On Accountable Objects: Designing and Deploying Accountability Tools for Charities

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# Discussion

## Introduction

This chapter makes explicit the contributions of this thesis by drawing together the key findings and discussion points from across the different stages of the research. I take in turn each of the three areas of contribution that I first outlined in [Chapter 1](#chapter-1), being:

* Accountability Work
  + R1: How are the financial practices and Transparency obligations of a charity manifested in daily workplace practices?
* Data and Interfaces for Transparency and Accountability
  + R2: How may data be structured to represent the work and financial life of a charity?
  + R3: What are the interface requirements for systems that interact with data concerning the work and financial life of a charity, such that it is simple to capture, curate, and make use of this data?
* Designing Digital Technologies in charities
  + R4: How should design work be performed in civic organisations such as charities so that they can participate in design while operating with limited resources?

For each area I present a brief summary of the thesis’ work in each of these areas and then dedicate a section to each contribution that this work makes.

## Accountability Work

The thesis’ contributions in the area of ‘Transparency and Accountability’ were motivated by the contrast between: the fact that there is a wealth of literature defining each of ‘Transparency’ and ‘Accountability’ as broad terms e.g. (Oliver, [2004](#ref-oliverWhatTransparency2004); Schauer, [2011](#Xcefbeef5e45e28b2bac2d57133ac27f40f0063b); Hood, [2010](#Xe03fd4c8a27d47465f30bb91ed93fbeaa5811fd)); and the fact that there was seemingly no understanding of the daily activities that attend to ‘Transparency’ and ‘Accountability’ as a matter of work practice. This concern was presented in the first research question of this thesis: *R1 How are the financial practices and Transparency obligations of a charity manifested in daily workplace practices?*.

I first addressed this research question through my initial fieldwork activities at Patchwork in as reported in [Chapter 4](#chapter-4). This phase of research was explicitly geared towards answering R1 and, in doing so, providing design materials for developing digital systems. I revealed here how ‘Accountability Work’ as experienced by charities involved both individual staff members and the organisation collectively responding to a variety of pressures stemming from the fact that they must be accountable to different stakeholders in different ways; some of which lay in direct contradiction to each other. This contributes to a state of ‘Multiple Accountability Disorder’ (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)), as a charity such as Patchwork must account for their spending, their activity, and also must account internally for the ‘hidden work’ that occurs before other activity. There are a variety of work practices employed to navigate this and digital systems are shown to play a supportive role, but one steeped in the political economy of the technologies themselves as a ‘means of production’; charities such as Patchwork are often asked to use expensive software tools to seemingly support the work of others, and use social media platforms to distribute information on their activity. The underlying information and formats are often inflexible and create additional work for a charity to present an account of themselves to different stakeholders.

[Chapter 6](#chapter-6) also contributes findings towards this question, as the deployment of new digital systems (designed in [Chapter 5](#chapter-5)) provided new interactions that unpicked how Accountability Work is underpinned by interactions around ‘Accountable Objects’ which are mutually-defining, contextual, and exist in a mutually-defining relationship with each other. These Accountable Objects are negotiated and account-able to charity staff and immediate stakeholders such as funders as they are the result of structured and organised work performed as everyday work practice.

### C1a: Accountability Work in charities

The first contribution of this thesis is the provision of ‘Accountability Work’ as a definition to encapsulate the work practices of organisations as they pertain to their Transparency and Accountability requirements.

[Chapter 4](#chapter-4) introduces Accountability Work as a set of work practices that underpin activity to address Transparency and Accountability obligations within a small charity. It may be organised loosely into three intersecting areas: financial practices around spending and income; accounting for activity; and accounting for hidden work that must be performed but cannot be captured or presented in a traditional way. Each of these key areas of Accountability Work is supported by discrete sets of organised work practice such as: the structured capture and reconciliation of financial records (Figure 4.4); the curation of photographs and quotes as qualitative records; and in-situ interactions with members of the community. Everyday activity takes on a character of Accountability Work, as is seen when Patchwork are shown to control access to the finances through cards, and how they establish an account-able way to determine whether a spend is appropriate among staff. Accountability Work also permeates the everyday social settings of staff members and how their identity as a worker in the organisation is organised and constructed in the community; staff do not see their position in the community of beneficiaries as immediately separate from their daily workplace, and account for their work as part of their everyday lives in their local surroundings. In this way, Accountability Work builds on notions of “Articulation Work” (Strauss, [1985](#ref-straussWorkDivisionLabor1985), [1988](#ref-straussArticulationProjectWork1988)) by elaborating on how people in a setting engage in interactional work to make the organisation itself accountable for its project aims and outcomes.

[Chapter 6](#chapter-6) furthers the contributions of Accountability Work by forefronting how it is organised around ‘Accountable Objects’. These are discrete objects like Boundary Objects (Leigh Star & Griesemer, [1989](#X8c7ff77bfce69b82271e4618deb3eb2fce98f3a)) in that they may be used to support various interpretations of work, but their coherence also belies the fact that they are the result of negotiated and organised work to make them account-able to members of the setting. In this way Accountable Objects are the result of interactional work by charity staff, funders, and other stakeholders to determine what must be accounted for in a charity in an account-able way. A key characteristic of Accountable Objects is that they are immersed in context given to them by their various dimensions, for example an activity or spend is contextualised by which funding it falls under, which goals or aims it seeks to address, and which values are embedded in it. When situated in a workplace, these dimensions need to be accounted for in a similar way in order to support constructing narratives around a charity’s work (Erete et al., [2016](#ref-ereteStorytellingDataExamining2016)); and in this way these dimensions become Accountable Objects themselves and take on a mutually-defining relationship with other Accountable Objects. This is explored more thoroughly in [Chapter 6](#chapter-06).

Accountability Work and Accountable Objects also contribute to the existing literature on Transparency and Accountability by describing how they are accomplished on the ground using members methods, particularly in charities and other Third Sector Organisations. Previous literature provides lenses which provide historical context (Hood, [2006](#X77d6680a8fd5f10e5ffa1ce1c54713fae427dee)) and typologies of Transparency and Accountability (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399); Heald, [2006](#ref-healdVarietiesTransparency2006)), as well as exploring the relationship between the two (Fox, [2007](#X5a3869f9d3c085ece45ed7c9240e688ef979534); Hood, [2010](#Xe03fd4c8a27d47465f30bb91ed93fbeaa5811fd)). These are important because they allow an understanding of the aims and motivations of Transparency and Accountability, and an understanding of their methods and mechanisms. Accountability Work takes this down to the level of daily work practices and shows how Accountability and Transparency *are accomplished on the ground as a matter of structured organised work* and thus how they are built into the social world of an organisation that is tasked with being ‘Transparent and Accountable’. Furthermore, the literature surrounding Transparency suggests that its three key components are having something to be observed, someone to observe it and a means of supporting that observation (Oliver, [2004](#ref-oliverWhatTransparency2004)); the contribution of Accountable Objects to this unpicks the mechanisms by which the observers negotiate and determine *what* is to be observed, and *how* to account for it. It also supports an understanding of how phenomena like *Passive Transparency* (Oliver, [2004](#ref-oliverWhatTransparency2004); Schauer, [2011](#Xcefbeef5e45e28b2bac2d57133ac27f40f0063b)) and *Fuzzy Transparency* (Fox, [2007](#X5a3869f9d3c085ece45ed7c9240e688ef979534)) are the result of not providing account-able Boundary Objects; where Accountable Objects are not understood or supported they cannot be mutually defining and cannot support a qualitative, narrative, understanding of an organisation’s work and spending.

Accountability Work, therefore, facilitates design engagements with workplaces which must be ‘Transparent and Accountable’ as an organisation by describing the work practices that systems should seek to support and how they are underpinned by Accountable Objects.

### C1b: Design recommendations for Transparency and Accountability

The next contribution of this thesis in the space of Accountability Work is a set of design recommendations for digital systems to operate in organisations with Transparency and Accountability requirements.

The first set of design recommendations for Transparency and Accountability are based on my ethnographic study of work practice and are described in detail in [Section 4.4](#X136f2d0f4845b2d191b606fabfa129c1add3f7a). Systems should be striving to support the communication of an organisation’s accomplishment of work towards goals in such a way that the context of an action or spend is made obvious to an observer, acting as an ‘organisational accounting device’ (Dourish, [2001](#X2706e9cc2205af5757953d842855c684e2f8695)). In doing so care must be taken to ensure that this isn’t used to manage the productive labour of a worker, but instead provides material that support different ways the organisation must be accountable to other actors (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399); Fox, [2007](#X5a3869f9d3c085ece45ed7c9240e688ef979534)). This may be supported by interfaces and systems enabling the configuration of Transparency, as charities may feel compelled to frame their reporting to meet expectations (Lowe & Wilson, [2015](#ref-lowePlayingGameOutcomesbased2015)) which requires additional work. Providing ways to support this configuration minimises the work needed on behalf of the organisation to become transparent, and also supports the production of more active and communicative forms of Transparency that are predicated on context (Oliver, [2004](#ref-oliverWhatTransparency2004); Schauer, [2011](#Xcefbeef5e45e28b2bac2d57133ac27f40f0063b)). This may be achieved practically through the provision of discrete and inter-operable tooling that allows organisations to collect and curate an organisational dataset which can later be configured, perhaps taking the form of Open Data. The tools should be simple to use, free of charge, and based around existing work practices and the resulting data should support the creation of contexts by linking individual items together to reflect the complexity of engaging in this work (Lowe, [2013](#ref-loweNewDevelopmentParadox2013)). This leverages data’s ability to act as a Boundary Object (Crabtree & Mortier, [2015](#ref-crabtreeHumanDataInteraction2015); Leigh Star & Griesemer, [1989](#X8c7ff77bfce69b82271e4618deb3eb2fce98f3a)) to provide alternative lenses on work and spending (Elsden et al., [2017](#X4e2d3e5997af8a79f6e50015ed0cb74fba65b5b)).

[Section 6.4](#X9de80b497846c1f8842ec758c9d47e3d19d0b26) builds on these recommendations following the evaluation of systems which sought to embody them. The findings from Chapter 6 forefront that staff within organisations require the interfaces to support their collaboration so their individual contributions to the dataset are transparent to them and they may appropriate the technology properly (Dix, [2007](#ref-dixDesigningAppropriation2007)), or that they should use their existing tools to engage with the dataset with the tooling operating as a means to provide interoperability between systems (I discuss this in more depth in Section 7.3.3). This also opens the question of ‘what level’ design work should sit at. Lessons from Dow et al regarding operating from the ‘Middle Out’ (Dow et al., [2018](#ref-dowGrassrootsHierarchyLessons2018)) are applicable here in that charities will be forced to engage with the systems and models that funders provide because they are accountable to them (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)). Funders have existing practices around publishing open data around grant funding (360Giving, [2020](#ref-360giving360GivingDataStandard2020)), so it is feasible that they could take the responsibility of preparing open data about the activities that are reported to them. If design work engaged funders in a productive way then they could dictate the use of systems which supported this work, which may result in less overall burden on charities.

## Data and Interfaces for Transparency and Accountability

My contributions in the area of ‘Data and Interfaces for Transparency and Accountability’ stem from two tightly related research questions: *R2 How may data be structured to represent the work and financial life of a charity?*; and *R3 What are the interface requirements for systems that interact with data concerning the work and financial life of a charity such that it is simple to capture, curate, and make use of this data?* These questions emerged as a concern because of the intersection of Open Data with matters of Transparency and Accountability, with contemporary Transparency being ‘computer-mediated’ (Meijer, [2009](#Xaae423959279afe96b78222c1b73785a891128a)) and growing evidence that Open Data was an effective means to support civic engagement (Coleman et al., [2013](#ref-colemanLessonsLondonDatastore2013); Goldstein, [2013](#ref-goldsteinOpenDataChicago2013); Gordon & Baldwin-Philippi, [2013](#ref-gordonMakingHabitOut2013)), although not without challenges (Cornford et al., [2013](#ref-cornfordLocalGovernanceNew2013)).

While [Chapter 4](#chapter-4) began to pick at insights around data and interfaces for it, these research questions were explicitly addressed together as a concern for design in [Chapter 5](#chapter-5). In that chapter I document the design and development of decentralised systems that were built for the collection, curation, and presentation of data concerning charity work and spending; with a shared data standard, *Qualitative Accounting*, being used to define the models and facilitate communication between the systems.

Later in [Chapter 6](#chapter-6) these interfaces and the data which supported them were evaluated through several phases of deploying the systems within two front-line charities and using co-operative evaluation techniques, which lead to further insight on both the underlying data models that could support capturing and presenting charity work as well as the interfaces that would allow for its capture and curation in workplaces. This chapter also saw the interfaces being evaluated by external stakeholders such as accountants and funders, giving insight into the requirements needed to support them interacting with the data.

### C2a: The Qualitative Accounting Data Standard

The development of the *Qualitative Accounting Data Standard* throughout [Chapter 5](#chapter-5) is the first contribution of the thesis towards ‘Data and Interfaces for Transparency and Accountability’. It is a prototype, lightweight, data standard that responds to my previous contributions to HCI literature regarding data standards for charity Transparency (Marshall et al., [2016](#X85e87342de250af0b15869bc4a2068f1aa845ee)) as well as the design requirements for Accountability Work set forth in [Chapter 4](#chapter-4) and the resulting publication (Marshall et al., [2018](#X24787fd0f41789a9bbd75ddc0c146ba1a8d7788)).

While it must be acknowledged that the design process in [Chapter 5](#chapter-5) was characterised by needing to work around the busy schedules of my participants, the *Qualitative Accounting Data Standard* was the result of working with front-line charity workers to design data that could represent key features of their work practice and Accountability requirements as they understood them. Each of the fields and structures represent a discussion with members of a charity setting to model their activity, and as such the *Qualitative Accounting* standard represents a contribution to the areas and structure of data that needs to be captured if a digital system is to represent charity work and spending.

The fields, structures, and design rationale for *Qualitative Accounting* are documented fully in [Section 5.4.2](#the-qualitative-accounting-data-standard), but in summary show that charity activity and spending could be modelled using a single activity or ‘item’ as the base metaphor with the key features of Accountability Work modelled as fields and structures branching of from it. These are: financial data such as income and expenditure; quotes; media items such as photos and videos hosted on the web; geographic locations to represent activities. Quotes in particular were seen to be appreciated by charity staff and funders in [Chapter 6](#chapter-6) when the model was evaluated through deployment. Further to this a free space should be dedicated to giving additional description to support contextualisation. Individual items can be given context via the use of tags similar to how posts work on social media platforms, which adds metadata to them and allows items to be grouped semantically and searchable without requiring direct links between items (Zappavigna, [2015](#Xaceaca6f773a15b2aac5fc2a92c3f1e1ae0df93); Panko, [2017](#ref-pankoDecadeAgoHashtag2017)).

*Qualitative Accounting* also contributes a lightweight protocol for sharing information in a decentralised way which allows for other interfaces to be quickly developed, to make use of an existing data ecosystem to support new interactions with the data at a later stage when new stakeholders and their needs may be engaged with design. Later stages of design will likely need to iterate on both this, and the *Qualitative Accounting* model to make best use of the insights drawn from the evaluation stage of this research however *Qualitative Accounting* still contains contributions for the shape of data concerning charity work and spending.

It should be noted here that *Qualitative Accounting*, as a data model, simply provides a structure and a mechanism for sharing information. This by itself may generate only a *Passive Transparency* (Oliver, [2004](#ref-oliverWhatTransparency2004); Schauer, [2011](#Xcefbeef5e45e28b2bac2d57133ac27f40f0063b)) unless other systems take it up and put it to use, presenting it in ways that are appropriate for supporting stakeholders to do their sensemaking. Systems, both social and technical, then need to do other work to support the appropriate Accountability pathways of the organisation (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)) since Transparency is not a guarantee of Accountability (Fox, [2007](#X5a3869f9d3c085ece45ed7c9240e688ef979534)).

During this research, the *Qualitative Accounting* data standard did not manifest as a technical artefact in and of itself, being a set of rules to format data so that it is conformant to the standard. Other data standards for open data such as the Open Contracting Data Standard (Open Contracting Partnership, [2021](#X7cb5140912f38256d8242da0780e8dae85bb266)) and 360Giving (360Giving, [2020](#ref-360giving360GivingDataStandard2020)) are standards that are developed collaboratively and in the open. This is achieved by modelling the rules of the standard using a vocabulary such as JSONSchema (JSON Schema.org, [2021](#ref-jsonschema.orgJSONSchema2021))to develop a canonical “schema” which embodies the standard, and then hosting it online in a collaborative space such as Github to be continually developed. Any future work on the *Qualitative Accounting* standard should endeavour to follow this good practice by developing a technical artefact to embody the standard and support collaboration in a similar manner.

### C2b: The Commitment-Action Model

The *Commitment-Action Model* represents lessons learned from evaluating the use of *Qualitative Accounting* in the field and contributes further lessons on how to model charity work and spending in order to support sense-making.

The *Commitment-Action Model* builds on *Qualitative Accounting* by explicitly identifying Accountable Objects and works with their mutually-defining nature. Full details on this can be found in [Section 6.4.2](#X8f03ee4e040809c45ce6bd8a26230b5fc002817), but concerns the contradiction between needing to understand explicitly the aims and objectives of a charity and how they worked to achieve them against the ‘tagging’ model that was implemented in *Qualitative Accounting*. In practice, the tagging model was too unstructured and presented challenges to staff collecting data and tagging it, made it difficult to curate, and presented problems when thinking about what tags were appropriate. This contradiction is resolved when more structure is added to the data to model ‘Commitments’ as well as ‘Actions’ towards them. An ‘Action’ may be a spend, the performance of an event, or some media such as a photograph representing such. This additional structure allows ‘Commitments’ and ‘Actions’ to add context to each other, and represents a shifting of the ‘burden of interpretation’ back to the data collection stage rather than the end-user of the data such as the funder or the general public (Open Data Services Co-operative, [2017](#Xd8cdf6ced5eee7a0cb91b503abd7a820d16b2a4)).

The *Commitment-Action Model* does not represent a data standard as such yet, but could be realised as one in the future. Either by contributing its lessons back towards *Qualitative Accounting* directly or through synthesising the two into something which does not have the former’s namesake. In order to realise this it would need strong identifier practices for each of the ‘Commitments’ and ‘Actions’ (Open Data Services, [2020](#X157af876d9741cc3f786b5a8aa6fbf24bf23b04)) to draw the links between the two. Importantly, however, [Chapter 6](#chapter-6) also saw praise for ‘tagging’ and the need to account for emergent dimensions of work through reflective processes. This means that any data standard implementing the *Commitment-Action Model* would need to account for these things while still modelling ‘Commitment’ and ‘Action’ explicitly. This could still be achieved by tags, but their role in the overall model would need to be explored. Using the *Commitment-Action Model* and *Qualitative Accounting* to build a new data model also provides opportunities for interoperability with other, related, datasets such as those concerned with charity funding (360Giving, [2020](#ref-360giving360GivingDataStandard2020)); which allows a dataset concerning charity work and spending to be positioned to contribute towards larger narratives.

One key warning is that any digital system implementing the *Commitment-Action Model* does need to be careful not to skew systems towards the collection of ‘outcomes based reporting’ (Lowe & Wilson, [2015](#ref-lowePlayingGameOutcomesbased2015)) and commitments need to be tailored towards performance of work in an area. The idea is not to monitor outcomes and tie them directly to actions, but to present information about work performed towards a goal and support the narrative of a charity in contributing effort towards that goal.

### C3a: Design recommendations for interfaces which support the collection of data pertaining to work and spending in charities

While *Qualitative Accounting* and the *Commitment-Action Model* contribute lessons for how data about charity work and spending should be modelled in digital systems, the third contribution of this thesis towards ‘Data and Interfaces for Transparency and Accountability’ is design recommendations for interfaces that support the collection of this data.

These contributions are touched upon at several points throughout the thesis. In [Chapter 4](#chapter-4) I show how any interfaces need to be designed to support the organised Accountability Work that occurs in charities. Namely, interfaces need to be flexible to adapt to the needs of workers and embed values of worker control to avoid the misuse of the systems for monitoring worker activity (Harper, [1992](#X7032811db3d9917651943c20f44d0cab7307934); Pine & Mazmanian, [2014](#ref-pineInstitutionalLogicsEMR2014)), and should support them collecting information as they go about their daily work practice. The importance of linking discrete items of work should be supported as well, although following the evaluation in [Chapter 6](#chapter-6) this should be framed as supporting the relationships between Accountable Objects described earlier in this chapter

[Chapter 5](#chapter-5) continues with contributions on how to realise these recommendations as interfaces in systems. Building from the recommendation for using standardised data (Marshall et al., [2016](#X85e87342de250af0b15869bc4a2068f1aa845ee)), the systems made use of *Qualitative Accounting* as a data standard to facilitate which forefronted the need to build in the correct metaphors and support the mapping work towards a standard. This avoids needing to replace current systems, and allows data to be collected from different places and transformed into a standardised format. However, this requires a strong understanding of the work practices that these metaphors encapsulate. In practical terms, I have shown how charity workers are comfortable using apps on mobile phones such as *Accounting Scrapbook* to collect data, and can engage productively with web systems such as *Rosemary Accounts* but the use of their existing tools such as spreadsheets was important to allow for the importing of financial data in particular. Further to this, interfaces need to facilitate charity workers doing their existing jobs, as collecting open data is a secondary concern to them in this context.

[Chapter 6](#chapter-6) provides further contributions following the deployment and evaluation of the systems. I show that, after being used by charity workers and evaluated by stakeholders, there is a need for various dimensions of activity to be account-able. This leads to interfaces for collecting data to be more collaborative, and while the flexibility requirements from earlier findings still stands this collaboration could be implemented as a shared data hub or repository with the appropriate access rights for members (McAuley et al., [2011](#ref-mcauleyDatawareManifesto2011)). Built into the interfaces should be a way to interact with the shared dataset rather than just contribute towards it, as staff reported key challenges understanding how others were tagging or organising data, and clearly understand which items they have already contributed to the communal datastore. Additionally, the production of bespoke interfaces for collecting data such as those designed in [Chapter 5](#chapter-5) is useful but there should also be a provision for using existing tooling (e.g. spreadsheets, accounting software, social media platforms) *as the interfaces* for collecting data in the manner of ‘Unplatformed Design’ (Lambton-Howard et al., [2019](#X289ad73c78e87fab20930b325fe0e42dfcc975c), [2020](#X04012aa787d83ba1f514cb315507eda95395bec)). This could be realised by building data infrastructure to facilitate conversion from spreadsheet formats in this case, but could also hold true for other forms of data such as harvesting data from social media accounts that are already used by charity staff to discuss their work.

### C3b: Design recommendations for interfaces that support the presentation of and interactions with data pertaining to work and spending in charities

Once a dataset is collected and curated it will require interfaces in order to interact with it, which leads to the next contribution of this thesis; a set of design recommendations for interfaces to support presenting and interacting with data pertaining to work and spending in charities.

As with C3a, these design recommendations are built from the engagement with charities across the thesis and as such begin taking shape in the fieldwork performed in [Chapter 4](#chapter-4). From the initial study of work practice I have shown that a configurable Transparency is required to support Transparency and Accountability in charities, so that the results of the data collection may be presented in a way that makes sense to the various forms of organisational Accountability that they experience (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)). This requires a set of interfaces to be built around linked data, and to be tailored for specific use-cases.

[Chapter 5](#chapter-5) saw the design and implementation of interfaces supporting the presentation of and interaction with data around charity work and spending. Here I showed how charities and staff may be concerned about how “unfinished” datasets may be misinterpreted, and also cite privacy concerns around images or details of vulnerable people they’re working with. This was resolved by the implementation of a ‘reports’ feature to support a narrative around a charity’s work in a given time frame and given a certain set of criteria, building the ‘configuration’ of Transparency into the system. This also raises questions of how access is granted to external stakeholders, to allow them to interact with the data via interfaces that are built for their needs. (McAuley et al., [2011](#ref-mcauleyDatawareManifesto2011)).

The need to present information as contextualised narratives is shown in [Chapter 6](#chapter-6) by the presence of Accountable Objects; as the “in-progress” accounts wouldn’t make any sense without important contextualising information which needed to be added. In *Rosemary Accounts* this was accomplished through the reports feature, however more importantly this centres the storytelling and narrative capabilities of interfaces as a key feature of interacting with data, something that is shown to be important for charities generally (Erete et al., [2016](#ref-ereteStorytellingDataExamining2016)). Quotes were seen throughout the design and evaluation process to be an important key piece that charities didn’t have other ways of collecting about their work and should be accounted for. Dow et al provide considerations for deploying an in-situ ‘feedback’ system, *ThoughtCloud* (Dow et al., [2016](#ref-dowThoughtCloudExploringRole2016), [2017](#ref-dowWhatHappensDigital2017)) which could provide further insight into how to interact with this type of information. As with collecting data, it may be effective to take lessons from ‘Unplatformed Design’ (Lambton-Howard et al., [2019](#X289ad73c78e87fab20930b325fe0e42dfcc975c), [2020](#X04012aa787d83ba1f514cb315507eda95395bec)) and provide systems which take as their interfaces the tools which charities and stakeholders are familiar working with. The most pressing example I show is that of spreadsheets, which were used for both data collection and interaction to ‘sign off’ an account. It is feasible that the import/export functionality built into *Rosemary Accounts* could be extended to allow interactions with the data via existing systems and programs. This may, though, require buy-in from existing proprietary systems (i.e. Sage Accounts), which could present a challenge in some areas.

Supporting people interacting with a shared dataset using their own tools is present in existing open data practice. In the realm of procurement data in the *Open Contracting Data Standard* (Open Contracting Partnership, [2020](#X8508eda4ec9cdcbd76ddd2358011cc42fe34d45)), data is standardised and available via API endpoints, but there are guides to interacting with it in common data tools (Open Contracting Partnership, [2018](#Xad578abf02d38e3f9b541dba18c948a8dab74f3); Parra, [2018](#ref-parraAnalyzingOpenContracting2018)). Given the importance of narratives and storytelling to contextualise this data, there would again need to be a decision as to how ‘open’ this data is or whether it is simply standardised and shared amongst those in the sector to address their common concerns. This would make acts of reporting to funding bodies easier, and give funders a better way to understand charity data. Targeting the data towards a particular group of stakeholders may provide a way forward with dealing with the lack of data use or ‘armchair experts’ seen when data is opened up generally; meaning that otherwise noble open data efforts are not effective since they do not see use (Cornford et al., [2013](#ref-cornfordLocalGovernanceNew2013)). Building interfaces directly for stakeholders would require an understanding of their work practices, but also provide a self-forming community of people who would use the data. This mirrors what’s been seen in the case of community commissioning platforms such as *App Movement* (Garbett et al., [2016](#ref-garbettAppMovementPlatform2016)) where apps could be generated by users of the platform; providing a ready-made group of potential users who have some form of buy-in. As has been noted, in the realm of charities and open data, funders have already been seen to collaborate on open data for charity funding (360Giving, [2020](#ref-360giving360GivingDataStandard2020)) so may provide a fruitful space to target design work for interfaces around charity work and spending. Again, it must also be emphasised that since it is very difficult to measure outcomes (Heald, [2006](#ref-healdVarietiesTransparency2006); Lowe & Wilson, [2015](#ref-lowePlayingGameOutcomesbased2015)) any interfaces should be focused on providing interactions that support charities telling their story in performing actions towards their goals and commitments.

The difference between Transparency and Accountability (Fox, [2007](#X5a3869f9d3c085ece45ed7c9240e688ef979534)) will be key when designing these interfaces. The presentation of information would simply be a *Passive Transparency* whereas the contextualising process that is given through allowing narratives to be constructed, or work explored thoroughly in context, may go some way to providing an *Active Transparency* (Oliver, [2004](#ref-oliverWhatTransparency2004); Schauer, [2011](#Xcefbeef5e45e28b2bac2d57133ac27f40f0063b)). This, however, does not guarantee Accountability in and of itself and these systems should also consider which forms of Accountability they are being asked to support. Systems could be designed to support *Answerability* (Fox, [2007](#X5a3869f9d3c085ece45ed7c9240e688ef979534)), where people can ask questions and demand answers of a charity. Or it could be designed to demonstrate their *responsibility* or *responsiveness* (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)) of an organisation.

Finally, some thought should be given to the challenges of protecting sensitive or critical data in a decentralised system. This thesis is not focused on securiety or privacy, however it did uncover a challenge around safeguarding sensitive data during the design phase; which should be addressed in future development. Participants were concerned that sensitive data such as photographs of young people, information about service users, or sensitive information about finances and budgeting could be retrieved. The core message in this contribution is that information exchanged and published should be that which the organisation wishes to be made available to selected parties, or publically available in some cases. Future designs should build explicit security measures into the systems to ensure the protection of this information. A potential solution to this is taking lessons learned from *Rosemary Accounts* and apply these to self-hosted instances which are not designed for multiple organisations. These could explicitly verify and authenticate third party users such as funders, trustees, or other stakeholders to ensure that only appropriate parties may access the information without it leaving the system. This begins to resemble McAuley et al.’s ‘Dataware Manifesto’ (McAuley et al., [2011](#ref-mcauleyDatawareManifesto2011)), with explicit permissions for particular groups (or systems) using the data in specific ways.

## Designing digital technologies in charities

This thesis sits in the context of being performed within the Digital Civics programme at Open Lab, Newcastle University (Olivier & Wright, [2015](#ref-olivierDigitalCivicsTaking2015)). As discussed in [Chapter 2](#chapter-2); this term has been used internationally to encapsulate a broad area of work, but one that is generally concerned with civic matters and the role that system design and digital systems may play in these matters. Early examples of work held up as Digital Civics at Newcastle were projects attending to: deploying commissioned, situated electronic posters to gather community feedback on issues (Vlachokyriakos et al., [2014](#X5070163ca0ae99de32d9ca0b391b4b116e71a69)); utilising crowd sourcing for commissioning music videos (Schofield et al., [2015](#ref-schofieldBootleggerTurningFans2015)); supporting mothers identifying breast-freeing friendly (or unfriendly) environments (Balaam et al., [2015](#Xa07130dd40b68b22e2530305378bab20cb01db1)); and producing a platform to support the co-design and production of mobile applications (Garbett et al., [2016](#ref-garbettAppMovementPlatform2016)).

Several of my Digital Civics colleagues, alongside myself, have been engaging with the charity sector in the UK as part of our work (Strohmayer et al., [2019](#X613306637043b691fadc72155fc7b26d24c98e2); Bellini, Strohmayer, et al., [2019](#ref-belliniMappingMarginsNavigating2019); Dow et al., [2016](#ref-dowThoughtCloudExploringRole2016)). Charities are inherently a civic space, sitting as they do outside of the private and public sectors (Hansmann, [1980](#ref-hansmannRoleNonprofitEnterprise1980); Salamon, [1994](#ref-salamonRiseNonprofitSector1994)) and engage in areas that are of interest or concern to Digital Civics work. Given that Digital Civics work is often reflective on the subject of design’s application within a setting (Strohmayer et al., [2019](#X613306637043b691fadc72155fc7b26d24c98e2); Bellini, Strohmayer, et al., [2019](#ref-belliniMappingMarginsNavigating2019)), and given that charities do important work with increasingly sparse funding (Radojev, [2018](#ref-radojevCharitiesTakingChunks2018)), this leads me to ask *R4: How should design work be performed in civic organisations such as charities so that they can participate in design while operating with limited resources?*

My insight into this begins in [Chapter 5](#chapter-5) when I began design work in the context of Patchwork, after having been there a year. I struggled to engage them in what I was trying to do as a Participatory Design Process. My reflections on trying to apply Participatory Design principles in this setting lead to the development of my first contribution in this area; *Vanguard Design* as a model for doing design work in these spaces. In [Chapter 6](#chapter-6), I document how the evaluation process was also competing for attention and required more active engagement from me to shepherd than I’d initially hoped.

In [Section 2.2.2](#why-are-charities-important) I introduced the terminology of ‘Third Sector and Social Economy’, abbreviated as TSSE throughout that chapter. This was a device to encapsulate the myriad ways that Third Sector Organisations such as charities are enshrined in law, are structured, and attend to their activity so that they could be discussed effectively. As noted in [Section 3.4](#overview-and-timeline), I engaged specifically with small front-line organisations legally classed as ‘charities’ within the UK. While I believe that my contributions are broadly applicable to charities and Third Sector Organisations internationally, future researchers may wish to test these contributions and further this work in other types of organisations that I put forward as belonging to the TSSE.

In the following contributions I set out how *Vanguard Design* may be applied in Digital Civics by taking the initial lessons from design work, and updating them with experiences from the evaluative stages of the research. I then draw from my Digital Civics contemporaries and apply reflections from my own research to contribute lessons for Digital Civics researchers who are engaging with charities.

### C4a: Vanguard Design in civic spaces

I first put forward *Vanguard Design* in [Section 5.5.3](#vanguard-design-in-civic-spaces), and the circumstances leading to this synthesis are documented more fully there. *Vanguard Design* is my method to reconcile the contradictions in performing design work in a civic organisation such as a charity. During the initial design process I attempted to build in a Participatory Design (PD) character (Muller & Kuhn, [1993](#ref-mullerParticipatoryDesign1993)), born of the thesis’ Marxist-Leninist values and their alignment with the original concerns of PD within the trade unions of Scandinavia (Floyd et al., [1989](#ref-floydOutScandinaviaAlternative1989)). This was attempted through design workshops based around the Futures Workshop method (Jungk & Müllert, [1996](#ref-jungkFutureWorkshopsHow1996)), followed by extended design crit sessions (Goldschmidt et al., [2010](#ref-goldschmidtDesignStudioCrit2010)) across a number of months.

In [Section 3.5.2](#X2b837f005286e01050a736f4524933085bf38cd) I detail how, despite my PD leanings and the Marxist-Leninist values in the research, I chose to label the design process as *User-Centred-Design* (UCD) rather than PD because of the way design work was performed in [Chapter 5](#chapter-5). In short, the design activities were limited due to the material conditions of the organisations I was working with and within: Patchwork were focused on the performance of their critical work and any attempts to engage in explicit design activities with them competed with this. As a result, rather than attempt to misconstrue my activities as a more ‘configured’ form of participation (Vines et al., [2013](#ref-vinesConfiguringParticipationHow2013)), I instead acknowledge my central role in making design decisions based on my membership of the setting at Patchwork, thanks to my extended fieldwork with them. To elaborate, this was bound up in their expectations of me and my role within the organisation at that point. Every member of the team at Patchwork were to apply their skills towards supporting the community, and one of the key skills I possess which the members did not was designing and implementing digital technologies. *Vanguard Design* thus arose as a way to describe how design was organised as a part of account-able piece of work practice within a setting, and does not stand as a criticism or in competition with PD methods; but the application of PD principles to the material conditions of a space when its members cannot participate in traditional design activities. I outline in detail how *Vanguard Design* is defined in [Section 5.5.3](#vanguard-design-in-civic-spaces), but its key characteristics are that: the designer is a member of setting and as such their work as a designer is account-able to other members of that setting (Crabtree et al., [2012](#ref-crabtreeDoingDesignEthnography2012)); and their understanding of a setting’s interactional work and alignment with its values as a member of it allow them to act as a vanguard on behalf of the other members (Lenin, [1902](#ref-leninWhatBeDone1902)), as they are directly accountable (and account-able) to them.

Following my initial synthesis of *Vanguard Design* in [Chapter 5](#chapter-5), I relayed in [Section 6.2.2](#the-stages-of-deployment) how the deployment of systems was also challenged by the need to navigate around the daily realities of work in small front-line charities. While this was perhaps frustrating for me at the time, it shows how the conditions that lead to *Vanguard Design* remain concerns at later stages in the design process. HCI literature has presented different ways to deploy systems in the past and what the challenges of these deployments are (Eason, [1989](#Xc4213149c3e565b46573037f89fca105660f3a9), p.158), such as phased introductions or the running of new systems ‘in parallel’. In this Eason puts forward that work may be impacted by the introduction of a new system entirely during a ‘Big Bang’ move to a new system, or by the duplication of work during a parallel deployment, and this may result in loss of operating capacity temporarily as staff are placed under strain. This was manifested in my deployments during this research and poses a challenge in how to go about this in practice; charities often perform critical duties with limited resources, and disruption to those has the potential for negative effects to their beneficiaries. In the realm of Digital Civics, my colleagues Bellini et al and Strohmayer et al have been engaged with charities that work with domestic violence perpetrators (Bellini, Strohmayer, et al., [2019](#ref-belliniMappingMarginsNavigating2019); Bellini, Rainey, et al., [2019](#ref-belliniVocalisingViolenceUsing2019)) or provide crucial sex work support services (Strohmayer et al., [2017](#X411a9da05ba7eeedfaacee9974b32616c60b450), [2019](#X613306637043b691fadc72155fc7b26d24c98e2)) respectively; any negative consequences from a deployment could be disastrous for the safety of vulnerable people. Even in the context of Patchwork or OPC, any additional effort expended by staff to evaluate systems may impact on their ability to seek funding, or to respond adequately to emergent issues.

Lessons from Durrant and Kirk on ‘Ethical Responsiveness’ (Durrant & Kirk, [2018](#X728634226d859a19f7fef6f2d1e6043337a8eea)) may be most applicable here; through the presentation of case studies from HCI engagement in the context of the Rwandan genocide Durrant and Kirk provide lessons for good research practice in sensitive settings with multiple stakeholders. Although lessons in ‘anticipating change to research activities’ strikes resonance with me, perhaps most poignant in the context of my research is their discussion of establishing a ‘dialogical understanding’ with research partners and understanding what it means to ‘be answerable to others’. Kirk and Durrant explicate how they *became part of* the network of actors in the space and this was present in their everyday face-to-face interactions with the building of trust into interactions and design work. This reflects what I establish with *Vanguard Design* in that by becoming part of a setting the researcher will not only be able to take account of the everyday work practices that they need to be sensitive to, but in turn make design work and themselves accountable (and account-able) to their research partners. It is this alignment of values, shared understanding, and *design work being performed as part of the setting* which characterises *Vanguard Design* in practice throughout the design and system evaluation process.

*Vanguard Design*’s roots in PD mean that it should be concerned very explicitly about ethical responsiveness and ethical responsibility in these research settings, but also should develop as a praxis in order to ensure design work is accomplished successfully, and the setting enriched as a result. A ‘Vanguard Party’ (Lenin, [1902](#ref-leninWhatBeDone1902)) describes the role of a cadre of revolutionaries in coordinating and acting on behalf of the working class as a whole who are otherwise occupied, and it is a characteristic of Vanguardism that they must fully understand the concerns of that class. When applied to *Vanguard Design* it becomes the job and responsibility of the designer(s) as vanguard in settings to understand fully and aims and work practices of the organisations they’re within and contribute design work as labour to them, as well as support in coordinating efforts of the organisation as a regular member of that setting. This will require the development of practical tools and methods to accomplish design work in each setting, which sadly stands as an open challenge at the conclusion of this research. In is the task of *Vanguard Design*’s future design work to embed its principles in practice where they are applicable and to test such methods and principles in the crucible of design practice. Methods will need to be different in each setting, and *Vanguard Design* should not be seen as a wholesale replacement for PD methods in charities as it emerges from a specific set of circumstances i.e. that you are embedded as a member of the setting, and what you’re doing is account-able to them. Further developments in *Vanguard Design* could (and should) explore ways to support making the accomplishment of design work in a setting account-able to other members. In my research this occurred through an extended engagement and positive relationship with Patchwork, but these circumstances should not be taken for granted. Lessons in vanguardism should be drawn from other sources, such as the organisation of a ‘mass line’ which provides a framework with which a vanguard may engage ‘the people’ (here the members of the setting) and implement action based on their collective input (Amin, [2014](#ref-aminPopularMovementsSocialism2014)).

One of the potential drawbacks of *Vanguard Design* lies in its roots within Participatory Design (PD) principles, as outlined in [Chapter 5](#chapter-05). Spinuzzi writes of PD that it has several limitations in its method, with one of the core criticisms being that PD *may not lend itself to radical change in an organisation* and instead be better suited to a gradual evolution of circumstances (Spinuzzi, [2005](#X95598ae6cccf71ff0e5fc0d6ad8991d83d5d7fd)). This in and of itself may not be a bad thing, and may lead to a more sustainable change in the organisation as the designers are embedded over a longer period of time. However, the specific, long-term, and embedded configuration of *Vanguard Design* also means that one of its major potential drawbacks as a design methodology is its requirements to be fully immersed in the setting. This raises two major potential pitfalls for *Vanguard Design* projects: firstly, the commitment required to engage an organisation to the point where one can be considered a member of that setting; and secondly, the potential issues of accountability and trust of the vanguard themselves once they have achieved that status. With respect to the first concern, that of commiting resources enough to achieve the status of the first place, it should be clear that this requires significant long-term investment in the partner organisation from the perspective of both the academy and the researchers and designers who are embedded within it. Indeed they should be considered a shared resource between the organisation in which they are embedded and the academy, since their values align and they are by definition organising design work to benefit the organisation as well as contributing research. This may require a general shift in the way that some HCI and CSCW work is performed, in order to engender the long-term relationships required which may not be attractive to some institutions. This also raises the second potential pitfall; the accountability of the vanguard themselves. The individual(s) making up the vanguard in this sense will experience being a member of two organisations, something common enough, although carrying the risk of experiencing personal conflict while performing research as an ‘insider’ (Kanuha, [2000](#ref-kanuhaBeingNativeGoing2000)). In addition to this, though, it concentrates a lot of power within the hands of the vanguard performing design. This could be seen as a risk where bad or malicious actors gain the trust of an oraganisation and set themselves up as ‘vanguard’, while exploiting them for personal benefit and not designing with their best understanding of the setting and the members’ best interests at heart. In this sense, issues of how the vanguard *becomes Accountable* are brought to the fore.

[Chapter 5](#chapter-05) discusses how the actions and design work of the vanguard should be somewhat account-able to the members of the setting, in the sense of work practice (Crabtree et al., [2012](#ref-crabtreeDoingDesignEthnography2012)). However the higher-level notions of Accountability will still apply (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)). This requires firstly that the vanguard is fully Transparent, open, and honest with their design process and takes measures to ensure that members of the setting understand the process. This will require a more active form of Transparency, in order to make themselves account-able to the members (Oliver, [2004](#ref-oliverWhatTransparency2004); Schauer, [2011](#Xcefbeef5e45e28b2bac2d57133ac27f40f0063b)). Another issue that will need to be navigated is that the vanguard will need to be Accountable to many different stakeholders in the design research, potentially in different ways. To what extent they are liable to the organisation they’re working in vs the academy, whether their research goals are set (controlled) by the academy or from the members of the setting, and how responsive they can be to these stakeholders may set them up for experiencing *Multiple Accountability Disorder* themselves (Koppell, [2005](#Xa656a98eb9286701671d9400a4ef846ad639399)). Explicit care should be taken in order to avoid this and determine primacy of stakeholders in particular cases where one finds oneself doing *Vanguard Design*.

In this sense the future of *Vanguard Design* may be best thought of not as a design methodology that can be taken up as a practical goal at the start of a research or design project, but a mantle that becomes available to researchers and designers once certain conditions have been met. This may make it more appropriate for approaching design practice from the position of already being a member of a group, rather than a professional researcher or designer.

### C4b: Lessons in engaging charities for Digital Civics

As noted, several of my Digital Civics colleagues and I have been engaged with charities and other Third Sector Organisations throughout the course of our research. My performance of work with Patchwork and later OPC shares some characteristics of work with my colleagues, and differs in others. I therefore wish to make explicit some of the lessons for Digital Civics research so that it may be performed effectively in these spaces. I put forward in this contribution that Digital Civics researchers may engage effectively with charities by embracing the political nature of their work to challenge narratives.

The original framing of Digital Civics as presented by Olivier and Wright (Olivier & Wright, [2015](#ref-olivierDigitalCivicsTaking2015)) involves changing the ‘transactional’ model of public services to a more ‘relational’; where services and political thinking may be ‘co-produced’. This is made manifest in the early Digital Civics work, which utilised co-design to build platforms such as *AppMovement* (Garbett et al., [2016](#ref-garbettAppMovementPlatform2016)), *Bootlegger* (Schofield et al., [2015](#ref-schofieldBootleggerTurningFans2015)), and *Postervote* (Vlachokyriakos et al., [2014](#X5070163ca0ae99de32d9ca0b391b4b116e71a69)). These platforms were centred around the act of commissioning, where artefacts such as mobile applications, music videos, and physical-digital voting tools could be co-produced by and for the needs of those who would use them. As I note in [Chapter 1](#chapter-1), Digital Civics emerged against a backdrop of austerity in the UK which has seen the rise of foodbanks to address people not being able to eat (Loopstra et al., [2015](#ref-loopstraAusteritySanctionsRise2015)) and negative overall effects on the health of the UK population (Stuckler et al., [2017](#ref-stucklerAusterityHealthImpact2017)).

In the middle of all of this are charities, who often step up to fill the gaps left by a retreating government and which the private sector may not be trusted to deal with due to its motive of capital accumulation (Hansmann, [1980](#ref-hansmannRoleNonprofitEnterprise1980); Salamon, [1994](#ref-salamonRiseNonprofitSector1994)). this makes charities inherently political spaces and there are voices in charities and Third Sector Organisations which argue that this should be forefronted in charity activity (Feis-Bryce, [2015](#ref-feis-bryceWhyThirdSector2015)). Further to this, austerity has also shrank charity sector funding (Radojev, [2018](#ref-radojevCharitiesTakingChunks2018)) and overall there are efforts to transform charities into ‘Social Enterprises’; effectively marketising them and appropriating them as tools of capital which risks their ability to operate and perform the work that they do (Eikenberry & Kluver, [2004](#X530345037a19bf2f08d9175394afc29f907c5ce)). I put forward that one of the shortcomings of the original framing of Digital Civics is that *it takes austerity as granted*. Olivier and Wright did acknowledge that *“in these times of austerity there is a risk that digital civics might be misconstrued […] as finding ways of making citizens do it for themselves”* but this notably lacks a challenge to the status-quo of austerity itself. This presents a challenge for Digital Civics researchers as a whole, as not explicitly challenging this narrative in their research may indeed be construed as unwitting apologism for austerity politics. This is especially true in charities.

This may mean that Digital Civics as a whole, but particularly in charities, could draw lessons from Fuad-Luke’s conception of ‘Design Activism’ (Fuad-Luke, [2013](#ref-fuad-lukeDesignActivismBeautiful2013)); which he defines as design being applied to create a counter-narrative aimed at creating a form of positive change. This is admittedly a broad definition, but the presence of a ‘counter-narrative’ is an important stipulation in the context of charities, Digital Civics, and austerity politics as I have shown that the original conception of Digital Civics may take austerity as granted. Work in charities may not address them as an inherently political space and this sadly softens the potential impact of the work to effect change in this manner.

Digital Civics researchers in these spaces may be required, therefore, to navigate their own political leanings and ensure that these are aligned with the work they’re doing within charities. This can be done by engaging in ‘ethical responsiveness’ (Durrant & Kirk, [2018](#X728634226d859a19f7fef6f2d1e6043337a8eea)) in cases, but may also be done by assuming the *Vanguard Design* mantle if the conditions are appropriate. Thankfully, there is no paucity of Digital Civics work that challenges narratives effectively to draw further examples from. Bellini has constructed a very fruitful long-term partnership with organisations to design for domestic violence perpetrator programs (Bellini, Rainey, et al., [2019](#ref-belliniVocalisingViolenceUsing2019); Bellini, Strohmayer, et al., [2019](#ref-belliniMappingMarginsNavigating2019)) and Strohmayer has worked to lend her support to sex-worker support programs (Strohmayer et al., [2017](#X411a9da05ba7eeedfaacee9974b32616c60b450), [2019](#X613306637043b691fadc72155fc7b26d24c98e2)). Both of these spaces are inherently political anyway, but become more so when they’re acknowledged as taking place at the intersection of Digital Civics research and charities. Further to this Digital Civics work performed in challenging the political-economy of global food networks is seen in Prost’s work in engaging with and providing infrastructure for ‘Food Democracy’ at a local level (Prost et al., [2018](#ref-prostFoodDemocracyMaking2018), [2019](#Xe03ecf69f5a760654737a0ca14a74abf34e1e9f)), addressing austerity explicitly via the solidarity economy in Greece (Vlachokyriakos et al., [2018](#Xe79dfb62cf4ea6d3a45d21d4fbd356937ae9302)), and supporting refugees in Lebanon (Talhouk et al., [2018](#ref-talhoukHCIRefugeesExperiences2018); Talhouk, Montague, et al., [2019](#ref-talhoukCallEmbeddingDignity2019); Talhouk, Balaam, et al., [2019](#ref-talhoukInvolvingSyrianRefugees2019)).

Acknowledging politics and challenging narratives in Digital Civics research in charities may present a challenge for some researchers, particularly those who are deeply reflexive and struggle with concerns over how their participation in such political activity may indicate ‘going native’ (Kanuha, [2000](#ref-kanuhaBeingNativeGoing2000)). I would instead argue that it belies being ‘part of the action’ (Fuller, [1999](#ref-fullerPartActionGoing1999)) and allows them to operate as a design vanguard in these spaces. In doing this, we allow Digital Civics to overcome its initial omission of acknowledging the role of political-economy and ask deeper, more radical, questions. Relational models as originally presented in Digital Civics may allow it to ask how to design better services that are more targeted to people’s needs, but forefronting the political nature of the space allows it to acknowledge that service provision *is* in fact a relationship, and equips it to ask *What is the citizen’s relationship with a state that is increasingly absent?* as it is under austerity. To paraphrase Lucy Parsons; *never be deceived that the rich will allow you to design away their wealth* (Ahrens, [2004](#ref-ahrensLucyParsonsFreedom2004)). At the end of the day Patchwork are still a charity attending to the neglected people of Benwell in Newcastle, and without challenging this state of affairs or providing materially for their work; Digital Civics risks losing a huge potential for positive change. We can’t design away their wealth; but we can apply design and Digital Civics research in a manner that has us acting in solidarity with those who need it and challenges the narrative that this is the way the world should be.

## Summary

In this chapter I have made clear the main contributions of this thesis and how they address the research questions I outlined at the beginning of this work. I have made contributions in three areas of concern: Accountability Work; Data and Interfaces for Transparency and Accountability; and Designing digital technologies in charities.

My contributions in the area of Accountability Work consist of a definition of *Accountability Work* and how it is organised on the ground as a matter of work practice that addresses Transparency and Accountability obligations in charities. In doing this I also explicate how this work centres around *Accountable Objects*, and I provide design recommendations for supporting *Accountability Work* in digital systems.

Secondly, I provide contributions for designing data and interfaces for Transparency and Accountability. I first provide a prototype model for data in the *Qualitative Accounting Data Standard* which outlines the types of activity that need to be modelled and a proposal for supporting decentralised systems. I then build on this by contributing how the *Commitment-Action Model* may be used to iterate on the former. I then turn to how interfaces may be developed around this data and contribute separately on how interfaces may support the collection of data around charity work and spending, and then how interfaces may support interactions this data.

Finally, I contribute two things for Designing digital technologies in charities. The first of these is an application of design which I have termed *Vanguard Design* to reflect the role of the designer within the settings they design in. I then take account of this research within the context of Digital Civics and contribute lessons for Digital Civics researchers, suggesting that they embrace the political nature of their work to more effectively challenge narratives.

I now move to conclude this thesis by reflecting on how future work may take forward these contributions and organise design activity in these spaces.

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