

Reconfiguring Data Power: Participatory Design with Third-Sector Organisations at the Local Level

Olena Saienko,^{1*} Stefano De Paoli,²

¹Independent Researcher, Finland; ²Abertay University, Bell Street, Dundee, DD11HG, United Kingdom

*Corresponding author: helen.sayenko@gmail.com

ABSTRACT

Despite Third-Sector Organisations (TSOs) routinely collecting data for their services, limited resources often prevent them from taking advantage of data sharing and reuse. These constraints place TSOs in a weak position, where other actors control relevant data, digital infrastructures and access rights. Such control reflects forms of data power that shape how micro and small TSOs (MS-TSOs) participate in Participatory Design (PD) and co-creation aimed at imagining social innovation around data sharing and reuse. When MS-TSOs engage in PD, their involvement can be overtaken by actors with stronger influence over data processes. In this paper we argue that the collaborative nature of PD can help local TSOs work together to rethink how data power operates and how its effects might be challenged. This paper examines these issues through a case study on data reuse and sharing, involving MS-TSOs in the prototype design of a platform for sharing data. The analysis shows how participation in co-creation can contribute to reshaping power relations, offering MS-TSOs renewed agency.

Keywords: Participatory design; overtaken participation; data power; Third Sector Organizations; data reuse.

Received: January 2026. Accepted: August 2026.

INTRODUCTION

Third Sector Organisations (TSOs) are “*neither the private sector nor public sector and may include voluntary and community organisations, charities, social enterprises, cooperatives, associations, self-help and community groups*” (National Audit Office 2010). Data reuse, the practice of using existing data for new purposes, offers strong possibilities for TSOs service delivery, though many lack capacity (Boswell et al. 2016), financial support (OSCR 2020) and knowledge (De Las Casas et al. 2013; Harvey 2016) for doing so. This is significant for micro and small TSOs (MS-TSOs), whose limited income (micro have < £10,000 income per year and small between £10,000 to £100,000) and reliance on few staff or volunteers (GOV.UK 2022), leave them short of ‘data power’, understood here in two senses: the capacity to collect, aggregate and analyse data for service delivery, and the ability to shape the conditions under which data circulates.

This paper demonstrates that Participatory Design (PD) (Ehn 2008), as a form of co-creation, can help MS-TSOs surface data power constraints and enhance collective capacity for data reuse, contributing to Social Innovation (SI), where marginalised actors create grassroots responses (Manzini 2015). This paper asks: “What value can PD bring for local MS-TSOs exploring data reuse?” Drawing on concepts such as data power (Iliadis and Russo 2016), and overtaken participation

(Andersen et al. 2015), we examine constraints shaping MS-TSOs’ participation in co-creation and how PD can expand their capacities, showing also how PD renders data power visible, using a case study with six Dundee-based charities that produced a prototype platform called “Datashare”. Dundee is a small city in the north-east of Scotland with about 150 thousand inhabitants, which over the years has experienced processes of de-industrialisation, leading to widespread urban poverty and marginalisation.

LITERATURE REVIEW

PD originated from experiments at the Norwegian Work Research Institute, that involved workers in shaping their workplace (Ehn 2008; Puri et al. 2004), aiming to develop system knowledge, manage expectations, and promote workplace democracy (Bjerknes and Bratteteig 1995). Over time, PD shifted from political goals toward broader social concerns and is now widely applied to SI, where communities imagine solutions to their problems (Bassetti et al. 2019).

In SI, actors may participate as experts and beneficiaries (Sanders and Stappers 2008), or they may contribute expertise while benefits extend to others (Prost et al. 2019). TSOs often take part as experts in PD for community benefit (Del Gaudio et al. 2014; Mulder 2018), though MS-TSOs may also need to be beneficiaries. Only limited studies centre PD around



TSOs' needs as beneficiaries (Selloni and Corubolo 2017; Erete et al. 2016). While participation in co-creation can bring gains for TSOs, it also presents challenges such as limited awareness of other organisations, competing priorities, time pressures and funding competition (Lee et al. 2017), with MS-TSOs often prioritising community needs over broader collaboration.

THEORETICAL BACKGROUND

This paper addresses data reuse and sharing for MS-TSOs. Prior literature observed how MS-TSOs are in a weak position due to scarce resources, funding competition, and limited peer awareness. Meanwhile, gaps in knowledge, infrastructure and expertise further limit their ability to start data work.

Conceptually, we treat “data” and related practices as neither neutral nor purely technical. As with other artefacts (Winner 1980), data carry politics (Ruppert et al. 2017; Scheuerman et al. 2021). In Critical Data Studies, authors argue that “data are a form of power” (Iliadis and Russo 2016). Data power indicates that collection, analysis, and application of data, shape social relations, decision-making and outcomes, and that this operates through material contexts, such as infrastructures, formats and practices (Hepp et al. 2022). Many actors are primarily subject to this power; citizens, for instance, have limited say over governmental data practices, the same goes for workers regarding their employer's data practices. MS-TSOs face similar constraints. Their limited material, human and infrastructural resources reduce their capacity to initiate sharing or reuse projects. Gatekeepers of data infrastructures decide what is available, who accesses it, and how meaning is produced, conditions that contribute to the marginalisation MS-TSOs experience in relation to data. Two dimensions of data power run through this paper, therefore. The first is related to capacity: the skills, tools, staff and time an organisation needs to work with data. The second is control: the ability of an organisation to assess and determine what data exists, who may access it, and on what terms. An organisation may gain capacity (for example adopting a new tool) while remaining subject to data control of others (large organisations do not share their data with smaller ones).

PD could be one pathway for MS-TSOs to build some data power through SI. Yet PD also unfolds inside existing power relations and broader socio-material assemblages. In PD, dynamics shaping both design and social processes foreground how relations among data, regulations, technologies, and people can constrain participants. Following Andersen et al. (2015), we position PD participants not as isolated individuals but as nodes in wider assemblages. Their notion of *overtaken participation* frames participation in co-creation as a network effect “always overtaken by numerous others.”

This is a notion that connects to Actor-Network Theory (ANT) (Latour 2005) and the idea that phenomena are socio-material effects of assembling a variety of human and non-human actors. However, at the same time, overtaken participation should not be confused with what Latour refers loosely to as ‘other-taken’ (Latour, 2005), the idea that an actor is shaped, constituted, and enabled through associations with other actors. The other-taken idea relates to the ontological situation of actors in a broadest sense, actors are not a fixed set of properties but are defined through association with other actors. The overtaken participation notion instead points specifically to dynamics of participation in co-creation settings. Andersen et al. ask what happens when participation reshapes those who participate, and how actors (which may or may not be present) during participation overtake others and shape their contribution to the participatory exercise through the effect of their power.

While sometimes cast positively (open-endedness, commoning), we argue for a critical reading of the notion of overtaken participation: overtaking can signal unequal power, especially when participants lack bargaining power, as in Andersen et al.'s case where children's participation was redirected by government privacy agendas. We treat overtaken participation as the point where data power becomes visible inside PD activities (e.g. during workshops, and co-creation more generally). Even when absent from the room, actors who hold datasets, operate infrastructure, or set legal rules shape the design and co-creation space and limit what MS-TSOs can propose and ideate. Mapping such moments helps trace hidden asymmetries and plan counter-moves.

METHOD AND DATA

This study follows Spinuzzi's (2005) PD methodology, using a single concept-creation iteration instead of the multiple iterations originally proposed by the author. The methodology is composed of three stages: Initial exploration, Discovery and Prototyping. Design methods for each stage are shown in Figure 1. These stages took place over five months.

Initial exploration	Discovery Process	Prototyping
• TSOs Profiles • Meetings with TSOs	• Focus group • Ideation Workshop	• Prototype creation • Testing the Concept

Fig.1. PD methodology applied to the case study.

In the “Initial exploration”, TSO's Profiles were created to define the main characteristics of potential participants, based on interviews with small charities and social enterprises from Dundee. These profiles include the TSOs' size, area of operation, and services provided to the community. Figure 2 shows an example.

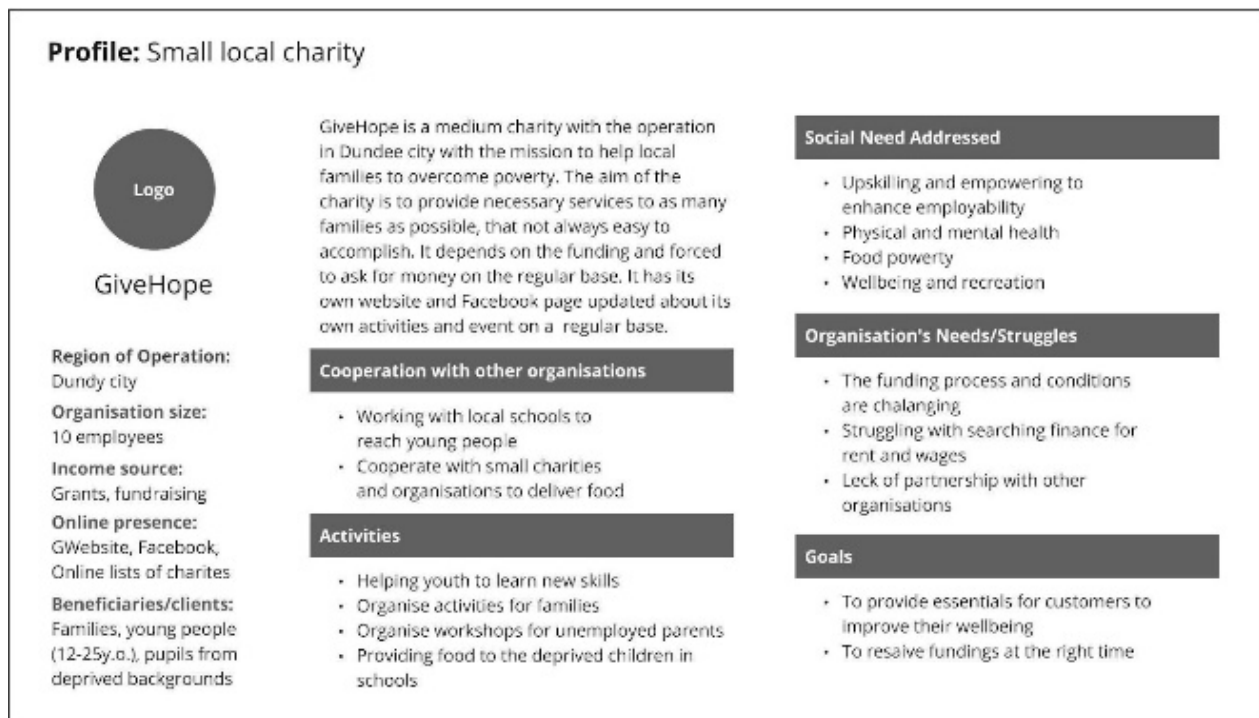


Fig. 2. Profile of small local charity.

Further, individual acquaintance meetings with selected TSOs were held to refine design queries and recruit participants. We identified 13 local organisations matching the defined TSO profile characteristics, of which six agreed to participate. Six organisations took part: five MS-TSOs operating in Dundee (Scotland, UK) and one larger charity with branches across Scotland, operating from Edinburgh, with a local office also in Dundee. The larger charity aggregates data from smaller TSOs and has strong data analysis expertise and infrastructure. The organisations involved worked in areas such as caregiving, food insecurity and citizen advice, and each participant occupied a management or data-related role.

Researchers conducted a semi-structured focus group and an ideation workshop with participants. The goal of the focus group was to facilitate initial communication among participants. The workshop was oriented towards the ideation of SI solutions, answering participants' needs. Finally, in the last stage, researchers prototyped a co-created concept based on previously defined requirements and tested it with participants. The focus group and ideation workshop were conducted online and recorded in MS Teams. The focus group audio recording was transcribed and coded manually, while the workshop recording was coded as video in a Qualitative Data Analysis Software, since participants' spoken comments only made sense alongside their actions during the workshop activities. Both sets of data were analysed using reflexive thematic analysis (Braun and Clarke 2021). Workshop sticky notes were further grouped

through affinity mapping (Holtzblatt et al. 2005) to derive a set of requirements (presented in Table 1). The prototype created from these activities also underwent remote unmoderated testing.

RESULTS

The Datashare case study examines how data gathered by local TSOs can be reused and shared across organisations to support their work, as a way for these actors to gain some data power. These organisations already collect data on services and activities and wanted to make better use of it for local communities. Early conversations showed they lacked the capacity to organise or analyse data and did not have the technological or human resources to do anything substantial. Participants also suspected that other TSOs held data that could benefit them; a shared process for reuse could increase the value of everyone's efforts.

Overtaken participation and data power

We observe overtaken participation in Datashare as other actors (human and non-human) shape what MS-TSOs can discuss, decide, and build during PD activities. In the focus group, participants discussed gaps in the data needed to understand community needs, often held by others. Participants, for example, pointed to the City Council as the holder of a working infrastructure and comprehensive datasets (e.g., benefits, free school

meals, often with linked postcode data) that are not shared with them. TSOs recognised both the usefulness of these datasets if they were available to them and their inability to match the Council's resources:

[Participant-1] "I'm comparing ourselves against the Council. It's quite an unfair comparison because there's never any way we could. Actually create, hold, maintain that data because we're too busy doing what is the real job".

[Participant-5] "So I spoke to the Council this morning. Or yeah, yeah, we've got we've amalgamated all these 7 databases, so we now have a life, you know, benefit information on everybody in the city who's getting benefits where they lived included in their system. They've got free school meals, everybody their child family who's applied, on the same system, so they can."

Here, the Council's control over access, infrastructure and interpretation is felt inside the PD room even when Council staff and data are absent. The datasets themselves, known to exist but inaccessible, act as non-human actors whose (absent) presence steers co-creation conversations toward workarounds and requests rather than co-creation on equal terms.

Legal frameworks also operate as non-human actors. GDPR's constraints were a recurring theme:

[Participant-5] "I want to share all this data... but... those individuals... did not give their consent... GDPR is tightening this up as we go on."

[Participant-3] "We have really cut back on the information we request... GDPR has had a big impact on what we collect and what we can analyse."

GDPR does need protective work, yet its effect for MS-TSOs is to narrow immediate options for sharing data.

Technical infrastructures further differentiate what is possible. One participant from the larger charity described their bespoke systems:

[Participant-1] "Yes it was purpose built for the process and our data hub is exactly the same ... So, it's not something that's commercially available because it's purely tailored to the system that we use".

Meanwhile, small MS-TSOs often rely on ad-hoc tools, such as Excel sheets or basic word-processors.

This unevenness shapes priorities and the very imagination of what a shared data service could be. Finally, resources (people, time, and money) set practical limits for small TSOs:

[Participant-1] "Data is not a part time job; Data is a fulltime job... TSOs generally can't afford that because they're putting all their money into helping their clients."

Across these moments, overtaken participation marks where data power becomes visible: in gatekept civic datasets, in legal norms, in infrastructures, and in resource constraints. PD still matters. It gives participants a shared space to name constraints, specify needs, and explore counter-moves, they are asked to act inside networks that set limits in advance. A practical response would be to design for those limits, lowering technical barriers, agreeing common data schemas and permissions, and brokering ties to holders of civic data, so that MS-TSOs can gain a measure of data power together.

How to gain data power

Our case study illustrates how PD can support MS-TSOs in regaining some data power and countering the effects of overtaken participation. It also shows how PD can enable future cooperation and alliances. A shared theme in the focus group was the belief that data reuse should involve not only TSOs but also public authorities. This suggests that MS-TSOs might attempt to enrol the Council and its datasets into a more collaborative process, loosening existing control. Another important observation was that, despite working in the same small city, participating MS-TSOs knew little about each other's activities or about their shared interest in data reuse. PD acted as a networking mechanism: a structured opportunity for forming new connections and recognising mutual concerns, which helped MS-TSOs move toward regaining data power.

During the Ideation workshop, participants explored the conditions contributing to their marginal position in the wider data ecosystem. Many themes aligned with what was discussed earlier (represented in Figure 3). PD then moved participants toward imagining how change might occur, such as support with digital tools, raising awareness of data's importance, accessing general-level datasets, and exploring approaches to visualisation.

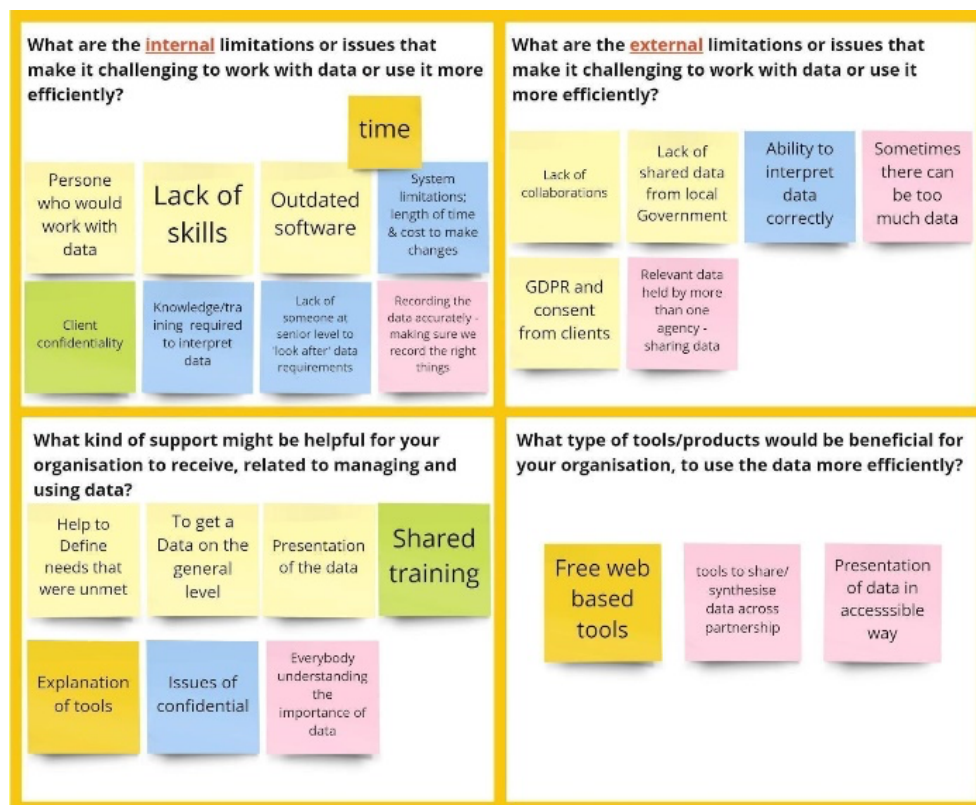


Fig. 3. Ideation workshop activity: Exploration of pain points.

After divergent workshop activities, participants formulated a shared problem statement: “We are not able to share and present the data in a more accessible way.” This provided a foundation for identifying factors influencing this problem (Figure 4): insufficient collaboration, limitations of free tools, difficulties in interpreting data, and challenges in presenting information clearly.

Through PD, participants reached consensus on how they might “take back some data power”, leading to early ideas for organising data reuse and sharing:

[CS_1 Participant 1] “Website with the electronic representation of data. Case studies to highlight the value of data.”

[CS_1 Participant 2] “Create a sharing hub - nominate someone from each organisation to take charge of it - regular meetings between participants - high-quality graphics.”

Here, PD enabled participants to imagine a digital solution that could stabilise collaboration and respond to shared constraints. This also helped clarify which actors currently shape or limit data reuse, including other TSOs, local citizens, funders, National Health Service (NHS) organisations, the Council, and regulatory requirements such as GDPR.



Fig 4. Problem exploration board from Ideation workshop

During ideation, participants converged on a set of requirements for such a digital solution (Table 1). For example, limited access to relevant datasets is tied to existing control by other actors; a shared digital platform offering aggregated access could redistribute some of this control. Likewise, the requirement for easy-to-use tools responds directly to the lack of resources that restrict many MS-TSOs from performing basic data work. The platform could also help TSOs navigate legal constraints by providing guidance.

Reconfiguring the data politics

The next step was to translate defined requirements into an artefact. The ideation process led to the co-created concept of the “Datashare platform”, designed to help MS-TSOs share and visualise their data through simple, accessible guidelines. Participants outlined essential features such as community forums or meetups, video tutorials, tech support, templates, and automatic visualisations based on submitted datasets. Researchers then prototyped the platform simulating core functions (Figure 5). In practice, Datashare represents a possible way for TSOs to shift the balance of the data power relations that currently constrain them.

Table 1. Requirements for data sharing platform

Lack of data power	Requirements for empowerment	Actors involved
<i>Data shortage</i>	Get access to data that can help to define the right local issues	Data
<i>Low engagement around data</i>	Possibility to engage TSO, Governmental institutions and others (e.g. NHS)	Third Sector, Governmental institutions, Local stakeholders
<i>Dependent on the fundings</i>	In compliance with funders' preferences (minimise overhead costs) - need for free software tools	Funders Software
<i>Lack of data management knowledge</i>	Accessible data representation that is easy to understand without experts	Employees Volunteers
<i>Need to provide reports for stakeholders</i>	Support to show the data in reports	Reports
<i>GDPR, policies</i>	Clear data sharing agreement between stakeholders	GDPR Policies

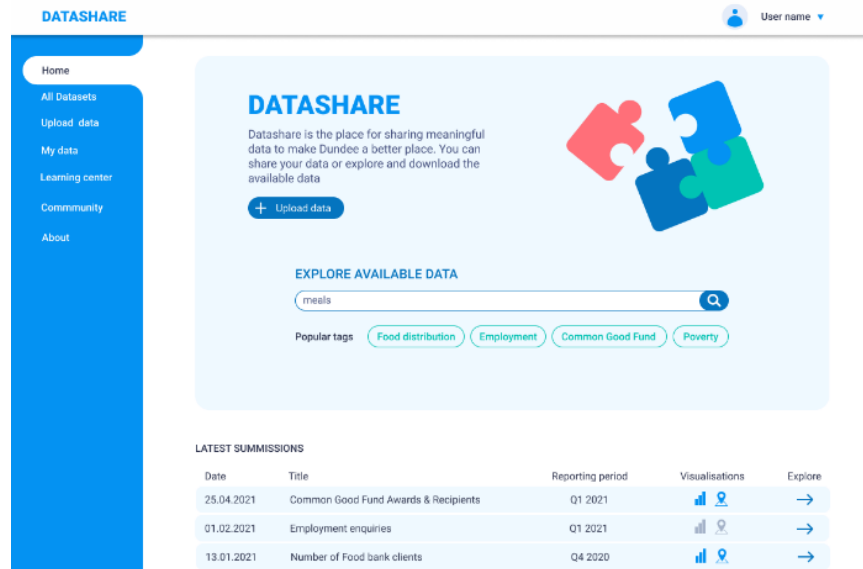


Fig. 5. Datashare platform prototype: home screen

A major barrier for TSOs in managing data or engaging with open data is the lack of skills and dedicated staff. To address this, the Datashare prototype presents data in accessible visual formats (datasets, maps, charts, and reports), allowing users to generate

visualisations easily without specialist expertise. The platform offers guidance for preparing and submitting data, learning resources, and potentially technical support, making data work more manageable for MS-TSOs.



Fig. 6. Data visualisation functions of the Datashare platform

To address GDPR and confidentiality concerns, Datashare would require users to register before downloading or uploading data and guides contributors in making their files compliant. A community page for meetings, events and chats would respond to the limited engagement with local actors that participants reported.

As a digital artefact guided by participants' requirements defined during co-creation, Datashare offers MS-TSOs a stronger position in data work, and creates practical conditions for safer, coordinated data sharing. Table 2 summarises these shifts.

Table 2. Datashare features supporting a data empowerment

Solution requirements supporting TSO's' data empowerment	Datashare features supporting data empowerment
<i>Access to missing data to address local issues</i>	Access to the local datasets shared by stakeholders that possess data.
<i>Engage with organisations within the Third Sector and other local stakeholders</i>	- Engagement through sharing own data/downloading others' data; - Enrolment of a wide range of stakeholders: TSOs, governmental institutions, NHS; - New communication channels around data matters.
<i>Data represented in accessible ways that is easy to understand without the recruitment of data experts</i>	- Formats with preview: datasets, maps, charts; - Video tutorials and guidelines; - Templates to prepare data for sharing; - Generation of visualisation.
<i>Support to show the data in reports</i>	Possibility to download data and visualisations for reports.
<i>Clear data-sharing agreement between stakeholders to follow GDPR</i>	- Terms and Conditions; - Licence selection support; - Registration of users.

DISCUSSION AND CONCLUSIONS

This paper has shown how PD, as a form of co-creation, offers MS-TSOs a space to step away from everyday pressures and work collectively towards new possibilities for data reuse and sharing. We argued that MS-TSOs operate with limited data power, and that PD can help them build capacity in data management, by supporting networking and enabling them to imagine new solutions. We observed that MS-TSOs remain subject to the influence of other actors through overtaken participation, during co-creation. This lens helped us articulate how data power is negotiated and how PD can support MS-TSOs in building partial forms of empowerment through new alliances and SI.

Earlier literature highlighted the benefits data reuse can offer TSOs, improving understanding of social issues and stronger service delivery for local communities. Yet limited financial resources (OSCR 2020) and lack of relevant knowledge (De Las Casas et al. 2013; Harvey 2016) restrict their ability to carry out meaningful data work, contributing to a wider lack of data power. The

Datashare concept created in our PD process can be read as an attempt to alter these conditions.

The distinction between capacity and control clarifies what Datashare could and could not deliver. Most of its features address capacity, since templates, guidance and automatic visualisation lower the skills and staff time needed to do data work. Its effect on control (on existing data) is indirect, resting on the channels it would open with actors such as the City Council, NHS bodies and funders. PD produced clearer gains in capacity rather than in control, though the alliances it opened are a first step toward the latter.

PD's effects extend beyond the prototype. Prior work shows that limited awareness of other organisations reduces communication among TSOs (Lee et al. 2017), and our study confirmed this. Participants often did not know each other, despite operating in a small local context. PD brought them together, enabling a shared understanding of constraints linked to their lack of data power, allowed participants to recognise shared goals, and consider joint strategies for improving data reuse. A central element of PD in this case was the sharing of experiences around data. These exchanges accelerated learning, supported networking and gave participants insights into each other's needs. A further contribution of this case is methodological. Data power operates through infrastructures, legal frameworks and resource conditions that are rarely verbally articulated in the daily work of MS-TSOs. PD made these visible: during co-creation activities participants specified what their organisations needed to deliver on services through data access, and at this point the gaps between those needs and what they could actually access came into view.

Datashare remains a prototype, and while the concept is technically realisable, MS-TSOs cannot develop it alone. Building and maintaining the platform would depend on external funding, and running it would require a dedicated coordinator, since data work, as Participant-1 noted, is not a part-time undertaking. It would also require an actor/organisation able to develop and host it and be accountable for it, such as a funded research project, a public authority, or a larger third-sector partner. Any such arrangement would operate under a data-sharing agreement between contributors. This ongoing need for resources is another expression of shifting power dynamics, reminding that these relations are always shifting.

ACKNOWLEDGEMENTS

The authors would like to thank the Northwood Trust for supporting this research.

CONFLICT OF INTEREST

None to declare.

STATEMENT ON AI USE

This work is authored by the researchers; AI tools were used only to assist with summarisation and text refinement. All conceptual contributions, analysis and interpretations remain entirely the authors' own.

REFERENCES

- Andersen, L. B., Danholt, P., Halskov, K., Hansen, N. B., & Lauritsen, P. (2015). Participation as a matter of concern in participatory design. *CoDesign*, 11(3-4), 250-261. <https://doi.org/10.1080/15710882.2015.1081246>
- Bassetti, C., Sciannamblo, M., Lyle, P., Teli, M., De Paoli, S., & De Angeli, A. (2019). Co-designing for common values: Creating hybrid spaces to nurture autonomous cooperation. *CoDesign*, 15(3), 256-271. <https://doi.org/10.1080/15710882.2019.1637897>
- Bjerknes, G., & Bratteteig, T. (1995). User Participation and Democracy: A Discussion of Scandinavian Research on System Development. *Scandinavian Journal of Information Systems*, 7(1), Article 1. <https://aisel.aisnet.org/sjis/vol7/iss1/1/>
- Boswell, K., Gyateng, T., & Noble, J. (2016). Freeing up health analysis. Using government data to help improve health services. *New Philanthropy Capital*. <https://www.thinknpc.org/wp-content/uploads/2018/07/NPC-Freeing-Up-Health-Analysis.pdf>
- Braun, V., & Clarke, V. (2021). *Thematic Analysis: A Practical Guide*. London: SAGE Publications.
- De Las Casas, L., Gyateng, T., & Pritchard, D. (2013). The power of data: Is the charity sector ready to plug in? *New Philanthropy Capital*. <https://www.thinknpc.org/wp-content/uploads/2018/07/The-power-of-data.pdf>
- Del Gaudio, C., de Oliveira, A. J., & Franzato, C. (2014). The influence of local powers on participatory design processes in marginalized conflict areas. *Proceedings of the 13th Participatory Design Conference on Research Papers - PDC '14*, 131-139. <https://doi.org/10.1145/2661435.2661440>
- Ehn, P. (2008). Participation in Design Things. *Participatory Design Conference (PDC)*, Bloomington, Indiana, USA (2008), 92-101.
- Erete, S., Ryou, E., Smith, G., Fassett, K. M., & Duda, S. (2016). Storytelling with Data: Examining the Use of Data by Non-Profit Organizations. *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*, 1273-1283. <https://doi.org/10.1145/2818048.2820068>
- GOV.UK. (2022). *The role of Voluntary, Community, and Social Enterprise (VCSE) organisations in public procurement*. <https://www.gov.uk/government/publications/the-role-of-voluntary-community-and-social-enterprise-vcse-organisations-in-public-procurement/the-role-of-voluntary-community-and-social-enterprise-vcse-organisations-in-public-procurement>
- Harvey, A. (2016). Big Data and The Third Sector: Opportunities and Challenges. Available from: https://peopleknowhow.org/wp-content/uploads/2016/09/bigdata_arthurharvey.pdf (accessed 04 August 2026)
- Hepp, A., Jarke, J., & Kramp, L. (2022). *New perspectives in Critical Data Studies: The ambivalences of data power* (p. 473). Springer Nature.
- Holtzblatt, K., Wendell, J. B., & Wood, S. (2005). *Rapid contextual design: A how-to guide to key techniques for user-centered design*. San Francisco, CA: Elsevier.
- Iliadis, A., & Russo, F. (2016). Critical data studies: An introduction. *Big Data & Society*, 3(2), <https://doi.org/10.1177/2053951716674238>
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford: Oxford University Press
- Lee, J., Mathews, M., & Tan, R. (2017). Mobilising Diverse Community Assets to Meet Social Needs. <https://doi.org/10.25818/TTVB-5CV7>
- Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. The MIT Press.
- Mulder, I. (2018). Co-creative partnerships as catalysts for social change. *Strategic Design Research Journal*, 11(3), 178-185. <https://doi.org/10.4013/sdrj.2018.113.01>
- National Audit Office. (2010). *Successful commissioning toolkit: What are third sector organisations and their benefits for commissioners?* National Audit Office (NAO). <https://www.nao.org.uk/successful-commissioning/introduction/what-are-civil-society-organisations-and-their-benefits-for-commissioners/>
- OSCR. (2020). *Scottish charity and public survey 2020 report*. <https://www.oscr.org.uk/media/3990/2020-07-27-scottish-charity-and-public-surveys-2020-report-june-2020-v2.pdf>
- Prost, S., Vlachokyriakos, V., Midgley, J., Heron, G., Meziant, K., & Crivellaro, C. (2019). Infrastructuring Food Democracy: The Formation of a Local Food Hub in the Context of Socio-Economic Deprivation. *Proceedings of the ACM on Human-Computer Interaction*, 3(CSCW), 1-27.
- Puri, S. K., Byrne, E., Nhampossa, J. L., & Quraishi, Z. B. (2004). Contextuality of participation in IS design: A developing country perspective. *Proceedings of the Eighth Conference on Participatory Design Artful Integration: Interweaving Media, Materials and Practices - PDC 04*, 1, 42.
- Ruppert, E., Isin, E., & Bigo, D. (2017). Data politics. *Big data & society*, 4(2), 2053951717717749. <https://doi.org/10.1177/2053951717717749>
- Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, 4(1), 5-18. <https://doi.org/10.1080/15710880701875068>
- Scheuerman, M. K., Hanna, A., & Denton, E. (2021). Do datasets have politics? Disciplinary values in computer vision dataset development. *Proceedings of the ACM on Human-Computer Interaction* (CSCW2), 1-37.
- Selloni, D., & Corubolo, M. (2017). Design for social enterprises. Co-designing an organizational and cultural change. *The Design Journal*, 20(sup1), 3005-3019. <https://doi.org/10.1080/14606925.2017.1352809>
- Spinuzzi C. (2005). The Methodology of Participatory Design. *Technical Communication* 52(2):163-174.
- Winner, L. (1980). Do artifacts have politics? *Daedalus*, 109, 121-136.