beleef je de mooiste momenten zonder telefoon” (Sometimes you experience the most beautiful moments without a phone). The mom smiles. The boy puts his phone down on a bed and grabs a present next to it. We see another shot of the mom smiling, while in the picture it says “Mis ze niet” (Don’t miss them).

After that, we see a red background and the Vodafone logo with underneath the text “Together we can” and a website url belonging to the telephone provider “vodafone.nl/schermtijd” and hearing in the background “We helpen je op vodafone.nl/schermtijd”, which translates to “We will help you on Vodafone.nl/screentime”

The caption underneath this Instagram reel reads “Soms beleef je de mooiste momenten zonder telefoon. Mis ze niet.♡”, translated “Sometimes you experience the most beautiful moments without a phone. Don't miss them.♡”

After watching the advertisement, participants were asked to honestly answer questions about their telephone usage and their attitude towards digital detoxing. Repeated questions and statements from before the exposure to conduct the post-test. Followed up with a control question, being about their attitude towards the brands behind the advertisements, Odido and Vodafone. And lastly, the researcher-developed manipulation check including an attention check, to control their attention related to watching the advertisement will also be included, being “From which telephone provider was the advertisement you saw?” and perception check, to control the participants attention to the message of the advertisement, being “What was the main take-away of the advertisement you saw?”.

The questionnaire was set up in Qualtrics, which automatically saved the data and made it transferable to SPSS, a program that helped analyze the data. The first step was to check for incomplete surveys with missing answers. Next is to verify the attention and perception check related to the validity of the advertisements. From the total of 203 participants, two were excluded due to disagreements to the informed consent, ten were disregarded due to their age, five were removed due to wrongfully answered attention check and eleven were dismissed due to wrongfully answering the perception check, for instance giving an answer like “buy Odido” instead of something like “Do not always use your phone, sometimes the beautiful moments of life will take place outside of your phone”. This brought down the number of 180 participants to 141. After removing incomplete responses, including unanswered manipulation checks, only 70 respondents were left. Data from these 70 respondents were analyzed in SPSS.

4. Results

While the goal of reaching 200 participants was met, only 70 of them were reliable to include in this research, providing complete answers. The other 130 participants did not complete the full survey and were thus deleted from the dataset. This sample was much lower than anticipated and will have an influence on the results following.

To describe the social media use of participants, they were asked about their screentime, most used apps, uses, gratifications and media multitasking habits. The participants had an average screentime of 5 hours and 14 minutes ($M = 5.23$, $SD = 1.84$), with the lowest screentime reported being 1 hour on average per day and the highest screentime was 9 hours a day. TikTok was the most-used app, controlling 40% of participants' screentime. Followed by Instagram with 24.3% and with 11.4% both Snapchat and YouTube take the third place. WhatsApp had six participants, while Facebook, Reddit and Vinted were much less popular with only one participant each, having their screentime controlled by these apps.

Tabel 1

Participants' screentime controlled by the following social media apps

	Frequency	Percentage	Cumulative Percent
Instagram	17	24,3	24,3
Snapchat	8	11,4	35,7
TikTok	28	40,0	75,7
Facebook	1	1,4	77,1
Youtube	8	11,4	88,6
WhatsApp	6	8,6	97,1
Other (Reddit & Vinted)	2	2,9	100,0
Total	70	100,0	

The motive behind using these social media platforms was mostly for entertainment, followed by information and social interaction. Only three participants choose self-expression as their motive to use social media platforms. Sixteen participants were motivated to use social media as convenience, with two participants elaborating calling the use of social media relaxing and the other describing the use of social media out of boredom. With asking about the gratification of their motives on social media 44 participants were often or always satisfied, 20 stayed neutral with social media sometimes

gratifying their needs and only five participants answered to rarely or never be satisfied with using their social media platforms. (M = 3.64, SD = 0.79). And lastly, describing the participants social media use, only 14.3% of participants never or rarely participate in media multitasking. While all the rest, being 85.7%, use multiple media simultaneously sometimes, often or always. (M = 3.26, SD = 0.91).

The next seven items were about social media addiction. A factor analysis with direct oblimin rotation based on Eigenvalues (>1.00) was used to explore the underlying dimensions of social media addiction. The Kaiser Meyer Olkin value was 0.78 and the Bartlett's test showed significance, $\chi^2(21) = 122.72$, $p < .001$. The model consisted of two factors, together explaining 59.3% of total variance. The first factor included four items, which explained 44.4% of the variance with a Cronbach's alpha of 0.77. The other three items, explaining 14.8% of the variance and had a Cronbach's alpha of 0.61. Since the second reliability is relatively low and the component matrix in the factor analysis showed coherence on all seven items. Based on these results, all seven items were merged into a scale. A reliability analysis was done for the complete set of items, with a Cronbach's alpha of 0.79. Accordingly, the Social Media Addiction Scale (M = 3.11, SD = 0.82) was utilized subsequently.

The next part of the survey was about smartphone vigilance, with eight items. A factor analysis with direct oblimin rotation based on Eigenvalues (>1.00) was used to find patterns within the smartphone vigilance scale. The Kaiser Meyer Olkin value was 0.56, which is quite low, but the Bartlett's test showed significance, $\chi^2(28) = 68.51$, $p < .001$. The model, according to the Eigenvalues, contained of four factors, explaining 70.9% of the variance. But with the low KMO value and low reliability for the four factors, Cronbach's alphas lower than 0.6, the component matrix was reevaluated. This showed one item, "Are you aware you can always get connected to others through social media?", not belonging to the first component, while the rest are compatible. A factor analysis was redone with the seven items, where the Kaiser Meyer Olkin value was 0.63 and the Bartlett's test showed significance, $\chi^2(21) = 55.23$, $p < .001$. A reliability analysis was used to test the seven items, which showed a Cronbach's alpha of 0.60. The first item was recoded as "Digital Connectedness" and the other items concluded the scale for smartphone vigilance, named "Digital Behavior".

After, the participants were shown a number of digital detoxing methods with the question whether they were willing to try it. The most participants, 81.4%, were open to try taking smartphone breaks or muting their notifications. While many were willing to mute their notifications, this number went down with 15 participants not willing to try the method of blocking these notifications. Next was the method of deleting social media platforms temporarily, with 29 participants willing to try it, compared to only 16 participants willing to try deleting social media platforms permanently. In order, the willingness to try the next digital detoxing methods went down, installing digital detoxing apps,

reading self-help books related to social media usage, watching documentaries on social media usage. And lastly, 12 participants were willing to try lighter technology, such as dumbphones.

Table 2

Participants willing to try the following digital detoxing methods

	Frequency	Percent
Taking smartphone breaks	57	81,4%
Deleting social media platforms temporarily	29	41,4%
Deleting social media platforms permenantly	16	22,9%
Muting notifications	57	81,4%
Blocking notifications	42	60,0%
Installing a digital detox app (eg. Forest or Flipd)	24	34,3%
Switching to lighter technology (eg. dumphones)	12	17,1%
Reading a self-help book regarding social media usage	17	24,3%
Watching documentaries regarding social media usage	21	30,0%

Few participants had previously engaged in digital detox strategies, indicating a relatively low level of prior effort to limit their social media and technology use. The group on the lower end, answering with never or rarely, were with 35. While 17 answered sometimes and 18 participants used these digital detoxing methods often or even always, which was clarified to be at least once every month or every week.

To conclude the pretest a set of 14 items were stated in the survey to define the participants' digital detoxing attitude. A factor analysis was performed with direct oblimin rotation based on Eigenvalues (>1.00) to explore the factors underlying digital detoxing attitudes. The Kaiser Meyer Olkin value was 0.76 and the Bartlett's test was significant, $\chi^2(91) = 451.95$, $p < .001$. The model consisted of three factors explaining 62.4%. But with doing the factor analysis for the post-test related to the 14 items defining digital detoxing attitude, the Kaiser Meyer Olkin value was 0.86 and the

Bartlett's test showed significance, $\chi^2(91) = 532.90$, $p < .001$. That model also consisted of three factors, but items differed from the pretest. Which meant to reevaluate the component matrix for both pretest and posttest digital detoxing attitude to compute a scale fitting both.

With comparing the factor analysis for the 14 items in pretest and posttest, two items were negative compared to the other positive items. These two items were recoded to be positive for the pretest and the posttest. A factor analysis for the pretest was redone, with a Kaiser Meyer Olkin value was 0.76 and the Bartlett's test was significant, $\chi^2(91) = 451.95$, $p < .001$. A reliability analysis followed with a Cronbach's alpha of 0.86 and the scale for digital detoxing attitude for the pretest was computed ($M = 3.43$, $SD = 0.63$).

After being exposed to the advertisement from either Odido or Vodafone, participants were again asked about their willingness to try certain digital detoxing methods. Most participants were still willing to try taking smartphone breaks, but the total went down from 57 to 54 participants. The total of 81.4% in the pretest went down with 4.3%. A lot of participants were still open to muting their notifications, but also this group of participants went down from 57 to 55 in total. The amount of people wanting to block their notifications went from 60% of participants to 64.3%, gaining three more participants willing to try this method. With 30 participants, willing to delete social media platforms temporarily, gaining 1.4% and with 19 participants open to deleting their social media platforms permanently, gaining 4.3%, both methods demonstrated a modest increase in the posttest. Participants were less willing to install digital detoxing apps, going from 34.3% to 30%, and read self-help books on social media usage, experiencing a decline of 5.7%. The willingness to watch a documentary overtook these methods with 10% more participants compared to the pretest. And trying out lighter technology stayed last, with even less participants wanting to try this digital detoxing method, decreasing from 17.1% to 15.7%.

A factor analysis with the 14 items, including the two recoded items, concluding the posttest for digital detoxing attitude, was performed with a Kaiser Meyer Olkin value of 0.86 and a significant Bartlett's test, $\chi^2(91) = 532.90$, $p < .001$. Followed by a reliability analysis, which showed a Cronbach's alpha of 0.89. Thereafter, the scale for digital detoxing attitude for the posttest was computed ($M = 3.51$, $SD = 0.64$). So, now the digital detoxing attitude in pretest and posttest can be compared.

A paired samples t-test was conducted to examine the difference between digital detoxing attitudes before and after the exposure to an advertisement about digital detox from a telephone provider, whether Odido or Vodafone. The paired samples correlations indicated a significantly strong correlation between the pretest and posttest attitude ($r = 0.89$, $p < .001$). The paired samples t-test revealed there was a significant mean difference between the attitude in pretest condition ($M = 3.43$, $SD = 0.63$) in compared to the posttest attitude ($M = 3.51$, $SD = 0.64$), $t(69) = 2.22$, $p = 0.030$, 95%*CI*

[-0.15,-0.01],. The digital detoxing attitude after seeing the advertisement is significantly higher compared to the participants' attitude before seeing the advertisement. Thus, H1 can be accepted, when adolescents are exposed to advertisements from telephone providers promoting digital detoxing, they have a more positive attitude towards digital detoxing.

Furthermore, the study examined differences in digital detoxing attitudes following exposure to advertisements promoting digital detoxing, comparing the effects of Odido and Vodafone. The sample sizes are quite equal, with 37 participants exposed to the advertisement from Odido and 33 exposed to the one from Vodafone. An ANCOVA was conducted to test the condition, Odido or Vodafone, compared to the digital detoxing attitude posttest. First, the interaction between the pretest attitude and condition was tested through an ANCOVA. The Levene's Test of Equality tested not significantly, F (1,68) = 0.41, p = 0.523, which means that the digital detoxing attitudes do not differ with the conditions. Further on, another ANCOVA was conducted to explore the relation between the condition and the digital detoxing attitudes after being exposed to one of the advertisements. The Levene's Test of Equality, with the condition added, showed no significance, F (1,68) = 1.39, p = 0.243. The test of between subjects, for the condition, showed no significance either, F (1,67) = 1.41, p = 0.239, R^2 = 0.797. This indicates, that between the different conditions, the advertisements from Odido compared to the one from Vodafone, there is no significant distinction between the attitudes in the posttest. Thus, H2, when adolescents are exposed to the advertisement on digital detoxing promoted by Odido their attitude will be more positive than when exposed to the advertisement of Vodafone, can be rejected.

5. Conclusion & Discussion

Conclusion

The question central to this research was, “How do advertisements from Odido and Vodafone, promoting digital detoxing, influence attitude towards digital detoxing among adolescents?” Following the results, advertisements promoting digital detoxing have a positive influence on the attitude towards digital detoxing among adolescents.

The positive influence found from advertisements promoting digital detoxing on adolescents’ attitude might have been dependent on certain features within the advertisements. It supports the idea that storytelling holds immense persuasive power, having the ability to positively affect a person’s attitude or behavior. (Miliopoulou, 2024). And that stories used in advertisements generate higher levels of engagement, learning, persuasion, and inspiration for action than other communication forms, making them a “superior” means to reach the target audience and influence their attitude. (Kasilingam & Ajitha, 2022, p. 2).

This positive influence can help decreasing the growing concerns about the impact of excessive social media use. Excessive social media use can be seen in participants’ screentime, averaging 5 hours and 14 minutes a day. And through the Uses & Gratifications theory, claiming the gratification belonging to a social media platform is related to the intensity of use. (Choi et al., 2016; Lin, 2022). Participants often being satisfied after using social media, can indicate excessive social media use. In contrast, acknowledging that adolescents might develop a desire to control their social media usage and create the urge to lower their screentime after being exposed to digital detoxing advertisements. These advertisements lead to a more positive attitude towards a “period of time during which a person refrains from using their electronic devices, such as smartphones, regarded as an opportunity to reduce stress or focus on social interaction in the physical world”. (Radtke et al., 2022, p. 192). With trying these smartphone breaks or other digital detoxing methods excessive social media use can be effectively combated and might mitigate negative effects, decreasing concerns.

Whether the advertisement is from a certain brand, such as Odido or Vodafone, did not affect this influence on attitude towards digital detoxing. When adolescents were exposed to the advertisement on digital detoxing promoted by Odido their attitude did not significantly differ from when adolescents were exposed to the advertisement of Vodafone.

These findings contradicts expectations. Identification theory posits that consumers are more likely to connect with advertisements featuring actors who resemble them in characteristics such as age or ethnicity. This would have applied to the Odido advertisement, where similarity was present and theoretically expected to enhance attitudinal responses. In contrast, the Vodafone ad featured

actors less similar to the target group, which should have resulted in weaker identification and less positive attitudes. However, the results showed no significant difference between the two conditions. This suggests that the relationship between identifying with on-screen characters and adopting their attitudes or behaviors may be moderated or mediated by other variables, such as message relevance, prior attitudes, or contextual factors. Thus, imitation of certain attitudes may not rely solely on perceived similarity, highlighting that the identification process is more nuanced and conditional than initially assumed.

These findings also challenge assumptions based on the Elaboration Likelihood Model. Odido's digital detox advertisement incorporated stronger peripheral cues, such as a highly credible source and the use of humor, which according to the model, should have led to more positive attitudes compared to the Vodafone advertisement, which lacked these elements. However, the results revealed no significant difference in attitudes between the two advertisements. This contradiction may suggest that the effectiveness of peripheral cues is not guaranteed. It is also possible that adolescents were not sufficiently motivated or attentive to engage meaningfully with either advertisement, limiting the influence of peripheral cues. These findings point to the complexity of the Elaboration Likelihood Model and the need to consider contextual variables.

Thus, results suggest that exposure to advertisements promoting digital detox may help in shaping adolescents' attitudes toward reducing their social media use. Which might help in achieving personal and social benefits of digital detoxing, such as better concentration, better sleep, less stress and better social interactions in the real world. By presenting digital detoxing advertisements through storytelling and adding entertainment value through creativity, similar messages may also influence adolescents' attitudes, making them more positive about the idea of disengaging from social media. And a more positive attitude towards a behavior could increase the likelihood of intention to engage in that behavior. If adolescents internalize these messages from digital detoxing advertisements and develop a stronger belief in the effectiveness and social acceptability of digital detox, they may desire more control over their social media use and try digital detoxing methods themselves. This can eventually result in possible behavior change, such as taking breaks from social media, muting or blocking notifications or deleting social media platforms temporarily or even permanently. Digital detoxing advertisements have the potential to be a valuable tool for the creative industry and media professionals who want to raise awareness about excessive social media use through digital channels.

Discussion

While this study shows that digital detoxing advertisements can positively influence adolescents' attitudes toward reducing screen time, several limitations must be considered when interpreting the findings and point to important directions for future research.

Firstly, there was a huge rate of survey dropouts. Survey dropouts are respondents, who don't complete the full survey, answering all the questions. This affected the study's sample size significantly impacting the overall credibility of this study. Foremost, it reduces the statistical power of the analysis, increasing the likelihood of Type II errors, failing to detect real effects or relationships that do exist. And with less data, the results also become more susceptible to random variation and outliers, which can distort estimates and lead to less stable and less reliable conclusions.

The amount of survey dropouts might have been caused by a number of reasons. Possibly the survey length, the survey had an average time of ten minutes to complete. According to Qualtrics (2024), surveys longer than 9 minutes start to see substantial levels of respondent break-off on mobile devices. Another reason could have been the repetitiveness of the questions, which can cause survey fatigue. Since the pretest and posttest were completely the same questions, people could have gotten tired of answering the questions and chose to dropout. A solution to this reason could have been to include reverse-coded questions to drive engagement. (Kasilingam & Ajitha, 2022, p. 350). Furthermore, the survey asked personal and sensitive questions, about the participants' social media usage and possible addiction. These kind of questions can be invasive and can lead to a participant quitting the survey to avoid answering. To avoid participants quitting the survey due to invasive questions, the anonymity should have been more emphasized in the questionnaire. Another possibility as explanation for the survey dropout, could be the specific questions about the persons' screentime, asking them to leave the survey to check their setting for the average time spend on their phone. Leaving the survey for a question, makes participants less likely to come back, it can lead to someone forgetting to complete it or make the participant less motivated to return to the survey. Or maybe they lacked motivation to complete the survey overall, a possibility of a reward with completing the survey might have lowered the rate of survey dropouts. Another explanation for the dropout rate could be, the requirement of mental energy. Maybe the survey required to much mental energy from respondents, surveys with more than 3 open-text boxes average completion rates begin to decline and respondents start writing a lot less text in their responses (Qualtrics, 2024). Lastly, the survey as part of this research even included an open-text box nearing the end of the survey, as a part of the manipulation checks. This might have been the explanation to the high rate in missing or inaccurate answers to the manipulation checks. The huge rate of incomplete survey made the sample too small for the research to be relevant to the population. This research might be interpreted as a pilot study for further research relating advertisements to digital detoxing.

Another significant limitation concerns the sampling method. Participants were recruited through snowball sampling, primarily via the researcher's own social media platforms. This sampling method was chosen as its most accessible, despite its well-known limitations regarding sample representativeness and potential bias. For this research, a random sampling method was not applied, primarily due to practical constraints related to time, access, and resources. Conducting a truly random sampling process requires a comprehensive and accessible list of the target population, which was not available to the researcher. Additionally, implementing random sampling procedures often involves the use of paid recruitment platforms, distribution through schools or youth organizations, or cooperation with third-party research agencies, all of which require financial and administrative support beyond the scope of this project. As a result, the sample was not representative of the broader adolescent population and skewed towards Dutch university students within a similar social environment. This limits the generalizability of the results and raises concerns about sample representativeness and bias. Future research should therefore employ random sampling techniques to ensure a more representative group of participants, increasing the external validity of the findings.

Another limitation of this research, also concerning the validity of the findings, is the differences between the two advertisements used as exposures. While both aimed to promote digital detoxing, they varied in multiple aspects beyond the intended persuasive elements, such as the type of phone shown, the apps displayed, or the overall visual and narrative style. These uncontrolled differences introduce potential confounding variables, making it difficult to determine whether the observed attitude changes were driven by features unrelated to digital detoxing in the ads. This poses a threat to the study's internal validity. To strengthen causal inferences in future research, it is essential to use advertisements that are as identical as possible, varying only one targeted variable at a time.

Another important limitation lies in the short-term nature of the study. Attitudes were measured directly after exposure with pretest and posttest being measured within minutes from each other, which limits our understanding of whether the observed effects are sustained over time. Since advertising often works through repetition or long-term association, it remains unclear whether a single exposure can lead to durable attitude change. Future research would benefit from a longitudinal approach, tracking participants over a longer period and potentially using repeated exposures to explore the role of familiarity, which is the development of a preference for a certain brand or product simply because it is familiar to the participant, and message reinforcement, where repeated exposure strengthens the persuasive effect of the advertisement by reinforcing its key messages and increasing retention.

Lastly, the use of self-report measures also raises some concern about response bias, particularly when participants are asked to reflect on personal behavior such as social media use or screen time. Sensitive topics like social media addiction can be subject to social desirability effects,

where participants may underreport or overreport in an attempt to present themselves more favorably. While self-reporting is a common method in attitude research, future studies should consider supplementing with more objective measures, such as behavioral tracking or passive data collection, to enhance reliability and refrain from possible response bias. For example, researchers could use smartphone usage data collected through apps that monitor screen time and app activity before and after watching a digital detoxing advertisement, providing a more accurate and unbiased pretest and posttest assessment of participants' digital behavior.

Despite these limitations, the study contributes preliminary evidence that digital detox advertising can positively influence adolescent attitudes toward reducing excessive digital use. This finding underscores the potential of targeted advertising campaigns to play a role in promoting healthier relationships with technology among adolescents. However, due to several methodological constraints, including the sample size, sampling methods, and reliance on self-report data, the results should be interpreted with caution and not generalized beyond the study's specific context. Thus, this research serves primarily as an exploratory step, highlighting important avenues for further investigation rather than providing definitive conclusions. It opens up the discussion on how digital advertisements can be strategically designed to encourage more mindful social media habits and digital wellbeing, particularly among adolescents who are among the most vulnerable groups to excessive screen time and digital dependency. Future research that addresses the identified limitations, such as employing larger, more representative samples, utilizing longitudinal designs, and integrating objective behavioral measures, will be better equipped to produce robust and generalizable findings. These insights will be crucial for refining theoretical frameworks on media influence and persuasion, as well as for guiding practitioners in the advertising and public health sectors in crafting effective interventions. Ultimately, a deeper understanding of digital detoxing advertisements can contribute meaningfully to efforts aimed at achieving healthier digital environments for adolescents and society.

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Appendix A: Survey

Qualtrics: Digital Detoxing Thesis Survey

Survey flow and questions

Block: Introduction (2 Questions)
Standard: Personal information (1 Question)
Standard: Social media use (21 Questions)
Standard: Introduction Digital Detoxing (1 Question)
Standard: Digital detoxing attitude pre-test (16 Questions)
Standard: Introduction exposure (1 Question)

BlockRandomizer: 1 - Evenly Present Elements

- **Block: Exposure Odido (2 Questions)**
- **Standard: Exposure Vodafone (2 Questions)**

Standard: Digital detoxing attitude post-test (16 Questions)

Branch: New Branch
If
If Odido advertisement Is Displayed

- **Block: Control question Odido (1 Question)**

Branch: New Branch
If
If Vodafone advertisement Is Displayed

- **Block: Control question Vodafone (1 Question)**

Standard: Attention/Perception check (2 Questions)
Standard: Questions or remarks? (1 Question)

Page Break

Start of Block: Introduction

Introduction Dear participant, Thank you for your interest in this research. In this questionnaire we will ask you some questions regarding your reaction to an advertisement. The aim is to analyze the experience you had before, during and after watching the advertisement. The questionnaire will approximately take 10 minutes to fill in. Please answer each question carefully and honestly, we are sincerely interested in your personal experience for this research. There are no right or wrong answers. All the data from this research will remain confidential and data will be anonymously collected. We will not be able to match your answers to your identity. There are no foreseeable risks associated with participating in this research. After reading this introduction you are able to freely decide if you want to participate in this research. When feeling discomfort or unsafe, you can at any time during the questionnaire quit the research. You are not obligated to finish this questionnaire, if you don't want to participate even after agreeing to fill in the questionnaire. You can cease cooperation without giving you reasons. If you have any questions about this research or about the questions, you can contact the responsible researcher; Angela van der Haas - 604851ah@student.eur.nl

Informed consent If you understand the information above and freely consent to participate in this research, click on the "I agree" button below to start the questionnaire.

- ○ I agree (1)
- ○ I do not agree (2)

Skip To: End of Survey If Informed consent = 2

End of Block: Introduction

Start of Block: Personal information

Age What is your age? (In numbers)

_____

_____

_____

_____

_____

Skip To: End of Survey If Condition: What is your age? (In numbers) Is Less Than 18. Skip To: End of Survey.

Skip To: End of Survey If Condition: What is your age? (In numbers) Is Greater Than 24. Skip To: End of Survey.

End of Block: Personal information

Start of Block: Social media use

Introduction The next few questions are about your social media use. For some of the answers it is recommended to check your settings of your phone (settings --> screen time --> see all app & website activity --> last week's average & most used)

Screentime How many hours a day is your screentime on average? (Round up and write out in numbers)

_____

_____

_____

_____

_____

Social media apps Which social media apps control most of your screentime?

- ○ Instagram (1)
- ○ Snapchat (2)
- ○ TikTok (3)
- ○ Facebook (4)
- ○ Pinterest (5)
- ○ Youtube (6)
- ○ X (Formerly Twitter) (7)
- ○ WhatsApp (8)
- ○ Other ... (9) _____

Uses Which motive(s) do you have to use social media platforms?

- [ ] Entertainment (1)
- [ ] Information (2)
- [ ] Convenience (3)
- [ ] Self-expression (4)
- [ ] Social interaction (5)
- [ ] Other ... (6) _____

Gratifications Does social media satisfy these motives?

- ○ Never (1)
- ○ Rarely (2)
- ○ Sometimes (3)
- ○ Often (4)
- ○ Always (5)

Media Multitasking Do you participate in media multitasking, using multiple media at the same time? (e.g. watching Instagram reels on your phone, while watching a movie on television)

- ○ Never (1)
- ○ Rarely (2)
- ○ Sometimes (3)
- ○ Often (4)
- ○ Always (5)

Page Break

Addiction 1 Do you feel preoccupied by social media?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Addiction 2 Do you use social media to reduce negative feelings?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Addiction 3 Do you suffer any distress when not being able or not allowed to use social media?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Addiction 4 Is social media causing harm to other important areas in your life? (e.g. watching TikToks rather than studying)

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Addiction 5 Do you desire to control your own social media use?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Addiction 6 Have you attempted to control the use of social media without success? (e.g. setting a timer to stop using social media when it goes off, but ignoring the alarm)

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Addiction 7 Do you think you have a social media addiction?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Page Break

Smartphone vigilance Are you aware you can always get connected to others through social media?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Smartphone v2 Do you feel inclined to respond to incoming social media notifications within a few minutes?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Smartphone v3 Do you have a fear of missing out (FoMo)?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Smartphone v4 Do you check your social media as a distraction?

- ○ Never (1)
- ○ Rarely (2)
- ○ Sometimes (3)
- ○ Often (4)
- ○ Always (5)

Smartphone v5 Do you check number of likes and comments under your social media posts?

- ○ Never (1)
- ○ Rarely (2)
- ○ Sometimes (3)
- ○ Often (4)
- ○ Always (5)

Smartphone v6 Do you think you are impulsive?

- ○ Definitely not (1)
- ○ Probably not (2)
- ○ Might or might not (3)
- ○ Probably yes (4)
- ○ Definitely yes (5)

Smartphone v7 How much control do you think you have over your own social media behavior?

- ○ None at all (1)
- ○ A little (2)
- ○ A moderate amount (3)
- ○ A lot (4)
- ○ A great deal (5)

Smartphone v8 How satisfied are you with your life?

- ○ Extremely dissatisfied (1)
- ○ Somewhat dissatisfied (2)
- ○ Neither satisfied nor dissatisfied (3)
- ○ Somewhat satisfied (4)
- ○ Extremely satisfied (5)

End of Block: Social media use

Start of Block: Introduction Digital Detoxing

Q65 Last few questions were to portray your social media use. These questions will now be followed up with questions about your experience with digital detoxing, a term about decreasing social media usage.

End of Block: Introduction Digital Detoxing

Start of Block: Digital detoxing attitude pre-test

Digital detoxing Are you willing to try any of the following digital detoxing methods? Select the method(s) you are willing to try.

- ☐ Taking smartphone breaks (1)
- ☐ Deleting social media platforms temporarily (2)
- ☐ Deleting social media platforms permanently (3)
- ☐ Muting notifications (4)
- ☐ Blocking notifications (5)
- ☐ Installing a digital detox app (e.g. Forest or Flipd) (6)
- ☐ Switching to lighter technology (e.g. dumbphones) (7)
- ☐ Reading a self-help book regarding social media usage (8)
- ☐ Watching documentaries regarding social media usage (9)

Digital detoxing 2 To what extent have you used these digital detoxing methods to decrease social media and technology use?

- ○ Never (1)
- ○ Rarely (once or twice ever) (2)
- ○ Sometimes (at least once every year) (3)
- ○ Often (at least once every month) (4)
- ○ Always (at least once every week) (5)

Page Break

DD attitude If I participate in digital detoxing, it will have positive effects on me

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 2 If more people in society would participate in digital detoxing, the number of people with a social media addiction will be reduced

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 3 Social media addiction can be controlled through digital detoxing methods

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 4 If more people in my social circle would participate in digital detoxing, I would be more likely to detox myself

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 5 If I do not start with digital detoxing, I might get a social media addiction

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 6 Social media addiction has serious consequences, which can be prevented through digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 7 Digital detoxing has a positive effect on life satisfaction

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 8 Digital detoxing is effective

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 9 Digital detoxing does not have adverse reactions or harmful consequences

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 10 I am scared to try digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 11 I do not need digital detoxing to control my social media usage

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 12 I prefer not to do digital detoxing, since I don't experience social media addiction or any of its serious consequences

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 13 Everyone should try digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

DD attitude 14 I would recommend digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

End of Block: Digital detoxing attitude pre-test

Start of Block: Introduction exposure

Q66 Moving on from these questions. Next up, you will be shown a video, an advertisement from a telephone provider. The video will last approximately 1 minute, please watch the whole video

carefully. There will also be a timer of 1 minute counting down, after this you can move on to the next set of questions.

End of Block: Introduction exposure

Start of Block: Exposure Odido

1

Timer Timing

First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Exposure Odido

Start of Block: Exposure Vodafone

2

Timer Timing

First Click (1)
Last Click (2)
Page Submit (3)
Click Count (4)

End of Block: Exposure Vodafone

Start of Block: Digital detoxing attitude post-test

Q43 Are you willing to try any of the following digital detoxing methods? Select the method(s) you are willing to try.

- ☐ Taking smartphone breaks (1)
- ☐ Deleting social media platforms temporarily (2)
- ☐ Deleting social media platforms permanently (3)
- ☐ Muting notifications (4)
- ☐ Blocking notifications (5)
- ☐ Installing a digital detox app (e.g. Forest or Flipd) (6)
- ☐ Switching to lighter technology (e.g. dumbphones) (7)
- ☐ Reading a self-help book regarding social media usage (8)
- ☐ Watching documentaries regarding social media usage (9)

Q44 To what extent have you used these digital detoxing methods to decrease social media and technology use?

- ○ Never (1)
- ○ Rarely (once or twice ever) (2)
- ○ Sometimes (at least once every year) (3)
- ○ Often (at least once every month) (4)
- ○ Always (at least once every week) (5)

Page Break

Q45 If I participate in digital detoxing, it will have positive effects on me

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q46 If more people in society would participate in digital detoxing, the number of people with a social media addiction will be reduced

- Strongly disagree (1)
- Somewhat disagree (2)
- Neither agree nor disagree (3)
- Somewhat agree (4)
- Strongly agree (5)

Q47 Social media addiction can be controlled through digital detoxing methods

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q48 If more people in my social circle would participate in digital detoxing, I would be more likely to detox myself

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q49 If I do not start with digital detoxing, I might get a social media addiction

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q50 Social media addiction has serious consequences, which can be prevented through digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q51 Digital detoxing has a positive effect on life satisfaction

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q52 Digital detoxing is effective

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q53 Digital detoxing does not have adverse reactions or harmful consequences

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q54 I am scared to try digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q55 I do not need digital detoxing to control my social media usage

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q56 I prefer not to do digital detoxing, since I don’t experience social media addiction or any of its serious consequences

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q57 Everyone should try digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

Q58 I would recommend digital detoxing

- ○ Strongly disagree (1)
- ○ Somewhat disagree (2)
- ○ Neither agree nor disagree (3)
- ○ Somewhat agree (4)
- ○ Strongly agree (5)

End of Block: Digital detoxing attitude post-test

Start of Block: Control question Odido

Attitude Odido Odido is ... brand

- ○ Good (1)
- ○ Bad (2)

End of Block: Control question Odido

Start of Block: Control question Vodafone

Attitude Vodafone Vodafone is a ... brand

- ○ Good (1)
- ○ Bad (2)

End of Block: Control question Vodafone

Start of Block: Attention/Perception check

Attention check From which telephone provider was the advertisement you saw?

- ○ Vodafone (1)
- ○ Odido (2)
- ○ KPN (3)
- ○ Youfone (4)
- ○ Simyo (5)
- ○ Simpel (6)
- ○ Hollands Nieuwe (7)
- ○ Lebara (8)
- ○ Budget Mobiel (9)
- ○ Ben (10)

Perception check What was the main take-away of the advertisement you saw?

_____

_____

_____

_____

_____

End of Block: Attention/Perception check

Start of Block: Questions or remarks?

End Do you have any questions, comments or remarks? Please let me know below.

_____

_____

_____

_____

_____

End of Block: Questions or remarks?
