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A Scoping Review of the Psychological Perspectives on Online Volunteering

Francesco Tommasi[1] | Federica de Cordova[1] | Anna Maria Meneghini[1] | Elena Marta[2] | Maura Pozzi[2] | Martina Mutti[2] | Flora Gatti[3] | Biagio Marano[4] | Fortuna Procentese[3]

[1]Department of Human Sciences, University of Verona, Verona, Italy | [2]CERISVICO (Research Centre on Community Development and Organisational Quality of Life), Università Cattolica del Sacro Cuore of Brescia, Brescia, Italy | [3]Department of Humanities, University of Naples Federico II, Naples, Italy | [4]University of Modena and Reggio Emilia, Reggio Emilia, Italy

Correspondence: Francesco Tommasi (francesco.tommasi@univr.it) | Anna Maria Meneghini (anna.meneghini@univr.it)

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ABSTRACT

Online volunteering is distinguishable from in-presence volunteering due to its procedural nature as being partially or totally online. Over the past decades, scholars within psychology have been interested in understanding the online volunteering process. However, while bringing attention to the phenomenon, psychology still has to manifest concentrated engagement with online volunteerism. This review seeks to situate the study of online volunteerism in psychology. Using the scoping review approach, the paper maps the psychological perspectives on online volunteering based on sources collected via structured search on PsychInfo, Scopus and Web of Science ($N = 14$). First, it outlines the definitions, theories and evidence-based knowledge of online volunteering. Second, the paper discusses the role of the psychology of online volunteering and its prominent contributions for such a form of volunteerism in documenting, reinforcing and mobilising processes at the individual and social levels. The paper concludes by setting new vistas for research and practices.

1 | Introduction

The internet has long nurtured the social promise of purposeful and voluntary acts directed towards other people or society as a whole (Wright and Li 2012). Scholars within psychology have furthered these ideas with investigations on the paths and experiences of volunteers involved in actions on the Internet and social media, namely online volunteers (Ackermann and Manatschal 2018; Amichai-Hamburger 2008; Cox et al. 2018).

While there are contrasting understandings of what online volunteerism is, existing perspectives indicate a distinguishable shift. For example, Nonprofit and Voluntary Organizations (NPVOs) use the internet to transcend a physical presence with purposes of greater impact on society (De-Miguel-Molina et al. 2024; Sproull and Kiesler 2005), online mentoring (Ihm and Shumate 2022), and online discussion groups and open-source projects (e.g., Wikipedia, Schroer and Hertel 2009). Online volunteerism is hardly homogenous while sharing the essential characteristics of volunteerism depicted in the seminal work of Snyder and Omoto (2008). It implies a series of actions without obligation or coercion which result from one person's deliberation based on their own goals and take place over a period of time. These actions are meant to serve other people or

society as a whole, because of individual's gratitude and for a social cause, and independently of being carried out within organisations or informally.

Nevertheless, there remains a dearth of empirical research on the topic of online volunteering (Amichai-Hamburger 2008; Silva et al. 2018) and conceptual works to model a psychology of online volunteerism (Ackermann and Manatschal 2018; Wright and Li 2012). Earlier publications in journals in volunteerism (e.g., Voluntary Sector Review), computer science (e.g., International Journal of Human–Computer Interaction), psychology (e.g., Cyberpsychology) and the surge of oral presentations at international conferences (e.g., Ye and Kishida 2003; Naqshbandi et al. 2016, 2021; Nov et al. 2011) have expanded our understanding of online volunteerism. However, these contributions are still sparse (Ackermann 2019; Cox et al. 2018; Ihm and Shumate 2022; Silva et al. 2018). The study of in-presence volunteerism has been at the fore in psychology (Snyder and Omoto 2008). Certain questions remain unanswered, particularlyhow online volunteering can be defined in parallel to in-presence volunteerism, and what the antecedents, experiences and consequences of online volunteering are the antecedents, experiences and consequences of online volunteering.

The paper presents the findings of a scoping review of the psychological literature on online volunteering to map and explore the established and emerging contours of knowledge on online volunteering. With online being a context of social promise and the surge of formal and informal projects choosing internet to contribute to people and society, an in-depth analysis of the psychological literature is timely and important. This review outline how psychology can occupy a prominent role in contributing and supporting online volunteering with implications in terms of documenting, reinforcing and mobilising processes of civic participation (Wandersman and Florin 2000). The paper aims to address the research question on 'What are the existing psychological perspectives on online volunteering?' which can be broken down into three sub-questions:

a. How has online volunteering been defined by scholars in psychology?
b. How has online volunteering been theorised in empirical studies in psychology?
c. What psychological drivers and which outcomes at the individual, community and societal levels have been found to be associated with online volunteering?

In the following, we describe the method used for conducting our scoping review. We present our literature search, selection and analysis. We continue with the results of the literature review following our research questions. We discuss our results and outline new vistas for research.

2 | Method

Our research questions imply a certain degree of heterogeneity in the literature in which qualitative, quantitative, theoretical or even literature review contributions can be present. Indeed, our purpose is to map the existing psychological contributions on online volunteering without limiting the scope of our review to sources characterised by specific methodological approaches or theoretical lenses. Then, we undertook our literature review following the methodological lines proposed by Arksey and O'Malley (2005) for a scoping review to make a theoretical, methodological and prospective contribution to future research and application. This methodology is characterised by an extensive focus on the available literature. A scoping review aims to select and examine the information comprised in the contributions. This work is made to define the elements characterising the phenomenon under study, for example, psychological dimensions for studying online volunteering. It is based on the mapping of the key concepts underlying the area of research dealt with, irrespective of the type of contribution in which they are included, and thus favours a diversified reading by broadening the eligibility criteria for inclusion in collecting and synthesising the available sources. Then, data extracted are evaluated for their accordance with the research questions. The scoping review method provides a reliable mechanism for summarising and disseminating research findings taken into account for a common framework.

The present study was preregistered post initial data collection. No variations have been made. The preregistration is available on the registries page of the Open Science Framework platform at the link https://osf.io/tcq92?view_only=8dd528257375434 4a666f965b6b0ed23.

2.1 | Data Collection

2.1.1 | Stage 1: Preliminary Exploration

The data collection procedure consisted of three phases (see Figure 1). In the first phase, the keywords referring to the research questions were defined, for example, 'online volunteering' and 'psychology' These were then tested in international bibliographic research databases (Scopus, PsychInfo and Web of Science), which resulted in $N = 11.082$ items.

2.1.2 | Stage 2: Structured Search and Inclusion/ Exclusion Criteria

To better define the focus of the search for bibliographic material, in the second phase, we used more structured extraction strings with a set of related keywords and synonyms. Notably, we combined different terms for volunteering (i.e., voluntary act, voluntary engagement, voluntary actions, volunteering, volunteerism, volunteering engagement) with different terms for online (e.g., 'online', 'virtual', 'digital', 'on the internet', 'online/offline', 'net' 'internet'). All the terms were considered via the command 'OR', 'AND' and 'AND NOT'. These commands allow users to guide the search by creating specific categories of analysis and data extraction. For example, all the terms related to the volunteerism were added using the 'OR' command. As for the command 'AND', the category of the research domain of psychology is coupled with the category of 'online volunteering', whilst with the command 'AND NOT' it is possible to exclude domains that are not relevant to the research sector such as 'sociology' which is a frequent research field in the study of volunteerism.

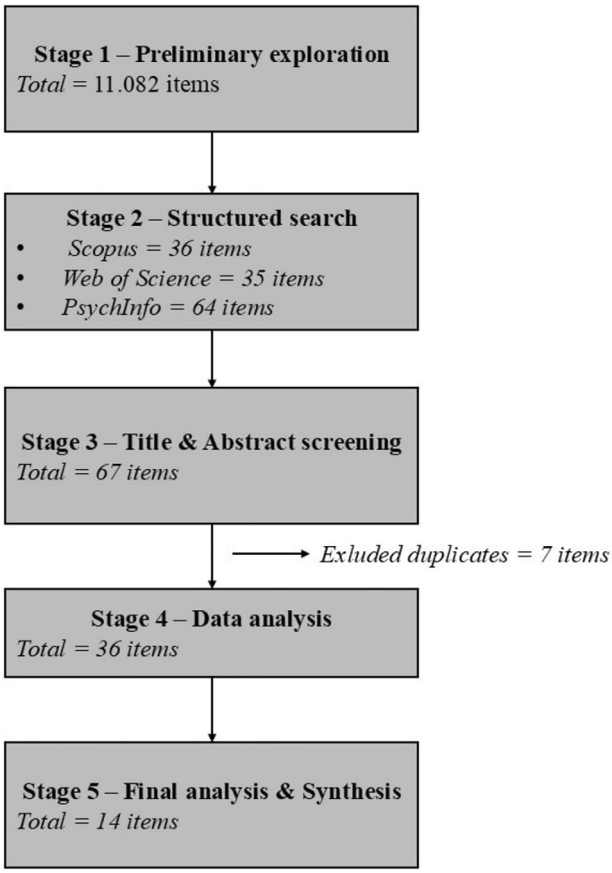

FIGURE 1 | Scoping review stages.

With respect to inclusion and exclusion criteria, we limited our search for language (only English items), peer-reviewed items, and field of sources (only in Psychology or Social Sciences). This led to excluding conference abstracts and proceedings since the only peer-reviewed items criteria cannot be guaranteed and, in turn, the quality of the sources. Due to the exploratory nature of our study, we decided not to limit our literature search based on time range and source type (i.e., journal, book, textbook). At the end of stage 2, we collected $n = 36$ items on Scopus, $n = 35$ on Web of Science, and $n = 64$ on PsychInfo.

2.1.3 | Stage 3: Title and Abstract Screening

The resulting number of items ($n = 67$) was evaluated in the third stage according to research field title and abstract/keywords of the contributions, to discard anything outside the domains of psychology and online volunteering, for a total of $n = 36$ items included for the fourth stage of data analysis ($n = 7$ were duplicates).

2.1.4 | Stage 3: Data Extraction

During the fourth stage (data extraction), three of the involved researchers individually worked to evaluate the collected contributions according to the criteria of the relevance of the contribution and the research questions through the use of an evaluation form. This evaluation form has been developed by the research team based on the indications for conducting a scoping review (Arksey and O'Malley 2005). This was used to scrutinise individually each of the 36 identified items to ascertain whether they matched the research questions. As such, the evaluation form included our research questions to evaluate and redact detailed summaries of the extracted items.

2.1.5 | Stage 5: Final Analysis and Synthesis

At the end of the fourth stage, $n = 18$ were included for the final analysis and synthesis. Then, all the authors were involved in the fifth stage. We used one additional evaluation form (see Appendix A) based on the previous one but integrated with more specific and separate questions on different aspects for our sources spanning from descriptive data (e.g., type of research methodology, sample descriptions for empirical studies). This stage allowed us to develop a clear overview and explanation of the research on online volunteering in psychology while also doing cross-referencing for ascertaining the presence of any potential resources that we had not been able to identify during the structured data collection. Additionally, this strategy permitted us to understand possible linkages among items, as well as identifying possible subfields of themes during the synthesis. After this stage, we compared the extracted overviews and re-evaluated each evaluation form, after which we agreed that four out of the $n = 18$ items did not satisfy the inclusion criteria. Finally, $n = 14$ contributions represented the final pool included for the synthesis (see Figure 1).

3 | Results

3.1 | Overview of the Included Items

The final amount of items included in the scoping review consisted of $n = 13$ empirical studies and only one conceptual contribution (see Table 1). Apart from the conceptual contribution, $n = 5$ studies were cross-sectional, $n = 3$ were based on structured or semi-structured interviews, while the rest used mixed-method approaches combining both qualitative and quantitative methods or presented multiple studies using different methodologies. The contexts in which these studies took place were various; namely, $n = 4$ were held in Australia, $n = 5$ in the Eurasian area (Germany, Israel, Switzerland and United Kingdom) and $n = 2$ in the United States; $n = 2$ studies involved participants on a global level as part of international online volunteering projects (e.g., Wikipedia projects), thus not referring to a specific area. Interestingly, only $n = 6$ items were published in applied social psychology journals (Amichai-Hamburger 2008; Amichai-Hamburger et al. 2008; Mackay et al. 2016; Schroer and Hertel 2009; Naqshbandi et al. 2020, 2023) while $n = 2$ studies were published in volunteerism journals (Ackermann 2019; Cox et al. 2018). The rest of the items were presented in management studies (Ihm and Shumate 2022), computer science (Alam and Campbell 2017), social sciences (Konieczny 2018; Kulik 2021; Mukherjee 2011) or in communication studies (Ackermann and Manatschal 2018). Lastly, the collected items referred to online volunteering in different terms. This is because scholars

TABLE 1 | Overview of the publications included in the scoping review.

N.	Author(s), year	Source	Volunteerism context
1	Ackermann 2019	Nonprofit and Voluntary Sector Quarterly	Generic context
2	Ackermann and Manatschal 2018	New Media & Society	Generic context
3	Alam and Campbell 2017	Information Systems Research	Crowdsourcing
4	Amichai-Hamburger 2008	Computers in Human Behaviour	Generic context
5	Amichai-Hamburger et al. 2008	Cyberpsychology & Behaviour	Wikipedia
6	Cox et al. 2018	Nonprofit and Voluntary Sector Quarterly	Zooniverse—citizen science
7	Ihm and Shumate 2022	Management communication quarterly	Generic context
8	Konieczny 2018	Research in Social Movements, Conflicts and Change	Wikipedia
9	Kulik 2021	Analysis of social issues and public policy	Generic context
10	Mackay et al. 2016	Cyberpsychology, Behaviour, and Social Networking	University Students
11	Mukherjee 2011	Aging international	Generic context
12	Naqshbandi et al. 2023	International Journal of Human–Computer Interaction	Platform for Dementia research
13	Naqshbandi et al. 2020	International Journal of Human–Computer Interaction	Platform for skills training
14	Schroer and Hertel 2009	Media Psychology	Wikipedia

referred to specific forms of online volunteering (e.g., platform-based volunteering, Naqshbandi et al. 2020, 2023) or to online volunteering in general without making any specific distinction for the type of voluntary action (e.g., Ackermann 2019) (Table 2).

3.2 | Definitions of Online Volunteering

There were no formal definitions of online volunteering across all the collected items. For example, Mukherjee (2011) described online volunteering as a 'type of civic engagement where the volunteers perform their tasks using the Internet either from their home or other offsite locations' (p. 253). This resounds with Ackermann and Manatschal (2018) work and how 'no standard conceptualization of online volunteering exists in the literature' (p. 4456). A minority of the collected items ($n = 3$) did not report any reference to definitions of online volunteering. In these cases, authors simply considered online volunteering in general (Amichai-Hamburger et al. 2008) or referred to specific types of volunteering (Konieczny 2018; Schroer and Hertel 2009).

Nevertheless, the analysis of the collected definitions yielded a series of elements that can be considered to propose a unique definition of online volunteering. First, authors refer to the fact that online volunteering is a form of volunteering that is not far from in-person one, with the only exception of being online and not in person (Ackermann 2019; Amichai-Hamburger 2008; Kulik 2021; Mackay et al. 2016; Mukherjee 2011). It appears that the main characterising element of online volunteering refers to the spatial character. This definition implies that the same essential characteristics of volunteerism can also be applied to online volunteerism (Snyder and Omoto 2008).

Second, some authors focused on the types of tasks performed to further describe online volunteerism (Ackermann and Manatschal 2018; Amichai-Hamburger 2008; Cox et al. 2018; Ihm and Shumate 2022; Naqshbandi et al. 2020) and opened to novel perspectives. The activities in online volunteering are various and span from 'administering the website of a club, moderating a Facebook group, contributing to a Wikipedia entry, recording a non-commercial instructional YouTube video, or engaging in Couchsurfing' (Ackermann and Manatschal 2018, 4456), to 'conducting online mentoring and tutoring, preparing tax returns, translating, updating an NPO's website, or offering legal support' (Ihm and Shumate 2022, 584). Some of the reported activities extend essential characteristics of the model of volunteerism (Snyder and Omoto 2008). While engaging in a voluntarism involves deliberation or decision making by the person, the voluntary action online per se can extend such a deliberation. Managing a Facebook or a WhatsApp group as well as copyediting Wikipedia pages is a form of distant communication in which volunteers may engage for different time frames. For example, communication might depend on the number of interactions to an online post. These are not limited over a specific timeframe as for in person communication but rather occur occasionally with possible requirements of volunteers to be constantly available online and independently of their willingness. However, this also allows for more possibilities of episodic or occasional forms. For example, Mackay et al. (2016) use the terms micro- and macro-volunteering for 'bite-size volunteering with no commitment to repeat and with minimum formality, involving short and specific actions that are quick to start and complete' (p. 257). With respect to this, some studies ($n = 2$) also include online citizen science activities as examples of

TABLE 2 | Methodologies, research context, definitions, and psychological theories/models.

N	Author(s), year	Country	Methodology	Sample	Volunteerism context	Online volunteerism definition	Theory/model
1	Ackermann 2019	Swistzerland	Mixed-method study	$N = 5721$	Generic context	'Online volunteering, or virtual volunteering, can be understood as a type of civic engagement where the volunteers perform their tasks using the Internet either from their home or other offsite locations' (Mukherjee 2011, 253)	Big Five Personality Model
2	Ackermann and Manatschal 2018	Swistzerland	Cross-sectional study	$N = 5721$	Generic context	'type of civic engagement where the volunteers perform their tasks using the Internet either from their home or other offsite locations' (Mukherjee 2011, 253). [...] 'no standard conceptualization of online volunteering exists in the literature' (p. 4456)	Civic Voluntarism Model (Verba et al. 1995)
3	Alam and Campbell 2017	Australia	Case study	NA	Crowdsourcing	'new forms of digital volunteerism are neither regulated by contract, nor are participants offered financial incentive' (p. 744)	Self-determination theory (Deci and Ryan 2002)
4	Amichai-Hamburger 2008	NA	Conceptual paper	NA	Generic context	'[...] activities are many different, including running online projects, translating important materials from one language to another, offering legal support, designing websites which help populations in need, creating study materials for online use, etc.' (pp. 545–546)	Prosocial behaviour (Eisenberg and Mussen 1989)
5	Amichai-Hamburger et al. 2008	Online community	Cross-sectional	$N = 139$	Wikipedia	Context-specific, no formal definition of online volunteerism, i.e., Wikipedia	Big Five Personality Model

(Continues)

TABLE 2 | (Continued)

N	Author(s), year	Country	Methodology	Sample	Volunteerism context	Online volunteerism definition	Theory/model
6	Cox et al. 2018	'Zooniverse'	Cross-sectional	$N = 1915$	Zooniverse—citizen science	'Internet-based volunteering projects are truly many and varied, but typically involve aggregation of input from large numbers of contributors working together towards a common goal' (p. 1032)	Volunteer Functions (Clary et al. 1998)
7	Ihm and Shumate 2022	USA	Study 1: Interview Study 2: cross-sectional	Study 1: $n = 31$ Study 2: $n = 816$	Generic context	'[online volunteerism] represents the transformed relationships between organisations and individuals. Because online volunteering provides limited opportunities for natural interactions compared to offline volunteering' (p. 584)	Social Identity Theory (Turner and Onorato 1999)
8	Konieczny 2018	UK	Cross-sectional	$N = 122$	Wikipedia	Context-specific, no formal definition of online volunteerism, i.e., Wikipedia	Burnout model (Schaufeli and Enzmann 1998)
9	Kulik 2021	Israel	Cross-sectional self-report and open questions	$N = 657$	Generic context	'traditional volunteering that is carried out mainly face-to-face, virtual volunteering that is performed digitally (WhatsApp, Zoom, etc.), and hybrid volunteering that combines traditional and digital volunteering' (p. 1223)	Volunteer Functions Inventory (Clary et al. 1998)
10	Mackay et al. 2016	Australia	Study 1: Focus group Study 2: 2-wave longitudinal study	Study 1: $n = 21$ Study 2: $n = 303$	University Students	'Online micro-volunteering occurs via an internet-connected device' (p. 257)	Theory of planned behaviour (Ajzen 2012)
11	Mukherjee 2011	USA	Interview	$n = 22$	Generic context	'[...] type of civic engagement where the volunteers perform their tasks using the Internet either from their home or other offsite locations' (p. 253)	Civic engagement (Putnam 2001)

(Continues)

TABLE 2 | (Continued)

N	Author(s), year	Country	Methodology	Sample	Volunteerism context	Online volunteerism definition	Theory/model
12	Naqshbandi et al. 2023	Australia	Cross-sectional	$N=266$	Platform for Dementia research	'Online volunteering platforms can be classified into two groups based on the time commitment and efforts required for the volunteering tasks. The first group of platforms can be described as micro-volunteering platforms (Bernstein et al. 2013) which require minimal volunteer time commitment in form of microtasks. [...] The second group of platforms is macro-volunteering platforms with significant time demands in terms of the volunteering tasks' (p. 1326)	Self-determination theory (Deci and Ryan 2002)
13	Naqshbandi et al. 2020	Australia	Study 1: cross-sectional, Study 2: workshop and interview	Study 1: $n=66$ Study 2: $n=30$	Platform for skills training	'Digital or online voluntary services are used during crisis and disasters [...], for advocacy and in civic services [...], for capacity building in NGOs [...], and more. In the last two decades, online voluntary work has additionally extended work associated with knowledge contribution. [...] The understanding and definition of digital or online volunteerism have therefore expanded to include many forms of online work' (p. 4090)	Self-determination theory (Deci and Ryan 2002)
14	Schroer and Hertel 2009	Germany	Cross-sectional	$N=106$	Wikipedia	Context-specific, no formal definition of online volunteerism, i.e., Wikipedia	Klanderman model on social motives (Klanderman, 1997)

online volunteering. While citizen science refers to any activity that involve non-academic public in research activities at different extents—and is therefore not considered to be a form of volunteering in offline space (Vohland 2021)—in the internet online citizen science platforms are space 'where individuals contribute to scientific research through classification, identification, observation, categorization, or curating of data' (Naqshbandi et al. 2020, 1326) and they 'typically involve aggregation of input from large numbers of contributors working together toward a common goal' (Cox et al. 2018, 1032). Furthermore, while some differences exist, citizen scientists voluntarily choose to play that role in citizen science projects without expectations of rewards (Haklay 2013, 2015), which makes their psychological experiences and antecedents also partly similar to volunteers (Procentese et al. 2024).

Lastly, the nature of online volunteerism might make it impossible for volunteers to identify direct beneficiaries or a specific cause as the voluntary activity. Definitions of online volunteering also refer to relational and organisational aspects. With reference to relational aspects, authors emphasised the nature of online volunteering as a form of volunteering that does not necessarily need to be interactive both among volunteers and with beneficiaries (Ackermann and Manatschal 2018; Ihm and Shumate 2022). However, in the case of large communities with disparate beneficiaries, authors discussed the virtual sociability of online volunteering. One strand of forms of online volunteerism covers small-to-large communities in which volunteers exchange at different levels with other volunteers or beneficiaries. In certain forms of online volunteering, the communication is reduced to specific activity-related plans, which might reduce opportunities for building relationships among volunteers. Then, online volunteering does not appear as a non-relational place, but rather a relational space (Naqshbandi et al. 2023; Naqshbandi et al. 2020) which can be meaningful (Cox et al. 2018), but also limited (Ihm and Shumate 2022; Konieczny 2018).

Independently of the type and quality of interactions, authors discussed how online volunteering occurs within a community or an organisation that can be formal or informal. This can be the case of large NPVOs that provide infrastructures for online volunteering (De-Miguel-Molina et al. 2024), but also full-online organisations based on specific internet infrastructure, for example, Wikipedia. While these are examples of formal organisations that are institutionally and internationally recognised, there are also informal organisations and communities in which volunteers made use of different virtual infrastructure for their activities (e.g., Facebook) (Cox et al. 2018).

The themes used by authors to present online volunteering call for some considerations on the way it can be defined. The strand of psychological research on online volunteering acknowledges how defining online volunteering requires intertwining different characters of the online space (Ackermann and Manatschal 2018). For example, online volunteers appear to be ubiquitous. Their work can reach multiple beneficiaries while also being constantly available thanks to the online space. In sharp contrast, online volunteering is also a form of volunteering that can exert attraction on people who can occasionally serve as volunteers for specific tasks (Mackay et al. 2016; Naqshbandi et al. 2020). A distinct definition of volunteerism can therefore be said to emerge from the various themes reported that focus on the developing types of online volunteerism.

3.3 | Theories in Psychological Investigations on Online Volunteering

As for the definition of online volunteering, the analysis yielded different theoretical approaches and psychological models. This is due to the specific focus of each item which spans from interests in motivations for online volunteerism to other intra-psychological and individual dimensions. Nevertheless, we noted that most of the collected items included studies based on the theoretical mainstays of the study of volunteerism in psychology.[1] In $n = 2$ studies (Cox et al. 2018; Kulik 2021), authors referred to the Volunteer Functional Inventory (VFI) (Clary et al. 1998) and discussed its applicability to explore and describe the motivational pathways to online volunteering. The VFI represents a well-established instrument for the study of motivation in volunteerism that is integrated into the theoretical framework of the volunteer functions model (Snyder and Omoto 2008) which offers a processual description of volunteerism. Kulik (2021) reported how, during the pandemic, individuals engaged in online volunteerism by following self-oriented motivations (e.g., instrumental motivations) and others-oriented motivations (altruistic motivations), while Cox et al. (2018) showed the variations of motivations over time in the context of citizen science. Together, these studies acknowledged the potential of the application of the VFI perspective in the study of online volunteers' motivations.

Second, $n = 3$ studies (Alam and Campbell 2017; Naqshbandi et al. 2020, 2023) made use of the self-determination theory (SDT; Ryan and Deci 2000). Although it is not a specific theory developed for studying volunteerism, the SDT represents a wide theoretical lens that has been applied in the study of volunteerism (Millette and Gagné 2008). In one case, authors refer to the SDT to analyse qualitative data collected on a sample of volunteers from a crowdsourcing of non-profit organisations (Alam and Campbell 2017). Similarly, Naqshbandi et al. (2023) evaluated volunteers' participation in a citizen science campaign in Australia in order to understand the features that facilitate or hinder online volunteer participation. Similarly, Naqshbandi et al. (2020) used SDT to explore the experience and perceptions of online volunteers engaging in training activities for helping medical students to learn and improving their communication skills through mock interviews in an educational programme. As in the study of Kulik (2021), Naqshbandi et al. (2020) compared the experiences of online and in-person volunteers.

Third, $n = 2$ studies (Ihm and Shumate 2022; Mackay et al. 2016) employed other well-established social psychological models to approach online volunteering. Mackay et al. (2016) used the theory of planned behaviour (TPB) (Ajzen 2012) in order to define which are the roots of the intention to volunteer in online contexts. This is like the study by Ihm and Shumate (2022) who used the Social Identity

Theory (Turner and Onorato 1999) to identify the reasons why individuals engage in online volunteering. Accordingly, volunteers engage for a sense of moral obligation (Mackay et al. 2016) but have no allegiance to any organisation at all (Ihm and Shumate 2022). Moving to the study of individual characteristics, $n = 3$ additional studies employed other well-established personality models (Ackermann 2019; Amichai-Hamburger 2008; Amichai-Hamburger et al. 2008). Ackermann (2019) referred to the model of Big-5 personality traits to investigate who engages in online volunteering. Similarly, Amichai-Hamburger et al. (2008) used the Big-5 model to define the profiles of the personality of Wikipedians. In addition, in a conceptual work, Amichai-Hamburger et al. (2008) discussed how the model of prosocial motivation and prosocial behaviour (Eisenberg and Mussen 1989) can be used to conceptualise the individual, interpersonal and group level advantages of online volunteering.

Fourth, $n = 1$ study (Konieczny 2018) followed an organisational psychology perspective and focused on work engagement and burnout (Schaufeli and Enzmann 1998) to explore stress and dropouts from online volunteering to understand triggers of turnover and quit intentions among online volunteers.

Lastly, the remaining $n = 3$ studies adapted sociological models to approach psychological dimensions occurring in online volunteerism. To understand the relational dimensions and interindividual aspects of online volunteerism, Ackermann and Manatschal (2018) adapted the Civic Voluntarism Model (Verba et al. 1995) to explore the processes activated by the possibility to engage in online volunteering. This model served to understand processes of mobilisation, that is, how online volunteering mobilises individuals to engage in voluntary activities, and reinforcement, that is, how online volunteering reinforces motivations to engage in voluntary activities. These ideas resound in the study by Schroer and Hertel (2009) who investigated the motives to engage in online volunteering by revisioning the model of Social Motives (Klandermans 2003) applied in the German Wikipedia context. In doing so, they also made use of the construct of civic engagement (Putnam 2001) as well as Mukherjee (2011) in his study on motivations for online volunteering in older adults.

Taken together, scholars' attempts to approach online volunteering grounded in a psychological perspective or revising sociological approaches in psychological terms reflect existing literature in psychology on volunteerism. For example, the application of both classic general psychology and social psychology models shows how scholars prioritise questions on cognitive, emotional, behavioural and motivational aspects by also extending such research endeavours with questions on identity, relational, and ethical aspects. This highlights the need to also consider alternative views—while considering essential characteristics of volunteerism—when addressing the context of online volunteering.

3.4 | Processes of Online Volunteering

There remains a certain degree of fragmentation in the sequential interaction of online volunteerism antecedents, experiences and consequences at the individual, interpersonal, organisational and societal levels.

3.4.1 | Individual Level

Most of the collected psychological investigations address questions on antecedents of individual engagement with online volunteering. Accordingly, the majority of the studies undertook analysis of the motivation to online volunteering. Alam and Campbell (2017) analysed the motivation of Australian volunteers to engage in crowdsourcing for NPVOs. In this case, they showed how most of the volunteers were internally motivated (person-oriented) by the wish to realise certain tasks (i.e., proofreading) as a form of expression of their personal sense of competence. This is due to their previous or current job positions or personal interests. For some others, engaging in online voluntary actions was a form of engaging in leisure time. However, volunteers are also motivated by external factors (other-oriented) in terms of the significance of their voluntary work for others. Such motivation is strengthened by external recognition, feedback or advocacy. Independently of being person- or other-oriented, these motivations broadened over time; that is, they became more defined and incorporated social values (e.g., altruism). Lastly, motivations to volunteerism represent the main cause of the quality and quantity of engagement. This aspect resonates with the work of Cox et al. (2018) who presented how career orientations and social motivations have less significant associations with volunteers' initial engagement than those person- and other-oriented motivations. As for the crowdsourcing sample of Alam and Campbell (2017), the group of citizen scientists investigated by Cox et al. (2018) broadened their motivations over time to also include social values and protective motivations.

The in-depth analysis of Schroer and Hertel (2009) of motivations for online volunteering in the Wikipedia context revealed how the most important element for individuals is the significance of the task and its societal value. In turn, this can impact satisfaction with online volunteering engagement. That is, wikipedians are initially motivated by the possibility of contributing to open and broadening knowledge by editing and writing entries for the online encyclopaedia. In this sense, the authors discussed how online volunteering is characterised by the possibility to generate opportunities for future generations, namely generativity. That is, generativity is defined as the concern for and the commitment to the next generation, as expressed through parenting, teaching, mentoring, and other activities that aim to leave a positive legacy of self for the future (McAdams and de St. Aubin 1992). When generative concerns and commitments take place in the community, in organisations or groups, we are in the presence of a public expression of generativity called social generativity. It is now well known that social generative concerns are often expressed in volunteers activities and may be related to people's motivation for in-person volunteering (Pozzi et al. 2014). According to the revised literature, it appears that this link also exists in the case of online volunteering. Moreover, aspects of autonomy and flow experience (Csikszentmihalyi 1988; Ryan and Deci 2000) in the execution of the voluntary acts are also crucial intrinsic motivations. Taken together, antecedents of motivation and motivation itself increase satisfaction and the level of engagement in online volunteering.

For Kulik (2021), motivations for online volunteering are similar to those of in-person volunteering. In her study, three

groups of volunteers were involved: in-person, online and hybrid volunteers (i.e., those who exchanged volunteering acts both online and in presence). Social solidarity appears to be the most common motivation for each type of volunteering, whilst instrumental motives and volunteerism as a form to escape from reality were the lowest. Nevertheless, the three groups have different experiences since hybrid volunteers feel much pressure in realising their activities, which in turn makes them experience negative affects but also a greater sense of contribution towards society. In contrast, online volunteers perceive less satisfaction because of the reduced level of recognition and feedback, which reduces the possibility of experiencing positive emotions in their interaction with beneficiaries. The direct contact in hybrid and in-person volunteering allows for direct and face-to-face feedback. Kulik's (2021) findings resonate in the comparison between online and in-person volunteers realised by Naqshbandi et al. (2020). Using the SDT, which refers to three basic psychological needs (autonomy, competence and relatedness), to investigate the antecedents of motivation to online and in-person volunteering, the authors compared the extent to which each of these basic needs is important to distinguish the two groups. Accordingly, individuals decide to engage in online or in-person volunteering for multiple reasons. However, for online volunteers, the sense of autonomy is the main source of intrinsic motivation, while for in-person volunteers, both the sense of relatedness and autonomy are important for motivation to volunteering. Unsurprisingly, the quality of social interactions among in-person volunteers is higher than for online volunteers. Nevertheless, each group of volunteers shares the opinion that volunteering is an occasion for competence development while also creating opportunities for future generations (i.e., generativity).

Another strand of research refers to attitudes towards online volunteerism. While these studies discuss motivational aspects, they approach it by discussing individuals' attitudes as drivers of intention to volunteering and actual volunteering. Mackay et al. (2016) extended the TPB and provided evidence that both the dimensions of behaviour, norms and control are significant predictors of intention to volunteering. In this, subjective norms are significant predictors of first-volunteering experience yet they expire on a long-term basis. Conversely, group norms support the maintenance of engagement in volunteerism. Similarly, Mukherjee's (2011) study adds to the identification of the roots of online volunteers a series of additional motivational elements. Positive attitudes and technology confidence levels are sources of volunteer engagement in quantitative and qualitative terms. This relation is also supported by the fact that online volunteering allows people to engage in voluntary acts from different locations while also increasing opportunities for sociability through interactions with multiple individuals from different geographic areas and organisations.

Scholars have been interested in operating empirical distinctions among volunteers based on the form of volunteerism (in person or online) intertwined with personality traits. For example, Amichai-Hamburger et al. (2008) discussed the reasons of Wikipedia members as a matter of an individual's personality. That is, Wikipedia members show to have low levels of agreeableness, openness to experience and extraversion, and this appears to be the reason for their investment in online interactions. In contrast, Ackermann (2019) discussed how conscientiousness hinders participation in online volunteerism, while emotional stability and openness to experience represent significant predictors of online volunteerism in general. However, Ackermann reported how personality traits play a moderate role in explaining the volunteerism process since work contract (full-time vs. part-time), situational conditions, and type of jobs have a large influence on the decision to engage in online volunteerism.

Lastly, themes of organisational identification and meaning-making have also been part of the psychological inquiry into the study of online volunteerism. Ihm and Shumate (2022) reported that, while people engage in online volunteering for different reasons, their motivation to continue is supported by the possibility to exchange communications among volunteers and beneficiaries, which in turn increases their identification with the NPVO. For Naqshbandi et al. (2023), online volunteerism creates opportunities for meaning-making, thanks to which five identity types emerge based on individual values and motivations. The thematic analysis revealed online volunteers self-identified as (1) learners, (2) individuals who can create an impact in society or (3) connect with different people. Others appear to be volunteers because of (4) their familiarity with volunteerism. Finally, some volunteers present themselves as (5) those who want to create a better future for the new generations.

3.4.2 | Interpersonal and Relational Level

Only a limited number of studies included interpersonal level aspects. This is not surprising as aspects of relationality are limited to specific forms of online volunteering, and they are also generally mediated by the digital space. While Amichai-Hamburger (2008) discussed how online volunteering can have both communicative and informative advantages, this does not appear to be a source of motivation or satisfaction in general in the volunteers' experience but only a source for meaning-making and self-identity (Ihm and Shumate 2022). For example, in the above-described study by Naqshbandi et al. (2020), sense of relatedness with beneficiaries does not predict internal nor external motivation of online volunteers. The empirical study by Konieczny (2018) is the only one in which the relational aspects among volunteers were the core interest. The author investigated how burnout and retention of online volunteers was related to the quality of the relationship among volunteers and the presence of conflicts among them and with users of Wikipedia. The results indicated that Wikipedians tend to opt out their volunteering activities because of changes in their career pathways or for other personal reasons, yet burnout among them results from online conflicts and negative exchanges with other volunteers.

Although psychological investigations on the relational aspect of online volunteering are still at their infancy, these findings and arguments appear to be interesting and open to new vistas for research. Indeed, even if interactions and relationships are not face-to-face, they can play a significant role in volunteers' identity and lived experience.

3.4.3 | Organisational and Societal Level

Perspectives and empirical evidence on aspects of online volunteering at the organisational and societal level are also limited. For example, Schroer and Hertel (2009) referred to the Job Characteristics model in order to investigate the effects of task characteristics on motivations, satisfaction and engagement of online volunteers of German Wikipedia. Interestingly, the mission of Wikipedia and its free and open nature trigger individuals to engage in such a form of online volunteering. To maintain such motivation, volunteers reported the role of autonomy in executing tasks that are considered significant in terms of their social impact. These results can be read in parallel to Ackermann and Manatschal's (2018) study on the role of online volunteering as a reinforcing factor for those who already have a past as volunteers, and as a mobilising factor for new volunteers. With this respect, it appears that when NPVOs invest in emerging forms of volunteering, this can support the commitment of their volunteers but also attract novel figures to their organisations. This is also interesting because of the potential for NPVOs to incorporate different generations in their organisations. For example, male teenagers and young adults (15–34 years) appear to be more attracted to online volunteering. This seems to be related to the fact that the internet allows a lower degree of commitment and obligation while also guaranteeing anonymity, yet the main reason is the higher level of expertise with digital tools among this population. In contrast with in-person volunteering, those who decide to volunteer online do not do so necessarily because of extensive resources, social networks or psychological engenderment but rather because of their technical skills and the flexibility of such a form of volunteering. What is more, engagement in online volunteering mobilises volunteers to engage also in in-person volunteering activities.

4 | Discussion

In this paper, we aimed to present the current knowledge and evidence base concerning the psychology of online volunteering using the methodological lines of the scoping review. Following the emergence of literature on online volunteering in parallel with the growth of the phenomenon on a global level (UNV, 2021), we surveyed peer-reviewed scientific publications to identify existing contributions on online volunteerism using a psychological perspective. We did so based on the methodological guidelines for scoping review (Arksey and O'Malley 2005) supporting an inclusive and less-strict approach as a means for mapping the literature of psychology of online volunteerism. The analysis and synthesis of $n = 14$ items show that the academic publications dealing with online volunteerism in psychology are various and fragmented. Independently of the methodology used, the collected publications followed different definitions of online volunteerism indicating a lack of agreement among scholars on how to define it and how to consider online volunteerism in psychology. Indeed, this is also evident in the sparse theoretical framework used by the authors of the collected publications. Some authors followed classical models and theories applied in the context of volunteers (e.g., SDT), while others adopted models from close disciplines (i.e., sociology) with the aim of exploring psychological dimensions. In turn, due to the application of theories and approaches developed for the study of in-person volunteerism, extant literature is limited in identifying a unified framework for studying antecedents, experiences and consequences of online volunteering.

4.1 | Theoretical Contributions

In principle, given the ever-expanding phenomenon of online volunteering, the lack of a unifying definition in its considerations in psychology is significant. That is, this lack is specifically relevant as this implies the need for a fundamental basis for scholars and practitioners in the field. The publications we reviewed suggest that it overlaps only partially with definitions of in-presence volunteerism. Snyder and Omoto (2008) outlined that volunteerism covers (a) voluntary actions, (b) occurring over a period of time, and (c) providing services to others or a further cause, (d) without imposition. These actions result from (e) deliberations of the volunteers without expectation of rewards and (f) within a specific organisation. As noted, considerations of online volunteerism in the psychological literature do not reflect this perspective. Performed tasks and types of activities remind us of different ideas of volunteers' deliberations, their relationships, and their endurance over time (De-Miguel-Molina et al. 2024; Ihm and Shumate 2022; Mackay et al. 2016). Moreover, the nature of online volunteerism makes the identification of direct beneficiaries opaque when performing certain activities (Ackermann and Manatschal 2018). Lastly, these activities do not always involve a formal organisation (Cox et al. 2018). What is more, we witness an increase in international collaboration for research and development projects, for example, citizen science and open-source projects. While these projects are often realised by volunteers, they have also been criticised as forms of (a) unpaid labour, (b) training initiatives, or (c) participatory research and not always recognised as forms of volunteerism (Vohland 2021). However, these are only some of the new forms of collective participation in which individuals engage on a voluntary basis. For example, the internet has been witnessing the increase of new phenomena such as the sleuthing communities. These are groups of independent individuals who work together online to focus on crime and missing persons investigations to solve them (Yardley et al. 2018). While these phenomena appear to be made by groups of individuals who voluntarily engage in actions that serve a social cause and/or benefit others who need help, they remain quite unobserved in the literature on online volunteerism and particularly from a psychological perspective.

Regarding the evidence-based knowledge on online volunteerism, the theme remains a complex area that obstacles possible concrete integration of the theoretical contributions. Much of the literature directly addresses the motivational processes by which individuals decide to volunteer and sustain such engagement. This is part of the tradition of studies on volunteerism. Indeed, we found that psychological investigations on online volunteerism have applied the Functional approach and the SDT to construct perspectives on online volunteering motivation (Cox et al. 2018; Kulik 2021). Other authors have opted for more typological and individual differences studies by using the TPB, the Social Identity Theory and personality traits perspectives to

understand who volunteers online and the drivers of volunteerism (Ackermann 2019; Amichai-Hamburger 2008; Amichai-Hamburger et al. 2008; Ihm and Shumate 2022; Mackay et al. 2016). We found that the literature presents also investigations of online volunteerism as formal organisations and investigated the nonpaid work experience by adopting organisational psychology approaches (Konieczny 2018). Lastly, authors have adapted sociological perspectives in order to offer wide psychological investigations on motives of online volunteering (Ackermann and Manatschal 2018; Mukherjee 2011; Schroer and Hertel 2009).

Extant literature is not capable to inform about the core psychological processes of online volunteerism, but only to replicate existing perspectives of in presence volunteerism (Kulik 2021; Naqshbandi et al. 2020). For example, authors discussed how motivations are the main indicators of quality and quantity of engagement in online volunteerism (Alam and Campbell 2017; Cox et al. 2018). In this, as for in presence volunteerism, aspects of individual differences are not sufficient elements to understand why individuals decide and continue to volunteer. However, the engagement in online volunteerism seems to depend, to an important extent, on situational conditions and the specificity of the context (i.e., the Internet and social medias, Amichai-Hamburger et al. 2008; Ackermann 2019; Mackay et al. 2016; Mukherjee 2011). For example, task and contribution' components of online volunteerism exert positive effects by increasing the willingness to volunteer (Schroer and Hertel 2009). In parallel, online volunteerism offers meaning-making opportunities that seem to trespass aspects of personality, and motivations. Naqshbandi et al. (2023) argued that online volunteerism creates opportunities for meaning-making thanks to which identity types emerge based on individual values and motivations. Similarly, Amichai-Hamburger (2008) discussed how online volunteering can have both communicative and informative advantages which support meaningful experiences and contribute to positive self-identity. Notably, Ihm and Shumate (2022) emphasised the role of relationships and the possibility of distant communication which can also be detrimental and lead to conflicts or cause burnout among volunteers (Konieczny 2018). Despite the limited number of academic contributions, evidence on the interactions and relationships among volunteers and beneficiaries seem to play a significant role in online volunteerism.

Furthermore, although much of the literature does not directly address organisational aspects, there seems to be an emerging interest in these aspects in online volunteerism approached via a psychological perspective. Ackermann and Manatschal's (2018) study emphasise the role of online volunteering as a reinforcing factor for those who already have a past as volunteers, and as a mobilising factor for new volunteers. It appears that online volunteerism supports the commitment of volunteers but also attract novel figures in organisations. Interestingly, previous literature on in presence volunteering illustrated that commitment to the organisation predicted the intention to volunteer in the long term, once the volunteers' role identity has developed (Chacón et al. 2007; Vecina et al. 2013; Marta et al. 2010). To this, the study by Schroer and Hertel (2009) informs that online volunteers maintain their engagement due to the possibility of autonomy in executing their tasks which appear a significant element in the organisation and realisation of online volunteerism.

At this stage, it is worth noting that the disparate range of theories, technologies and empirical evidence presented in our review can be interpreted by proposing a tentative definition of online volunteering from a psychological perspective. As noted, the lack of a clear definition of online volunteerism has represented a challenge for research in psychology and resulted in sparse perspectives. However, this also indicates possibilities to interrogate psychology's own understanding of volunteerism and social participation online. Taking our review as inception, we can argue that psychological considerations of online volunteerism indicate that online volunteerism involves (a) voluntary actions that (b) occur over a defined period although they can also unfold over time without clear limitations due to the atemporality of online communications. In parallel, online volunteerism allows more occasional engagement (i.e., micro-volunteering). These actions (c) provide services to others or a further cause (d) without imposition and (e) specific expectations of rewards. However, online volunteerism (f) allows more informal and less regulated activities without the necessity of a specific organisation, yet it can complement traditional activities of in-person volunteerism, representing opportunities for hybrid volunteerism. Lastly, online volunteerism is characterised by (g) liminal awareness of the beneficiaries despite serving a cause or providing services to others. This is also due to (h) the type of relationship that is strongly dependent on the virtual dimension. Ultimately, while online volunteerism appears to overlap with Snyder and Omoto (2008) perspective, its characteristics inform about the need for a broader classification of online volunteerism which can include also the possibility of hybrid forms of volunteerism complementing in-person volunteerism.

Extant literature can represent a step forward in understanding psychological processes of online volunteerism, yet there is space for novel approaches. We noted how scholars were not capable of defining the motivational processes, and there remains some confusion on the pathways to online volunteerism. Research to date has examined multiple intra-psychological, individual, relational, and contextual dimensions within different groups of online volunteerism. Some progress can be made by (a) distinguishing motives of online volunteering by encompassing not only types of volunteerism, but also (b) the relevance of online environments in providing opportunities for such engagement. Aspects of identity, relationality and belonging to local and global communities can be projected online, calling scholars for research explicitly addressing these elements together in different voluntary groups. Moreover, as noted, generativity and ideas of future generations seem to be crucial in motivating online volunteerism. This can be due to the longstanding nature of actions in the online environments but also its global potentials. These aspects might be more salient in online volunteerism than in presence volunteerism. It is worth arguing that these aspects can represent a crucial element for the lived experience of online volunteerism.

4.2 | Limitations and Future Research

In our literature review, we followed the scoping review approach with rigour, yet there are some potentially limiting factors. Given the ever-expansion of technology, we maintain that the existing literature is not sufficient to inform and reinterpret the study of online volunteerism in psychology. This is the main

reason for using the scoping review approach. In reviewing the collected items, we are aware that certain forms of online volunteerism might be excluded due to the use of specific structured searches. This is the case for not in English, not peer-reviewed publications, and works that are not indexed in the databases used for our research. For example, when reviewing the data collected, we noted that a number of conference proceedings on online volunteerism are present, yet it was not possible to ascertain peer-review criteria. While we decided not to include these sources in our review to maintain a rigorous and strict approach in sources screening, these sources may contain additional insights. Although we were forced to make such decisions, these do not represent main limitations as we extended the scope of our search by including contributions from contexts and academic journals that were not only in the field of psychology.

Nevertheless, future research might consider theoretical implications. First, our provisional definition of online volunteerism for the psychology literature can spur reflections on how to empirically and theoretically approach the study of online volunteerism. This is particularly relevant for investigations on hybrid forms of volunteerism (i.e., comprising both in presence and online activities). In the existing literature, such forms of volunteerism are not widely empirically investigated but only from a theoretical point of view (see Ackermann 2019; Ackermann and Manatschal 2018; Tommasi 2025). Indeed, beyond the study by Ackermann and Manatschal (2018), in our review, we were not able to identify studies specifically addressing hybrid forms, opening up to future research perspectives. Second, our overview of the themes and concepts of psychology studies of online volunteerism can support the realisation of experimental and qualitative research studies to explore the interaction of individuals with the internet and social media and how they decide to engage in voluntary activities. Lastly, our review can represent a basis for understanding the emerging forms of volunteerism. It can be interesting to enlarge the endeavour by including novel forms of online social participation and civic commitment.

5 | Conclusion

The extant research on online volunteerism in psychology has yielded various insights, yet there remains a plethora of possibilities for scholars and practitioners interested in the topic. In this review, we sought to uncover considerations of online volunteerism in psychology. We did so by mapping and interpreting the extant research that led us to offer a provisional definition of online volunteerism for the literature in psychology, while also arguing about potential research trends in the area. Indeed, online volunteerism represents an emerging form of volunteering that requires attention and consideration for psychology, opening new vistas for theory and research on civic participation in online environments. We hope that our review can represent a first step for broadening our perspectives on individuals online, and particularly the way they engage in novel forms of volunteerism.

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Ethics Statement

The authors have nothing to report.

Consent

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

Endnotes

[1] It is worth mentioning that scholars in the field of psychology interested the study of volunteerism have loosely referred to specific mainstays of theories and perspectives. This is the case of the Volunteer Functions approach (Clary et al. 1998), and the SDT (Ryan and Deci 2000) while to a lesser extent, authors have followed the TPB (Ajzen 2012). These tendencies appear to reflect in the study of online volunteerism. Then, it is worth clarifying that the Volunteer Functions offers a psychological approach to volunteerism by focusing on the potential functions of volunteerism for individuals. That is, individuals engage in volunteerism due to the specific opportunities that volunteerism offers. For example, individuals are motivated to volunteerism as it offers opportunities to express their humanitarian values, or to build meaningful relationships within a community. While this model emphasises the role of motives underlying volunteering, the SDT has been used to understand the quality of motivation and the occurrence of feelings of autonomy or control over the engagement in volunteerism. As a metatheory of Human motivation, the SDT offers a wide framework for exploring both psychological and social environment dimensions that can hinder or facilitate motivations toward volunteerism (Millette and Gagné 2008). Lastly, the TPB has been employed for studying intention to volunteerism as a result of the combination of three elements: (a) attitudes (positive or negative evaluations of performing volunteerism), (b) subjective norm (perceived social pressure or expectations to engage or not in volunteerism), and perceived behavioural control (perceived ease or difficulty of engaging in volunteerism). The focus is thus shifting from motivations to intentions to engage in a specific behaviour which provides substantial indication of the actual action of individuals (Warburton and Terry 2000).

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Appendix A

ID	
Author(s), year	
Title	
Source	
Country	*(Note. Only for empirical study: report the country/countries of the sample(s))*
Type of study	☐ Qualitative ☐ Quantitative ☐ Literature review ☐ Mixed methods ☐ Other, specify: ...
Aim of the study	*(Note. Describe in a few words what is the aim of the study)*
Research design	*(Note. Report the research design of the study. For example, qualitative study based on semi-structured interviews and focus group; cross-sectional study; longitudinal study based on three waves data collection ...)*
Number of participants	*(Note. Only for empirical studies. For multiple study papers, include all the different samples)*
Ethical aspects	*(Note. Only for empirical studies. Specify if informed consent was given by participants. Specify possible ethical issues)*
Context of volunteerism	☐ Generic context ☐ Hybrid context ☐ Context-specific, describe ...
Digital tools used/described	*(Note. Describe whether the author(s) refer to specific digital tools for online volunteerism)*
Definition of online volunteerism	☐ No definitions are reported ☐ Yes, quote the definition:
Other definitions	*(Note. Include if author(s) reported additional definitions of other forms of volunteerism*, e.g., *in-presence volunteerism, traditional volunteerism, formal/informal volunteerism)*
Is the study following a psychological perspective?	☐ No ☐ Yes, describe it in a few words
Psychological Theories/Models	*(Note. Describe psychological theories/models and how this helped to reach the aim of the study)*
Psychological variables/dimensions used	*(Note. Describe psychological variables/dimensions included in the study)*
Describe the instruments used in the study	For a qualitative study: ☐ Observations ☐ Interviews ☐ Other, describe For a quantitative study: ☐ Report each scale
Analysis—Quality check	Does/do the author(s) report all the relevant information about the analytical plan? ☐ No ☐ Yes Are there any problematic aspects concerning the analytical plan and the analysis? ☐ No ☐ Yes Is all the needed information available for study replication? ☐ No ☐ Yes
Main results	*(Note. Describe the main results found by the authors about online volunteerism)*
Research Implications	Does/do the author(s) report any implication for theory and/or research? ☐ No ☐ Yes, describe it
Practical Implications	Does/do the author(s) report any implication for practice? ☐ No ☐ Yes, describe it
Other elements	*(Note. Use this space for any additional information)*
Can the study be included in the final synthesis?	☐ Yes, because ... ☐ No, because ...