Exploring data skills initiatives to foster public sector innovation

PUBLIC

Our Directors

Thomas Chalk

Director, Data & AI

Thomas is responsible for PUBLIC's data services and capabilities. Thomas is passionate about using data to create positive impact in the public sector, including improving citizen access and reducing cost-to-serve through data.

Elina Lam-Gall

Director, Learning & Workforce Transformation

Elina leads PUBLIC's suite of workforce transformation programmes, including those delivered through our PUBLIC School of Technology.

PUBLIC exists to help to reimagine & build digitally enabled public services

PUBLIC is a digital transformation and advisory agency that works **with public authorities to solve digital challenges**.
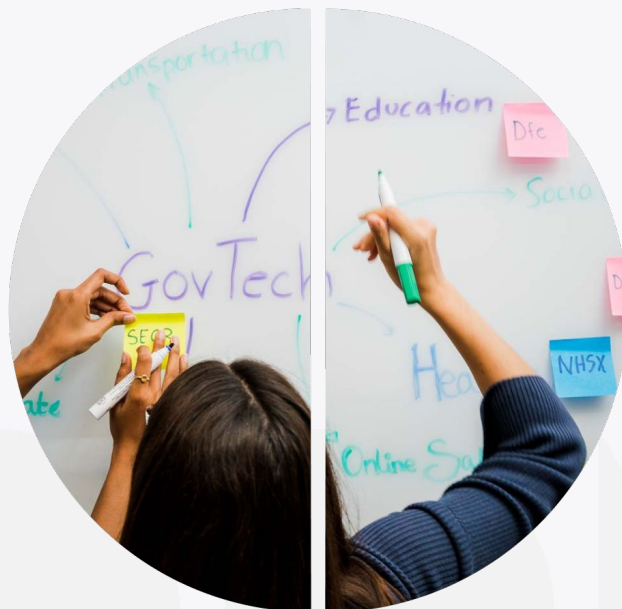
Learning & Workforce Transformation
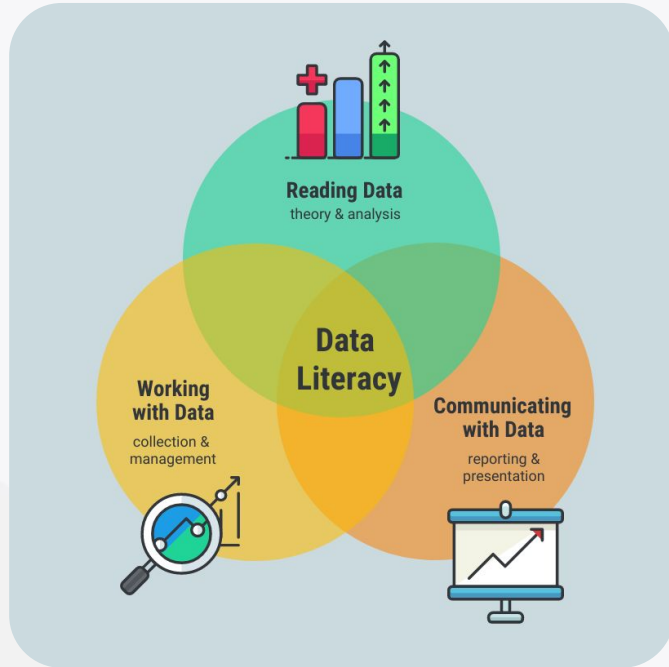
Through discovery, strategy and bespoke programmes

Digital transformation begins and ends with people.

What is 'data literacy'?

What is Data Literacy?

And why is it important?

- Data literacy is the ability to read, write and communicate data in context.

- It includes an ability to understand how data sources feed into analytics and intelligence for business value.

- Data literacy is an important component of running a professional organisation in the modern age.

- CEOs and CTOs recognise data literacy as a core skill for innovation in their business.

- Moreover, data literacy is recognised at a national level and government's have put effort into setting strategic direction for upskilling nations as a whole.

Developing a Minimum Standard

The five key focuses

1 **Data Infrastructure:** Ensuring access to data for all. In a data literate organisation, data is collected, discoverable, reliable, understood, compliant, and actionable by everyone in the organisation.

2 **People:** A role-based approach to data literacy. Scaling people entails forging a data culture where everyone understands the value of data and can speak, write, communicate, and reason with data.

3 **Tools:** The tooling spectrum underlying data literacy. Data literate organisations are intentional about providing inclusive tooling.

4 **Organisation:** Organising data talent for success. Organisation refers to how to effectively organise data talent to promote the access of data insights at scale.

5 **Processes:** Driving data literacy with collaboration. Establishing processes within and between teams to drive data literacy at scale.

Understanding & Measuring Data Literacy

Some finger-on-the-pulse questions

1. How many people know where and how to get data to analyse?

2. How many managers understand how to link a data project to the value it delivers?

3. How many people can develop the right analyses?

4. How many people can interpret and explain analytics output?

5. How many people can use data tools?

Establish the value of data literacy improvement

What can organisations do?

1

Set solid objectives, outcomes and establish metrics

2

Ensure training is 'applied' and offers opportunities for staff to put training into practice

3

Create continuous feedback loop for employees to iterate training

Communities of practice; use case libraries and learner value cases; experts

Case Study: Upskilling a Nation

Data Literacy as part of a National Data Strategy

- Impact on the wider economy.

- This is because it leads by example, provides support and collaborates with others.

- The government is a major employer in its own right.

- Data literacy initiatives have a role in society, as well as the economy, as they can support individuals, groups and organisations to play an active role in our increasingly data-dominated world.

Driving data skills across the public sector: capability, leadership and culture

Driving clarity and coordination

Ensuring formal and vocational education rises to the challenge

Case Study: Upskilling Government Bodies

Office of National Statistics (ONS) have provided training to Local Government Analysts

The courses are all available as online learning to be completed at any time. They are available to local government analysts free of charge.

There are several introductory level pathways, including:

- analytical awareness for non-analysts
- communicating insight
- data acquisition
- data quality
- managing data
- time series
- types of data in government.

There are several analysis and programming pathways, including:

- data linkage
- data visualisation
- data wrangling
- predictive analysis
- reproducible analytical pipelines (RAP)
- statistical analysis
- text analysis.

Data Science Campus

The Office for National Statistics' Data Science Campus works at the frontier of data science and AI – building skills and applying tools, methods and practices – to create new understanding and improve decision-making for public good.

The PUBLIC School of Technology Approach

Our Transformation Learning Approach

A three tiered approach to Data Literacy

Data exists within its context and data training needs to be practical, applied and holistic for any upskilling to deliver impact.

- **Universal Tier:** Introduce the key concepts and skills required for data literacy in you context. Build capability from the ground-up.

- **Practitioner Tier:** Enhance your core data capabilities within your context; progress and scale how you innovate with data beyond your team.

- **Strategic Leadership Tier:** Enable the conditions for data transformation success across your teams and organisation. Strategise across the innovation layers of culture, behaviours, structure and processes, and partnerships and collaboration.

Three Tiers for Data Literacy

A human-centred approach to upskilling and transformation

Foundational Tier

Developing a common data skills standard - bringing all staff up to a minimum standard by embedding mandatory trainings aligned to on-the-job tasks to increase basic data literacy

Practitioner Tier

Defining specialist roles and provision of ongoing correct training. Team skills aligned to business, IT, and data strategy (insource, outsource, upskill, hire) —- derisk

Strategic Leadership Tier

Having strong leadership that aligns strategies and promotes a data culture.

A top down approach to embedding a culture that allows people time to develop the right skills a the right time

Choosing tech stack for promotion of data democratisation.

Contact Us

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