

MASTER THESIS

Livestreams vs. pre-recorded videos: How media richness, social viewing, and situational urgency influence donor behavior and attitude

Iris Mark
Master thesis

Faculty of Behavioral Management and Social Sciences
University of Twente
Master Communication Science

Supervisors
Dr. Ardion Beldad
Dr. Ester van Laar

June 22, 2022

Abstract

Purpose. The COVID-19 pandemic and changes in donor behavior have shown that non-profit organizations need to find new ways to raise funds if they want to secure their future. Social media fundraising offers one option, as donors are increasingly embracing fundraising tools on social media. Nevertheless, scientific literature on effective ways to use social media to fundraise and which elements contribute to this effectiveness is sparse. Therefore, the present study aims to investigate the effects of media richness, social viewing, and situational urgency on donor attitude and behavior in a social media context.

Study design/method/approach. A scenario-based 2 (media richness: high vs. low) x 2 (social viewing: high vs. low) x 2 (situational urgency: high vs. low) between-subjects online experiment was conducted. Participants were gathered in collaboration with non-profit organization Hematon. Non-probability sampling strategies were used to gather these participants, resulting in a sample of 171 Dutch social media users.

Results. Results showed that the level of social viewing and situational urgency significantly influence attitude towards the cause and donation intention, while no effects were found for the level of media richness. No interaction effects between media richness, social viewing, and situational urgency were found as well. An additional analysis identified affinity to the cause as a covariate.

Conclusion. Elements of social viewing and situational urgency in a fundraising appeal contribute to the success of social media fundraising, as they successfully influence donor attitude and behavior. For example, if a fundraising video starts with “we need your help immediately” (i.e. high situational urgency), viewers’ donation intention will be higher. These findings should help researchers and non-profit organizations see the value of social viewing and situational urgency as fundraising methods on social media. Non-profit organizations should therefore incorporate social viewing and situational urgency cues in their fundraising appeals on social media. Future studies could try, among other things, to replicate the findings of the present study for non-health related or fictitious non-profit organizations.

Keywords: *media richness, social viewing, situational urgency, donor attitude, donation intention, social media fundraising, non-profit organizations.*

Table of Content

1	Introduction	6
2	Theoretical Framework	8
2.1	Social media fundraising.....	8
2.2	Donor attitude and behavior	8
2.3	Media richness.....	9
2.4	Social viewing	11
2.5	Situational urgency	12
2.6	Interaction effects	13
2.6.1	Media richness and social viewing	13
2.6.2	Media richness and situational urgency.....	14
2.6.3	Situational urgency and social viewing	14
2.7	Covariate effects.....	15
2.7.1	Attitude towards Facebook advertisements	15
2.7.2	Moral obligation	16
2.7.3	Cause affinity.....	16
2.8	Conceptual research model.....	17
3	Methodology.....	18
3.1	Research design	18
3.2	Context	18
3.3	Stimuli material	19
3.4	Pre-tests.....	20
3.4.1	Pre-test one.....	20
3.4.2	Pre-test two.....	21
3.5	Manipulation and setting checks.....	22
3.6	Participants.....	23
3.7	Research procedure.....	25
3.8	Measurements.....	25
3.8.1	Attitude towards the cause, attitude towards the NPO, and donation intention	26
3.8.2	Media richness, social viewing, and situational urgency	26

3.8.3	Attitude towards Facebook ads, moral obligation, and cause affinity	26
3.8.4	Perceived attractiveness and perceived authenticity	26
3.9	Quality of instruments.....	27
4	Results	29
4.1	Main effects media richness, social viewing, and situational urgency	29
4.1.1	Effects of media richness	30
4.1.2	Effects of social viewing	30
4.1.3	Effects of situational urgency	31
4.2	Interaction effects media richness, social viewing, and situational urgency	32
4.3	Effects of attitude towards Facebook ads, moral obligation, and cause affinity	33
4.4	Effects perceived attractiveness and authenticity	34
4.4.1	Perceived attractiveness	34
4.4.2	Perceived authenticity	34
4.5	Overview of the results of the tested hypotheses	35
4.6	Adjusted research model.....	36
5	Discussion.....	37
5.1	Discussion of results	37
5.1.1	Effects of media richness	37
5.1.2	Effects of social viewing	37
5.1.3	Effects of situational urgency	38
5.1.4	Interaction effects between media richness, social viewing, and situational urgency	39
5.1.5	Effects of affinity to the cause.....	40
5.1.6	Effects of perceived attractiveness and perceived authenticity	40
5.2	Theoretical implications	41
5.3	Research limitations and future research	41
5.4	Practical implications.....	42
6	Conclusion	44
7	References.....	45
8	Appendix	50
8.1	Appendix A: Stimuli material	50

8.1.1	Images	50
8.1.2	Situational urgency text	52
8.2	Appendix B: social media & Kickstarter descriptive statistics	53
8.2.1	Social media	53
8.2.2	Kickstarter	55
8.3	Appendix C: List of final measurement instruments main study.....	56

1 Introduction

Recent developments in donor behavior and society have put a strain on nonprofit organizations' (NPOs) finances. In particular, the struggle to retain regular donors and the limited opportunities to organize real-life fundraising activities as result of the COVID-19 pandemic have weakened nonprofit organizations' (NPOs) financial security (Schulpen et al., 2020; Van Uffelen, 2019). These recent developments highlight the need for NPOs to find alternative ways to fundraise if they want to secure a steady flow of income in the future. One of these alternative ways is fundraising through social media, which is steadily rising in popularity. To illustrate, around 44% of European donors have used Facebook's fundraising tools to donate to a NPO in 2021, compared to 16% in 2018. More importantly, 89% of those donors are willing to use Facebook's fundraising tools to donate again (Nonprofit Tech for Good, 2020). The growing popularity of social media for fundraising purposes means it is important to generate scientific findings on how NPOs can effectively use social media for fundraising purposes (Agozzino & Fleck, 2016; Kennedy & Sommerfeldt, 2015; Lucas, 2017). Still, scientific research on how NPOs can effectively use social media to fundraise and which elements of social media contribute to this effectiveness is limited (Di Lauro et al., 2019; Saxton & Wang, 2014).

When considering social media for fundraising purposes, there are several elements of social media, or social media content, that NPOs could incorporate in their fundraising strategies. For example, video content on social media can be successfully used for fundraising purposes (Di Lauro et al., 2019). When looking at the elements of video content on social media, a distinction can be made in the media richness of different types of videos. Media richness refers to the ability of a medium to transmit information based on feedback speed, message personalization, variety of (social) cues, and the range of language options (Daft & Lengel, 1986; Dainton & Zelly, 2019). Literature on media richness suggest that rich media offer a more authentic and engaging viewer experience than leaner media. Consequently, viewers express higher behavioral intentions and more favorable attitudes when organizations use a richer medium (Ang et al., 2018; Wohn et al., 2018). Thus, NPOs could use media richness to influence donor attitude and behavior on social media.

Another relevant element of social media is its ability to foster social viewing. Social viewing refers to an interactive viewing experience in which viewers engage in online discussions and interactions before, during or after watching video contents on social media (Ang et al., 2018; Lee & Choi, 2017). Previous studies show that the real or imaginary presence of others, which is an inherent part of social viewing, influences attitude and behavior. For example, Lee and Choi (2018) found that the shared-viewership and real-time discussion in social viewing lead viewers to mimic the emotions of others. Consequently, viewers heightened emotions influence their information processing, which in turn reinforces or weakens their opinions. Other studies have used theories and concepts related to social influences, such as peer pressure, to explain the influence of social viewing on behavior and attitude (e.g. Kumar & Chakrabarti, 2021). Hence, social viewing is a relevant element of social media, which could be used by NPOs to influence donor attitude and behavior.

Lastly, NPOs can use content on social media to inspire a sense of situational urgency. Situational urgency refers to the extent donors view a situation as urgent, critical, and needing support without delay (Chan et al., 2020). Literature on situational urgency suggest that support for a cause is more readily offered

when the urgency is perceived to be high (Colaizzi et al., 1984). For example, crowdfunding projects closer to their end date receive more support and larger donations, as donors might believe that these crowdfunding projects immediately need more support to reach their goal (Kamatham et al., 2021; Kuppuswamy & Bayus, 2017). These findings correspond with research on the bystander effect and the norm activation model, which suggests that experiencing a sense of situational urgency is one of the conditions for people to help others (Fischer et al., 2011; Schwartz, 1977; Siegal, 1972). Hence, NPOs can utilize situational urgency to affect donor attitude and behavior on social media.

All in all, media richness, social viewing, and situational urgency are three elements of social media that NPOs could use to influence donor attitude and behavior. To address gaps in fundraising literature, the present study aims to test the effects of level of media richness, social viewing, and situational urgency on donor behavior and attitude in a social media context. It therefore differentiates itself from the growing body of literature that still focuses on exploring how NPOs use social media to communicate and interact with their followers (Bhati & McDonnell, 2019). In doing so, the present study provides NPOs with relevant practical insights into how they can successfully use social media for fundraising purposes and which elements contribute to this success. With the aim of the study in mind, the following main research questions are formulated:

RQ1: To what extent do level of media richness, level of social viewing, and level of situational urgency influence donors' attitude towards the cause, attitude towards the NPO, and donation intention?

RQ2: To what extent do the effects of level of media richness, social viewing, and situational urgency on attitude towards the cause, attitude towards the NPO, and donation intention interact?

To answer these two research questions, a theoretical framework with relevant literature is presented chapter 2. Next, the methodology and the results of the online experiment are described in chapter 3 and 4. These chapters are followed by a discussion of the results, research limitations, future research suggestions, and research implications in chapter 5. The report ends with a concluding paragraph in chapter 6, followed by the reference list and appendix.

2 Theoretical Framework

The purpose of the following theoretical framework is to understand the theories, constructs, and relationships between the constructs that are relevant to the present study using current scientific literature. The theoretical framework will first introduce social media fundraising and donor attitude and behavior. It will then discuss the effects of media richness, social viewing, situational urgency, potential interaction effects, and the influence of three covariate variables. Lastly, a conceptual research model is given based on the proposed hypotheses.

2.1 Social media fundraising

Social media play a vital role in nonprofit organizations' (NPOs) communication strategies. Nowadays, social media are a popular way for NPOs to communicate and engage with their online followers (Di Lauro et al., 2019). However, NPOs can use social media for purposes beyond simple communication, as the number of fundraising tools on social media has grown in recent years. For example, Facebook now offers NPOs the option to raise money via a livestream (Meta, 2021). The introduction of these fundraising tools offers NPOs an alternative method to fundraise, especially as the use of these fundraising tools could be beneficial to NPOs. In their literature review, Di Lauro et al. (2019) identified several benefits for NPOs associated with social media fundraising: increased organizational transparency and accountability, room for more efficient use of assets, increased involvement and engagement, and strengthening of organizational reputation. However, it should be noted that results on the latter two benefits are mixed (Di Lauro et al., 2019). The use of social media for fundraising purposes could therefore be beneficial to NPOs. However, if NPOs want to benefit from social media fundraising, they might have to reconsider their fundraising practices.

Literature on social media fundraising shows that traditional fundraising (e.g. door-to-door fundraising) and social media fundraising differ in three ways: crowdfunding, peer-to-peer fundraising, and peer pressure (Saxton & Wang, 2014). The public and social nature of social media allows NPOs to utilize aspects of crowdfunding and reach new and old donors all over the world. Additionally, it allows NPOs to utilize peer-to-peer fundraising and make use of peer pressure. For instance, NPOs might urge their online supporters to request donations from their own online networks. The reach of the donation request might then be far greater than NPOs can achieve on their own, as supporters' online networks could extend beyond national borders. These three differences together imply that the rules that apply to traditional fundraising seem to be less relevant when it comes to social media fundraising. Instead, Saxton and Wang (2014) suggest that a 'social media effect' is a better sign for fundraising success on social media. The social media effect refers to the network size of a NPO and subsequently its reach. Hence, it is not necessarily a NPOs' organizational characteristics, but their web characteristics that drive the success of fundraising efforts on social media. One then wonders if there are other web characteristics or elements, besides network size and network reach, which influence the success of social media fundraising.

2.2 Donor attitude and behavior

Two important indicators for the success of fundraising on social media seem to be donor attitude and intention. Previous studies have highlighted the influence of donors' attitudes and donation intention on their support for and response to fundraising campaigns (e.g. Bendapudi et al., 1996; Kumar & Chakrabarti, 2021;

Wymer et al., 2016). Therefore, if NPOs want to have a successful fundraising campaign on social media, they will need to successfully influence donors' attitudes and donation intention.

Attitudes can be defined as the sum of a consumer's beliefs toward an organization and the strength those beliefs (Bendle et al., 2015). In the present study, attitude towards the cause refers to what donors think of the cause and how strongly they feel about it. Similarly, attitude towards the NPO refers to what donors think of the NPO and how strongly they feel about it. Literature shows that attitudes are formed when donors evaluate their beliefs about an object along a scale of positive and negative attribute dimensions (Ajzen, 2001). How well these attitudes correlate with future behavior depends on how easy it is to recall the attitudes and how stable the attitudes are over time (Glasman & Albarracín, 2006). Hence, easy recall and stability are two important factors that influence donors' attitude formation. A fundraising appeal on social media should therefore help potential donors recall their pre-existing attitudes. Additionally, the fundraising appeal should not contradict donors' attitudes and the expectations these attitudes create.

Intention generally refers to the a consumer's willingness to engage in the desired behavior (Bendle et al., 2015). In the present study, donation intention refers to a donor's intent to make an online monetary donation to an NPO. Literature shows that there are different types of factors that contribute to donors intention to donate. Bekkers and Wiepking (2011) discovered that donation intention is mainly driven by need awareness, donation request, material and psychological costs and benefits, level of selflessness, social reputation, values, and nonprofit competence. Moreover, Shier and Handy (2012) found that gender, brand perception and third-party influence drive donation intention as well. Hence, it seems donor specific factors (e.g. gender), organizational factors (e.g. brand perception) and situational factors (e.g. type of donation platform) play an important role in shaping donors' donation intention. Therefore, how the donation request is made might be crucial in the effectiveness of fundraising appeals in influencing donor intention in an online environment. For example, social viewing cues in a fundraising appeal might play a role in influencing donation intention, as social reputation affects donation intention. NPOs should therefore consider which type of factor they want to target in their fundraising appeal on social media and how certain elements of social media play into this.

2.3 Media richness

The use of video for communicative purposes has been gaining popularity over the years. The majority of NPOs use a variety of video types and formats to inform and educate their followers on their mission, program and services (Waters & Jones, 2011). Livestreams and pre-recorded videos are two types of videos that NPOs can use to communicate and engage with their followers. Livestreams are real-time video transmissions of an event via a medium intended for immediate watching (Ang et al., 2018; Oxford English Dictionary, 2021a). Pre-recorded videos have been recorded at an earlier moment, with the intent for later distribution and watching (Ang et al., 2018; Oxford English Dictionary, 2021b). Livestreams and pre-recorded videos differ in two important ways. First, Livestreams are considered more engaging than other video types, such as pre-recorded videos (Wohn et al., 2018). Livestreams are interactive by nature, allowing two-way communication between the NPO and viewer (Huang et al., 2019; Lottridge et al., 2017; Wohn et al., 2018). On the other hand, pre-recorded videos only allow one way communication from NPO to viewer (Lottridge et al., 2017). Second,

livestreams provide more authentic experiences than pre-recorded videos, as viewers experience increased forms of immediacy, synchronicity, and immersion (Ang et al., 2018; Wohn et al., 2018). Based on these two differences, a distinction in media richness can be made for livestreams and pre-recorded videos.

Media richness refers to the ability of a medium to transmit information, assessed along four main characteristics: feedback speed (simultaneously vs. non-simultaneously), degree of message personalization, ability to handle and transmit various (social) cues, and the ability to change language use (Daft & Lengel, 1986; Dainton & Zelly, 2019). In the present study, level of media richness refers to the ability of a video to convey a (fundraising) appeal according to feedback speed, the ability to handle and transmit various (social) cues, and degree of (potential) message personalization. As previously stated, livestreams and pre-recorded videos differ in terms of media richness. Livestreams can be considered a richer medium than pre-recorded videos, as livestreams have greater feedback speed, can transmit more (social) cues, and might even provide a more personalized experience (e.g. Huang et al., 2019). For example, the streamer can read comments from viewers saying they donated. The streamer can then smile and thank the viewer for their donation. Therefore, the present study considers a livestream to have a high level of media richness and pre-recorded videos to have a low level of media richness.

Prior research suggests that the level of media richness can influence donor behavior and attitude. According to Shyam Sundar (2012), rich online media possess more diverse and extensive functions that enable interaction and engagement. These richer functions strengthen interactivity and consumer engagement, as consumers might experience more interaction with fellow consumers or feel a greater sense of immersion. Consumers therefore process information differently, thus affecting their behavior and attitudes (Shyam Sundar, 2012). Similarly, Ang et al. (2018) found that rich online media, such as livestreams, lead to improved donor attitude and increased purchase intention. The reason for this is that rich online media create a more authentic viewing experience, as a result of heightened feelings of immediacy and synchronicity. Consequently, viewers hold more positive attitudes towards the video topic and have an increased purchase intention (Ang et al., 2018).

On the other hand, Breves (2020) finds less conclusive results for the influence of richer media on donor behavior, as he only finds a small difference in donation intention between different levels of media richness. However, Breves' results do suggest that viewers of highly immersive media donate larger amounts of money than viewers of less immersive media when they do intend to donate. According to Breves, a potential explanation for these results could be that viewers of highly immersive videos experience more empathetic parasocial interactions and a higher issue involvement. As a result, viewers of highly immersive videos feel more interested and involved in the fundraising effort than viewers of less immersive videos. When viewers of highly immersive media express a willingness to donate, they will be more willing to donate larger amounts of money, as they hold a more positive attitude towards the requester and the issue (Breves, 2020). Hence, literature shows that the level of media richness can influence donor behavior and attitude.

To summarize, the present study defines the level of media richness based on three aspects: feedback speed, availability of (social) cues, and message personalization. Therefore, livestreams are considered to have a higher level of media richness than pre-recorded videos. The rich nature of livestreams can increase donation

intention and create more positive donor attitudes than pre-recorded videos. Hence, the following hypothesis is suggested:

H1: A high level of media richness leads to a higher/more positive (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention than a low level of media richness.

2.4 Social viewing

Social viewing is gaining relevance as a marketing research concept, as an increasing amount of social media users are engaging in online shared-viewership (Ang et al., 2018). Social viewing refers to an interactive viewing experience in which viewers engage in online discussions and interactions before, during or after watching video content on social media (Ang et al., 2018; Lee & Choi, 2017). Ang et al. (2018) differentiate between the social viewing of livestreams and pre-recorded videos, with the key difference being when the social viewing takes place. Social viewing for livestreams is associated with real-time shared-viewership and online discussions, with interactions and discussions happening through live chats and instant messages. In contrast, social viewing for pre-recorded videos happens afterwards, where shared viewership and online discussions happen through comments and posts posted after watching. In other words, livestream social viewing is more synchronous, as real-time watching allows a high feedback speed between viewers. Pre-recorded social viewing is more asynchronous, as viewers watch the pre-recorded video at different times. Consequently, the feedback speed is lower due to a delay between viewer interactions.

Several studies have proposed theories or concepts related to social influences to explain the effects of social viewing on attitude and behavioral intentions (e.g. Ang et al., 2018; Hahn et al., 2018; Kumar & Chakrabarti, 2021; van Teunenbroek et al., 2020). For example, Ang et al. (2018) use social impact theory as the foundation of their study. Social impact theory states that interactions and the presence of others affect a person's perceptions, attitudes and behaviors (Latané, 1981). According to Ang et al. (2018), the social influence cues 'social presence' and 'synchronicity' are inherent in both social impact theory and social viewing. These social influence cues increase the authenticity of the viewing experience, as the presence of others and the resulting interactions feels more natural to the viewer. Consequently, viewers express more interest in the video topic and higher behavioral intentions, such as a higher purchase intention (Ang et al., 2018; Latané, 1981).

Lee and Choi (2018) are another study to show the influence of social viewing on attitude and behavioral intentions. In their study, Lee and Choi (2018) show that viewers engaging in online discussions during social viewing experience heightened emotional reactions as they mimic the emotions of other viewers. As a result, viewers' information processing is affected, which in turn reinforces or weakens viewers' opinions. For example, imagine a viewer that is watching and enjoying a livestream. The viewer then notices that other viewers also enjoy the livestream, which boosts the viewers own enjoyment. This heightened enjoyment evokes other positive emotions in the viewer. Consequently, the viewer will feel reinforced in their believe that they watched an enjoyable livestream. Therefore, Lee and Choi (2018) show that social viewing influences

viewers' emotional states and attitude formation as a result of online discussions and interactions between viewers.

To summarize, other viewers and their social influence on the shared viewership are an inherent part of social viewing. Theories and concepts related to social influences can explain the underlying process associated with attitude formation and behavioral intention during social viewing. In the context of the present study, one could expect a higher level of social viewing to create a more authentic, engaging, and richer viewing experiences and fundraising appeal for viewers. As a result, viewers express more positive attitude towards the cause and NPO and have an increased donation intention. Hence, the following hypothesis is proposed:

H2: A higher level of social viewing results in a higher/more positive (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention than a lower level of social viewing.

2.5 Situational urgency

One of the techniques NPOs can use to influence donor attitude and behavior is situational urgency. Situational urgency refers to the extent donors perceive the situation as being so urgent or critical that they can't delay their support (Chan et al., 2020). Therefore, in the present study, situational urgency refers to the extent donors consider the situation on which the donation request is based to be urgent, critical, and requiring their immediate support.

The bystander effect and the norm activation model provide a theoretical foundation for the effects of situational urgency on donor attitude and behavior. The bystander effect suggests that in order for a donor ("bystander") to help, they need to be aware of the situation, view the situation as urgent, experience a sense of personal responsibility, believe they are capable to successfully help, and make a conscious decision to help (Fischer et al., 2011; Siegal, 1972). Similarly, the norm activation model by Schwartz (1977) suggests that personal norms, and the sense of moral obligation that they inspire, predict altruistic behavior. According to the norm activation model, personal norms are affected by four factors: need awareness, the impression that there are things that can be done to assist the situation, one's own ability to influence the situation, and the degree to which one feels responsible for helping solve the situation. Based on the assessment of these four factors, a person might feel morally obligated to act on their personal norms and engage in altruistic behavior. Therefore, both the bystander effect and the norm activation model show that donors' awareness and perception of the situational urgency and sense of personal responsibility influence their attitude and behavior.

These findings are further supported by literature on situational urgency. For example, Colaizzi et al. (1984) shows that higher degrees of urgency, lead to higher intentions to offer support. Similarly, studies on fundraising via crowdfunding platforms suggest that projects closer to their end date or target goal have increased support and larger donations (Kamatham et al., 2021; Kuppuswamy & Bayus, 2017). One explanation for this is that donors might feel that these projects need immediately more support to successfully reach their goal (Kamatham et al., 2021). Alternatively, donors might be more willing to support a cause if they feel their donation matters (Kuppuswamy & Bayus, 2017). Other studies have suggested that creating a sense of urgency

increases the donation intention and makes it harder to decline a donation request (Chan et al., 2020; Juanchich et al., 2019). Therefore, donors' attitude and intention might be significantly influenced when they are presented with a high level of situational urgency in a fundraising appeal. Hence, the level of situational urgency influences donor behavior and attitude, meaning the following hypothesis is proposed:

H3: A high level of situational urgency leads to a higher/more positive (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention than a low level of situational urgency.

2.6 Interaction effects

Literature on interaction effects between media richness, social viewing, and situational urgency is limited. Nevertheless, one could argue that there might be interaction effects between combinations of these variables.

2.6.1 *Media richness and social viewing*

An argument can be made for an interaction effect between the level of media richness and social viewing. Literature on media richness suggests that a high medium richness creates a more engaging and authentic shared-viewership experience than lower medium richness. Consequently, viewers have more positive attitudes and express higher intentions (Ang et al., 2018). Additionally, livestreams (i.e. rich medium) create a more interactive and synchronous shared-viewership experience than pre-recorded videos (i.e. lean medium), where viewers can discuss the livestream with each other immediately and simultaneously (Huang et al., 2019; Wohn et al., 2018). As a result, viewers might experience an increased sense of parasocial interactions and higher issue involvement (Breves, 2020). A low level of social presence might even enhance these effects, as the limited number of viewers creates a more intimate and personalized shared-viewership experience. Thus, the effects on donor behavior and attitude might be stronger if the level of media richness is high and the level of social viewing is low.

On the other hand, an argument can be made for an interaction effect in the opposite direction. Literature on social viewing suggests that the presence of others through shared-viewership and discussion influences donor behavior and attitude (e.g. Ang et al., 2018; Kumar & Chakrabarti, 2021). In the case of a low level of media richness, social viewing happens in comments and posts made after watching the video (Ang et al., 2018). For example, if the level of social viewing is high, there will be a high number of comments and posts about the video that the viewer might encounter and interact with. The viewer might then still experience a sense of peer pressure and the need to conform to the majority (Kumar & Chakrabarti, 2021). Consequently, the viewer might express increased donor behavior and an improved attitude (e.g. Latané, 1981; Lee & Choi, 2018). Thus, the effects on donor behavior and attitude might be stronger if the level of media richness is low and the level of social viewing is high. To investigate questions regarding a potential interaction effect and the direction it takes, the following research question is proposed:

RQ2a: To what extent does the effect of level of media richness on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention interact with level of social viewing?

2.6.2 Media richness and situational urgency

There might be an interaction effect between media richness and situational urgency as well. Literature on media richness shows that one should select a medium with the means to offer real-time and synchronous responses in the case of urgent situations (Palvia et al., 2011). Livestreams (i.e. rich media) are an example of such a medium, since livestream offer real-time and synchronous interactions between viewers (Ang et al., 2018; Wohn et al., 2018). The choice for a certain medium can then convey a need for (situational) urgency (Palvia et al., 2011). Additionally, the temporary nature of livestreams could increase viewers' fear of missing out (FOMO) or create a sense of scarcity (Cialdini, 2009). The temporary nature (or "scarcity") of the medium might create a sense of urgency in viewers. For example, viewers might feel that this is their only chance to donate and show support for the cause. Therefore, a rich medium might convey a sense of urgency on its own, regardless of whether the level of situational urgency is high or not.

This raises questions regarding a potential interaction effect between levels of medium richness and situational urgency. For example, despite a low situational urgency of the cause, viewers might still feel a sense of situational urgency as they experience the medium used for the donation request as urgent (Palvia et al., 2011). In other words, they perceive the situational urgency to be higher than it is. Alternatively, if the situational urgency is high, a low medium richness might weaken the effect of situational urgency on donor behavior and attitude. For example, pre-recorded videos are a leaner medium than livestreams, as pre-recorded videos do not offer real-time and synchronous responses (Lottridge et al., 2017). A pre-recorded video might undermine the situational urgency, as the choice for a leaner medium conveys a lower situational urgency (Palvia et al., 2011). Therefore, when NPOs choose a medium with low levels of medium richness, viewers might perceive the situational urgency to be lower than it actually is. Thus, the effects on donor behavior and attitude might be stronger for certain combinations of levels of media richness and situational urgency. To investigate questions regarding a potential interaction effect and the direction it takes, the following research question is proposed:

RQ2b: To what extent does the effect of level of media richness on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention interact with level of situational urgency?

2.6.3 Situational urgency and social viewing

Lastly, there could also be an interaction effect between situational urgency and social viewing. Literature on social viewing shows that the presence of others through shared-viewership and discussions influences donor behavior and attitude (e.g. Ang et al., 2018; Lee & Choi, 2018). Literature on the bystander effect shows that two conditions drive helping behavior in urgent situations. First, one needs to experience a sense of personal responsibility. Second, one needs to believe they are capable of successfully helping the situation (Fischer et al., 2011; Siegal, 1972). With the bystander effect in mind, an argument can be made for a potential interaction effect between social viewing and situational urgency. For example, if viewers see that there are a lot of other

viewers, they might assume others will donate. In other words, they feel a reduced sense of personal responsibility. Similarly, if viewers read or see that a lot of other viewers have donated, they might feel that their donations do not play an important part in successfully achieving the cause. In other words, they do not believe they are capable of successfully helping the cause, as their contribution does not matter. The presence of others, which is a core part of social viewing, might therefore activate a bystander effect. Consequently, situational urgency's influence on donor behavior and attitude is weakened, as a viewer's sense of situational urgency is reduced. Thus, the effects on donor behavior and attitude might be stronger if the level of social viewing is low and the level of situational urgency is high.

In the same way, one could argue for an interaction effect in the opposite direction. In this case, feeling pressure to conform to the group, or peer pressure, might occur (Kumar & Chakrabarti, 2021). For example, a viewer sees that there are a lot of other viewers who all say they have donated. The actions of the majority might then affect the viewer, as the viewer feels peer pressure to also donate. The presence and actions of others might then influence donor behavior and attitude even when the situational urgency is low. Thus, the effects on donor behavior and attitude might be stronger if the level of social viewing is high and the level of situational urgency is low. To investigate questions regarding a potential interaction effect and the direction it takes, the following research question is proposed:

RQ2c: To what extent does the effect of level of situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention interact with level of social viewing?

2.7 Covariate effects

Attitude towards Facebook advertisements, moral obligation, and cause affinity are three constructs that might influence the outcome of the present study.

2.7.1 *Attitude towards Facebook advertisements*

A persons' attitude towards Facebook advertisements might affect their attitude towards the cause, attitude towards the NPO, or donation intention. Literature suggests that advertisements cause consumers to experience positive or negative emotions. These emotions might then influence the formation of brand attitudes, as these emotions will be assigned to the brand (e.g. Comiati & Plaias, 2010; MacKenzie et al., 1986). To illustrate, a donor might find Facebook advertisements irritating. These feelings of irritation then negatively impact the donor's attitude towards the organization, as the feelings of irritation are transferred to the organization featured in the advertisement. Hence, attitude towards Facebook advertising, as a covariate, might affect attitude towards the cause, attitude towards the NPO, and donation intention. Therefore, the following hypothesis is proposed:

H4: There is a significant effect of the level of media richness, social viewing, and situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention after controlling for attitude towards Facebook advertisements.

2.7.2 *Moral obligation*

A persons' sense of moral obligation could also affect their attitude and behavior as a donor. Literature shows that moral obligation influences donor attitude and behavior (e.g. Bekkers & Wiepking, 2011; Einolf, 2011; Smith & McSweeney, 2007). For instance, Smith and McSweeney (2007) found that moral obligation predicts donors' donation intention, as donors' feel personally responsible to contribute to the success of the cause. In other words, moral obligation creates a sense of personal responsibility in donors to engage in prosocial or altruistic behavior. Feelings of moral obligation might then make the cause, NPO, and intention to donate appear more appealing to donors. Hence, moral obligation, as a covariate, might affect attitude towards the cause, attitude towards the NPO, and donation intention. Therefore, the following hypothesis is suggested:

H5: There is a significant effect of the level of media richness, social viewing, and situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention after controlling for moral obligation.

2.7.3 *Cause affinity*

Another factor that could influence donor attitude and behavior is a person's affinity to a cause. Previous studies show the influence of cause affinity on donor attitude and behavior (e.g. Beldad et al., 2015; Burgoyne et al., 2005; Small & Simonsohn, 2007). Generally, it seems personal or issue involvement plays a key role in explaining why affinity to the cause influences donor attitude and behavior. For example, Burgoyne et al. (2005) show that loved ones of cancer patients are more likely to donate to NPOs that support cancer research. If donors are dedicated to the cause because of personal involvement, it makes sense then that those donors would want to see the NPO achieve its goal. Thus, it can be expected that affinity to the cause, as a covariate, influences donors' attitude towards the cause, attitude towards the NPO, and donation intention. Therefore, the following hypothesis is proposed:

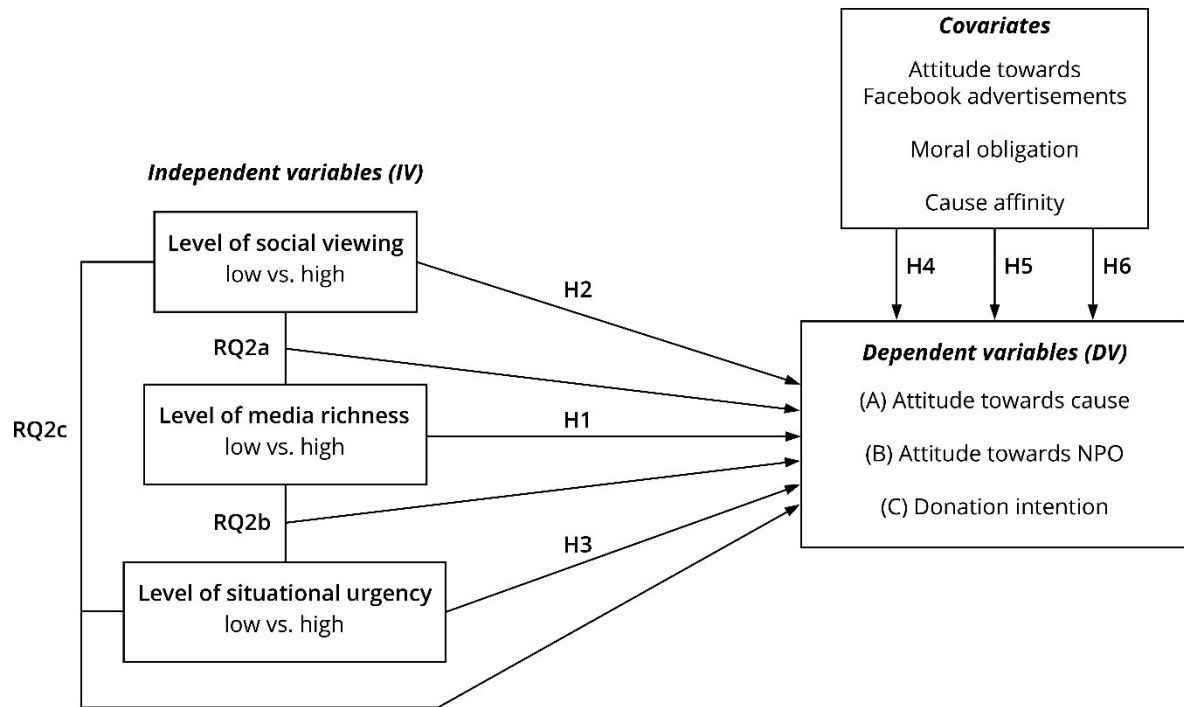
H6: There is a significant effect of the level of media richness, social viewing, and situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention after controlling for affinity to the cause.

2.8 Conceptual research model

The proposed research questions and hypotheses result in the conceptual research model as visualized in Figure 1.

Figure 1

Conceptual research model



3 Methodology

3.1 Research design

The present study used a between-subjects experimental design, as this allows for testing the causality and interaction between the dependent and independent variables. In the context of the present study, a between-subjects experimental research design will give a better understanding of how the different levels of media richness, social viewing and situational urgency influence donor attitude and behavior. Therefore, a scenario-based 2 (level of media richness: high vs. low) x 2 (social viewing: high vs. low) x 2 (level of situational urgency: high vs. low) between subject's experimental design was used to answer the research question and test the hypotheses. The resulting eight experimental conditions are displayed in table 1.

Table 1

The eight experimental conditions of the present study

Experimental conditions	Level of media richness	Level of social viewing	Level of situational urgency
1	Low	Low	Low
2	Low	Low	High
3	High	Low	Low
4	High	Low	High
5	Low	High	Low
6	Low	High	High
7	High	High	Low
8	High	High	High

3.2 Context

The present study collaborated with Hematon to gather participants. Hematon is a Dutch non-profit organization for (ex)patients with leukemia, lymphoma cancer, or anyone who has undergone a stem cell transplant. Hematon strives for a better quality of life for these (ex)patients by providing support, sharing knowledge and experiences, and advocating for their interests (Hematon, 2021). Hematon met several criteria that made them a suitable NPO to collaborate with. First, the NPO needed to be Dutch and their cause needed to be relevant to Dutch people, as the study would be conducted in the Netherlands. Health related causes receive a lot of support from Dutch people, as they find that health-related causes support relevant missions (Nonprofit Tech for Good, 2020; WWAV, 2020). Thus, as a Dutch NPO with a relevant cause, Hematon fit this criterion.

Second, the NPO needed to have an active social media presence on at least one social media channel, as the topic of the present study is social media fundraising. Hematon is active on multiple social media channels, including Facebook. Additionally, Hematon has a decent number of social media followers, which was beneficial for the recruitment of participants for the study. Hence, Hematon met the second criteria as well.

Lastly, the NPO needed to not be involved in any recent or big scandals, as the resulting preconceived notions by participants could significantly influence the outcome of the results. Hematon has not been involved in any recent or big scandals. Therefore, the relatively neutral reputation of Hematon met the third criterion.

Hence, Hematon was considered a suitable NPO to collaborate with, as it supports a relevant cause for Dutch people, has no recent scandals, and has an active social media presence.

3.3 Stimuli material

The stimuli materials of the present study were designed to mimic Facebook as much as possible to increase the immersion of participants. These stimuli materials consisted of two types of scenarios and videos, as well as several images. The scenarios were based on the level of media richness. For the low level of media richness, the scenario described how participants were scrolling through their Facebook timeline when they came across a new post from Hematon. Participants then saw an image of this Facebook post. Next, the scenario went on to describe how participants clicked on the pre-recorded video to start watching it. For the high level of media richness, the scenario described how participants were scrolling through Facebook when a new livestream notification from Hematon popped up. Participants then saw an image of the notification. Next, the scenario went on to describe how participants clicked on the notification and saw an overview of current livestreams, including an image of Hematon's livestream. The scenario then described how participants clicked on the livestream to join it.

At the end of both scenarios, participants saw a video where the level of media richness, social viewing, and situational urgency were manipulated. For medium richness, the medium type was manipulated. Participants who were assigned to a low medium richness condition saw a pre-recorded video, while participants of a high medium richness condition saw a livestream video. For social viewing, the number of views, comments, and likes was manipulated. Participants in the low social viewing condition saw lower numbers than those in the high social viewing condition. These numbers were tested during the pre-tests and were proven to be successfully manipulated. For situational urgency, the remaining time and goal proximity were manipulated, as literature shows that these two variables might convey a sense of situational urgency (Kamatham et al., 2021; Kuppuswamy & Bayus, 2017). Therefore, the high situational urgency condition started off with "Hematon needs your help urgently", while the low situational urgency condition did not. Additionally, the high situational urgency manipulation clearly mentioned the remaining time and goal proximity at the end of the video, while the low situational urgency manipulation did not. The middle part of the video for both the low and high situational urgency condition was the same. Here participants were told about the importance of good access to medical information for cancer patients, how Hematon strives to improve this access, and that Hematon needs donations to achieve this goal. Table 2 provides an overview of the manipulations per variable as they appeared in the videos and images.

Finally, the video included a volunteer from Hematon who made the donation request to participants. The criteria for the person in the video were based on a content analysis of Hematon's social media videos ($N = 76$) (see appendix B). Based on this content analysis, the person in the video would preferably be female, middle aged, formally clothed and be an (ex-)patient. Hematon's volunteer met all these criteria and was therefore selected to appear in the video. Additionally, the person in the video was instructed to use a similar tone of voice and facial expression for both the low and high level of situational urgency. This was done to limit the influence of tone of voice and facial expression on the results. For an overview of the stimuli materials used in the main study, see appendix A.

Table 2*Manipulations per independent variable used in the stimuli material*

Variable	Manipulation	Low	High
Media richness	Medium type	Pre-recorded video	Livestream video
Social viewing	Number of views, comments, and likes	14 views 0 comments 4 likes	5450 views 439 comments 4500 likes
Situational urgency	Remaining time to donate Goal proximity	No mention of remaining time or goal proximity	Hematon needs your help urgently. With only 6 hours left to donate, we are at 20% of our target goal. Your donation counts. Do not wait and donate now!

3.4 Pre-tests

Two pre-tests were conducted using a 2x2x2 between-subjects experimental design to check the accuracy and effectiveness of the stimuli materials and measurement scales before the start of the main study. A convenience sampling strategy was used for both pre-tests.

3.4.1 Pre-test one

The first pre-test had a total of 16 Dutch participants. Of these participants, 43.8% were male ($N = 7$) and 56.3% were female ($N = 9$). The mean age of the participants was 37-year-old ($SD = 13.8$), with ages ranging from 23 to 60 years old. At the start of the pre-test, participants were informed about the purpose of the study and their rights as participants. Next, participants were randomly presented with one of the eight experimental conditions. Before being shown the stimuli material, participants were instructed to immerse themselves in the presented scenario. Participants then read the scenario and watched the accompanying video.

Afterwards, participants were asked to assess the media richness, social viewing, and situational urgency along a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) to check if the manipulations were successful. For media richness, participants were asked to fill in a scale based on Daft and Lengel (1986). Results showed that media richness was successfully manipulated, as the difference between low media richness ($M = 3.25$, $SD = 1.07$, $p < .05$) and high media richness ($M = 4.81$, $SD = 1.13$, $p < .05$) was significant. Hence, the same manipulations for media richness were used in the main study.

For social viewing, participants were asked to fill in a scale based on Ang et al. (2018). Results showed that social viewing was also successfully manipulated, as the difference between low social viewing ($M = 3.08$, $SD = 1.18$, $p < .05$) and high social viewing ($M = 5.75$, $SD = 0.97$, $p < .05$) was significant. Additionally, at the end of the pre-test, participants were asked about their opinion regarding the numbers used in the manipulation for social viewing. Participants were presented with the numbers used in the manipulation for high social

viewing and asked if they found the numbers high for a Facebook video. The same was done with the numbers of the manipulation for low social viewing. The numbers used in the manipulations were based on a content analysis of social media videos (see appendix B). Still, the perceived highness or lowness of the number of views, comments, or remains a subjective opinion. Therefore, asking participants' opinions regarding the numbers allowed the researcher to check if the chosen numbers were realistic and good enough to successfully manipulate social viewing. Results showed that 87.5% of the participants ($N = 14$) agreed that the high number of views was indeed high, 75% ($N = 12$) the number of comments, and 50% ($N = 8$) the number of likes. Additionally, results showed that 100% of the participants ($N = 16$) agreed that the number of views, comments, and likes was low. Hence, the same numbers for the low level of social viewing were used in the main study, while it was decided to increase the numbers used in the manipulation for high social viewing.

For situational urgency, participants were asked to fill in the urgency scale by Juanchich et al. (2019). Results showed that situational urgency was not successfully manipulated, as the difference between low situational urgency ($M = 4.44$, $SD = 1.70$, $p > .05$) and high situational urgency ($M = 5.63$, $SD = 0.92$, $p > .05$) was not significant. Hence, the sentences related to situational urgency were removed from the text for low situational urgency to increase the difference between low and high situational urgency.

Lastly, participants were asked to evaluate the perceived authenticity of the videos along a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) (Cotte et al., 2005). Results showed that participants believed the videos were believable and realistic ($M = 5.77$, $SD = 0.81$). Hence, the general appearance of the videos was not changed for the main study.

3.4.2 Pre-test two

A second pre-test was conducted, as the results of the first pre-test indicated that situational urgency was not successfully manipulated. Additionally, the results also indicated that the numbers used for the manipulation for the high level of social viewing could be improved. The second pre-test had 8 Dutch participants, of which 50% were male ($N = 4$) and 50% were female ($N = 4$). The mean age of the participants was 33-year-old ($SD = 10.18$), with ages ranging from 23 to 48 years old.

For the second pre-test, adjustments were made to the manipulation for situational urgency. The manipulation for the high situational urgency was significant, so only the manipulation for low situational urgency was changed. The line "Hematon needs your help" and the lines related to the remaining time (e.g. "34 days left to donate") were removed in the manipulation for low situational urgency. Results showed that the manipulation for situational urgency was successful, as the difference between low situational urgency ($M = 1.63$, $SD = .48$, $p < .05$) and high situational urgency ($M = 6.63$, $SD = .14$, $p < .05$) was significant. Hence, the same manipulations were used in the main study.

Adjustments were also made to the numbers used in the manipulation for the high level of social viewing. The numbers used for the low level of social viewing were not adjusted, as the results of the first pre-test were unanimous. Participants were once again asked about their opinion regarding the numbers for the high level of social viewing. Results showed that 87.5% of the participants ($N = 7$) agreed that high number of views was high, 100% ($N = 8$) the number of comments, and 100% ($N = 8$) the number of likes. These results

were an improvement when compared to the first pre-test. Hence, the manipulation for the high level of social viewing used the same numbers in the main study.

3.5 Manipulation and setting checks

Manipulation checks were done to make sure the level of media richness, social viewing, and situational urgency were correctly manipulated in the main study. Participants were asked to evaluate the level of media richness, social viewing, and situational urgency in the stimuli material using various statements. All scales used in the study were a 7-point Likert scale ranging from “strongly disagree” to “strongly agree”. Additionally, all statements were adapted to fit the context of the research. For an overview of the scales and their statements, see Appendix C.

Independent samples t-tests were conducted for the manipulation checks, using the information provided by the scales for media richness (Daft & Lengel, 1986), social viewing (Ang et al., 2018), and situational urgency (Juanchich et al., 2019). All three variables were successfully manipulated, meaning participants were able to perceive the differences in media richness, social viewing, and situational urgency. The difference between low media richness ($M = 2.40$, $SD = 1.21$) and high media richness ($M = 4.7$, $SD = 1.85$) was significant ($t(169) = -9.98$, $p < .001$). Similarly, the difference between low social viewing ($M = 2.48$, $SD = 1.06$) and high social viewing ($M = 5.17$, $SD = 1.41$) was also significant ($t(169) = -14.13$, $p < .001$). Finally, results showed a significant difference ($t(169) = -16.20$, $p < .001$) between low situational urgency ($M = 2.51$, $SD = 1.10$) and high situational urgency ($M = 5.59$, $SD = 1.37$). Hence, media richness, social viewing, and situational urgency were successfully manipulated in the main study.

3.6 Participants

A total of 265 people participated in the main study. Participants' responses were removed based on three criteria. First, to participate in the study, participant had to be 18 years or older, fluent in Dutch, and be familiar with social media. If participants did not meet one or more of these criteria, their responses were removed. Second, unfinished responses were removed, as this meant crucial information regarding the behavioral intentions or selection criteria was missing. Finally, responses with a duration of less than 5 minutes were removed, as this indicated participants did not spend sufficient time fully comprehending the stimuli materials and related questions. Hence, 98 responses were removed from the sample.

The final sample consisted of 171 participants spread out over eight experimental conditions. These 171 participants were asked about their age, gender, education, which part of the country they lived in, their connection to blood cancer, and their relation to Hematon. Results from the Pearson's Chi-Square and one-way ANOVA showed that the different characteristics were equally distributed over the eight experimental conditions. Of the 171 participants, 41.5% was male ($N = 71$) and 57.9% was female ($N = 99$). One person did not feel comfortable mentioning their gender. Additionally, participants' ages ranged from 22 to 82 years old, with the average age being 51 years old ($SD = 14$). Most participants had a degree in higher education ($N = 114$), lived in the western part of the Netherlands ($N = 50$), and were an (ex)patient ($N = 107$). Lastly, most participants ($N = 77$) were not directly involved with Hematon but were personally interested in the NPO and their mission. Table 3 provides a comprehensive overview of participants characteristics divided over the eight experimental conditions.

Table 3*Overview of participants characteristics per experimental condition*

Condition	1	2	3	4	5	6	7	8	Total	Percentage
Gender										
Male	7	10	12	9	8	9	7	9	71	41.5%
Female	16	11	10	11	11	12	15	13	99	57.9%
Prefer not to say	0	0	0	1	0	0	0	0	1	0.6%
Total	23	21	22	21	19	21	22	22	171	100%
Age										
< 25	3	0	0	2	1	2	0	2	10	5.8%
26 - 35	3	1	2	1	1	4	0	4	16	9.4%
36 - 45	4	2	4	3	2	3	4	2	24	14.0%
46 - 55	4	5	7	10	3	6	10	5	50	29.2%
56 - 65	6	7	4	3	9	4	4	4	41	24%
> 66	3	6	5	2	3	2	4	5	30	17.5%
Total	23	21	22	21	19	21	22	22	171	
Education^a										
Low	1	0	2	2	3	1	1	2	12	7.0%
Middle	3	7	6	4	7	7	6	5	45	26.3%
High	19	14	14	15	9	13	15	15	114	66.7%
Total	23	21	22	21	19	21	22	22	171	100%
Region^b										
North	2	4	3	1	4	6	3	2	25	14.6%
East	7	5	7	5	4	4	5	7	44	25.7%
South	6	6	6	6	3	4	9	9	49	28.7%
West	8	6	5	8	8	7	4	4	50	29.2%
Prefer not to say	0	0	1	1	0	0	1	0	3	1.8%
Total	23	21	22	20	19	21	21	22	171	100%
Relation to Hematologist										
Supporter	7	10	8	11	9	5	8	7	65	38.0%
Volunteer	2	4	2	0	1	0	3	2	14	8.2%
Professional	0	0	0	0	1	0	0	0	1	0.6%
Personal interest	13	7	9	8	7	15	8	10	77	45.0%
Prefer not to say	1	0	3	2	1	1	3	3	14	8.2%
Total	23	21	22	21	19	21	22	22	171	100%
Connection to blood cancer										
(Ex)patient	12	15	15	14	12	10	16	13	107	62.6%
Family of (ex)patient	8	5	3	4	3	9	3	5	40	23.4%
Surviving family of (ex)patient	2	0	1	0	2	1	1	1	8	4.7%
Professional	0	1	0	0	1	0	0	0	2	1.2%
Prefer not to say	1	0	3	3	1	1	2	3	14	8.2%
Total	23	21	22	21	19	21	22	22	171	100%

Note.^a Low: ≤ VMBO; middle: MBO 2 – HAVO/VWO; high: ≥ propaedeutic degree HBO/WO.^b North: Friesland, Groningen, Drenthe; East: Flevoland, Gelderland, Overijssel; South: Limburg, Noord-Brabant, Zeeland; West: Noord-Holland, Zuid-Holland, Utrecht.

3.7 Research procedure

The online questionnaire for the experiment was created and conducted in the web-based survey tool Qualtrics, with access to the program provided by the University of Twente. The use of an online questionnaire had three main benefits. First, the use of an online questionnaire minimized the influence of interviewer bias on data collection and the results. Second, an online questionnaire reduced the costs of the experiment, as it allowed for easy distribution among participants. Lastly, an online questionnaire reduced the time necessary to conduct the experiment, as it allowed the experiment to be conducted regardless of potential COVID-19 restrictions.

Data collection started once the creation of the online questionnaire was completed. The data was collected over a period of six weeks, starting on the 11th of March and ending on the 26th of April 2022. To participate in the study, all participants were required to be at least 18 years old, be fluent in Dutch, and be familiar with social media. Participants were mainly gathered using a non-probability convenience sampling method, as a message with a link to the experiment was shared on Hematon's social media, their website, and in their newsletter. In the case of social media, snowball sampling occurred as well, since some participants shared the link to the online questionnaire with others.

Participants were forwarded to the online questionnaire once they clicked on the link in the message. At the beginning of the questionnaire, participants were informed of the purpose of the study and their rights as participants, including the anonymous and voluntary nature of the study, the right to withdraw at any time, and that they could always contact the researcher in case of any questions or concerns. Once the participant agreed to participate, participants were asked to evaluate their attitude towards Facebook advertisements, their moral obligation regarding NPO's, and their affinity to cancer related causes. Next, participants were randomly assigned to and presented with one of the eight experimental conditions. Participants were instructed to immerse themselves as much as possible in the presented scenario and watch the accompanying video attentively. Afterwards, participants were asked to assess the media richness, social viewing, and situational urgency in the assigned scenario and video. Participants were then asked to evaluate their attitude towards the cause, attitude towards Hematon, and their donation intention. Following this, participants were asked to evaluate the perceived attractiveness of the person in the video as well as the authenticity of the video. Next, participants were asked a few demographic related questions, such as age, gender, and education. Additionally, participants were asked questions related to their social media behavior, relation to Hematon, and connection to blood cancers. Participants then got the opportunity to ask any questions or leave a comment for the researcher or Hematon. Lastly, participants were thanked for their participation in the research and reminded that they could always contact the researcher in case of any (future) research related questions.

3.8 Measurements

Most measurement scales used in the present study were derived from pre-existing and pre-tested measurement scales from existing literature. The exception being the measurement scales for media richness and social viewing, for which measuring scales were developed based on pre-existing literature. All measurement scales asked participants to evaluate the scales' items along a 7-point Likert scale ranging from "strongly disagree" to "strongly agree". Additionally, all items were translated from English to Dutch to

accommodate the participants and were adapted to better fit the purpose of the present study. See appendix C for a complete overview of the measurement scales and their items.

3.8.1 Attitude towards the cause, attitude towards the NPO, and donation intention

Attitude towards the cause and attitude towards the NPO were both measured using the scale created by Wymer et al. (2016) ($\alpha = .91$) and each consisted of three items. Examples of items include: "I have a favorable opinion of Hematon's cause" and "I believe Hematon is a great organization". The three item scale by Basil et al. (2008) ($\alpha = .92$) was used to measure participants' donation intention, including items such as "I intent to donate to Hematon". The aim of all these measurement scales was to measure participants behavioral intentions after they saw the stimuli material.

3.8.2 Media richness, social viewing, and situational urgency

No suitable scales could be found to measure media richness and social viewing that fit the research context of the present study. Therefore, new scales were developed to measure media richness and social viewing. The characteristics of media richness as described by Daft and Lengel (1986) formed the basis for the scale used to measure media richness. In particular, the researcher looked at how these characteristics differed between livestream (i.e. high media richness) and pre-recorded videos (i.e. low media richness), resulting in a two-item scale ($\alpha = .89$). For example: "The video allows for interaction while watching". Similarly, the scale used to measure social viewing was based on the definition for social viewing as defined by Ang et al. (2018) ($\alpha = .93$). The result was a three-item scale, which included items such as "The video had a lot of other viewers" and "There were a lot of people commenting on the video". Lastly, the scale to measure situational urgency was adapted from Juanchich et al. (2019) ($\alpha = .96$) and consisted of four items. For example: "I found the donation request urgent" and "The donation request made me feel like I should donate as soon as possible". The aim of all these three measurements scales was to see if the experimental conditions were successfully manipulated.

3.8.3 Attitude towards Facebook ads, moral obligation, and cause affinity

Attitude towards Facebook advertisements was measured using a measurement scale borrowed from (Ducoffe, 1995) ($\alpha = .82$). The result was a three-item scale, with items such as "I find Facebook advertisements useful". The goal of this measurement scale was to provide insight into how participants perceive Facebook advertisements. The scales used to measure moral obligation ($\alpha = .83$) and cause affinity ($\alpha = .85$) were both adapted from Beldad et al. (2015). Both scales consisted of four items, including items such as "I feel it is my duty to help NPO's" and "I feel a strong connection to NPOs with a cancer related mission". The aim of these scales was to get more insight into participants morals and connection to the cause.

3.8.4 Perceived attractiveness and perceived authenticity

Perceived attractiveness of the person in the video was measured using a measurement scale created by Park and Lin (2020) ($\alpha = .91$). Likewise, the measurement scale by Cotte et al. (2005) ($\alpha = .88$) was used to measure the perceived authenticity of the video. Both these measurement scales aimed to give a better understanding potential influence of the stimuli material on the participant. Both measurements scales consisted of three items, included for example "The person in the video is appealing to me" and "I find the video believable".

3.9 Quality of instruments

A factor analysis and Cronbach's alpha were conducted for all relevant variables to ensure construct reliability and validity. Two separate factor analysis were conducted, as the initial factor analysis categorized attitude towards the cause and attitude towards the NPO into the same component. A potential explanation for this could be that the statements to measure these dependent variables are both from the scale by Wymer et al. (2016). Therefore, it was decided to run a separate factor analysis with just the statements from attitude towards the cause and attitude towards the NPO. Two statements from attitude towards the NPO got categorized in the same component as statements from attitude towards the cause. Therefore, the following statements from attitude towards the NPO were removed: "I believe Hematon is a great organization" and "I have a positive impression of Hematon".

After the factor analysis with just attitude towards the cause and attitude towards the NPO, another factor analysis was performed with all items from the remaining relevant variables. As a result, the following items for moral obligation and attitude towards Facebook advertisements were removed: "I feel it is my duty to help somebody in need" and "Facebook advertisements are reliable". The item related to moral obligation was removed as it got categorized in the wrong component, while the item related to Facebook advertisements got removed as it scored relatively low compared to the other two items from the same scale. Table 5 gives an overview of the results of the final factor analysis and Cronbach's alpha after the removal of these items. Results for the final factor analysis showed that 81.49% variance within the constructs could be explained when the remaining items were considered. Similarly, results for the Cronbach's alpha showed that all constructs scored higher than the minimum of .70. Hence, the results for the factor analysis and Cronbach's alpha indicated adequate construct reliability and validity.

Table 5*Overview of the results for the final factor analysis and Cronbach's alpha*

	Factor						
	1	2	3	4	5	6	7
Attitude towards the cause and NPO							
I have a favorable opinion of Hematon's cause	.907						
I believe that Hematon is a great cause	.881						
I have a positive impression about Hematon's cause	.843						
I feel good about the work Hematon is doing	.702						
Affinity to the cause							
Cancer related NPOs support causes that are important to me		.816					
I feel a strong connection to NPOs with a cancer related mission		.790					
NPO's with cancer related missions are close to my heart		.786					
Cancer related causes are connected to an important aspect of my life		.766					
Perceived attractiveness							
I like the person in the video			.873				
The person in the video is appealing to me			.872				
The person in the video is attractive			.844				
Donation intention							
The chance that I will donate to Hematon is high				.858			
I intent to donate to Hematon				.851			
I am not willing to donate to Hematon				.970			
Perceived authenticity							
The video is realistic					.820		
I find the video believable					.817		
The video is authentic					.812		
Moral obligation							
I feel it is my duty to help NPO's						.866	
It would be morally irresponsible not to donate to NPO's						.837	
Donating to NPO's conforms with my principles						.774	
Attitude towards Facebook advertisements							
I find Facebook advertisements useful							.959
Facebook advertisements are of added value to me							.942
Explained variance	14.89%	13.07%	11.93%	11.50%	10.86%	10.33%	8.91%
Eigenvalue	7.12	3.26	2.37	1.85	1.25	1.20	.89
Cronbach's alpha	.91	.85	.91	.92	.88	.83	.82

4 Results

4.1 Main effects media richness, social viewing, and situational urgency

A between-subjects MANOVA analysis was conducted to investigate the main effects as proposed by the hypotheses. The results from the Wilks' Lambda, as part of the MANOVA analysis, were used to support the results for the main effects. Level of media richness, level of social viewing, and level of situational urgency served as independent variables for the analysis, while attitude towards the cause, attitude towards the NPO, and donation intention served as dependent variables. The MANOVA analysis found no significant difference of level of media richness on the combined dependent variables. However, the analysis found a significant difference for both the level of social viewing and the level of situational urgency on the combined dependent variables. Table 6 and 7 provide an overview of the results from the Wilks' Lambda and MANOVA analysis.

Table 6

Results of the Wilks' Lambda analysis for level of media richness, social viewing, and situational urgency on the combined dependent variables

Source	Value	F	Hypothesis df	Error df	p	η^2
Level of media richness	.992	0.418	3	161	.740	.008
Level of social viewing	.908	5.460	3	161	.001	.092
Level of situational urgency	.923	3.934	3	161	.010	.068

Table 7

Results of the MANOVA analysis for level of media richness, social viewing, and situational urgency on the individual dependent variables

Source	Dependent variable	F	p	η^2
Level of media richness	Attitude towards cause	0.387	.535	.002
	Attitude towards NPO	1.239	.267	.008
	Donation intention	0.415	.521	.003
Level of social viewing	Attitude towards cause	12.766	.000	.073
	Attitude towards NPO	2.188	.141	.013
	Donation intention	6.988	.009	.041
Level of situational urgency	Attitude towards cause	4.748	.031	.028
	Attitude towards NPO	2.391	.124	.014
	Donation intention	10.901	.001	.063

4.1.1 Effects of media richness

Results from the MANOVA analysis showed that the effects for level of media richness on the dependent variables were insignificant (see table 7). The means for the dependent variables per level of media richness seem to support these findings. As shown by table 8, participants who saw a high level of media richness expressed a more positive / higher attitude towards the cause, attitude towards the NPO, and donation intention than those who saw a low level of media richness. However, the difference between the means for the dependent variables are small. Therefore, level of media richness does not have a significant effect on attitude towards the cause, attitude towards the NPO, and donation intention. Hence, hypotheses H1a, H1b, and H1c are not supported.

Table 8

Descriptive statistics for the dependent variables for the level of media richness

Condition		Attitude cause		Attitude NPO		Donation intention	
		M	SD	M	SD	M	SD
Media richness	Low	5.12	1.24	5.44	1.13	4.38	1.53
	High	5.25	1.04	5.64	1.09	4.52	1.33

4.1.2 Effects of social viewing

The results from the MANOVA analysis showed that level of social viewing had a significant effect on attitude towards the cause ($F(1, 163) = 12.766, p < .001$) and donation intention ($F(1, 163) = 6.988, p = .009$) (see table 7). Participants who saw a high level of social viewing, expressed a more positive attitude towards the cause and a higher donation intention than those who saw a low level of social viewing. Results showed no significant effect of social viewing on attitude towards the NPO, despite the mean for a high level of social viewing being slightly higher than for a low level of social viewing (see table 9). These results suggest that a high level of social viewing has a more positive effect on attitude towards the cause and donation intention than a low level of social viewing. Thus, hypotheses H2a and H2c are supported, while hypothesis H2b is not supported.

Table 9

Descriptive statistics for the dependent variables for level of social viewing

Condition		Attitude cause		Attitude NPO		Donation intention	
		M	SD	M	SD	M	SD
Social viewing	Low	4.89	1.27	5.41	1.20	4.16	1.51
	High	5.50	0.89	5.68	1.01	4.75	1.28

4.1.3 Effects of situational urgency

The results from the MANOVA analysis showed that level of situational urgency had a significant effect on attitude towards the cause ($F(1, 163) = 4.748, p = .031$) and donation intention ($F(1, 163) = 10.901, p = .001$) (see table 7). Participants who saw a high level of situational urgency, expressed a more positive attitude towards the cause and a higher donation intention than those who saw a low level of situational urgency. Additionally, situational urgency had no significant effect on attitude towards the NPO, despite a small difference between the mean for a low level of situational urgency and high situational urgency (see table 10). The results indicate that a high level of situational urgency has a more positive effect on attitude towards the cause and donation intention than a low level of situational urgency. Hence, hypotheses H3a and H3c are supported, while hypothesis H3b is not supported.

Table 10

Descriptive statistics for the dependent variables for level of situational urgency

Condition		Attitude cause		Attitude NPO		Donation intention	
		M	SD	M	SD	M	SD
Situational urgency	Low	4.99	1.15	5.40	1.09	4.10	1.46
	High	5.38	1.10	5.68	1.13	4.81	1.32

4.2 Interaction effects media richness, social viewing, and situational urgency

The present study proposed a research question related to interaction effects between the independent variables media richness, social viewing, and situational urgency. A between-subjects MANOVA analysis was conducted to investigate the interaction effects as proposed by RQ2a, RQ2b, and RQ2c. The results from the Wilks' Lambda analysis were used to support the results.

Results from the Wilks Lambda analysis showed that none of the proposed interaction effects had a significant effect on the combined dependent variables. Additionally, the MANOVA analysis showed that none of the proposed interaction effects had a significant effect on attitude towards the cause, attitude towards the NPO, and donation intention. Therefore, there seems to be no interaction effect between media richness and social viewing, media richness and situational urgency, or situational urgency and social viewing. Hence, no evidence for the interaction effects was found as proposed by RQ2a, RQ2b, and RQ2c. Tables 11 and 12 present an overview of the results from the Wilks' Lambda and MANOVA analysis.

Table 11

Results of the Wilks' Lambda analysis for the interaction effects between level of media richness, social viewing, and situational urgency on the combined dependent variables

Source	Value	F	Hypothesis df	Error df	p	η^2
Level of media richness * level of social viewing	.998	0.114	3	161	.952	.002
Level of media richness * level of situational urgency	.992	0.421	3	161	.738	.008
Level of situational urgency * level of social viewing	.990	0.548	3	161	.650	.010

Table 12

Results of the MANOVA analysis for the interaction effects between level of media richness, social viewing, and situational urgency on the dependent variables

Source	Dependent variable	F	p	η^2
Level of media richness * level of social viewing	Attitude towards cause	0.080	.778	.000
	Attitude towards NPO	0.050	.823	.000
	Donation intention	0.073	.788	.000
Level of media richness * level of situational urgency	Attitude towards cause	1.089	.298	.007
	Attitude towards NPO	0.155	.695	.001
	Donation intention	0.273	.602	.002
Level of situational urgency * level of social viewing	Attitude towards cause	0.159	.691	.001
	Attitude towards NPO	0.577	.449	.004
	Donation intention	1.533	.217	.009

4.3 Effects of attitude towards Facebook ads, moral obligation, and cause affinity

A between-subjects MANCOVA analysis was carried out to investigate effects of the covariate variables attitude towards Facebook advertisements, moral obligations, and affinity towards the cause. The results from the Wilks' Lambda, as part of the MANCOVA analysis, were used to support the findings. Tables 13 and 14 provide an overview of the results from the Wilks' Lambda and MANCOVA analysis.

The MANCOVA analysis found no significant difference between the effects of the independent variables on the dependent variables after controlling for the attitude towards Facebook advertisements or moral obligation. Notably, for attitude towards Facebook advertisements, donation intention ($F(1, 160) = 3.288, p = .072$) is a lot closer to being significant than attitude towards the cause ($F(1, 160) = .678, p = .411$) and attitude towards the NPO ($F(1, 160) = .000, p = .987$). Nevertheless, the results still suggest that a participant's attitude towards Facebook advertisements or moral obligation have no effect on attitude towards the cause, attitude towards the NPO, or donation intention. Hence, hypothesis H4a, H4b, H4c, H5a, H5b, and H5c are not supported.

On the other hand, results from the Wilks' Lambda analysis showed a significant difference between the effects of the independent variables on the combined dependent variables after controlling for affinity to the cause (see table 13). Additionally, affinity to the cause had a significant effect on attitude towards the cause ($F(1, 160) = 10.949, p = .001$), attitude towards the NPO ($F(1, 160) = 8.308, p = .004$), and donation intention ($F(1, 160) = 28.468, p < .001$) (see table 14). These results seem to suggest that affinity to the cause influences attitude towards the cause, attitude towards the NPO, and donation intention. Hence, hypotheses H6a, H6b, and H6c are supported.

Table 13

Results of the Wilks' Lambda analysis for the covariate variables on the combined dependent variables

Source	Value	F	Hypothesis df	Error df	p	η^2
Attitude towards Facebook advertisements	.961	2.130	3	158	.099	.039
Moral obligation	.999	.072	3	158	.975	.001
Affinity to the cause	.842	9.859	3	158	.000	.158

Table 14

Results of the MANCOVA analysis for the covariate variables on the dependent variables

Source	Dependent variable	F	p	η^2
Attitude towards Facebook advertisements	Attitude towards cause	0.678	.411	.004
	Attitude towards NPO	0.000	.987	.000
	Donation intention	3.288	.072	.020
Moral obligation	Attitude towards cause	0.041	.840	.000
	Attitude towards NPO	0.001	.972	.000
	Donation intention	0.111	.739	.001
Affinity to the cause	Attitude towards cause	10.949	.001	.064
	Attitude towards NPO	8.308	.004	.049
	Donation intention	28.468	.000	.151

4.4 Effects perceived attractiveness and authenticity

A linear regression analysis was used to investigate the effects of the perceived attractiveness of the person in the video and perceived authenticity of the video significantly on the dependent variables attitude towards the cause, attitude towards the NPO, and donation intention.

4.4.1 *Perceived attractiveness*

The results from the linear regression showed that the overall regression was significant for all three dependent variables: attitude towards the cause ($R^2 = .077$, $F(1, 169) = 14.09$, $p < .001$), attitude towards the NPO ($R^2 = .080$, $F(1, 169) = 14.69$, $p < .001$), and donation intention ($R^2 = .118$, $F(1, 169) =$, $p < .001$). Additionally, it was found that perceived attractiveness significantly predicted attitude towards the causes ($\beta = .235$, $t = 3.75$, $p < .001$), attitude towards the NPO ($\beta = .234$, $t = 3.832$, $p < .001$), and donation intention ($\beta = .366$, $t = 4.764$, $p < .001$). Hence, these results suggest that perceived attractiveness is a strong predictor for the dependent variables.

4.4.2 *Perceived authenticity*

The results from the linear regression showed that the overall regression was significant for attitude towards the cause ($R^2 = .181$, $F(1, 169) = 37.24$, $p < .001$), attitude towards the NPO ($R^2 = .097$, $F(1, 169) = 18.06$, $p < .001$), and donation intention ($R^2 = .136$, $F(1, 169) = 26.54$, $p < .001$). Furthermore, it was found that perceived authenticity significantly predicted attitude towards the causes ($\beta = .375$, $t = 6.102$, $p < .001$), attitude towards the NPO ($\beta = .268$, $t = 4.250$, $p < .001$), and donation intention ($\beta = .408$, $t = 5.151$, $p < .001$). Thus, the results indicate that perceived authenticity is a strong predictor for the dependent variables.

4.5 Overview of the results of the tested hypotheses

Table 15 gives an overview of the tested hypotheses and their outcomes following the results for the main study.

Table 15

Outcome of the proposed hypotheses

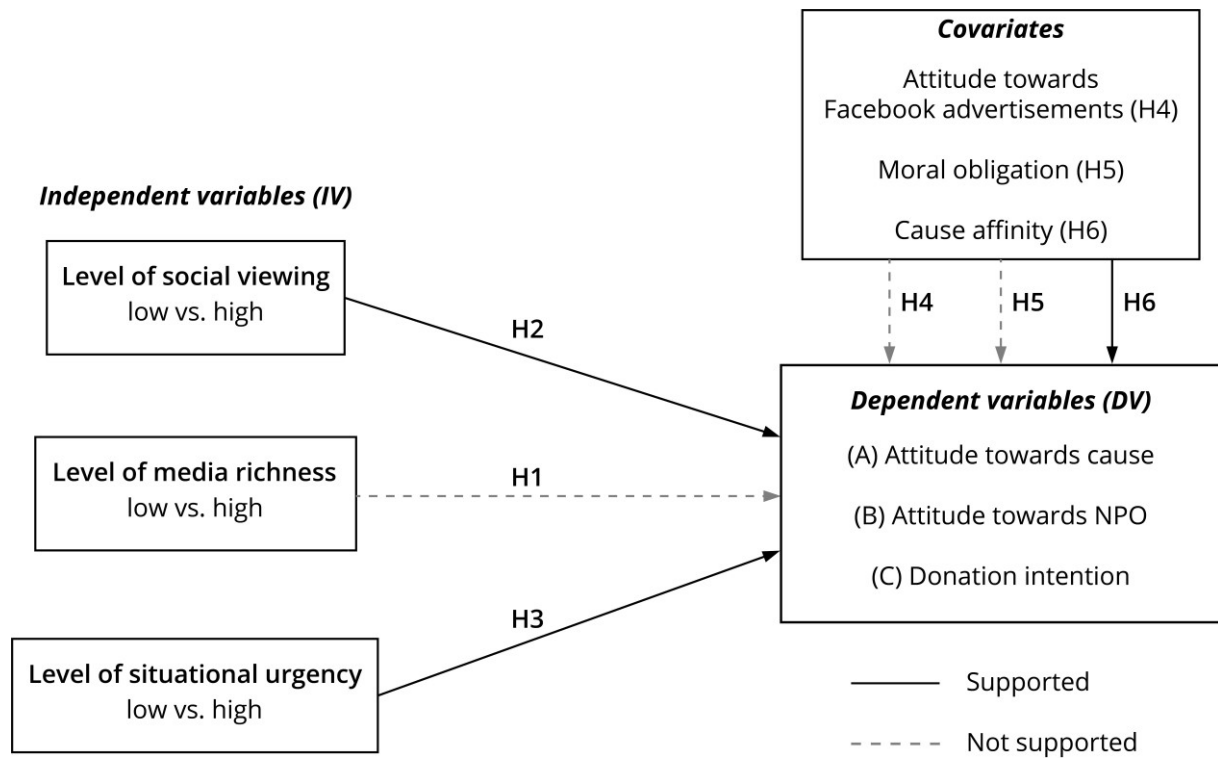
Hypothesis	Outcome
H1 A high level of media richness leads to a higher/more positive (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention than a low level of media richness.	H1a not supported H1b not supported H1c not supported
H2 A higher level of social viewing results in a higher/more positive (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention than a lower level of social viewing.	H2a supported H2b not supported H3c supported
H3 A high level of situational urgency leads to a higher/more positive (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention than a low level of situational urgency.	H3a supported H3b not supported H3c supported
H4 There is a significant effect of the level of media richness, social viewing, and situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention after controlling for attitude towards Facebook advertisements.	H4a not supported H4b not supported H4c not supported
H5 There is a significant effect of the level of media richness, social viewing, and situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention after controlling for moral obligation.	H5a not supported H5b not supported H5c not supported
H6 There is a significant effect of the level of media richness, social viewing, and situational urgency on (A) attitude towards the cause, (B) attitude towards the NPO, and (C) donation intention after controlling for affinity to the cause.	H6a supported H6b supported H6c supported

4.6 Adjusted research model

Figure 2 shows the adjusted research model following the outcomes of the main study.

Figure 2

Adjusted research model



5 Discussion

5.1 Discussion of results

The aim of the present study was to investigate the effects of media richness, social viewing, and situational urgency on attitude towards the cause, attitude towards the NPO, and donation intention in a social media environment. The following section will discuss the results presented in the previous section, research limitations, future research suggestions, and theoretical and practical implications.

5.1.1 *Effects of media richness*

The results for the effect of level of media richness on donor behavior and attitude seem to contradict previous studies (e.g. Ang et al., 2018; Breves, 2020; Shyam Sundar, 2012). A possible explanation for these results could be the stimuli material for media richness. Current literature suggest that the interactive nature of rich media inspires a sense of immediacy and synchronicity in viewers (Ang et al., 2018; Shyam Sundar, 2012). Additionally, viewers of rich media experience more empathic parasocial interactions (Breves, 2020). As a result, viewers express more positive attitudes and higher behavioral intentions (Ang et al., 2018; Breves, 2020; Shyam Sundar, 2012). One could argue that context plays an important role in creating the effect that leads to more positive attitudes and higher behavioral intentions in richer media. Although participants recognized the different levels of media richness, it could be that the stimuli materials did not sufficiently inspire a sense of immediacy and synchronicity. Furthermore, the relative shortness and static nature of the stimuli material might not have been enough to foster an empathetic parasocial relationship between participants and the person in the video. For example, the stimuli material for a high level of media richness lacked direct interaction between the viewer and the streamer. Therefore, the stimuli material failed to sufficiently recreate the conditions necessary to influence donor attitude and behavior, specifically for the high level of media richness. As a result, the effects of media richness on attitude and behavioral intention as suggested by previous studies did not happen (e.g. Ang et al., 2018; Breves, 2020). Hence, the stimuli material within the present study might not have been sufficient enough to influence donor attitude and behavior.

Another possible explanation might lie in the characteristics of the participants in the present study. The mean age of participants was 51 years old, so participants might have been unfamiliar with livestreams. The unfamiliarity of the medium might have reduced the effects of media richness on donor attitude and behavior. The same might not be the case for younger donors, as they more often prefer and use newer donation methods (CBF, 2021; WWAV, 2021). Hence, a different study with a lower average age might find different results for the level of media richness.

5.1.2 *Effects of social viewing*

Current literature on social viewing suggests that social influences and the presence of others, which are an inherent part of social viewing, affect viewers attitude formation and behavioral intention (e.g. Ang et al., 2018; Kumar & Chakrabarti, 2021; Lee & Choi, 2018). The results for the effect of the level social viewing on donors' attitude towards the cause and donation intention are consistent with this literature. On the other hand, the results for the influence of social viewing on attitude towards the NPO seem to contradict existing literature. A

possible explanation for these contradicting findings might lie in the social information present in the manipulation for social viewing. Social information refers to the information a person receives about the behavior of others (van Teunenbroek et al., 2020). In other words, social information informs a viewer of the actions, attitudes, or beliefs of other viewers. Social information has been found to affect donor behavior and attitude (e.g. Kumar & Chakrabarti, 2021; van Teunenbroek et al., 2020). The comments for the manipulations of social viewing included social information, for example, “Hematon is important, keep it up!”, “I just made a donation”, or “Access to good medical information is indeed important!”. Most comments were related to viewers attitude towards the cause or their donation intention, while only a few comments mentioned viewers’ attitudes towards Hematon. It might have been the case that there was not enough social information in the comments to influence attitude towards the NPO, as there were not enough comments related to the NPO. Therefore, the influence of the social information provided by the comments was stronger for attitude towards the cause and donation intention than attitude towards NPO. Hence, social viewing had no effect on attitude towards the NPO, as the social information provided by the comments might not have been enough to sufficiently influence donors’ attitude towards the NPO.

As a final point, the results for the level of social viewing provide some food for thought regarding the social network effect as proposed by (Saxton & Wang, 2014). According to the social network effect, social media fundraising success is determined by NPOs online network size and network reach. As previously stated, the question remained if there were other web characteristics that could also drive fundraising success on social media. On one hand, social viewing can be seen as an extension of network reach and size, as NPOs need a large online following to achieve a high level of social viewing. On the other hand, social viewing can be seen as part of a larger concept like user engagement, as the present study conceptualized social viewing as the number of views, likes, and comments. If social viewing is seen as part of larger concept, that would mean that there is another web characteristic, besides network reach and network size, that influences fundraising success on social media. Thus, there are other web characteristics that contribute to the success of fundraising on social media as suggested by the results for social viewing.

5.1.3 *Effects of situational urgency*

Previous studies on the effect of situational urgency suggest that situational urgency increases support and improves attitudes (e.g. Colaizzi et al., 1984; Juanchich et al., 2019; Kamatham et al., 2021). The results for the effect of level of situational urgency on attitude towards the cause and donation intention are in line with these previous studies. However, the results for the effects of situational urgency on attitude towards the NPO seems to contradict current literature. A potential explanation for this contradiction could lie in how situational urgency was manipulated and how participants perceived the manipulation. Literature on cause-related marketing suggests that consumers’ perception of an organization’s motives affect consumers’ attitude and behavior (e.g. Cotte et al., 2005; Howie & Woodroof, 2019; Singh et al., 2020). The persuasion knowledge model provides a theoretical foundation for this idea. According to the persuasion knowledge model, consumers gain knowledge about persuasive tactics over time. Consequently, the influence of these persuasive tactics on consumers’ attitudes and behavior changes as well, as they decide to resist or accept the tactic based on their persuasion knowledge (Friestad & Wright, 1994). Howie and Woodroof (2019) found that a short

promotional timeframe indicates that an organization's motives are less altruistic, as consumers recognize the shorter timeframe as a persuasive tactic by the organization. In other words, consumers perceive the organizations motives as inappropriate, as the short timeframe is nothing more than a marketing gimmick. Consequently, any positive effects of the situational urgency created by the short timeframe on consumers' attitudes towards the organization are undermined (Howie & Woodroof, 2019). The present study manipulated the remaining time in the stimuli material to create a sense of situational urgency. The high level of situational urgency clearly mentioned a shorter timeframe than the low level of situational urgency. The shorter timeframe might have activated participants persuasion knowledge, as they recognized the persuasion attempt by the NPO. Consequently, participants became more skeptical of Hematon's intentions, which reduced the influence of the positive effects of situational urgency on participants attitudes towards the NPO. These negative effects might have been less prominent for attitude towards the cause and donation intention, as the persuasion attempt reflects the most negative on the NPO. For example, participants might have still found the cause important, even though they did not like the intentions of the NPO. Hence, situational urgency influenced attitude towards the cause and donation intention and not attitude towards the NPO.

Lastly, another explanation might be how participants perceived the cause and NPO during the experiment. For example, the cause might have been more prominent, or visible, to the participants. As a result, participants might simply not have been thinking about the NPO during the experiment. Therefore, when participants were asked about their attitude towards the cause and NPO, the positive effects for situational urgency had more influence on attitude towards the cause than attitude towards the NPO. Alternatively, participants affinity to the cause might have influenced their attitude towards the cause more than their attitude towards the NPO.

5.1.4 Interaction effects between media richness, social viewing, and situational urgency

One might expect interaction effects between media richness, social viewing, and situational urgency based on concepts such as peer pressure, parasocial interactions or relationships, and scarcity (Breves, 2020; Cialdini, 2009; Kumar & Chakrabarti, 2021). However, the results for the interaction effects seem to contradict current literature. One explanation for the lack of interaction effects might be found in the stimuli materials of the present study. For example, for the interaction effect between low level of media richness and high level of social viewing, it was argued that viewers of a pre-recorded video (i.e. low media richness) still encounter a high number of comments (i.e. high social viewing). Viewers might then experience a sense of peer pressure, which influences their attitude and behavior (e.g. Kumar & Chakrabarti, 2021; Lee & Choi, 2018). Participants in the low media richness condition saw a static image of comments underneath the video (see Appendix A). The static image limited how many comments participants could see, unlike a real-life setting where users have the option to scroll through and interact with comments. The limited number of comments the participant saw might not have been enough to make them experience a sense of peer pressure. Therefore, the proposed interaction effect between low media richness and high social viewing was not strong enough to influence the three dependent variables.

Another possible explanation for the lack of interaction effects might be the sample of participants. The average age of a participant in the present study was 51 years old. In the case of social viewing and

situational urgency, the proposed interaction effect was largely based on peer pressure. However, literature shows that younger donors are more vulnerable to peer pressure than older donors (CBF, 2021). It might have been the case that most participants in the present study were less susceptible to effects of peer pressure, as participants were generally older. Hence, the lack of interactions effects between media richness, social viewing, and situational urgency might be explained by the design of the stimuli material or the sample of participants.

5.1.5 Effects of affinity to the cause

The results for the effects of affinity to the cause are consistent with current literature. Previous studies show the influence of affinity to the cause on donor behavior and attitude (e.g. Beldad et al., 2015; Burgoyne et al., 2005). Furthermore, personal or issue involvement with the cause has also been linked to affinity to the cause. For example, Small and Simonsohn (2007) found that a donor is more likely to donate if they have a personal history related to the mission of the cause and its recipients. Similarly, Bekkers and Wiepking (2011) suggest that donors' personal values influence donor behavior and attitude, as supporting a cause with similar values is a way for donors to express these values. A look at the characteristics of the participants of the present study shows that most of the participants had a certain degree of affinity to the cause, for example because they were ex-patients themselves (see table 3). For instance, somebody who has had a type of blood cancer might be more willing to donate to Hematon, a cause that supports blood cancer patients. Thus, it is unsurprising that affinity to the cause has an influence on attitude towards the cause, attitude towards the NPO, and donation intention.

5.1.6 Effects of perceived attractiveness and perceived authenticity

The effects of perceived attractiveness of the person in the video on donor behavior and attitude are in line with current literature. Previous studies show that attractiveness can influence consumer behavior and attitude (e.g. Torres et al., 2019; Vrontis et al., 2021). For example, Torres et al. (2019) find that attractiveness influences brand attitude and purchase intention. Additionally, literature shows familiarity, likeability, and similarity are the underlining concepts that make up attractiveness (Vrontis et al., 2021). The person featured in the video was a middle-aged woman, blood cancer patient, and a Hematon volunteer (see appendix A). Most participants of the present study were a woman, of middle age or older, and had some connection to the cause or Hematon (see table 3). Therefore, participants might have recognized themselves in the person in the video, as they probably shared some similarities. Thus, it is unsurprising that perceived attractiveness significantly predicted attitude towards the cause, attitude towards the NPO, and donation intention.

Similarly to perceived attractiveness, the results for the effects of perceived authenticity of the video are consistent with current literature. Literature shows that authenticity can influence consumer behavior and attitude (Miller, 2015). Moreover, authenticity has been linked to advertising credibility, which in turn has been linked to positive changes in consumer attitude and behavior (Cotte et al., 2005; Miller, 2015). Another possible explanation for the results for perceived authenticity might lie in the experimental nature of the present study as well. The perceived authenticity referred to how believable and realistic the participants found the video that had just watched. Participants were told to thoroughly read the presented scenario and carefully watch

the stimuli material. This behavior probably differs from participant's normal behavior in a real-life setting. Consequently, participants might have looked at the stimuli material more critically than they naturally would. How authentic, or realistic, participants perceived the video can then have influenced their response. Hence, perceived attractiveness significantly predicted donors' attitude towards the cause, attitude towards the NPO, and donation intention.

5.2 Theoretical implications

The present study responded to calls from other researchers for more research on the use of social media platforms for fundraising purposes (Agozzino & Fleck, 2016; Kennedy & Sommerfeldt, 2015; Lucas, 2017). The present study generated scientific findings on how NPOs can successfully use social media for fundraising and which elements of social media contribute to this success. Previous studies show effects of media richness, social viewing, and situational urgency on consumer attitude and behavior (e.g. Ang et al., 2018; Chan et al., 2020; Kamatham et al., 2021). The present study extended these findings to a fundraising context by providing insight into how donor attitude and behavior are affected by media richness, social viewing, and situational urgency. Additionally, literature on interaction effects between level of media richness, social viewing, and situational urgency in a fundraising setting is sparse. The present study addressed this literature gap by generating scientific findings on interaction effects between these three variables.

Lastly, the present study responded to the call for more research into the use of video in fundraising efforts (Di Lauro et al., 2019). Through the level of media richness, the present study investigated the use of video on social media for fundraising purposes. To the extend of the researcher's knowledge, the present study is one of the first studies to compare the use of livestreams and pre-recorded videos on social media in a fundraising context. Therefore, the presents study added insight into the use of video for fundraising purposes on social media.

5.3 Research limitations and future research

The present study is not without research limitations. First, the present study used convenience and snowball sampling to gather participants for the study. Sampling bias is one of the disadvantages of non-probability sampling methods such as convenience and snowball sampling (Babbie, 2014). Furthermore, the average age of participants was quite old. Therefore, the sample of the present study is likely not representative of the general population. Future research could use a probability-sampling method to gather participants for a more representative sample. Additionally, future research could try to replicate the present study with a younger sample of participants.

Second, the present study collaborated with Hematon, an existing NPO. Most participants of the present study had some type of relation to Hematon or the cause. It is possible that the participants had pre-existing attitudes or beliefs about Hematon and its mission that influenced their responses, as prior attitudes and beliefs can be good indicators for future behavior (Glasman & Albarracín, 2006). Therefore, it is likely that participants pre-existing attitudes or beliefs about Hematon influenced their responses. It is important to keep this in mind when interpreting and generalizing the results. Future studies could try to replicate the findings of

the present study with a fictitious NPO to reduce the influence of participants' prior attitudes or beliefs on their responses. Additionally, future studies could test the findings of the present study for non-health related NPOs.

Third, the scales used to measure attitude towards the cause and attitude towards the NPO proved to be less than ideal. The initial factor analysis showed that attitude towards the cause and attitude towards the NPO got categorized in the same component. Only after the removal of two items from attitude towards the NPO, did attitude towards the cause and attitude towards the NPO get categorized in different components. Although the scales for attitude towards cause and attitude towards NPO still scored well on validity and reliability, different measuring scales might have yielded even better results. Future studies could benefit from using different measuring scales for attitude towards the cause and attitude towards the NPO. For example, a measuring scale with more variety between statements, so that the distinction between the two constructs is clearer. Another possibility for future research could be to combine attitude towards the cause and attitude towards the NPO into one construct, for example brand strength. It would be interesting to see if the findings of the present study can be replicated or if the use of a different measuring scale gives different results.

5.4 Practical implications

The results of the present study have several implications for social media fundraising practice. First, the results of the present study validate social viewing and situational urgency as viable fundraising methods for NPOs in a social media setting. When NPOs foster an environment in which a high level of social viewing occurs, donors will hold more positive attitudes and have an increased donation intention. Likewise, when NPOs use a high level of situational urgency in their fundraising message, donors will have more positive attitudes and have an increased donation intention. These results should therefore help NPOs see social viewing and situational urgency as valuable fundraising methods for social media.

Second, NPOs should incorporate the behavior or presence of others in their social media fundraising strategy. As previous studies have suggested, NPOs should design social media fundraising campaigns that encourage user engagement or encourage their followers to promote the cause (e.g. Ang et al., 2018; Saxton & Wang, 2014). For example, NPOs could encourage their followers to like and share their post or to leave a comment to create with and between followers. If NPOs want to use the concept of social viewing in their fundraising strategy, they will do well to make use of the behavior or presence of their followers.

Third, NPOs should incorporate a sense of situational urgency in their social media fundraising appeals. For example, through mentioning the remaining time or the progress towards the target goal. However, based on previous literature, it is important that NPOs consider the appropriate level of situational urgency for the appeal and the goal (Chan et al., 2020; Kuppaswamy & Bayus, 2017). If too high, potential donors might feel the goal is unobtainable and that their donation will not matter. If too low, support from potential donors will drop early on as the target goal will be quickly achieved. The most suitable strategy for NPOs would be to create a sense of situational urgency with a realistic target goal befitting the cause, the organization, and the target audience.

Fourth, NPOs should carefully select the person featured in their fundraising video on social media. The present study found that perceived attractiveness of the person featured in the video predicts attitude towards the cause, attitude towards the NPO, and donation intention. Previous studies have suggested that the

person feature in the video must be relevant or similar to the target audience (Lottridge et al., 2017; Waters & Jones, 2011). The results of the present study emphasize the importance of this suggestion. NPOs should therefore choose a person that resonates with the target audience. However, the choice for this person should not be solely on physical characteristics. If NPOs wish to foster user engagement, other characteristics might be just as important to consider. For example, a person's ability to create interaction with or between viewers.

Lastly, the results for media richness offer NPOs something to consider when NPOs are deciding on their fundraising strategy for social media. Media richness theory proposes that the medium and message should match (Dainton & Zelly, 2019). However, the result for media richness seem to suggest that the medium for the message is not so important, as there was no significant difference between pre-recorded videos (i.e. low medium richness) and livestreams (i.e. high medium richness). In other words, a richer medium might not necessarily be better at getting the message across than a leaner medium. It might instead be more important for NPOs to consider other factors when deciding their fundraising strategy for social media. For instance, the visibility of social viewing or situational urgency cues, appeal and skills of the featured person, or fit with overall communication strategy. Hence, NPOs might need to consider more than just media richness when deciding on their fundraising strategy for social media.

6 Conclusion

The coming years will challenge NPOs to find alternative ways to fundraise to secure a steady flow of income. The present study took the first steps in demonstrating the value of social viewing and situational urgency as fundraising methods in a social media context. The results indicate that donor attitude and donation intention are positively influenced when NPOs incorporate techniques in their fundraising messages on social media that foster a high level of social viewing and situational urgency. For example, NPOs could end a fundraising video with a clear call-to-action encouraging viewers to leave a comment and tag their friends. Although more research is necessary, the present study should help researchers and NPOs see the potential of social viewing and situational urgency as fundraising methods for social media. Social media fundraising might therefore just be the alternative fundraising method NPOs are looking for. Indeed, when NPOs embrace social media for fundraising purposes, incorporating techniques or tools in a fundraising campaign that foster social viewing and situational urgency will be beneficial to NPOs.

7 References

- Aguzzino, A., & Fleck, K. R. (2016). Examining nonprofit strategy for fundraising on a social media platform: A content analysis of top 10 U.S. nonprofit power brands fundraising efforts on Facebook. *Public Relations Journal*, 10(1), 1-33. <https://prjournal.instituteofpr.org/wp-content/uploads/Fleck.pdf>
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52(1), 27. <https://doi.org/10.1146/annurev.psych.52.1.27>
- Ang, T., Wei, S., & Anaza, N. A. (2018). Livestreaming vs pre-recorded: How social viewing strategies impact consumers' viewing experiences and behavioral intentions. *European Journal of Marketing*, 52(9/10), 2075-2104. <https://doi.org/10.1108/EJM-09-2017-0576>
- Babbie, E. (2014). *The practice of social research* (14 ed.). Cengage Learning.
- Basil, D. Z., Ridgway, N. M., & Basil, M. D. (2008). Guilt and giving: A process model of empathy and efficacy. *Psychology & Marketing*, 25(1), 1-23. <https://doi.org/10.1002/mar.20200>
- Bekkers, R., & Wiepking, P. (2011). A literature review of empirical studies of philanthropy: Eight mechanisms that drive charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 40(5), 924-973. <https://doi.org/10.1177/0899764010380927>
- Beldad, A., Gosselt, J., Hegner, S., & Leushuis, R. (2015). Generous but not morally obliged? Determinants of dutch and american donors' repeat donation intention (REPDON). *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 26(2), 442-465. <https://doi.org/10.1007/s11266-013-9419-9>
- Bendapudi, N., Singh, S. N., & Bendapudi, V. (1996). Enhancing helping behavior: An integrative framework for promotion planning. *Journal of Marketing*, 60(3), 33. <https://doi.org/10.1177/002224299606000303>
- Bendle, N. T., Farris, P. W., Pfeifer, P. E., & Reibstein, D. J. (2015). *Marketing metrics: The manager's guide to measuring marketing performance* (3rd ed.). Pearson Education Inc.
- Bhati, A., & McDonnell, D. (2019). Success in an online giving day: The role of social media in fundraising. *Nonprofit and Voluntary Sector Quarterly*, 49(1), 74-92. <https://doi.org/10.1177/0899764019868849>
- Breves, P. (2020). Bringing people closer: The prosocial effects of immersive media on users' attitudes and behavior. *Nonprofit and Voluntary Sector Quarterly*, 49(5), 1015-1034. <https://doi.org/10.1177/0899764020903101>
- Burgoyne, C. B., Young, B., & Walker, C. M. (2005). Deciding to give to charity: A focus group study in the context of the household economy. *Journal of Community & Applied Social Psychology*, 15(5), 383-405. <https://doi.org/10.1002/casp.832>
- CBF. (2021). *Jongeren en geefgedrag*. CBF. <https://www.cbf.nl/inzichten/34/jongeren-en-geefgedrag>
- Chan, C. S. R., Parhankangas, A., Sahaym, A., & Oo, P. (2020). Bellwether and the herd? Unpacking the u-shaped relationship between prior funding and subsequent contributions in reward-based crowdfunding. *Journal of Business Venturing*, 35(2), 1-24. <https://doi.org/10.1016/j.jbusvent.2019.04.002>
- Cialdini, R. B. (2009). *Influence: Science and practice* (5th ed.). Pearson Education.
- Colaizzi, A., Williams, K. J., & Kayson, W. A. (1984). When will people help? The effects of gender, urgency, and location on altruism. *Psychological Reports*, 55(1), 139-142. <https://doi.org/10.2466/pr0.1984.55.1.139>
- Comiati, R., & Plaias, I. (2010). The impact of consumers attitude towards advertising on product attitude. *Interdisciplinary Management Research*, 6, 727-738.

- Cotte, J., Coulter, R. A., & Moore, M. (2005). Enhancing or disrupting guilt: The role of ad credibility and perceived manipulative intent. *Journal of Business Research*, 58(3), 361-368. [https://doi.org/10.1016/S0148-2963\(03\)00102-4](https://doi.org/10.1016/S0148-2963(03)00102-4)
- Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32(5), 554-571. <http://www.jstor.org.ezproxy2.utwente.nl/stable/2631846>
- Dainton, M., & Zelly, E. D. (2019). *Applying communication theory for professional life: A practical introduction* (4 ed.). SAGE Publication, Inc. .
- Di Lauro, S., Tursunbayeva, A., & Antonelli, G. (2019). How nonprofit organizations use social media for fundraising: A systematic literature review. *International Journal of Business and Management* 14(7), 1-22. <https://doi.org/10.5539/ijbm.v14n7p1>
- Ducoffe, R. H. (1995). How consumers assess the value of advertising. *Journal of Current Issues & Research in Advertising* 17(1), 1. <https://doi.org/10.1080/10641734.1995.10505022>
- Einolf, C. J. (2011). Gender differences in the correlates of volunteering and charitable giving. *Nonprofit and Voluntary Sector Quarterly*, 40(6), 1092-1112. <https://doi.org/10.1177/0899764010385949>
- Fischer, P., Krueger, J. I., Greitemeyer, T., Vogrincic, C., Kastenmüller, A., Frey, D., Heene, M., Wicher, M., & Kainbacher, M. (2011). The bystander-effect: A meta-analytic review on bystander intervention in dangerous and non-dangerous emergencies. *Psychological Bulletin*, 137(4), 517-537. <https://doi.org/10.1037/a0023304>
- Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21(1), 1-31. <https://doi.org/10.1086/209380>
- Glasman, L. R., & Albarracín, D. (2006). Forming attitudes that predict future behavior: A meta-analysis of the attitude-behavior relation. *Psychological Bulletin*, 132(5), 778-822. <https://doi.org/10.1037/0033-2909.132.5.778>
- Hahn, K. S., Lee, H.-Y., Ha, S., Jang, S., & Lee, J. (2018). The influence of “social viewing” on televised debate viewers’ political judgment. *Political Communication*, 35(2), 287-305. <https://doi.org/10.1080/10584609.2017.1354947>
- Hematon. (2021). *Over ons*. Hematon. <https://www.hematon.nl/hematon>
- Howie, K., & Woodroof, P. (2019). Examining sales promotion theory in a cause-related marketing setting: An abstract. In P. Rossi & N. Krey, *Finding new ways to engage and satisfy global customers* AMSWMC 2018, Cham.
- Huang, L. T., Wu, Y. S., & Leu, J. D. (2019). Exploring followers' intention of donating online game streamers. 2019 IEEE international conference on industrial engineering and engineering management (IEEM), Macao, China. <https://doi.org/10.1109/IEEM44572.2019.8978514>
- Juanchich, M., Sirota, M., & Bonnefon, J.-F. (2019). The polite wiggle-room effect in charity donation decisions. *Journal of Behavioral Decision Making*, 32(2), 179-193. <https://doi.org/10.1002/bdm.2103>
- Kamatham, S. H., Pahwa, P., Jiang, J., & Kumar, N. (2021). Effect of appeal content on fundraising success and donor behavior. *Journal of Business Research*, 125, 827-839. <https://doi.org/10.1016/j.jbusres.2020.04.007>

- Kennedy, A. K., & Sommerfeldt, E. J. (2015). A postmodern turn for social media research: Theory and research directions for public relations scholarship. *Atlantic Journal of Communication*, 23(1), 31-45. <https://doi.org/10.1080/15456870.2015.972406>
- Kumar, A., & Chakrabarti, S. (2021). Charity donor behavior: A systematic literature review and research agenda. *Journal of Nonprofit & Public Sector Marketing*, 1-46. <https://doi.org/10.1080/10495142.2021.1905134>
- Kuppuswamy, V., & Bayus, B. L. (2017). Does my contribution to your crowdfunding project matter? *Journal of Business Venturing*, 32(1), 72-89. <https://doi.org/10.1016/j.jbusvent.2016.10.004>
- Latané, B. (1981). The psychology of social impact. *American Psychologist*, 36(4), 343-356. <https://psychologyrocksblog.files.wordpress.com/2016/12/lalane1981.pdf>
- Lee, J., & Choi, Y. J. (2017). Shifting from an audience to an active public in social viewing: Focusing on the discussion network. *Computers in Human Behavior*, 75, 301-310. <https://doi.org/10.1016/j.chb.2017.05.027>
- Lee, J., & Choi, Y. J. (2018). Understanding social viewing through discussion network and emotion: A focus on South Korean presidential debates. *Telematics and Informatics*, 35(5), 1382-1391. <https://doi.org/10.1016/j.tele.2018.03.009>
- Lottridge, D., Bentley, F., Wheeler, M., Lee, J., Cheung, J., Ong, K., & Rowley, C. (2017). *Third-wave livestreaming: teens' long form selfie*. Proceedings of the 19th international conference on human-computer interaction with mobile devices and services, Vienna, Austria. <https://doi-org.ezproxy2.utwente.nl/10.1145/3098279.3098540>
- Lucas, E. (2017). Reinventing the rattling tin: How UK charities use Facebook in fundraising. *International Journal of Nonprofit and Voluntary Sector Marketing*, 22(2), e1576. <https://doi.org/10.1002/nvsm.1576>
- MacKenzie, S. B., Lutz, R. J., & Belch, G. E. (1986). The role of attitude toward the ad as a mediator of advertising effectiveness: A test of competing explanations. *Journal of Marketing Research*, 23(2), 130-143. <https://doi.org/10.2307/3151660>
- Meta. (2021). *Live with donate button: Connect directly with people who care*. Meta. <https://socialimpact.facebook.com/charitable-giving/live-donate/>
- Miller, F. M. (2015). Ad authenticity: An alternative explanation of advertising's effect on established brand attitudes. *Journal of Current Issues & Research in Advertising*, 36(2), 177-194. <https://doi.org/10.1080/10641734.2015.1023871>
- Nonprofit Tech for Good. (2020). *Global trends in giving report*. Funraise. <https://www.funraise.org/giving-report>
- Oxford English Dictionary. (2021a). *livestream*, n. (3rd ed.). Oxford University Press. <https://www.oed.com/view/Entry/90797481?rskey=ufj5QU&result=1&isAdvanced=false>
- Oxford English Dictionary. (2021b). *pre-record*, v. (3rd ed.). Oxford University Press. <https://www.oed.com/view/Entry/150557?rskey=VaQ1AJ&result=1&isAdvanced=false>
- Palvia, P., Pinjani, P., Cannoy, S., & Jacks, T. (2011). Contextual constraints in media choice: Beyond information richness. *Decision Support Systems*, 51(3), 657-670. <https://doi.org/10.1016/j.dss.2011.03.006>
- Park, H. J., & Lin, L. M. (2020). The effects of match-ups on the consumer attitudes toward internet celebrities and their live streaming contents in the context of product endorsement. *Journal of Retailing and Consumer Services*, 52, 101934. <https://doi.org/10.1016/j.jretconser.2019.101934>

- Saxton, G. D., & Wang, L. (2014). The social network effect: The determinants of giving through social media. *Nonprofit and Voluntary Sector Quarterly*, 43(5), 850-868. <https://doi.org/10.1177/0899764013485159>
- Schulpen, L., Van Kampen, L., & Kinsbergen, S. (2020). *Still going strong? The impact of COVID-19 on Dutch civil society*. Stichting Centraal Bureau Fondsenwerving. <https://www.cbf.nl/uploads/publications/still-going-strong-covid-19-and-dutch-csos.b3a01e.pdf>
- Schwartz, S. H. (1977). Normative influences on altruism. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10, pp. 221-279). Academic Press. [https://doi.org/10.1016/S0065-2601\(08\)60358-5](https://doi.org/10.1016/S0065-2601(08)60358-5)
- Shier, M. L., & Handy, F. (2012). Understanding online donor behavior: The role of donor characteristics, perceptions of the internet, website and program, and influence from social networks. *International Journal of Nonprofit and Voluntary Sector Marketing*, 17(3), 219-230. <https://doi.org/10.1002/nvsm.1425>
- Shyam Sundar, S. (2012). Social psychology of interactivity in human-website interaction. In A. N. Joinson, K. Y. A. McKenna, T. Postmes, & U.-D. Reips (Eds.), *Oxford handbook of internet psychology*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199561803.013.0007>
- Siegal, H. A. (1972). [Review of the book *The Unresponsive Bystander: Why Doesn't He Help?* by B. Latane, & J. Darley]. *Contemporary Sociology*, 1(3), 226-227. <https://doi.org/10.2307/2063973>
- Singh, J., Crisafulli, B., & Quamina, L. T. (2020). How intensity of cause-related marketing guilt appeals influences consumers: the roles of company motives and consumer identification with the brand. *Journal of Advertising Research*, 60(2), 148-162. <https://doi.org/10.2501/JAR-2018-049>
- Small, D. A., & Simonsohn, U. (2007). Friends of victims: Personal experience and prosocial behavior. *Journal of Consumer Research*, 35(3), 532-542. <https://doi.org/10.1086/527268>
- Smith, J. R., & McSweeney, A. (2007). Charitable giving: The effectiveness of a revised theory of planned behaviour model in predicting donating intentions and behaviour. *Journal of Community & Applied Social Psychology*, 17(5), 363-386. <https://doi.org/10.1002/casp.906>
- Torres, P., Augusto, M., & Matos, M. (2019). Antecedents and outcomes of digital influencer endorsement: An exploratory study. *Psychology & Marketing*, 36(12), 1267-1276. <https://doi.org/10.1002/mar.21274>
- van Teunenbroek, C., Bekkers, R., & Beersma, B. (2020). Look to others before you leap: A systematic literature review of social information effects on donation amounts. *Nonprofit and Voluntary Sector Quarterly*, 49(1), 53-73. <https://doi.org/10.1177/0899764019869537>
- Van Uffelen, X. (2019, September 24). Goede doelen verliezen steun trouwe donateurs. *De Volkskrant*. <https://advance-lexis-com.ezproxy2.utwente.nl/api/document?collection=news&id=urn:contentItem:5X3X-H661-JBHV-K4SY-00000-00&context=1516831>
- Vrontis, D., Makrides, A., Christofi, M., & Thrassou, A. (2021). Social media influencer marketing: A systematic review, integrative framework and future research agenda. *International Journal of Consumer Studies*, 45(4), 617-644. <https://doi.org/10.1111/ijcs.12647>
- Waters, R. D., & Jones, P. M. (2011). Using video to build an organization's identity and brand: A content analysis of nonprofit organizations' YouTube videos. *Journal of Nonprofit & Public Sector Marketing*, 23(3), 248-268. <https://doi.org/10.1080/10495142.2011.594779>

- Wohn, D. Y., Freeman, G., & McLaughlin, C. (2018). Explaining viewers' emotional, instrumental, and financial support provision for live streamers. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. <https://doi.org/10.1145/3173574.3174048>
- WWAV. (2020). *Het Nederlands donateurspanel: Meting december 2020*. <https://www.wwav.nl/ndp/2020/NDP-december-2020.pdf>
- WWAV. (2021). *Het Nederlandse donateurspanel: Meting juni 2021*. <https://www.wwav.nl/ndp/2021/NDP-juni-2021.pdf>
- Wymer, W., Gross, H. P., & Helmig, B. (2016). Nonprofit brand strength: What is it? How is it measured? What are its outcomes? *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 27(3), 1448-1471. <https://doi.org/10.1007/s11266-015-9641-8>

8 Appendix

8.1 Appendix A: Stimuli material

8.1.1 Images

Figures A1, A2, and A3 give an impression of the look and feel of the videos used in the study.

Figure A1.

Pre-recorded video



Figure A2.

Livestream with low social viewing

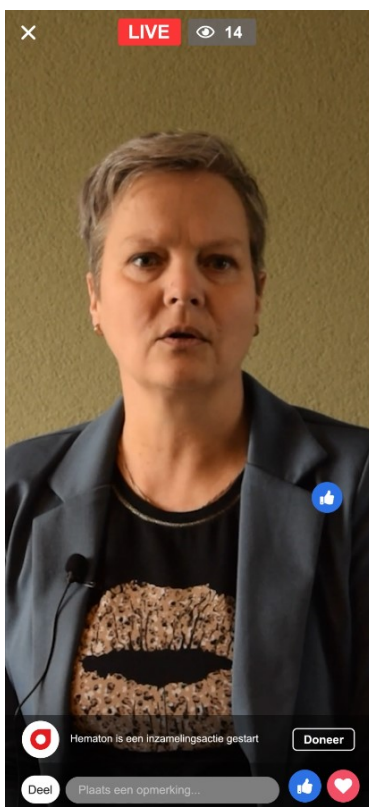
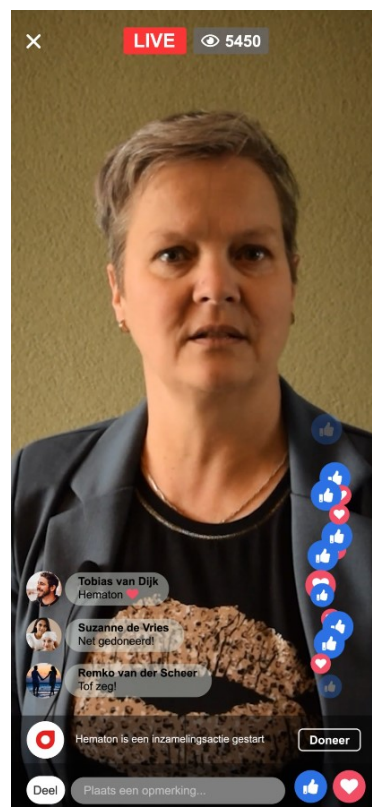


Figure A3.

Livestream with high social viewing



Figures A4 and A5 show a selection of the images used in the scenarios with a low level of media richness.

Figure A4.

Low social viewing x low situational urgency

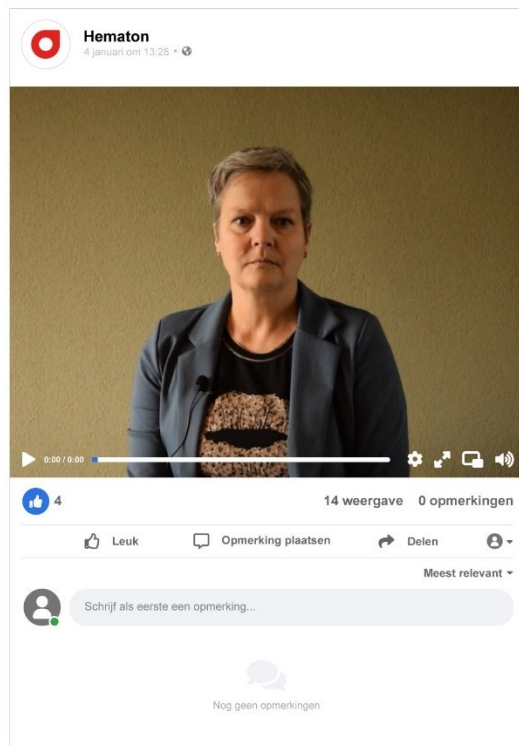
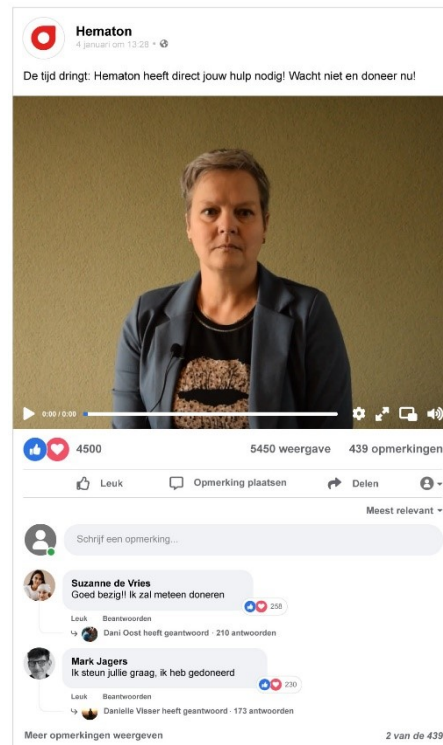


Figure A5.

High social viewing x high situational urgency



Figures A6 through A9 show a selection of the images used in the scenarios with a high level of media richness.

Figure A6.

Low situational urgency



Figure A7.

High situational urgency

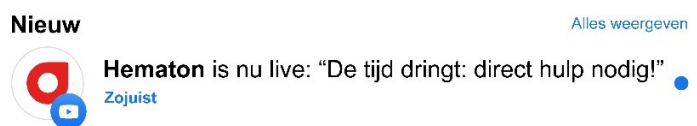


Figure A8.

Low social viewing x low situational urgency

Livevideo's voor jou

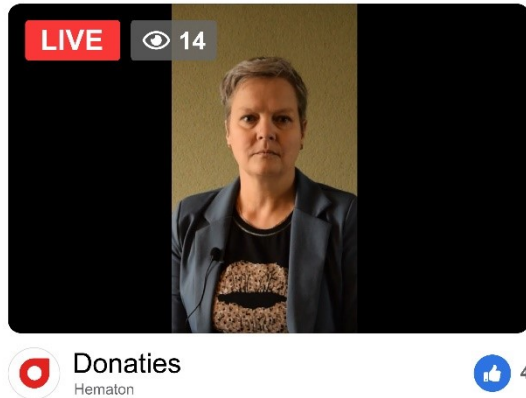


Figure A9.

High social viewing x high situational urgency

Livevideo's voor jouw



8.1.2 Situational urgency text

Low situational urgency: good access to information concerning blood or lymphoma cancer is important, because a well-informed patient lives longer. Unfortunately, patients of blood or lymphoma cancer do not receive all the information that ensures that they receive the best treatment. And this is exactly what Hematon strives for: good access to information for all patients with leukemia, lymphoma cancer, or anyone who has received a stem cell transplant. Hematon needs donations to continue their work. Your donation counts, so donate!

High situational urgency: Hematon needs your help urgently! Good access to information concerning blood or lymphoma cancer is important, because a well-informed patient lives longer. Unfortunately, patients of blood or lymphoma cancer do not receive all the information that ensures that they receive the best treatment. And this is exactly what Hematon strives for: good access to information for all patients with leukemia, lymphoma cancer, or anyone who has received a stem cell transplant. Hematon needs donations to continue their work. With only 6 hours left to donate, we are at 20% of our target goal. Your donation counts. Do not wait and donate now!

8.2 Appendix B: social media & Kickstarter descriptive statistics

8.2.1 Social media

For Hematon's Facebook and YouTube most and least popular videos ($N = 4$), the views, comments and likes were analyzed (see table B1).

Table B1

Descriptive statistics of views, comments, and likes on Hematon's Facebook and YouTube videos

	Min	M	Mdn	SD	Max
Highest number of views	1700	2400	2400	0	3100
Highest number of comments	0	0	0	0	0
Highest number of likes	10	15.5	15.5	7.8	21
Lowest number of views	14	214.5	214.5	283.5	415
Lowest number of comments	0	0	0	0	0
Lowest number of likes	0	4	4	5.657	8

Note. Comments on Hematon's YouTube videos were turned off

Additionally, for Hematon's YouTube videos ($N = 76$), gender, age, clothing type, and role were analyzed as well (see table B2). The people appearing in the videos were included in the analysis when they were introduced using with their name and role or function. Therefore, Hematon's four Facebook videos were not included, as these videos only showed large groups of people where no individual was introduced. These videos served more as impression videos for activities.

Table B2

Frequency of descriptive characteristics in Hematon's YouTube videos

	Frequency	Percentage
Gender		
Male	35	46.1
Female	41	53.9
Total	76	100
Age		
< 45	17	22.4
46 – 65	35	46.1
65+	24	31.6
Total	76	100
Clothes		
Casual	30	39.5
Formal	46	60.5
Total	76	100
Role		
(Ex)patient	55	72.4
Healthcare professional	18	23.7
Family or friends (ex)patient	3	3.9
Total	76	100

Note. Casual: e.g. t-shirt, jeans, formal: e.g. suit jacket, button up, company or work clothes.

Hematon is affiliated with De Nederlandse Federatie van Kankerpatiëntenorganisaties (NFK), or The Dutch Federation of Cancer Patient Organizations. Videos ($N = 20$) of ten other affiliated NPOs were also analyzed, as they share similarities with Hematon. Inclusion criteria included: affliction with NFK, public Facebook page, more than one video, video not older than 10 years old.

Table B3

Descriptive statistics of views, comments, and likes on other NPOs' Facebook videos

	Min	M	Mdn	SD	Max
Highest number of views	969	27836.9	5450	45560.2	117100
Highest number of comments	0	23.1	12.5	25.5	77
Highest number of likes	4	58.2	30	2.6	289
Lowest number of views	47	234.2	221	189	647
Lowest number of comments	0	0.4	1.3	0.7	2
Lowest number of likes	0	5.3	0.7	5.3	17

Table B4

Number of followers of NPOs' Facebook followers from highest to lowest

NPO	Number of Facebook followers
Borstkankervereniging Nederland	12434
Vereniging Kinderkanker Nederland	5654
Hematon	3116
Longkanker Nederland	2750
Stichting Olijf	2687
Stomavereniging	2591
Patiëntenvereniging Hoofd-Hals	1377
Jongeren en Kanker	987
Prostaatkankerstichting	801
Patiëntenplatform Zeldzame Kankers	621
Stichting Zaadbalkanker	470

8.2.2 Kickstarter

For Kickstarter, the projects with the most days till deadline (N = 50) and the project with the shortest days / hours till deadline (N = 50) were analyzed (see table B5 and B6).

Table B5

Descriptive statistics of the Kickstarter projects with longest and shortest period till deadline in minutes

	Min	M	Mdn	SD	Max
Longest period	12960	49248	41760	20448	84960
Shortest period	45	336	300	206.5	840

Projects with *longest* period till deadline: around 34 days (or around 1 month)

Projects with *shortest* period till deadline: around 336 minutes (or around 5 hours and 30 minutes)

Table B6

Percentage of Kickstarter project goal funded for longest and shortest period till deadline

	Min	M	Mdn	SD	Max
Longest period	0	37	3	69.3	270
Shortest period	0	365.6	125.5	581.5	2236

% Of goal funded for project with *longest* period till deadline: 3%

% Of goal funded for project with *shortest* period till deadline: 126%

8.3 Appendix C: List of final measurement instruments main study

Construct	Items	Source
Attitude towards Facebook ads ($\alpha = .82$)	1. I find Facebook advertisements useful 2. Facebook advertisements are of added value to me	Ducoffe (1995)
Moral obligation ($\alpha = .83$)	1. It would be morally irresponsible not to donate to NPO's 2. Donating to NPO's conforms with my principles 3. I feel it is my duty to help NPO's	Beldad et al. (2015)
Cause affinity ($\alpha = .85$)	1. NPO's with cancer related missions are close to my heart 2. Cancer related causes are connected to an important aspect of my life 3. I feel a strong connection to NPOs with a cancer related mission 4. Cancer related NPOs support causes that are important to me	Beldad et al. (2015)
Level of media richness ($\alpha = .89$)	1. The video allows for interaction while watching 2. The video enables real-time conversation	Based on Daft and Lengel (1986)
Level of social viewing ($\alpha = .93$)	1. The video had a lot of other viewers 2. There were a lot of people commenting on the video 3. Many people liked the video	Based on Ang et al. (2018)
Level of situational urgency ($\alpha = .96$)	1. The donation request felt urgent 2. The donation request felt dire 3. The donation request gave me the impression that there was no time left to delay a donation 4. The donation request made me feel like I had to donate as quickly as possible	Juanchich et al. (2019)
Donation intention ($\alpha = .92$)	1. I intent to donate to Hematon 2. The chance that I will donate to Hematon is high 3. I am not willing to donate to Hematon	Basil et al. (2008)
Attitude towards cause ($\alpha = .93$)	1. I have a favorable opinion of Hematon's cause 2. I have a positive impression about Hematon's cause 3. I believe that Hematon is a great cause	Wymer et al. (2016)
Attitude towards NPO Perceived attractiveness ($\alpha = .91$)	1. I feel good about the work Hematon is doing 1. The person in the video is attractive 2. I like the person in the video 3. The person in the video is appealing to me	Wymer et al. (2016) Park and Lin (2020)
Perceived authenticity video ($\alpha = .88$)	1. The video is realistic 2. I find the video believable 3. The video is authentic	Cotte et al. (2005)