Publishing Data to Support Open Public Services

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1 The Data Challenge Posed by Open Public Services

This LeGSB[1] White Paper proposes an approach to publishing data about how local services are designed and commissioned to support the aims of 'Open Public Services'[2].

The key purpose is to:

1. **Enable local authorities and their partners to use data to tell the story of how public services have been designed and commissioned in a particular locality**

2. **Enable citizens, communities and businesses to better understand local priorities and decision making, and engage more effectively in shaping and using local services**.

At the core of the proposed approach is a model which LeGSB believes could enable different, related sources of information to be unlocked, combined and compared in new, innovative ways.

This model identifies five main categories of information that are central to service design and commissioning: Evidence; Outcomes; Resources; Activities; and Decisions.

> **Evidence** is collected to support **Decisions** to allocate **Resources** to shape **Activities** to achieve **Outcomes**

LeGSB believes that, together, these information sources are the fuel to power the engine of a local public sector organisation. The partnership would like to involve councils who wish to organise and publish their information using this approach and central government and supporting agencies who are championing the transparency, and open public services agendas to develop this model.

A pilot of this approach is being developed with Devon County Council who is using it to power open public services in their Waste Management function.

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[1]   https://knowledgehub.local.gov.uk/group/localegovernmentstandardsbody
[2]   http://www.cabinetoffice.gov.uk/resource-library/open-public-services-white-paper

2 Why is publishing data vital for Open Public Services?

The 'Open Public Services' white paper published in 2011 introduces a number of themes:

- Choice – Wherever possible we will increase choice and control
- Decentralisation – Power should be decentralised to the lowest appropriate level
- Diversity – Public services should be open to a range of providers
- Fairness – We will ensure fair access to public services
- Accountability – Public services should be accountable to users and taxpayers

Open Public Services white paper – 2011

These themes require that data is available to the public:

- Providing timely and easily accessible information about what services are available and how good they are
- Ensuring that key data about public services, user satisfaction and the performance of all providers from all sectors is in the public domain in an accessible form.
- This will include data on user satisfaction, spending, performance and equality

Open Public Services white paper – 2011

The key phrase in the above is "easily accessible". One of the important lessons from the data.gov.uk initiative to date is that data that is not in an standard format that cannot be linked with other data is of limited value to people who wish to use it.

So far, 'public data' has typically been published as a series of unrelated 2-dimenisonal spreadsheets. Local Authorities have published data about their payments, senior officer salaries, contracts, expenses, and so on. These have certainly improved openness and accountability, and led to some insight about how local services are organised and paid for.

However, this type of data is unlikely to build into the knowledge economy[3] that invites the public to work with decision makers in the public sector to improve services and outcomes.

Only with standards and linkable data it is possible to effectively answer questions such as:

- What public services are provided by which organisations for which communities?
- What information enables citizens and businesses to be able to participate in local debates on how local services are designed, commissioned, and provided.
- How will this information be provided consistently across the public sector in a way that can be joined up, and compared, on themes, needs, localities etc.
- How are the public to rate the performance of services so that they join up?

LeGSB has been working with some local authorities to explore these points, leading to the vision proposed in this white paper.

3 How data combines to enable Open Public Services

Public Sector Information can be considered over four contexts:

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[3]   http://en.wikipedia.org/wiki/Knowledge_economy

Four Contexts of public data	Explanation
Operational	Data about real people and places, with real needs and circumstances, using real services. i.e. Case Work
Statistical	Aggregated operational data - organised using common classifications and segmentations
Analytical	Analytical data reflects the conclusions drawn from an analysis of statistical data
Political	Political data is the decisions taken to shape services, e.g. budgets, strategies, priorities, targets etc

Figure 1. Contexts of public data

As such if the links, provenance, and quality, of information can be maintained as it is used and re-used across these contexts, then **Decisions** can be based on **Conclusions** reached from **Statistics** gathered from the **Data**. As such the main opportunity for 'Public Open Data' is to invite the public to observe, and contribute, to that information journey.

4   How can data standards support local decision making?

Data that is relevant to the Open Public Services programme held by local public sector organisations is often not all in one place, not in a standard form, not described using consistent terms and identifiers, and not linked to other related information.

Working with several local authorities LeGSB has drawn up a concept model that proposes how some of these sets of data, can link to other sets of data as shown in Figure 2.

If public data were organised in this way, it becomes possible to tell a story of how a public service has been designed and commissioned. An example is shown in Table 1.

Element	Description
Stakeholder Group	Perhaps the residents of a town, or commuters, or low income families, and so on.
Metric	Each '*Stakeholder Group*' will have a set of relevant '*Metrics*'. E.g. The population of a town, take up of benefits, employment rates, length of journeys.
Strategy	An '*Organisation*', or partnership, will have a series of '*strategies'* that are relevant to each '*Stakeholder Group*'.
Assessment	Those '*Strategies*' will have been informed by one or more '*Assessments*' which provide the supporting evidence.
Deliverable	A '*Strategy*' will contain a series of *'Deliverables'* which describe what changes are planned to occur, by when. Ultimately, a '*Deliverable*' should be reflected in a change to a '*Metric*'.
Function	A *'Strategy'* will apply to one or more public sector '*Functions*' such as 'Education', 'Waste Management', 'Social Services'
Service	Functions contain individual '*Services*' such as 'Schools Admissions', 'Domestic Waste Collection', 'Fairer Charging Assessments'.
Metric	The operation of those '*services*' generates further '*metrics',* e.g. Number of Abandoned Vehicles.
Resource	'Services' will be allocated '*Resources*' in budgets and assets.
Agreements	Contracts will apply to '*Services*'

Table 1. Linked elements of local data.

This then enables the public to challenge the rationale behind the design and commissioning of local services.
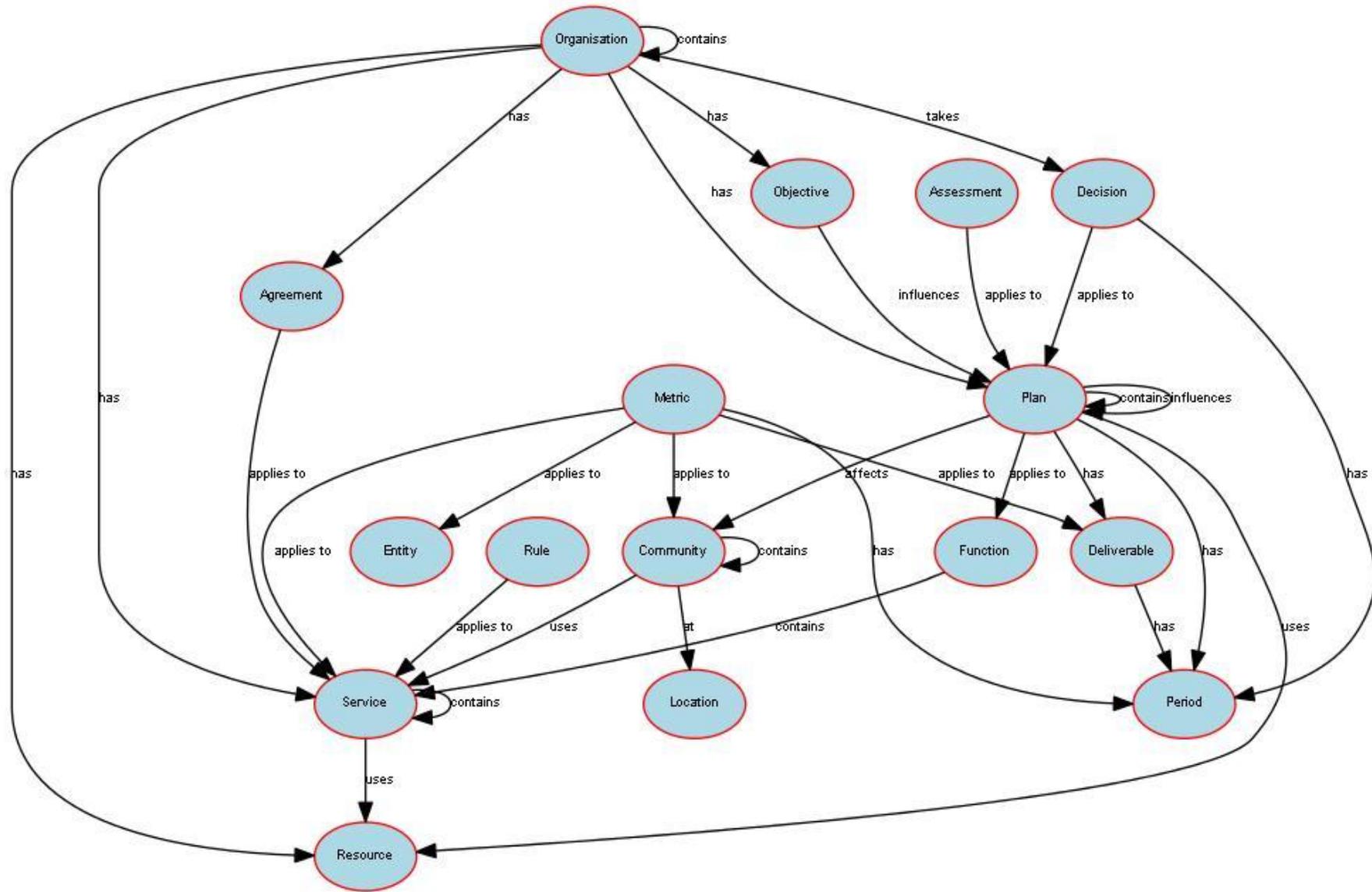
Figure 2. LeGSB concept model linking data.

5 What types of standards are necessary?

No single public sector organisation has all of the information about all of the services for the communities that it serves, and attempts to create a single managed repository are likely to fail. A better approach would enable:

- Each separate organisation to publish just the information for which they are responsible.
- Links between individual data items with other data items in other data sets from the same and other organisations.
- Links to a small set of common definitions and identifiers so that it is clear when data from many sources is referring to the same 'thing'.
- Links from those definitions and identifiers to further richer data and mappings.
- The public to link their data and opinions to public data.

This suggest that it should be 4* or 5* data as defined by Sir Tim Berners-Lee[4]. Specifically, this calls for

Requirement	Description	Example
An Ontology to describe Public Open Services	To define each of the concepts that are contained in the information, and how they may be related to each other.	
Common use of terms and vocabularies.	The language that is used to describe attributes of each concept.	The Local Government Business Model as described at http://standards.esd.org.uk/LGBMDiagram.aspx
Common identifiers	To give a unique code to 'things' that occur in the data.	URI Set of Companies from Companies House – see http://www.companieshouse.gov.uk/about/miscellaneous/URI.shtml

6 Current Progress and Next Steps

LeGSB has been working with Devon County Council to explore this model, and to trial it using the county's Waste Management function as an example.

We are now keen to hear from other councils who wish to organise and publish their information using this approach, and from those championing the transparency, and open public services agendas.

If you would like to get involved join LeGSB on the Local Government Association Knowledge Hub at https://knowledgehub.local.gov.uk/group/localegovernmentstandardsbody

And contact the Director at Paul.Davidson@Sedgemoor.gov.uk.

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[4] http://inkdroid.org/journal/2010/06/04/the-5-stars-of-open-linked-data/

7   Annex: What information is relevant to Open Public Services?

Evidence is collected to support **Decisions** to allocate **Resources** to shape **Activities** to achieve **Outcomes**. The following table provides examples

Category	Types of data	Description	Example
Evidence	Metrics	Statistics that apply to the people, communities and place, and for which change can be observed over time.	Population by ward, Educational attainment.
	Impact Assessments	Reports commissioned to explore an individual theme.	Retail Assessment of a Town Centre.
	Service Insight	Information collected as services are used.	Throughput / Demand, Case Profiles.
	Performance	Measureable indicators	Average time to determine a benefit claim.
	Consultations	Outreach activities to understand the views and circumstances of various stakeholder groups.	Budget Consultation, Planning.
	Satisfaction	Measureable feedback from service users.	Complaints / Compliments.
Outcomes	Objectives	The top level priorities set by politicians	Affordable Housing.
	Targets	Measurable outcomes	Increase recycling by 10%.
	Achievements	Actual outcomes	Recycling increased by 12%.
Resources	Budgets	Plans for how finances are allocated over services and projects	Revenue Budget, Capital Budget. Fees and Charges, Grants.
	Partnerships	The other organisations that come together around a shared strategy.	Councils, Voluntary / Community Sector Police, Health, Justice
	Assets	The items that the organisation owns or has use of.	Buildings, Parks, Knowledge
	People	The capacity that is provided by people	Staff, Skills Contractors Volunteers
Activities	Services	The facilities that organisations offer to customers.	Environmental Health, Waste Collection, Education, Benefits.
	Administration	Back office facilities.	Payroll, Debt Collection, Health and Safety
	Projects	One-of actions.	Build a new swimming pool.
Decisions	Strategies	Plans with deliverables to shape the capacity and quality of an activity.	Waste Management Strategy, Service Plans, Medium Term Financial Plan
	Contracts	The agreements with suppliers that support activities.	Landfill Contract, Revenues and Benefits.
	Payments	The amounts authorised for payment	£100 to ABC Ltd

This may seem like a long unmanageable list of unrelated information, but
- this is the information that local people need to be able to influence local services;
- Local public sector organisations have their part of this information;
- This information meets the definition of 'public data'[5]

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[5]   http://data.gov.uk/opendataconsultation/annex-2