

IMPROVING USER SKILLS AND USER ENGAGEMENT

1. The need to recognise and to put in place the skills, competencies and knowledge to make effective use of official statistics has been raised many times at SUF. We are aware of various broader initiatives to improve 'statistical literacy', such as those promoted by the Royal Statistical Society¹. However, the topic is not always fully recognised. For example, a recent Conference of European Statisticians report with recommendations on promoting, measuring and communicating the value of official statistics appears to be silent on statistical literacy². This adds to the feeling that more needs to be done specifically around official statistics. Confirmation comes from the current PACAC inquiry into the governance of the UK official statistics, which identifies statistical literacy at one of the areas of its inquiry³.

2. Before we knew of PACAC's interest, SUF held a workshop on user skills. Thanks to all who took part, especially to Deana Leadbeter for leading the workshop and writing up the notes of discussions, appended. The workshop mapped the range of skills etc associated with the effective use of official statistics and began to identify potential actions.

3. A clear message from the workshop was that this is not just about the skills etc that users of official statistics need. We also need to ensure that producers are equipped with the skills, competencies and knowledge to make their outputs useful and to engage with users. The full skills challenge is to embrace all of this:

SKILLS of about	USERS	PRODUCERS
USING OFFICIAL STATISTICS	To access and use official statistics	To make official statistics available in a way that allow users to access and use them
EFFECTIVE ENGAGEMENT	To facilitate effective user engagement regarding the availability and use of official statistics	To facilitate effective user engagement regarding the availability and use of official statistics

4. The RSS evidence to PACAC suggests that "The UKSA could and should take much more of a role on promoting and enhancing statistical literacy among the public". Without anticipating what PACAC might recommend, it does seem worth waiting until PACAC has reported before SUF takes the issue of user skills for official statistics, so that anything we do is fully coordinated with UKSA.

¹

https://www.rss.org.uk/RSS/Influencing_Change/Statistical_literacy/RSS/Influencing_Change/Statistical_literacy.aspx?hkey=821bf2f4-8a09-413c-8d22-290e2209a92a

² https://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/2017/CES_4-Value_of_Official_Statistics_for_endorsement_for_upload.pdf

³ <https://www.parliament.uk/business/committees/committees-a-z/commons-select/public-administration-and-constitutional-affairs-committee/inquiries/parliament-2017/governance-of-statistics-inquiry-17-19/>

5. Can I therefore suggest that:

- 1) SUF members feed any further comments and suggestions about user skills (including other relevant initiatives) to the SUF Secretariat [here](#), to add to the notes appended;
- 2) SUF asks ONS to consider our scoping of user skills issues, especially the 2x2 matrix above, in preparing their response to PACAC and their planned programme of work on statistical literacy;
- 3) We return to the issue of user skills, and any further actions that SUF can take, at a future meeting, following the PACAC inquiry.

Paul Allin
Chair, Statistics User Forum

1st March 2019

Statistics User Forum workshop on User Skills 26th November 2018

Draft Notes of Discussions at the Workshop

Introduction

The Statistics User Forum (SUF) is in discussion with ONS on how best to make an input to the development of an ONS/GSS strategy for user engagement and insight. It has been proposed that SUF will hold a series of agenda-setting workshops, to scope out and plan further work on key aspects of user engagement and insight. For further information on the background to this, see Paul Allin's paper of 15th October 2018 entitled "Improving the use and usefulness of official statistics – An action plan for SUF, RSS and ONS" circulated on StatsUserNet www.statsusernet.org.uk.

The first of these workshops was held on 26th November 2018 and was on skills in relation to accessing and using official statistics, including analytical capacity and capacity building. These notes provide an introduction to the issues considered, and a record of the discussions at the workshop. This is still a draft document, and is being circulated at this stage to provide an opportunity for additional comments by e-mail from workshop participants, and from members of SUF who weren't able to attend the workshop. All comments and suggestions are welcome, to help shape the final version of this aspect of the agenda for improving the use and usefulness of official statistics. Please send any comments to statsusernet@ons.gov.uk

The topic of skills considered at this workshop included:

- i. Skills needed for accessing and using official statistics
- ii. Skills needed for producing accessible and relevant official statistics
- iii. Skills that both users and producers need in order to carry out user engagement effectively.

It should be noted that the topics have deliberately been phrased in relation to activities rather than referring to, for example, "user skills" or "producer skills", because it is recognised that producers in one area may also be users for other areas of statistics, and also users may also be responsible, in some cases, for producing some statistics. These topics were considered separately in the workshop, and so comments in these notes are recorded separately under these three headings. However, there is clearly some overlap between the three topics.

The workshops in this series are intended to be agenda-setting, not solving (or even starting to solve) the issues. The plan for the workshop on 26th November was therefore to:

- Draw up a list of what might be covered under the topic of user skills (the issues or challenges);
- Summarise what we know is happening around each of these issues;
- Agree what might be needed in future to tackle the issues;
- Agree on a possible way forward and any actions that SUF itself could take.

1) Skills needed for using official statistics

1a) Introduction

This covers the skills (and knowledge) that users (at all levels) need in order to access and use official statistics and, in some cases, in order to act as information intermediaries and disseminators. This would

be one part of the set of skills that users need to carry out their work. There may be many other skills that users require for other aspects of their work, which would not be within the remit of this workshop

In discussing user skills, it is also important to consider (among other things):

- Where there are skills that are common across all areas of statistics (or at least that are not specific to just one area of statistics) where exchange of ideas and shared working across SUF groups would be relevant and helpful;
- In particular, whether or not there is a basic skill (or art) needed to read any set of statistics, such as checking their source, method, coverage and accuracy? If so, where does this need to be fostered (eg school, journalists, bloggers etc), how and by whom?
- Whether we think there may be some skills and knowledge specific to making improvements in areas covered by other workshops in the series, and whether there are questions we would wish to pose to the facilitators of the other workshops in relation to skills and knowledge requirements.

1b) Requirements / Issues / Challenges

- Internet literacy (knowing how to find things)
- Knowing where to start
- Knowing and understanding metadata
- Understanding
 - How data are collected
 - Why data are collected
 - How data are processed
 - Difference between survey data, administrative data service etc
- Knowledge of software used to make information available
 - Excel spreadsheets
 - Other software
- “Basic” understanding of UK geography (may seem basic to information professional but not to general user)
- “Basic” statistical definitions – values, rates etc
- Understanding context of production
 - In relation to other statistics – national and international
 - In relation to international definitions
 - Where there are requirements to use these
 - Where it is helpful to use these so that can make comparisons
 - The relationship between international definitions and other definitions that may be in use to suit local needs

1c) What is happening / way forward

- Competencies of being a citizen needs to include:
 - Numeracy
 - Administrative geographies
 - Data / landscapes / evidence
- Improving the navigation of the website
- Improving the way data are presented in the Excel file – including tagging etc

2) Skills needed for producing official statistics (and challenges)

2a) Introduction

This covers the skills (and knowledge) that people producing statistics need in order to make the official statistics available in a way that allows users to access and use them.

2b) Requirements / Issues / Challenges

- Not just final product – also needs to include:
 - Capturing / harvesting / encoding
 - Data culture
- Maths (processing)
- Metadata
- Corporate memory
 - Know why decisions were taken
 - Problems exacerbated by staff turnover
- Understanding way data are collected
- Understanding wider picture
- Understanding international context
- Primary keys needed e.g. for joining spreadsheets
- Names – changes / formats etc
 - Keep consistent if possible, but know if there has been a change
 - Know if change of name but same entity, or change of entity
 - => need index / geographies, including historically

2c) What is happening / way forward

- Training in presentation skills
- Rediscover Tufte's principles of Graphical Excellence
Note that these are mentioned in Chapter 1 of The Visual Display of Quantitative Information by Tufte.
- Resource – where do we find it (see further thoughts on this in Section 3.2 below)
- Independence
- Education
- RSS – engagement with schools
- ESRC – Q – Step programme

3.1) Skills for User Engagement – Users

3.1a) Introduction

This covers the skills (and knowledge) that are needed by users to facilitate effective user engagement regarding the availability and use of official statistics

3.1b) Requirements / Issues / Challenges

- Respond to consultation
- Intermediaries
 - Advise on where / how to consult

3.1c) What is happening / way forward

- Need good communicators (like Hans Rosling?)
For example, see Hans Rosling TED talks - <https://www.ted.com/talks>
- David Spiegelhalter's new Centre for Training
(Winton Centre for Risk and Evaluation <https://wintoncentre.maths.cam.ac.uk/>)
- POST (Parliamentary Office of Science and Technology) are a possible route to influence Parliamentary policy-makers
- Speech writers need good stats for their employing politicians, if the latter are numerate. Someone at the SUF suggested the speech writers in Westminster are among the special adviser (SPAD) staff, although on reflection that could miss out those in nearby Party HQs and think tanks who provide regular material for senior politicians....

- Identify key intermediary => point of contact
- Intermediaries
 - Engage Learned Societies to signal important and significant changes and consultations
- Find out more about The Art of Reading Statistics (Finland) for user skills – and present more traditional training in statistical skills as the art of compiling statistics, to make a coherent framework for all statistical skills
- Bring Tufte's principles for graphical excellence to the attention of users as well as producers
- Media training – in particular, what is RSS doing on this, and can BBC News statistics unit help?
- New MPs training
 - What did RSS learn from its approach to new MPs last time round?
 - Engage with POST (Parliamentary Office of Science and Technology) & HoC (House of Commons) library
 - see <https://www.parliament.uk/post>
 - see <https://www.parliament.uk/academic-training>
- ONS to share the statistical consultation good practice
- Share good practice across Devolved Administrations and topic areas (SUF action?)
- Investigate if there are centres doing training relevant to users (eg ESRC Data Archive, Centre for Consumer Research, etc)
- Seek partnerships with academic centres working on issues allied to statistics e.g Cambridge Centre for Risk Studies and (addressing a wider audience) the Winton programme for the public understanding of risk based in the Statistical Laboratory in the University of Cambridge
<https://understandinguncertainty.org/>
- Use examples of Fake Statistics to raise interest in real statistics
- Can anything on statistical literacy be introduced to citizenship education in schools? (though aware that this programme seems to have been markedly scaled down)
- Use 2021 Census for education and awareness, including of use of administrative data alongside Census data
- Competencies of being a citizen (applies both for using stats and for participation in user engagement) needs to include:
 - Numeracy
 - Administrative geographies
 - Data / landscapes / evidence

3.2) Skills for User Engagement – Producers

3.2a) Introduction

This covers the skills (and knowledge) that are needed by producers to facilitate effective user engagement regarding the availability and use of official statistics

3.2b) Requirements / Issues / Challenges

- Making complexity accessible
- Communication skills
- Able to give bad news
 - Telling users the data they want are not available
 - How best to use data that are available (proactive - understanding areas where users work and highlight data / information that could be useful)
- Facilitate ongoing relationship between users and producers
- Empathy
- Remembering previous comments on engagement process (and previous consultation responses)
- Keeping up with discussions on topics
 - On social media

- In other forums
- Know where users are discussing this (their process for considering issues)
- Making efficient use of intermediaries
- But, in any discussions on the way forward, need to consider resource issues.
(Note that many of these comments also apply to the other issues discussed because they all have resource implications)
 - Who will provide the money or people?
 - This would apply to resources both for developing strategy and for resourcing the implementation.
 - The organisations/people who implement any strategy are likely to be different from those who resource it – one overly simplistic model would be the Treasury for the money and Education for the implementation though health would have a different model.
 - How do we persuade resource providers to do so?
 - This is probably a question for down the line but will probably involve identifying projects that are small enough to be taken forward – or already exist – and with sufficient impact to persuade.
 - Time frame will be long and likely to start in the most receptive subject areas and expand from there rather than attempting a more general implementation.
 - Whatever approach is taken, it will require the likes of the people on SUF etc to prevent the initiative running into the sand but we're too few to deliver widely.

3.2c) What is happening / way forward

- Move into mainstream social media like Facebook (StatsUserNet has limited audience)
- Segmenting different types of users and potential users
- Target activities appropriate to different types of users
- UKSA must follow up 2010 report on User Engagement to smaller sporadic users – how are your statistics being used

Deana Leadbeter, 26.01.2019