BUILDING DATA STORYTELLING SKILLS IN YOUR TEAM:

Why we all need to know the numbers

A resource for leaders who want to build employee capacity in data storytelling, so they harness the power of data to inform decision-making.

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About the Author

Selena is a researcher, speaker, and teacher who **specialises in data storytelling.**

She is as enthusiastic about building data storytelling skills in others as she is in building her own understanding of the evolving ways data can support organisations to flourish and thrive.

For Selena, using data in a way that benefits humans – whether that be employees, clients, or leaders – is the only way to use data. Almost nothing will accelerate the impact we can have in our sphere of influence like having, and acting on, good data on the things that matter.

Selena has worked with hundreds of executives, senior and middle leaders, and organisational teams, to build their understanding of, and skills in data storytelling. This increased capacity has increased positive organisational change both in the way in which individuals view data, but more importantly, in the way that teams engage in evidence-informed collaborative decision making.

THE LOST OPPORTUNITY

"Love numbers for what they tell you about real lives."
- Hans Rosling, author of "Factfulness".

Organisations are filled with data, whether it be sales, profit, marketing expenses, conversion rates, social media engagement, client or employee satisfaction, or production capacity.

Every organisation has access to different data and different metrics, and each are relevant to the context, and have the power to provide unique insights into the business.

Unfortunately, much of the data that is available in organisations is not used to its full potential, meaning that middle management, senior leaders, executives, and organisations more broadly, are not always as responsive to the data as they could be. Many organisations are losing business, missing opportunities to win new business, and/or not adjusting to emerging markets because the data is not being adequately harnessed.

In addition, this data, if it is used, is sometimes only accessed or utilised by a small group of 'numbers' people, such as Chief Information Officers, Chief Technology/Technical Officers and Chief Financial Officers. However, as we move into the realm of the 3rd generation of business intelligence and data democratisation, all employees need to able to access and use the numbers to benefit their own work as well as that of their team, division, or the organisation as a whole. Because many employees don't yet have these skills, organisations are missing a huge opportunity to be more tailored and targeted in their strategy and decision-making.

THE CHALLENGE

"But I'm not a numbers person"
(said by too many people, ever)

Over the past two decades there has been exponential growth in the amount of data available to us in all facets of our lives, including in our workplace. Although there is an increased expectation on us to understand and use data in our professional roles, there has generally not been adequate support and training on how to use it.

While there are training products available on spreadsheeting programs and visualisations, and some individuals pursue a path of university study in data science or analytics, the majority of employees have not been trained in what this all means, or the 'so what?' of data.

As leaders, our challenge is to move employees up the levels of evidence and data use, to increase understanding, use, and impact of the data, for both individual employees, and the organisation as a whole.

In the journey to being more evidence-informed, everyone begins at the stage of being 'unconscious' about data and evidence, as shown in the first level of Figure 1. If you have staff at this level, this means that data is not even on their radar – not only do they not have the skills, they do not know there are skills to be developed.

When people move to the second level of being 'conscious', they know data is something that they need to know more about, they know it exists, but they are largely unaware of the depth of possibilities or opportunities.

THE CHALLENGE

"In a world that is increasingly digital, data-driven and silicone, we should not forget that the people living in it are carbon-based, analogue and feeling-filled" Rishad Tobaccowala

Having a 'superficial' understanding of data is when employees understand some basic metrics, or can read some visualisations; however, they cannot engage in rigorous conversation about the numbers or the impact of them.

When employees reach a point of 'awareness', their understanding is developing, and they begin to think about the implications of the numbers and what they might mean for them, their team, and for the organisation more broadly.

At 'action', employees start to use data to inform what they do, for example, such as adjusting an offering to market trends, rethinking a marketing strategy, or reallocating resources based on previous trends.

If leaders can get their staff to the point of 'reflection', these employees use data to innovate, constantly adjust, and effectively evolve their work and the organisation.
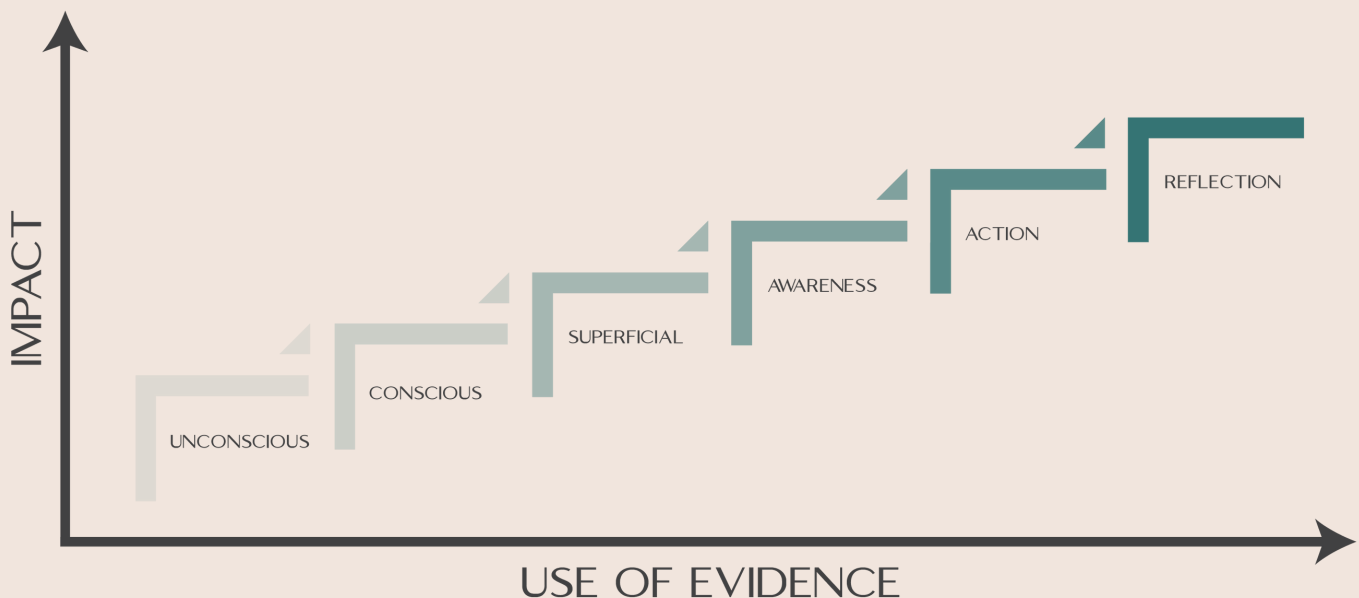

Figure 1: Levels of evidence use versus impact

THE MISCONCEPTIONS

4 common misconceptions of the use of data are:

- Data sits within a 'role' or 'job description' in the organisation – therefore not everyone needs to know about data.

- Data-driven decision making is the new normal.

- Data only tells us what is going wrong.

- One type of data is enough.

MISCONCEPTION #1

Data sits within a 'role' or 'job description' in the organisation — therefore not everyone needs to know about data.

While it is true that many roles in your organisation might explicitly mention data in their job descriptions, these are not the only employees who need to have the skills to engage in a reflective and rigorous conversation about evidence. There is an increasing expectation that all employees, at some level, are able to understand, and engage in conversations about the numbers. In organisations that already sit in the '3rd generation of business intelligence', this is the case. Piyanka Jain, internationally renowned data science consultant, when speaking with MIT Sloan on data literacy in organisations, said, "Everybody needs data literacy, because data is everywhere. It's the new currency, it's the language of the business. We need to be able to speak that."

It is no longer enough to assume that data is someone else's role – all employees need to know the numbers that are relevant to their role and they should be able to ask good questions of the data, and articulate the role of data in their decision-making.

MISCONCEPTION #2

Data-driven decision making is the new normal.

"Data-driven" is a term that is regularly used when discussing data, in fact some organisations (such as Expedia) proudly promote their data-driven processes. However, this terminology is misleading, because data should never drive what we do, and being data-driven doesn't actually mean that your organisation is effective. As leaders, we should be focusing not on being data-driven, but on being data-informed. This is an important distinction to make, as it is where we use our understanding of the numbers as well as the context that sits around them, to inform decisions and action.

Jeff Bezos, CEO of Amazon, is well-known for NOT being data-driven. He said, "you collect as much data as you can. You immerse yourself in that data... but then make the decision with your heart". Bezos reported that the initial numerical modelling and predictions for Amazon Prime suggested that it would not be successful, but he made the decision based on his gut instinct and what he knew about the market and the emerging context around him.

Similarly, Rishad Tobaccowala, author and chief growth officer at Publicis Group said, "Now also, let me ask you the last 10 decisions you made, how many of those decisions were primarily data driven? When I've asked most people, it's been less than three out of 10. And if the world was all about data-driven, none of us would be born. The ROI on having children sucks."

We need to harness the power of data, but we need to be informed by it, not driven by it.

MISCONCEPTION #3

Data only tells us what is going wrong.

Influenced by our fixation with the bottom line (profit), and the way the media discusses significant falls in productivity or job losses, some leaders and employees see data as a way of only identifying problems and things to fix. While data can help us identify gaps in our market, reasons for missed business, or drops in productivity, and direct our attention to possible focus areas, there is an equally powerful opportunity for celebration and recognition.

If an employee records their largest sale to date, the business has experienced the greatest growth in its history, you win a significant new client, or a marketing campaign of a new product was highly successful, that data should be used to celebrate with staff and to recognise their efforts.

Rather than falling into the trap of assuming organisations only use data to identify problems and 'fix' things, we need to reconceptualise its use so that it is also about celebration and progress. We can change this narrative, build employee trust in data conversations, and model this as leaders.

MISCONCEPTION #4

One type of data is enough.

One type of data might provide good information about the success of a product, employee engagement, or client satisfaction. However, one point-in-time summary statistic should not be the only information that is used to guide decision making and inform action.

Being able to consider multiple sources of data and triangulating the information that we have, allows employees to see consistent trends across different data sets in similar areas. This requires an understanding of different measures, as well as time to collect, analyse and interpret the information.

When we triangulate data and draw on multiple sources of information to inform our decision-making, the trends and associated actions and outcomes are more accurate and reliable as the trends did not only happen once. Triangulation enables us to identify patterns of behaviour or trends, meaning that actions are informed by clear trends, and are not a quick fix to a single drop in one metric.

THE POSSIBILITIES

"People hear statistics, but they feel stories"

- Brent Dykes

To use data to lead change, the focus must be on data storytelling. Although there is no "one size fits all" solution to data storytelling (due to different organisational contexts and data sets), the elements of data literacy, data visualisation, and data storytelling apply to all organisations. Data storytelling is where employees, regardless of their role or context, consider: "What does the data tell me about my sphere of influence?" and "Now that I know this, what is my response?".

To get to this point, employees need to have a solid base in data literacy (i.e., what the different numbers mean) and be able to use and interpret visualisations of the data.

DATA LITERACY → DATA VISUALISATION → DATA STORYTELLING

Like the merger of quantitative and qualitative data, effective data storytelling exists not only in the left or right side of our brains – it exists when we harness the power of both, and we merge our understanding of the numbers and connect them with real life experiences. This can be done by:

- describing what the data tells you and what it means for stakeholders in your organisation,
- using metaphors to convey your message,
- sharing individual stories or previous experience in explaining the data,
- making it real and connected to the people you are sharing the information with – by building on pre-existing understanding, or using contexts they understand or appreciate,
- connecting the habits and behaviours of individuals in your organisation to the success of the whole, and by
- remembering that "we see the world not as it is, but as we are"ix.

THE POSSIBILITIES

An example of data storytelling is evident in two organisation's responses to employee well-being during the period of working from home during the pandemic.

Throughout 2020 and 2021, I worked with two educational service providers to design, build, and launch the tools, and systems needed to collect self-reported wellbeing information.

In each instance, a team of employees and I co-constructed the tool to gather the most useful information, so the organisation could engage their community and bring conversations about wellbeing to the fore. From the tool, and the visualisations it provided, it was possible to see trends across the organisation, trends for individuals, and it flagged people who were struggling and needed support.

Key to the success of this project was the systems that sat around the tool — there was a process, a strategy for data storytelling, clear expectations about who would receive and use the information, and what follow-up would look like.

It bridged a gap for the the two organisations, as they were not in a face-to-face context, so it meant that people were less likely to fly under the radar, they received support if they needed it, and productivity and engagement remained high.

CONCLUSION

The challenge for many employees in the use of data is that traditionally it has been someone else's job, meaning that they have not developed their own skills, and/or they do not know what good practice looks like.

As leaders in the 3rd generation of business intelligence, this means that we are confronted with the challenge of trying to build this data storytelling skills in our teams, so that everyone can use data in a way that leads to impact

Data storytelling is the ultimate goal of effective data use. Employees need a good level of data literacy and an understanding of the visualisations, and to use these tools to think about what the data tells them and what their response will be.

We all want to make a difference and positively impact our teams and organisations – data provides a brilliant opportunity to know our current situation and needs just that little bit better, and to pave our way forward.

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BUILDING DATA STORYTELLING SKILLS

Workshop facilitation on-site or online	- Individuals / teams - Employees / middle managers/ senior leaders *Selena works with small groups of leaders and/or their teams and their own data to work collaboratively, identify trends, engage in data storytelling, and lead change.*
Keynote presentations on-site or online	*Data storytelling - Why we all need to know our numbers.* *This keynote focuses on the importance of data storytelling - what it is, why it matters, and how we can harness the power of data to support decision making.* *Evidence-informed collaborative decision making - Why we shouldn't be the only one talking about numbers.* *This keynote focuses on the collaborative nature of evidence-informed decision making - it should never be about one person holding all the data and making all the decisions*
Evidence-informed coaching sessions on-site or online	- Individual senior leaders - Leadership teams - Strategic planning - Evidence and impact mapping

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