

7 Essential Skills for the Modern Data Analyst



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What makes a good data analyst?

Data analysts have always needed technical skills, and they always will. When many people think of an analyst, that's what they picture: a 'number-cruncher' who is essentially a human computer.

But in reality, the world of analytics has changed. The more forward-thinking businesses out there recognise the need for analysts to possess complementary softer skills.

Why?

Because the way a data analyst provides true value to their organisation is by making clear, relevant, commercially-driven recommendations that enhance decision-making.

'Number-crunching' is part of the means to that end, but is not the end itself. To translate stats and figures into understandable insights that stakeholders can buy into, an analyst needs much more than just mathematical prowess.

With that in mind, here are seven non-technical skills that all data analysts should have in today's world of business – skills that will gear them, and thereby your organisation, up for long-term success.

- Commercial awareness
- Data visualisation and storytelling skills
- Emotional intelligence
- Relationship-building skills
- Communication, negotiation and assertiveness
- Influencing and persuading
- Planning and workload management

And now we'll delve into each one..



1. Commercial Awareness

McKinsey's Consulting recently predicted that there will be a huge rise in demand for a new type of role in the coming years: the analytics translator. Their job is to bridge a certain gap, sometimes enormous, between data analysts and the stakeholders they collaborate with – the commercial-awareness gap. This recognises that increasingly there can be a disconnect between the technical and commercial arms of an organisation.

Just as it sounds, an analytics translator is someone who understands analytical findings and knows how to communicate those findings to stakeholders and decision-makers – crucially, communicating what it all means in a commercial context. The savvy analysts know this already but many data analysts can't do that... yet. I say 'yet' because it's usually just down to mindset, or ingrained ways of thinking, rather than lack of aptitude. Commercial awareness is a skill that can be developed.

“In their role, translators help ensure that the deep insights generated through sophisticated analytics translate into impact at scale in an organization.”

Harvard Business Review

If an individual analyst develops the same levels of company knowledge and commercial awareness that an analytics translator has, they will demonstrate far more value and get much more buy-in from their stakeholders.

Not all organisations will look to hire analytics translators in the future, but all data analysts will stand themselves in good stead by becoming more like analytics translators – ensuring their technical work is adapted and communicated in such a way that is easily digested by the stakeholders and decision makers within the organisation.

2. Data Visualisation and Storytelling with Data

Stakeholders and decision-makers tend to be non-analytical, and they're usually time-poor. They need to see information in simple formats that are immediately understandable, such as *explanatory* charts. The message should get through within five or six seconds and leave no room for (mis)interpretation.

However, it's common for analysts to default to using a 'bottom-up' approach to the presentation of their work – working upwards from the detailed data rather than working top down from the ultimate needs of the intended audience. This 'bottom-up' approach will often result in overly complex visuals and a multitude of exploratory charts rather than simple, impactful explanatory charts and in the process either mask what the underlying intended message or potentially confuse anyone who is not from an analytical background.

As with any of their work, analysts need to avoid complexity and avoid feeling it necessary to represent all of their work when communicating their results and recommendations. Unfortunately, it's a habit that gets embedded in academia, whereby students are required to show their 'workings' and are evaluated by technical gurus, not results-orientated commercial stakeholders but complex-looking outputs don't impress stakeholders. Stakeholders are generally uninterested in the detail and the actual 'working out' that the analyst has undertaken. All the stakeholder wants to know is what the analysis means for the business, and what they should do about it. For the most part, they will assume that the work is technically sound and won't be concerned with the detail.

Additionally, modern analytics software, for all its benefits, can compound the issue, as analysts can produce a myriad of charts from raw data with a click of a button – however, this rarely results in optimised outputs as it circumvents the necessary thinking required to produce considered visualisations and reinforces the bottom-up approach to design with the result that the analyst will produce what they *can* rather than what they *should*.

Visualising data is one thing, and telling a story with the data is another. The modern analyst has to do both.

To master the art of storytelling, the analyst has to do several things :

- Focus on the stakeholder's overall need(s)/goal(s)
- Communicate in plain English, and concisely
- Use simple, explanatory visualisations that adhere to basic design principles
- Take a top-down, needs-based approach to presentations — rather than a bottom-up, data-based approach

This will lead to finished pieces of work that make clear and compelling arguments, which stakeholders are far more likely to buy into.

3. Emotional Intelligence

Effective data analysts take the time to build and maintain relationships with their various stakeholders, which paves the way for healthy communication and room for negotiation.

However, a self-awareness and an awareness of others is key to bridging the communication gap between the analyst and their stakeholders and peers. This awareness comes under the general banner of emotional intelligence (EQ). While IQ generally cannot be taught, EQ (emotional intelligence) can be — and it's a powerful skill to develop for all areas of life.

Dealing with different personality-types is an unavoidable part of working life, and it's no different for data analysts, especially now that analytics is purveying all areas of organisations and not just the traditional areas of research, marketing and finance.

One of the key differentiators between good analysts and passive number-crunchers is that the good analysts recognise that people, departments, even companies have different cultures, different ways of thinking and different approaches to problems and challenges — of which analytics and mathematics is just one approach.

This is where awareness of others and an understanding of the myriad of different personality-types and learning styles that exist can be beneficial in learning how best to relate, communicate and influence those we work with.

If an analyst is able to identify the personality-type of each stakeholder they come across, they will better understand the stakeholder's motivations and general preferences. And then, when this is put into the context of the stakeholder's role within the organisation, the task of influencing them becomes much easier.

All of that said, self-awareness is key. The analyst has to know what their own personality-type is and what their own shortcomings are, otherwise they won't have true perspective, and therefore can't work towards filling in the gaps.

4. Relationship-building

The idea of a data analyst who's good at networking goes firmly against that ingrained stereotype we talked about earlier, but it's what employers are going to be looking for in future.

Building healthy working relationships is easier than it might seem, too, despite how daunting it might initially seem. All it takes is for the analyst to get up out of their seat and ask the stakeholder a question in person rather than over email (if appropriate), or asking to sit in on a relevant meeting, or even something as simple as starting a conversation at the kettle.

These small gestures and behaviours will help to lay the foundations, building trust and respect among stakeholders.

5. Communication, Negotiation and Assertiveness

Communication, negotiation and assertiveness are inextricably linked. In a way, negotiation and assertiveness are part of wider communication.

Perhaps the biggest reason why strong communication is so important for the analyst is because it's key to avoiding the default passive model of working. The passive model is the old model – the ineffective one, whereby the stakeholder prescribes their wants, which might not match up to their needs. If the analyst then goes away and gets to work without interrogating the brief and uncovering what the stakeholder's true needs are, this can spark a cycle of dreaded 're-work'.

By communicating proactively and honestly with stakeholders instead of working passively, the analyst changes the dynamic and begins to function as a consultant. This puts the analyst in a better position to manage expectations, and to negotiate and be assertive wherever necessary – such as when a stakeholder's 'want' and true 'need' don't match up, or when an unachievable turnaround is requested. Collaborating and compromising is part of the job, but the analyst has to be able to hold their own.

The previous section talked about relationship-building. Once a working relationship is established, it has to be maintained. An analyst who provides regular progress updates will secure the stakeholder's trust and credibility, paving the way for future smooth-running projects. Again, it's all down to open, honest communication and the recognition that, whilst the analyst's job is to help decision makers, saying yes to all requests will lead to over-promising and under-delivering

ultimately leading to a loss of trust and credibility with stakeholders...a lose/lose for both analyst and stakeholder.

6. Influencing and persuading

Aside from mastering data visualisation and storytelling, there are other techniques that the modern analyst should use to influence and persuade their stakeholders into taking the recommended course of action.

Dr. Robert Cialdini's six principles of persuasion (Reciprocity, Scarcity, Authority, Consistency, Liking, Consensus) provide a good starting point. Some of these can be applied directly to the outputs themselves, whereas others are about demonstrating general behaviours that can help build credibility and trust with stakeholders.

In addition to Cialdini's principles, the analyst should learn how (and when) to use techniques such as anchoring and framing. For example, if the stakeholder's primary objective is to cut expenditure, the analyst can frame the consequences of actions based on how much money would be lost in each potential outcome.

7. Planning and Workload Management

One of the consequences of passive working is an overwhelming workload. If the analyst feels as though they can't say no, they'll take on too many tasks and might also agree to unfeasible deadlines. That's a cocktail for disappointment.

But even if an analyst does have the communication and negotiation skills to push back and manage expectations where needed, they will always be busy. This means they need to know how to plan and prioritise tasks, so that all outputs are completed thoroughly, to a high standard.

The first step to maintaining a manageable workload is monitoring it – whether that's with project-management software such as Trello or an equivalent, with an internal system or even with a spreadsheet. It would be nice if analysts could work on a linear, first-come-first-served basis, but there will always be urgent tasks that come along. So the analyst must constantly re-evaluate and reprioritise.

Making stakeholders aware of capacity is also important, because it might be that some tasks can wait – but the stakeholder won't know that the analyst is stretched if the analyst doesn't say anything, so communicating workloads and capacities on a regular basis is key – we call this Transparent Planning and it's an invaluable tool for managing both workloads and expectations.

Develop your analysts' softer skills through expert training

You'd be hard pressed to find an analyst who already has the winning combination of technical expertise and soft skills that businesses are now seeking. But it's just a case of upskilling. Each analyst is different from the next, with individual strengths and weaknesses. Some are already halfway there when it comes to the softer skills, whereas others need more of a steer.

Our programme of specialist development training provides participants with the mindset, techniques, behaviours and practices they need to succeed in the modern business world – helping them to become the respected and valued analyst they deserve to be.

Steve Hulmes, Sophic's founder and programme leader, is one of the UKs most experienced analytical coaches. A former analyst and analytical manager, Steve has been developing, delivering and constantly refining Sophic's programme of interactive workshops for data analysts for over 20 years.

Visit www.sophic.co.uk for more information and to download our brochure.



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