Tackling Digital Poverty in the North-East of England: Lessons learned from the Regions VCSE Sector

NOT-EQUAL

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voluntary organisations' network north east

ABOUT THIS REPORT:

This report details the outcomes of a series of workshops exploring digital poverty and digital inclusion with VCSE sector practitioners in the North-East of England.

We present key findings related to the challenges and complexities practitioners face in doing this work and recommend several ways that policymakers, funders, and technologists could support and augment the work being done by these practitioners in combatting digital poverty.

AUTHORS:

Adam Parnaby

a.w.parnaby2@ncl.ac.uk

Doctoral Candidate, Open Lab, Newcastle university

Clara Crivellaro

clara.crivellaro@ncl.ac.uk

Research Fellow, Open Lab, Newcastle university

Anne Fry

anne.fry@vonne.org.uk

Deputy Chief Executive, VONNE

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EXECUTIVE SUMMARY:

Digital poverty is a long-standing issue, and one with which the VCSE sector has been working for many years. COVID-19 has forced many aspects of life online, exacerbating digital poverty issues.

We engaged 9 practitioners from 8 VCSE sector organisations in the North-East of England to explore the current state of digital inclusion work in the region, and to gain insight into what policymakers, funders, and technologists can do to support the VCSE sector in doing digital inclusion work.

KEY FINDINGS:

• Digital inclusion is a large and complex subject area containing many distinct goals, all of which need to be pursued in order to tackle digital poverty. This makes it difficult for a single organisation to address all areas of digital inclusion and indicates the need for a holistic, collaborative approach.

• There is a desire across VCSE organisations to collaborate in digital inclusion work, particularly with respect to sharing data and practical know-how, as well as undertaking advocacy work and making collective calls for change.

• The scale and nature of digital poverty is often underestimated by key decision makers including funders and policymakers. Digital inclusion is more complex than an educational process undertaken by an individual and from which they 'graduate'. The current funding landscape does not recognise these complexities, with too much focus on short-term projects carried out by individual organisations.

• The pace of digital innovation and technical incompatibilities between systems are a continual source of challenges for those experiencing digital poverty.

• Digital-first services present inherent safeguarding risks for individuals in digital poverty who often need to share personal information with VCSE sector practitioners in order to access support with essential services, such as financial or healthcare services. This presents organisations with sizeable challenges when balancing delivering support and safeguarding service users, staff and volunteers.

• The VCSE sector is filling gaps in digital access policy in areas such as safeguarding and inclusive design of technology. The more recent digitisation of services in the VCSE sector has substantially increased workload for VCSE practitioners. This work is not necessarily equally distributed across organisation's workforces and can put dispropor-tionate pressure on staff and volunteers from marginalised groups.

KEY RECOMMENDATIONS:

Complexity:
Policymakers and funders should recognize the complexity of doing digital inclusion work 'on the ground', and that addressing digital poverty in a sustainable and effective manner requires a long-term view of funding and commissioning.

Collaboration:
Funders and commissioners should wherever possible foster a collaborative ecosystem of digital inclusion practitioners. Work should be undertaken to cultivate an environment in which many organisations can collaborate closely to address different aspects of digital poverty in a particular locality.

Training:
VCSE sector practitioners and technologists should be supported to engage with one another to develop guidance around the development of technology which is as accessible as possible to those experiencing digital poverty.

Training provision that would be of benefit to the North-East's VCSE sector includes:

- Training to support collaboration with other organisations on complex inclusion projects.
- Training in producing accessible online materials.
- Guidance on engaging individuals belonging to particular marginalised communities, drawn from organisations with relevant expertise and experience.

INTRODUCTION:

In light of ever-increasing digitisation of services and forced adoption of digital-first due to the ongoing COVID-19 Pandemic, it is clear that action must be taken to address digital poverty. Technology think tank Doteveryone has previously highlighted the extent of these concerns in both 2018[1], and shortly after the beginning of the pandemic in 2020[2].

This report responds to the Not-Equal's COVID-19 Call to Action[3] issued in 2020, which highlights digital poverty as an acute concern. Amongst many societal challenges raised by the pandemic, a need to move essential services online, combined with the closure of public IT infrastructure such as community centres and libraries, has highlighted how critical the efforts of the VCSE sector have been and continue to be in enabling digital access.

Digital inclusion work, which for the purposes of this report we define broadly as work undertaken with the intent to combat, or mitigate the impacts of digital poverty, is a broad programme of work.

Digital poverty is the result of many intersecting economic, educational, and social factors. These differ greatly between communities and places, which in turn have implications for the way digital poverty manifests. For example, people may lack access to appropriate devices or connectivity due to economic constraints or geographical location; they may lack key digital skills due to disparities in access to education or due to age may lack confidence, or any combination of these aspects. Issues of device access, connectivity, skills, and confidence all require different approaches in order for them to be addressed. However, all these needs must be met for a person to be able to engage with digital society.

Further complicating this picture, the digital needs of a particular individual or community vary with time, as new technological and societal changes produce new opportunities and challenges. This has been clearly demonstrated throughout 2020, as the Covid-19 pandemic forced many

organisations to deliver their services online, requiring skills in video-conferencing that had previously not been considered an urgent priority, in order to access work, as well as key civic, social, and community activities.

Therefore, there is a need for digital inclusion work which is effective, appropriate to an individual or community's context, and sufficiently socially and economically sustainable as to be able to adapt to a changing digital landscape.

VCSE sector organisations have been working to meet this need for many years. They are well-positioned to do this, owing to their close involvement with, and deep knowledge of, the needs of their beneficiaries. With this report, we therefore seek to investigate the current state of digital inclusion work in the North-East of England's VCSE sector, and use these insights to recommend ways that policymakers, funders, and technologists can support this work.

To investigate current digital inclusion practice in the North-East's VCSE sector, we organised a series of workshops on the topic with practitioners from a range of VCSE organisations with an interest in digital inclusivity, in collaboration with Voluntary Organisations' Network North East (VONNE) and Not-Equal Network+. We report on key findings from these workshops, and make several recommendations relevant to the local VCSE sector, policymakers, funders, and technologists.

1: Miller C, Coldicutt R and Kitcher H. (2018) People, Power and Technology: The 2018 Digital Understanding Report. London: Doteveryone. http://understanding.doteveryone.org.uk

2: Miller, C., Kitcher, H., Perera, K., Abiola, A. (2020) People, Power and Technology: The 2020 Digital Attitudes Report. London: Doteveryone. https://doteveryone.org.uk/report/peoplepowertech2020

3: Not Equal (2020) COVID-19 Call to Action Report 2nd June 2020. https://not-equal.tech/not-equal-covid-action/

Method:

Workshop Series Structure:

The workshop series was split into two 'topic strands' – Material Access and Connectivity, and Digital Skills. Within each strand, participant groups moved through a series of activities that included:

• Reflection on their organisation's current and past experiences on relating to the topic.
• Collective evaluation of current digital inclusion strategies.
• Collectively generating and refining lists of key values, needs, and assets possessed by the local VCSE sector with regard to digital inclusion.
• Brainstorming and discussing ideas for new approaches based on these values, needs, and assets.

Full details on the structure of the workshop series, and the reasoning behind it, can be found in Appendix 2.

All workshops were recorded, and transcripts were analysed based on the following questions:

1. What are the consequences of differing aspects of digital poverty (material access, connectivity, skills etc.) on digital inclusion practice?

2. What are the key asks from VCSE sector participants for policymakers?

3. What are the key asks from VCSE sector participants for technologists?

4. What is the relationship between digital poverty and VCSE organisations ability to deliver their services?

5. What safeguarding concerns are encountered by VCSE organisations when doing digital inclusion work?

6. What impact does digital poverty have on wellbeing and morale within VCSE organisations?

7. To what extent are VCSE sector organisations collaborating when designing projects?

Recruitment:

Participants were recruited through VONNE's networks as well as via a digital inclusion campaign group. The criteria for participation were twofold:

• Individuals or organisations who are currently working or have worked in or alongside the VCSE sector.
• Individuals or organisations who have been involved with VCSE sector work in the North East of England (including the Tees Valley).

Participants were offered compensation in the form of online store vouchers worth £10 per workshop completed, either for their own use or for the use of their organisations. This was done out of respect for the value of the participants' time and labour, particularly as the research took place in the context of the 2020 COVID-19 pandemic, and many participants had an understandable focus on using their limited time on critical work in their communities.

Nine participants were recruited from eight organisations, including representatives from community organisations, charities, and local government, operating in both urban and rural contexts. Participants are referred to using numbered pseudonyms throughout this report.

More detail about the participants, including descriptions of their roles within the sector, can be found in Appendix 1.

Findings:

Collectively Sourced Lists of Values, Needs and Assets:

The following is a set of lists of values, needs, and assets relating to doing digital inclusion work that participants collectively generated over the course of the workshop series.

Values:

When doing digital inclusion work, we should:

• Consult with the beneficiaries of our work.
• Inform beneficiaries so that they can make decisions.
• Follow the interests and needs of beneficiaries.
• Be patient and keep beneficiaries' comfort in mind.
• Make things inclusive and accessible.
• Consider the whole process of digital inclusion.
• Work to address underlying social and economic inequalities.

Needs:

To do our work better, we need:
• More sharing of expertise and resources, between and within organisations.
• Better coordination of effort between organisations.
• More appropriate and flexible funding.
• Recognition of the importance of digital inclusion from key decision makers.
• More support for accessibility from technologists.
• Better access to appropriate internet packages and devices.
• More ability to include hidden or hard to reach people.

Assets:

Our advantages in doing this work are:
• Our networks and local knowledge.
• Our ability to reach hidden or seldom heard people.
• Our motivation to make change happen.
• Our ability to focus on the issue.
• Our close links with beneficiaries.
• Our volunteers.
• Our expertise and experience.
• Increased awareness of digital poverty issues in the general public.

Other Key Insights:

What are the consequences of differing aspects of digital poverty (material access, connectivity, skills etc.) on digital inclusion practice?

Participants highlighted throughout the sessions that digital inclusion is a large subject area containing many distinct goals, including (but not limited to) distributing devices appropriate to the access needs of a given individual, ensuring access to appropriate connectivity, assessing the skills needs of beneficiaries, ensuring beneficiaries had the relevant skills to make use of devices they had been distributed (including skills related to accessibility technologies such as screen-readers), providing ongoing technical and social support, and advocating for engagement with digital inclusion issues from policymakers, industry, and others.

Participants highlighted that all of these goals need to be pursued in order to tackle digital poverty. Moreover, participants articulated difficulties in expanding their services to cover aspects of digital inclusion outside their usual practice. These challenges existed before the COVID-19 pandemic, however the rapid digitalisation of services during the last year has created many more such issues.

For example, P05 had a wealth of experience in providing skills training and ongoing support, but expressed anxieties around providing connectivity to beneficiaries outside their community centre:

"We are looking at how we can use external SIM cards and stuff like that and prepared Wi Fi dongles and stuff to get access to connectivity outside of our center. Because we want to deliver some stuff in some different areas [...] that potentially don't have a Wi-Fi connection, in a building or whatever. That's going to present some problems. And that's a bit beyond my skill set." -P05

Whilst this transition to providing services outside a centre was a direct response to centre closures during the COVID-19 pandemic, this move to remote access was also seen as a way to support beneficiaries living in rural areas in a post-COVID

landscape. The pandemic has caused many challenges for VCSE sector practitioners that illustrate the complexity of digital poverty, but this complexity existed before the pandemic, and will continue to be relevant as the region moves to recover from the pandemic.

Further complicating the picture, different kinds of work in addressing digital poverty, such as provision of devices, ensuring connectivity, and skills training, are interlinked and have consequences for one another. For example, the type of device a beneficiary is using has implications for the skills that an organisation providing training would then need to focus on, which caused problems for [P04], whose organisation primarily provided skills support on desktop PCs, when the only devices they could source for beneficiaries during the pandemic were tablets:

"We did find some devices with free data which, again we [were] able to share with some people, but that is problematic in itself, because some of these people, you know, can use a computer but they can't use a tablet." -P04

Overall, this leads us to conclude that it is difficult for a single organisation to address all aspects of digital inclusion. With that said, it is also not possible or desirable to simply prioritise some aspects over others, or to separate out different aspects into different working silos with no coordination between them, due to the ways in which different aspects affect one another.

What are the key asks from VCSE sector participants for policymakers?

Participants often voiced the need for recognition of the complexities and challenges of digital inclusion work on the ground.

These complexities included a need to preserve offline options, particularly in essential services, for people who are unwilling or unable to make the shift to digital:

"If you force peoples hand, I think you just isolate them even more." -P04

Rather, participants preferred an approach (outlined in their collective value statements) of enabling beneficiaries to make informed choices about what parts of digital life would be of interest and benefit to them, and which would not. It follows that for beneficiaries to be able to make a choice, they must be able to 'opt out' of digital life. Therefore, many participants expressed the view that the preservation of offline options is desirable. This has been particularly challenging during the pandemic, and some participants expressed worry that offline methods of accessing some life opportunities such has healthcare may not return in a post-COVID world.

"We have to do both. maybe that will change. I think the risk is here, if we do everything online and we're trying to kind of get most people online, then you risk alienating a group." -P06

Additionally, participants expressed that the scale of the problem of digital poverty was often underestimated by key decision-makers, including funders and policymakers. They explained that for some participants, digital inclusion was more like an ongoing care service than a process of education that one could "graduate from", something which the current funding landscape in digital inclusion was not set up well for.

"This particular issue is not going to go away, and so we need 10-15 years stable funding to make sure people can become digital." -P07
Relatedly, participants explained that they often encountered an assumption on the part of funders

and policymakers that digital poverty was not a problem, or a smaller or less complex issue than practitioners on the ground experienced it to be.

"One of the answers that we got back [...] was digital inclusion isn't high on their priorities, because you can get cheap broadband deals. And you know that sort of singular mindset that they have is driving the exclusion wide scale." -P01

For some participants, digital inclusion was more like an ongoing care service than a process of education"

What are the key asks from VCSE sector participants for technologists?

Participants expressed a desire for technologists to consider digital inclusion issues when designing, developing, and deploying products. They highlighted that many practices which may be desirable for businesses can be detrimental for marginalised users.

In particular, they indicated that the fast pace of innovation, incompatibility between manufacturers, and complex terminology (some of which serves a marketing purpose in touting the innovation of a new product offering) are a continual source of issues for those experiencing digital poverty:

"People, organisations, companies are so keen to come up with the latest technological breakthrough. And [...] Apple just won't work with anything else. So you know, it is frustrating when actually people are excluded because of the choices that they made." -P07

Participants also indicated frustrations with the technologies being used, and in particular that more could be done to design software in such a way that it enables third parties such as VCSE sector staff and volunteers to support beneficiaries using it. P05 described several issues, such as fraud detection systems flagging the behavior of support volunteers as suspicious, resulting in accounts being locked down, or software behaving sufficiently differently on different operating systems that it increased the burden on volunteers and staff to provide technical support:

"Even using something like Google, for example, or Chrome, you know, it has different features, de-pending on which operating system [it is used on]." -P05

Relatedly, participants felt that designing and de-veloping inclusively was a skillset that technologists, particularly industry professionals, should prioritise. Many participants described experiences of working with digital tools, including accessibility tools, which had crucial flaws

as a result of insufficient testing or a lack of knowledge of accessibility issues on the part of the developer. P07 described one such experience when demonstrating a translation tool employed by a website they maintain:

"They opened up [accessibility tool] and they could see the language choices. And then they realized, they could translate the whole site into Chinese. [...] What's really interesting about it, and I genuinely had not thought about until I was in this session. Was that they had to go back to English to search on the website." -P07

In general, engagements with technologists were described in positive terms when they were willing to work with VCSE organisations to better meet the needs of beneficiaries.

Upskilling technologists in designing more inclusively was seen as a productive route to digital inclusion. This upskilling could include training in principles of accessible technology such as designing for compatibility with screen readers, design patterns that do not assume knowledge or experience of digital technologies on the part of a new user, or providing low data usage versions of services. Technologists who are engaged and knowledgeable on accessibility issues can reduce the barriers to digital participation experienced by many beneficiaries:

"We went in and managed to get our tech support guy to upskill himself and do the research and with a little bit of direction he's managed to do what he needed to do, which is good. But we found that we want to do that because it's kind of one more person who hopefully, when he's doing other websites, will be able to apply that learning." - P06

In particular, this supports the idea that the objective of digital skills interventions is not simply to upskill beneficiaries experiencing digital poverty, in order to enable them to engage with complex digital systems.

Whilst this work is no doubt worthwhile, participants indicated that a similarly productive stream of work could be found in providing technologists with the skills to make systems which are easier for those in digital poverty to engage with:

"I think it's two way, isn't it? It's a communication process and in the end both parties have got to be skilled." -P06

What is the relationship between digital poverty and VCSE organisations ability to deliver their services?

During the Covid-19 pandemic, participants clearly indicated that digital poverty had prevented some beneficiaries who were able to access services pre-pandemic, from participating in offered activities. This could be caused by a lack of appropriate devices, a lack of connectivity, a lack of skills, or simply a lack of interest in digital offerings:

"There were inevitably some people didn't have the kit and connectivity but also just really didn't have any skills in that area. So taking somebody from that absolute scratch point was just a step too far for some of our [beneficiaries]." -P09

Participants expressed similar concerns around reaching new beneficiaries, and particularly potential beneficiaries that were categorised variously as "hidden" or "hard to reach", such as those in care homes. Participants expressed frustration that they knew many people were in need of their services, but they did not have the means and/or know-how to reach out to digital-first or digital-only services:

"There are people who are absolutely hidden in our society. And those are the people who have needs. And those are the people who need to access our assets. But we don't know how to find them." -P07

What safeguarding concerns are encountered by VCSE organisations when doing digital inclusion work?

Participants indicated that those experiencing digital poverty can be placed into positions of vulnerability, both due to lacking the skills to protect themselves from online fraud, and through being more likely to need to seek help from others with sensitive tasks:

"Being vulnerable means you might go to the wrong place, do the wrong thing as well, and other people might access stuff that they shouldn't of yours." -P07

In particular, participants highlighted the privacy implications of beneficiaries needing digital skills support with tasks such as managing passwords, seeking medical information, and applying for jobs.

In such situations, volunteers and staff typically require a degree of access to beneficiaries' information, or else are exposed to it inadvertently. Participants indicated that sometimes this was necessary, and that it was important that there be a relationship of trust between VCSE practitioner and beneficiary to facilitate this safely:

"I quite often say 'would you trust me with that password if I can try and sort that out for you temporarily?' You know, 'I won't use it any other way. And I won't access it afterwards.' [...] And that does happen a lot. I mean, that happens on a weekly basis." -P05

Nonetheless, it is clear that coming forward for help with certain sensitive tasks places a participant at risk of abuse. In particular, online banking was consistently described by participants as being too risky to provide support with:

"We've got stipulations where the [support volunteer] cannot, for example, do online banking or things like that, because, for obvious reasons, from the safeguarding point of view that's massive concerns." -P08

This presents practitioners with a difficult situation. On the one hand, there are clear safeguarding risks around providing support for certain services, and on the other, participants frequently require support with those services regardless.

Participants appear to be navigating these tensions within their own organisations through policy, producing their own guidelines for staff and volunteer practices. For example, some participants reported that their organisations had prevented their volunteers from supporting beneficiaries directly with tasks where there was a risk of financial information being disclosed.

What impact does digital poverty have on wellbeing and morale within VCSE organisations?

Participants expressed that the COVID-19 pandemic had put considerable additional pressure on VCSE organisation staff and volunteers to move their services online, which necessitated learning entirely new skillsets during a time of crisis and alongside existing responsibilities:

"When the pandemic hit and lockdown happened we decided, as an organization, to move all our provision online because we couldn't deliver face to face, and we had students already with us who wanted to finish their courses or continue studying. So that was huge skills need amongst our staff, for us all to get trained up." -P09

Whilst P09 was impressed by the progress their organisation had made in meeting these new demands, she also explained that this move online had excluded some volunteers:

"Some people have decided they really don't like or don't want to deliver [adult education courses] online. [...] What we're trying to encourage them because we do see this as it's not just a short term issue probably it's going to be much longer term. And we want to work with those tutors." -P09

The digitalisation of services, accelerated by the pandemic, appears to be producing substantially increased workload, which must be managed by sector staff and volunteers. Additionally, this workload is not necessarily evenly distributed. Marginalised members of staff and volunteers, such as those who are marginalised due to disability, can often find themselves with an additional responsibility as a 'consultant' with respect to the needs of similarly marginalised people:

"You tend to find that disabled people and the people who use assistive software often have to be the ones who are giving the advice [on making materials accessible]. Which most people don't mind doing but, it's not our job. [...] Because the skill levels or the knowledge levels are so low, you end up doing that and become an unpaid kind of expert

within an organization." - P06, discussing their experience as a disabled person working in digital access"

There was also a feeling expressed by several participants that other organisations, such as local government or telecommunications companies, should feel a responsibility to take on more of this work. Several participants expressed frustration at the degree to which the VCSE sector was required to "fill gaps" in digital access policy:

"There's a lot of people just, you know, tired of the grind of, you know, having to fill gaps where [other] services haven't been able to." -P01

We conclude that this additional workload is likely to affect the wellbeing of sector staff and volunteers, as well as the smooth operation of sector organisations.

The digitalisation of services, accelerated by the pandemic, appears to be producing substantially increased workload

To what extent are VCSE sector organisations collaborating when designing projects?

Participants consistently expressed a desire to collaborate. This was particularly the case with respect to sharing data and practical know-how, as well as applying collective pressure to affect change:

"[P08]'s just explained, you know she found a package [of connectivity] at a certain price […] we need to pool that information, and then we need to apply the pressure to the right organizations, […] And do it collectively. Collectively we will be far more powerful." -P07

Participants gave a sense that a great deal of innovative work has been done in combatting digital poverty, and in responding to the digital needs of beneficiaries during the Covid-19 pandemic. However, despite the potential of this work, there was little evidence of collaboration in practice:

"I mean if you look at what's happened really, everyone's done something in their silos. Really we haven't joined up" -P07

Reasons cited for this perceived lack of collaboration included tensions between regional and national projects, the difficulty of being put into a competitive situation with other organisations when seeking funding, and the legislative complexities of sharing data:

"People hide behind GDPR sometimes I think. And then it's easy for them not to share their data and that kind of thing." -P01

Despite the potential of this work, there was little evidence of collaboration in practice

RECOMMENDATIONS:

Based on these findings, we make the following recommendations for practitioners, funders, and policymakers. Owing to the relatively low number of participants and broad topic area, we present these recommendations as the results of an initial exploration, and as indications of productive areas for more targeted consultation in future.

Recognition of Complexity

Our findings indicate that there is a need for greater recognition of the complexity of the landscape of digital poverty, and by extension of digital inclusion work. Digital inclusion encompasses many aspects, including access to devices, connectivity, skills, safety, and cultural issues. These aspects intersect with various forms of social marginalisation (such as socioeconomic status or disability) to produce complex realities in digital poverty.

This results in a complex landscape of problems, which require different strategies, resources, and skillsets to address equitably.

Moreover, as digital poverty is as much a social problem as a technical one, it cannot be expected that it will be 'solved' by time-bounded projects or a single period of enhanced investment. Rather, digital inclusion should be considered as continual work in a similar manner to other forms of social care. A person might enter digital poverty at any point in their life for any number of reasons, and may require continual digital inclusion support for the rest of their life.

A complexity approach[1] to digital poverty has implications in policy. In particular, policymakers should recognise that digital poverty could manifest differently in different communities, and that as a result all aspects of digital poverty require attention. For example, policies mandating access to low-cost, high-capacity broadband internet connectivity, whilst highly valuable, would do little to address the skills gaps which are one of the primary cause of digital poverty in many of the beneficiaries

P07 works with, who are mostly affluent and live in well-connected urban areas.

Additionally, the need for ongoing support for some beneficiaries has implications for funding. In particular, we echo participants' calls for a long-term view of the issue of digital poverty, including stable, long-term funding in digital inclusion.

An Ecosystem Approach:

The complexity of digital poverty as a social problem and the difficulties experienced by participants' organisations in building the capacity to address all aspects of the problem, lead us to recommend an "ecosystem approach"[2] to work on the topic. We find that digital poverty is simultaneously too broad for most organisations to effectively tackle all its constituent components within their local community, and too complex for siloed working practices.

As a result, we recommend that close collaborations between multiple VCSE organisations are encouraged as the default way of working in this problem space. In this way, organisations could design, seek funding for, develop, and deliver programmes of work collectively, distributing responsibilities according to the capabilities of each organisation.

Organisations within such a project ecosystem should remain in close contact, to mitigate issues brought about by siloed working.

In order to support such an approach, funders, policymakers, and key players within the sector should do as much as possible to facilitate an ethos of open and honest collaboration within the sector, as well as undertake work to identify aspects of digital inclusion work that the sector is locally less able to tackle, and provide incentives and support for some organisations to develop those capacities and fill capacity gaps in collaborative projects.

1: For more on complexity-based approaches see Lowe, T. & Plimmer, D. (2019). 'Exploring the New World: Practical insights for funding, commissioning and managing in complexity', Collaborate". Availalbe here.

2: We borrow the term 'ecosystem' from biology, to describe to a sustainable system in which many organisms (or in this case organisations) coexist."

Working with Technologists:

Our work indicates that there is much to be gained in combatting digital poverty from deep engagement with technologists. Participants highlighted that digital inclusion often places a focus on skills gaps in beneficiaries, and as a result devotes resources to upskilling people who currently lack the digital skills to engage with complex digital tools.

We recommend that similar effort is directed towards engaging developers and other relevant industry professionals, to ensure they have the skills and resources they need to make digital technologies which are as accessible and user-friendly as possible, leveraging the deep knowledge of local needs found in the VCSE sector. This strategy would allow the barrier to entry into digital life for beneficiaries to be reduced, alongside existing strategies for building beneficiary capacity.

In particular, we suggest two key areas where greater VCSE sector-technologist collaboration could be productive. The first of these is in updating & refining existing guidelines to produce accessible content, based on the deep community knowledge that VCSE organisations are already used to working with. The second is the production of guidance for building software which is designed to support the presence of trusted third parties within interactions between a user with low digital skills and a digital system, such as community centre or library staff or volunteers.

Provision of Training:

Finally, our findings inform several recommendations for training provision that would be of benefit to the North-East's VCSE sector:

• Training to support digital inclusion collaboration between organisations. This includes training in:
　　o Recognising organisational strengths and weaknesses that could supplement or be supplemented by others organisations.
　　o Responsible data sharing.

　　o Publishing open data.
　　o Best practice for designing collaborative or multi-organisation projects.

• Producing accessible content in a variety of mediums, from perspectives such as disability, language, and content for people with limited digital skills.

• Advice for undertaking digital inclusion work in particular communities or with people with particular needs, leveraging the expertise of local organisations with relevant institutional experience.

We recommend that effort is directed towards engaging developers and other relevant industry professionals, to ensure they have the skills and resources they need to make digital technologies which are as accessible and user-friendly as possible.

APPENDIX 1: Participant Information

An overview of the participants and their roles in the sector is found in Table 1.

Table 1: Participants

Pseudonym	Description of Organisation	Notes
P01	Anti-poverty organisation based in a coastal town	
P02	Alzheimer's support charity	
P03	Independent Technology Consultant	Volunteer and trustee for several organisations
P04	Community Centre in urban area	
P05	Community Centre in urban area	
P06	Disability advocacy organisation	
P07	Local Council	Manager of websites providing information to citizens
P08	Anti-poverty organisation based in a coastal town (same as P01)	
P09	Adult Learning Provider	

APPENDIX 2: Workshop Structure

Workshop Strands:

Digital inclusion is a broad topic area, including technical, economic, social, and psychological issues. Issues of access to devices and connectivity, and issues regarding skills, confidence, and other factors of using a device, incorporate different challenges and require different forms of intervention. Considering this, we split the workshop series into two "strands" - Material Access and Connectivity, and Digital Skills. This gave both aspects a dedicated space, and ensured that participants (many of whom attended both strands) were able to discuss both issues without feeling the need to champion one or the other as more urgent or important.

Each strand contained two workshops. In workshop 1, participants discussed the current state of digital inclusion in the region, eventually generating a mutually agreed-upon list of values, needs, and assets pertaining to their practice. In workshop 2, these values, needs, and assets were refined and reflected upon, then used generatively to co-create ideas for future projects or interventions. Each strand of workshops was run twice, with different participants in each run.

Workshop Activities:

Each workshop lasted for 90 minutes, and took place using commercial video-conferencing software. In addition, workshops on the current situation were preceded by a written preparatory task. We outline all activities that took place during the workshops below:

Workshop 1: Current Situation:

Prior to Workshop 1, participants were asked to complete a short, written preparatory task. In this task, participants were asked to relate an example of someone's digital inclusion needs around the workshop topic (either material access and connectivity or digital skills) were met particularly well or particularly poorly, and guided in reflecting on what had happened and why. The purpose of this task was to support participants in sensitising themselves to their own experiences of digital inclusion practice.

The workshop itself began with participants discussing the experiences they had outlined in the preparatory task, followed by the identification of any commonalities and differences in their experiences. Outcomes from this discussion were used to frame the creation of a list of values and other advice that participants believed should be adhered to in digital inclusion practice.

Participants then collaboratively evaluated a selection of two examples of digital inclusion projects or interventions relevant to the topic strand, drawn from a pool of 5 such interventions. 4 of the 5 projects presented were fictionalised versions of popular intervention strategies that participants were likely to have experience with, whilst one was an example submitted by a participant from their own work. Participants used their expertise and experience to evaluate the presented strategies in terms of how they perceived their effectiveness, how appropriate they would be for each participant's beneficiaries, and their sustainability.

Finally, participants were invited to reflect on their earlier value statements and whether any should be changed or revised, before collectively producing three lists:
• A list of values to be adhered to when doing digital inclusion work.
• A list of conditions the participants felt they needed to be met to undertake more effective digital inclusion work.
• A list of assets possessed by the sector locally that aid in doing digital inclusion work.

These lists were collated into a single list containing material from all workshop 1 groups between sessions, and served as generative material in workshop 2.

Workshop 2: Ideas for Future Projects

In workshop 2, participants were first invited to discuss the collective list of values, needs, and assets, and suggest amendments. In this way, workshop participants collectively and iteratively created a list of values, needs, and assets that matched closely with their experience.

Participants then divided into pairs or groups of 3 and used the list to generate ideas for novel digital inclusion projects. Participants were asked to select a value, need, and asset from the list to use as inspiration, by thinking of a project that leveraged the asset to meet the need, whilst adhering to the value. Each group generated several such ideas.

Groups then reconvened to share and reflect on these ideas, in particular highlighting if they were achievable in the short term, or required a longer-term effort. Participants were also asked to consider what new assets or forms of support might be needed to enable them to pursue these projects.

Finally, participants were asked to give feedback on the workshop series, including its structure and the decision to split the series into two topic strands. A summary of each workshop and its participants can be found in table 2.

Table 2: Workshops:

Workshop Code	Topic Strand	Participants
A1-1	Material Access and Connectivity	P05
A1-2	Material Access and Connectivity	P04, P07, P08, P09
S1-1	Digital Skills	P01, P03, P08
S1-2	Digital SKills	P04, P06, P07, P09
A2-1	Material Access and Connectivity	P01, P05
A2-2	Material Access and Connectivity	P04, P07, P09
S2-1	Digital Skills	P01, P02, P08
S2-2	Skills	P04, P06, P07, P09