The Digital Transformation of Non-profit Organisations in the United Kingdom: A Multiple Case Study

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The Digital Transformation of Non-profit Organisations in the United Kingdom: A Multiple Case Study

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Abstract. This study takes into a broader project intended to investigate the Digital Transformation (DT) process of Non-profit Organisations (NPOs). This research refers to the empirical part of the project. Specifically, we adopt an explorative approach to develop a multiple-case analysis of 10 NPOs operating in the United Kingdom. We design and develop a semi-structured interview based on a conceptual DT framework for NPOs defined in a previous step. At the same time, we adopt a socio-technical perspective to carry on the empirical investigation. This study focuses on preliminary analyses of the first wave of interviews with those NPOs' directors, coordinators or founders. We present some findings, such as the impact of DT on the NPOs' work, ecosystems, and the effects of the pandemic on their routine. Moreover, we discuss some difficulties in moving from a theoretical perspective to real NPO scenarios. These findings are building a knowledge base to develop a thorough, in-depth (three-stage open, axial and selective coding) analysis. The final remarks focus on the long-term ambition of this research, including limitations and contributions.

Keywords: Digital Transformation, Non-profit Organisations, Multiple Case Study, Design, United Kingdom.

1 Introduction

The last years have seen the whole of society deal with unprecedented socio-economic and geo-political challenges [1, 2]. As a result, scholars investigate some challenges in relation to an ageing population [3, 4]; others examine the persistence of the Covid-19 pandemic, migration flows, and climate change [5, 6], as well as others refer to the change in people's behaviour due to the availability and use of digital applications such as "virtual personal assistants" [7–9]. In this regard, themes such as resilience and progress, social equality and inclusion are increasingly considered unavoidable premises for building the future of our society [10, 11]. Among others, digital transformation (DT) initiatives are thought to have the potential to generate additional social and economic value [2, 12]. That is, DT processes could be leveraged for responding to the

demands and needs of citizens in the digital era [2, 13] while accommodating recovery and development of the "good life" [2, 11].

Among the various organisational forms pursuing this goal, this attitude significantly works out in the reason d'ètre of Non-profit Organisations (NPOs) [14]. According to Salamon et al. [15], NPOs are the typical organisations characterising the Non-profit Sector (NPS) since they exist to improve the quality of life in society [16] and operate mainly for a collective, public or social benefit [15]. Precisely, NPOs differ from other organisational forms in operation and importance [16], their specific missions, activities [17], and objectives [18], as well as in the primacy of nonfinancial outcomes [16] and limited availability of resources [19]. From this perspective, it is likely that NPOs have undergone many challenges in terms of work overload from increased demand by the NPO's consumers in recent years (i.e. considering the additional effort to support society during the pandemic) [16, 20]. In addition, it is interesting to note that the DT efforts of NPOs have increased compared to a decade ago [21, 22].

Nowadays, many NPOs employ technology to develop more efficient or additional services [23] and reinforce their relationship with individuals and society [24, 25]. For example, social media is considered a public medium that evolved from a mere information diffusion channel, enabling NPOs' users to create and share content while promoting the NPOs' aims [26]. Other NPOs develop non-profit platform ecosystems to support and govern refugee crises [12]. Furthermore, the adoption of digitalised channels in NPOs has also interested the use of avatars, which seem to significantly impact peoples' intentions to donate and volunteer for NPOs [27]. In this perspective, DT processes offer many opportunities for NPOs, ranging from expanding their areas of operability [28], enabling virtual communities [29], or encouraging prosocial behaviour, such as supporting social causes [27]. However, a narrowed number of organisations running non-profit activities usually succeed with DT processes [30].

In the literature, it appears that little empirical evidence supports the comprehension of how NPOs leverage DT initiatives, especially concerning the resulting changes in developing their services or products in the digital era [31]. Moreover, a thorough comprehension of the strategic development of DT in NPOs is still poorly understood [32, 33] due to a lack of knowledge concerning the impact of DT on the NPOs' work, ecosystems [34, 35], and specific preconditions [31]. Accordingly, without understanding DT processes in NPOs closely and considering their attitude to support the development of the "good life", all the interested non-profit parties may fail or not deliver the expected value. Hence, the aim of this research is to advance an understanding of the DT process of NPOs from a practical point of view. Then, we question: what are the DT initiatives fostered in practices by NPOs, and for what purpose?

This work-in-progress research refers to the empirical part of a broader project intended to investigate the DT process of NPOs. The project started approximately in January 2020. The first phase of the project consisted of several steps of analysis and review of the literature. For this study, we adopt an explorative approach to develop a multiple-case analysis of 10 NPOs operating in the United Kingdom to extend and enrich the findings of previous studies [19, 31, 33, 36]. Specifically, this paper focuses on preliminary analyses of the first wave of interviews with NPO directors, coordinators, or founders. The study design is based on a conceptual DT framework for NPOs that

two of the present authors developed in a previous step of analysis and review of the literature [32]. Then, we extend such a framework by adopting a socio-technical perspective and designing a semi-structured interview to conduct empirical investigations.

The next section presents the relevant theoretical underpinning. It follows the approach and design of the study, the cases of the analysis, and the semi-structured interview protocol. Then, some preliminary findings are presented. The final remarks focus on the long-term ambition of this research, including limitations and contributions.

2   Theoretical Background

In the literature, scholars have developed and adopted several definitions of DT [37]. For our project, we adopt the definition provided by Vial [38]. Then, DT is recognised as a process whose purpose is to improve an organisational entity, such as a process, or a business unit, or other organisational elements [38]. At the same time, we chose to adopt a structural/operational definition of NPOs that is likely to be functional in any economy [39] since scholars have used distinct ideological, cultural, and political connotations to define NPOs in different countries [40]. Specifically, our project takes on Salamon and Sokolowsky's [39] definition, recognising an NPO as an: (a) Institution, (b) Private, (c) Self-governing, (d) Non-profit-distributing, and (e) Without compulsion (any participation is voluntary-based).

Among the few studies strictly examining the DT process of NPOs [19, 31, 33, 36] provided by the literature, this research is based on the results of a previous step of our project intended to review the state of the art of the debate concerning DT initiatives in NPOs. In particular, this step consisted of the development of a meta-synthesis of selected journal articles [32]. In performing a meta-synthesis, we developed a rigorous taxonomy of five dimensions with a total of 29 different values that could support the identification of the specific characteristics of a DT initiative fostered by an NPO. At the same time, we employed such a taxonomy to classify the sample of the selected articles. This process was aimed to ensure that each dimension of the taxonomy was mutually exclusive and concerned a specific focus on the DT in NPOs [41]. For a more exhaustive understanding of this taxonomy, we report the definition and purpose of each dimension in Table 1, that is, *Digital Scope*, *Organisational Scope*, *Organisational Involvement*, *Organisational Element* and *Operational Level*.

Table 1. Description of the dimensions generating a conceptual framework for analysing DT initiatives in NPOs (adapted from Cipriano and Za [32]).

Dimension	Description
Digital Scope	This dimension aims to foster an understanding about the technology to be employed or developed through a DT initiative. It would support NPOs management to realise the extent of the strategy towards innovation and new information technology.

(continued)

Table 1. (continued).

Dimension	Description
Organisational Scope	This dimension intends to propose a comprehension about an NPO's scope to be pursued or supported through a DT initiative. It would support NPOs management to realise the way in which digital technologies alter an NPO's business model.
Organisational Involvement	This dimension aims to promote a comprehension about the position of the NPO in its business environment. It would support NPOs management to create a set of strategic decisions to achieve an NPO's future business scope.
Organisational Element	This dimension aims to foster an understanding about the organisational element involved in a DT initiative. It would support NPOs management to realise the extent of the operational changes in relation to the related structures.
Operational Level	This dimension intends to promote a comprehension about the operational business level involved in a DT initiative and in charge of the transformation endeavour. It would support NPOs management to recognise if these new operations could be integrated into the existing corporate structure rather than developed in collaboration with other businesses.

Focusing on DT, some scholars also claim that the lack of concern about which specific aspects link to DT outcomes under a given context makes it problematic to identify DT as applied to such a context [42]. For this reason, we then arranged the taxonomy dimensions according to both organisational and technological perspectives, suggesting a lens of analysis for exploring potential stimuli and effects affecting or generating DT initiatives in NPOs [32]. Accordingly, the main contribution of such a step is represented by a conceptual framework intended to support researchers in conducting empirical investigations concerning the DT of NPOs [32].

Besides, this research follows the sociotechnical tradition in Enid Mumford's footsteps [43, 44] to adopt such a theoretical proposition for designing and developing empirical investigations. From this perspective, we rework the mentioned framework [32] in agreement with the approach adopted for the present study. Moreover, this research considers the specific norms regulating the NPOs analysed as cases[1,2].

3   Approach and Research Method

This section consists of three sub-sections. In the first subsection, the multiple case study design is described with regard to the specific theoretical propositions used to develop a semi-structured interview. The second sub-section refers to the semi-structured interview, including the structure, questions, and information concerning the data collection process. Finally, the third sub-section briefly describes the cases analysed

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[1] https://cof.org/country-notes/nonprofit-law-england-wales
[2] https://www.gov.uk/government/publications/not-for-profit-advice-services-in-england

and provides information about the participants and details of each interview.

3.1   Case Study Design

This paper adopts an exploratory qualitative approach [45], seeking to design a multiple case study to develop a cross-sectoral comparison based on Yin's suggestions [46]. In particular, the multiple-case study method is adopted to advance knowledge concerning individuals, groups, organisations, and societies through investigations of the DT phenomena within the real context of NPOs [46]. This study aims to qualitatively explore how a sample of NPOs operating in the same country foster DT initiatives in relation to different business aims by examining common and singular aspects. Then, attention is given to the impact of the DT process on NPOs' work and related organisational changes. Accordingly, this analysis also envisages a multi-dimensional quantitative analysis of the organisational, social, and national factors influencing the DT process investigated. Then, the triangulation among multiple sources of evidence covering multiple cases (NPOs) would aim to draw a generalisable set of "cross-case" conclusions that could apply to other research [46].

Thus, we adopt the abovementioned theoretical propositions to guide the data collection and analysis of a multiple-case investigation based on ten NPOs operating in the United Kingdom. To collect empirical evidence that extends and enriches the findings of previous studies [19, 31, 33, 36], we designed a semi-structured interview and an informative questionnaire to support the involvement of participants (including questions). Specifically, the semi-structured interview is based on four main areas of investigation, which seek to explore the five dimensions (see Table 1) of the DT in NPOs accordingly [32]. In particular, for this research, we consider each dimension as an area of investigation. Accordingly, we adapted the mentioned conceptual framework [32] in agreement with the goal of the present research (see Fig.1), seeking to improve the assumption that a DT process in NPOs could be seen as a socio-technical phenomenon [47, 48]. Specifically, we integrated our previous conceptual framework [32] by recognising a specific component of the socio-technical structure of an NPO for each dimension [47, 48] to support the empirical investigations.
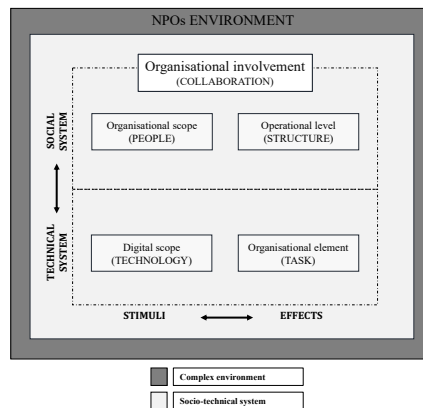
Fig. 1. A conceptual framework for analysing DT initiatives in NPO (adapted from Cipriano and Za [32]).

3.2   Data Collection

Focusing on such theoretical preposition, we design a specific interview protocol to explore how NPOs perform their work practices and everyday activities while examining DT initiatives in NPOs. The interview is semi-structured, meaning participants are asked to answer open questions or talk freely, lasting from 30 minutes to an hour. Then, the semi-structured interview is intended to investigate the five socio-technical components identified in Figure 1 (people, technology, structure, task, collaboration), which represent the five dimensions of the DT in NPOs [32]. Concerning the NPOs representing the cases of this study, we contacted 40 NPOs operating in the Hampshire province (UK) in the first place. In particular, one researcher attended a volunteering fair event organised by the University of Portsmouth (UK) in October 2022, where he met several NPO representatives and had a first chat with some of them.

We sent a first email to potential participants to confirm their willingness to participate in our project after the in-person meeting. At the same time, we visited some NPOs or tried to keep in touch with others by calling. We waited approximately ten days before contacting participants again. Meanwhile, we started developing the semi-structured interview (focusing on each of the five dimensions defined in the adopted framework). In addition to that, we also developed a "background questionnaire" intended to explore the specific organisational characteristics and scopes. Then, we sent a second email to participants to plan the interviews. This follow-up was intended to advance the interaction with interested participants, as well as to improve the number of participants. Based on the answers received, we felt the need to provide details and specific information concerning the interview, as the overall percentage of replies was extremely poor. For this reason, we decided to avoid sending participants a background questionnaire. In contrast, we developed and sent an informative questionnaire to all the potential participants. At the same time, we informed them to feel free to try to answer some questions and ask for further information. As a result, we received only one full reply to such a questionnaire. However, this last step helped us increase the answer rate. At this point, we have been able to arrange meetings with some NPO representatives, but we also need to send further emails to others requiring explanations about the interview. The informative questionnaire proved extremely useful, especially for participants unfamiliar with the DT phenomenon (from both a theoretical and practical perspective). By doing this, we delved into some of the traditional issues scholars discuss when referring to NPOs (like the lack of skills or resources in addition to the specific IT-related ones, inertia to change) [19, 33].

The informative questionnaire (provided in Appendix B) consists of two parts. The first descriptive section presents the research project, exhaustive information concerning the invitation to participate in an interview, and additional information concerning data management and use. The second section consists of a brief explanation concerning each analysis area (related to this case study design) and the questions that partici-

pants would have been asked to answer. At the same time, we sought to make the interview more comfortable for participants. In other words, we tried to ensure that participants would be involved in a very friendly discussion based on such topics by starting a discussion concerning themselves and their role in the NPOs. In general, we suddenly experienced such difficulties when we had the first in-person meeting with most of the potential participants. We decided to develop the informative questionnaire since we noticed that the aim of our investigation was hard to understand for many of the representatives of the NPOs (especially if talking about DT explicitly). To summarise, by shifting from theory to practice, we delved into the need to simplify the interview design to make it easier for participants to understand our goal and provide answers accordingly. For this purpose, we reworked the five areas into only four, that is, Organisational, Technological, Operational, and Change (see Table 2). In other words, we sought to include the focus of each dimension anyway, supposing to deeply explore each one of them while starting a more friendly discussion in the first place. As a result, two open questions were developed for each area, totalling eight questions for our semi-structured interview.

Table 2. Structure and Questions of the Semi-structured Interview.

Area	Question
(1) Organisational	1. How is the NPO organised (resources, employees, infrastructure, internal and external professionals' roles, competencies required to develop/provide products/services)?
	2. How does your organisation produce and provide services/products to achieve one or more non-profit scopes?
(2) Technological	1. Why and what technology does your organisation exploit in pursuing one or more purposes? How it affects your work?
	2. Can you make an example of how and which steps have your organisation taken to adopt and use technology(es)?
(3) Operational	1. How do you do your job, and what work practices do you usually perform in a typical day?
	2. Can you make an example of how your organisation handle training and skills, information and data, how you interact, and outsourced product/services/technology-related competencies?
(4) Change	1. What challenges/changes or improvements have your organisation dealt with (is doing), and how were they handled? (e.g., concerning processes, resources, reskilling of competencies)
	2. Can you make an example of how and what actions have your organisation taken to sustain its operativity during the Covid-19 pandemic?

In addition, to facilitate data collection, participants have been welcome to choose an in-person meeting or, alternatively, an online one. In the first case, one researcher would visit the NPO to conduct a face-to-face interview. Alternatively, the researcher would arrange an online meeting. In addition, all the interviews are recorded and then transcribed. Afterwards, the triangulation of data includes a diary and notes the researchers collected before, during, and after the interviews, as well as the overview and background of the organisations, history and context (gathered from secondary

sources), and the participant's employment history (within the NPO [46]). Further documentation has been retrieved from the official webpage of the UK government3, such as annual reports, changes of directors or legal forms, and information concerning the objectives of the NPOs. Moreover, the data used in this study (interviews, recordings, and other supportive documents) are anonymous and confidential. They do not directly identify an NPO or a participant unless the participant clearly expressed their preference to be identified on behalf of the represented NPO. In presenting the preliminary findings of this research, each anonymous case and the corresponding interviewee will be assigned a specific identifier (ID), such as "NPO-n".

3.3   Case Presentation

We contacted 40 NPOs operating in the Hampshire province (UK), of which 10 NPOs accepted to participate in this project. The overall sample of NPOs represents various sizes, non-profit purposes, or legal forms. In particular, in ten out of 40 cases, the NPO is identified as a registered charity in England and Wales. According to a classification defined by the University of Portsmouth for the volunteering fair event, the involved NPOs ranged from fields such as *Creative arts, culture and heritage, Marketing and communications, Research, Business and administration, Social and community justice, Sports, Science and Environment, Retail and hospitality, Technology, Health and social care, Child and youth work, Literacy and youth mentoring, Helpline, Disability And Equality, Girlguiding, Events, Online fundraising, Human trafficking,* and *Arts and crafts.* In comparison, we provide a description summarising some information useful to identify the specific characteristics and objectives of the 10 NPOs that participated hereafter (that we arrange by assigning a specific identifier (ID)).

1. NPO-1 was established in 2009 and became a Community Interest Company (CIC) in 2016. The NPO engages over 70 volunteers, including collaborative participation with some students from the University of Portsmouth. The board of members consists of 4 officers and everybody volunteers. The aim of the NPO is to show independent films, British films, classic films, artists' films, local short films and foreign films and promote community cinema across the city. The NPOs offer a multi-purposed flexible theatre space and conference rooms available for hire, for private watch parties, seminars, gaming, green screen, birthday parties, live theatre, art exhibitions and VR experiences. Also, it runs quiz nights, complimentary social programmes, questions and answers (Q&A) sessions, talks and workshops.

2. NPO-2 is an independent family support charity established in 1992 and has supported thousands of families in the city since its launch. It offers a unique service to parents (with at least one child under school age) through the provision of trained and supervised volunteers who visit families in their own homes and through professionally run family groups, both of which offer regular, informal support, friendship and practical help. The board of members consists of 7 trustees who receive

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3 https://www.gov.uk/

any remuneration, payment or benefit, and 80 volunteers are involved in the different operations. This charity raises funds from the public but does not work with professional fundraisers or commercial participators. Also, it is part of a leading organisation that coordinates and supports all affiliates around the UK.

3. NPO-3 was established in 2015 and became a certified social enterprise in 2020. Specifically, it is a limited company wholly owned and controlled by its founder. It represents a collaborative, campaigning community dedicated to driving up the levels of transparency in financial services. The board of members consists of six persons who receive a salary in addition to the founder. In comparison, the organisation operates with the sole purpose of driving positive, progressive and purposeful financial reform. Also, the organisation works by involving many volunteer groups and ambassadors worldwide (over 2,650 aligned individuals).

4. NPO-4 was established 70 years ago. Nowadays, it is a charity, specifically a Community Interest Company (CIC), which runs a museum as of Portsmouth Museum Service, which falls under Portsmouth City Council. The charity is run separately within the part of the museum service. The organisation comprises three coordinators, a marketing manager, a general manager and a team of 30 volunteers. Revenues are generated by the ticket price to assess the museum and from a shop that is also a cafe. Moreover, by acting as a trust, the organisation also does fundraise activities on behalf of the museum. The organisation is committed to creating an exciting 'must-see' environment which everyone feels is for them, delivering an imaginative mix of events and activities for visitors of all ages, delivering excellent formal and informal learning programmes to inspire young people, working with UK and international partners to share knowledge about D-Day around the world.

5. NPO-5 started operations in 1939 and was set up to provide emergency service at the beginning of the II° World War. In 1994, it became a registered charity limited by guarantee, committed to providing free, confidential, independent and impartial specialist advice services at several outreach locations in Portsmouth and South Hampshire. The organisation consists of 30 employees, 14 trustees, and 36 volunteers (at the moment). It is part of a leading organisation that coordinates and supports all affiliates around the UK. This charity does not raise public funds, has no trading subsidiaries, and no trustees receive any kind of remuneration. The charity is mainly aimed at promoting general charitable purposes for preventing or relieving poverty.

6. NPO-6 is a Community Interest Company (CIC) incorporated in 2012. The board comprises five members, a chairperson, a finance director, a company secretary, and approximately fifty volunteers who assist in day-to-day operations. The charity is mainly committed to programming, procuring, and delivering film projections to help break down social barriers and unite diverse cultures. The organisation seeks to advance the education of the public in the knowledge, understanding and appreciation of film by promoting many entertainment activities.

7. NPO-7 was established in 1984 as a private company limited by guarantee. This charity raises funds from the public. It works with a commercial participator with an agreement in place, while it does not work with a professional fundraiser. The

board of members is composed of 10 trustees, and many engineers, educators, experts, and advocates collaborate with the charity. This organisation is committed to connecting people and places, creating liveable neighbourhoods, transforming the school run and delivering a happier, healthier commute. It aims to make it easier for people to walk and cycle by designing, developing and creating more liveable cities and towns, also working with local authorities.

8. NPO-8 was established in 1982 and registered as an art gallery and educational charity in 1992. It is composed of 9 trustees and 8 volunteers at the moment. The trustees do not receive any form of income. Moreover, this charity raises funds from the public but does not work with professional fundraisers or commercial participators. This organisation is intended to bring new art and ideas to the heart of Portsmouth. Specifically, its mission is to cultivate art, creativity and a collaborative community, seeking to improve lives, bring joy, broaden minds, facilitate learning and create meaningful connections in its communities. It aims to create opportunities for people of all ages and backgrounds to experience contemporary visual art by offering programmes of exhibitions, off-site projects and participation events.

9. NPO-9 is an incorporated charitable organisation registered in 2020. The organisation is composed of 5 trustees, also involving approximately 80 volunteers. Also, this charity raises funds from the public but does not work with professional fundraisers or commercial participators. The organisation is committed to helping communities across Portsmouth gain the literacy skills they need to thrive. It aims to advance the education of the public in the city and the surrounding areas on the subject of literacy skills by providing and assisting in the provision of facilities (or 'hubs') to improve reading ability in communities with low literacy levels.

10. NPO-10 was established over 80 years ago and registered as a charitable company in 1996. This charity is composed of 7 trustees and includes approximately 62 volunteers and 96 employees. Also, it is part of a leading organisation that coordinates and supports all affiliates around the UK. The organisation is committed to helping older people (and their families) live fulfilling lives and remain independent for as long as possible. It offers various social activities, such as foot care, beauty, and hairdressing, in addition to a café where people can meet, especially providing a helping hand and companionship to mitigate social isolation.

Focusing on the interviews, this study focuses on preliminary analyses of the first wave of interviews that we run with at least one participant for each case. Specifically, among the interviews, two were conducted in person, and the remaining eight by using one of the leading video-communications platforms, such as Zoom (Z), Microsoft Teams (MT), or Google Meet (GM). Moreover, all the interviews have been recorded. Then, these interviews were transcribed by using NVivo [49]. The information for each case and other ones concerning the related participants (such as the highest educational level or expertise) are provided in Appendix A.

4   Results

Since this research is still ongoing, this paper proposes a first preliminary analysis concerning such a multiple-case analysis. Specifically, this section seeks to present some preliminary results using some extracts from the ten interviews. Thus, we attempt to outline some insights or evidence from each question (as in Table 2), seeking to explore the focus of each dimension of the adopted framework from a practical perspective. These findings are building a knowledge base to develop a thorough, in-depth (three-stage open, axial and selective coding) analysis. Specifically, the ongoing step intends to classify and code these interviews using Nvivo [49] to extend our previous theoretical proposition [32]. Accordingly, a preliminary understanding of our dataset could be useful for performing more comprehensive coding. That being said, the preliminary results are presented according to the four areas of investigation (see Table 2): Organisational (1), Technological (2), Operational (3), and Change(4). In doing so, it is possible to explore the five foci of the taxonomy dimensions through these four main areas. That is the organisational area (it provides insight concerning the *organisational scope* and *organisational involvement* dimensions). The technological area (it provides insights concerning the *digital scope* and *organisational element* and *organisational involvement* dimensions*), the* operational area *(*it provides insights concerning the *operational level* and *organisational involvement* dimensions*), the* organisational change area (it provides more generic insights useful to understand type, issue, and action undertaken).

4.1   Organisational Area

Concerning area (1), to explore an NPO's organisational scope and structure, all the interviews started by asking the participants to introduce themselves and then moving forward to talk about the organisational configuration, operations, main objectives and operability of the NPO in which they operate. As a result, this area promotes the investigation of the main objectives of an NPO and could be deeply analysed to explore the relationships between NPOs and other organisations.

For example, NPO-7 stated: *"We design, develop and deliver behaviour change training services and products, as well as work with local authorities and other organisations to make walking and cycling easier. We are also working to create more liveable cities and towns by working with local authorities, sometimes physically embedded in local authorities"*.
Moreover, this area allows us to understand how the NPO is organised.

NPO-5 said: *"The groups of "NPO-5" are broken down into small individual charities, which means that for an organisation like us in Portsmouth, we can reflect the unique challenges of Portsmouth. So, one very good example is that we have a growing immigration department. That is because we have a lot of people who have issues with immigration who come to Portsmouth. Now, that would not be true for an "NPO-5" in Oxford, for example, or somewhere else. So also, we have a big-armed force group in Portsmouth. So again, we offer services that are very tailored for all these people"*.

Interestingly, from other extracts, it also emerges that this area pushed some participants to describe the difficulties of the NPO with regard to the NPO headquarters and financial pressure. Moreover, it is interesting to note the link with funding issues.

For example, NPO-1 reported: *"But the main decoy came university kicks us out of the university building. Then we looked for a place to go and waited for the Council so long, but they did not care. Then, we made a very expensive deal... I had a business mortgage... we have lots of loans to pay a portion with audiences...Then, the cost of living pressured people in the last six months, limiting their participation in our initiatives. So, all these combinations do not really help us as a non-profit business".*

4.2   Technological Area

Focusing on area (2), most of the participants provided information concerning technology procurement and the use of such technology. Interestingly, some insights also emerged regarding how technology supported or improved the way the NPO attempts to achieve its primary objectives.

For example, NPO-7 claimed: *"Just thinking of your project, and I mentioned the national cycle project... In the past, there were barriers put up to prevent motorbikes or cars from getting through. But now we know this also prevents people in wheelchairs or specially adapted bicycles. So, we have been trying to remove these barriers. Also, we have created an app that volunteers can use as they go out and survey different sections of the national cycle network; they find out where the barriers are and report back so that we can prioritise which ones we can try to remove most quickly".*

Furthermore, this area also allows for the recognition of potential digital native NPOs and NPOs that are mainly dependent on the use of digital technologies, which seem fundamental to their existence and related operations.

For example, NPO-3 stated: *"I would argue that what I have managed to do has only been possible because we are in the digital era. What I have been doing is about reaching out to people and connecting with people, not just in the UK but also internationally. To do this without various digital platforms would have been impossible. The digital era has been an enabler to me to do what I have done because, without any budget or money, I now have an audience of over 6000 people worldwide… we use that newsletter to talk about all kinds of things we do (an event, an issue, a campaign, or a story)… without any money, we have a community of 6000 people around the world and members in 21 different countries... we were featured in a BBC Radio Four program that was paid digitally... and obviously, YouTube has been a very major enabler".*

At the same time, further insight emerges with regard to the difficulties an NPO could experience with the availability of technology.

For example, NPO-9 argued: *"In our house, we have about 12 iPads that the children and the team use... also, we let children operate cameras for the filming, or we use the iPads if we do not have the cameras from them. The iPad's weakness is for filming... sometimes we borrow cameras from external sources like the university, or one of us has a personal kind of device. They are used for some easy tests and recording, and they are also used as part of a game in some of our sessions".*

4.3   Operational Area

Regarding area (3), insights emerge about the operations that NPOs develop for training employees or volunteers to use technology; the type of resources they use, as well as how they handle their functions, processes, or training sessions for different operators.

For example, NPO-6 said: *"We handle training and skills by inviting new volunteers to shadow experienced volunteers... We also have documented processes that are defined using Google Docs. Internal operating data is primarily maintained in Google Sheets... Accounting data is held on our accounting laptop, utilising an accounting software package. Our third-party suppliers provide several web-based software solutions. We generally communicate by email and, where necessary, by phone... with outsourced products or services as well as related competencies whenever are needed..."*.

Also, NPO-4 argued: *"Some essential routine training is provided online through Microsoft Teams with pre-recorded stuff that volunteers can access. The training will be arranged in our meeting room and delivered if it is bespoke. And then for other, more specialised stuff, we will have meetings that I will provide. Moreover, other things might include one-on-one coaching and support, which we will do on an ongoing basis. So, it is a mixture of different things, but very much on an ongoing basis. I am very keen that we support everyone, whatever the staff"*.

Interestingly, this area also pushed other participants to highlight their particular commitment to fundraising activities on a daily basis, in addition to all the other operations, activities, and functions of the NPO they are responsible for directing.

For example, NPO-8 claimed: *"The situation we have at the moment is that we have to apply to the Arts Council usually every three years for funding, and that is both about achieving our mission and objectives as an organisation. So, to do that, we need to raise funds to make our work happen. And the Arts Council has its own strategy, which has a number of priorities that we, as a funded organisation, have to deliver. So, they have a range of aims and objectives and investment principles around ambition, excellence, dynamism, and inclusivity. And they fund us because our mission, vision, and goals tally firmly with the arts councils, and therefore they give us the funding, but the budget is only about 30 % of our turnover. So, we have to raise a huge undertaking every year to earn income, keep expenditures low, and raise funds from trusts, foundations, and other charitable means. So, this is why "I am hard to get hold of my faith" because of my fundraising all the time"*.

4.4   Change Area

Finally, concerning area (4), most participants disclosed the many challenges the NPO had to deal with during the COVID-19 pandemic if asked to remember a change their NPO fostered or had to do (during its entire existence). Interestingly, the answers related to the COVID-19 pandemic are especially connected to the NPOs committed to supporting children, families, and older persons. In particular, it appears that some NPOs drastically changed how they operated as they needed to react and keep pursuing their mission suddenly. Notably, this area could offer many useful insights to explore the preconditions, shortcomings, and benefits of the DT process of NPOs.

For example, NPO-2 stated: *"When the pandemic happened, we had one day to pre-pare. We had all the paper files in my room. I had to borrow one of my children's Chromebooks because I never needed a laptop at home. We have no facility even to access our database from home. We had plans to become paperless slowly, but there was no rush because we did not think we needed it, mainly since it was just the leading "NPO-2" who wanted us to move on through time. Then, the pandemic hit, and we had to do that immediately. So, there was a considerable period of change where we were scrambling around doing the best we could from home (because our workload went through the roof) because the NPO-2 visitors all had to be retrained and put back in the hospitals. So, all the families were looking to us to do more work, to cover and make sure that we were in touch with families doing doorstep visits, all sorts of things because you cannot just leave all these families in need"*.

Moreover, further insights seem to explicitly highlight a DT initiative fostered to overcome the challenges triggered by the COVID-19 pandemic. For instance, NPO-10 argued: *"We have managed to work with them through digital sessions... one can access it anywhere because we do hybrid work, and we can access it through the Inter-net... we used a completely free website from device basics to office programming..."*.

In this regard, other evidence emerges concerning the sustainability aspect of NPOs depending on the stop of the NPO activities during the lockdowns. At the same time, other extracts reveal the effective and successful initiative fostered by an NPO. These insights could be particularly relevant to deriving a list of initiatives and their charac-teristics according to the five dimensions.

For example, NPO-4 reported: *"NPO-4 was closed to the public during the various lockdowns. We made many changes to how we operated, such as doing several online Zoom talks to keep the engagement going. We created a blog page on our website. We also started an online shop, which we did not have before COVID-19, to keep some revenue ticking over during that period. We used our website and social media to keep people engaged with what was going on and how we were closed. When we came back, it was essential to ensure that all reasonable COVID-19 precautions were in place and that we communicated effectively, as there were still no vaccinations"*.

In comparison, NPO-1 claimed: *"We experienced a transition phase during COVID-19. As we stopped during the lockdown, the university did not provide any more sup-port, and we lost our place in the university building. We found a new place for our headquarters in June 2021, bringing new expenses... I do not have gas heating here, so I am spending electric money to make this place welcoming"*.

Also, NPO-6 further noticed: *"Since COVID-19, we have become a cashless opera-tion. Eliminating cash greatly simplified our operations, and we have no plans to ever return to accepting cash... Also, we decided to reduce the size and number of printed programs we produced. This was partly driven by the constantly changing release schedules of new films. We have no plans to revert to our previous practice"*.

5   Discussion

This work-in-progress research provides some preliminary results concerning a multiple-case study that explores the DT phenomena focusing on 10 NPOs operating in the United Kingdom. For this aim, we adopted and adapted a conceptual DT framework for NPOs provided by the literature [32], based on five mutually exclusive dimensions useful to identify the characteristics of DT initiatives fostered by NPOs. Then, we reworked the conceptual framework by adopting a sociotechnical perspective to advance the empirical investigations. To design a semi-structured interview, we also reworked the five dimensions by identifying four main areas of investigation, considering the need to shift from a theoretical to a practical lens of analysis. In doing so, however, we seek to leverage the difficulties experienced and draw on the different reactions of the involved participants. Specifically, we recognise three different profiles of participants with regard to this preliminary work. Specifically, we noticed that the representatives of NPOs, who are part of a leading organisation, which we named "Informed", might be slightly familiar with DT (although they could be not experts in the field, they seem to receive some training and support from the leading organisation). Moreover, highly professional participants were much more comfortable discussing DT, recognised then as "Autonomously skilled". In comparison, most representatives of other NPOs were poorly informed about DT (they often need to outsource IT-related knowledge and resources). The latter category, "Unfamiliar", also had difficulties explaining how the NPOs manage IT-related aspects and issues (i.e., considering that in the same case, many NPOs significantly changed how they worked during COVID-19).

Then, we presented evidence for each area, using some extracts from the interviews. Despite the early stage of the in-depth analysis, some preliminary findings show some commonalities between some cases, such as the shift of some NPOs to paperless operability (considering NPO-2 and NPO-6). In comparison, some differences concern the possibility of NPOs obtaining funds from the government (considering that NPO-1 argued to be unable to achieve supposed principles and requirements, while NPO-8 seem to tally firmly with some prerequisites). Other aspects, such as the general use of cloud-based services and software, also emerged in different cases (such as NPO-6, NPO-10, NPO-3, and NPO-4).

Drawing on such a preliminary assumption, this work has the potential to provide a qualitative analysis based on empirical insights that could be useful to extend and enrich our theoretically derived framework [32]. In particular, by finalising the in-depth analysis of the interviews, it might be possible to derive a list of initiatives from the ten different organisations, considering identifying their characteristics according to the five dimensions. This could contribute to developing an analytical generalisation useful to draw recommendations on mitigating and overcoming the implications identified by analysing the work practices of NPOs operating in the 2020s. At the same time, by extending the recognition of some profiles of awareness of DT (of participants, by integrating secondary information such as the size, typology, aims and structure of the NPOs), this research could pave the groundwork to investigate the DT readiness of NPOs. In this perspective, success factors and common impediments to digital transformations could be summarised for NPOs accordingly.

6   Conclusions, Implications and Contributions

The long-term ambition of this research is to text and revise our conceptual DT framework for NPOs [50]. We are carrying on an in-depth analysis of the mentioned interviews with the aim of recognising a theoretical concept, following the principles of qualitative enquiry [51]. In particular, we are planning to progress a thorough, in-depth (three-stage open, axial and selective coding) analysis. In the initial phase, we plan to develop 'open coding' to determine the main concepts in each transcript [52]. Then, these concepts will be grouped by significant headings (i.e., technology, organisational, and environmental contexts) to reveal categories and sub-categories. Then, in the following step, we will develop 'axial coding' to relate categories to their sub-categories. As a list of codes emerges, we will focus on the relationship between the codes. Accordingly, we will question its validity once a relationship is recognised [53]. In doing so, this research would recognise peculiarities distinguishing NPOs and identify drivers, stimuli, effects, and implications of DT processes pursued by NPOs exclusively.

From this preliminary investigation, our semi-structured interviews allowed us to identify three different profiles of awareness of NPO participants. At the same time, it seems to have the potential to support exploratory investigations concerning how an NPO: (i) implements digital technologies (either hardware or software); (ii) redesigns organisational products, services, and procedures (e.g., paperless operability) or develops others that meet the needs of a digitalised society (e.g., elderly support for using technology), as well the work practices and related skills and competencies; (iii) develops or redesign how the organisation keep or build its relationships with multiple stakeholders (organisations, government and institutions, and key beneficiaries), and additional knowledge related to the use of sensitive information and personal data (data policy, regulations, and cybersecurity issues), (iv) sustains additional expenses for acquiring technology and professionals that implement and manage it, (v) changes legal form, applicable law, tax law, data policy, or apply to funds.

Then, from a theoretical perspective, this research would complement previous work, expand the existing body of knowledge, and represent the interest in further investigations that could focus on additional countries (cross-national comparison). In addition, this research might provide some benefits and shortcomings based on practical insights that might support NPOs' founders, managers, and governmental institutions to design, develop, and govern DT processes in similar or alternative NPOs.

Besides, this work is not without limitations. First, this study is restricted in the depth of the analysis. Thus, it does not provide an exhaustive analytical generalisation of the results. As a future step, once we complete the in-depth analysis of the interviews, we might identify the main dimensions and characteristics of the DT in NPOs from a practical point of view. Accordingly, this could be useful to test and expand the theoretical propositions adopted in this study.

Also, since we compared NPOs operating in different cultural contexts and branches, this research might lead to the exclusion of economic, cultural, and organisational factors that could influence the results. Moreover, this study is based on only one interview for each case. Then, we could increase the number of participants for each case or perform a further round by interviewing the same participant in an additional step.

Appendices

Appendix A. Information Concerning the Interviewee and Interview for Each Case.

ID	Gender, Age	Role	Background	Modality	Date	Duration
NPO-1	Female, 49	Founder	MA in film production and arts, part time teacher	In person	20/12/2022	30:12 m.
NPO-2	Female, 54	Coordinator	A-level, social work, volunteer	In person	23/12/2022	53:12 m.
NPO-3	Male, 58	Founder	A-level, financial industry for 36 years, Governor of the UK's Pensions Policy Institute	Online - Z	29/12/2022	36:32 m.
NPO-4	Male, 35	General Manager	BA in marketing, worked for big retail company	Online - MT	05/01/2023	33:51 m.
NPO-5	Female, 61	Leader	Ph.D. in medical microbiology, retired, worked in medical and pharmaceutical business areas	Online - Z	12/01/2023	44:35 m.
NPO-6	Male, 67	Financial manager	A-level, retired now, worked for IBM in I.T. various capacities	Online - Z	13/01/2023	36:35 m.
NPO-7	Female, 50	Head of partnerships and public affairs	MA in sustainable resource management, worked for an arts charity	Online – MT	18/01/2023	33:31 m.
NPO-8	Female, 47	Director	M.A. in computers and the application to art history, working as director for 23 years	Online – Z	23/01/2023	50:27 m.
NPO-9	Male, 30	Social media manager, program administrator	BA in creative writing and film studies, worked for a tech company	Online – GM	04/02/2023	64:55 m.
NPO-10	Male, 33	Project manager for digital inclusion	MA in theatre, and BA in marketing, worked in theatres	Online – MT	15/02/2023	41:38 m.

Appendix B. Informative Questionnaire Including the Answers Provided by NPO-6.

I° Part.

Dear reader (on behalf of "**NPO-6**"),

as explained to Anonymous, this project concerns the investigation of Digital Transformation (DT) phenomena in the context of non-profit Organisations (NPOs).

Digital transformation is generally considered a process related to the impact and pervasiveness of digital technologies, affecting our lives, economics, organisations and society. We are currently doing empirical research investigating the phenomenon in the real world. For this reason, we would like a member of NPO-6 to participate in an interview that allow us to learn more about the use and adoption of technology in such a sector.

The idea is to ensure that the interview will not take more than 30 minutes. The interview is semi-structured and consists of 8 open questions (for example: Do you use technology in performing your job?). To facilitate such an interview process, we would like you to look through the questions, answer them (you could record audio files if more comfortable for you), and forward them to us so we can have a brief discussion based on your answers (researchers' *contacts*). At the same time as replying, you are welcome to suggest your preferences for arranging it in person or online (date and time).

Please notice that all questionnaires are anonymous and confidential. All information provided is confidential and will only be presented and reported outside the research team anonymously, so please be as open and honest as possible. The anonymous data, which does not identify you, may be used for future educational, research and development purposes. The withdrawal of data is not possible once the data analysis process begins. The information you provide will be treated in confidence and your identity will be protected in the publication of any findings unless you explicitly inform me that you would like to be mentioned in publications. Also, your participation is voluntary, and this research is not funded. Your participation would be valuable in contributing to scientific publications.

Below, you will find our contacts. You are welcome to ask questions about the study and previous publications, doubts, additional information on ethics regulations, or the directors' contacts.

II° Part.

Digital transformation is commonly understood as a process driven by the adoption and implementation of digital technology that could affect a resource, a process, an activity or other elements of an organisation. These phenomena dynamically evolve and mutate during our engagement with them, producing different implications for people, organisations, governments, and society. An example of a digital transformation initiative is the case of a Red Cross. The organisation adopted social media (websites, blogs, Twitter, and Facebook) to enable digital interactions, provide faster services, generate more media coverage, and enhance direct interaction with the public by bypassing geographical barriers [54].

This interview is organised in four areas aimed at exploring a non-profit context. The footnotes provide a brief description and an example summarising the purpose of

each area of investigation. You can provide an answer below each question or on a new page by mentioning its number.

ORGANISATIONAL AREA[1]

1. How is the NPO organised (resources, employees, infrastructure, internal and external professionals' roles, competencies required to develop/provide products/services)?

We have a board that currently comprises five members. The board runs the company. The key roles are the Chairperson, Finance Director, and Company Secretary. Additionally, we have approximately fifty volunteers who assist in day-to-day operations. We rent our premises, including projection equipment and employ external companies where necessary to provide ancillary services.

2. How does your organisation produce and provide services/products to achieve one or more non-profit scopes?

General day to day management and responding to customer enquiries	*Performed by ourselves*
Programming and procurement of films	*Performed by our Programmer with the assistance of an external company.*
Delivery of films	*Monitored by ourselves with the assistance of an external company.*
Building and testing of film play lists	*Defined by ourselves, performed by an external company*
Film projection	*Performed by an external company*
Print advertising	*Defined by ourselves, performed by an external company*
Social media advertising	*Performed by ourselves*
Website hosting and development	*Performed by an external company*
Maintaining website content	*Performed by a sub-contractor*
Reporting Box Office Returns	*Performed by ourselves*
Paying of invoices	*Performed by ourselves*
Internal accounting	*Performed by ourselves*
Reporting to HMRC	*Performed by a sub-contractor*
Managing Volunteers	*Performed by ourselves*
Managing Cafe / Bar stock	*Performed by ourselves*
Maintaining iPads and POS software	*Performed by ourselves*

TECHNOLOGICAL AREA[2]

1. Why and what technology does your organisation exploit in pursuing one or more purposes? How it affects your work?

We use Google Workplace as a general administration tool. We have three separate email accounts for finance, marketing, and general inquiries. We use our email accounts to communicate with customers, suppliers, and volunteers. We also extensively use Google Sheets for internal reporting and administration and Google Docs for internal documentation.

Since Covid, we have become a cashless operation. We advertise our films on our website, and customers can also book online using our website or pay on the night using software and a card reader that runs on software on an iPad.

We send a weekly email using Campaign Monitor and also make use of Facebook and Twitter.

We utilise a Digital projector with its own software and a separate Theatre Management System to build and manage playlists. Where possible, films, trailers, and adverts are delivered over the Internet. Occasionally, films have to be delivered on a physical hard drive.

We use an accounting package that runs on a laptop.

2. Can you make an example of how and which steps have your organisation taken to adopt and use technology(es)?

We use technology where possible, but we are constrained by cost considerations.

CHANGE AREA[3]

1. What challenges/changes or improvements have your organisation dealt with (is doing), and how were they handled? *(for ex., concerning processes, resources, reskilling of competencies)*

The major challenge our industry faces is persuading customers to return to cinemas following COVID-19. This is not helped by cost-of-living pressures.

2. Can you make an example of how and what actions have your organisation taken to sustain its operativity during the Covid-19 pandemic?

We completely closed due to COVID-19 for approximately eighteen months.

When we reopened: (i) we implemented social distancing and enhanced cleaning as mandated by the UK government at the time; (ii) we decided to become a completely cashless operation. Eliminating cash greatly simplified our operations and we have no plans to ever return to accepting cash; (iii) we decided to reduce the size and number of printed programs we produced. This was partly driven by the constantly changing release schedules of new films. We have no plans to revert to our previous practice.

OPERATIONAL AREA[4]

1. How do you do your job, and what work practices do you usually perform in a typical day?

On a day-to-day basis, we handle customer queries, pay invoices, deal with unexpected events, etc. On a weekly basis, we manage film transport, coordinate our volunteers, report on the Box Office, etc. On a monthly basis, we define our programme for the next month and hold our board meetings.

2. Can you make an example of how your organisation handle training and skills, information, and data, how you interact, outsourced product/services/technology-related competencies?

We handle training and skills by inviting new volunteers to shadow experienced volunteers. We also have documented processes defined using Google Docs. Internal operating data is mostly maintained in Google Sheets. Accounting data is held on our accounting laptop using an accounting software package. Our third-party suppliers provide a number of web-based software solutions. We generally communicate with outsourced products/services/technology-related competencies by email and, where necessary, by phone.

Footnotes

[1] The use of new technologies often implies changes in how an organisation creates value. Products and services could be expanded, requiring different technological and product-related competencies. This area intends to explore the business context of an NPO, and how digital technologies may alter an NPO's value chain. This is about exploring the organisation's culture, conditions, historical context, circumstances and the stimuli leading to developments/changes. (**Example**: Due to the decreasing newspaper sales and financial pressure, *ANONYMUS*, a firm leader in providing news, introduced an e-paper including digital topics and an app. The main scope of the company was to maintain its leadership and business focus on content creation, complemented by digital add-ons. The integration of digital technologies aimed to support existing products and services or as a resource to reengineer processes [55]).

[2] The ability to exploit technology consists of understanding which organisational element would be involved and affected. This is about realising the extent of the operational changes in relation to the related structures of an NPO. This area intends to explore what and how digital technologies alter an organisational element and the traditional operativity setting of an NPO. (**Example**: *ANONYMUS*, a leader in providing news, fully integrated digital activities into the firm's core business that affected mostly production processes and, to some extent, product and service offerings. The organisation offered a personal development program for its existing staff to foster the necessary digital mindset and skill set. The company has also established trainee programs and an integrated university degree program in various business units [55]).

[3] Due to the adoption of technologies, the variations and extent of the changes in an organisation setup could be relatively limited or more substantial. The more innovative and significant the changes, the more likely there will be unexpected and unprecedented consequences for the organisation and its ecosystem (for ex., implications for the beneficiaries and failure in service provision due to its digitalisation). External factors unrelated to the organisational purpose could likewise challenge a business (for ex., the COVID-19 pandemic pushed the development of digital processes and online services). This area intends to explore internal and external factors contributing to transition and changes in an NPO and related effects. (**Example**: Integrating a specific identity platform in India's primary food security scheme produced unintended outcomes for beneficiaries. The organisation neglected the impact of the change generated by the digital

platform on the target systems in which it was embedded. Instead of improving functionalities, degenerative effects occurred in the protection system's access, monitoring, and policy layers, via exclusion, distortion, and redirection, making public distribution of subsidised goods displaceable in favour of cash transfers [56]).

[4] Adopting technologies and the redeployment of new or additional activities require an organisation to redefine competencies and skills that allow further operability. This is about training and requalifying the personnel, as well as redesigning formal and informal procedures to achieve an objective. This area intends to explore the extent of a change in competencies (primarily) demanded by technology use and the efforts that directly burden people's work. (**Example**: To promote a project for newspaper digitisation, the *Fictitious Library* engaged volunteers in an online project without monetary compensation. The service-related competencies offered by these volunteers were necessary for data shaping, knowledge shaping, as well as the development of norms. In this case, the organisation contracted performances by digitally interacting with volunteers pursuing the same objectives [57]).

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