

# How can the Scottish third sector make best use of Open and Big Data?

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Scottish Universities Insight Institute

## **Data for reuse – are you ready?**

While there are potentially huge and transformational gains to be made from big and open data, the thought of sharing data or exposing it to the world still causes anxiety. Education and trust are crucial, not only in terms of what can or cannot be published but also the quality of source data and how we reuse it.

In this second workshop report, Gavin Starks from the Open Data Institute talks us through their initiatives to drive public engagement and data standards. Data quality is a sentiment echoed by economist Warren Munro who tells us to make sure it is fit for purpose before we let it influence

our decisions. Lastly, Rikke Ivershot from the Institute for Research and Innovation in Social Services talks us through data visualisation and how it can our make findings accessible to larger audiences.

So the question is, 'How can the Scottish Third Sector make best use of Open and Big Data?'

## **Open Data Culture**

Keynote speaker Gavin Starks,

CEO of The Open Data Institute (ODI), London



Take a few minutes to read Gavin Stark's profile on the ODI website and you get some idea of his innovative mind and remarkable career. And he joins great company: the non-profit ODI was founded by Sir Tim Berners-Lee, inventor of the World Wide Web, and Professor Sir Nigel Shadbolt, an originator of the interdisciplinary field of Web Science.

An incredible start-up team, so what is the ODI all about? Put simply, their mission is to 'unlock the value of open data'. The once web of documents has evolved into a vast web of open data and the more people embrace and engage with information, the more opportunity to create change.

In their first two years, the ODI have made impressive progress: secured substantial funding for R&D and business start-ups with the potential to create social, environmental or economic impact; introduced a quality stamp for open data;

initiated a global conversation around open data, connecting like-minded organisations under the umbrella of ODI 'nodes'; taken the data conversation out into the public sphere with workshops, lectures and data-inspired art.

### **Why is open data so important?**

We need to support the world's growing population, currently 7 billion plus people, which means facing up to the big social, environmental and economic challenges ahead. And with politicians across the globe pushing open data to the top of their agendas, it clearly has a role to play. The amount of data produced is doubling every two years and more organisations are making it openly accessible. This creates opportunities to access new knowledge and perspectives and strike up innovative partnerships – vital to achieving sustainable impact.

***“a new era in which people can use open data to generate insights, ideas and services to create a better world for all”***

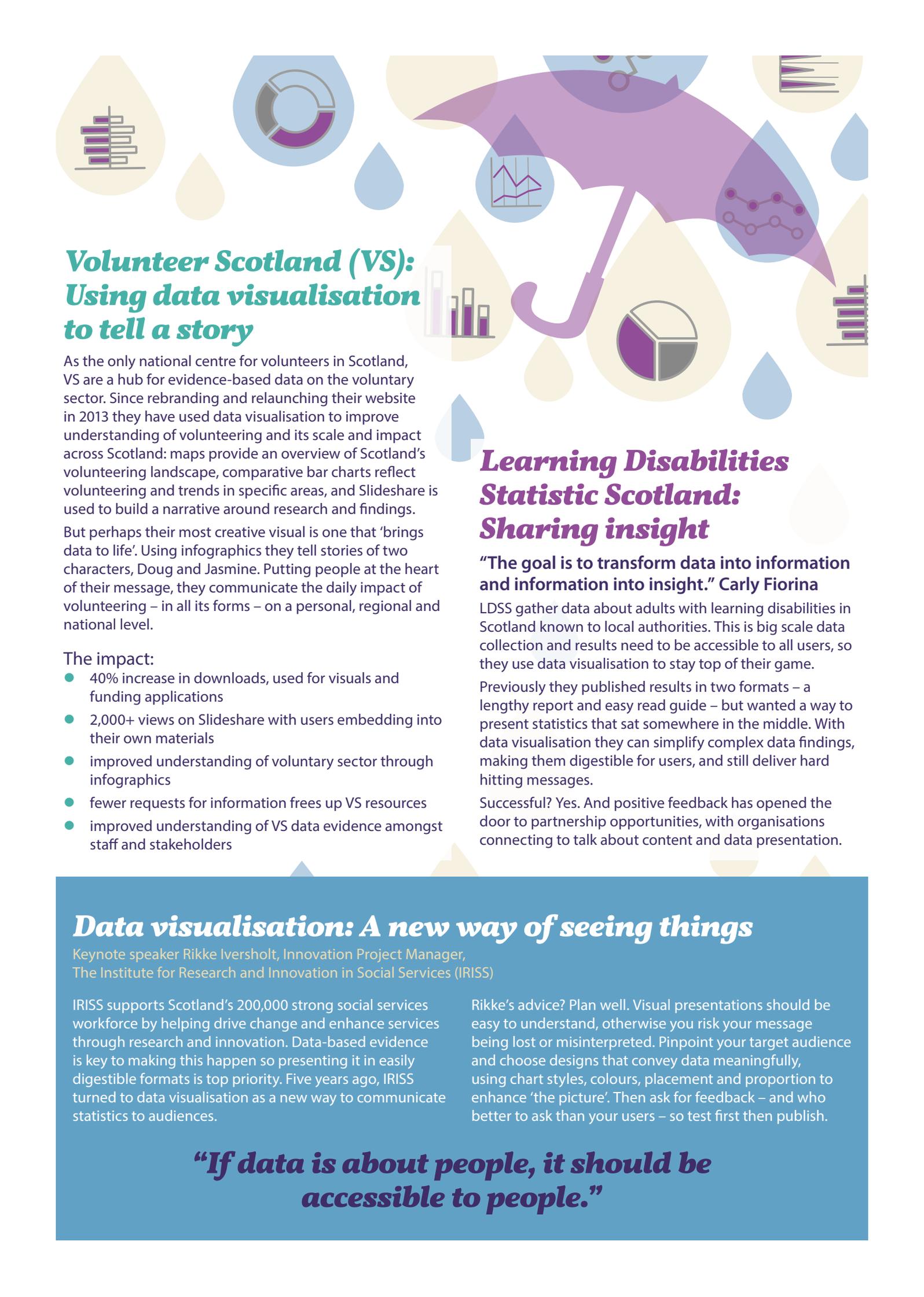
G8 Open Data Charter 2013

### **Transparency – worried or excited?**

Look at it from this perspective – how has the internet changed our lives? Yes, there are obvious negatives in the way people [ab]use it, but most would agree the positives outweigh them by far. The same can be said for open data – the knowledge we can gain and potential impact on society is huge. We need to focus on developing more trust around open data – its quality and the way we interpret, reuse and share it – and encourage more dialogue on what should be open, shared or closed.

Find out more about the ODI's work and publishing good data here. <http://theodi.org/>

***“Open data is data licensed for use by anyone, for any purpose and for no cost”***



## **Volunteer Scotland (VS): Using data visualisation to tell a story**

As the only national centre for volunteers in Scotland, VS are a hub for evidence-based data on the voluntary sector. Since rebranding and relaunching their website in 2013 they have used data visualisation to improve understanding of volunteering and its scale and impact across Scotland: maps provide an overview of Scotland's volunteering landscape, comparative bar charts reflect volunteering and trends in specific areas, and Slideshare is used to build a narrative around research and findings.

But perhaps their most creative visual is one that 'brings data to life'. Using infographics they tell stories of two characters, Doug and Jasmine. Putting people at the heart of their message, they communicate the daily impact of volunteering – in all its forms – on a personal, regional and national level.

### **The impact:**

- 40% increase in downloads, used for visuals and funding applications
- 2,000+ views on Slideshare with users embedding into their own materials
- improved understanding of voluntary sector through infographics
- fewer requests for information frees up VS resources
- improved understanding of VS data evidence amongst staff and stakeholders

## **Learning Disabilities Statistic Scotland: Sharing insight**

**“The goal is to transform data into information and information into insight.” Carly Fiorina**

LDSS gather data about adults with learning disabilities in Scotland known to local authorities. This is big scale data collection and results need to be accessible to all users, so they use data visualisation to stay top of their game.

Previously they published results in two formats – a lengthy report and easy read guide – but wanted a way to present statistics that sat somewhere in the middle. With data visualisation they can simplify complex data findings, making them digestible for users, and still deliver hard hitting messages.

Successful? Yes. And positive feedback has opened the door to partnership opportunities, with organisations connecting to talk about content and data presentation.

## **Data visualisation: A new way of seeing things**

Keynote speaker Rikke Iversholt, Innovation Project Manager,  
The Institute for Research and Innovation in Social Services (IRISS)

IRISS supports Scotland's 200,000 strong social services workforce by helping drive change and enhance services through research and innovation. Data-based evidence is key to making this happen so presenting it in easily digestible formats is top priority. Five years ago, IRISS turned to data visualisation as a new way to communicate statistics to audiences.

Rikke's advice? Plan well. Visual presentations should be easy to understand, otherwise you risk your message being lost or misinterpreted. Pinpoint your target audience and choose designs that convey data meaningfully, using chart styles, colours, placement and proportion to enhance 'the picture'. Then ask for feedback – and who better to ask than your users – so test first then publish.

**“If data is about people, it should be  
accessible to people.”**

# Café conversations

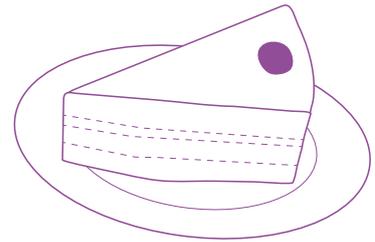
## Café conversation with Nick Bailey, Co-investigator at the Administrative Data Research Network (ADRN) and the Urban Big Data Centre Scotland (UBDC)

I work on two data projects with similar aims: to make administrative and big data accessible to academics and researchers and encourage engagement. We train researchers in how to analyse and interpret data and provide a secure environment for agencies and bodies to share data.

There is real advantage in joining data sets because connections become clearer and data more valuable. Take benefit sanctions – are there implications further down the line? By looking at data on the welfare benefit system and education or penal systems together, we can tell if interventions like these generate hidden costs in other areas. For example, disruption to diet and resources might encourage shoplifting, impact the health service or overall family welfare. With the potential to go back 25 years, there is huge scope to uncover data that can help shape future policy.

### What we discussed

- UBDC helps build partnerships by connecting organisations and individuals willing to share data.
- Administrative data is subject to the Data Protection Act so confidential information is stripped out before being used for learning purposes. Likewise for research – data is made safe before being shared.



## Café Conversation with Eleanor Burt, Senior Lecturer in Management, University of St Andrews

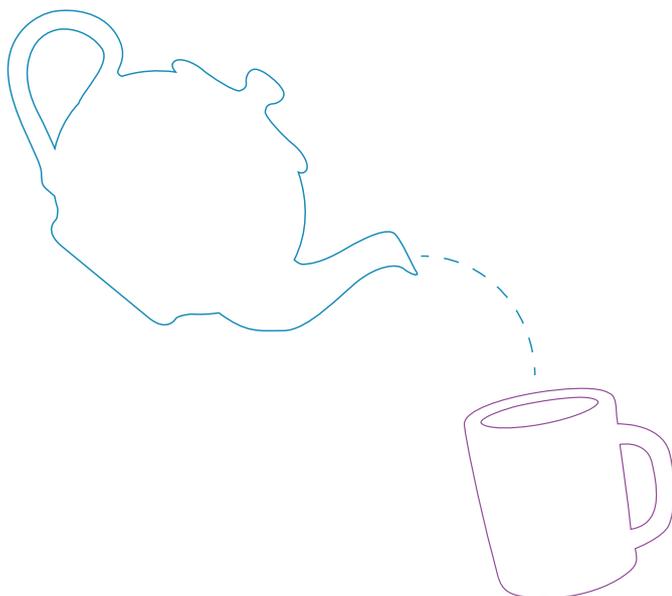
Eleanor prompted her audience to share some big data experience:

**Get smart:** Do regular surveys to assess the impact of your services on clients. Use data to allocate funding and measure success of specific programmes.

**Get the picture:** More emphasis on measuring social rather than economic value. And more local level data too.

**Get it together:** If your organisation inputs information into a central database, maximise insight with a consistent approach to data input and quality.

**Get digital:** Use video to let volunteers and service users tell their story or personal journey. For research, embed questions into video – focus on personal experience can produce rich qualitative data and valuable insight.



## Café Conversation with Rikke Iversholt, The Institute for Research and Innovation in Social Services (IRISS)

Rikke explained how IRISS works with partners on data presentation: Collaboration is based on equal investment of time which means we work with and learn from each other. Support and resources are free, and we focus on the best way to present trends. Learning from past mistakes, we know to avoid information overload – simplicity is the best approach to building a coherent and persuasive argument, whatever presentation format you choose. Our experience shows the public respond favourably to this so we take key findings and create a visual that lets the most powerful points stand out – time consuming to begin but soon gets easier. Get in touch if you are interested!

### What we discussed

- The I.ROC process: a validation tool used to measure service users' mental health and well-being at three-month intervals. Score gives indication of most valuable services and effect on users.
- Volunteer travelling time: should be reflected as time dedicated to volunteering but not yet accurately recorded with time spent volunteering.

## Data health check – why scepticism is good

Warren Munro, economist and population analyst, joined us by video link from Qualicum Beach on Vancouver Island in Canada to tell us how he successfully challenged data used to justify local school closures.



After learning the only high school in his hometown was one of four schools recommended for closure on the island, Warren did some research of his own.

Analysing population estimates given as evidence, he noted the method of calculation used by the regional statistics agency had changed over the past decade but was not public. Several calls later, Warren was told the agency used telephone landline data as indicators of population change and with this forecasted a decline in school enrolment numbers.

However, in his own population forecast based on census and historical school enrolment data, Warren's findings showed more families had moved into the area than those cited and that trends indicated a rise in future enrolments. So he challenged the integrity of data supporting the closure and highlighted future financial implications if it went ahead. His evidence, along with public backing, was enough to get the decision overturned.

**Warren's message is clear: ask yourself, where did this data come from?**

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## Join the conversation

The Scottish Network for Third Sector Data exists to link third sector organisations and researchers interested in the collection, analysis and use of data on the third sector in Scotland. It provides details of relevant events, training, research and data for the Scottish third sector.

Membership is free and third sector organisations, public sector bodies, academics and students interested in third sector data are encouraged to join.

The workshop series is being organised by Alasdair Rutherford (University of Stirling), Eleanor Burt (University of St Andrews), Chris Yiu (SCVO) and Rikke Iversholt (IRISS).

### Acknowledgments

This event was very much a collaborative effort so a big thank you goes out to our keynote speakers, presenters and moderators. A special thank you to Hanover Scotland for providing the venue and the Scottish Universities Insight Institute for their help in organising this event.

### Scottish Network for Third Sector Data information

Increasingly, as well as using externally generated datasets such as the Scottish Household Survey and the Scottish Index of Multiple Deprivation, many Third Sector Organisations are also generating their own administrative datasets related to service provision, volunteering and fundraising, for example. On their own or in combination the different data sources provide both opportunities and challenges for Third Sector Organisations and everyone with an interest in the Third Sector. The Scottish Network for Third Sector Data has been established to bring together academics, Third Sector practitioners and public policy-makers to share relevant ideas, experiences and insights. If you would like to find out more, or to join the network, visit us at [www.thinkdata.org.uk](http://www.thinkdata.org.uk)

Send any questions or comments to: [info@thinkdata.org.uk](mailto:info@thinkdata.org.uk)

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