

Demographics User Group Conference

The Royal Society, 6-9 Carlton House Terrace, London SW1Y 5AG
Wednesday 7 October 2015

“How can data analyses best be communicated to decision-makers?
Visualising – Distilling – Influencing”

Workshop Session

“Communicating data analyses to decision makers – Now What?”

Introduced by Iain Sterland,

Head of Property Insight & Analysis, Sainsbury's

“The DUG Conference is one of the few occasions where people from corporate, academic and government institutions can meet and talk around a theme of common interest.

So this session is your session. This is when you get the chance to think about what you've heard so far, and reflect, share and discuss with your fellow delegates our conference theme - in particular its relevance to each of you and the institutions or businesses in which you work.

This should be where you get most benefit from today – finding a new idea, approach or perspective that you can use and develop?

Our conference theme is about how we can better influence decision makers through data-based analysis, and the particular emphasis is on the visualisation and distillation of the data we use and the story it tells.

Our speakers this morning gave great examples of how data visualisations can make a difference.

Dr James Cheshire showed us how data-science and innovative visualisations can bring London - in all its enormous scale and complexity - to life. Stunning graphics that allow the viewer to quickly see and understand the message, but preserving much of the depth and complexity of the underlying data. James' work fits in the canon of Data

Science, Info-graphics and the emerging category of "Data-Art". Another great example in this field of publishing are the works of David McCandless - the 2009 *Information is Beautiful*, and the later *"Knowledge is Beautiful"*.

Alan Smith gave us his insights from the world of the data journalist, and some very practical principles to take away:

- Design with the data in mind
- Provide context
- Take the opportunity to create empathy
- Employ techniques to surprise

Data Journalism as a distinct field has emerged over the last few years. Alongside the Financial Times, The Guardian's Data blog and Nate Silver's five-thirty-eight.com (formerly of the New York Times) are also notable and established exemplars in the field.

Mark Chivers gave us insight into the world of the decision-maker. He posed the question of whether our decisions are based on rational or normative reasoning, and the complexity of making effective decisions in a world of increasing change, pace and uncertainty.

What is evident from our speakers is that visual devices are a very, very powerful and immediate way to communicate complex information and reveal the stories in the data. Done well, more people will understand your message, and sooner. More people will be persuaded, to a greater degree.

We are, of course, on a long and upward trend in which our lives are becoming more visual and high-definition in every way. The driver is the brute-force of technology. Retina displays, smart-phones, high-bandwidth broadband and insane amounts of processing power for comparatively little cost all conspire to mean that most websites - indeed most blogging sites - now achieve the look, feel and quality that was once the preserve of high-end fashion magazines and periodicals.

And there are two complementary trends too.

The first is data. Abundant data, Open data, Personal data, Location data. Giant conveyor belts of data accumulating every second from our

activity - our loyalty cards, our payments, our phones and soon perhaps from our cars and domestic appliances when the internet of things becomes reality.

The second is the rise of open source software, where coders come together to create software applications that they need and that rival commercial counterparts. Open-source means free - new features are regularly added, and corporates can and do sponsor developers to add features they need.

Open Source is a mainstay of academics and students, and is starting to work its way into business. There are many notable applications and code libraries available across the fields of programming, databases, data-analysis, statistics, geography, web-design and data visualisation.

As analysts we now have amazing resources within reach. Free technology to analyse and visualise data, AND ever increasing oceans of data to use - that has to be a good thing, right?

I think it is, but it is not without some challenges. More data inevitably means more things to consider and bring into our analyses, and figure out who are the main characters in our story. New software whilst free, does not necessarily equate to being accessible - this is in the hands of your institution's IT team. Visualisation libraries like the D3.js give you the power to create innovative and interactive charts, but only if you know how to code.

And then there is design. Powerful visuals require great design, not only in terms honing graphics, layout and colour to perfection but also creating a distilled message and clear visual structure. Truth be told many of the Infographics you see on the Web are finely crafted devices built by marketers and graphic design teams, created for the sole purpose of driving traffic to the sponsor's site.

However! Challenges are there to be overcome. Analysts can learn to code, or coders can be hired, so too can graphic designers and artists. Attitudes in IT are softening as budgets tighten and data analytics and open-source become more main-stream.

So now it's over to you. On your tables you'll find some worksheets to work through.

We thought we'd start you off with an ice breaker to get you talking - can you recall a great piece of analysis that failed to influence the right decision or outcome in your organisation. Please start by sharing your stories – spend 5-10 minutes on this.

Next, capture your thoughts and responses to our 4 key questions, and then open up the discussion on your table. Allow yourselves until around 2.45 for this section.

Finally, as a group, please refine your collective view by selecting the best overall action for each key question.

At 3pm we'll open the floor and get your feedback and thoughts.”