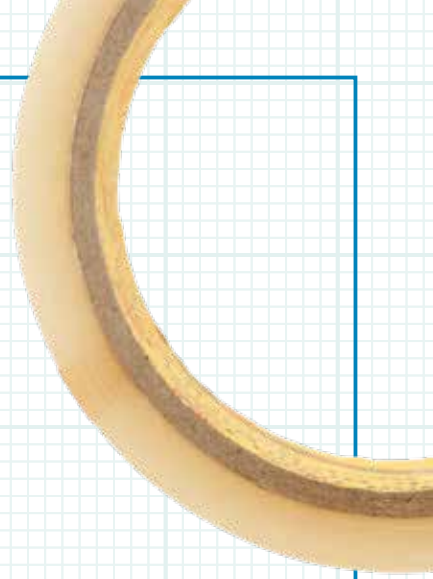




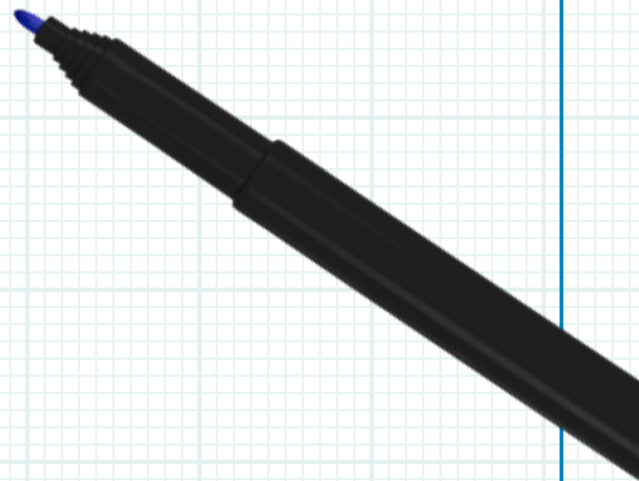
power to
change

business in
community
hands



Data for the community

Taking a look at how data assets
are being used at a local level



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DATE:

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Foreword

Power to Change has a commitment not only to better use of data in our own programmes, but to growing the capacity of communities to engage with, use and distribute good quality information about their neighbourhoods.

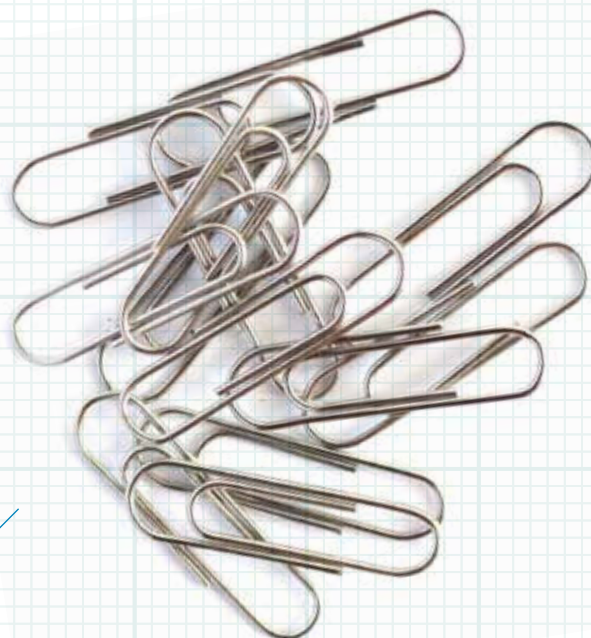
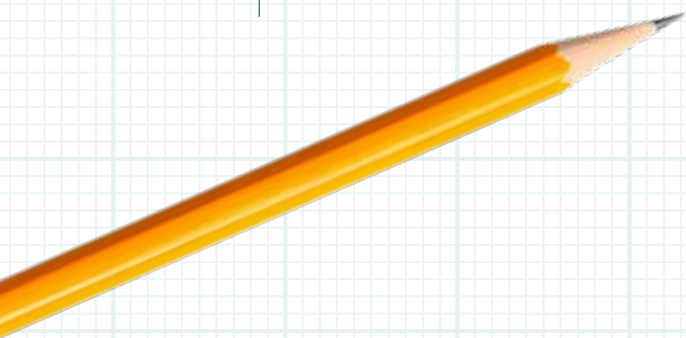
This is not about data for data's sake, or about jumping on the high speed bandwagon of technology. We do not envisage AI fuelling community development any time soon, nor would we want it to. What we have in mind is empowered communities able to negotiate for the change they want to see by using the most accurate information they can get their hands on. This makes for better quality community development, more persuasive cases made to local authorities and others in positions of power, and more effective engagement of local people.

In commissioning this research, we wanted to gain a sense of what is already happening in community data use, and where we could usefully support greater development of on the ground data skills, and accessible and usable datasets.

Giuseppe and Mark uncovered some interesting examples, and have pointed to some of the barriers that are limiting take up of data strategies by community groups. Their research pinpoints a series of steps that can be taken to make progress on the use of information by communities in representing the causes they care about.

We are keen to see how we can further support early developments in community data, build skills, build access and share information, and we will be playing an active role in promoting this important and under resourced area of local activism.

Gen Maitland Hudson
Head of Data and Learning, Power To Change



Introduction

Data powers an ever increasing number of services and operations, in ways that were unthinkable just a few years ago. Improving technology, the drop in the cost of computer storage, and advances in algorithms, have created a fertile environment for a wide adoption of data-driven processes.

Within the public sector, the technological advances have found an ally in the Government transparency movement which, starting with the US Freedom of Information legislation in the late 90s, has produced a similar flourishing of open government activism in the UK. The Freedom of Information and Data Protection Acts have made the public increasingly aware of its information rights and endowed journalists and activists with a legal framework for their investigation and campaigns.

The knowledge-based activism evolved in the first decade of the new millennium in the Open Data movement, moving to a more technical agenda; where FOI demanded a right to know, the Open Data movement demands to obtain knowledge in a specific form: datasets. The movement was politically successful in the 2010s, seeing governments around the world defining Open Data agendas, adopting data release processes, and implementing data catalogues accessible by the public. Several Governments around the world appointed Chief Data Officers, including France and the UK, and transparency indices were developed by organisations like the Open Knowledge Foundation¹, pitching national governments against one another in a battle for openness.

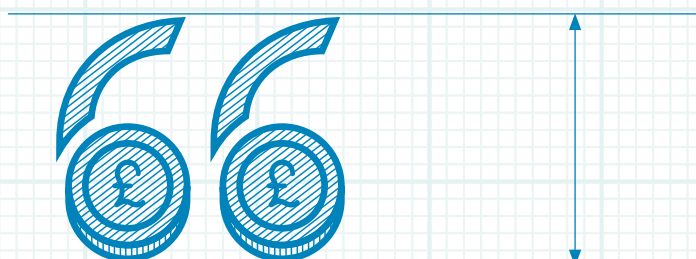
Similar initiatives were launched at a local level, where local authorities started releasing datasets in response to the Local Authorities Transparency Code. A variety of applications and analyses were produced out of such data. More importantly, however, the combination of the transparency agenda with the budget cuts of the early 2010s created an expectation that local authorities should do more with less, therefore exploiting data to reimagine services in innovative ways. With this came the understanding that such data could not always be open: the data can be on a spectrum that includes publicly available and private data, personal data, data that can be used for commercial purposes, and data with limited licensing.

Outside government, there have been initiatives for the publication and use of data assets in the third sector and within local community groups. These initiatives have generally seen a limited scope, as they were centred around a single initiative or project; sometimes they used Open Data, but other times they created their own, new data. This report will look at some of these initiatives.

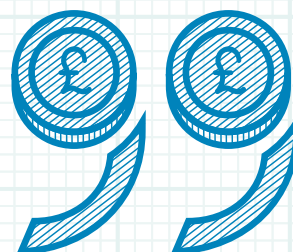
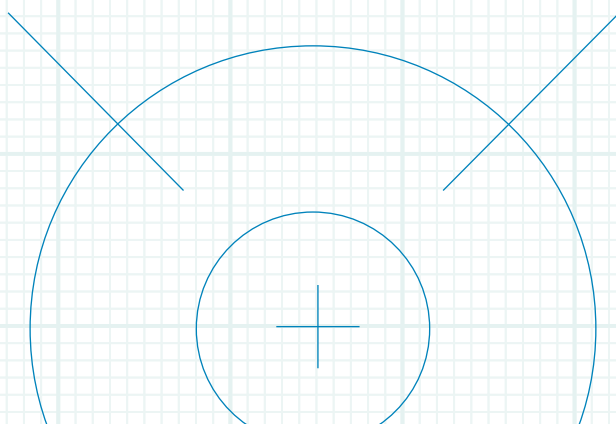


Power To Change UK commissioned Giuseppe Sollazzo, director of Puntofisso Ltd, and Mark Braggins, director of AHA Digital Ltd, to look at pockets of activity that point to interesting uses of data at a local level, for the benefit of the local community. The definition of local is rather loose in this context, and intended to cover both hyperlocal activities, happening at a street or neighbourhood level, and those covering a specific community within a local area. It also covers city-wide initiatives.

This report aims to assess the extent to which data is being used at a local level. It narrates findings from a cross-section of local authorities, charities, democracy activists, civil society, and community businesses. It contains a display of uses of the most interesting community level datasets by 'early adopters' in local authorities, neighbourhood civil society organisations and community businesses. The data used is found in national datasets, postcode information, local surveys, or in proprietary data assets provided by business intelligence organisations.



This report aims to assess the extent to which data is being used at a local level. It narrates findings from a cross-section of local authorities, charities, democracy activists, civil society, and community businesses.



Executive summary

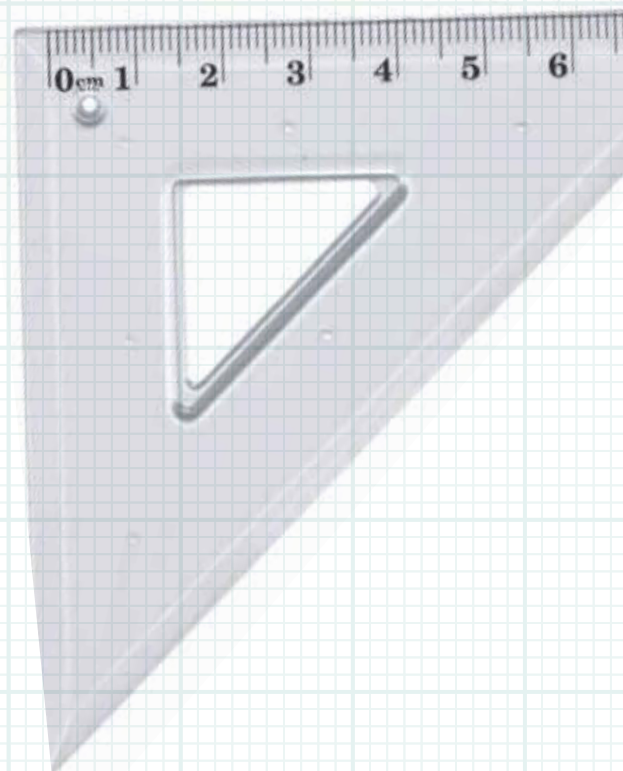
We were commissioned by Power To Change UK to look at pockets of activity using data at a local level, for the benefit of the local community. The word “local” is used to cover hyperlocal activities, happening for example at a street or neighbourhood level, those covering a specific community within a local area, and city-wide initiatives. The “data” in this report include national and local datasets, postcode information, surveys, and proprietary information. This report is a narrative assessment of whether there are pockets of activity, or areas where datasets have been effectively created by local organisations and have been taken up by civil society.

We conducted a total of 21 interviews with 23 individuals from across the UK, working in a variety of sectors. We also received one detailed contribution via email. These included 11 organisations which have a purely local focus, and 11 organisations which operate nationally but work with people and organisations at a local level. The organisations we engaged with represent several categories:

- 5 social enterprises, including 2 co-operatives and 2 community interest companies
- 5 charities
- 3 think-tanks
- 2 local authorities
- 2 government departments
- 2 civil society organisations
- 1 voluntary organisation
- 1 housing association
- 1 private business.

← **The interviewees talked knowledgeably about local activity around data in the following places:**

- Birmingham
- Brighton
- Cardiff
- Devon
- Hampshire



- Herefordshire
- King's Cross
- Manchester
- Sandwell
- South Oxfordshire
- Southampton
- Thames Valley
- Trafford

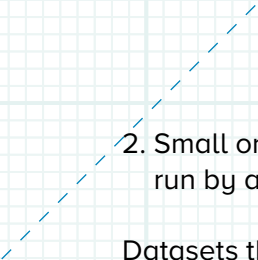


The interviewees are all active in data communities or initiatives, sometimes in more than one geographic area. The interviews were free-flowing conversations, although a simple structure was followed:

- 1) We explained the purpose of the research and the report
- 2) We asked the interviewee to explain their activity, or their organisation's activity
- 3 We asked the interviewee to explain the use of data in their activity
- 4) We asked the interviewee for specific examples of data uses, covering the goals, the data used, the tasks implemented, and the outcomes achieved
- 5) We asked the interviewee to explain whether the outcomes were national or local, and what the local implication could be
- 6) We asked the interviewee to highlight any collaborative use of data across different agencies
- 7) We asked the interviewee to describe what support they would like to receive for more effective use of data.

We found evidence of pockets of activity based around data, as well as difficulties. In general, we note that data-driven initiatives form around two broad phenomena:

1. Wherever there is a local tech community, data-savvy initiatives are started in collaboration with an institutional entity

- 
2. Small organisations develop awareness that their operations could be better run by adopting data, and seek help from external entities.

Datasets that offer information at a neighborhood level, such as the Indices of Multiple Deprivation, are very popular, and are often used for applying for funding grants. There is a striking lack of use of data released by local authorities, with interviewees often lamenting that such datasets are not at a useful level of granularity or aggregation. Some organisations use a mixture of public and private data, with purpose-built surveys being very popular. We did not find any uncommon use of data, with the exception of Google Earth being used to identify sites for solar panel installations. Data seem to be used on a project-by-project basis, rather than as a regular way to power services. However, many organisations are getting ready for a more dynamic way of running services and operations by using data to review.

Lack of skills and resources is the most common issue reported as a barrier to effective data use, together with the impact of a “not invented here” culture preventing organisations, especially charities, from using other organisations’ data. There are some initiatives trying to break through this culture. We did not find any startling, surprising, or uncommon use of data, with a few exceptions.

We have identified a list of common steps to guide organisations use data assets effectively, which we offer as direct advice:



1. Use readily available data for an initial understanding of the area of interest and its population
2. Collect new data to address questions that were not addressed by the available data
3. Engage with local experts and community, and follow examples of data uses at a local level
4. Develop your data framework, and seek support

This report was limited by the number of interviews we could reasonably make in the 2-months this project run. It doesn’t purport to be a comprehensive view of the local sector, but it offers a sample of what’s happening in several categories of organisations.

Mark Braggins AHA Digital Ltd
Giuseppe Sollazzo Puntofisso Ltd

Open, big, small, public, shared, smart, physical: the many facets of data

The concept of data has many facets. The Open Data Institute talks of a “Data Spectrum” to describe the various dimensions of data². In this report we focus on aspects of data that have an impact or can have an impact at a local level. We believe three dimensions of data have been popularly hailed as being able to affect local communities: the openness of data; the size, volume, and speed of creation of datasets; the relationship of data to physical, tangible objects of everyday use. In this section, we provide a brief introduction to these aspects.

Open data

A big push in the adoption of data strategies came from the transparency movement and the idea that public authorities should be releasing the information they hold. A commonly agreed definition of Open Data is offered by the Open Knowledge Foundation³:

“Open Data is data that can be freely used, shared and built-on by anyone, anywhere, for any purpose.”

OKFN, Defining Open Data

Although the details of how this definition is implemented are subject to heated debate in the community, especially in terms of licensing, ownership, and commercial exploitation, we are satisfied of using it for the purposes of this report.

Historically, the beginnings of the Open Data movement had a local flair: during the outbreak of hurricane Katrina in 2005, the local population across Louisiana, feeling abandoned by the federal government, started assembling datasets with information scraped from web pages. With the goal of finding out which areas were most affected, an army of geeks scraped any piece of information from government websites that could be useful: building permits, population estimates, the parcel layer, and so on. The data was assembled on spreadsheets and shared. Open Data was born: a community-led effort to take information from the state and give back to the community.⁴

In the early 2010s, what had been a bottom-up movement was captured by national governments, with the creation of data web portals such as data.gov and data.gov.uk. The hands-on approach of the Katrina volunteers was replaced by a financial transparency ethos. This is best exemplified by the then UK Prime Minister David Cameron dreaming up an “army of armchair auditors”⁵ that would encourage efficiency savings and enable the effective implementation of

² ODI, The Data Spectrum: <https://theodi.org/data-spectrum>

³ Defining Open Data: <https://blog.okfn.org/2013/10/03/defining-open-data/>

⁴ Open Data: where the movement started and where it's headed: <http://www.computerworlduk.com/data/open-data-where-it-started-where-its-headed-3626537/>

⁵ Government unleashes army of armchair auditors: <http://www.ukauthority.com/news/2807/government-unleashes-army-of-armchair-auditors>

the Big Society model⁶. The adoption of Open Data for practical projects was encouraged through central government funding, for example by the Release of Data Fund and the Breakthrough Fund⁷, and through challenges or prizes, such as the series administered by NESTA⁸ or the Geovation Challenges.⁹

At a local level, the move towards openness was primarily pushed by local authorities creating Open Data portals and going as far as running their own hackathons and challenges, sometimes in conjunction with central government. Among the most popular initiatives in this context we can include Open Data portals similar to the ones run by Hampshire County Council¹⁰, Camden Council¹¹, or Redbridge Council¹², together with partnerships such as the Leeds Data Mill¹³ and Bath: Hacked. In 2015 the then Minister for the Cabinet Office, Francis Maude, named 16 Open Data Champions¹⁴: the local authorities of Barnet, Birmingham, Bristol, Cambridgeshire, Devon, Glasgow, Hampshire, Lambeth, Leeds, London, Manchester, Windsor & Maidenhead, Redbridge, Sunderland, Surrey, and Trafford.

A key question is, of course, what is the impact of Open Data and how to evaluate it. What initiatives and projects were successfully powered by Open Data? What is the benefit to the taxpayer or to the local community? A famous claim in a report by McKinsey suggested that Open Data could help create *\$3 trillion a year of value in seven areas of the global economy*¹⁵, but there is scant evidence that this happened at all; there are questions¹⁶ as to whether the Open Data movement should somehow be changing its course. Recently, the CEO of the Open Data Institute, Jeni Tennison, has called for a problem-oriented approach to Open Data¹⁷.

One sector has definitely benefitted from the diffusion of Open Data portals: data journalism. Increasingly an important part of the newsroom, data journalists have been using computational skills to produce both traditional and interactive storytelling. This is happening frequently at a local level, where most of the newsworthy data is found. Initiatives like the Trinity Mirror Data Unit¹⁸ or, more recently, the Bureau Local¹⁹, are creating local journalistic stories by using Open Data; Paul Bradshaw runs an MA in Data Journalism at Birmingham City University which draws heavily on Open Data²⁰.

In other sectors, including charities, social enterprises, and community groups, the adoption of data has been hit and miss. Some examples of these uses are included in this report.

⁶ Big Society: https://en.wikipedia.org/wiki/Big_Society

⁷ Breakthrough Fund and Release of Data Fund: <https://www.gov.uk/government/publications/breakthrough-fund-and-release-of-data-fund>

⁸ The Open Data Challenge Series: <http://www.nesta.org.uk/project/open-data-challenge-series>

⁹ Geovation: <https://geovation.uk/>

¹⁰ Hampshire Hub: <http://www.hampshirehub.net>

¹¹ Open Data Camden: <https://opendata.camden.gov.uk/>

¹² DataShare: <http://data.redbridge.gov.uk/>

¹³ now Data Mill North: <https://datamillnorth.org/>

¹⁴ Open Data Champions: <https://www.gov.uk/government/news/local-authorities-setting-standards-as-open-data-champions>

¹⁵ Open Data: Unlocking innovation and performance with liquid information: <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/open-data-unlocking-innovation-and-performance-with-liquid-information>

¹⁶ The Open Data Delusion: <http://brokentoilets.org/article/open-data-delusion/>

¹⁷ Policy design patterns that help you use data to create impact: <https://theodi.org/blog/policy-design-patterns-that-help-you-use-data-to-create-impact>

¹⁸ Trinity Mirror Data Unit: <http://www.mirror.co.uk/all-about/data-unit>

¹⁹ The Bureau Local: <https://www.thebureauinvestigates.com/projects/the-bureau-local>

²⁰ MA in Data Journalism <https://onlinejournalismblog.com/2017/07/01/data-journalism-course-teaching/>

Big data

A favourite buzzword of the past few years, what exactly is “Big Data”? A common definition uses the “three Vs” rule: volume, velocity and variety - big data is data that expands on these fronts at an ever increasing rate²¹. Another popular definition was offered by Simon Rogers, data editor at Google and formerly editor of the Guardian Data Blog: big data is data that is

“One byte more than you are comfortable dealing with.”

Simon Rogers

Either way, using big data might require large, powerful computational infrastructures, although of course this is not the full story. For example, local authorities collect large quantities of data, but it is not always the case that these data need to be used in one go. With this in mind, there is meagre evidence of any effective use of big data at a local level, especially in public authorities. However, in the past few years there have been several intriguing projects based on big data run by social organisations, most of which have a definite “local” flair.

A good summary of big data uses in the third sector is offered by a Nominet Trust report authored by data mining stalwart Duncan Ross²². The report mentions the creation of several local “dashboards” capable of providing effective real-time information about a local area, although many of these initiatives tend to suffer from the fallacy of being “just data points on a map”. The local uses of big data generally involve extracting subsets of large national datasets, for example health data or the Indices of Multiple Deprivation (IMD).

Smart cities and the internet-of-things

Two even more popular buzzwords have been linking data and local communities: “Smart Cities” on one side, and the “Internet of Things” on the other. These two terms are often used in conjunction. A smart city represents the idea that integrated information will help manage and improve the urban environment. In general, this refers both to analytical processes, for example using data in order to better design processes and devise policies in a real-time responsive way, and to aspects related to e-governance and participative innovation. The Internet of Things (IoT) is the idea that physical devices should be connected either among them or to the internet itself. “Things” are devices and instruments: cars, bicycles, domestic appliances, items of clothing, and pretty much any item that has room to accommodate electronic communications.

²¹3D Data Management: Controlling Data Volume, Velocity, and Variety: <https://blogs.gartner.com/doug-laney/files/2012/01/ad949-3D-DataManagement-Controlling-Data-Volume-Velocity-and-Variety.pdf>

²²Big Data and social organisations: <http://www.nominettrust.org.uk/knowledge-centre/articles/big-data-and-social-organisations>



The attention given to Smart Cities has definitely increased in recent times. Financial constraints have forced local authorities to think how to deliver their services using fewer resources. An effective use of data is essential to achieving this goal. The strongest examples come from the US, where the New York City authorities have set up the Mayor's Office of Data Analytics (MODA)²³, bringing together graduates with statistics, economics, and computer science backgrounds. This team has achieved great results especially as far as policy enforcement is concerned. On one occasion, the MODA team was able to find illegal property conversions²⁴; in another, it found a list of restaurants most likely to be dumping cooking oils illegally²⁵. Both problems presented a major challenge: hundreds of thousands of addresses to inspect, with inspectors numbers being just in the hundreds. The solution used data from several agencies, and consisted in the creation of predictor indices and heat maps to narrow down the number of properties to visit.

The major challenge to a similar approach being adopted in the UK comes from, as per the title of Eddie Copeland's report on local data, having "Small pieces loosely joined"²⁶: the sector fragmentation doesn't help a comprehensive move to achieving smart cities. However, several local authorities are becoming forward-looking in their use of data. The piloting of the London Office of Data Analytics²⁷ is an interesting, albeit limited, experience.

It is obvious where the internet of things might become useful. Embedding connected devices in cars, buses, and bicycles, can provide real-time analytics that can positively impact traffic flows. Several inspiring visualisations and analyses of rental bikes in London have been produced over the years, most notably by Oliver O'Brien at UCL CASA²⁸. Mobile apps such as CityMapper²⁹ are already used by commuters to plan their routes. In a sense, smart cities via connected devices are already a reality, albeit not one that is centrally controlled by the local political authorities. However, councils throughout the UK are starting to see the benefits of a better thought through data strategies. A number of useful case studies of local authorities using data is presented in "Wise Council"³⁰, a joint report by NESTA and the LGA giving insights from the cutting edge of data-driven local government. Our report contains some links to these stories.

²³ MODA: <http://www1.nyc.gov/site/analytics/index.page>

²⁴ Big Data in the Big Apple: http://www.slate.com/articles/technology/future_tense/2013/03/big_data_excerpt_how_mike_flowers_revolutionized_new_york_s_building_inspections.html

²⁵ Why grease is the word in New York City: <https://www.ft.com/content/a284331a-9751-11e2-a77c-00144feabdc0#axzz3XOJKf7Ls>

²⁶ Small Pieces Loosely Joined: http://www.slate.com/articles/technology/future_tense/2013/03/big_data_excerpt_how_mike_flowers_revolutionized_new_york_s_building_inspections.html

²⁷ Offices of Data Analytics: from rhetoric to reality: <http://www.nesta.org.uk/blog/offices-data-analytics-rhetoric-reality>

²⁸ London Bike Maps: <http://bikes.oobrien.com/london/#zoom=13&lon=-0.1186&lat=51.5060>

²⁹ CityMapper: <https://citymapper.com/>

³⁰ Wise Council: <http://www.nesta.org.uk/publications/wise-council-insights-cutting-edge-data-driven-local-government>

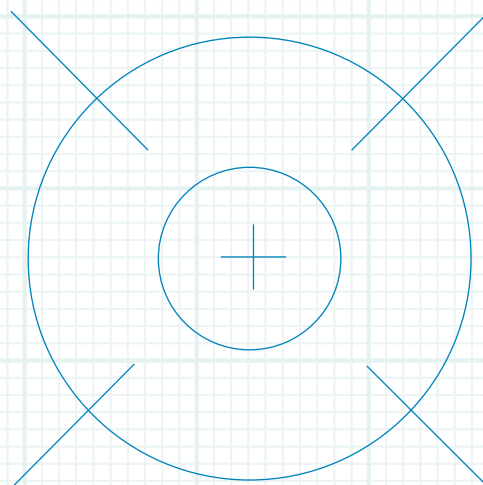
Interviews

Methodology

We conducted a total of 21 interviews, with 23 individuals from across the UK, from a variety of sectors. We also received one detailed contribution via email. These included 11 organisations which have a purely local focus, and 11 organisations which operate nationally but work with people and organisations at a local level.

The organisations represented were representative of several categories:

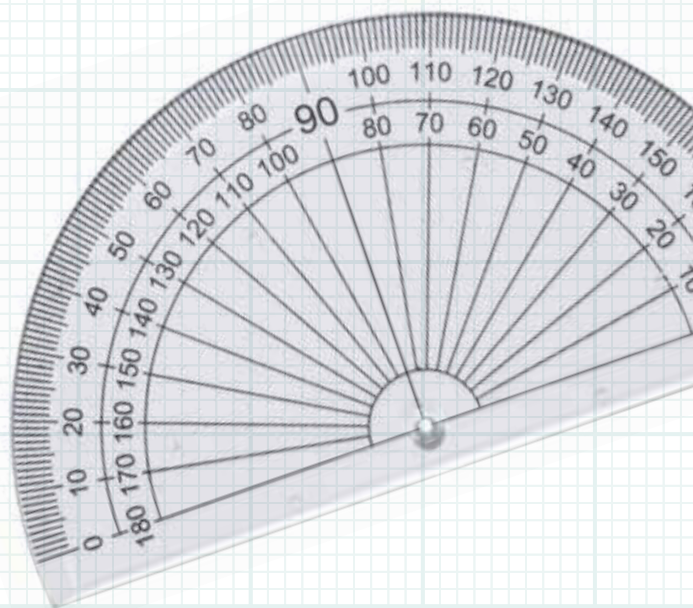
- 5 social enterprises, including 2 co-operatives and 2 community interest companies
- 5 charities
- 3 think-tanks
- 2 local authorities
- 2 government departments
- 2 civil society
- 1 voluntary organisation
- 1 housing association
- 1 private business.



Some of the people we spoke to wear several hats, so they do not all fit neatly into a single category. The interviewees talked knowledgeably about local activity around data in the following places:

- Birmingham
- Brighton
- Cardiff
- Devon
- Hampshire
- Herefordshire





- King's Cross
- Manchester
- Sandwell
- South Oxfordshire
- Southampton
- Thames Valley
- Trafford

The interviewees are all active in data communities or initiatives, sometimes in more than one geographic area. The interviews were free-flowing conversations, although a simple structure was followed:

1. We explained the purpose of the research and the report
2. We asked the interviewee to explain their activity, or their organisation's activity
3. We asked the interviewee to explain the use of data in their activity
4. We asked the interviewee for specific examples of data uses, covering the goals, the data used, the tasks implemented, and the outcomes achieved
5. We asked the interviewee to explain whether the outcomes were national or local, and what the local implication could be
6. We asked the interviewee to highlight any collaborative use of data across different agencies
7. We asked the interviewee to describe what support they would like to receive for more effective use of data.

The interviews will be presented using a narrative approach. However, we identified a number of common themes and some similarities among organisations. The following section gives an overview of these themes and similarities as an introduction to the interviews.

Common themes and observations

In order to analyse the interviews, we used a spreadsheet to segment the organisations according to a number of key features. We tagged each interview with a set of meaningful keywords and dataset names, and we used these tags to generate a set of word clouds. We were able to identify three broad groups of organisations.

Before we proceed, a quick caveat. Our research is based mostly on discussion with a small number of people, and these observations highlight datasets and sources mentioned during interview. We have not conducted a comprehensive survey, though our findings may help prepare the way for a future study which includes a survey (this could ask specific questions about which data sources and data sets are being used). Segmentation is by nature a tricky endeavour: some organisations fit into multiple categories, and some individuals we spoke to wear several hats.

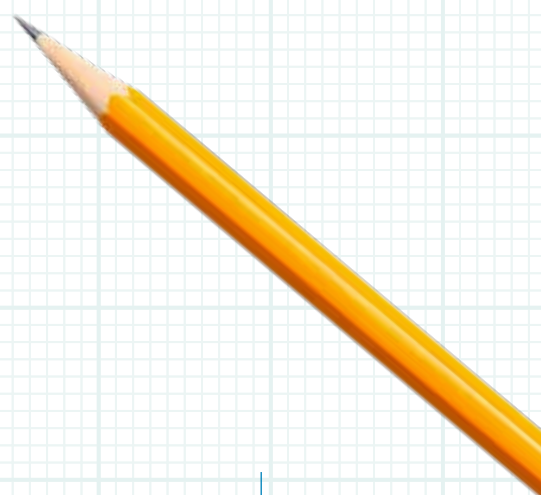
We present our findings as they could potentially guide similar organisations to a more effective use of datasets. The three groups are: local organisations, businesses and CICs, and national organisations.

Local organisations

Local organisations tend to use national data, which might sound surprising. The data, however, has a strong local component. The most used datasets contain demographic information. These datasets tend to come from the ONS and the DCLG. A very popular dataset amongst interviewees is the Indices of Multiple Deprivation (IMD), which has information down to Lower Super Output Area (LSOA)³¹ level. A LSOA often coincides with the boundaries of a housing estate, and this can be extremely useful in assessing the needs of a neighbourhood.

However, many of the people working in local organisations that we interviewed said that the readily available data isn't granular enough, and they have to supplement it with their own data via crowdsourcing, or through surveys. These are often very simple online lists of questions generated with popular systems like Google Forms or SurveyMonkey. Often, data is private and collected just for specific local projects. Mini-surveys were also mentioned by a smaller number of organisations. These are run using Twitter or Facebook polls, and are used for quick feedback on local issues, despite not being statistically significant.

The 'private' data that comes out so strongly from this set of interviews refers to bespoke survey data generated by local organisations.



- Sandwell
- Fieldfare (Hampshire)
- Bath: Hacked
- Chris Gutteridge (Southampton University)
- Lucy Knight (Devon)
- Julian Tait (Manchester)
- Pauline Roche (Birmingham)
- Jamie Whyte (Trafford)
- Will Perrin (South Oxfordshire and Kings Cross)
- Ben Proctor (Herefordshire and Wales)

National organisations tend to use ONS and DCLG data, as is the case across all groups. Ordnance Survey data is also widely used. Others also mentioned public health, sport and activity, as well as homelessness and crime data. A few use local authority open data, particularly around spending and contracts. Data which enables local areas to be compared with each other is popular.



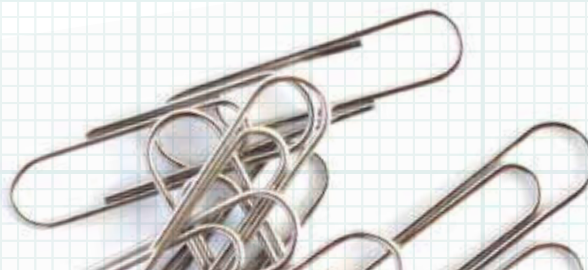
- ## Businesses and Community Interest Companies

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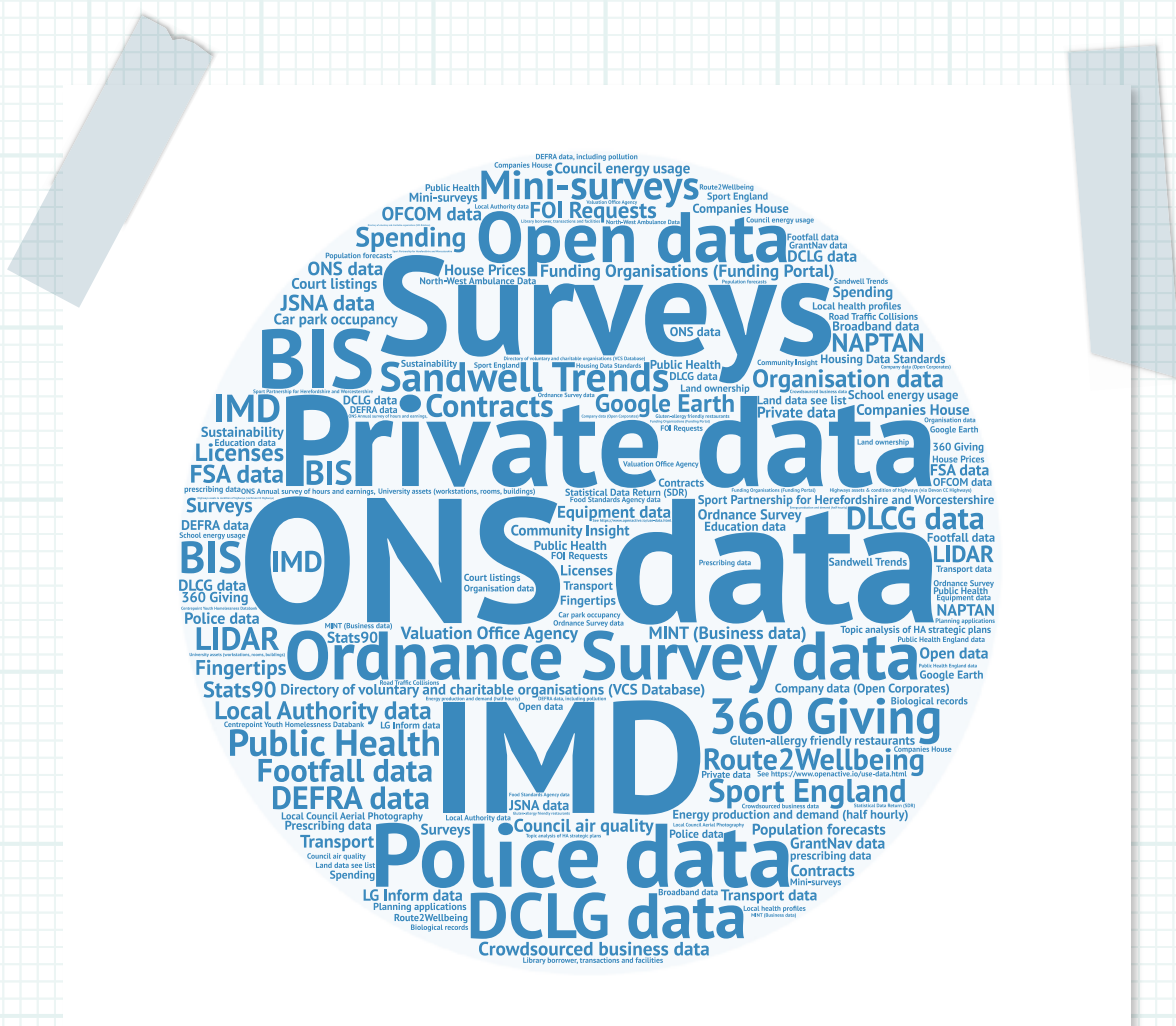
A word cloud visualization of the top 100 terms from the 'Data for Good' dataset. The words are arranged in a circular pattern, with the most frequent terms being 'Council energy usage', 'Ordnance Survey data', 'ONS data', 'Car park occupancy', 'Police data', 'School energy usage', 'Gluten-allergy friendly restaurants', 'Public Health England data', 'Companies House', and 'Sustainability indicator set'. The words are color-coded by frequency, with the most frequent terms in dark blue and the least frequent in light blue.

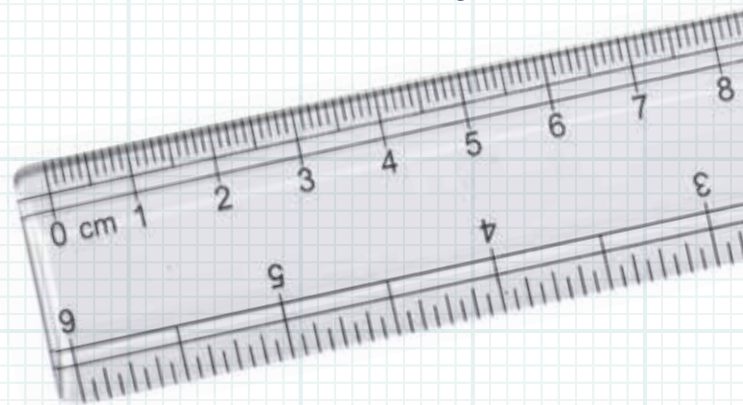
- GetTheData (Dan Winchester)
- Satori Lab (Ben Proctor)
- Brighton Energy Coop (Will Cottrell)

- ONS demographic data
- Ordnance Survey geographic data
- IMD for deprivation profiling.



A commonly reported problem is data being seen by the publishers as low priority, and by the organisations as a burden rather than a resource.





Stuart Ashmore, Sandwell Council of Voluntary Organisations

Sandwell Council of Voluntary Organisations (SCVO) is a charitable organisation based in Sandwell which supports Sandwell's Voluntary and Community Sector, comprised of voluntary-run community groups, charities, not-for-profit businesses, faith communities and social enterprises. Stuart Ashmore is their Operations Manager and Deputy CEO.

"We mostly use two categories of data sources: national statistics from the ONS, and the Sandwell Trends³² website, which offers local insight". SCVO has two broad objectives to use data: "on an operational level, we use data to support grant applications from the voluntary organisations in our area; on a strategic level, we run interest forums to gather opinions about common issues affecting the sector locally. The latter is all data we collect". The interest forums are thematic, including a leaders forum, a health and social care forum etc.

"The Sandwell Trends website contains a mixture of national and local data about the local area, as well as a Consultation Database³³". The Consultation Database allows Council services and partner agencies to enter the details of any consultation, engagement or participation activity they are proposing.

"Information available from the website is incredibly useful for supporting grant applications", says Stuart. "We also run regular surveys, approximately every 18 months, which we use to inform our strategic direction and compare responses between surveys over time. Some of these are mini-surveys/polls created with PollDaddy³⁴ to get a feel of what people are thinking at a specific point in time, for example about GDPR, the mayoral elections, cyber security and scams, or the minimum wage".

SCVO also has its own data resources it shares with others:

- The Sandwell VCS Directory³⁵, which is fairly static site to signpost to organisations and the activities they are running
- Route2Wellbeing³⁶, a portal updated by organisations themselves for the use of health workers and the wider community
- A funding portal³⁷ to search through thousands of potential funders.

³² Sandwell Trends: <http://www.sandwelltrends.info/>

³³ Sandwell Trends Consultation Database: http://www.sandwelltrends.info/lisv2/research/navigation/c_home.asp

³⁴ PollDaddy: <http://polldaddy.com>

³⁵ Sandwell VCS Directory: <https://sandwellvcs.info/>

³⁶ Route2Wellbeing: <http://www.scvo.info/local-vcs-intelligence/community-health-portal/>

³⁷ SCVO Funding Portal: <http://www.scvo.info/local-vcs-intelligence/funding-portal/>

Tom Bassford, One Manchester

One Manchester is a provider of housing and community services, and Tom is the Business Intelligence & Performance Improvement Manager. “We have worked extensively with 360Giving³⁸ and became the first social housing provider to share our community grants data openly via GrantNav last year. 360Giving have created a Greater Manchester pilot³⁹ to focus on the area to get as many grant-makers opening up their data as possible, which could help to identify cold spots, where grants are not being awarded, and have data about the type of projects being funded”.

Tom suggests that housing providers have not done a great use of data in the past, focussing on performance of services in isolation, such as timescale of repairs or re-let of empty properties, rather than map the measures and linking them with other data sources. “We are doing more work to use data from internal and external sources to understand our areas better and tailor our service delivery more effectively”. Although this work is at an early stage, Tom claims that this type of analysis is already beginning to point towards some interesting trends. “For example, we have found correlations between the rate of emergency hospital admissions and emergency repairs to our properties”.

Ken Brown & Andy Hickman, Fieldfare

Ken Brown is the programme manager for the Fieldfare Local Action Group, which Andy Hickman chairs.

Fieldfare⁴⁰ is a community led not-for-profit partnership, established in 2007 to develop a Local Development Strategy (LDS). Fieldfare supports local projects in the Winchester, Eastleigh, East Hampshire and Havant local authority areas. The partnership manages the LEADER programme⁴¹, which is funded by the European Agricultural Fund for Rural Development.

Fieldfare considers applications for physical, tangible (capital) items, such as equipment, machinery, tools and resources for businesses or to provide rural services. Grants can be up to 40% for commercial applications, and 80% for non-commercial. This could increase if there is a social impact as well (such as improving skills locally).

There are similar programmes across the UK, and the action group has close links with neighbouring groups such as the New Forest. Fieldfare manages a budget of around £1.6 million, and there are 5 other Local Action Groups in Hampshire, with a combined budget of approximately £10 million. There are 140 local action

³⁸ Make your grants data more fruitful, <https://www.onemanchester.co.uk/whats-going-on/blog/make-your-grants-data-more-fruitful>

³⁹ Join the 360Giving Greater Manchester pilot: <http://www.threesixtygiving.org/manchester/>

⁴⁰ Fieldfare: <http://www.fieldfareleader.org.uk/>

⁴¹ Fieldfare LEADER programme <http://www.fieldfareleader.org.uk/http-www-fieldfareleader-org-uk-transition/>

groups across the UK, with a total budget nationally of around £1.6 billion. This budget needs to be spent within the span of the programme, otherwise the money returns to the EU. The programme was originally due to run for five years, but this has been reduced to three years.

There is also a separate category for national growth funding (e.g. countryside stewardship, Forestry Commission and LEPs). All of these can potentially fund projects in the same area, but Fieldfare wouldn't be notified if this was the case.

In 2014 Fieldfare submitted an application for the next LEADER programme. The Local Development Strategy⁴² brings together various information sources which can be used as evidence for LEADER. Sources include a wide variety of reports such as the Hampshire Farming Study and the South Downs National Park State of the Park Report, stakeholder feedback and surveys, together with structured data from Government departments and agencies. Data used includes:

- Population (from the 2011 Census)
- Crowdsourced business data
- Forestry Commission
- MAGIC from DEFRA
- Planning
- Food & environmental health
- Companies House
- OCSI

Some data were very difficult to get hold of, particularly Business Rates, and none of the local authorities in the area provided the data when asked in 2014.

The application process is overseen by the Rural Payments Agency (RPA), and requires individual applicants to provide evidence in support of their application for funding. There are two steps to the current application process:

1. Expression of interest.

The applicant returns an Excel spreadsheet, which is uploaded to a database, and a unique ID is created for the application. This is required by the RPA, but doesn't provide any information which is useful for Fieldfare locally.

2. Full application

This includes a full declaration, and is a Word document with accompanying Excel spreadsheet.

Fieldfare introduced a Google Form which they ask applicants to complete in the first instance, which enables an initial screening to be carried out. The form also captures some data from applicants which Fieldfare use to gain insight. The initial screening, includes a phone conversation with the chair of the Local Action Group. Each application is unique and it can take up to 8 days to process all of the documentation. This is why Fieldfare has adopted a simple, single item of expenditure approach to manage the process better.

As at January 2015, Fieldfare had screened 827 potential projects, and the target for the current programme is 155 approved applications, assuming average economic benefit. So far, 7 applications have been funded and the programme runs for another 24 months. Fieldfare has a very full pipeline, but there is a real issue with lack of resource to process all the applications. The case for extra resource has been approved by the Chief Executive of the accountable body, Winchester City Council.

The Rural Payments Agency (RPA) requires all information to be validated, and the current process requires applicants to provide PDF versions of individual web pages as evidence. All applications have to be printed in full, and the average paper file is 4 inches thick. Each application has to be investigated e.g. to ensure it is authentic, that it genuinely meets the requirements, that the applicant isn't receiving more money than they are entitled to.

Fieldfare encourage applicants to collect their own data to be used as evidence. Surveys via newsletters, Twitter polls, Facebook surveys etc are all useful as simple ways to demonstrate demand for a project.

The accumulated effort to support applications - including time spent by the applicant, screening, Fieldfare support, RPA, inspections and regular audits is estimated at up to 1000 hours per application. The average grant is around £15,000.

Ken says the experience of Fieldfare is typical for other Local Action Groups also, and these issues are widely discussed in a Google Group.

Featured Case Study: Fieldfare LEADER

Fieldfare is a top performer among Local Action Groups. It secured 92% of the funding requested from Defra to deliver a LEADER programme: Fieldfare attributes success to being grassroots led, and creating a Local Development Strategy which contains a comprehensive evidence base, drawing on a wide variety of information sources.

However this success is achieved only with a huge amount of effort, and the current process is very demanding of all parties, with a great deal of duplication and paper. There is massive potential to make it more efficient. Fieldfare would be extremely interested in participating in a process improvement pilot project, but the Rural Payments Agency (RPA) would have to be supportive.

Leigh Dodds, Bath Hacked, Open Active Nick Halliday, Government Digital Service, Open Active

We ran a joint interview of Leigh Dodds and Nick Halliday as they are both involved with the Open Active project: Nick sits on the board, while Leigh runs the standards part of the project. However, Leigh also chairs Bath:Hacked, a local community data-led organisation, which runs local activities that are equally interesting.

Bath:Hacked is a Community Interest Company. It works with the council to coordinate with the community and received grant funding from it, but it's independent. A social enterprise that serves its local community, Bath:Hacked hosts and incubates projects using local data about Bath. Its main asset is the data portal, powered by Socrata. It is completely volunteer-run, and funded through grants and sponsorship by local tech companies, which pay for the portal and events. Bath:Hacked collects national data and locally produced data with a relationship to Bath, and allows anyone to publish locally-related data on its portal. "For example, a resident with a gluten allergy issue has produced a list of local restaurants suitable for people with gluten allergies and shared it on Bath:Hacked's portal", says Leigh. Bath:Hacked serves the local community in two ways: it enables the production of smart apps that help the community, for example monitoring air quality, and by doing so it also powers community activism.

Featured Case Study: Energy Sparks

An example of a local project enabled by Bath:Hacked is Energy Sparks⁴³, a gamified approach to addressing energy waste in local schools.

The project is aimed at teaching school children about energy, while also enabling the schools to save money.

It uses data provided by the council. The platform was developed by local developers, while the Open Data Institute (ODI) helped fund the work as part of its showcase programme. The data include automatically collected smart meter data⁴⁴ that gives accurate information about electricity and gas usage. 8 local schools are currently taking part in the project.

Among the most popular datasets available on Bath:Hacked, Leigh includes

- Council air quality
- Car park occupancy
- ONS data
- Land Registry
- Council air quality
- Council energy usage
- School energy usage

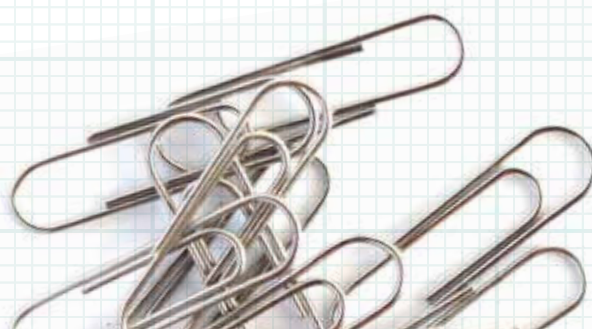
They have over 75 datasets describing the local area and relative map layers, which they have grouped together in a “local geographical data collection”⁴⁵.

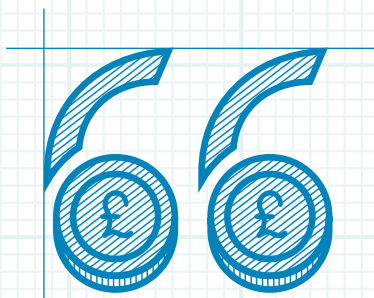
OpenActive is an initiative by the ODI and Sport England to create data standards that enable physical activities to be easily findable online. They describe their mission in the following way:

⁴³ Energy Sparks: <http://www.energysparks.uk/>

⁴⁴ Energy Sparks Datasets: <http://www.energysparks.uk/datasets>

⁴⁵ Blogpost: Announcing our new open geographical collection:
<https://www.bathhacked.org/projects/announcing-our-new-local-geographical-data-collection/>





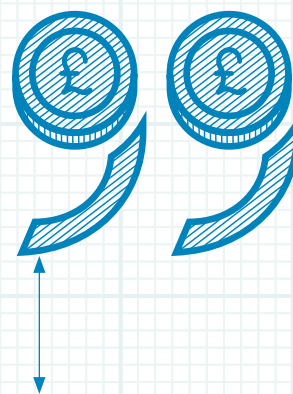
“Our goal is to make data on what, where and when physical activity sessions happen, openly available. This “opportunity data” includes details of a yoga class (“how much will it cost?”) through to badminton court availability (“where and when is a court available?”). It does not include personal data.

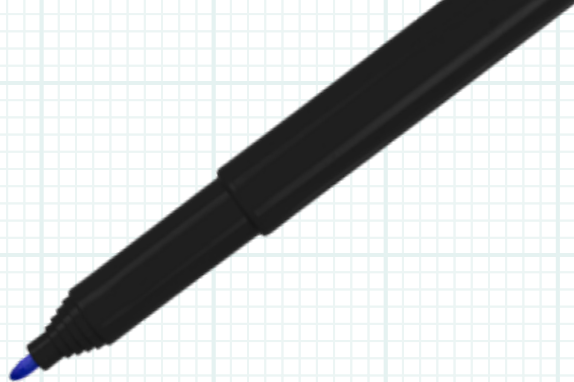
We are bringing together sports and physical activity organisations from across the sector to open up their opportunity data, from leisure operators to National Governing Bodies, local sports clubs to event providers, walking groups to fitness instructors. We are also helping other organisations to use this opportunity data to build interesting tools and experiences for consumers.

We are supporting these organisations to:

- Open up data – helping them to share and publish data with an open licence.
- Innovate with data – helping them to use opportunity data to engage their audience.
- Learn about data – providing ODI-certified training to ensure organisations understand what Open Data is and how publishing data can benefit them.
- Create data standards – collaborating to create common standards for consistent, reliable data, which fuels innovation.
- Build momentum – spreading the message within the sector, and contributing to supporting materials that anyone can use.

The OpenActive community was started by a group of enthusiastic sports and physical activity organisations who wanted to reach new audiences with better opportunities to get active, using data and smart technology. The ODI is calling on all organisations interested in using opportunity data to get more people active, to join the community.”





OpenActive

Nick Halliday (member OpenActive Steering Group) says: “Work on OpenActive is ongoing and very promising with a growing list of local organisations sharing and using data⁴⁶. ‘OpenActive promises to be a transformative project which will stimulate activity providers to publish easy to consume data which will help individuals to become more active and also help providers find more local customers’.

Christopher Gutteridge, University of Southampton

Chris works for the University of Southampton (UoS), and is an active publisher and user of open data in Southampton and on the Isle of Wight. He created the UoS open data service, and is a linked data specialist.

Members of the Web & Data Innovation & Development team at UoS created Southampton Interactive Map⁴⁷ which includes layers on facilities, assets, and public transport. “As well as open data such as aerial photography and public transport, the map uses local live data for rooms and workstations, which lets students find available resources, daily food menus, and also bus departures”, Chris tells us. The map also uses data from Wikipedia, via DBPedia. “This is an ongoing project, and we have a our second summer intern currently working to fill in gaps in the data, and add new resources”.

Chris created Minecraft Ventnor⁴⁸, and Magic Minecraft Map Maker⁴⁹ which automates re-creating different places in Minecraft. Map Maker initially used data from Hampshire County Council, then the Channel Coastal Observatory⁵⁰, and finally data from DEFRA. Chris also used aerial photography data to provide a tool for commercial real estate agents. The estate agent enters a postcode, and the tool retrieves aerial imagery for that location, which the estate agent includes in their sales pack.

As part of their work to support the publication of Open Data in the UK Higher Education sector, the University of Southampton launched the equipment.data⁵¹ website, allowing other universities to share data about research equipment they own. “They publish data in a standard format on their web sites, which are automatically discovered⁵², retrieved and aggregated in the equipment portal”, says Chris. Users can then search the portal for equipment, say a microscope, and see what is available, together with contact information of someone to speak to about it. This simple approach could easily be transferable to local sharing of resources.

⁴⁶ Open Active “pioneers”: <https://www.openactive.io/pioneers.html>

⁴⁷ University of Southampton Map: <http://maps.southampton.ac.uk>

⁴⁸ Minecraft Ventnor: <http://ventnor.totl.net/>

⁴⁹ Magic Minecraft Map Maker: <https://www.facebook.com/magic.minecraft.map.maker/>

⁵⁰ Channel Coastal Observatory: <http://www.channelcoast.org/>

⁵¹ The equipment.data website: <http://equipment.data.ac.uk/>

⁵² Organisation Profile Documents: <http://opd.data.ac.uk/>

⁵³ Geo-Explorer: <http://geo-explore.ecs.soton.ac.uk/>

Chris discussed some of the factors which stop people using data. These include:

- people not knowing the data exists
- knowing the data exists, but not finding it useful
- lack of understanding of the data, often because there's insufficient descriptive information
- Lack of confidence in reliability and quality
- Lack of tools, or unclear about which tools can be used to exploit the data

The university runs an MSc in Open Data Innovation, with around 150 students. Chris mentioned that one group of students developed a working chatbot for Facebook Messenger which consumes data from many sources and provides a friendly interface for users to ask questions and receive answers in natural language.

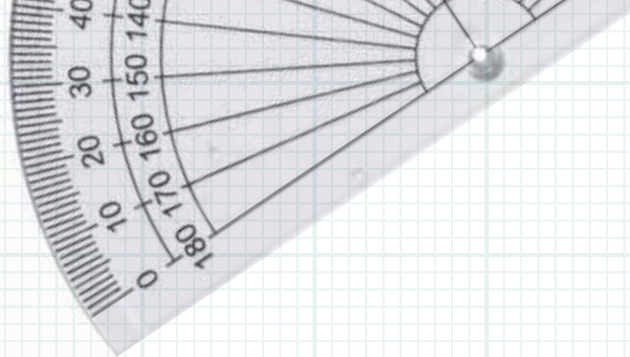
Chris says his current interest is in closing the skills gap between data providers and potential data consumers, and has created tools for this purpose. One example is Geo-Explorer, which lets users enter the URL of a Web Feature Service (WFS) or Web Mapping Service (WMS) and presents them with information on a map, and allows them to see available datasets and download them in a wide variety of formats. Chris says "this demonstrates how a little work can go a long way in making a dataset easier for novices to work with". Chris is interested in taking a similar approach for DEFRA LIDAR but says "it's more work than I've got time to do for free, and nobody is funding this area (yet)."

Jayne Hilditch, HA2point0

Jayne Hilditch is Director of HA2point0, a Digital Transformation consultancy for the Housing sector. She co-founded the HousingCamp unconference event, and was formerly Corporate Services Director for Thames Valley Housing.

Jayne says that Housing Associations (HAs) are only just beginning to wake up to data-informed decision-making, and that data isn't used very much beyond population and demographic changes. Former colleagues sometimes used to refer to understanding data as "Jayne's pet project".

The Homes and Communities Agency (HCA) is the regulator and amalgamation point for data. Housing Associations have to fill in (online) forms for the regulator who, take a risk-based approach to regulation.



There is a data census in housing - the Statistical Data Return (SDR)⁵⁴, which is a year-end snapshot of housing stock, per local authority area. This includes average rents (Affordable, Social, Fair), service charges, volumes of stock turnover (relets, mutual exchanges etc). However, this isn't used much by HAs for service delivery.

Internally, HAs produce lots of Key Performance Indicators (KPIs), which include arrears, voids, and re-let times.

Some HAs also subscribe to the Community Insight tool from OCSI, but this is primarily used for contextual background for board strategy reports.

Beyond this, Jayne says that Housing Associations are almost 'greenfield sites' for data. Most housing service delivery organisations are very old fashioned, with centralised phone-based call centres, and housing tech providers are way behind other sectors. The larger organisations do have Customer Relationship Management (CRM) systems 'of some description', but these are typically used to manage internal workflow, and there hasn't much emphasis on customer relationships to date, although this is now beginning to slowly change.

The data in most HAs falls into two main categories: properties (fairly static data), and tenants (changing quite frequently), and transactional contact data (changes daily). Core HA systems map the tenant to the property reasonably well, but mapping the transactional contact data to tenant & property are patchy to say the least.

In the last ten years there has been a move to asset list both the property and its components (eg boilers). These data could be used to plot, for example, life expectancy of boilers versus actual to make better informed decisions on service regimes, new purchases etc. This has massive potential which is not currently being leveraged.

← Jayne mentioned several organisations who are working with data, including:

- HACT (Housing Associations Charitable Trust) which is looking to analyse tenants behavioural patterns, though there are obstacles to overcome, including data governance and lack of skills.
- Clarion Housing (formerly Affinity Sutton) is taking a well-considered approach to research and data
- Halton Housing Trust⁵⁵ is exploring how data might be used to inform preemptive service regimes, for example, through IP enabled boilers
- Thames Valley Housing is bringing datasets together to help inform decision-making within the organisation⁵⁶

⁵⁴ Statistical Data Return: <https://www.gov.uk/government/statistics/statistical-data-return-2015-to-2016>

⁵⁵ Three Halton Housing Trust teams shortlisted for Housing Heroes Awards: <http://www.haltonhousing.org/2017/04/07/three-halton-housing-trust-teams-shortlisted-housing-heroes-awards/>

⁵⁶ Douglas Silverstone – Data Governance Manager: <http://www.tvha.co.uk/careers/working-at-tvh/hear-from-our-staff/douglas-silverstone-data-governance-manager/>

Featured Case Study: Affinity Sutton

Affinity Sutton is a social housing landlord who are increasingly using data⁵⁷ to better understand their customers and their challenges. Kathy Ellis, who is Affinity Sutton's customer insight manager, says that they have developed a fuel poverty vulnerability indicator based on internal data.

This tool is used to highlight if properties require work to enhance their energy efficiency, and if their location tends to overlap with that of residents that could have higher energy bills. It offers a fuel poverty score based on a grading system, using multiple data sources, and helping identify who are the most vulnerable residents.

Affinity Housing/Clarion have also developed "The Index", a customer insight tool based on repeated surveys of residents, producing robust findings that inform business decisions. It provides segmented insights, such as which groups are most likely to be interested in shared ownership, who are most likely to take up the Right to Buy, or who struggles at the end of the month.

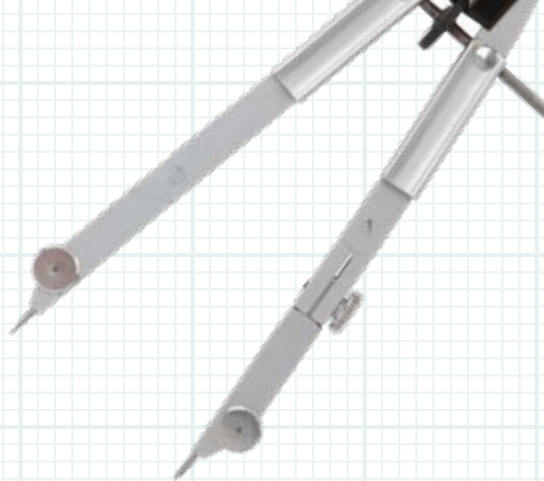
Jayne noted that for Grenfell Tower the local community is compiling its own list of building occupants (as a Google Sheet). The Arms Length Management Organisation (ALMO) that runs the block will have a list, including household makeup, but some data it can't / won't release, at least publicly.

Many HAs are 'oblivious' to what's happening elsewhere in the data-world, says Jayne. There is a lack of skills, and priority tends to be given to performance information to a) keep the regulator happy, and b) to service the board, with tenant communication coming much lower down on the list. Online services may be done - often according to Prince2 principles - but are foisted on an unsuspecting public with little proactive research around actual user needs.

There is also a lack of good data scientists within HAs. Staff may be proficient with SQL databases and spreadsheets, but there are very few with skills around data, insight, and storytelling. Jayne feels that HAs are generally perceived to be around ten years behind local government in terms of data. The old-fashioned "There's an IT module for that" doesn't work.

A second wave is taking place, which has some success. For Thames Valley Housing, 70% of telephone contact for rent payments has been moved online, and customers are keen as long as it works well. Jayne says the key is to make the service so good that people choose to use it. Thames Valley are approaching this with a service design mindset, essentially mirroring the Government Digital Service (GDS) approach.

⁵⁷ Putting data at your core: <http://www.socialhousing.co.uk/partner-sh/partner-sh/putting-data-at-your-core/>



Lucy Knight, ODI Devon

Lucy is a co-founder of ODI Devon⁵⁸, and works at Devon County Council. She is a very active member of the Open Data community and is very knowledgeable about data-related activities in her area. Devon is very lively in the context of data. Lucy mentions three interesting project she's worked on:

- Plymouth Cubed⁵⁹: a community effort to use LIDAR data from DEFRA to recreate Plymouth in Minecraft, started via a crowdfunding website. “There is great attention to detail, and a thriving community of engaged people”, says Lucy. “I received funding to use this for a project about green spaces for a local primary school, a behavioural science experiment to assess pupils’ engagement with the parks within walking distance”.
- Devon Communities Together⁶⁰: an umbrella body for not-for-profits, operating as a charity, which manages group projects. They have an Open Data working group which includes people from the university and not-for-profits, and had a student summer placement to provide workplace experience to students in ‘soft sciences’ to work with real-world data. “They are building a web map based on Open Data, including IMD, adding in data from the local authority such as concentrations of people, transport, statistics about elderly and vulnerable people”, says Lucy. Interestingly, this data is extracted from the Joint Strategic Needs Assessment, via Devon County Council & Public Health England. The map is nearly ready, and is being prepared by Devon County Council’s Geographic Information system (GIS) team. “They also have access to a research database for academics and there is an initiative to digitise deeds, maps and other records and make available as Open Data, so it is really about bringing different communities together”, remarks Lucy.
- ODI Devon and Libraries Unlimited⁶¹: these two organisations are running a joint project to assemble detailed but anonymised library data, including borrower, transactions, and facilities data. The data will include information on computer usage, café usage and meetings room data. “This can offer potentially very interesting insights into the social value of having a library service”, says Lucy.

Lucy says that from a local authority perspective the Indices of Multiple Deprivation offer the best opportunity for actionable insight at a level of aggregation that can produce tangible outcomes, together with public health and wellbeing datasets from the Joint Strategic Needs Assessment. LG Inform data is also a favourite platform for data, including its premium “LG Inform Plus” version, to which Devon County Council has access. “We also use a lot the ONS Annual Survey of Hours and Earnings⁶², the Ordnance Survey AddressBase dataset, and - thanks to Devon County Council Highways - data about highway assets and their condition”.

⁵⁸ ODI Devon: <http://devon.theodi.org/>

⁵⁹ Plymouth Cubed: <http://www.crowdfunder.co.uk/plymouth-cubed-1/>

⁶⁰ Devon Communities Together: <https://www.devoncommunities.org.uk/>

⁶¹ Discovering Library Data: <http://devon.theodi.org/2017/01/23/discovering-library-data/>

⁶² Annual Survey of Hours and Earnings: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2016provisionalresults>

Will Perrin, Talk About Local

Will Perrin is the founder of Talk About Local⁶³, which helps people find a powerful online voice. He works with local and national government, commercial organisations, charities and voluntary groups to help form policy around digital skills, participation and inclusion.

When we asked Will for an interview, he kindly accepted. This is an extract from his reply:

“Broadly speaking Open Data hasn’t worked well at a community level at all. This is mainly because it was a top down mission from central government, led by too many geeks who wouldn’t have the first clue how to make a difference at a community level. Also the conservatives (as is their wont and indeed right) pushed Open Data off into business land, not very interested in its civil society application. I think my post from 2012⁶⁴ still stands”.

Will is involved in various different projects, ranging from small communities (hyperlocal) to national. Will spoke about a few of these.

Hyperlocals do sometimes use data from local authorities, particularly planning and licensing (e.g. pubs), but they have to deal with badly presented data from council planning systems, and therefore often just report news from other organisations, like what’s happening with ferry or bus services.

Will says that Local News Engine is a tool that uses an algorithm to help local news sites “spot story leads in the haystack of local public data”. Local News Engine helps a journalist/reporter look for newsworthy names, companies and places in newsworthy local data to find story leads to follow up.⁶⁵ The example that Will gave was Highbury Court listings, which typically run to 500 pages of PDF which is emailed to interested parties. Every local area is different, and Local News Engine does take a bit of setting up but, once configured, can reduce search time from around 24 hours to less than an hour. The prototype, which was developed with a grant from Google, is not just used for news, but also sometimes for campaigning, particularly around licensing of bars and nightclubs.

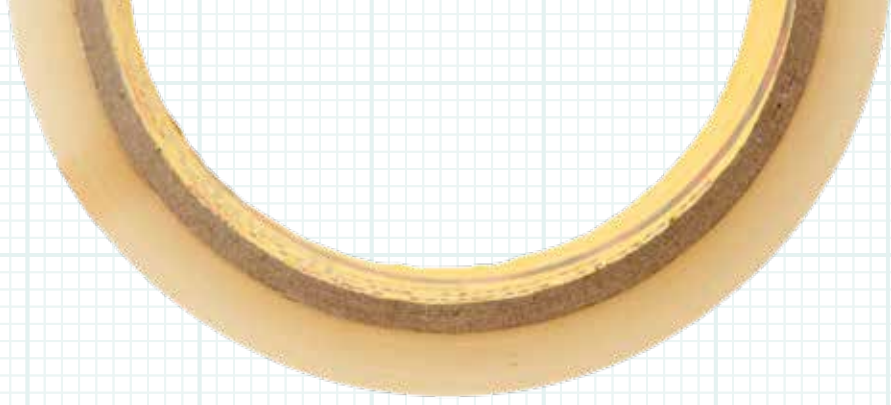
Will also spoke about what’s happening around the Kings Cross area. Kings Cross Environment⁶⁶ occasionally use local authority data for local stories, and the results can be interesting, but the analysis takes time. “It’s easier and quicker to take photos” says Will. Part of the problem is that councils now have fewer policy people, and there’s a lack of in-house analytical capability, so there’s no one to contact to discuss the data. Will added that data at super output area is not useful for local people, as it’s difficult to map at a local level.

⁶³ Talkaboutlocal: <https://talkaboutlocal.org.uk/>

⁶⁴ Blog post: <https://talkaboutlocal.org.uk/open-data-forward-strategy/>

⁶⁵ Local News Engine: <https://talkaboutlocal.org.uk/local-news-engine-prototype/>

⁶⁶ Kings Cross Environment: <https://kingscrossenvironment.com/>



Another initiative that Will thinks is worth mentioning is Connect 8⁶⁷, which is a broadband campaign in South Oxfordshire. South Oxfordshire District Council has produced “a blizzard” of data at postcode sub-area level about local broadband, but not in a form that is easily usable by local people, despite SODC’s attempt to map it. Connect8 uses an antenna on a police-owned mast, and there is therefore no need to dig up the roads in order to lay cables. Will mentioned one example where BT put in a green cabinet, and the people nearer to the exchange thought they would be in line for decent broadband, but the green cabinet projected outwards, not back towards the exchange, so they weren’t in line for BT broadband after all.

Will is a board member of charity Good Things foundation⁶⁸ that helps people do good things with digital technologies, and has helped over 2 million people. GTF is highly data driven⁶⁹ both to target its work but also to understand the outcomes and impact of the work it performs for funders⁷⁰.

Historically there has been a lack of knowledge about the trends around grant-making, and this is the focus of an initiative called 360 Giving⁷¹, which is supported by the Big Lottery, Esme Fairbairn and others. 360 Giving is working with organisations to publish their grants data in an open and standardised way for both funders and recipients. The data can be downloaded, and explored through using the GrantNav⁷² tool. They are also working with several councils, including Trafford and Camden to include local authority grants as well.

Continuing the theme of grants, Will mentioned Beehive⁷³, which is developing a service to help fund raisers find out who might be able to fund them by studying grant data and other information. Ultimately Will envisages the market providing some sort of clearing service for grant applications to break the inefficient ante-diluvian practice of applying to many funders for versions of the same project.

Will referred to the Open Data Camden⁷⁴ datastore, which includes a variety of local datasets, including planning and licensing. Camden didn’t publish licensing originally, but they responded to requests from the local community, and subsequently published the data.

⁶⁷ Connect 8: <https://connect8.org/>

⁶⁸ Good Things Foundation: <https://www.goodthingsfoundation.org/>

⁶⁹ Our journey to open data by default <https://www.goodthingsfoundation.org/news-and-blogs/blog/our-journey-open-data-default>

⁷⁰ Working in the open <https://medium.com/@petenuckley/working-in-the-open-9c96ce573b45>

⁷¹ 360 Giving: <http://www.threesixtygiving.org/>

⁷² GrantNav tool: <http://grantnav.threesixtygiving.org/>

⁷³ Beehive: <https://www.beehivegiving.org/>

⁷⁴ Open Data Camden datastore: <https://opendata.camden.gov.uk/>

Pauline Roche & Ted Ryan, RnR Organisation

RnR Organisation⁷⁵ is a small “tech for good” social enterprise, supporting the use of technology and data for impact and social justice in the collaborative economy. “We run data projects but also engagement activities such as hackdays”, say Pauline and Ted. Recently, they have run a hackathon about mental ill-health prevention, encouraging attendees to use demographic and prescription data.

Pauline says: “Our clients are often interested in correlating and cross-referencing their own data with data coming from elsewhere, but this doesn’t fit with commissioning models, which are usually quite restrictive in the ways data is gathered and can be used”.

RnR works a lot with local organisations applying for grants. “We work with organisations that need to be able to profile their own populations, for example: how many elderly people live in an area, what’s the proportion of residents on benefits, and so on. The data is used to create profiles that help win funding, but the data tends not to be used outside of grant writing”. Pauline mentions the Indices of Multiple Deprivation as a commonly used dataset, and the usefulness of the 360 Giving GrantNav database.

There is however a shortage of skills, time, and resources, which mitigates against the wide adoption of data use and sharing in the local voluntary sector. Pauline reports that most of the organisations they deal with do not even have a CRM. “They just don’t have the money to maintain one, and the sector economics don’t fit”. She adds: “Where Open Data misses the nuances of communities, a CRM could allow the Social Enterprise to track changes, manage beneficiaries, explore and surface other issues”. Many small social enterprises, however, are paper-based. Ted says “I’m aware of a small organisation, working in a local community, which has 5 folders per client. In 3 days they may handle 300 benefits and emergency enquiries. They are currently unable to track very simple events, such as if beneficiaries actually turn up at a referral”.

Pauline also runs a group, Netsquared Midlands⁷⁶, that brings together people interested in using web or mobile technology for social good, including those working in the local voluntary sector. “Through our business, we offer meetups and events to help the sector connect and create a community around innovating for good”. They want to see more “data analysis for not-for-profits” events, to encourage the sharing of best practice and kick-start collaboration. At a recent Netsquared event⁷⁷, Stuart Brown, Data Manager of Health Exchange⁷⁸, gave some practical tips about turning raw data into intelligence to make informed operational decisions.

⁷⁵ RnR Organisation: <http://www.rnrorganisation.co.uk/>

⁷⁶ NetSquared-Midlands: <https://www.meetup.com/NetSquared-Midlands/>

⁷⁷ Data analysis for not-for-profits: <https://www.meetup.com/NetSquared-Midlands/events/238521888/>

⁷⁸ Health Exchange: <http://health-exchange.co.uk/>

Julian Tait, Open Data Manchester

Julian Tait is a co-founder of Open Data Manchester⁷⁹ and Things Manchester⁸⁰. He runs The Garden⁸¹ which is “doing stuff with Internet of Things (IoT) and data”.

Open Data Manchester was created in 2010 at Future Everything⁸² out of the idea that cities should be smarter and adopt IoT technologies. It aimed to create a diverse community willing to use data “not just to create apps” but to discuss and provide creative solutions to civil society issues. It promotes the use of good data practice in civil society, and runs regular meetups, workshops and hackathon-type events based around themes like transportation or data visualization.

Open Data Manchester has built a community around the desire to use data. It isn't steered by the local authority or other public bodies: it is a community that includes technologists, civic activists, and public officials. Open Data Manchester works with all the democratically elected borough councils, encouraging and facilitating the publication and use of Open Data. The community has run projects with Open Corporates and Demsoc centred around policy making, and to help individuals take control of their personal data.

Open Data Manchester is setting up data infrastructures with public IoT networks across the North East. These network don't have a single owner, giving entire communities ownership of the means of production of data. The work on Smart Energy Meters and Open Energy Monitoring (supported in Greater Manchester by Carbon Coop) is particularly interesting: it gives people access to their own energy data, and enables the negotiation of wholesale energy prices on a local basis. Julian mentions several initiative making an impact with data on the local community:

- The Open Energy Monitoring Initiative⁸³
- The Whalley Community Hydro Project⁸⁴
- The work based on 360 Giving on their GrantNav application⁸⁵, using grants data to see how costs per-person are different based on locations, and plan local interventions
- Data Coops, Open Corporates and Demsoc

⁷⁹ Open Data Manchester: <http://www.opendatamanchester.org.uk/>

⁸⁰ Things Manchester: <http://thingsmanchester.org.uk/>

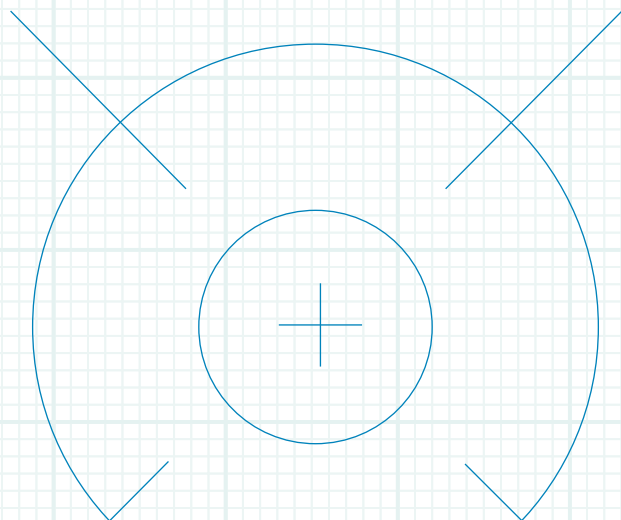
⁸¹ The Garden: <http://thegarden.io/>

⁸² Future Everything: <http://futureeverything.org/>

⁸³ Open Energy Monitor: <https://openenergymonitor.org/>

⁸⁴ Whalley Community Hydro: <http://www.whalleyhydro.co.uk/>

⁸⁵ GrantNav: <http://grantnav.threesixtygiving.org/>



Julian's list of interesting datasets for Manchester is very comprehensive:

- IMD
- Transport (via Regional Transit Agency)
- STATS19 road accidents data⁸⁶
- Public Health & prescribing data
- House Prices
- 360 Giving
- Land ownership
- DEFRA data, including pollution
- Food Hygiene Certificates
- Road Traffic Collisions



Regarding 360 Giving, Julian mentions a very interesting use of data: “360 Giving analysed grant distribution for the National Lottery and identify inequality of funding across the UK; for example, it is £218 per person in Manchester versus £45 in Wigan”.

The Road Traffic Collisions dataset has been used by local grassroots organisations to represent the views of cyclists, and by local journalists at the Manchester Evening News, a newspaper with its own Data Science department⁸⁷. Civil society forums like the “Skyscraper City” international bulletin board cover topics like governance and transport. People find the data and perform data analysis for the benefit of their own communities. What starts as stats being analysed in the forums may go on to become news.

“Open Data is being used differently to how it was touted”, says Julian. “often the product is not a shiny new app: it’s data analysed locally to help inform the local community. We also need to consider what data does not exist”. Julian offers an interesting reflection about data that should exist: “Big Lottery data shows where money was spent. Our Mayor, Andy Burnham, wants data on community spend on national lottery tickets and scratch cards. We could easily plot that data versus how and where it gets spent. It’s said that poorer communities spend disproportionately on national lottery in comparison to what they receive, but there is no data from Camelot”.

⁸⁶ STATS19: <https://data.gov.uk/dataset/road-accidents-safety-data/resource/8ecee6ac-33fd-4f5b-8973-e900cc65d24a>

⁸⁷ How many pedestrians were hurt in Greater Manchester road accidents last year?: <http://www.manchestereveningnews.co.uk/news/greater-manchester-news/how-many-pedestrians-were-hurt-11741661>

Jamie Whyte, Propolis Open Data Factory

Jamie Whyte used to manage the Trafford Innovation and Intelligence Lab⁸⁸, part of Trafford Council. He now runs Propolis - Open Data Factory⁸⁹ and works part-time for linked data specialists Swirrl⁹⁰.

“At Trafford, we used all sorts of data - open, closed, big and linked - and turned them into intelligence that is used to (re)design services, understand demand and inform citizens. At the same time we were testing and exploring new technologies to improve the way that we do things”. Originally the Lab, as it came to be called, was set up to support the “Trafford Partnership”⁹¹, a local strategic board, jointly held between multiple organisations, including the Chief Executive of the Council, Police Chiefs, the NHS Trust CEO, and so on. The area of Trafford was divided in 4 areas of action, each with its own strategic board. “The Lab worked with them on data analysis. For example, we highlighted the difference in life expectancy among the different areas”. An ongoing activity by the Partnership that has been powered by data is “Make Sale Smile”⁹². “When working with the partnership, we used the Indices of Multiple Deprivation to create a knowledge base on community cohesion and division, and identified Sale as a place where action was needed”.

The Lab also worked on local data projects that received press attention. They combined data from Fingertips⁹³, local health profiles⁹⁴, prescribing data⁹⁵, North West ambulance response data⁹⁶, and private data from GP Practices, in order to work on increasing cervical cancer screening⁹⁷ in areas where screening rates were low. But the most celebrated project from the Lab was an effort to use data to increase the availability of defibrillators in the borough. “Using data to profile areas allowed the council to produce a priority list of areas to put defibrillators. Businesses were contacted from the Mayor’s Office to ask for donations to install a defibrillator close by. These engagement activities, raising awareness, together with other charities’ work led to a massive increase in the availability of defibrillators”.

At one point, Trafford Housing Trust set up “Community Panels” to fund local community groups with about £700,000 per year. They sought help from the Lab to build evidence to back their decision-making process. “They have carried out an in depth review of the process, and are launching a new community investment programme in Summer 2017”⁹⁸. A side effect was the recognition that funding should be evidence based: “The general idea was: let’s use data to decide grants allocation rather than basing funding solely on the quality of presentations”.

⁸⁸ Trafford Innovation and Intelligence Lab: <http://www.infotrafford.org.uk/>

⁸⁹ Propolis - Open Data Factory: <http://propolis.io/>

⁹⁰ Swirrl: <http://www.swirrl.com/>

⁹¹ Trafford Partnership: <http://www.traffordpartnership.org/>

⁹² Make Sale Smile: <http://www.traffordpartnership.org/locality-working/sale-locality-partnership.aspx>

⁹³ Fingertips, PHE: <http://fingertips.phe.org.uk/>

⁹⁴ Local Health: <http://localhealth.org.uk>

⁹⁵ Prescribing Data, NHS Digital: <http://content.digital.nhs.uk/gpprescribingdata>

⁹⁶ North West Ambulance Service in Trafford, DataGM: <https://www.datagm.org.uk/dataset/number-of-red1-responses-by-north-west-ambulance-service-in-trafford>

⁹⁷ Cervical Screening in Trafford: <http://www.infotrafford.org.uk/cervicalcancer>

⁹⁸ The way we fund community projects is changing...: <http://thtcommunitypanels.weebly.com/>

The Lab also used to run a workshop-based activity to advise on Open Data. “We called it the Open Data surgery, and it helped organisations apply for grants. These organisations would come to us and either ask if data about a certain problem existed, or how to deal with it”.

Featured Case Study: Two By Two

A community business, Two by Two Hurrah⁹⁹, asked the Lab to help use data to encourage tourists to visit Sale. “They wanted to bid for funding from the Make Sale Smile initiative for an Art Trail¹⁰⁰ in the town centre and needed help to evaluate impact”, recalls Jamie.

This project started with a questionnaire and postcode mapping: “They mapped where people came from, how long they were in the town centre, and whether they bought food, showing a return on investment to the council which saw increased footfall”.

The Lab helped write¹⁰¹ the impact evaluation¹⁰² report. When they applied for a larger amount of funding for a fibreglass zoo they had evidence of the impact of their previous project. This included a 4ft fibreglass hippo in a school, where children decorated it. “Two By Two have been successful and are expanding now by recruiting more staff”, says Jamie.

Jamie is adamant the data work helped people understand Trafford better. “The boards became better informed and managed to assign grants based on need rather than just on the quality of a presentation. Most importantly, the projects achieved increased community cohesion”.

National organisations

Sian Basker, Data Orchard

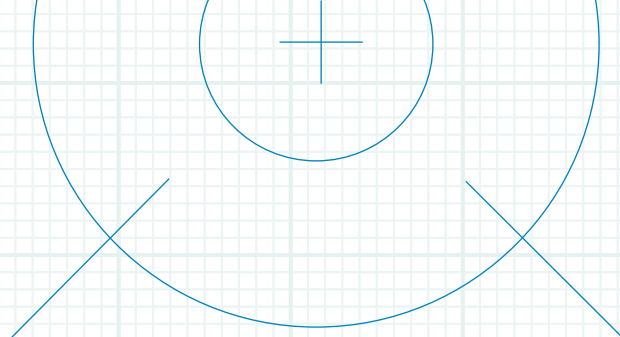
We approached Data Orchard after speaking with Emma Prest: Data Orchard created the social sector Data Maturity Model in partnership with DataKind UK and Sian Basker led the research. Data Orchard is a social enterprise registered as a Community Interest Company. It “combines specialist skills in research, statistics and data, with shared passions around making the world a better place socially, economically and environmentally”.

⁹⁹ Two by Two Hurrah: <http://twobytwohurrah.co.uk/>

¹⁰⁰ Sale Safari Footprint Trail: http://www.infotrafford.org.uk/custom/resources/Sale_safari_trail_FLYER_A5.pdf

¹⁰¹ Trafford Intelligence Lab portfolio: <http://www.infotrafford.org.uk/lab/portfolio/salesafarifootprinttrail>

¹⁰² Trafford Intelligence Lab map: <http://www.infotrafford.org.uk/salesafari>



Data Orchard helps organisations: collect and analyse data, including publicly available data; build their internal data capabilities; and use data to improve impact and community sustainability. They also promote the value and importance of data for social good.

The scopes of Data Orchard and DataKind UK of course overlap, but they have a different flair: DataKind has definitely more of an urban focus, being based in London, while Data Orchard, based on the West Midlands/Welsh border, works mostly with small-medium sized organisations including many rural. DataKind's model provides advanced level data project support to charities via its community of volunteer data scientists. Data Orchard provides bespoke research services commissioned by local communities, local authorities, and non-profits. This often involves collection of new data, or analysis around impact or needs often using data from multiple agencies. They are also working with partners to create open and local data assets.

“The use of data varies from client to client”, says Sian. “Many projects revolve around demographic profiling, consultation and engagement with communities/beneficiaries, or evaluating impact”. Data Orchard also helps make sense of (and better use of) data already held by its clients, and helps with quantitative data collection. Its approach is bottom-up, often working with local volunteers. “There is a large amount of legwork involved in data, a lot of tedium. We help with this. Getting to the ‘whizz bang’ transformative stuff takes months of preparation”. Asked about what outcomes are expected of the data, Sian responds: “In the discourse there is an assumption that data is magical. Financial data is easy, while finding and effectively using data about marginalised groups (people with dementia, communication issues, learning difficulties) is much more difficult. Of course we are hopeful about machine learning and text analysis, but it will take time and work to get there”.

The data used tends to be both Open Data and privately collected data. Sian mentioned demography and ethnicity data from the ONS, Local Authority data (in projects about domestic violence, crime, and economy), Sport England and Public Health data on obesity and physical activity for sports partnerships. “However, there is also a lot of data we use that belongs to the organisations we work with. In addition we conduct surveys, interviews (online, phone, face-to-face, paper) and interactive workshops to help organisations gather the data they need”. These datasets have been used to inform neighbourhood development plans dealing with thorny issues like housing and land use.

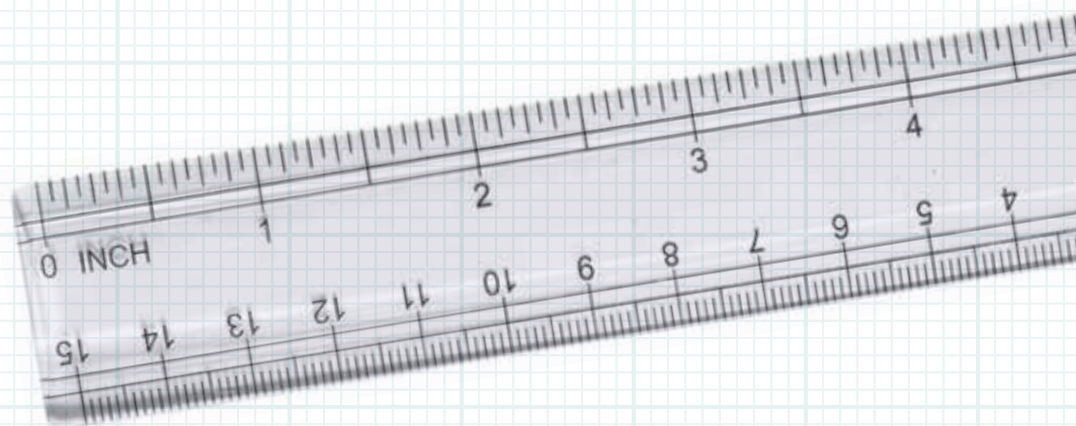


Tim Davies, Open Data Services Coop

Tim Davies is a stalwart of the UK Open Data movement, with experience from both a policy and a practical point of view. He is a co-founder of Open Data Services Cooperative¹⁰³. The coop provides technologies, support, and services relating to the production, standardisation, and use of Open Data, and support activities that promote the use of Open Data for social impact. Open Data Services Cooperative are working with Power To Change.

With regard to local data, Tim's involvement is twofold: with Open Data Services he has been working on scaling up data capability and on developing domain-specific standards. For example, he has worked on the development of the Open Contracting Data Standard, 360 Giving for philanthropy, the Open Referral standard for human service referrals.

Secondly, Tim is involved in local politics. Having recently moved to a new area, he is helping the local community to use data. He says: "Data is being used by the local community as part of campaigns against the construction of a new waste incinerator funded through a Public Private Partnership deal. Local activists have used FOI requests, and more recently, have drawn upon local transparency data about spend and contracts for the campaign. Local citizens have also used data to develop an alternative community business proposal, based around much more sustainable waste disposal technology". Opposition to the incinerator has drawn upon air quality data and simulations. Data has also been used by the community to produce evidence-based alternatives¹⁰⁴ that can produce value from waste. The community released a report that used data from FOI responses extensively¹⁰⁵. "On top of air quality data, we have also seen use of data including spending, contracts, population forecasts, and companies data from Open Corporates; local journalists are also starting to use the same data for their investigations".



¹⁰³ Open Data Services Coop: <http://opendataservices.coop/>

¹⁰⁴ Community R4C: <http://communitur4c.com/>

¹⁰⁵ Gloucestershire's Incinerator Costs - is there a better way?
<https://drive.google.com/file/d/0B8fjAQ6O5B8OOENgX0piQUK2NDA/view>

Mark Frank, Southern Policy Centre

Mark Frank lives in Hampshire and his main career was in technology. Now semi-retired, he studied at University of Southampton where he studied the role of open data in enhancing transparency in local government. He also works as a researcher for the Southern Policy Centre (SPC)¹⁰⁶, the think-tank and educational charity for southern England. SPC's focus stretches broadly from Dorset to West Sussex, and the Isle of Wight to Oxfordshire. SPC specialises in:

- Devolution policy
- Innovative forms of public policy making
- Open Data research (also hosting ODI Hampshire)
- Health and social care research
- Education and skills policy

Mark recently worked on a year-long study led by Southern Policy Centre, which took a data-based approach to widening participation in Higher Education¹⁰⁷. This took data at ward and LSOA level and looked at factors such as deprivation which may affect the take-up of higher education at a local level. What started as a small pilot involving just 5 wards was extended to gather data for over 100 wards nationally.

Whilst it was a successful exercise, there were a number of obstacles, particularly as some data sources are out of date, such as those datasets only available in the 2011 Census. Mark commented that administrative and demographic data needs to be kept up to date to be useful, particularly datasets like percentage of people in the UK less than 5 years, percentage of graduates, ethnicity and housing.

¹⁰⁶ Southern Policy Centre: <http://southernpolicycentre.co.uk/>

¹⁰⁷ Widening participation in Higher Education: <http://southernpolicycentre.co.uk/widening-participation-in-higher-education/>

Mark also said that a frequent problem is not being able to get data at a low enough level to be useful locally. The data Mark mentioned includes:

- Ordnance Survey boundaries
- ONS demography/population/ethnicity
- DCLG homelessness
- DfE and local authorities Education data

There is more detail about the data used in the HEFCE Local Ward Data Analysis Toolkit¹⁰⁸.

Mark commented that Ordnance Survey data is very useful. It does need some expertise to use, but is very good quality, is relevant, and up-to-date. Mark has found that using OS data is the easiest way to find out what boundary changes have occurred in the last ten years.

Not all data that Mark used was open data, and he had to ask local authorities for data on where children went to after they left school. Mark already had contacts at the local authorities, so emailed them directly and didn't need to resort to Freedom of Information requests.

Sarah Golden, Place2Be

Place2Be¹⁰⁹ was founded 23 years ago and has grown to be a leading UK children's mental health charity providing in-school support and expert training to improve the emotional wellbeing of pupils, families, teachers and school staff. "We work in 282 primary and secondary schools, providing whole-school mental health services to a school population of 116,000 children. We also provide learning and development and, in 2016, supported teachers and staff in 93 schools through training, consultation and professional development" says Sarah Golden, Place2Be's Head of Evaluation.

The service offered by Place2Be supports both children and parents. For example, children can use a self-referral approach to book an appointment themselves to speak to a school-based counsellor for 15 minutes, or be referred by a member of the school staff; they also offer group therapy, and whole class work, for example around understanding one's feelings. For parents, they offer counselling as well as multi-agency working and support in the relationship with their children.

"We also offer support to staff, for example through consultations and training", says Sarah. In each school, the School Project Manager is on hand to engage with external agencies, support staff initiatives and provide support within the school on all issues relating to children's mental wellbeing.

¹⁰⁸ HEFCE Local Ward Data Analysis Toolkit (PDF) <http://southernpolicycentre.co.uk/wp-content/uploads/2016/10/HEFCE-Toolkit-October-2016.pdf> <https://datamillnorth.org/community/blog/data-mill-north-wins-odi-publisher-award/>

¹⁰⁹ Place2Be: <https://www.place2be.org.uk/>

A lot of this work is powered by data. These School Project Managers use tablet computers to collect feedback from teachers, families and pupils quickly and easily, and to assess the impact of interventions on children and young people's emotional wellbeing. This digital data can then be easily shared for monitoring and evaluation.

Place2Be also supplements its own data with data that is publicly available or obtainable under non-disclosure agreements, including:

- Data about schools (from DfE / Edubase)
- Data about pupils in schools (from DfE / ONS)
- Data about pupils' achievement (from National Pupil Database)

This data is used to help describe the nature of the schools Place2Be is working with, such as the number of children on roll, those with free school meals entitlement, and the level of deprivation of the areas they are in.

Publicly available data is also used to compare the characteristics of the children who receive counselling with other children in their school. "For example", says Sarah, "it can be helpful to understand whether children to whom counselling is offered are more likely to have special educational needs, receive free school meals, or be 'looked after' than the rest of the rest of their school population".

Sarah reports that comparing the charity's own data with external datasets can be a challenge: "We would love to compare our outcomes with data in the Millennium Cohort Study¹¹⁰ but the pre- and post- Strengths and Difficulties Questionnaire (SDQ) data is at slightly different time points so we can only make broad comparisons".

Place2Be's data analysis work is ongoing. "The National Pupil Database is the richest of the publicly available datasets, giving Place2Be the opportunity for detailed analysis at pupil-level. Our analysis is not yet completed but it will enable us to explore whether the children we support make better academic progress after counselling than similar children who do not access our services".

Data in Sarah's wish list includes publicly available data on successful and unsuccessful referrals to children and young people's access to statutory mental health services.

Tracey Gyateng, New Philanthropy Capital

New Philanthropy Capital (NPC)¹¹¹ is a charity think tank and consultancy. They work at the nexus between charities and funders. Tracey Gyateng is the lead of their Data Labs¹¹². The “Data Labs project aims to open up government administrative data to the not-for-profit sector to help organisations better understand the impact of their services on beneficiaries”. The interview we’ve run with Tracey was short but full of insight, and very welcome introductions to other interviewees who are working with data in a local charity context.

“At NPC we are keen to encourage and support the not-for-profit sector to make use of their own and external data to maximise their operations and effectiveness”, says Tracey. A core programme of work has been to establish data labs across government departments. To date, NPC worked with the Ministry of Justice to develop the Justice Data Lab¹¹³, which enables organisations working with ex-offenders to find out the aggregate re-offending rates of people they have worked with compared to a matched comparison group. “NPC are working to establish data labs to measure employment, education and health and wellbeing. Progress is better in some areas than others, but we continue to advocate for this service on behalf of the charity sector”. NPC in partnership with The GovLab in the USA are exploring other countries and settings for data labs to take place.

NPC are also “working with Imagine Canada, Community Foundations Canada and the Mowat Centre NFP, researching what mechanisms are needed to encourage and develop the data ecosystem for the not-for-profit sector in both Canada and the UK. We are interviewing people from across sectors that play a part in providing and using data from the not-for-profit sector”. Tracey is focusing on describing the current and potential state of data usage in the not-for-profit sector in order to research how to build capacity for effective data utilisation, and identifying the gaps and opportunities available within the data ecosystem.

“More broadly, we are supporting charities to gain insight from data”, says Tracey. “By the end of September, we’ll have run a project to map data ecosystems” and have a paper on how charities can turn data into action set to be published in August.



¹¹¹ NPC: <http://www.thinknpc.org/>

¹¹² NPC Data Labs: <http://www.thinknpc.org/our-work/projects/data-labs/>

¹¹³ Justice Data Labs: <http://www.thinknpc.org/our-work/projects/data-labs/justice-data-lab/>

David King, Local Trust

David King is the Innovation Lead at Local Trust¹¹⁴, a self-described “place-based funder”. They work in a space that neatly overlaps with Power To Change, and they were similarly set up by the Big Lottery Fund to help communities become more resilient and vibrant. The Local Trust’s Big Local Programme¹¹⁵ involves 150 local areas, each endowed with £1m with a view to make a lasting difference to their communities.

“The general idea is that the funders should be relatively lightweight in administering the money, leaving the local communities to be creative with the money given”, says David. In order to better understand the areas involved, David says that open data was used, especially the Indices of Multiple Deprivation and a variety of datasets based on local geographies. “These datasets gave us an idea of the potential socio-economic issues in the areas, as well as the opportunities and outcomes to explore.” They are now rolling out Local Insight across the Big Local programme (a Local Authority and social sector version of Community Insight). This will be the first example of communities being given direct access to government statistics in an easily intelligible format.

David reports some very innovative approaches to business intelligence. “We have run content analysis on the strategic plans of all 150 Big Local areas to draw the trends across areas and in areas over time. Along with secondary data like the IMD, this should lay the foundation for analysis on the relationships between primary and secondary data. For example, we might find that a plan is very focussed on transport, and we check what is the situation of transport in that area.”

David’s previous work is also of interest: he has been working for a number of years in the housing association sector. This is a relatively large sector, with over 2 million households¹¹⁶ living in properties run by housing associations. There are about 1800 registered providers of social housing¹¹⁷, although most of these are relatively small in size¹¹⁸. Housing associations are slowly coming to data and digital innovation after being run for decades in very traditional ways. “There is a lot of potential for local data collection in that housing associations often employ surveyors and housing officers who work in the field, for example to verify fire doors, pipes, electrical sockets, and speak to residents. However, the data quality is often not that good or focused on challenges the business faces, and there is little appetite to make that data openly available”. Moreover, housing associations often subcontract their business intelligence and research, ending up not owning the data generated or understanding how the modelling has produced insight. However, some suppliers of housing services are starting to capitalise data by both using the data collected and generating products based on it¹¹⁹.

¹¹⁴ Local Trust: <http://localtrust.org.uk/>

¹¹⁵ Big Local: <http://localtrust.org.uk/our-work/big-local/about-big-local>

¹¹⁶ Homes and Communities Agency Statistical Return: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/561398/SDR_Statistical_Release_2016_Full_v01.1.pdf

¹¹⁷ Current Registered Providers of Social Housing: <https://www.gov.uk/government/publications/current-registered-providers-of-social-housing>

¹¹⁸ Social Housing Stats Facts: <http://www.focalresearch.co.uk/news-publications-stats-facts/social-housing/social-housing-stats-facts/42-how-many-housing-associations-are-there-in-england>

¹¹⁹ Kier Group predictive maintenance service: <https://www.insidehousing.co.uk/ih-kier-microsite/kier-unveils-service-model-transformation-at-ch>

In his previous job at the Housing Associations' Charitable Trust (HACT), a solutions agency working within the housing sector, David worked on some data-intensive projects.

Featured Case Study: Community Insight

The most popular solution offered by HACT is probably the Community Insight package, a GIS-based tool providing online community mapping and reporting for housing providers¹²⁰. It was co-developed with the Oxford Consultants for Social Inclusion (OCSI)¹²¹, a company based in Brighton.

Community Insight provides instant neighbourhood profiles by employing Open Datasets with socio-economic indicators. The Indices of Multiple Deprivation feature prominently in the tool. David says: “the tool was very useful because most of the data is at a LSOA level¹²² and most housing providers roughly occupy the boundaries of an entire LSOA; this means the data about that LSOA is exactly the data about the community they house and the providers would use the data to target intervention”.

A commonly reported use is the building of evidence for grant applications, and to fine-tune community investment strategies¹²³.

HACT is also working with a consortium of 17 housing providers to build a data standards model¹²⁴ intended to harmonise data collection and representation within the sector. The development of the standard is aimed at reducing barriers for innovation, opening up competition among IT suppliers, as well as providing a starting point for data mapping, resulting in financial savings. David also comments that a wide adoption of the standard would help housing providers find what they need in the ocean of data available: “We could see the frustration when data could not be found that was required for operational reasons; for example, when the ‘Pay-to-Stay’ policy was announced¹²⁵, many housing associations could not find ways to verify who was eligible.” Another example of how good data could be useful is for the calculation of the Net Present Value (NPV), a sector-wide measure used for housing stock assessment. “Cleaner data would massively help calculating a more reliable NPV, and use it to develop sustainable maintenance strategies”, says David. Once again, the most useful datasets in this space are privately generated data about the housing stock together with local area data coming from the IMD.

¹²⁰ Community Insight: <http://www.hact.org.uk/communityinsight>

¹²¹ OCSI - Oxford Consultants for Social Inclusion: <http://ocsi.uk/>

¹²² For LSOA in the ONS coding system see: https://en.wikipedia.org/wiki/ONS_coding_system

¹²³ Community Insight Testimonials: <http://www.hact.org.uk/communityinsight/testimonials>

¹²⁴ HACT Data Standards: <http://www.hact.org.uk/creating-shared-data-standard-uk-housing>

¹²⁵ Pay to Stay for Housing Associations: <http://www.housing.org.uk/latest-updates/pay-to-stay-for-housing-associations/>



Asked about which data is on his wishlist, David mentions the Spacehive¹²⁶ platform, a crowdfunding system for local projects: “Spacehive lets people point to a local broken bench, and raise money to get it fixed - even if it doesn’t raise enough money, the project is a good way for the local community to coalesce around an achievable goal. Having that data would be an incredibly good insight about local needs”. The Spacehive platform was successfully used to implement the cleaning of Villiers Street in London over several months¹²⁷ with an anti-litter campaign. “This sort of data is similar to mySociety’s FixMyStreet¹²⁸, and it can be invaluable for local authorities and organisations”. David mentions the excitement in the early 2000s about the BETA Model, an online database with local statistics about local growth. This, however, famously resulted in data that showed a lack of impact on the local communities of local initiatives. “Impact measures need to be carefully defined ahead of the data collection, or datasets used for this purpose risk being considered useless”, remarks David.

As a side project, David has also been helping to run the PricedOut¹²⁹ campaign. There, local level statistics are used to test assumptions and make campaigning more targeted. For instance, by looking to see how many private and social renters there are in an area to explore the potential for starting a local campaign group. Local statistics have also been used by Generation Rent to identify ‘renter marginals’¹³⁰.

Gaia Marcus, Data and Digital Consultant

Gaia Marcus, a freelance data and digital consultant, has recently worked in two roles that offer interesting experiences for this report: as Programme Manager for homeless charity Centrepont, she headed its Youth Homelessness Databank¹³¹; previously, as a researcher for the RSA, the Royal Society for the Encouragement of Arts, Manufactures and Commerce, she used data analysis extensively for the Connected Communities¹³² project.

The Centrepont Youth Homelessness Databank¹³³ was started in 2014 with funding from the Google Impact Challenge. It offers information on what happens to young homeless people, gathering into one place data from government, local authorities, and other charities. This gathering is particularly useful because the only “official” data available is collected by the Department for Communities and Local Government, which only covers statutory cases of homelessness. Gaia suggests: “The statutory cases are very far from the reality of homelessness, at least in terms of the situations charities need to deal with”. An example of this is the coastal town of Blackpool, which is considered “end of the line”: many young homeless people end up there, without any local connection, anecdotally sometimes encouraged by their local authority’s “train tickets out of town” policies. “The figures held by

¹²⁶ Spacehive: <https://www.spacehive.com/>

¹²⁷ Neat Streets: <https://www.spacehive.com/neatstreets>

¹²⁸ FixMyStreet: <https://www.fixmystreet.com/>

¹²⁹ PricedOut: <http://www.pricedout.org.uk/>

¹³⁰ Renters vote and cause another political upset http://www.generationrent.org/renters_vote_and_cause_another_political_upset

¹³¹ Youth Homelessness Databank: <https://centrepont.org.uk/what-we-do/the-youth-homelessness-databank/>

¹³² Connected Communities: <https://www.thersa.org/action-and-research/rsa-projects/public-services-and-communities-folder/connected-communities-social-inclusion-and-mental-wellbeing>

¹³³ Centrepont Youth Homelessness Databank: <http://yhdatabank.com>

DCLG and those held by the local charities vary by an order of magnitude, so the Databank provides a way for charity to navigate these figures”, says Gaia.

The Databank serves another useful purpose: it is used by other local charities to support their own funding bids. Moreover, it publishes all its derived data as Open Data. However, there are issues in the widespread adoption of this data: charities often like to be the source of their own data or research. There is a culture of competition and a “not invented here” syndrome. This brings massive blocks to collaboration.

A great example happened in Sunderland’s use of the Databank. The City Council used statutory homelessness data to justify closing their Youth Pathway service, saying they would work on ‘housing first’. This is a model known to be very effective in dealing with cases of entrenched rough-sleeping, but which has no established evidence-base in the case of youth homelessness. The figures suggested a very low level of young homeless people in Sunderland. As seen before, however, what constitutes statutory homelessness is not necessarily reflective of the levels of homelessness seen in a town. Centrepont officers used data from the Data Bank to draft the charity’s official response¹³⁴.

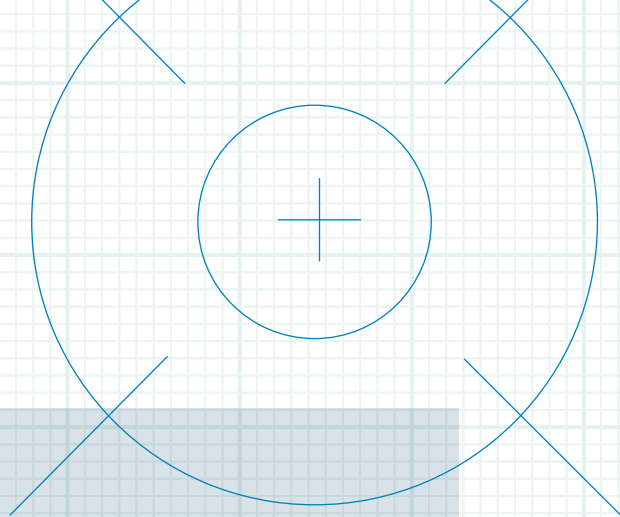
Featured Case Study: Communities Connected

Gaia was previously a social network analyst at the RSA and the lead researcher on a 5 year longitudinal study of 3000 local residents, mapping wellbeing and life satisfaction, social connectivity, and recording risk factors. “This project was a mixture of research and action”, recalls Gaia. The project, called Communities Connected, started with a data-collection survey, door-to-door.

Local teams of 8-12 community researchers were recruited locally, receiving training in research methods, data protection, and health and safety. The surveys were therefore administered by locals to locals; a total of 2,840 surveys were carried out across seven sites:

- Murton, County Durham
- Knowle West, Bristol
- Wick, Littlehampton, West Sussex
- Liverpool
- New Cross Gate, London

¹³⁴ Centrepont warns of devastating impact as city council cuts hostel funding: <https://centrepont.org.uk/about-us/news/four-hostels-for-sunderland-s-homeless-young-people-are-at-risk-of-closure/>



– Tipton, Sandwell

– Bretton, Peterborough

The data collected included subjective wellbeing measures that were then used with the model called Shorter Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS), a nationally validated research tool.

Once the analysis of the data was complete, the researchers did a “community playback”: the survey was presented in workshops in each locality to share and discuss the findings.

The outcome of this project was the co-production of intervention projects to enhance social connections, combat social isolation, and provide community resources.

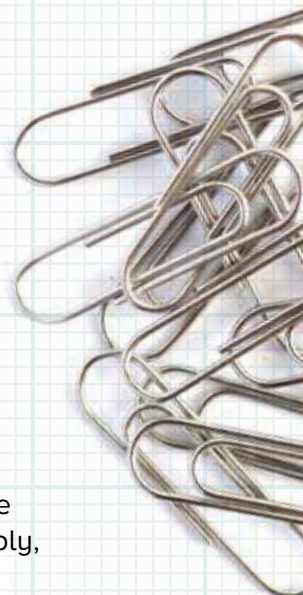
Interesting results were achieved in Murton. It emerged that single parents have low wellbeing unless they have a high degree of social connection: the more friends they had, the better was their wellbeing. The outcome was the design and launch of “Murton Mams”: a roving social club¹³⁵.

The full list of projects is:

- Murton Mams (Murton): a social group to provide supportive activities for single mothers
- Treasure your wellbeing (Liverpool L8): brokering new relationships between health services and a previously isolated group of people from ethnic minorities
- Community chest funding (Tipton, Sandwell): creating connections between community organisations
- Local Nets (Bretton): bringing internet users and local institutions together to co-produce solutions to local problems
- Social Mirror (Knowle West Bristol): a pilot of a digital social prescribing tool, identifying socially isolated people and offering them a group membership
- Talk for health (New Cross Gate, London): training individuals in mental health counselling to build their personal resilience and enable them to support others in their community
- Community organising programme (Wick, Littlehampton): an organised network of local community changemakers creating service provision for themselves

¹³⁵ Murton Mums create their own healthy cookbook: <http://www.sunderlandecho.com/news/murton-mums-create-their-own-healthy-cook-book-1-6391867>





Steve Peters, Department for Communities and Local Government (DCLG)

Steve Peters is an open data strategist within the Data Analytics and Statistics Division of the Department for Communities and Local Government (DCLG). The DCLG is a government department whose responsibilities include housing supply, home ownership, and oversight of local government.

The DCLG sets policy which affects local communities e.g. around neighbourhood planning and assets of community value. DCLG encourages local authorities to publish lists of assets of community value, such as buildings or plots of land.

Steve and his team run the DCLG's Open Data Communities (ODC)¹³⁶ data portal, which publishes data for a variety of topics, including energy performance, homelessness, housing, and planning. Data is published as 5 star linked open data¹³⁷. Tools provided within the portal enable users to 'slice and dice' data as required. Steve welcomes feedback and opportunity to work with 'real users', particularly around Neighbourhood planning e.g. what does the government know about this park, or wood; what data does the government hold about planning applications? Steve says that DCLG is "Keen to make our data as granular and relevant and useful as possible"

There need to be directories of services in local areas e.g. dog walking and grass cutting, says Steve, which would also to help answer questions like "what services exist to support me in setting up my new business?" He mentioned Pinpoint¹³⁸, a new directory of categorised local services in Devon. The directory is provided by Devon County Council, which is also making the data available via an API (currently in beta). Devon are working with the Local Government Association¹³⁹ and iStandUK¹⁴⁰, which will shortly have a standard for local services¹⁴¹ to support similar directories nationally. Steve used Pinpoint data to create a Chord diagram to help discover which services are a service available e.g. services for children with a disability, over 65 with a dependant child etc.

Steve then mentioned Energy Performance Certificates (EPC)¹⁴², which DCLG recently published. He said that people used the data almost immediately, for example the map produced by Anna Powell-Smith which shows the average price per m2 of houses in each postcode district in England & Wales¹⁴³. Steve believes EPC data might be useful for businesses, particularly when combined with Land Registry price paid and Food Standards Agency Food Hygiene Certificates, which could for example help inform businesses about the demographic of their customer base. EPC is not just energy usage, but also includes detailed data about buildings.

¹³⁶ Open Data Communities portal: <http://opendatacommunities.org/>

¹³⁷ Overview of the 5 stars of open data: <http://5stardata.info/en/>

¹³⁸ Pinpoint directory of local services in Devon: <https://www.pinpointdevon.co.uk/>

¹³⁹ Local Government Association (LGA): <https://www.local.gov.uk/>

¹⁴⁰ iStandUK: <http://istanduk.org/>

¹⁴¹ Standard for local services: <http://istanduk.org/local-services/>

¹⁴² Energy Performance of buildings data published: <http://news.opendatacommunities.org/energy-performance-of-buildings-data-published-2/>

¹⁴³ House prices by square metre in England and Wales: <https://houseprices.anna.ps/>

DCLG's Index of Multiple Deprivation is an important dataset, and widely used within the local authority, voluntary and charity sectors. For example, FSE Group¹⁴⁴ - a community Interest Company, providing loans for community owned renewable energy projects - have used the IMD and postcode data to meet their investors requirement to support projects in the 50% most deprived areas in the UK.

Another example is Wandsworth NHS Trust, which targeted literature on cancer prevention to most deprived areas, and Royal Marsden in Surrey which used deprivation data to investigate the impact of palliative care in deprived and less deprived areas. Other examples of businesses using DCLG data include:

- Illustreets: Business Maps and Reports, including Where to Live in England¹⁴⁵
- Doorda: navigate, interrogate and make sense of local and national Open Data¹⁴⁶
- Zoopla: Search Property to Buy, Rent, House Prices, Estate Agents¹⁴⁷

Steve gave another example of government data being used in the Which? Elderly Care Finder¹⁴⁸, that uses data from government and care regulators.

Steve says his personal interest is around open space, and getting better data around housing, including cost and condition. He would like to see cleaner data for addresses and price paid, and whether a building is a tower block or not. Steve says that the real benefits arise when government, local government and data from other sectors are combined. Steve creates apps¹⁴⁹ mostly for personal interest and his local community, often about how does my area compare to other similar areas.

Steve would like it to be much easier to find what data is out there, what the quality is like, what the license is, ideally with examples of the data being used, and contact details for someone at the provider. He mentioned that it may be easier to find data in the future, and that initiatives like Schema.org are helping to create open standards defining data catalogs and datasets, and that many of the big players like Google, Microsoft and Yahoo have signed up¹⁵⁰.

¹⁴⁴ FSE Group: <http://www.thefsegroupp.com/>

¹⁴⁵ Illustreets: <http://illustreets.com/>

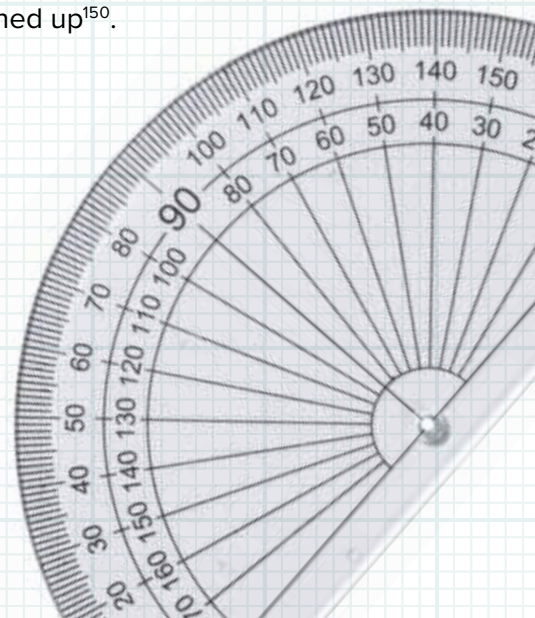
¹⁴⁶ Doorda: <https://doorda.com/>

¹⁴⁷ Zoopla: <https://www.zoopla.co.uk/>

¹⁴⁸ Which? Elderly Care Finder: <http://www.which.co.uk/elderly-care/care-services-directory>

¹⁴⁹ Steve Peters' App and API portfolio: <https://openviz.wordpress.com/app-portfolio/>

¹⁵⁰ Schema.org: <http://schema.org/docs/about.html>, and its data catalog (<http://schema.org/DataCatalog>) and dataset (<http://schema.org/Dataset>) standards.



Emma Prest, DataKind UK

Emma is the Executive Director of DataKind UK, a charity which seeks to transform the social sector by bringing the use of data and algorithms to social sector organisations that don't have the budget or the staff to do so. DataKind UK employs 2 members of staff, helped by a core team of 16 volunteer data scientists, and coordinates several thousands more (they have 2,000 volunteers on their books in the UK). Their operations are based on three community run committees, who work on project scoping, volunteer engagement, and programme definition.

DataKind UK is cause agnostic: it responds to demand from charities, social enterprises, and local government entities. DataKind evaluates what kind of project the prospective client is looking for, how mature the organisation is with data and digital and what the impact of the project would be, before deciding to work with an organisation.

"Sometimes, they just need help with spreadsheets", says Emma. "There is a gap in low level support for charities. At DataKind we tend to focus on the more advanced end of data analysis but we also run free office hours and provide advice when we can. We also do a lot of signposting to other organisations.". DataKind's clients are often charities that provide services to a specific population, and DataKind helps by using data to refine their service delivery. Examples of organisations they have worked with include the North East Child Poverty Commission, Macmillan, and the Prince's Trust.

Do organisations like these have and use big data? "The assumption is often that the bigger the charity, the more data they have, and that therefore big charities are a good potential partner for DataKind. That is not always the case", says Emma. "While big organisations do generally have lots of data, they are more difficult to work with as there's more bureaucracy. It is can be hard to find out who is the right person to talk to. Sometimes the project output gets parked and no action is taken". Smaller charities tend to respond more quickly and take action so the impact of the project is bigger. They find working with smaller charities with forward-looking executive directors who 'get' data can be more fruitful.

The funding DataKind UK receives is mixed. They receive funding from trusts and foundations; they secure corporate sponsorship for events, and they ask charities to make financial contributions when working on long-term projects.

An interesting example of work is DataKind UK's Data Maturity Model¹⁵¹. Last year, DataKind UK partnered with Data Orchard¹⁵² and surveyed 200 not-for-profits, mostly social enterprises and charities, narrowing this number down to 12 interviews. The lessons learned were used to create a framework for organisations to work out what their data strategy is, working on leadership and culture change.

¹⁵¹ Data Maturity Model: <http://www.datakind.org/blog/a-maturity-model-for-data-evolution>

¹⁵² Data Orchard: <http://dataorchard.co.uk/>

DataKind is widely known for its “DataDives”: weekends where exploratory analysis is run by volunteers who show what can be done with an organisation’s data. These events are similar to “hackdays”, but the preparation starts three months in advance, and the client has to define the hypotheses it wants to test. Volunteer data ambassadors clean the data and get it ready. These events are funded by corporate sponsorship, for example by Bloomberg.

“We also run longer term projects, DataCorps projects, which last for six months, and deliver a data science product at the end. These are funded on a project by project basis”, says Emma.

Several projects using data at a local level were mentioned during the interview. One example is the project run with the North East Child Poverty Commission¹⁵³, helping the commission gain a more granular understanding of child poverty, as government figures are quite high level. This project used a mixture of open data and data owned by the Citizens Advice Bureau (CAB). “CAB don’t record whether the person seeking advice has children so it turned out their data wasn’t very helpful, but the open data proved useful. This kind of project is quite representative of what DataKind’s clients seek: a more granular understanding of need in a community”, says Emma.

A similar project with the National Society for the Prevention of Cruelty to Children (NSPCC) looked at families in adversity trying to identify pockets of local social needs. Emma makes a general point that there is a need to pull together all the open data which is relevant to mapping vulnerable populations in the UK. The sort of data these organisations would use on a daily basis include data about health, social and economic deprivation, alcoholism, and substance abuse. The need for these types of data keeps coming up.

DataKind also worked with a charity running children’s hospices, Shooting Star Chase. The project looked at locations of children’s hospices and need. The hospices tended to be in better off areas, and not located near to the greatest demand. The resulting dashboard was taken to the commissioners.

Emma mentions two examples of work with charities using their own “private” data: Llamau and The Welcome Centre.

¹⁵³ North East Child Poverty Commission: <http://www.nechildpoverty.org.uk/> and Delving into child poverty data: <http://www.datakind.org/projects/delving-into-child-poverty-data>

Featured Case Study: Llamau

Llamau¹⁵⁴ is a charity working with homeless people in Wales, particularly young people and vulnerable women. Although Llamau collects and uses data, they had never conducted holistic analysis across all their services.

“DataKind UK do a lot of ‘what’s working, what’s not working’ analysis”, says Emma. “Often, there is just one data person in a charity doing data input and management, with little time for analysis. Many of our projects help to shine a light on past activities and who’s having which outcomes”. Charities systematically collect outcomes data for funders, but rarely do deeper analysis on that data. They simply don’t have the time or skills in-house to do more.

In Llamau’s case, they have really rich journey and outcomes data, but only one staff member working with the data. During a DataDive, Llamau found that young men who were care leavers and had a history of getting into trouble with the law were significantly more likely to struggle and made less progress than young women in the same cohort. While this wasn’t a surprise, having this level of data analysis has prompted Llamau to take another look at their projects and see what additional support they can provide to better support this group.

The DataDive findings were presented to the Chief Executive of Llamau, who immediately realised the power of the data they are sitting on and is now looking at how they can better analyse their data to identify areas of best practice across Llamau and replicate this in other areas.

The Welcome Centre¹⁵⁵ in Huddersfield is a food bank doing predictive work with their own data: looking at how likely someone is to be a repeat user of the service, so they can reach out to them earlier on.

WeFarm¹⁵⁶, a project which originated from the CafeDirect Producers Foundation, is a text messaging platform aimed at farmers in East Africa and Latin America. They had 600,000 text messages they wanted to analyse to know what their customer base talks about. “The answer was: chickens”, says Emma. “Jokes aside it also showed some of the frustrations faced by users of the WeFarm system”. Wefarm incorporated what they learnt from the project when they redesigned the system to provide a better user experience.

Often it’s the bigger national charities who have great data, but the data needs to be sliced locally to be useful to a local organisation and make an impact on the ground. One example of this is the work done by Safelives, a national charity

¹⁵⁴ Llamau: <http://www.llamau.org.uk/>

¹⁵⁵ The Welcome Centre: <http://thewelcomecentre.org/>

¹⁵⁶ WeFarm: <https://wefarm.org/>

dedicated to ending domestic abuse. They run a national database for local domestic abuse services and provide reports to the local providers benchmarking their work against their peers.

Emma reports a lack of local authority data being used. DataKind tends to look at national datasets most of the time. However, one example mentioned was Leeds. “We used the Leeds Data Mill data to map deprivation and the location of loan sharks and show a correlation”, Emma reports. With Young Lives Leeds¹⁵⁷, DataKind run a project to identify why NEETs miss appointments with job centres, resulting in fines that they cannot afford. The data analysis showed that those fined were more likely to live over an hour away by bus from the job centre and were fined for being late to their appointment.

Asked for her “big dreams” about data, Emma responded: “I want a coordinated way for organisations to share data so we can see the bigger picture about what’s happening in a sector, and so that we can see people’s journeys between services. If we know how people move between services and can predict what’s likely to happen to them then we can proactively respond and stop problems before they escalate. There are ethical and legal issues here around sharing data that need to be discussed urgently, but this also presents huge opportunities to provide better services to the most vulnerable in society.

← Kate Swade, Shared Assets

Shared Assets¹⁵⁸ is a ‘think-and-do-tank’ which supports and promotes common good land use. It aims for shared benefits across society and the environment, including better use of parks, woodland, and land for food growing. Its work is split between on policy, research and advocacy, which is mainly grant funded, and commercial consultancy services to landowners and users. Shared Assets’ goal is to make land work for everyone by developing new models of land use that create shared social, environmental and economic benefits, and to create the environment in which those new models can thrive.

Kate Swade is one of the directors at Shared Assets and comes from a community regeneration background. “One of our contributions is the creation of the Land Explorer¹⁵⁹ website”. Land Explorer is still in the early stages of development, but is a map that brings together different data sets on land. It is aimed at supporting interested local people to find out more about the land around them, and at common good land users looking for new sites.

¹⁵⁷ Young Lives Leeds: <https://doinggoodleeds.org.uk/young-lives-leeds/>

¹⁵⁸ Shared Assets: <http://www.sharedassets.org.uk/>

¹⁵⁹ Land Explorer: <https://landexplorer.uk/>

Featured Case Study: Shared Assets & Ecological Land Coop

Shared Assets ran a Data Dive with DataKind UK in order to help Ecological Land Cooperative (ELC) find a new site¹⁶⁰. The data dive was intended to help the coop with a very specific goal: developing 20 new smallholdings by 2020. The coop was set up to address the lack of affordable sites for ecological land-based livelihoods, and it was struggling to find suitable land in a resource-light way.

The Data Dive explored different techniques and ways of using data such as Natural Language Processing. It also managed to identify a useful shortlist of sites for ELC to explore.

What's more important, it was a vital part in the development of Land Explorer. "The ELC and others are able to use Land Explorer to support their search for new land", reports Kate.

The idea for Land Explorer came from thorough research. In a very in-depth report¹⁶¹, Shared Assets explored the current availability of information on land, and showed the benefits of having quality information on land to make good decisions about it. The report calls, for example, for an "open by default" approach to releasing Land Registry data. It also mentions several examples of good land use that could be or have been made possible by good quality data, including the Peckham Coal Line¹⁶² urban public space, and the Community Renewable Energy Projects such as those supported by Sharenergy¹⁶³.

Kate explains that there are a lot of datasets that could be useful for locally-oriented land projects: "We have been using, or want to further integrate, data from DEFRA and its agencies, ranging from forestry to environmental policy monitoring and regulation, from grant eligibility to planning permissions; together with these, we've want to integrate climate data from the Met Office, and several datasets from the Land Registry, the Ordnance Survey, the UK Soil Observatory and more". What's very interesting, though, is that Shared Assets has also released a spreadsheet that brings together data needs with these publicly available datasets¹⁶⁴. The spreadsheet contains detailed information of the needs of common good land users, together with possible uses for the data.

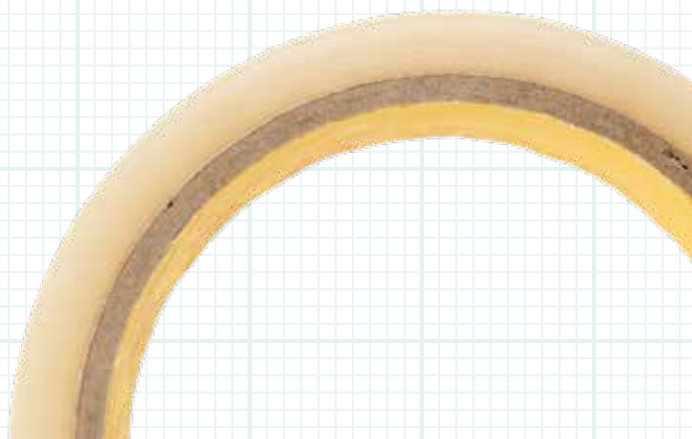
¹⁶⁰ (Data)diving for land data treasure: <http://www.sharedassets.org.uk/policy/datadiving-land-data-treasure/>

¹⁶¹ Exploring Land Data: http://www.sharedassets.org.uk/wp-content/uploads/2016/09/Exploring_Land_Data.pdf

¹⁶² Peckham Coal Line: <http://www.peckhamcoalline.org/>

¹⁶³ Sharenergy: <http://www.sharenergy.coop/>

¹⁶⁴ Land data needs and datasets (public): <https://docs.google.com/spreadsheets/d/1TuUwMaFP1TjF0RgccEaDeUJDWTUuZfuk8oDHgZpKm1E/edit#gid=476262634>



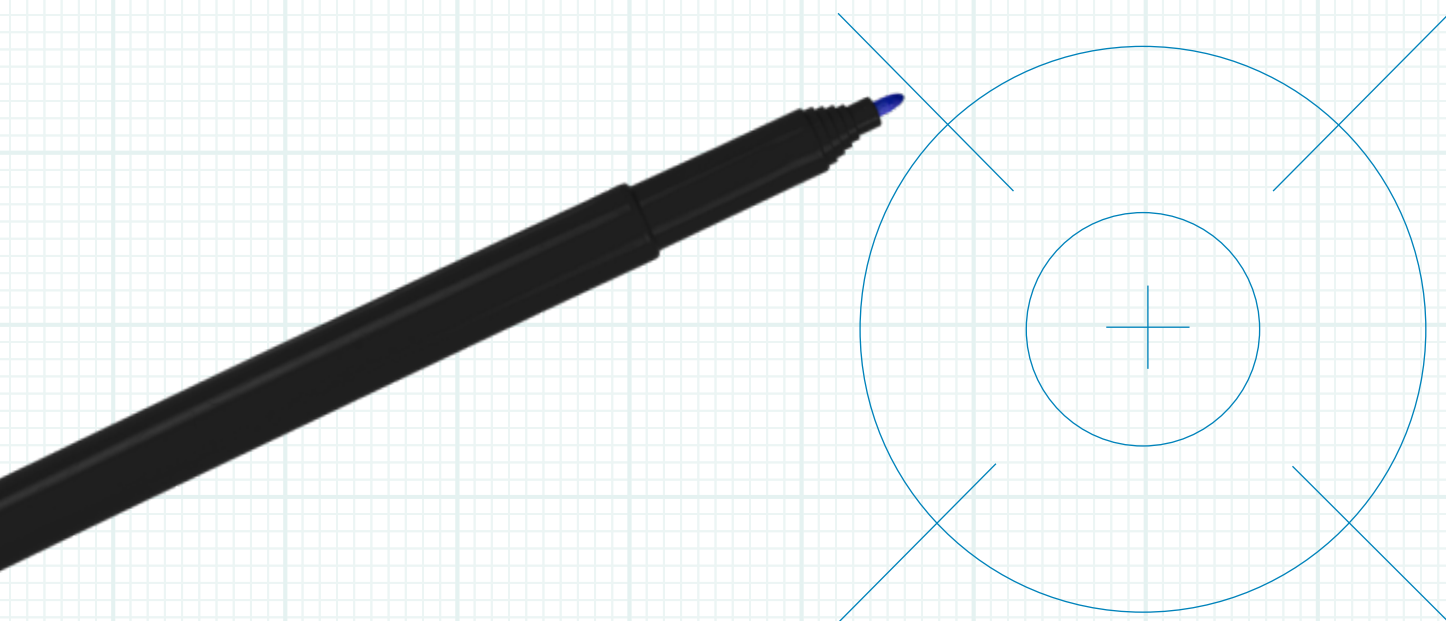
Businesses and Community Interest Companies

Will Cottrell, Brighton Energy Coop

Brighton Energy Coop¹⁶⁵ specialises in community funded renewable energy. There are 13 sites so far, typically with 1 meter to monitor energy production¹⁶⁶, and another to monitor market demand, collecting stats at half-hourly intervals. Three sites have much more granular data, monitoring output for individual panels. The University of Eastbourne, has 600 panels. The data goes into 3 online data portals.

For the early installations it was necessary to stand next to an array with Bluetooth in order to capture the data. Data capture is improving, and for newer installations they can see all panels at any time. Will says they use the data to keep an eye on how the systems are doing, and use monthly output to compare each site.

Photovoltaics (PV) output changes all the time, according to the amount of cloud cover or shading. There can be a difference according to orientation of solar panels e.g. east-facing versus south-facing. Common problems include broken inverters, and overheating fans. There are even cases of arrays being struck by lightning. Sometimes they stop working altogether, in which case the inverter is returned under warranty. The panels are connected by wires and MC4 connectors, which can sometimes be damaged by water leaking in. Monitoring means you can spot shading e.g. shadows cast by trees, and this information can help inform positioning of future arrays (PVSol or PVGIS).



¹⁶⁵ Brighton Energy Coop: <http://www.brightonenergy.org.uk/>

¹⁶⁶ Brighton Energy Coop statistics <http://brightonenergy.reportzen.com/>



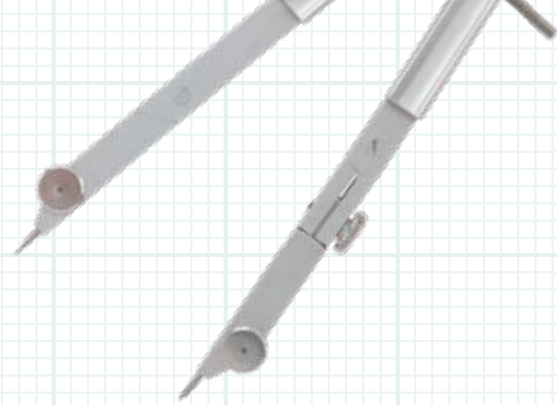
As well as their own data, Brighton Energy Coop have:

- Market demand data, which is fed into the billing system
- A dataset from Bluesky containing roof sizes calculated by firing lasers at rooftops (not really used)
- Google Earth is frequently used to identify a long list of target sites.
- MINT is a database of businesses which uses Companies House data. MINT allows filtering by sector e.g. engineering companies, which tend to use lots of electricity. This data helps inform new proposals
- Members - this is drawn from list of people receiving the newsletter (distributed via MailChimp). They could - but don't currently need to - analyse data about their members
- Valuation Office Agency¹⁶⁷ data on building sizes and business rates to give square meterage of roofs

Raising money is not the hardest task, and site finding is a greater challenge. "Once we find them, we start talking to the owners". They have around 500 buildings they think may be appropriate. The process is typically then:

- Find the decision-maker
- Cultivate a relationship to get the idea across
- Deal-making
- Identify national and local funding
- Lease discussion
- Obtaining permission - the whole process typically takes 9 months to a year

Will says that Brighton Energy Coop intend to release their own data under an open license (just waiting for someone with the right skills to work on it). They also intend to release the code for the tools as open source.



Ben Proctor, Satori Lab

Ben Proctor has wide-ranging experience in local government, particularly around communications and data. He lives in Herefordshire and works in Cardiff, and is closely involved in local data projects in both locations. Ben leads on technical and data activities for The Satori Lab¹⁶⁸, which “helps organisations transition effectively from the industrial age to the connected age.”

Ben is working on several projects in Herefordshire with the Bright Space Foundation (formerly the Bulmer Foundation). The first project aims to create an indicator set for Herefordshire, focusing on sustainability¹⁶⁹. They started by asking what needs to get better, and listed things that people think are important. They then went looking for data to support those indicators. Out of 40 indicators, there are 10 for which there appears to be no source of data. They have created a plan which spans three years:

1. Create indicators, based on Red, Amber and Green
2. Add context
3. Full indicator set for smaller geographies - this will go to the lowest level they can (which is difficult and will take lots of effort, and probably involve crowdsourcing)

Ben commented that data skills are generally quite poor, with little understanding of data across residents and within Bright Space Foundation. Few people currently have the skills to find data, download it and create charts within a spreadsheet, but there are high level data skills scattered across organisations and communities.

Another project concerns biological records, which is a thorny political issue in Herefordshire, for which Brightspace is an honest broker. There has been an aspiration for a bypass for some time, and the council has funding from the LEP, and has identified a route. This has generated lots of local interest, and people have started requesting biological records, but there is a charge for the data, which is a contentious issue; there are also some gaps in the data. DEFRA nationally has cut funding to BRCs but offered one-off funding to move to open data models.

There is a forthcoming, quite large, project looking at supporting cultural activity that promotes wellbeing. A share of that will look at open data.

¹⁶⁸ The Satori Lab: <https://thesatorilab.com/>

¹⁶⁹ Herefordshire's sustainable route map: <http://www.bulmerfoundation.org.uk/projects/sustainable-route-map?mr=4418>

Ben commented that most publicly available data sets don't answer the questions that communities are asking, but he doesn't believe the data is the main problem. Ben says that culture is much more of an issue, and people aren't used to using data to inform decision-making. Many organisations are quite low capacity with regard to data, and significant culture change is required.

Ben says that there is a tacit assumption in the Wellbeing of Future Generations Act assumes that there a high level of data maturity, requiring public bodies to model the impact of their decisions on the future state of their communications, whereas most public bodies are nowhere near this, though some Health Trusts are exceptions with good skills. He says that open data has not really penetrated Wales yet, due to a lack of open data/data infrastructure consideration.

Ben raised a concern about algorithmic bias being a rapidly presenting risk. Decisions are increasingly informed through machine learning, but people don't think critically about the data presented to them. Ben is concerned that society may "sleepwalk into a dangerous situation", and he gave Gang Nominals as an example, where the initial list is created by a person who would have their own biases.

Ben mentioned that Wales Audit Office has recently published a dataset. Ben downloaded the data and created his own visualisations¹⁷⁰. There was a very positive reaction, but he observes that there is a lack of skilled people within publishing organisations to create visualisations themselves.

Dan Winchester, GetTheData

Dan Winchester is an entrepreneur and data expert who runs GetTheData¹⁷¹, a web site that is "organising UK Open Data into location-based dashboards, surfacing the data available, and signposting the source". Dan says: "We focus on local data, but we tend to use national datasets that can be applied to local geographies". GetTheData is aimed at creating dashboards and reference applications which are built around a point of geography: a postcode, a town, or a local authority. The target audience is split into two categories:

1. The general public, ordinary citizens who didn't know the data was available, and just want to find local information. They use GetTheData like any other information sharing website.
2. Developers and data scientists, who may also not know the data is out there, or where the official sources are, or how the data is licensed, but want to create specialised applications.

¹⁷⁰ Making use of open data, by Ben Proctor: <https://goodpracticeexchange.wales/2017/07/13/making-use-of-open-data/>

¹⁷¹ GetTheData: <https://www.getthedata.com/>

“The latter is my primary audience”, says Dan. “They may go on to provide more specific applications”. Dan often works on datasets to make them more user friendly, so GetTheData publishes derived datasets, signposting the source, and explaining why the changes were made. The result is published as Open Data, subject to the licences of the original data owners.

Dan does publish local data as well as national data. He is keen to stitch together what he describes as ‘piecemeal datasets’. “An example of a good approach to useful local data is public toilets data, triggering the community to crowdsource additional data. Although I hasten to add that the Great British Toilet Map didn’t respond to request to publish their data as Open Data¹⁷²”.

In terms of datasets that Dan finds useful, he mentions Ordnance Survey’s data. “They are doing an amazing job; it’s a commercial-grade service, but completely free of charge. They publish lots of data, respond to queries, documentation is up to date”. He goes on to say that Ordnance Survey is “a beacon of great stuff going on in Open Data”. Dan also mentions the Office for National Statistics (ONS), although he finds he needs to dig-in to find the data. “Sometimes I will find archived content on the ONS website, but I’m not sure where the new version of the data is”. In general, though, Dan praises the ONS: “It releases good quality data, it sticks to their data release schedule, it deals well with deprecation”.

There is an element of curation to GetTheData. “As someone who knows his way around data, I still find it very difficult to find current data or get to know where apps get their data from. Take air quality data: it’s difficult to find a definitive source of that information”.

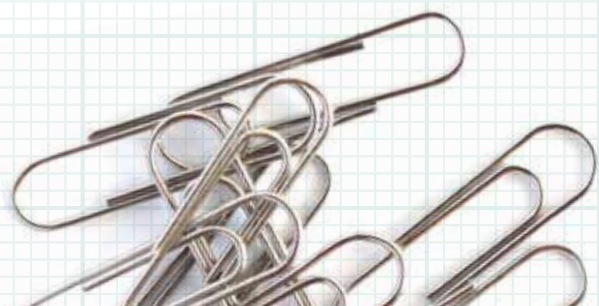
An interesting dataset Dan mentions is the National Public Transport Access Nodes (NaPTAN)¹⁷³, a UK nationwide system for uniquely identifying all the points of access to public transport in the UK. “It’s a fantastic dataset”, says Dan, “but it’s very difficult to find your way around it. TransportAPI¹⁷⁴ are making sense of that data and commercialising it, and you can see the business opportunity in that”. Dan suggests the country needs better Open Data infrastructure for transport, which would be good for local businesses. “Take a community pub, it would be useful to have data that helps you get to the pub without having to drive a car”. Dan also praises the police’s crime data for its API¹⁷⁵ which, despite being quite basic, also offers full data downloads.

¹⁷² This might be due to licensing issue with the original data.

¹⁷³ NaPTAN: <https://data.gov.uk/dataset/naptan>

¹⁷⁴ TransportAPI: <http://www.transportapi.com/>

¹⁷⁵ Police data: <https://data.police.uk>

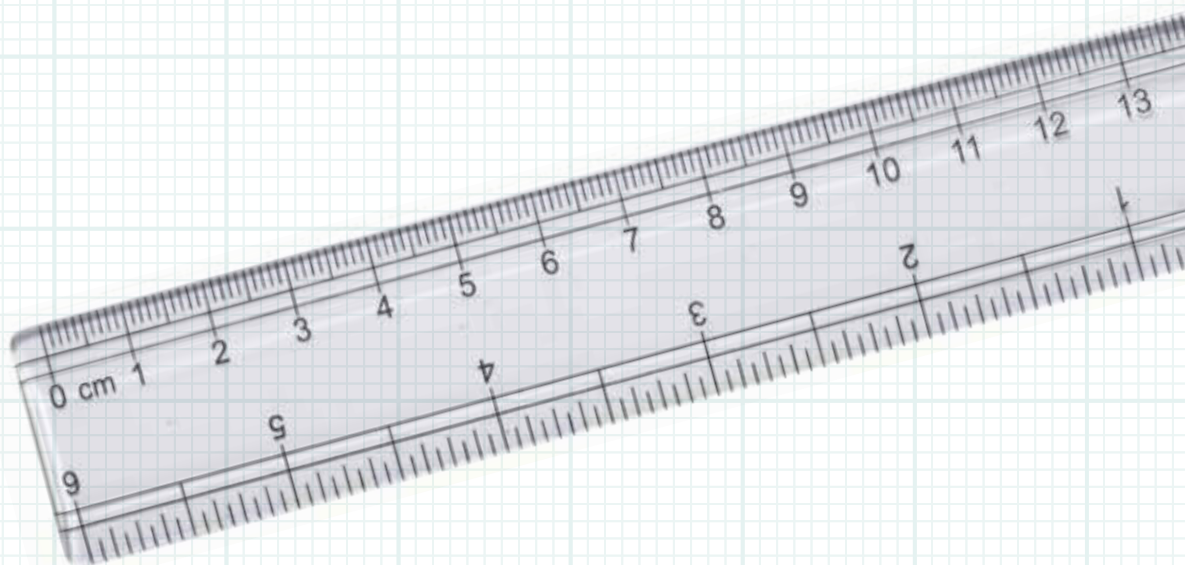


“Another set of datasets I think could be powerful at a local level is the Office of Communications (OFCOM) data. It could be very interesting for someone planning a business. For example, it allows to assess what is the level of 4G coverage in an area”, Dan says. “If you were uber, you might question what’s the point of moving into an area if there’s no 4G coverage”. The use of such data is limited because of embedded rights, like data from mobile phone companies.

Dan is also working on the Active Places data from Sport England¹⁷⁶, a dataset of every facility or venue where people can get active¹⁷⁷. “It lists about 30,000 sports facilities, and is quite frequently updated”, says Dan. “It’s a good example of a great dataset many people are not aware of”.

Dan’s biggest concern is understanding where Open Data is going. “I’m not sure there will be an ongoing commitment to Open Data from Government. Moreover, many local authorities are doing the bare minimum to release data, with some exceptions like Data Mill North and Calderdale”. Dan also worries about the impact of changes within government on departments publishing interesting data; he mentions the Department for Environment, Food and Rural Affairs (DEFRA), which has seen three secretaries in a very short period of time.

“We in the community have to step up a bit and take responsibility for showing the economic value of Open Data and make the argument that data should be released. But we also need to prove it is being useful. Once Open Data is out in the wild, is anyone using it? What’s its benefits. At the same time, we need to push for feedback mechanism to publishers. What is missing is a home for guidance and thought leadership, as well as easier-to-find support”.



¹⁷⁶ Active Places Open Data: <https://www.activeplacespower.com/opendata>

¹⁷⁷ Active Places is not connected to OpenActive, which will be mentioned later

Analysis & best practice recommendations

→ The interviews we have presented in the previous section represent a varied set of data uses with a local flare. There are several evident pockets of data-driven activity, as well as difficulties at using data in an effective way. In general, we note that data-driven initiatives form around two broad phenomena:

1. Wherever there is a local tech community, data-savvy initiatives are started in collaboration with an institutional entity
2. Small organisations develop awareness that their operations could be better run by adopting data, and seek help from external entities

Local organisations often work at a neighborhood level, therefore the most popular datasets are those with neighborhood-wide granularity. It is not surprising that the Indices of Multiple Deprivations, based on Lower Layer Super Output Areas, were mentioned by almost every interviewee. One example provided by David King illustrates how useful hyperlocal datasets are: housing associations often manage estates whose boundaries coincides with those of a single LSOA; as a consequence, any statistic about a given LSOA is, in fact, a statistic about an estate and its residents.

Similarly, there is a striking lack of use of data released by local authorities. Users take issue with the data being at a level that is of no use. Most local authorities collect and release data by electoral wards. This is more often than not an unhelpful aggregation level for agencies operating locally. Large national organisations often manage to disaggregate their data at a local level; this was very evident in the work of homelessness charities. The only exception comes from the Data Mill North (formerly Leeds Data Mill) which publishes data on behalf of several local sources¹⁷⁸, therefore offering a diverse range of aggregation levels.

Demographic and deprivation datasets are used effectively to build population profiles pre-intervention. IMD is used across multiple sectors, while local authority officers use a lot of health related data; charities use a mixture of their own bespoke data, census, and open data whenever they have the resources to do so; housing providers tend to use IMD and Community Insight. Spending data was mentioned frequently, but the quality and promptness of data releases is hotly debated.

We did not find any startling, surprising, or uncommon use of data, with one exception: the use of Google Earth to identify sites for potential local solar energy production by the Brighton Energy Coop.

¹⁷⁸ Data Mill North wins ODI Publisher Award: <https://datamillnorth.org/community/blog/data-mill-north-wins-odi-publisher-award/>

Austerity is having a major impact on local authorities, with some publishing the bare minimum open data required by the Government. Many no longer employ data analysts or policy officers, as it was common in the early 2010s.

Data is commonly used by voluntary organisations to build background information to write bids for grants. Many organisations provide direct help in doing so, such as DataKind, the Trafford Innovation Lab, and Data Orchard. However, there is some evidence that there isn't any further regular data use, other than one-off initiatives like the Data Dives. This is not necessarily a negative point; it is just an observation that data tends to be used on a project basis. However, we need to note that a lack of skills and resources is reported, particularly in smaller charities. In these situations, datasets aren't commonly used as evidence for decision-making and policy-making. As several interviewees reported, charities often have one single "data person", whose job is mostly data entry; no intelligent analysis ever happens. This often depends on how funding in the sector works: funders don't ask for data post-funding, as success isn't defined on quantitative markers. Data is often only used at grant-writing time to inform or, in the worst cases, to "embellish" the bid. Many interviewees also complained about the difficulty of finding data relating to a local area or sector 'all in one place'. Most felt it is time-consuming and frustrating.

Data sharing and collaboration between different organisations, especially charities, seems to be an issue. In part this is caused by strict statutory requirements, but most of the time it is triggered by a "not invented here" culture. As collaboration on local issues could be potentially groundbreaking, it is vital that funders become aware of this and start giving preferential treatment to consortia and joint-ventures, on the model of academic funding by the EU.

While we were researching for this report, Future Care Capital published an in-depth report¹⁷⁹ which focuses on the the potential of health and care data, and makes a series of recommendations on how to realise that potential. These include: establishing data-driven business clusters for new health and care enterprises backed by Government, the establishment of 'Living Labs', and introduction of skills training to help prepare the future workforce for the increase in demand for data-related job opportunities.

Another category of data use is that of "finding suitable locations", as we have seen from both the Brighton Energy Coop or Shared Assets. It is important to note that this isn't just about "using maps": Shared Assets suggests that more interesting datasets can be employed, for example those about land ownership.

¹⁷⁹ Unleashing the potential of health and care data: <https://futurecarecapital.org.uk/policy/intelligent-sharing-unleashing-the-potential-of-health-and-care-data-in-the-uk-to-transform-outcomes/Award>:

Data is also used to challenge the local authority's decisions, as it is in the example, offered by Tim Davies, of the report suggesting alternatives to waste management in Gloucestershire. An entire community coalesced around a constructive opposition plan to local policy, and used data to develop an alternative business case.

The advent of smart meters, connected monitors, and generic IoT devices, is also enabling local collaborative approaches to energy, by monitoring energy production, comparing it to market demands, and proposing alternative, better deals, to communities using evidence of their use and production. This points us in the direction of data becoming the evidence on which to define community development strategies based on co-production.

Interesting work in this respect is being led by the What Works Centre for Local Economic Growth¹⁸⁰, who are reviewing the evidence base on policies for local economic growth using more robust methodologies than those used in the past.

A summary of the data assets used and examples of projects for which they were used can be found in the following table.

Information Source	User	Data	Usage
DataKind UK	NEPC	Open Data Citizens Advice Bureau	Understanding local child poverty
DataKind UK	NSPCC	Open Local Authority Data on Alcoholism IMD	Families in adversity
DataKind UK	LLamau	Private Data	Improvements in management of youth homelessness
DataKind UK	Welcome Centre, Huddersfield	Private Data	Predict repeat users of the centre, a food bank
DataKind UK	Global Witness	Companies House	Leads for investigators
DataKind UK	We Farm	Private Data (SMS, phone calls, etc)	What farmers talk about, what are their service needs
Centrepont	Homelessness charities	Centrepont Databank	Charity bids to apply for funding
RSA	RSA and local communities	Surveys administered by the Connected Communities project	Murton Mams (Murton) Treasure your wellbeing (Liverpool) Community chest funding (Tipton) Local Nets (Bretton) Social Mirror (Knowle West Bristol) Social Mirror (Knowle West Bristol) Talk for health (New Cross Gate) Community organising programme (Wick, Littlehampton)
Open Active		Data from sports organisations	Supporting sports organisations release data in a standard format, in order to increase and improve participation
Bath:Hacked	Local schools	Smart meter gas and electricity usage	Energy Sparks
Bath:Hacked	Local residents	Dataset of restaurants with gluten-free options, donated by a resident	Generation of a collaborative dataset of allergens in local restaurants

360 Giving	Julian Tait	GrantNav data	Analysis of grant distribution for the National Lottery; identified inequality of funding across the UK
HACT	Housing associations	Communities Insight	Grant applications
HACT	Housing association	Housing data standard	Help data sharing and collaboration among housing providers
Local Trust	Local areas (recipients of funding)	IMD Topic analysis of HA strategic plans	Prioritise endowments to areas in need, Check if strategic plans match local needs
Place2Be	Local schools	Edubase NPD ONS	Verifying outcomes of counselling projects
Plymouth Cubed	Local community	LIDAR data	Crowdfunded project for Minecraft players
Affinity Housing	Affinity Housing	Own data	Identify fuel-poor households
Devon Communities Together	Local community	JSNA IMD	Encouraging students use data
ODI Devon, Libraries Unlimited	Self use	Private data from libraries	Insight into social value of local library
Shared Assets	Ecological Land Coop	DEFRA data Met Office climate data Land Registry data Ordnance Survey data UK Soil Observation data	Finding land for smallholding development, Release of spreadsheet with needs/data available
SCVO	Local voluntary sector	Private data (surveys) Data gathering workshops Sandwell Trends	Help organisations apply for grants, Strategic decisions
University of Southampton	Local community	Food hygiene OSM Land Registry Public transport agencies Availability data for PC Availability data for rooms	University of Southampton Map
Tim Davies	Local community	Air quality data Open Corporate Population forecast Spending, Contracts	Report to oppose the local incinerator plans, and suggest an evidence-based alternative
Data Orchard	Local organisations in Herefordshire	ONS Local authority data Public Health England Sport England	Several projects related to wellbeing
Two By Two	Tourists and local families	Footfall data IMD	"Make Sale Smile" funding to create local art trail
Trafford Innovation Lab	Local community, Local authority	Fingertips Local health profiles Prescribing data North West ambulance response data Private data from GPs	Increased cervical cancer vaccination rates, Increased presence of defibrillators
Fieldfare	Rural business funding applicants	Local data captured through Google forms; ONS data, population; crowdsourced business data, DCLG data, BIS data	To support applications for funding
Brighton Energy	Self use	Energy production and demand (half hourly); Google Earth; MINT (business data); Valuation Office Agency (building sizes);	Monitoring energy supply (solar) and market demand; identifying problems with solar arrays / panels; informing strategy on positioning of arrays; identification of suitable sites
Southern Policy Centre	Education groups	Ordnance Survey boundaries; ONS demography/population/ethnicity; DCLG homelessness; DfE and local authorities Education data	Widening participation in Higher Education: Helping to inform strategic decision-making for local authorities and higher education establishments

Best practice for community-level data-driven organisations

This section offers a reflection on what could be useful to encourage the development of local initiatives which, informed by data, can be more effectively planned, implemented, and delivered. We have identified a list of common steps to guide organisations use data assets effectively:

4 Steps

1. Use readily available data for an initial understanding of the area of interest and its population
2. Collect new data to address questions that were not addressed by the available data
3. Engage with local experts and community, and follow examples of data uses at a local level
4. Develop your data framework, and seek support

1. Use readily available data for an initial understanding of the area of interest and its population

Every organisation we spoke to goes through an initial phase of researching the area or the local population it is serving. The first step of any data-oriented organisation is, therefore, to research the available data. Many organisations we spoke to seem to find incredibly useful information in demographics data such as those in the Indices of Multiple Deprivation. +

The datasets useful for an initial step change from organisation to organisation, but there is enough widely available data that can be used to form an understanding of the needs being addressed. Such data needs not be groundbreaking, but researching it, analysing it, and using it forms a first step in becoming a data-oriented organisation, or in laying out a data-driven project. As highlighted by David King, a LSOA often coincides with an entire housing estate, which is a level of granularity useful to local community projects.

Especially at a local level, organisations tend to be small and have few staff who could get to grips with data. Many of them start by analysing available data, rather than running ambitious data science projects. Sometimes, as Emma Prest suggested, local organisations just need help with their spreadsheets.

Sometimes, it is appropriate to send FOI requests, as Centrepont did at one point. If the openly available data is not good enough, Freedom of Information requests can be an effective way of supplementing it. The WhatDoTheyKnow¹⁸¹ website makes it really easy to make and search requests. When requesting data, ask the organisation to publish the data on their website / open data portal with an open licence so others can also use it. Starting from the available data will help assess what is the potential of further development.

2. Collect new data to address questions that were not addressed by the available data

Not all data used in the first step will be a perfect match. It is not likely to be. The second step in any organisation embracing data-driven operations will be to collect the data it needs. To do this, several options are available. Many small organisations opt for online surveys, which are easy to administer within a financially constrained environment; larger organisations, such as the RSA, used an army of social researchers to run door-to-door surveys. It is also worth noting that, increasingly, there are standardised survey tools that can be used by organisations low on staff and time. This has the added benefit of creating comparable datasets that can help organisations to benchmark themselves against others.

At this stage the data collected should have a direct operational impact. Some of the best example of data uses we found start with asking “what is working in our operations, and what is not working?”. The Welcome Centre food bank in Huddersfield improved outcomes by looking at how likely their users were likely to be repeat users; Llamau in Wales evaluated what categories of users were most likely to drop out of their service net. The Energy Sparks project run by Bath:Hacked illustrates what incredible results can be achieved by encouraging data sharing in a way that benefits learning; the work of Shared Assets is all centred around better data practice and is producing simple but potentially community-changing outcomes by identifying land for smallholdings. Similar initiatives can be successful by having a clear outcome in mind. These examples show that efficiency can be improved through simple exercises of data collection and analysis, by adapting service delivery dynamically.

We found several examples of projects that used data analysis as a way to inform operations, or re-evaluate ongoing services. The case of We Farm's text message service is remarkable in this sense: it enabled a rethink of a product that was already in use, based on wrong assumptions. The idea of data engineering for product building, coming from the start-up culture, is exciting but often overhyped: at a local level, smaller analytical steps can deliver improved outcomes.

3. Engage with local experts and community, and follow examples of data uses at a local level

There are many individuals and organisations who operate in the wider “data economy”. Seeking help does not come necessarily with a huge price tag, and the skills swap networks can provide benefits to everyone operating locally. Starting meetups can help galvanise a technical community that can help identify demand for data, find local sponsors, and instigate grassroots partnerships with local councils, as the Bath:Hacked example illustrates. Think about the Trafford Intelligence Lab and the work they did with Two By Two on the Make Sale Smile project: local experts worked with a local business to benefit the community.

Data collection and analysis themselves should be run together with the communities they refer to. The most effective approaches we have heard of display an element of co-production or co-creation whereby data collection is designed together with the community it is trying to serve. The Communities Connected project leads the way: its surveys were “played back” to the community, with the goal of informing a discussion to co-design and implement projects that make sense in the local context. The Murton Mams initiative's success is a great example of what co-production can achieve.

Organisations, small and large, need to be encouraged to overcome the “not invented here syndrome” by funding schemes that encourage cooperation and “data commons”. The Centrepont Data Bank, bringing together data from several sources which are then re-shared openly, is a good blueprint to follow.

4. Develop your data framework, and seek support

It is key for organisations of all size understand how data is going to impact operations, and what skills and procedures are required at all levels to make the use of data effective. There are many initiatives to help small organisations bring their data approaches to maturity. The work done pro-bono by Data Kind UK is a good example; organisations like Data Orchard, a social enterprise, are ready to work with charities, communities, and the wider public sector, to make effective use of data. They also help small organisations develop their own data maturity model.

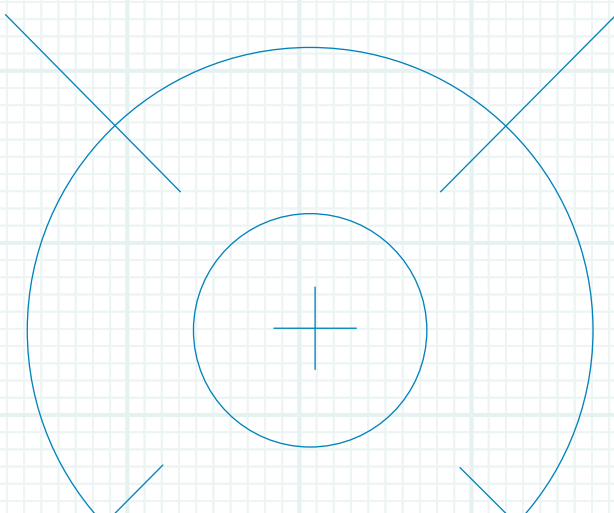
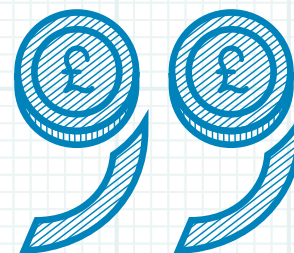
Data standards help people and organisations share work. If you are thinking of publishing some data, then first of all check if you can publish it using an existing standard.

Final remarks



This report has presented the results of our research into the varied approaches to using data at a local level. It presents the outcomes of interviews conducted with 20 experts in the field, ranging from local authority officers, to charity managers. The report identifies the datasets most commonly used, and offers examples of the most interesting data-driven projects that benefit local communities across the UK.

It seems apparent that there are pockets of data-driven activity at a local level, but it is also true that many organisations face challenges in terms of availability of data at the right level of granularity, a shortage of resources or skills, and most only use data on a project-by-project basis. We identified a set of project blueprints that could benefit local communities by running data-driven initiatives, which are likely to improve the impact of local operations across sectors.



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Mark works with people and organisations who want to make the most of open data and digital technology. He is Director of AHA Digital Ltd, and an Associate of Southern Policy Centre, the think-tank for southern England. He coordinates ODI Hampshire, a Community node of the Open Data Institute (ODI).

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Mark has led technology and business change projects across several sectors, including retail, financial services and local government. While at Hampshire County Council, Mark led the Hampshire Hub initiative which Lord Maude recognised in 2015 as a leading local authority champion for open data.

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Giuseppe has written and spoken extensively on the topic of data and openness and is a co-founder of Open Data Camp, the UK-wide unconference on Open Data, and UK Health Camp, an event bringing together the digital health community. He is a member of the Local Organising Committee of FOSS4G 2018 Dar es Salaam, the international conference on Free and Open Source Software for Geography.

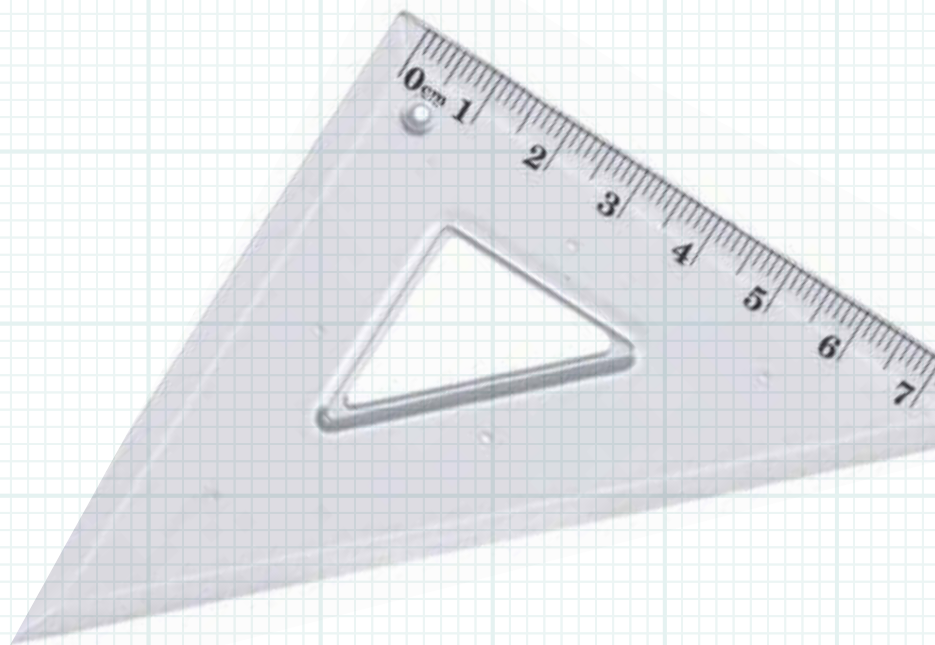
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About Power to Change

Power to Change is an independent charitable trust that supports and develops community businesses in England. No one understands a community better than the people who live there. Power to Change works with community businesses to revive local assets, protect the services people rely on, and address local needs.

Power to Change's vision is to create better places through community business, using their endowment to strengthen community businesses across England, by providing money, advice and support to help local people come together to take control. At a time when many parts of the country face cuts, neglect and social problems, Power to Change wants to make sure local areas survive and stay vibrant, by being bold, collaborative, open and informed.

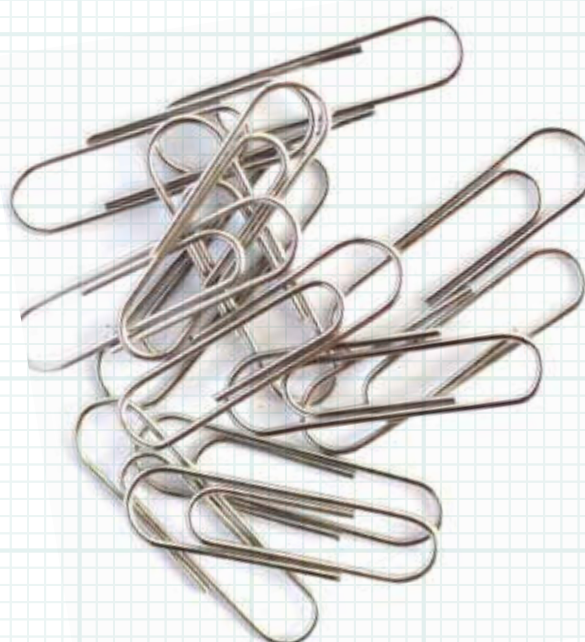
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