Getting to know our audience:

*Online communication and the power of user metrics*

Tegwen Green, GSS Good Practice Team
Let’s explore...

WHY?

HOW?

WHAT?

SO WHAT?
“Make users aware of how they can find the information they need”

“Identify users”

“Seek feedback from users on their experiences”

“Engage effectively with users of statistics to promote trust and maximise public value”

“Consult users before making changes”
The UK has solid foundations...

- Code of Practice for Official Statistics
- 2016 Civil Service consultation principles
- Government Digital Service, ONS Digital Publishing
The theory...

Code of Practice
for Official
Statistics

Helpful
1. Inform decision making
2. Support democratic debate
3. Improve communication
4. Challenge misuse of statistics

Professional
5. Deliver high quality statistics and advice

Innovative
6. Develop and implement innovative methods

Efficient
7. Demonstrate value for money

Capable
8. Build capability

Better Statistics,
Better Decisions
Strategy for UK statistics 2019 to 2023
Putting theory into practice – ONS User Personas (2014)

**WHAT?**

**Expert Analyst**
- Statistician for HM Treasury. He has a PhD in statistics. He has contacts within ONS with whom he can discuss key issues.

**Key goals**
- Finds a particular Excel spreadsheet to download
- Cuts and pastes data from spreadsheets into own statistical models and analyses

**Behaviours**
- Tends to know exactly what he wants, but can be frustrated by not being able to find it quickly on the ONS website
- Phones the ONS for help in finding specific data or querying methodology
- Accesses ONS website from

**Motivators**
- "Just give me the Excel data I need"

**Inquiring Citizen**
- Well read and has a degree. Has an interest in politics and current affairs, but is concerned about mis-use of data for political means. She has a public sector pension.

**Key goals**
- Needs the ONS to help me find the data

**Behaviours**
- Not statistical expert so finds out the unbiased ‘truth’ presented by the media and political parties
- Wants to find simply worded, high level summaries and of newsworthy issues
- Uses charts and infographics

**Motivators**
- "I need the ONS to help me find the data"

**Information Forager**
- Head of Human Resources for a medium-sized company. She is a business graduate and a real ‘people person’. She’s dynamic and ambitious.

**Key goals**
- Not statistical expert so looks for data to make practical, strategic business decisions
- Wants high level summaries, narratives and key charts for deeper understanding
- Produces charts and statistics to support funding applications and strategy reports

**Behaviours**
- Proactive – seeking knowledge to affect change
- Doesn’t know exactly what to search for, but aware of general area
- Usually time pressured - needs to understand size of task

**Motivators**
- "I just need enough data to help me make the right decision"

**Deciding level of statistical knowledge**
Putting theory into practice – User Personas - Statistics Denmark

Who are our users?

Functionality needs and usages

<table>
<thead>
<tr>
<th></th>
<th>&quot;Tourist&quot;</th>
<th>&quot;Farmer&quot;</th>
<th>&quot;Miner&quot;</th>
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</thead>
<tbody>
<tr>
<td>Key figures</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Did you know that</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Names statistics</td>
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<td></td>
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</tr>
<tr>
<td>Country profile on the map</td>
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<td>YES</td>
<td></td>
</tr>
<tr>
<td>RSS, Datashoot</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Visualisations</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Maps, graphs</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Saved queries</td>
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<td></td>
<td></td>
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<tr>
<td>Variety of output formats</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Micro data access</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
</tbody>
</table>
Updating the practice – ONS User Personas Round 2 (2016)

Inquiring Citizen
- Key goals
  - Not statistical expert so finds out the unbiased truth presented by the media and political parties
  - Wants to find simply worded, high-level summaries and of newsworthy issues
- Behaviours
  - Reacts to current events
  - Engaged with social media; follows ONS on Twitter
- Motivators
  - Needs the ONS to help me find the truth
- Behaviours
  - Well-read and has a degree. Has an interest in politics and current affairs, but is concerned about mis-use of data for political means. She has a public sector pension.

Expert Analyst
- Key goals
  - Statistician for HM Treasury. He has a PhD in statistics. He has contacts within ONS with whom he can discuss key issues
- Behaviours
  - Finds a particular Excel spreadsheet to download
  - Cuts and pastes data from spreadsheets into own statistical models and analyses
- Motivators
  - Has a passion for data and needs reliable, high-quality data so that he can feel confident in his analysis

Information Forager
- Key goals
  - Head of Human Resources for a medium-sized company. She is a business graduate and a real “people person”. She’s dynamic and ambitious
- Behaviours
  - Proactive - seeking knowledge to affect change
  - Doesn’t know exactly what to search for, but aware of general area
- Motivators
  - Usually time pressured - needs to understand size of task
  - Sees value in ONS data in anticipating changes in workforce and well-being affecting her company.

[Images of personas]
Good Practice Examples

✓ Royal Statistical Society

✓ Department for Work and Pensions – user testing on GOV.UK and metrics from Stat-Xplore

✓ Office for National Statistics – user persona work and their user testing laboratory

✓ The UK Statistics Authority’s Monitoring and Assessment Team – engagement around their stocktake of the Code of Practice
Good Practice – User Testing

How well do DWP statistics meet the needs of our users?

• DWP statisticians ran a series of user-testing sessions

• Volunteers complete a number of ‘information retrieval’ tasks using our statistics pages on gov.uk.

• Used specialist equipment to record participants’ on-screen actions and facial responses. Volunteers encouraged to think out loud
The results...

The Good...
- There’s a lot of useful stuff in here
- That was dead easy to find...3 clicks
- This page is better than just punching it into Google

the Bad...
- Oh no... I can’t look through all this
- Well... that’s not obvious is it?
- Why isn’t it in the search results?

and the Baffling...
- Where’s the data?
- Is this the latest one?
- Am I in the right place?
the UK Statistics Authority asked...

in a survey, bilateral discussions and workshops

draft recommendations for change!
The power of user metrics

- Doesn’t always provide accurate data
- Cannot provide a complete solution
- Doesn’t answer the ‘why’

- Challenge and validate assumptions
- Can help demonstrate how your meeting users’ needs
- Enables you to measure / quantitatively evaluate content
- Comparative analysis: can measure trends
Office for National Statistics
New website in 2016...

We have on average 450,000 unique visitors per month.

On average 70% of sessions use external search to access the site.

We have on average 450,000 unique visitors per month.

14% of our users are mobile users and 7% are tablet users.

81% of sessions are UK based, followed by 4% from the USA, and 2% from India.

NHS, Manchester University and the BBC our top visiting organisations.

15% of our users use online search.

The BBC is the top referrer and brings in almost 10% of all sessions.

Online search has approximately a 78% success rate.

Our top social media channel is Twitter, averaging 8% of sessions.

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14% of our users are mobile users and 7% are tablet users.

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GOV.UK - Variation in homepage views by department

- Some departments have a large variation in the months of the year with the fewest and most hits. This is shown in more detail in the next two graphs...

**Average hits per month on GOV.UK website hits for each departments 'statistical home page', 2015**

DFE's least viewed month still had more hits than any other departments most viewed month.
The power of user metrics

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- Doesn’t answer the ‘why’

- Challenge and validate assumptions
- Can help demonstrate how your meeting users’ needs
- Enables you to measure / quantitatively evaluate content
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The benefits...
Mapping products to personas

- **Expert Analysts**
  - downloadable datasets
  - APIs
  - dashboards

- **Information Foragers**
  - ‘bulletin’
  - supporting quality information

- **Inquiring Citizens**
  - in-depth
  - ‘cross-cutting’ geographical

**Core Data**

**1st Release Commentary**

**Insight Products**

**Visual.ONS**

**beta.ONS**

**Mapping to Personas**

- Expert Analysts: X
- Information Foragers: X

**Visual.ONS**

**Mapping to Personas**

- Expert Analysts: X
- Information Foragers: X

**Visual.ONS**
The challenges – the three C’s

• Consistency
• Collaboration
• Culture
Culture change proposals

- Internally focussed → outward looking
- Ad hoc contact → users at heart of business
- Fellow statisticians → policy makers
- A little on everything → focus on most important decisions
- Organisations → individuals
- Infrequent contact → deep relationships
- Little useful information → measuring what matters.
Summary – lessons learned

• Practice what you preach!
• Understand the questions you’re trying to answer
• Take care interpreting your findings
• Persevere and be patient - changing culture and building relationships takes time!