Demystifying data literacy to drive data empowerment

A conversation with

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Managing Partner
Kubrick

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Principal Consultant – Data Management
Kubrick

Simon Hankinson
Partner and Alliances Director
Collibra
Moderated by Mike Meriton
Co-Founder & COO, EDM Council

• Joined EDM Council full-time 2015 to lead Industry Engagement
• EDM Council Co-Founder & First Chairman (2005-2007)
• EDM Council Finance Board Chair (2007-2015)
• Former CEO GoldenSource (2002-2015)
• Former Executive for D&B Software and Oracle
• FinTech Innovation Lab – Executive Mentor (2011 – Present)
Simon Walker,
Co-Founder and Managing Partner of Kubrick

• Simon founded Kubrick in 2016 as an alternative model to solve the digital skills emergency whilst kickstarting the careers of our future data leaders.

• Kubrick is an award-winning data, AI, and cloud consultancy. Through industry-leading training programmes, they have added over 700 professionals to the data and technology ecosystem and supported over 100 organisations.

• Kubrick is the UK’s 2nd fastest growing company (2020 Sunday Times Fast Track 100) and the fastest growing consultancy in Europe (2021 Financial Times 1000).

• Simon is advocate for closing the gender divide in the technology industry, championed by Kubrick’s commitment to hiring 40% female consultants.
There is an accelerating shortage of people trained in the technologies which all industries require in order to stay relevant.

All organisations must compete for a workforce capable of implementing data, AI, cloud, cyber security, and other forms of next-generation technology.
The demand for digital skills

The skills emergency is driven by:

- an accelerating pace of change in the tools and technologies required to compete
- a lack of training from traditional education routes
- a demand from all industries for the limited supply of those already skilled.

In June 2020, Microsoft published their predictions for the acceleration of the 4th Industrial Revolution in the wake of COVID-19 - the effects of which we are seeing unfold today.
Poll

Temperature check: Do you believe the digital skills emergency has or will harm your organisation’s data enablement?
We analysed **10,000** job postings for data professionals.

The **soft skills** required are more universal and still an essential part of facilitating digital transformation.

We can utilise graduates from non-technical disciplines who can **harness their soft skills and learn the required technical skills** your organisation needs.
The solution: understanding and expanding your talent pipeline

Addressing the gender divide

We analysed a pool of 173,000 graduates entering the workforce by:

- Degree discipline (STEM vs Data-aligned)
- Degree classification
- University ranking
- Gender

Including ‘data-aligned’ subjects, such as business and arts degrees, simultaneously increases gender balance whilst solving the skills shortage.
We looked at the talent pipeline from GCSE to A-Level. Undergraduate Degrees and Graduates entering the workforce.

Key Insight: Expanding the talent pool to include data-aligned subjects increases gender balance and expands the talent pool by at least a factor of 2.

Action: To improve gender balance and expand the pool of candidates, broaden your search beyond STEM to include data-aligned degrees.

Female Male

GCSE

A-Level

Undergraduate

Graduates in Work in UK

Top Tier STEM 1st and 2:1

3,475 (37%)

Top Tier STEM 1st and 2:1

5,896 (63%)

173,000

2018 pool of graduates entering the UK workforce with 6 to 12 months after graduating

Click Here: Cycle Through Different Restrictions on the Supply
- Top Tier STEM 1st and 2:1
- STEM 1st and 2:1
- STEM
- Data Aligned
- STEM and Data Aligned
- STEM and Data Aligned 1st and 2:1
- STEM or Data Aligned with A-Level Math
- Data Aligned 1st and 2:1
- Top Tier 1st and 2:1
- Top Tier Data Aligned 1st and 2:1

Sources: Gov.uk, Cambridge Assessment, Higher Education Statistics Agency (HESA) Years: 2013-20
Talent Pipeline

We looked at the talent pipeline from GCSE to A-level, Undergraduate Degrees and Graduates entering the workforce.

Key insight: Expanding the talent pool to include data-aligned subjects increases gender balance and expands the total pool by at least a factor of 7.

Action: To improve gender balance and expand your pool of candidates, broaden your search beyond STEM to include data-aligned degrees.

Female  Male

GCSE

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Under-graduate

Graduates in Work in UK

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Poll

Do you believe your organisation has sufficient gender diversity?
The importance of investing in upskilling

The pace of change in technology is only accelerating. Building a workforce with the necessary skills goes beyond the hiring process.

We interviewed a group of clients from across industries to understand their upskilling needs. We found that:

• All agreed that they would or already dedicate 2-4 hours every 2 weeks to the upskilling of their data teams.

• Most want their employees to be able to upskill in an area of their choosing to widen the capability of their team more generally, as well as focus on improving skills in the areas of their immediate concern.

• All believed on a personal or organisational level that certifications in technologies are a valuable measure of dedication to upskilling.

• All believed upskilling will become an essential part of company culture.
Simon Hankinson,
Alliances Director at Collibra

- Simon has 20+ years of experience in data and risk management at world-leading consultancies EY and PwC.

- Simon has worked to help companies across multiple industries design and implement information and data governance processes to support internal, external, and regulatory reporting.

- He specialises in delivering data governance and management solutions within the Financial Services.
Becoming a Data Literate Organisation

Simon Hankinson, Collibra
Solving today’s biggest data problems requires a new approach

<table>
<thead>
<tr>
<th>MACRO CHANGES</th>
<th>IMPACT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explosion of data volume</td>
<td>Analysts waste 70% of their time finding the right data.</td>
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<td>Proliferation of Data Sources</td>
<td>Companies need help migrating data from on-premise to the cloud.</td>
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<td>Data Democratization</td>
<td>Only 10% describe their company as being open about sharing data.</td>
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<td>Data at the Center of Digital Transformation</td>
<td>50% of CEOs are concerned about the integrity of the data on which they base their decisions.</td>
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<td>Continued Increase in Data Regulation</td>
<td>Financial regulations: BCBS, CCAR,…</td>
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<td></td>
<td>Data privacy regulations: GDPR, CCPA,…</td>
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According to Gartner,

“Data literacy is the ability to read, write, and communicate data in context.”
Surveyed Definitions

“Data literacy is the ability to ask the right questions about a business function, process, capability, etc., understand what data is relevant, how to source it, test its validity, interpret it, perform hypothesis testing, create visualizations and tell the story of the analysis and its conclusions.”

“Knowing what data is available, how to access it, and how to make decisions from what the data tells us.”

“Understanding what data an organization owns, where to find it, what the data standards are, and knowledge/skills to consume and work with that data.”

SOURCE: TWDI DATA LITERACY SURVEY, MARCH 2021
What is data literacy?

Data is for everyone.

Data Literacy is cultivated into a culture by creating habits of asking the right questions and encouraging and rewarding curiosity, followed by sponsoring skills development to expand Data Vocabulary, empowered through access to high quality data and analysis tools with training for effective use.
Data Literacy starts with the Data Citizen
Key steps to creating a data literate culture
What are the greatest barriers you perceive to making your data literacy efforts more effective?

TDWI Survey on Data Literacy, March 2021

LACK OF COMMUNICATION: >50%
LACK OF FUNDING: 45%
LACK OF EXECUTIVE BUY-IN & COMMUNITY: 25%
Organizational issues are a larger barrier to data literacy than the data itself for more than 70% of organizations.

Ownership: 29% of organisations say that individual BUs own the data literacy program, 19% say it is up to IT – **52% do not have a designated owner**.

Training: Those who are more data literate are more likely to make use of formal training.
6 steps to building a data literate organisation

1. Recognize your starting point
2. Get a new perspective
3. Build knowledge diversity into the data team
4. Focus on the Data Council
5. Evangelize strategically and constructively
6. Meet the in the middle
Mark Thacker,  
Principal Consultant - Data Management Practice

- Since joining Kubrick in 2020, Mark has helped more than 100 Kubrick Consultants kick start their Data Management careers.
- Mark is responsible for enhancing the application side of the Kubrick’s data management training programme, ensuring it remains relevant and responsive to the evolving needs of its clients.
- He has more than 20 years experience working in finance and data roles at EY, Dell, Kingfisher and Shell, which has helped him develop immersive case studies that challenge Kubrick consultants to think and test out alternative approaches.
Data Literacy: Applying a Collective Approach

Mark Thacker, Kubrick
Data Literacy is a life skill

- Be curious with Data...
- Stretch your Data Literacy muscles...
- Practice new ideas and approaches...

But remember:

Not everyone needs to be a Data Scientist!
Indicators of a Data Literacy Culture

WE UNDERSTAND AND KNOW WHAT DATA EXISTS

<40%

WE TRUST OUR DATA

<45%

WE COMMUNICATE EFFECTIVELY WITH DATA

<50%

Have I been effective in communicating this data?

SOURCE: TDWI DATA LITERACY SURVEY, MARCH 2021
A workforce that lacks confidence with data will struggle to unlock value and make smarter decisions... ...no matter how shiny and new your data & analytical tools are!

‘What are the top obstacles organisations are facing in relation to progressing the analytics journey?’:

- **Data literacy** was the second most common response after data infrastructure.
- Over a third of respondents agreed **people** were unable to make use of software for insights **due to a lack of data literacy**.
- Around 30% of respondents focused on **tooling and culture** as the third and fourth most reported blockers.
- ..suggesting **tools were not sufficient for easy, self-service analytics** and there was an inconsistent use of data to inform business decisions.

SOURCE: TDWI DATA LITERACY SURVEY, MARCH 2021
How can we improve our Data Literacy?

1. What decision am I making?
2. How relevant is my data and analysis?
3. Am I able to communicate my findings effectively?

QRC: Question the Relevance of your Communication using Data
Data literacy and the skills emergency: Creating a data literate workforce

- Data literacy is driven by **people**.
- Encourage **diversity of thought and inclusion of minority groups**.
- Data literacy requires a **blend of experience**, business knowledge, and strong digital skills.
- Embrace **creativity and curiosity** when you are interacting and communicating with data.
- Learn, Apply, Discovery.
- Data and analytical **tools don’t create a data literate workforce**, they should help “empower” one.
Questions?

EDM Webinar
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We build our own workforce by training today’s brightest minds in our 15-week programmes, who we then deploy on client engagements. After 2 years, consultants can join their client with no fee to keep valuable IP and augment their team for transformation with longevity.

…and solve today’s most pressing capacity challenges

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