Scoping a Professional Development Framework for Social Care Analysts

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Foreword by Social Care Wales

Our ability to use social care data effectively is important if we are to understand the impact we are having on the lives of the people who use social care in Wales.

Since 2020, Social Care Wales has led the way in developing a data strategy for social care in Wales. We continue to work closely with partners across social care and beyond to create a social care that is rich in data and has the skills and capacity to fully realise its potential.

Our discovery report highlighted the need to continue to develop our capacity and capabilities with data as one of the key priorities.

Understanding what our current skills are and what we need to do to begin to realise our ambitions is a crucial and the reason we commissioned Social Finance to undertake this work. We also asked the question, "would a formal professional framework help us to achieve our goals?".

Our next steps are to work in collaboration with our partners on the recommendations outlined in the report. We'd like to thank all our colleagues for contributing to this work and hope we can continue this journey together.

Owen Davies
Data and Intelligence Manager
Social Care Wales

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Executive Summary

Executive Summary

In 2020, Social Care Wales were asked by Welsh Government to scope a [strategic approach to social care data in Wales](). In November of that year a discovery report was released that outlined the findings.

The report highlighted a number of themes that were seen by stakeholders as priority areas for development. Following on from this, Social Care Wales developed a [Statement of Strategic Intent]() that laid out objectives to improve the use of good quality data and evidence in the delivery of social care and support for those who deliver it.

A number of areas were identified by social care stakeholders as high priorities in taking forward our ambitions. These included developing Wales specific social care data standards, speaking to the public and professionals about using data, data sharing, providing more data about social care and improving social care data skills.

This report builds on the work completed so far and explores the need for a professional development framework for social care data analysts in Wales.

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Executive Summary

What this report contains

The report seeks to answer a number of questions about data skills in social care in Wales. In particular:

- How do people come to work in social care data?

- How do people in social care data roles acquire their skills?

- What access is there to opportunities for continual professional development and career progression?

- What data skills do people want to learn?

- Would a professional development framework assist in improving data skills within the current social care analyst community?

How did we conduct our analysis?

Our work consisted of a mixed approach of desk research and field work. We examined two professional development frameworks and associated research as well as conducting a survey and undertaking contextual conversations and ideation workshops with data and social care professionals both inside and outside Wales.

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Executive Summary

What we found

Those who work with data in social care in Wales have a range of skills and abilities for using data effectively. They share a number of the same issues with data skills as many other public sector organisations in Wales.

Social Care Wales is uniquely placed to leverage its role as an influencer to bring together organisations to solve some of these issues.

Our research found that data roles were inconsistent in Wales, with a large number of job titles for broadly similar roles.

Those occupying data and analysis roles in social care in Wales need not only data and analysis skills but also service knowledge in order to be effective.

Training is available, but there is a question as to its suitability for developing data analysts. Most training attended by our participants focused on information governance. Service knowledge training was not available and learned 'on the job'

There is an opportunity for Social Care Wales to launch a series of 'alpha' projects to design prototypes that will provide tangible benefits to local authorities and the analyst community.

While a professional development framework may be beneficial in the future, we found little evidence to support the introduction of such a mechanism with the people currently working as social care data analysts in Wales.

Introduction

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Introduction

In December 2021, Social Care Wales commissioned Social Finance to carry out research to understand the quality and appropriateness of Professional Development Frameworks for Data Analysts within Social Care. The work began in February 2022.
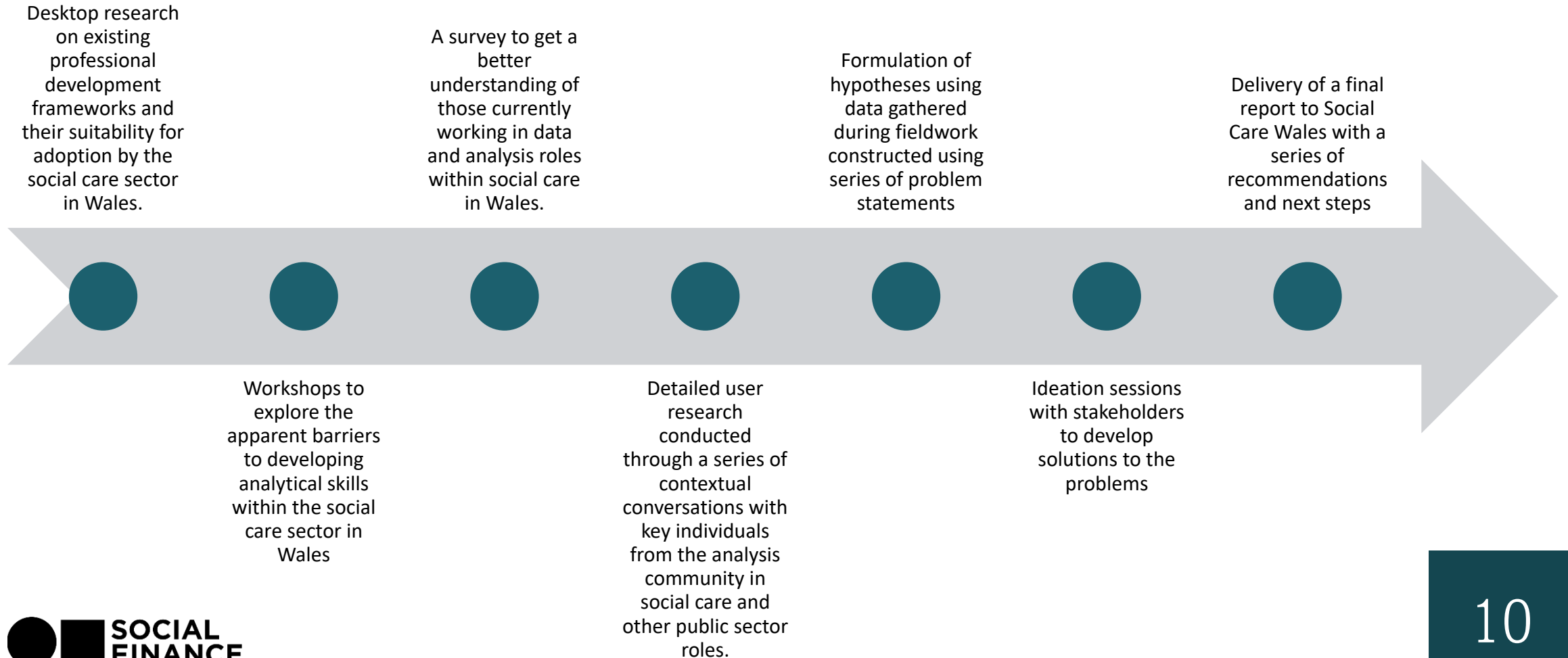
Social Finance understood the space to be complex, with Local Authorities being in different positions on their 'journeys' to develop digital and data capability. As such, it was felt that Professional Development Frameworks may be one possible approach to create the meaningful change that Social Care Wales would like to see in the sector – but that others should be considered.

The question to be answered was: would the creation of a Professional Development Framework (or promotion of an existing framework) be the correct approach for Social Care Wales to enable Social Care Wales to support both those working with Data and Organisations to understand the skills and experience they need, in order to improve outcomes for those accessing Social Care services.

Introduction

Social Finance worked closely with Social Care Wales to design and develop the project which was undertaken between February and April 2022 and accomplished using the following methodology:

Desktop research on existing professional development frameworks and their suitability for adoption by the social care sector in Wales.

A survey to get a better understanding of those currently working in data and analysis roles within social care in Wales.

Formulation of hypotheses using data gathered during fieldwork constructed using series of problem statements

Delivery of a final report to Social Care Wales with a series of recommendations and next steps

Workshops to explore the apparent barriers to developing analytical skills within the social care sector in Wales

Detailed user research conducted through a series of contextual conversations with key individuals from the analysis community in social care and other public sector roles.

Ideation sessions with stakeholders to develop solutions to the problems

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Methodology

Methodology Overview

Desk Research

To understand the landscape and existing professional development frameworks

Building hypotheses

With Social Care Wales to determine where best to focus the research

Survey

To capture the views of people across Wales on the role of data and data analysts in social care

Contextual Conversations

To identify and validate key themes emerging from the survey

User Research

To build an in-depth understanding of the experiences of people working with data in social care

Ideation workshops

To brainstorm solutions to the needs emerging from the research

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Desk Research

We assessed the appropriateness of two existing Professional Development Frameworks: the National Health and Care Competency Framework for Analytics and the Professional Development Framework for Educators in Health.

We also reviewed the Report on Competency Frameworks for Health Service Analysts by AphA (Arafin et al. 2022). This report found that people working within data roles within health care were interested in an 'ideal' Professional Development Framework, but found that they were unhappy with the frameworks currently in place.

Analysts in local authorities told us that their colleagues didn't always understand their day-to-day roles, so it would be important to involve analysts in the design of any framework..

"There is a clear appreciation of the potential benefits an 'ideal' competency framework could provide. The responses from the online survey, for instance, show a startling difference between the low value they place on the current frameworks compared with the potential of frameworks in an 'ideal world'."

"For the current frameworks the average proportion of respondents rating all the categories as 'high' or 'moderate' value (recruitment, staff promotion, professional/career development, training course development, skills auditing and assessment, professional registration) was 37%, while for the 'ideal' framework it was 81%."

Arafin et al. 2022, p.52

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Building hypotheses with Social Care Wales

Following desk research, we brought a selection of hypothesis together for the consideration of Social Care Wales. We developed a set of hypotheses for Social Care Wales to consider, which we then discussed and prioritised down to four areas to focus on:

Hypothesis 1: Organisations do not fully understand the role of data analysts. For example, the role may be viewed as straightforward, and limited to creating spreadsheets. Furthermore, issues faced with completing tasks (for example due to IT issues, or lack of access to quality data) may be viewed as a Data Analyst's lack of ability.

Hypothesis 2: Data people lack visibility in their organisations. In certain organisations data people lack influence possibly due to being seen as a business support function rather than a professional function, making it hard to overcome issues like poor tech or access to data.

Hypothesis 3: Local government and social care cannot compete with the civil service and health for pay or opportunities

Hypothesis 4: Data people are becoming de-skilled due to lack of access to 'on-the-job' training (that is, practical experience with data projects).

Survey

We conducted a survey to capture how people across Wales felt about the role of data analysis and analysts within social care.

We sent the survey to members of the Welsh Government's National Reporting Group and Business Intelligence Group.

The survey was open for 20 days between 17 February 2022 and 8 March 2022. It went to around 100 people and had a return rate of 57, of which, 44 were from Local Authorities.

We didn't ask respondents for their organisation or work address to preserve their anonymity. We were only able to plot the responses of 29 people who provided their email addresses. Of these we had respondents from 13 of the 22 Welsh Local Authorities and a good geographical distribution.

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Survey themes

Six key themes emerged from the survey on the experiences of people who work with data in social care:

Theme	Description
1. Two core user groups emerged	The survey showed that there were two overarching groups that we could focus on, 'Grouped Analysts' and 'Team Leaders & Managers'.
2. Day-to-day responsibilities consistent across different job titles and experience level	Participants have similar experiences of their day-to-day roles to others within their 'user group', despite differences in their job titles and the amount of time they have been in role.
3. Roles and responsibilities between 'Group Analysts' and 'Team Leaders & Managers' vary	Team Leaders and Managers, and Grouped Analysts' skills are similar but distinct in the amount of time dedicated to hands-on data work (Creating Visualisations, Automations, Reports) versus skills that relate to decision making (Carrying out Analysis, Designing and Leading Data Projects).

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Survey themes

Six key themes emerged from the survey on the experiences of people who work with data in social care:

Theme	Description
4. Variation on respondents ability to communicate with data	There is significant variety in the skills that participants (particularly Grouped Analysts) had that were dedicated to communicating data. They saw these skills as essential; Presenting Data to Others, Creating Reports and Excel.
5. Qualitative analysis (inc. service knowledge) is a key	The skills that in the survey are codified as qualitative data analysis, leading data analysis projects, and designing data analysis projects are likely speaking to operational or 'service knowledge' that became a key topic of conversation during user interviews.
6. Limited training opportunities	Most respondents had not received training much in the past year. However, when participants did engage in training in the last year, they found it of average or good usefulness.

"Contextual conversations"

We held contextual conversations with 11 people from Welsh Local Government Association, Data Cymru, University of Cardiff, Digital Health and Care Wales, NHS Wales Delivery Unit, Welsh Government, an English Local Authority and an elected member from a Welsh Local Authority.

In a contextual conversation, both parties are aware of the nature of the conversation so the context has been pre-determined. This allows for conversations to concentrate on the matter at hand rather than spending time explaining the purpose of the conversation.

Participants spoke to us in a personal professional capacity and not as representatives of their organisations. Still their insight was incredibly valuable based on their existing expertise from working in the social care data space.

"Contextual conversations"

Responses were grouped into 7 thematic areas:

Theme	Description
1. Government and policy	People observed that there is more focus in data in Wales and from the Welsh Government. However, it was still felt that data was 'something someone else does' and there was a lack of a strategic lead for data work.
2. Data skills in Wales	People told us there were pockets of good data skills in Wales, but that these skills were not necessarily permeating into the wider public sector.
3. Other organisations or interventions	There are courses and training on data in the public sector being developed by University of Cardiff, Data Cymru, Y Lab, CDMS and more Community style approaches are growing but taking a while to build momentum.

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"Contextual conversations"

Theme	Description
4. Professional Development Frameworks	People said that Professional Development Frameworks could be useful for generating conversations or imagining an ideal future state. However, many were not *aware of* or using any frameworks, or that they did not feel frameworks were applicable to their context.
5. Local Authorities	We heard that some Local Authorities were doing good work with data – but people also felt as though becoming good at data felt like a 'utopia'. People felt positive that the wider data community was generally becoming more open and sharing, though some felt that Local Authorities were still being 'protectionist' which was perpetuating them being institutionally separate and preventing opportunities for innovation across the sector. It was also felt that too much focus on data work was on KPIs, performance and dashboards.

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"Contextual conversations"

Theme	Description
6. Leadership	Some expressed that they felt Local Authority Chief Executives wanted to do better, but that language was still a barrier to progress, with people in senior positions not understanding terminology and more technical language used around data and digital.
7. Use of data	There was a feeling that data is available – but that many organisations were still not able to tell stories with data. People also mentioned that data is dynamic (not static) and data used in social care was not always the best quality. One person told us that they are typically working with small numbers e.g. children in care – which doesn't necessarily lend itself to in-depth data science work. Notably someone else highlighted the lack of willingness to share data and among Local Authorities which might allow for the pooling of larger data sets.

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User research - Interviews

We interviewed 29 people in 20 one-to-one interviews and one focus group.

Participants came from nine Welsh Local Authorities. We selected them based on their role and experience. We interviewed the following groups:

- Local Government senior manager

- Data Analyst in the role a long time

- Graduate Data Analyst

- Data or performance Team Leader

User research – identified opportunities

We analysed the data we collected from the survey and interviews and identified seven key opportunities:

Opportunity 1: do better cross-collaborative working in order to share skillsets

Opportunity 2: make progression opportunities transparent and accessible to all in data roles in social care

Opportunity 3: make data analyst job descriptions more consistent across local authorities in Wales

Opportunity 4: make it easier for people doing data work in different local authorities to cooperate and problem solve together

Opportunity 5: build on the things people liked about working in social care data roles in Wales

Opportunity 6: make the responsibilities of social care data teams clearer to others

Opportunity 7: address issues with tech systems that are making data work more difficult

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User research - Opportunity 1

Opportunity 1: do better cross-collaborative working in order to share skillsets

- Analysts and teams in the Social Care data sector must be multifaceted to better show the value of the work Social Care is doing.

- Service knowledge is arcane (not embedded, informal, unstructured, not written down, complex) which means that it takes a long time to learn.

- Those with specialist skills (either data or Social Care practitioners) need greater awareness of the knowledge and work of their counterparts and chances to learn about them.

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User research - Opportunity 2

Opportunity 2: make progression opportunities transparent and accessible to all in data roles in Social Care

- Options for progression are inconsistent but often become clearer the more senior in an organisation a person becomes. Team Leaders and Managers were confident that they knew what their next step would be.

- Both groups acknowledged that the availability of the next step in their career was likely to be based on issues beyond their control, particularly around when other people moved on or were promoted.

- Teams are conscious that their members need training however this is not consistently delivered, and it is unclear what training to provide

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User research - Opportunity 3

Opportunity 3: make the application process more consistent across Local Authorities in Wales

- Those in leadership positions are aware that their approach to hiring is not attracting talent because of overly complex and 'scary' job descriptions.

- There is awareness that there is competition and better pay for similar roles in other public and private organisations

- Team Leaders, managers and analysts come from different backgrounds and often move into roles through serendipity to adapt to the needs of the organisation at the time.

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User research - Opportunity 4 & 5

Opportunity 4: make it easier for people doing data work in different Local Authorities to cooperate and problem solve together

- Organisational differences make it difficult for people to move between Local Authorities

Opportunity 5: build on the things people liked about working in Social Care data roles in Wales

- The variety of day-to-day work in data roles in Social Care, the job stability, and the culture around it is its selling point

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User research - Opportunity 6
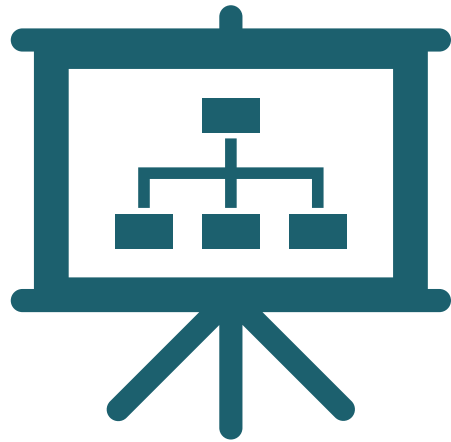
Opportunity 6: make the responsibilities of Social Care data teams clearer to others

- Data Analysts understand what their role in their organisation is and believe that this is valued

- Teams who work with Data Analysts do not fully understand the complexity and skills required to do the job which leads to lots of requests (as colleagues don't understand the size of a task) and both analysts and managers are feeling overworked.

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User research - Opportunity 7
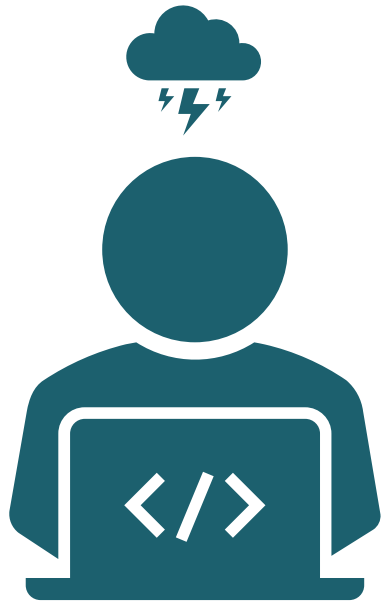
Opportunity 7: address issues with tech systems that are making data work more difficult

- Multiple systems create challenges with lack of automation or interoperability which means that Data Analysts spend more time undertaking manual tasks. Analysts want to speed up processes.

- New systems, changes in systems or difficulties in using systems were all cited by analysts, leaders, and contextual conversation interviewees as a cause for concern. Some felt that analysts did not have the right tools to do their jobs. Others noted that systems changes caused loss of knowledge.

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Ideation workshops - overview

We held two workshops to develop possible solutions for the opportunities identified in our user research.

The Social Care Wales internal workshop included 3 members of Social Care Wales while the second workshop included participants who had been part of our previous User Research interviews. These participants came from 3 Welsh Local Authorities and someone who had recently joined Social Care Wales.

Participants were asked to vote on the opportunity areas they were most interested in or felt were most impactful for those working in the sector. They were then shown 'How might we?' statements to help them to think of possible solutions.

Problems to opportunities

Some of the ideas from the workshops were:

■	Mentoring scheme	■ Data Analyst recruitment pool
■	Create data journeys	■ Networking events
■	Support knowledge transfer	■ Light touch data skills for operational roles
■	Create community of practice for data	■ Improve role visibility for data analysts
■	Enable shadowing opportunities	■ Guides for succession planning for data roles
■	Formal continual professional development e.g. MSc	■ Develop a national training programme
■	Online forums	■ 'Drop in' sessions with data experts
■	Opportunity to work in other organisations	■ Online library of training resources

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Findings

Findings

1. Social Finance concluded that the adoption of a currently available professional development framework would not be an appropriate step for the social care sector at present due to a number of complicating factors.

2. Social care is a complex system delivered by many different organisations. Research showed that people felt it was important for analysts to have both the technical abilities to undertake analysis, as well as the domain knowledge of the social care system and the local processes that support delivery. Whilst technical knowledge is well defined, domain knowledge is often arcane, meaning it is less easy to acquire.

3. We found that analysts often possessed one but not both of the knowledge areas described above, usually as a result of their pathway to becoming an analyst. Those who were accomplished in both skills were relatively rare.

4. The profession lacks consistency. Our exploratory survey returned 37 different job titles for analyst roles. Upon examination it was found that the function and responsibilities of many of these roles were broadly similar.

5. There was perceived to be an increased focus on data in Wales particularly among the more senior or strategic user research participants. However, it was still felt that data was, 'something someone else does' and that there was a lack of a strategic lead for data work.

Findings

6. Our research suggested that there were pockets of good data skills in Wales, but these were not permeating into the wider public sector and that opportunities for learning and development were not always available to the social care analyst community.

7. Some organisations such as Cardiff University, Data Cymru and Y Lab were starting to offer data skills development opportunities, but many of these are in their embryonic stages and are often focused on basic data literacy.

8. Community style approaches are growing in popularity, can take time to gain momentum and become established. People we spoke to were worried that Data Analysts were feeling isolated within their organisations now.

9. We heard some encouraging information on local authorities who were doing some good work with data, but for others it felt like getting good with data was like a 'utopia'.

10. It was felt that too much work on data was still focused on 'performance management and KPIs' rather than the effective and efficient user of data to create better outcomes and improvement.

11. Some felt that Local Authority Chief Executives wanted to do better, but that language was still a barrier to progress.

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Findings

12. There is a general feeling that data is available to social care organisations, but these organisations were unable to tell the stories that the data could reveal.

13. We were told about issues with data quality being an issue in social care. Similarly we heard that the IT systems caused inefficiencies.

14. Lack of standardised data was also cited as problematic. This made it difficult for organisations to easily work with others, or compare their data with another organisation and potentially makes it difficult for analysts to move to work in another organisation.

15. Participants told us that there was some training available on data but access to this training was inconsistent. People told us that they would like to learn more about data visualisation, Power BI, coding and data science, however during interviews many participants also expressed confidence in 'self-serving' with training through online resources.

16. A lot of training for data analysts was also ad-hoc, or learned 'on-the-job' as either opportunities were unavailable, or organisations had a poor understanding of the learning needs of their analysts.

17. There was evidence of a number of challenges that organisations faced when recruiting analysts. The social care sector find it difficult to compete with others in terms of remuneration and opportunities for progression

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User groups

While Professional Development Frameworks focus on the standardisation and vertical progression of different roles, our research showed that it may be more beneficial to consider a lateral view to developing Social Care Data Analysts, supporting the development of the 'well-rounded' people needed to be effective in this role through developing skills on both the data and service sides before focussing on upwards progression.

Data people who have moved into Social Care

Likely to have stronger data skills or experience but not the context of service delivery.

This makes their role more difficult as they are unable to spot problems with data or opportunities to improve processes.

People told us that this is learned 'on the job' through discussion with others.

This makes it much harder for this small group of people to develop, learn, move roles or progress within Social Care.

People with service experience who have moved into or are interested in moving into data work.

Have an in-depth understanding of their service area, and local context as well as the complex legislative requirements relating to Social Care.

Are generally called upon to check data and can tell when there is a problem with this *instinctively*.

Data skills may be limited, and they may benefit from more foundational level data skills or support to become 'critical data consumers'

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User groups

Our survey indicated a range of pathways into roles in Social Care with little consistency, however research identified possible sources for development of well rounded Data Analysts:

Others working within Local Authorities in non-data and non-Social Care roles who are interested in becoming Data Analysts

Business Support teams are often good breeding grounds for data people in Social Care. These roles build understanding of service areas, and operational structures. Likely to benefit from foundational (leading to more detailed) data training.

Data Analysts working in associated service areas such as Education may have transferrable knowledge and be well placed to work in Social Care. Likely to have gained some high-level service knowledge.

"Unicorns"

Working in Social care with an in-depth understanding of the service, operational and contextual details, as well as strong data skills and experience.

Although rare, Unicorns could be very powerful allies if Social Care Wales are able to identify and support them to become advocates for data skills work and obtaining service knowledge.

Development pathways
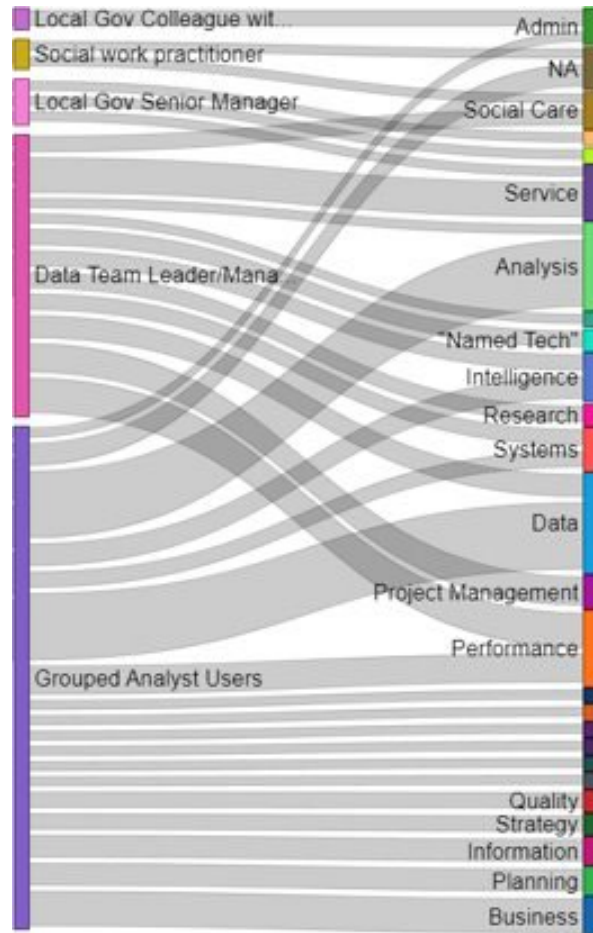
- The paths taken by participants in our two user groups (Grouped Analysts and Team Leaders and Managers) are quite similar with the main distinction being what skills are more commonly viewed as essential by the two groups.

- For both user groups, respondents told us that learning 'Ad Hoc in their current job' was the most common way to learn. In later research interviews people told us that they had obtained skills often by working directly with colleagues, independent learning that was signposted to them, and other impromptu methods.

- People tend to find the skills they have are essential to their day to day meaning there is little or no superfluous knowledge. There is a small caveat to this observation with Information Governance which sees the biggest drop off in people who have the skill versus people who find it essential probably due to it being a legal requirement for training in organisations.

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Development opportunities

When looking at the results of the questions around obtaining new skills, and the availability and usefulness of training, and the learning wants participants have, participants gave mixed responses.

On the one hand participants said that their organisations offered a variety of learning opportunities related to data, but when asked if they had attended training on any of the following:

- Coding, Excel, Data visualisation, Information governance, Data analysis and communication, Designing data analyses, Creating data/process automations, Qualitative analysis

The answer was most often **no**. Fewer than 10 of the 57 participants had said they had participated, which leads us to question the availability of training suitable to the role of a data professional. Across all the training themes mentioned, the theme that had the largest number of participants in the past year about was information governance.

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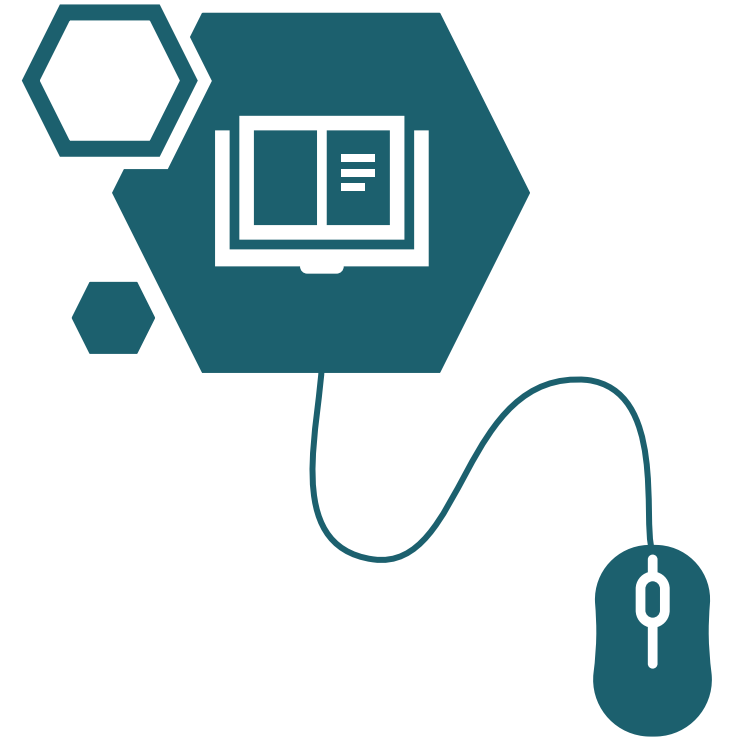
Development opportunities

We also asked respondents to describe what they would like to learn. This was a free text question so that respondents could describe training in a way that suited them.

There were 22 responses to this question and respondents expressed that they would like to learn a variety of skills with the main interests being around visualising/communicating data (10 mentions) and learning to carry out data science tasks (9 mentions), both of which also had specific named software related to them that participants wanted to learn to use like Power BI, Tableau, and SQL (7 mentions). There was also an interest in more complex data tasks with responses like: "I'd love to be able to code and automate data processes" linking back to the ideal future shown in the Data Strategy (Section 6). This second interest seems to come primarily from participants in analyst level roles (6/9 people who showed interest in the topic were from the Grouped Analysts user group), with reporting and visualising being the interest of Analysts and Team Leaders and Managers.
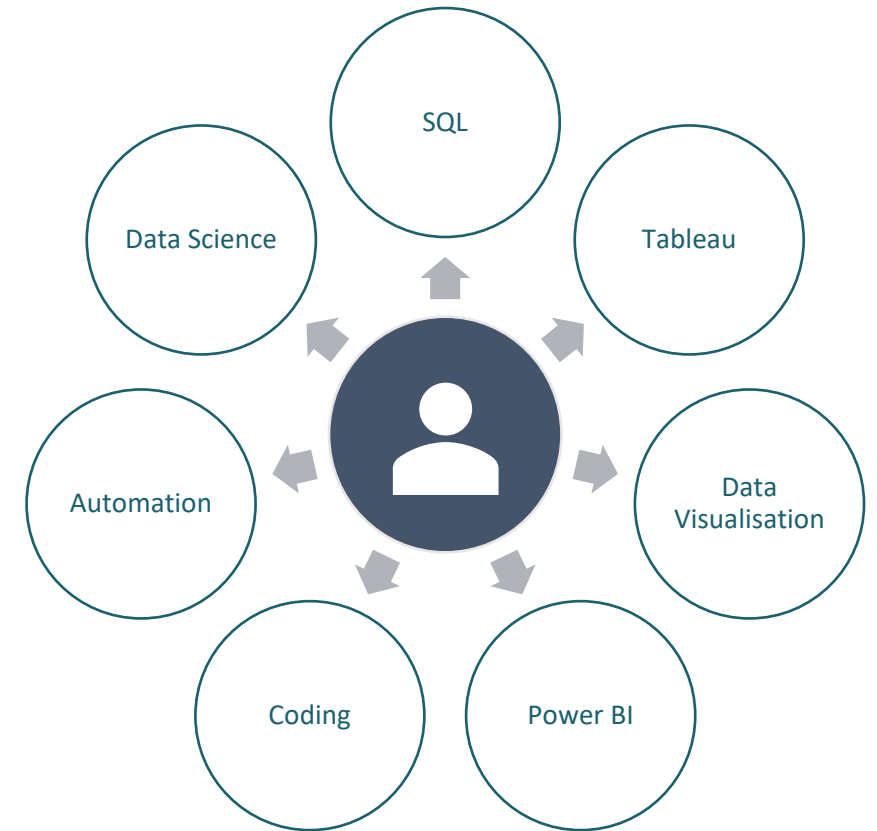
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Recommendations

Recommendations

There is an opportunity for Social Care Wales, as per the existing strategy, to become the brokers, conveners and relationship builders of the sector, building connections and making use of sector expertise to help create sustainable long-term change.

Projects or programmes that Social Care Wales take forward should enable them to grow and develop initiatives for developing analytical skills and domain knowledge, supporting and co-designing interventions alongside local initiatives in the Social Care community that have the same ambition. This will require increased focus and determination on the part of Social Care Wales to become a learning organisation.

Recommendation 1: There is a much clearer requirement for people working in this area to not only have data skills but also service, context and operational understanding in order to act effectively in their role. We recommend a much clearer programme of development of not just technical capabilities, but domain knowledge and service awareness for new Data Analysts.

Life of Pi

T – Shaped
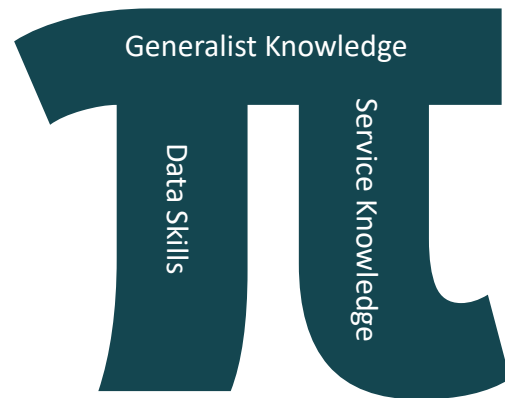
Pi – Shaped

Our user research demonstrated the need for individuals working as analysts in social care to have both technical knowledge of the tools and techniques used in data analyses and also the domain knowledge of social care and the local processes and practice that operate within their organisation. Technical knowledge was often acquired through education or formal training, but service knowledge was often arcane and much more difficult to learn.

One contextual conversation participant talked to us about the need to create what they called "Pi-shaped people" this is a take on the traditional conception of people being 'T-shaped' that is combining broad knowledge with specialist knowledge. A pi-shaped person had two possible legs and specialisms. In the case of Social Care data people these would be data skills and service knowledge

Recommendations

Recommendation 2: Much of the insight we have uncovered is not unique to social care, but can also be seen in analyst communities in many other sectors. We recommend that organisations in Social Care work closely with other sectors (including all other public sector organisations) to develop joint programmes for continual development of analysts.

Recommendation 3: Many initiatives require large scale change and significant investment that would be either outside the control of, or not appropriate for Social Care Wales to deliver. These more fundamental changes would fall under the brokering or influencing role outlined in recommendation 1. There are however, some *Alpha* projects that Social Care Wales should consider in order to maintain project momentum and begin to understand and address some of the issues that are highlighted in the report

Recommendations

Recommendation 4: We recommend that chief executives and senior managers build a strong data culture within their organisations. This is to ensure that their analytical capacity and ability to develop, process and understand their data is nurtured and developed.

Creation of a strong data culture is more than just will, it involves a degree of understanding the constraints and challenges that are faced by organisations seeking to improve. These include:

- Developing a programme for fundamental data literacy in all roles within their organisations.

- Developing a data culture which recognises the importance of data skills and competencies, not just tools and technology.

- Growing data capacity internally to overcome challenges in recruiting skilled staff.

Recommendations

Recommendation 5: Having considered many of the solutions offered by participants in our research, we have chosen the following four projects to take forward to alpha. We view these projects as having the broadest range and highest potential impact.

a) **Transparent data journeys** – a series of maps that show how data flows within a local authority, enabling users of those maps to see how data is recorded and created, the teams that hold and manage the data, what they do with that data and why. Open publishing of these maps would also enable discussion between different local authorities.

b) **Create an open platform for Social Care data job descriptions**– having a space where local authorities could share or crowdsource job descriptions would support consistency in these roles„ better transparency, joint understanding of skills requirements and rationalisation of job titles.

c) **Create a training resources library** – an open source platform that lists all opportunities for professional development relating to analyst roles in social care.. These may be formal qualifications, short courses, online resources, books, blogs, videos and any other resource that promotes further development of those who work with data as part of their roles.

d) **Establish data/analysis communities of practice** – an informal space for conversation, problem solving and getting to know other analysts in the social care sector. The space should also allow interaction with larger groups for wider discussion.

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'Alpha' projects

Alpha projects are designed to test hypotheses through experimentation. The purpose of the alpha phase is to try out solutions to problems that we learned about during our research with the social care analyst community in Wales.

They are designed as prototypes that challenge the way that things are done. The alpha phase is a chance to explore new approaches. They are not necessarily meant to represent 'finished' products, but should be functional and good enough to be able to test out ideas. By the end of the alpha, a decision is made to take forward those ideas that show the most promise to the beta phase.

The following pages provide an overview of our chosen alpha projects:

Alpha 1 - Data Journeys

What is it?
A series of maps that show how data flows within a local authority enabling users to see what is being recorded and created, by who, and why.

Why this idea?

- The Social Care Wales team voted this idea highly in the ideation workshop with the idea of promoting transparency
- It would clarify the responsibilities of teams allowing them to do the work they want to do
- Support teams understanding each other's remits
- Enable better collaboration across Local Authorities by facilitating communication between similar social care teams

## How can Social Care Wales take this forward?

- Find partner Local Authorities that would be willing to work with Social Care Wales to support mapping processes.
- Ideally the partners would have different structures for their data analysis teams.
- Spend time understanding data products being created and prioritise the process flows around them.
- The size and scope of the project would depend on the type and number of products and organisations involved. It would require business analyst and human centred design skills to map and communicate.

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Alpha 1 - Data Journeys: Example

During research, the Social Finance team started to develop some high-level organisation maps for two Local Authorities with different Social Care data team set ups, to see if there might be any opportunity to learn from these. These maps could form a starting point or basis for discussion about data journeys within organisations. We reviewed these maps with a contextual interview participant who gave us the following feedback:

"*...the big question I'd ask about the structure of those two maps is how much of the management information system analysis and reporting infrastructure is owned and maintained by the service areas you've mapped here, and how much is owned by an ICT function you've not mapped. This is a critical point of distinction for a lot of English Local Authorities when comparing practice infrastructure...*"

Alistair Herbert, Data to Insight community
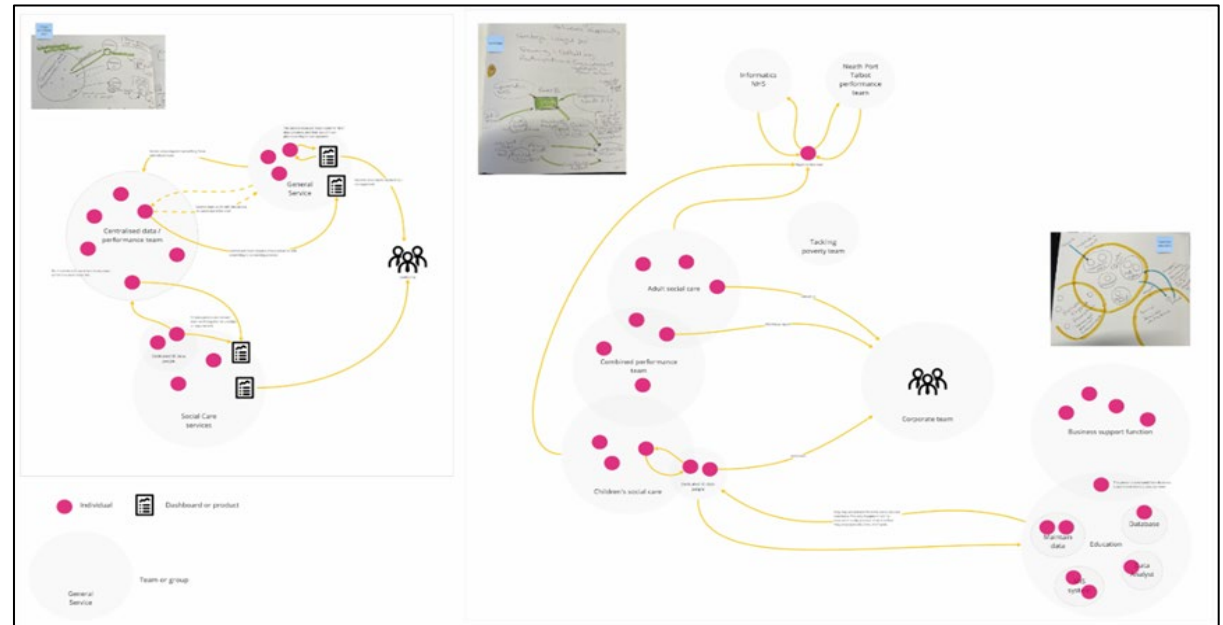
Alpha 2 - Transparent Job Descriptions

What is it?
An open platform where crowdsourced data analysis role descriptions that are available to all Local Authorities to that they can share practice and reference for organisations that are looking to hire.

Why this idea?

- Questionnaire responses showed a significant variance in job titles and backgrounds causing confusion for participants
- Research participants mentioned lack of clarity and confusion around the hiring process. LAs also struggle to "sell" their roles.
- Social Care Wales's strategy includes acting as conveners between orgs
- Participants mentioned needing to add lots of detail to job postings to meet HR criteria, while others mentioned feeling intimidated by overcomplicated job ads putting them off.

How can Social Care Wales take this forward?

- Using the work done by the London Office for Technology and Innovation as an example (potentially partnering with them) to prototype using a free tool like AirTable.
- Work required would be from the Social Care Wales team to request and crowdsource job descriptions, and then to promote and evaluate the effectiveness of such a tool. This means the budget for delivering prototypes could be quite small.

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Alpha 2 Job descriptions transparency: Example

The London Office of Technology Innovation (LOTI) have developed an open-access database of Digital and Data job descriptions, crowdsourced from advertisements or supplied by Local Authorities.

This simple solution uses a free tool (AirTable) and is accessible through a simple HTML webpage. There is also a submission form where Local Authorities can submit their job descriptions for inclusion.

Following this work LOTI have pursued other initiatives to support the sector, including developing training about how to recruit hard-to-fill roles, supporting Local Authorities by providing access to a dedicated recruitment specialist, creating a jobs board, and much more.

LOTI have acted as a champion for working in Local Authorities, using their communications and activities to promote these as being a vibrant and interesting place to work. The LOTI Data Careers FAQs web page is a good example of this and is an approach that Social Care Wales could easily emulate.
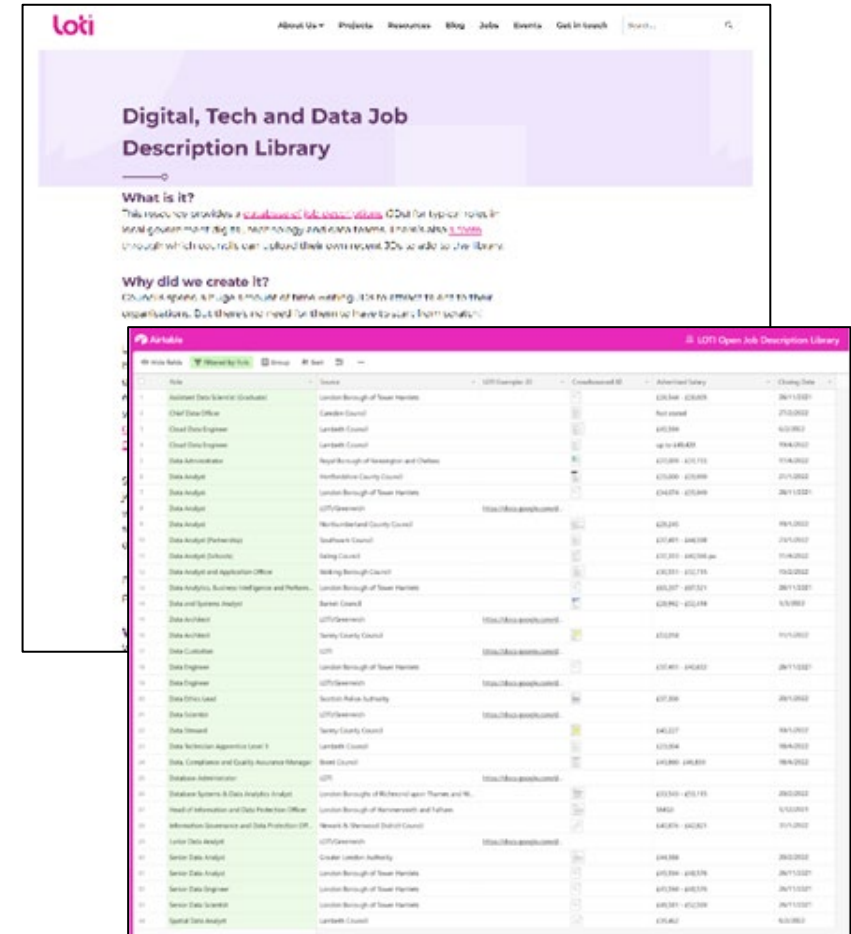
Alpha 3 - Training resource library

What is it?
An online resources library signposting, hosting, and promoting training for a range of people working with data in Social Care. This would also include signposting trusted suppliers as well as links to professional development such as university courses available within Wales.

Why this idea?

- Questionnaire findings told us that most respondents had not accessed training within the last year.
- User research interviews told us that Team Leaders and Managers are conscious that their teams need training, however training is not consistently delivered, and it is unclear what they should provide.
- Ideation workshop participants mentioned signposting training.
- This could support more people than a professional development framework

How can Social Care Wales take this forward?

- At this stage, Social Care Wales should seek to use paper wireframes and design prototypes to test and learn from users not develop high fidelity (production-quality code) prototypes.
- Prioritising the groups, data analysts looking to learn about social care, and social care practitioners looking to learn data skills, because their experiences are likely to be applicable beyond these two groups.
- Work alongside LAs who already have training and free software as content for the library.

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Alpha 3 Training Resources Library: Example

An online resources library could be defined based on user groups specific needs rather than skills defined against a role or role level:

- People who know about data but need to build their knowledge about working in Social Care

- People working in Social Care would like to move into a data role

- People working in non-data roles who want to move into a data role in Social Care

- People working in data roles outside of Local Authorities (for example those working in similar sectors such as Health) who are interested in moving into Social Care

There are examples of open training libraries that have been created by a number of public and private sector organisations including the Department of Levelling up Housing and Communities (DLUHC), or Apolitical.

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Alpha 4 - Communities of practice

What is it?
An informal space for conversation, problem solving, getting to know other analysts in the sector, and to interact in both larger groups for wider discussion, and in smaller groups to build interpersonal relationships

Why this idea?

- The idea of using a community to address the opportunity areas came up in both ideation workshops.
- Social Care Wales are well placed to build and understand effective community development based on their current and past work.
- Existing examples of informal communities were brought up in the workshops in positive light, namely the WCCIS group.
- Contextual conversations, participants worry that Analysts were isolated , and user research participants worry that they are only learning non-transferable specifics about their local authority.

How can Social Care Wales take this forward?

- There would have to be an initial focus on defining the community, "what is understood as an analyst" and the community's purpose, which could be based off of the user groups we define.
- Social Care Wales would need to understand the topics members would be interested in by engaging people directly through research.
- Social Care Wales could prototype this idea using their existing infrastructure in Knowledge Hub or consider other tools or platforms that might be more applicable for this group.

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Alpha 4 - Community of Practice: Example

Social Care Wales can use their past work on scoping and creating an Evidence Community, as well as their understanding of best practice communities as a guideline to approach this project.

Social Finance have supported Social Care Wales to develop guidance about how to develop and run communities of this kind which makes this a replicable activity across the organisation.

Example: Agile in the ether community
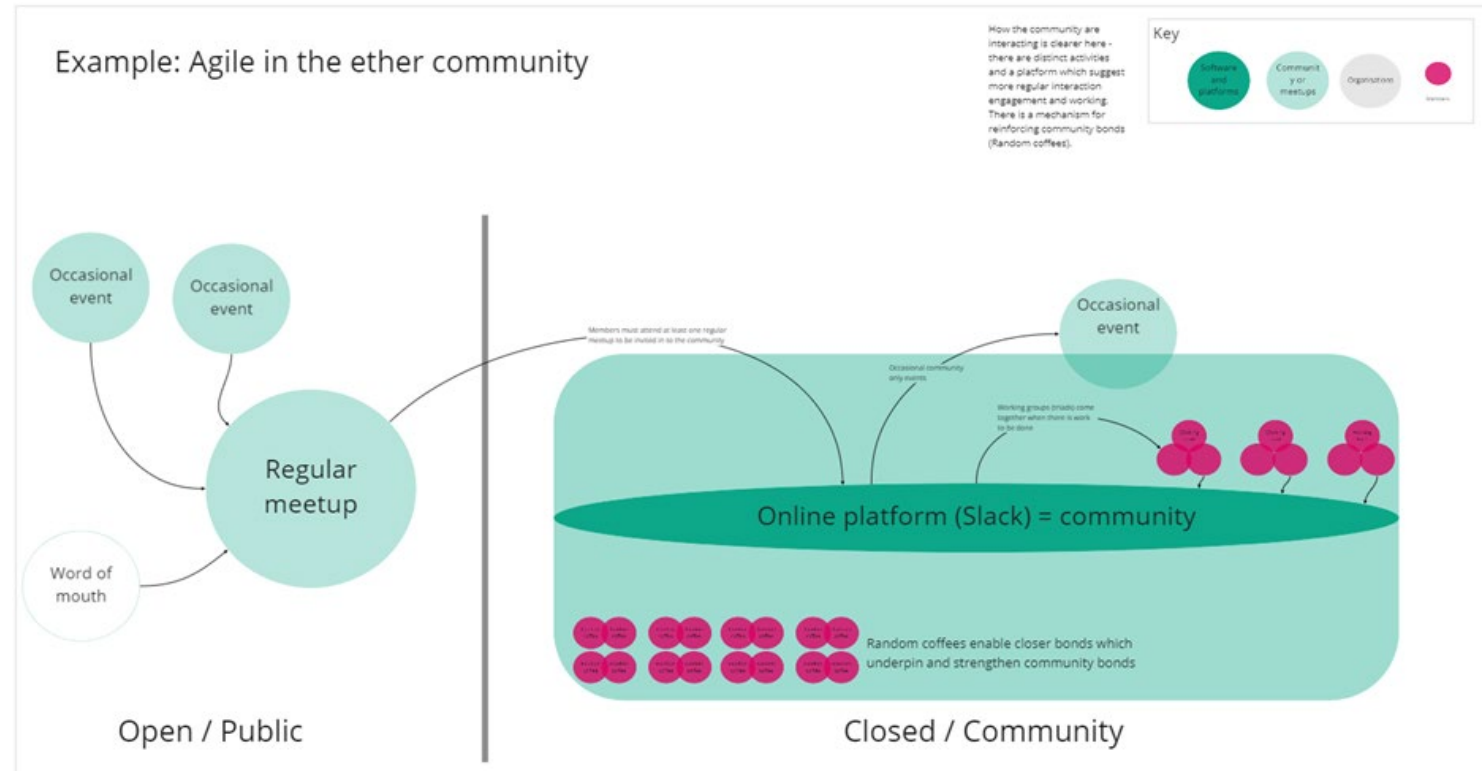
Conclusion

5

Conclusion

- Social Care Wales is **uniquely placed at the centre of a complex system of organisations** involved in the delivery of Social Care services, and it now has a view of the needs and experiences of those working with data for Social Care.

- Social Care Wales is able to **build the relationships needed** and to make use of the expertise of those working in this sector to become an **influential champion to people working in data or Social Care.**

- However, there **remain several challenges** that will require concerted, long-term collaboration with proactive partner organisations. Social Care Wales cannot address these alone, nor should they. Higher impact initiatives will require the funding of collaborative, longer-term, flexible initiatives, the agreement of partners to work openly and share learnings so that others within the sector can build on outputs and help to drive change.

Conclusion

All public bodies, government, third sector and academic institutions have a part to play in meeting these challenges, which include:

- **seeking to fund initiatives that enable and promote cross sector working,** particularly within the wider Welsh public sector (Health, Civil Service and private sector) to enable those working in data in local government to learn from those with more established skills, experience and ways of working and help to share skills across the public sector as a whole, breaking out of the 'enclaves' (South Wales or particular institutions) mentioned by our research participants.

- **helping to promote the non-financial benefits of working in the field of data for Social Care,** promoting Social Care data roles as a viable option for graduates seeking a role with social purpose over and above salary.

- **to acknowledge and help to identify ways to address the inequalities in salary for data roles** across parts of the sector including Health and Civil Service and that pay inequalities have a significant impact in the perception of Social Care

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Conclusion

All public bodies, government, third sector and academic institutions have a part to play in meeting these challenges, which include;

- to understand the variation of skills distribution and access to training within the public sector in Wales, for example, that existing training opportunities accessed as part of Health or Civil Service frameworks are not available to those working in local government and have a significant impact in widening the skills gap and preventing cross-sector movement of skilled people.

Good leadership is an essential component of improving data skills. Organisational leaders should;

- seek to understand entry and development pathways of analysts within their organisations and seek to develop opportunities for data analysts to learn on the job.

- develop access to relevant and high quality training. Whilst some training is available, Managers told us that they were often not sure what training to offer.

- allow analysts and those who work with data the time and space for continual professional development. Just like practitioners, data analysts need to continually develop and refine their skills in both technical and service knowledge.

Appendix

6

Appendix – Survey questions

1. What is your job title?

a)   Data Analyst
b)   Data Scientist
c)   BI Analyst
d)   Data Engineer
e)   Head of Service
f)   Social Care Team Leader / Manager
g)   Social Care Practitioner
h)   Report Writer
i)   Data Base Administrator
j)   Business Analyst
k)   Planner/Strategist
l)   Service Improvement Manager
m)   Project Manager

n)   Prefer not to Answer
o)   Other

2. What sector were you working in before starting in your current organisation?

a)   In another Social Care role in the public sector
b)   In a non-Social Care role in the public sector
c)   In another Social Care role in the private sector
d)   In a non-Social Care role in the private sector
e)   In another Social Care role in the 3rd sector
f)   In a non-Social Care role in the 3rd sector
g)   In an academic institution
h)   NA / Prefer not to answer
i)   iOther

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Appendix – Survey questions

3.What role were you doing before you started this role?

a) A different Data Analyst job
b) A non-Data Analyst job
c) Student/in education
d) Prefer not to answer
e) Other

4. How long (in years) have you been working at your organisation within your current remit (i.e. In the Data Analyst Team, or Early Help Team...)?

a) 0-2
b) 3-5
c) 6-8
d) 9-12
e) 13-15

f) 16-20
g) +20

5. How much does your day-to-day job involves working with data? Please tick all that apply:

a) I commission this work from others
b) I never have to do data related work
c) I have irregularly had to do data related work
d) It's not my main job but I do up to 2 days a week
e) It's not my main job but I do it more than 2 days a week
f) It's my full-time work
g) Other

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Appendix – Survey questions

6. Which of the below skills are essential to your day-to-day role? (to do any of the following; clean or tidying data, carrying out analysis, creating visualisations, creating data/process automations...). Please tick all that apply:

a)   Excel

b)   Using Code (R, Python, SQL...)

c)   Using Software (Power BI, Alteryx...)

d)   Collection of qualitative data (interviews, workshops, observation...)

e)   Analysis of qualitative data (thematic analysis, discourse analysis...)

f)   Designing data collections

g)   Using data science to deliver insights

h)   Creating data visualisations (i.e. dashboards or widgets)

i)   Creating Reports

j)   Presenting data to others

k)   Designing Data Analysis Projects

l)   Leading Data Analysis Projects

m)   Using data to make decisions

n)   Information Governance

o)   Prefer not to answer

p)   Other

Appendix – Survey questions

7. How did you first gain any of the following skills?

	Cleaning or tidying data	Carry out analysis	Carrying out advanced analysis	Creating data visualisations	Creating data / process automations	Creating reports	Designing data analysis projects	Leading data analysis projects	Information governance	Carrying out data science projects
NVQ / Apprenticeship										
Professional training										
College / university										
Training provided by current employer										
Ad hic learning on the job										
Hobby / outside of work										
N/A or don't have this skill										

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Appendix – Survey questions

9. Are you a member of any data analysis or data science communities of practice? If so, could you specify? (Optional)

10. If you are part of a data analysis / data science community of practice, how and how often do you interact with that community? (Optional)

	Video conferencing (Zoom, Teams, Skype)	Document library (SharePoint, Dropbox etc.)	In person meetings or events	Forums (Slack, Knowledge Hub etc.)	Messaging Services (such as WhatsApp)	Collaborative documents
Daily						
Weekly						
Monthly						
Every couple of months						
A couple of times a year						
Never						
N/A						

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Appendix – Survey questions

11. What type of organisation are you working in?

a) Local Authority

b) Government sponsored body (e.g. Social Care Wales, CIW)

c) Welsh Local Government Association

d) Children's Commissioning Consortium Cymru (4Cs)

e) Regional Partnership Board

12. How big is the Social Care Data Analyst team at your organisation?

a) 0

b) 1-3

c) 3-5

d) 5-10

e) 10-20

f) +20

g) Don't know

13. Is your role a part of your organisation's Social Care function, or do you work in a centralised team shared by other areas of your business?

a) Dedicated team

b) Centralised team

c) NA

d) Other

Appendix – Survey questions

14. Does your organisation use external consultants or organisations for digital or data roles?

a)   Yes always

b)   Yes sometimes

c)   No

d)   Don't know

15. Does your organisation offer any of the following opportunities related to data? (Please tick all that apply)

a)   Mentoring

b)   Job Shadowing

c)   Formal Training

d)   Access to conferences / events

e)   Access to secondments

f)   My organisation does not offer any of the above opportunities

g)   Other

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Appendix – Survey questions

16. Which of the below training have you accessed through your organisation within the last year – and how useful did you find it?

	Excel courses	Coding courses	Data visualisation (PowerBI Tableau)	Information Governance	Data Analysis Communication	Designing Data Analysis Projects	Creating data / process automations	Colleting qualitative data	Analysing qualitative data	None – my organisation doesn't provide training
Very bad										
Bad										
Average										
Good										
Very Good										
Not available / Not applicable										

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Appendix – Stakeholder groups

The below table outlines the list of participants for each stage in our research.

Survey:

User Group Name	Number in Group
Generalist Analyst	7
Graduate Data Analyst	2
Data Analyst who has been in their role a long time	12
Data Analyst with formal education or training in data	4
Data Analyst with employer training	2
Qualitative Data Analyst	2
Team Leader/Manager with responsibility over teams doing data work	20
Local Government Senior Manager	3
Local Government Colleague with Low Data Skills	2
Social Work Practitioner	2

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Appendix – Stakeholder groups

The below table outlines the list of participants for each stage in our research.

User group interviews:

User groups by number	Targeted	Interviews completed	Total
Contextual	8	9	11
Local Government senior manager	2	1	8
Data Analyst in role a long time	2	1	1
Data Analyst with formal training	2	0	0
Graduate Data Analyst	2	2	2
Data or performance Team Leader	3	4	4
Local government colleague with low data skills	1	0	0
Adjacent profession (CS or Health)	1	1	1
Academic	2	1	1
Social work practitioner	1	0	0
Person providing training	0	0	0
General Data Analysts	0	1	1

Contact us

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Social Care **Wales**