UBDC Services for Local Authorities

Big Data Workshop for Local Authorities - 12 Nov 2015

Nick Bailey & Des McNulty
Urban Big Data Centre
### Big Data as 'naturally occurring', not designed for research

- Legal or practical barriers
- Analytical challenges
- Infrastructure requirements

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Examples</th>
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<tbody>
<tr>
<td>Sensor systems</td>
<td>Environmental, water, transportation, building management systems, CCTV, Internet of Things</td>
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<tr>
<td>User-Generated Content</td>
<td>Participatory sensing systems, social media, GPS, online social networks</td>
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<tr>
<td>Admin’ve Data</td>
<td>Open administrative data (aggregate); confidential person-level microdata</td>
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<td>Private Sector Data</td>
<td>Customer transactions; business web use (e.g. adverts),</td>
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<tr>
<td>Contextual Media</td>
<td>Media - text, images, sound recordings; weather forecast</td>
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<tr>
<td>Hybrid or synthetic Data</td>
<td>Linked data including survey-sensor, census-administrative records</td>
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“Promoting the use of innovative methods and complex urban data to address challenges facing cities”

Services to connect *researchers* to *data* for *policy-relevant research*
Confidential data – Data Access

• UBDC does not acquire personal data from administrative systems but it does help researchers negotiate access to de-identified or anonymised data

• Shared infrastructure – secure data service
  – Secure computing environment
  – Linkage service
  – Monitoring of use
  – Output screening
  – Data scientist support
Accessing the service

- Independent *Research Approvals Committee*
  - Scientific merit
  - Potential for impact
  - Value for money
  - Fit with UBDC mission
  - Privacy and ethics
  - Feasibility
  - Researcher approvals for confidential data

- Support in application process

- Researchers responsible for analysis, UBDC provides support
Training and capacity building

• Training to support skills development- both introductory and more specialised applications courses (focusing on R and on GIS) ran in summer 2015 – planning more in 2016. Interested to know what training would be most useful to LA partners

• Co produced research and knowledge exchange activity – learning by doing projects together

• SASnet – from Jan 2016 : additional seminars, training workshops and short term problem focused fellowships
Impacts and knowledge exchange

• Developing memoranda of understanding – first one with Renfrewshire Council, another under discussion with Glasgow – sharing data and expertise

• Joint work on making better use of bid data generated through e.g. Future Cities demonstrator

• Opportunities opened out by potential uses of complex data, including protected and administrative data

• Joint event with Scotitsh Government on predictive analytics