

The effect of online platform management and online interactions on donors' engagement

El efecto de la gestión de las plataformas y las interacciones en línea en el compromiso de los donantes

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Abstract: This research examines the role of online platform management (websites and Social Networking Sites, SNS) and online interactions in donors' engagement with non-profit organisations (NPOs). To this end, we developed an index of the usage of websites and SNS for fostering donor engagement based on a sample of the top 100 NPOs in the United States, to then carry out a regression analysis. The main findings indicate that NPOs should improve the features of their websites and SNS to catch viewers' attention and interest them in the information disclosed on online platforms to motivate them to support NPOs' social mission. Results also show that NPOs that more effectively exploit their website and SNS design receive more private donations. The main type of online interaction that NPOs receive in response to posts is clicking actions. To a much lesser extent, online users opt to comment on posts. However, none of these online interactions are decisive for fostering private donations. This study contributes to the knowledge of websites and SNS best practices, providing financial support to NPOs. Likewise, it expands the understanding of users' online participation as predictors of charitable giving behavior.

Keywords: social media, websites, stakeholder engagement, online participation, Non-profit management

Resumen: Esta investigación examina el papel de la gestión de plataformas en línea (sitios web y redes sociales, SNS) y las interacciones en línea en el compromiso de los donantes con las organizaciones sin fines de lucro (ENL). Para ello, se elabora un índice del uso de sitios web y redes sociales para fomentar el compromiso de los donantes, basado en una muestra de las 100 principales ENL en los Estados Unidos, para luego llevar a cabo un análisis de regresión. Los principales resultados indican que las ENL deberían mejorar las características de sus sitios web y redes sociales para captar la atención de los visitantes e interesarlos en la información divulgada en las plataformas en línea, con el fin de motivarlos a apoyar la

misión social de las ENL. Los resultados también muestran que las ENL que aprovechan más eficazmente el diseño de sus sitios web y redes sociales reciben más donaciones privadas. El principal tipo de interacción en línea que las ENL reciben en respuesta a sus publicaciones son las acciones de clic. En mucha menor medida, los usuarios en línea optan por comentar en las publicaciones. Sin embargo, ninguna de estas interacciones en línea es decisiva para fomentar donaciones privadas. Este estudio contribuye al conocimiento sobre las mejores prácticas en sitios web y redes sociales, proporcionando apoyo financiero a las ENL. Asimismo, amplía la comprensión de la participación en línea de los usuarios como predictores del comportamiento de donación.

Palabras clave: medios sociales, sitios web, compromiso de los grupos de interés, participación online, gestión de organizaciones sin ánimo de lucro

1. Introduction

Non-profit organisations (NPOs) are currently increasing worldwide as they are indispensable pillars of societal development (Pennerstorfer & Rutherford, 2019). In general terms, as they do not produce commercial outputs, sustainability can be a major problem for most NPOs. Their work is mainly carried out thanks to the funding they receive and the altruistic help of volunteers (Omura & Forster, 2014). In this sense, the corruption scandals in the sector have meant that it can no longer be taken for granted that all NPOs have good intentions (e.g., Prakash, 2019). Indeed, NPOs increasingly use web pages and social networking sites (SNS) to make the added value they provide to society visible. These digital resources facilitate NPOs' transparency and connectivity with their stakeholders (Chu & Luke, 2023) and are strategic for building solid relationships with donors (Hoefer & Twis, 2018). However, communications strategies based on websites and SNS are not always successful in engaging stakeholders (Guidry et al., 2014; Saxton & Waters, 2014), and further research is needed to guide and inform NPO managers about the most appropriate use of these platforms (Albanna et al., 2022).

Previous studies have focused on the relationship between donor engagement and online platforms, focusing on web pages or SNS. In contrast, few studies explore the best practices of both digital resources from a global view, with a model that includes the use of features from both types of digital resources (web pages and SNS) and their impact on donor engagement with NPOs. The extant literature has analysed donor engagement and the management of web pages, addressing the most critical information to be disclosed to donors (Blouin et al., 2018; Rossi et al., 2020; Saxton et al., 2014) and other influencing website design elements (Hoefer & Twis, 2018; Sargeant et al., 2007). Other studies have analysed the impact of certain aspects of SNS management (such as the importance of social media activity and some post characteristics) and online interactions in charitable giving (Alexander et al., 2023; Elvira-Lorilla et al., 2023; Harris et al., 2021). Hence, the motivation of this paper is twofold: first, to provide insights into this field of research from an integrated view of online platform management by exploring the combination of techniques from both digital resources (web pages and SNS) to grab the attention and involvement of online users in NPOs' causes. Secondly, it aims to enrich current literature regarding online interactions, specifically deepening our understanding of online interaction types and their implications on private donors' engagement.

This research aims to expand the understanding of how the management of digital resources and online interactions correlate with private donations to NPOs, particularly addressing the following research questions: RQ1. Does the management of NPOs' online platforms (websites and SNS) influence donor engagement? RQ2. Do the online interactions generated on NPO's SNS influence donor engagement? This research focuses on private donations since they are essential for supporting the work of NPOs. However, private donors have become increasingly vulnerable, so market competition has become a challenge that many NPOs face to attain such donations (Carrillo-Durán et al., 2023). Hence, the two-way and mass forms of communication that online platforms provide make them great allies in improving the fundraising capabilities of NPOs (Gálvez-Rodríguez et al., 2019). Among the benefits offered by online interactions generated from SNS, it is worth

mentioning that they are considered indicators of the public interest that foment NPOs' activities (Alonso-Cañadas et al., 2019; Kim et al., 2014). However, more understanding is needed of how the benefits of these online platforms translate into financial support (Alexander et al., 2023; Elvira-Lorilla et al., 2023; Rossi et al., 2020).

The results of this paper will contribute at both the academic and practical levels. At the academic level, this study responds to the need for more significant research that sheds light on the effectiveness of online platforms (Alexander et al., 2023; Saxton & Waters, 2014). In this sense, it will contribute to evidence on what constitutes best practice in online platform management that ensures genuine donor trust and sparks donors' interest in being part of an NPO's mission (Hoefer & Twis, 2018). Likewise, to see whether online interactions resulting from online platform management affect donor recruitment. The results will help answer the question of the extent to which the fundraising capacity of online environments is relevant (Albanna et al., 2022). From a practical perspective, the results will help NPO managers obtain relevant information on the extent to which they might miss out on an opportunity to build relationships with their most important stakeholders via websites and SNS.

2. Literature review

2.1. The concept of engagement in NPO's and online platforms

The term "engagement" has many conceptualisations. In general, it implies cognitive aspects (e.g., being interested in a company's activities), behavioural aspects (participation in the company's activities), and/or emotional aspects (feeling positive about a company's activities) (Dijkmans et al., 2015). This paper uses Engagement Theory (O'Brien & Toms, 2008) as a fitting framework to understand the role of online platforms in fostering stakeholders' engagement with NPOs (Hoefer & Twis, 2018). This theory considers engagement with technology as a process that takes time and entails several stages characterised by various emotions, such as the user's interest and affect towards the information given (O'Brien, 2018). In this sense, the role of online platforms for fostering engagement with NPOs is not a matter of 'to be or not to be' engaged with the website or SNS, but rather, is a process that affects different levels of engagement: at the shallow level, it encompasses information at the start of the dialogue; the medium level involves interactivity (communication-based on genuine interest) and the deep level of engagement involving action and commitment (Carrillo-Durán et al., 2023). Hence, online users can experience different engagement levels with an NPO's mission through the content on their online platforms, with deep engagement considered to be the donation of time (as a volunteer) or money (Hoefer & Twis, 2018).

There is vast literature that examines how NPOs use online platforms to foster shallow levels of engagement, that is, the communicative behaviour of audiences, highlighting two main outcomes. Firstly, for fostering passive communication behaviour of the public via one-way communication strategies using websites (e.g., Chu & Luke, 2023) and SNS (e.g., Lee, 2018; Sircar & Rowley, 2020). Secondly, using the aforementioned digital resources for seeking more active, communicative behaviour of the public, based on participatory and collaborative modes of communication such as dialogue and co-creation of content (e.g., Alonso-Cañadas et al., 2019; Guidry et al., 2014). These communication strategies aim to satisfy stakeholders' purposes, ranging from their interest in controlling the good intentions of the NPO to collaboration via participation in or interaction with the information they publish (Dhanesh, 2017). Hence, this "online" engagement contributes to motivating stakeholders' involvement in NPOs' actions (Campbell & Lambright, 2020) or developing a committed community towards NPOs' mission (Sircar & Rowley, 2020).

Regarding the studies that focus on online management and deep levels of stakeholder engagement with NPOs, previous studies observed that people willing to donate their time positively value the opportunity provided by NPOs' online platforms

to communicate with the organisation and with other volunteers before, during, and after their volunteering activities (Mato-Santiso et al., 2023). Likewise, prior studies state that online platforms can better support the fundraising efforts of NPOs (Smitko, 2012). In this sense, other studies have observed that proactive web transparency (Saxton et al., 2014; Blouin et al., 2018; Rossi et al., 2020) significantly impacts charitable contributions. Concerning SNS, it has been suggested that these digital resources help foster awareness of the social causes they champion and cultivate quality relationships that foster trust and commitment towards the NPO (Xu & Saxton, 2019). Along this same line, current studies highlight the importance of having active SNS as well as receiving online interactions from SNS since they are a valuable resource for donor engagement (Alexander et al., 2023; Bhati & McDonnell, 2020; Harris et al., 2021). However, more research is needed to understand which online platform features are more effective in engaging the general public (Albanna et al., 2022).

2.2. How to use online platforms to engage donors in the NPO's mission

2.2.1. Websites and SNS management in the engagement process

Based on Engagement Theory (O'Brien & Toms, 2008; O'Brien, 2018), the website engagement framework for NPOs developed by Hoefler and Twis (2018) and literature on website and SNS management for stakeholder engagement with NPOs (Elvira-Lorilla et al., 2023; Philips, 2022; Sargeant et al., 2007; Saxton & Wang, 2014; Sircar & Rowley, 2020), we can identify online platform features that can foster NPOs' stakeholder engagement from *shallow* to *deep* level of engagement. In particular, it is essential to achieve the following stages of engagement: *Immediate-shallow engagement*, *long-term shallow engagement*, *immediate-deep engagement*, and *long-term deep engagement*.

Delving further into each stage, in the *immediate-shallow engagement*, the online platform's capacity is oriented towards avoiding the online user leaving their site and keeping their initial attention on the organisation's website. To this end, it is suggested that features such as a homepage video and an email sign-up form be used to engage in future communication (Hoefler & Twis, 2018; Philips, 2022).

In *long-term shallow engagement*, the user's attention and interest in the organisation have increased. To this end, the website's ability must be orientated to maintaining contact with the user to "feed" this relationship and thus increase the likelihood of attaining deep engagement in the future. To this end, it is proposed that online platforms must be implemented with **email strategies**, **SNS strategies**, and some forms of **social enterprise**.

Email strategies focus on how the information is presented in the email header, email content and email format. As for the email header, it is recommended that the word "video" be included (if there is a video in the content) and that it contain a short, direct, and personalised subject line (Hoefler & Twis, 2018). Regarding the content, previous studies state that donors appreciate and reward information disclosures (Blouin et al., 2018; Rossi et al., 2020; Sargeant et al., 2007). Private donors particularly value qualitative information (Saxton et al., 2014) not only about what has been done but also about upcoming plans (Connolly & Hyndman, 2013). Hence, we could highlight the email content regarding activities, stories, events, and action-oriented information, such as signing up or notifying subscribers when new information is posted on the website regarding donating or volunteering. To this end, email content could include a link to the relevant website or video.

With regards to **SNS strategies**, there are online platforms that help to "spread" the information about a website via social media posts that direct and push the user towards the NPO's website to deliver more detailed messages and increase the volume of dialogue and interactions (Hoefler & Twis, 2018). Concerning the content of the post sent, Saxton and Wang (2014) state that Facebook donors do not seem to care about efficiency ratios, and thus, qualitative content is much more relevant. In this respect, access to stories narrated by both the organisation and beneficiaries helps frame the social causes of NPOs to which donors or other stakeholders could contribute (Appleby, 2016). In addition, action-oriented posts that appeal for donations are also needed (Elvira-Lorilla et al., 2023; Sircar & Rowley, 2020). To this end, the use of links to NPOs' websites and videos is important.

Concerning the use of websites to foster **social enterprise** activities, this element is another way to engage donors as it implies gaining the trust of online users regarding the products and services provided by NPOs as a financial resource for the execution of their social projects. Hence, NPOs should provide merchandise linked with their social mission to catch donors' attention and "awareness" (Hoefler & Twis, 2018).

Immediate-deep engagement implies that the web visitor is already interested in the NPO's social causes. At this level, the website's capacity objective is to ensure that volunteer and donation information can readily be found on the website (Sargeant et al., 2007) since NPOs that offer multiple giving options enhance giving behaviour (Kim et al., 2021). Regarding *Long-term deep engagement*, this stage implies that the web visitor is a "recurrent interested person" in the NPO's social cause. Hence, the website's capacity goal is to maintain and implement the email strategies mentioned above over several years (Hoefler & Twis, 2018).

Previous studies have evidenced the importance of NPOs' use of websites to disclose annual and financial reports for donors (Blousing et al., 2018; Rossi et al., 2020; Saxton et al., 2014). Regarding SNS, studies have demonstrated that post content regarding fundraising positively affects donor engagement (Elvira-Lorilla et al., 2023). Likewise, other works have shown that the volume of messages sent does influence the fundraising of NPOs, in the case of institutional donors (Alexander et al., 2023) or using a heterogeneous pool of donors (Bhati & McDonnell, 2020; Harris et al., 2021). However, more contributions are needed to explore other online platform features impacting stakeholders' engagement. Hence, based on the above literature review, the following hypothesis is proposed:

H1: NPO's management of online platforms positively influences donor engagement.

2.2.2 Online interactions and donor engagement

SNS possess attributes for generating "many to many" communication, including the ability to expand social connections by displaying one's social connections to others and vice versa (Kim et al., 2014) due to their "comment or posting function". These functions provide ample opportunity for user-response (Kim et al., 2014), facilitating NPO-to-stakeholder interactions and stakeholder-to-stakeholder interactions.

The mere presence of an NPO in SNS is not enough, and NPOs should pay attention to the degree to which stakeholders are actively engaged with the contents of the posts sent (Campbell & Lambright, 2020). Online interactivity is a crucial "outcome" to determine the adequate management of SNS (Phethean et al., 2015), as they are considered the drivers of many benefits for NPOs. In this respect, there is a vast array of literature that highlights the non-financial benefits of online interactions for a) building relationships with online users, b) motivating and retaining volunteers, c) obtaining informative feedback, d) enhancing collaboration, and e) enhancing transparency and accountability (Appleby, 2016; Dhanesh, 2017; Gálvez-Rodríguez et al., 2019).

Regarding the tangible benefits that SNS provide to NPOs, there is little doubt that SNS help to reduce costs in budgets for marketing services in comparison to traditional communication media (Phethean et al., 2015) or management expenses for fundraising purposes due to the existence of cost-effective crowd-funding applications (Saxton & Wang, 2014). Likewise, Saxton and Wang's (2014) findings indicate that NPOs with more fans on SNS receive more charitable contributions via those SNS.

Regarding the SNS most appropriate for fostering online interactions, Lovejoy and Saxton (2012) found no significant differences in how organisations use Facebook or Twitter. However, Cho et al. (2014) reveal that Facebook is the leading SNS for engaging with the public. Similar research in public sector contexts also shares this result, highlighting that Facebook is the most appropriate platform for online citizens' engagement (Haro-de-Rosario et al., 2018). When measuring such online interactions, most previous studies have focused on generating clicks and comments (Cho et al., 2014; Guidry et al., 2014; Saxton & Waters, 2014; Elvira-Lorilla et al., 2023).

As “online interactions” are a crucial output for cultivating relationships and trust between NPOs and their stakeholders, various research lines focus on such “SNS output”. In particular, studies have explored strategies for boosting the generation of online interactions (e.g., [Guidry et al., 2014](#)). Others have analysed the organisational and user factors influencing and fostering online interactions ([Gálvez-Rodríguez et al., 2019](#)). However, further research and advances in the knowledge regarding the impact of online interactions on the performance of NPOs are needed ([Lovejoy & Saxton, 2012](#)), particularly regarding whether these are a “strategic” resource for supporting NPOs’ social projects. In this regard, some studies state that all online interactions influence NPOs’ fundraising ([Alexander et al., 2023](#); [Elvira-Lorilla et al., 2023](#); [Harris et al., 2021](#)), while others state that the online interaction of sharing NPOs’ posts has a significant impact on donor engagement ([Bhati & McDonnell, 2020](#)). Hence, it is necessary to advance our understanding of the extent to which this outcome from SNS management provides financial benefits. To examine this view, the following hypothesis is proposed:

H2. The online interactions of users on NPOs’ SNS positively influence donor engagement.

3. Methodology

3.1. Sample

Based on the list published by Forbes, one of the most-read business periodicals worldwide ([Getchell & Beitelspacher, 2020](#)), a study sample was created which comprised the 100 largest-rated NPOs in the United States of America (USA). The rating is based on the 100 biggest NPOs according to the information retrieved from the IRS Form 990 filings, audited financial statements, annual reports, or Forbes survey forms that NPOs fill out and return.

Regarding the field of work, most of the NPOs in the sample are mainly focused on development projects aiding domestic and international needs. To a lesser extent, there are entities focused on advancing disease research or supporting people suffering from these diseases and their families. Other NPOs in the sample provide young people with a safe place to learn and grow, foster culture, promote religious beliefs, or protect the environment with particular attention to animals. Relatively few are centred on public affairs and education (see [Table 1](#)). Regarding their size, these entities have an average total income of 1,437,090,000 US dollars. Given that organisational size is considered an indicator of the level of capacity or resources, this sample could indicate the extent to which NPOs fully realise the potential of websites and SNS for engagement purposes.

Table 1: Field of Work of NPOs sampled

Field of work	%
International Needs	29
Domestics Needs	21
Health	13
Medical	9
Youth	6
Cultural	6
Religious	5
Environment/Animal	5
Public Affairs	3
Education	3

As previously mentioned, the data used for empirical analysis are drawn from the websites and Facebook pages of each of these NPOs. The analysis period was in February 2021; that is, all the websites, emails, SNS posts, and online interactions were analysed during this one-month period. We have analysed 100 websites, 309 emails, and 3,806 Facebook posts, generating 2,434,638 online interactions (likes, comments and shares).

3.2. Method and variable definition

To analyse how the management of digital resources and online interactions correlate with private donations to NPOs, we analyse the official websites and Facebook pages of NPOs. The selection of Facebook was in line with previous studies highlighting its attributes for fostering online participation (Cho et al., 2014; Haro-de-Rosario et al., 2018) and the fact that it is a very popular SNS among adults.

Regarding the method used, the management of digital resources and online interactions are analysed based on an index of the usage of websites and SNS for the engagement process which defines the usage level of web technologies, from grabbing the online user's attention to "stay" on the online platform (shallow engagement) to further involvement with the organisation through online donations (deep engagement). This index is based on Hoefer and Twis's (2018) framework and the literature reviewed in Section 3.1 and comprises a total of 22 items that, in turn, can be grouped as three items for analysing the use of websites for *immediate-shallow engagement*, 15 items for exploring the use of websites and SNS to reach a *long-term shallow engagement*. Regarding deep engagement, four items are used to analyse the use of websites to foster *immediate-deep engagement*. This study is a cross-sectional analysis that looks at data collected at a single point in time rather than over a longer period; hence, *long-term deep engagement* is not addressed in this study.

The index of each NPO was calculated as the mean of the total obtained in the Shallow and Deep Engagement subindexes (see Column 1, Table 3). The Shallow Engagement subindex is measured as the mean of the total obtained from the immediate and deep shallow engagement subindexes. Each subindex is calculated as the ratio of the sum of the items available (scored with a 1) and the total number of items that comprise each subindex. To express this as a percentage, it was then multiplied by 100. In the case of long-term shallow engagement, the total emails and posts sent by the NPO are also considered in order to adequately explore the use of the strategies in proportion to the emails and posts sent in SNS. The coding process was done manually. In particular, data were collected through manual verification through observation and content analysis by three coders (one team member and two independent coders) following specific instructions in a coding manual. Inter-rater reliability was calculated using Holsti's reliability (1969) and was found to be satisfactory (reliability=0.85 > minimum threshold of 0.80). Likewise, an email account and SNS profile were explicitly created to explore the index items.

Secondly, we calculated the online interaction received from SNS to define this variable as the online actions that NPOs receive in response to posts. Secondary data was attained from Facebook accounts. In particular, the number of "likes", "shares", and "comments" for each posting were noted, in line with similar studies of SNS management in the NPO sector (Cho et al., 2014; Alonso-Cañadas et al., 2019; Saxton & Waters, 2014).

Finally, to contrast H1 and H2, an Ordinary least-squares regression was performed, in line with similar studies (Gálvez-Rodríguez et al., 2019). As indicated in Table 2, the dependent variable was donor engagement, defined as private donations supporting an NPO's mission. Hence, it is measured as the sum of total private donations received by an NPO. The independent variables were the management of online platforms, measured by the index, and online interactions, measured by the three online interactions: like, share and comment. The organisation's size, measured as the sum of total revenue received by an NPO, was used as a control variable in line with previous studies (Alexander et al., 2023).

All statistical calculations were carried out using STATA Version 14. The calculation applied for the model is given by the following expression:

$$\text{Donor_Eng} = \alpha + \beta_1 \text{Web\&SNS}_{Eng} + \beta_2 \text{LIKES} + \beta_3 \text{SHARE} + \beta_4 \text{COMMENT} + \beta_5 \text{GOVFUND} + \mu$$

Where α is the constant term, β_j is the vector coefficient to be calculated, and μ is the random error, assumed to be independent and identically distributed, with a mean value of 0.

Table 2: Measurement of variables

Variables	Measurement
Dependent variable: Donors engagement	The natural logarithm of the total private donations received. Private donations from individuals, estates, and corporations, excluding government grants (which are public rather than private), revenue from sales or services (not a gift but rather transactions), and returns on investments (Forbes, 2020).
Independent variable: Online platform management (H1)	Index of the usage of websites and SNS in the engagement process (Web\&SNS_{Eng}).
Independent variable: Online interactions (H2)	The natural logarithm of the number of likes (LIKES), shares (SHARE), and (COMMENTS) associated with posts. The cases with zero values in the interaction variables (likes, shares, and comments) will be disregarded.
Control variable: Size	The natural logarithm of the total revenue received (Forbes, 2020).

4. Results and discussion

4.1. Descriptive analysis

In general terms, NPOs’ use of websites and SNS to promote user commitment is low (see Table 3). Delving further into the different online strategies that foster engagement, 43.67% of the NPOs analysed used *immediate-shallow engagement* strategies. Email sign-up forms, a proactive communication with the online user and an inducement to encourage the user to provide an email address (such as a subscription to a newsletter) were the online actions most used (more than 70% of the sample) by NPOs. There are very few NPOs that develop the capacity of their online platforms to foster *long-term shallow engagement*. Once the NPO has acquired the user’s email address, they do not fully develop an email strategy. The email headers lack the elements that could grab the user’s attention (such as being more personal or containing the word “video”). In this respect, only a limited number of NPOs (less than 14%) provide a short, forthright email header. Information regarding the email content for keeping potential donors updated about upcoming plans or activities is scarce. Indeed, NPOs use emails to report donation activities on the website, primarily using a link to the NPO’s website.

The strategic management of SNS for fostering *long-term shallow engagement* is low. There are very few posts aimed at relating true stories about beneficiaries. It is much more common to push users to the NPO’s website via a post containing a link redirecting the online user to the website to give further information about the organisation. Moreover, only 20% of the NPOs analysed use the website as a social enterprise, that is, to provide merchandise linked with its social mission, catching the interest and “sense of responsibility” of potential donors.

Table 3: Website and SNS management in the engagement process

Online platform management (Shallow +Deep)/2=	35.37
Shallow engagement (ISE+LSE+SE)/3	29.48
1. <i>Immediate-shallow engagement</i> (ISE) $(\frac{\sum_{i=0}^{j=3,100} a_{ij}}{3}) * 100$	43.67
1.1. Homepage video	38.00
1.2. Email sign-up and inducement	78.00
1.3. Double Opt-in	15.00
2. <i>Long-term-shallow engagement</i> (LSE) $(\frac{MAIL+SNS+ES}{3})*100$	15.30
2.1. Long-term email strategies (MAIL) $(\frac{\sum_{i=0}^{j=9,100} a_{ij}}{total\ mail}/9)*100$	11.67
Email header: word video	0.01
Email header: personal	8.50
Email header: forthright, short	13.59
Email content: activities	0.02
Email content: donate	19.20
Email content: volunteer	0.01
Email content: signature collection	4.00
Email format: weblink	69.25
Email format: video	0.23
2.2 Social Media Strategies (SNS) $(\frac{\sum_{i=0}^{j=5,100} a_{ij}}{total\ post}/5)*100$	14.24
Post content: stories posted by the NPO	0.07
Post content: stories posted by beneficiaries	0.36
Post content: action-oriented: donation	0.44
Post format: link to website	46.78
Post format: video	0.31
2.3 Social enterprise. (SE) $(\frac{\sum_{i=0}^{j=1,100} a_{ij}}{1})*100$	20.00
Deep Engagement (IDEEP)	41.25
3. <i>Immediate-deep engagement</i> (IDEEP) $(\frac{\sum_{i=0}^{j=4,100} a_{ij}}{4})*100$	41.25
Online donation strategies on the website: directly on the website	92.00
Online donation strategies on the website: indirect e-commerce	24.00
Online volunteer strategies: volunteer activities	26.00
Online volunteer strategies: contact person to volunteer	23.00

Implementing web technologies to attain an *immediate-deep engagement* is the most common practice among the sampled NPOs. However, NPOs are mainly focused on using web technologies to attract commitments of money donations rather than time. More than 90% of the sample has information on the website on how to donate directly and in different formats. There is a specific section where donors are offered the opportunity to make an automatic monthly or one-off

donation. Likewise, the websites provide information on how to donate on the website's homepage and most other sections with a prominently displayed "donate now" or similar text. Few NPOs incorporate information on their website on how to donate indirectly via buying goods while doing e-shopping, such as Amazon with the AmazonSmile option, where the purchaser can donate a percentage of the price to their chosen NPO. Less than 30% of the NPOs use their websites for online volunteer strategies.

Table 4 presents the results regarding the online interactions NPOs received in response to posts. Findings indicate that, in general terms, online activity on Facebook accounts for approximately 1.27 posts sent per day. Regarding online interactions generated from SNS management, the button "like" is the most used, with an average of 445 "likes" per post expressing support for the NPO's information. To a much lesser extent, online users are keen on using the "share" button to make the posts published by NPOs visible on their timeline and, by extension, an average of 103.7 "shares" per post to their network of friends. Commenting on posts is even less frequent, with approximately 24 comments per post. It is worth mentioning that this online interaction requires the most significant involvement of time and attention. These findings align with previous literature in the sector that indicates that clicking actions are still the "preferred" type of online interaction (Alonso-Cañadas et al., 2019; Guidry et al., 2014).

Table 4: Mean values for the number of users' online interactions

Online Activity	Mean	Max.	Min.	SD
Posts sent per day	1.27	5.67	0.00	1.08
Online interactions	Mean	Max.	Min.	SD
Likes/posts	415.57	3,824.10	0.00	660.36
Shares/posts	103.70	1,094.25	0.00	186.75
Comments/posts	24.10	330.86	0.00	46.61

Note: The indicated mean values are in units

4.2. Empirical analysis

Pearson's Correlation Coefficient was performed for all variables included in the model. According to Taylor (1990), values above 0.7 show a high linear relationship between two variables. The results indicate a moderate correlation between the independent variables related to the online interactions, with the highest correlation being 0.566. Moreover, a test quantifying the variance inflation factor (VIF) is performed. In VIF, values above 10 indicate the absence of independence among the variables (Neter et al., 1996). In our model, the highest VIF is 1.64. After examining both (see Tables 5 and 6), all the variables of the model are maintained.

Table 5: Correlations analysis

Variable	1	2	3	4	5	6
1. Donor engagement	1					
2. Online platform management	0.296**	1				
3. Online interaction: Likes	-0.067	0.018	1			
4. Online interaction: Share	0.005	0.008	0.481***	1		
5. Online interaction: Comment	0.036	0.138	0.566***	0.445***	1	
6. Size	0.645***	0.1861	-0.023	0.000	0.0481	1

Notes: ** $p < 0.05$; *** $p < 0.01$

Table 6 shows the outcomes regarding the influence of online platform management and users' online interactions on donor engagement. The resulting model is statistically significant (Prob F > 0.0000). The expected influence of online platform management (H1) is confirmed. Thereby, when NPOs use suitable website elements to gradually grab the online visitor's attention and interest in the NPO's social mission; they also foster a deep engagement with the organisation regarding private donations. This result supports literature regarding the importance of the quality of the design of websites (Connolly & Hyndman, 2013; Saxton et al., 2014; Hoefler & Twis, 2018) and SNS (Appleby, 2016; Saxton & Wang, 2014; Sircar & Rowley, 2020) for donors' involvement in NPOs social causes.

H2 is not supported, signifying that online interactions from SNS are not meaningful for triggering private donations in favour of the NPO's mission. In particular, results indicate that users' interaction with a "like" in the posts sent by NPOs has a negative, though not significant, effect on donor engagement. Hence, results could suggest that that type of interaction is more "superficial" and could indicate that the post has sparked "agreement" with the NPOs' action; however, they are less strategic for fostering genuine "support" in terms of deeper involvement in the NPOs' causes. Sharing and commenting interactions on a post positively correlate with donor engagement but are not statistically significant. In both cases, this positive relationship could be due to the greater effort and attention that these online interactions require and, thus, a higher level of "commitment" with the NPO compared to the action of "liking" (Bonsón & Ratkai, 2013). Therefore, while there is little doubt that SNS yield indirect financial benefits (Phethean et al., 2015; Saxton & Wang, 2014), we observe that online interactions are not predictors of private donations. These results contrast with previous studies that state that all interactions are significant for donor engagement, albeit in the case of institutional donors (Alexander et al., 2023) or using a heterogeneous pool of donors (Harris et al., 2021).

Finally, the control variable size of the organisation shows a direct and significant relation with donor engagement, which could be due to these organisations having more resources to have greater visibility to key stakeholders and, consequently, better reputation (Elvira-Lorilla et al., 2023).

Table 6: Results regression analysis

Hypothesis	Variable	Coef. (Std. Err.)	t-value	VIF
H1	Online platform management	0.5626 (0.2284)	2.46**	1.06
	Online interaction: Likes	-0.0015(0.0018)	-0.82	1.64
H2	Online interaction: Share	0.0007(0.0017)	0.43	1.61
	Online interaction: Comment	0.0008(0.0086)	0.10	1.38
Control variable	Size	0.4983(0.6483)	7.69***	1.04
	R-squared	0.4543		
	Adj R-squared	0.4246		
	F (5, 92)	15.32		
	Prob>F	0.0000		
	Observations	98		

Note: This table reports the results of OLS regressions to test H1 and H2. *** and ** indicate significance at the 1% and 5% level, respectively, using a two-tailed test. Coef: Standardised beta coefficients. Std. Err: Standard error.

5. Conclusions

This paper contributes to the knowledge regarding the role of online platform management and users' online interactions in fostering engagement with NPOs' social projects. Starting with online platforms, the results evidence the positive effect of managing websites and SNS in donor engagement. Specifically, this management should be oriented towards grabbing the online user's attention and avoiding them leaving the online platform (that is, aiming for immediate, shallow engagement), and then maintaining contact with the user to "feed" the relationship and thus increase the likelihood for attaining a deeper level of engagement (aiming for a deep shallow engagement) in the future and, finally, to ensure that volunteer and donation information is clearly visible on the online platform (aiming for a deep immediate engagement). This study's results contribute to a better understanding of how online platform features support stakeholders' engagement with NPOs' social causes (Albanna et al., 2022; Hoefer & Twis, 2018).

Regarding online interactions, while the "like" clicking action shows support for NPOs' actions in online environments (Lee, 2018; Saxton & Waters, 2014), it seems not to help foster a greater level of involvement with the organisation. The results indicate a negative, though not significant, relationship between the "like" interaction and private donations. Hence, this result supports the work of Saxton et al. (2014), which focused on *Facebook Causes*, a unique Facebook site for organisational fundraising activities, where authors highlight that online users can easily "like" or promote a cause. However, these "like" interactions hardly ever result in actual donations. The findings partially support Weiss and Cohen (2019), who indicate that citizens with greater concern for a social cause are less willing to interact with the SNS.

The online interactions based on sharing and commenting on NPOs' posts with friends positively correlate with donations, albeit not significantly. In this sense, previous studies state that sharing actions foster a greater willingness to volunteer for a social cause (Lane & Dal Cin, 2018) and to promote monetary donations among a pool of heterogeneous donors (Bhati & McDonnell, 2020). This study shows that in the case of private donations, online participation involving sharing or commenting on a post positively affects donor behaviour, although their role is not determinant.

Pertaining to the academic contribution of this paper, it adds to the body of literature that studies the importance of websites (Blouin et al., 2018; Rossi et al., 2020; Saxton et al., 2014) and SNS (Alexander et al., 2023; Bhati & McDonnell, 2020; Harris et al., 2021) as strategic resources for NPOs. At a managerial level, it provides evidence of how online platforms can help online users engage with the NPO's mission. It is worth noting that this study showed, in general terms, little use of the web and SNS elements analysed. In this sense, more significant efforts must be made to use visuals to make the website's homepage more attractive and to design more strategic emails and posts on SNS to spark "interest" and "empathy" among online users for the social mission of NPOs. In addition, NPOs should continue to publish information on how to donate money "everywhere" on their website, although they should broaden the options via partnering with e-commerce businesses by informing donors of the option to donate a percentage of the purchase price to an NPO. Despite publishing information on how to donate, NPOs should include information on becoming more involved with the organisation through volunteering.

Moreover, this paper addresses the need for further research into the tangible benefits of social media interactions on donor engagement (Saxton & Water, 2014; Alexander et al., 2023). The study finds that receiving online interactions from NPOs' social media posts does not directly enhance their fundraising capacity, which contrasts with previous research (Alexander et al., 2023; Elvira-Lorilla et al., 2023; Harris et al., 2021). This may be due to the fact that, in the analyzed sample, donation behavior is more influenced by how the online platform is managed than by the interactions received on social media. In this sense, online interactions may signal effective management and ongoing efforts from NPOs' communications departments (Carrillo-Durán et al., 2023; Hoefer & Twis, 2018). As for the managerial implications, it is recommended that NPOs employ community managers to oversee social media posts and monitor interactions, particularly to encourage sharing and commenting on these posts. The results suggest that increased effort is needed, as sharing and commenting are currently not the most common forms of online interaction, although they showed a positive—though not

decisive—correlation with donor engagement. By enhancing such interactivity, NPOs may improve their relationships with both current and potential donors.

We acknowledge that our study might suffer from some limitations. Our research's regression model includes the organisation's size as a control variable; however, more control variables are recommended. Likewise, the sample is focused on the largest NPOs; hence, the results might not apply to all NPOs. Likewise, this study is focused on websites and Facebook pages as digital resources. Given our network society, research on donor engagement that considers other websites and SNS features would be an important and interesting venue for future research. This is a cross-sectional study and is limited to a specific context, and given the very dynamic nature of digital resources, future works should consider longitudinal and international studies to observe whether the results are similar in other contexts. Finally, data collection for this study is manual; hence, future studies could use software to carry out big data analysis on the use of websites and SNS.

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