

Foundations First!

A Statistician's Holistic View on Making Data & Analytics Work in the Business of Trust

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navique

Trust. Data. AI.

'Keynote Presentation @ Expert Event Hosted by Navique' — May 19, 2026

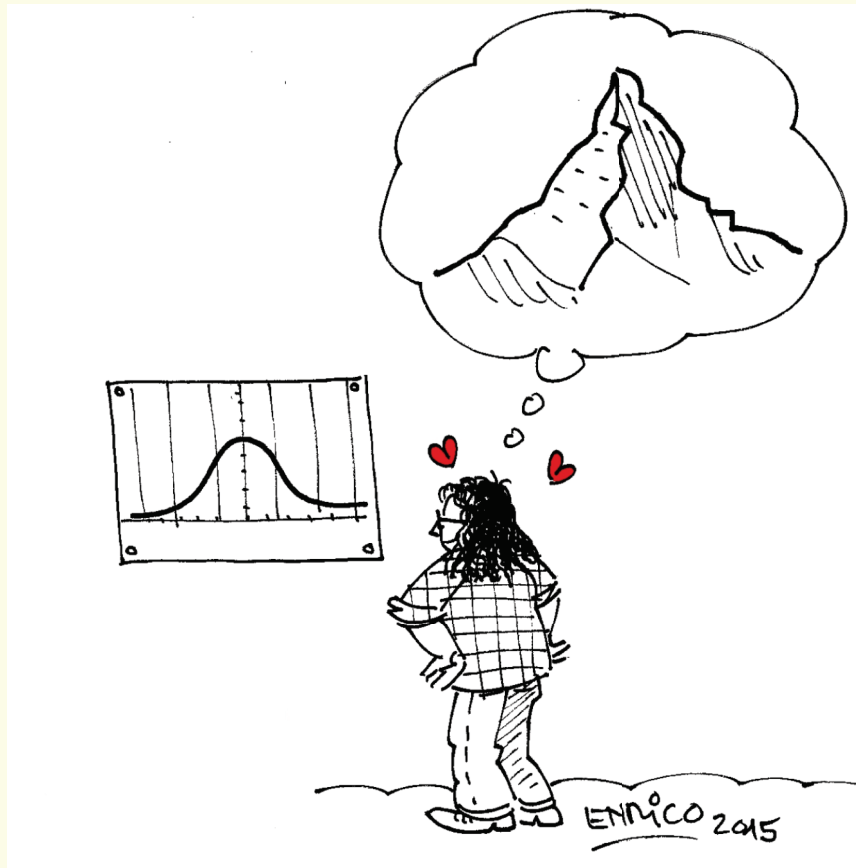
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Kolumne

Was, wenn alles funktioniert, nur falsch?

Über Paketlieferungen, Navigation, Empfehlungen, Kochen und die Illusion von Reife – und was das mit KI zu tun hat.

Wenn die Grundlagen fehlen, skaliert KI nicht Erfolg, sondern Fehler. Das klingt abstrakt, ist aber im Alltag erstaunlich konkret. Man muss dafür nicht einmal ein KI-System bauen. Es reicht schon, ein Paket zu bestellen.

Man tippt die Adresse schnell ein, vielleicht ein kleiner Zahlendreher, kaum der Rede wert. Das Paket macht sich auf den Weg, wird gescannt, sortiert, weitergeleitet, alles effizient und perfekt organisiert. Am nächsten Tag ist es da. Nur eben nicht bei einem selbst, sondern zwei Strassen weiter. Die Logistik hat fehlerfrei gearbeitet. Nur leider auf Basis eines kleinen Fehlers am Anfang. Genau so funktioniert auch KI. Sie liefert zuverlässig. Aber sie liefert das, was man ihr vorgibt.

Ähnlich verhält es sich mit Navigationssystemen. Man gibt ein Ziel ein, folgt den Anweisungen und kommt zuverlässig an – nur leider am falschen Ort. Nicht weil das System dumm ist, sondern weil irgendwo ein falscher Ort gespeichert wurde.

Bei automatischen Empfehlungen wird dieses Phänomen noch

deutlicher. Man klickt einmal aus Versehen auf ein Produkt, und plötzlich ist der Online-Shop überzeugt, dass dieses Produkt dem persönlichen Geschmack entspricht. Die Vorschläge werden immer präziser, immer schneller, immer zahlreicher. Nur leider sind sie komplett daneben. Auch hier gilt: Die Maschine optimiert, aber sie versteht den Kontext nur so gut, wie wir ihn liefern.

Die KI ist also selten das Problem. Entscheidend sind vielmehr die Grundlagen: unklare Begriffe, schlampige Daten, fehlende Regeln. Oder einfacher gesagt: Chaos am Anfang. Und wer Chaos automatisiert, bekommt kein bisschen Ordnung, sondern sehr viel schnelleres Chaos.

Und genau hier liegt die eigentliche Gefahr. Viele Organisationen fühlen sich erstaunlich bereit für KI. Die Technologie ist da, die Projekte laufen, die Präsentationen sehen gut aus. Nur das Fundament fehlt. Die Illusion der Reife ist oft weiter als die Reife selbst.

Das ist wie beim Kochen. Wenn man Zucker und Salz verwech-

sel, hilft auch die modernste Küche nichts. Man kann noch so präzise arbeiten, alles perfekt timen, jeden Schritt optimieren. Am Ende hat man ein Gericht, das beeindruckend effizient entstanden ist, jedoch niemand essen möchte.

Trotzdem behandeln wir KI gern wie einen Zauberstab. Ein bisschen Magie darüber, und am Ende kommt eine kluge Entscheidung heraus. Schön wärs. In Wirklichkeit braucht es zuerst weniger Glamour und mehr Disziplin. Klare Zwecke, saubere Daten, gemeinsame Begriffe und einfache, verbindliche Spielregeln.

Vielleicht ist das die eigentliche Pointe. KI ist kein Wundermittel, sondern ein Verstärker. Sie macht das Gute besser und das Schlechte sichtbar. Wer bessere Ergebnisse will, muss nicht zuerst die nächste Technologie kaufen. Es reicht, beim Anfang anzufangen. Oder einfacher gesagt: zuerst aufräumen, dann automatisieren.

Weniger spektakulär. Mehr Wirkung. Und am Ende entscheidet sich genau hier, ob Vertrau-

en entsteht oder verloren geht. Denn auch das skaliert. Genau wie der Fehler.



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Source: *Walliser Bote*, April 26, 2026 (data-literacy.ch/best-of).

Trust as the non-negotiable foundation!

- Organisations do not run on data — they run on trust!
- **Trust is their currency**, yet trust cannot be engineered, mandated, or automated!



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‘Trust is something that is offered to us, we have to earn it, and we earn it by demonstrating trustworthiness.’

Sir David J. Spiegelhalter, 2019

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Non-one can just expect to be trusted!

- Rather than aiming to build trust, the task should be to become trustworthy!

↪ This means demonstrating competence, honesty and reliability.

↪ But also providing usable evidence that allows others to check whether you are trustworthy, which necessitates making yourself vulnerable to the other party.

↪ Improve the ability of audiences to check trustworthiness.

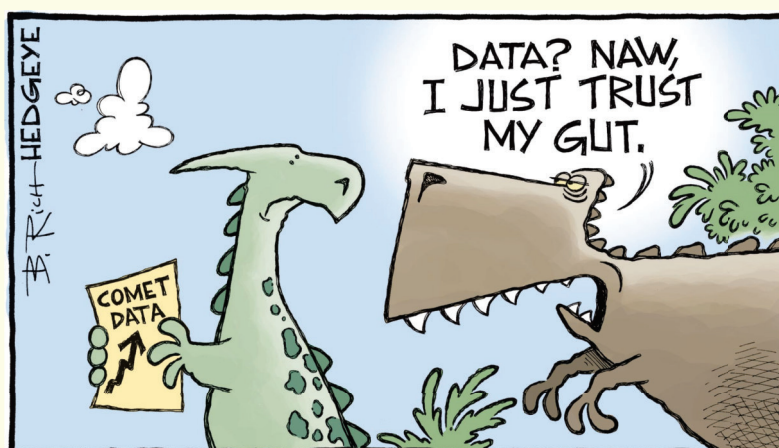
- Trust can only be earned through consistent **trustworthiness!**

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- Data & Analytics must **earn that trust every day through consistent trustworthiness!**



- The real risk is not technological failure, but the **illusion of organisational readiness** to use Data & Analytics responsibly in an enduring way.

↪ In Data & Analytics, **trust is not the starting point** — it is the **outcome of doing the fundamentals right!**

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‘Data are not taken for museum purposes; they are taken as a basis for doing something. ... The ultimate purpose of taking data is to provide a basis for action or a recommendation for action.’

W. Edwards Deming, 1942

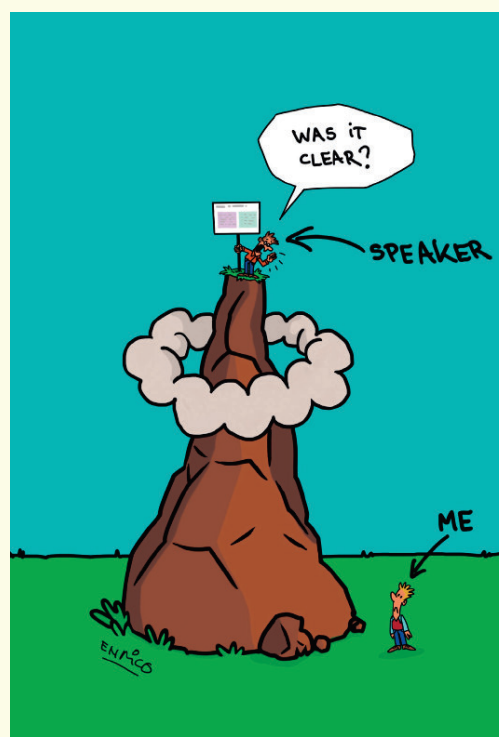
~> **Data** are the ‘fuel’ and **analytics**, i.e. ‘learning from data’ or ‘making sense out of data’, **is the ‘engine’** of the digital transformation and the related ‘data revolution’!

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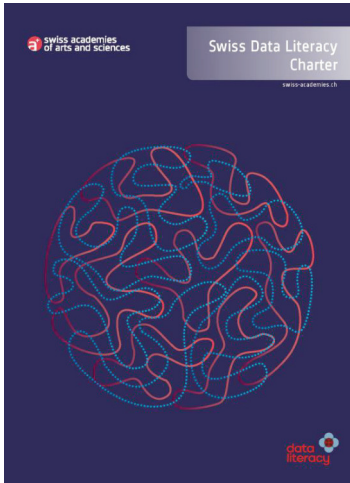
A common language is key to success!



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May 15, 2024 Swiss Academies of Arts and Sciences a+

15. Mai 2024 Akademien der Wissenschaften Schweiz a+

Swiss Data Literacy Charter as the basis for data literacy

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The Swiss Academies of Arts and Sciences are publishing a Data Literacy Charter for Switzerland. This Charter is intended to initiate a broad-based cultural change in the way society handles general and personal data. One aim is for each person to be in a position to determine how personal data is handled. A further aim of the Charter is that people should be able to critically evaluate data and statements based on it.



akademien-schweiz.ch/publications/data-literacy-charta-schweiz

Schweizer Data Literacy Charta als Grundlage f r Datenkompetenz

Die Akademien der Wissenschaften Schweiz ver ffentlichen eine Data Literacy Charta f r die Schweiz. Mit dieser Charta soll ein gesellschaftlich breit getragener Kulturwandel im Umgang mit allgemeinen und pers nlichen Daten angestossen werden. Ein Ziel ist, dass jede Person in der Lage ist zu bestimmen, wie mit pers nlichen Daten umgegangen wird. Die F higkeit zur kritischen Bewertung von Daten und darauf basierenden Aussagen ist ein weiteres Ziel der Charta.



What are data?

Data are analogue and digital information units that exist in various formats as numbers, texts, images, videos or audios. People leave behind a diverse range of footprints in the analogue and digital worlds, and those footprints can be captured as data, evaluated and processed into information.

• **Data are among the very few resources whose value does not diminish when shared but, on the contrary, multiplies.**

• A **data culture emerges through 'data literacy' at the individual level** — that is, when employees not only collect and use data, but also question and share them.

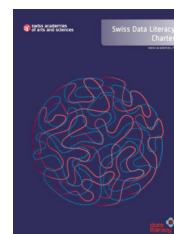
↪ **Data culture cannot be steered directly. It is the outcome** — not the starting point — of creating value with data.



What is data literacy?

Data literacy encompasses the ability to collect, manage, evaluate and utilize data in a critical and reflective manner in their respective context. This is done in compliance with data ethics principles and data protection.

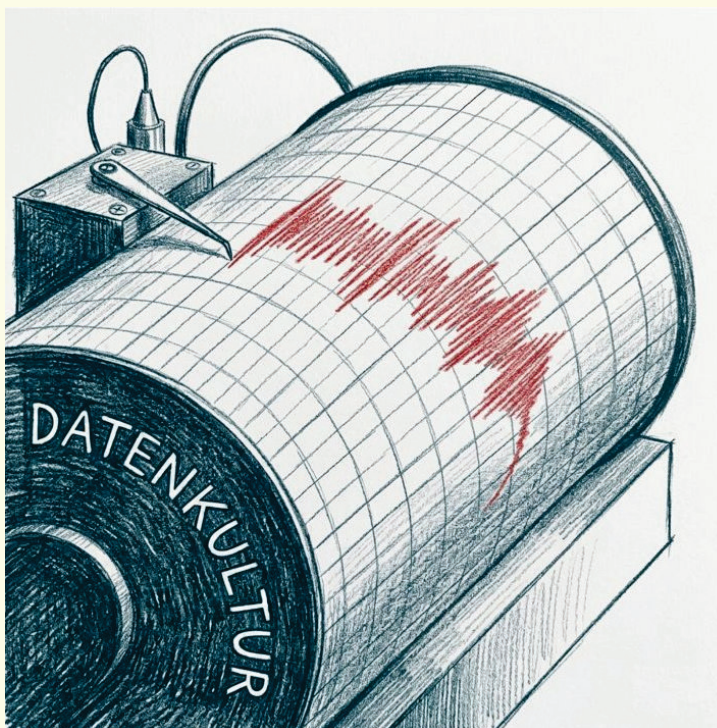
Furthermore, ethical handling of data takes into account economic, social and ecological aspects of data usage. Awareness of one's own digital footprint, which is generated when using IT services, is to be regarded as an equally essential element of data literacy.



Data literacy at the organisational level

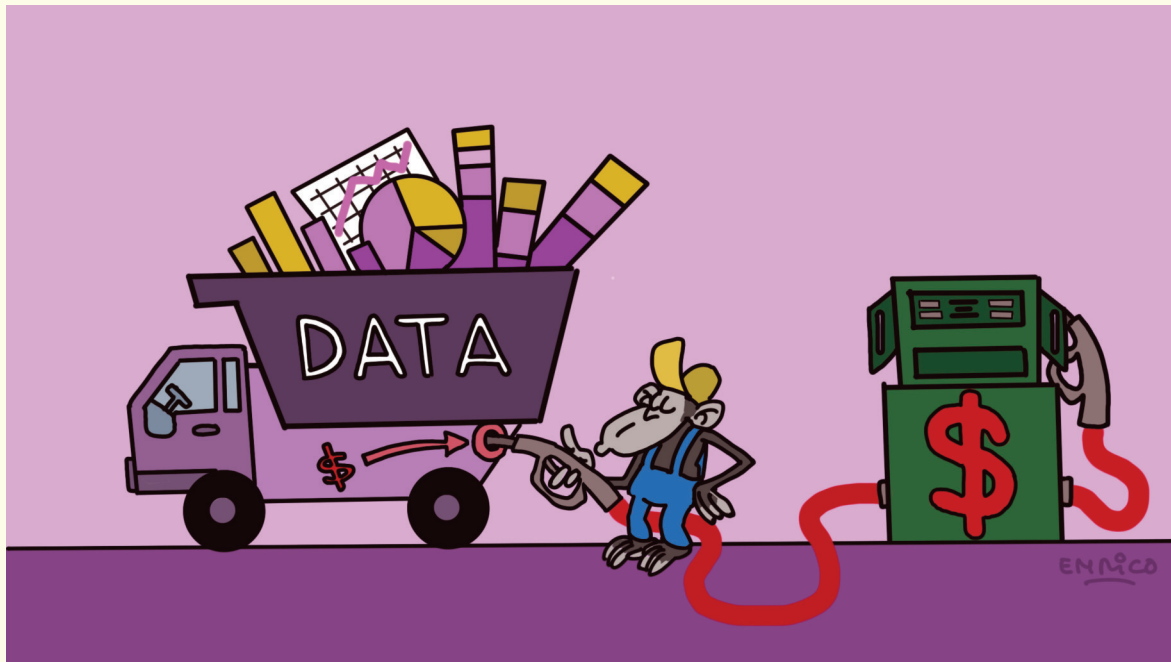
- Employees who provide data ('data producers') must (be allowed to) understand what happens to their data.
- Those who use data ('data consumers'), in turn, must know where the data come from and the limitations attached to them.

~> This is **data literacy at the organisational level**, not just at the individual level!



„Datenkultur ist kein **Designobjekt**, sondern der **Seismograph** für die wahren Barrieren der Wertschöpfung mit Daten.“

Source: Jens Linden, May 2026 (bit.ly/4tsGU6v).



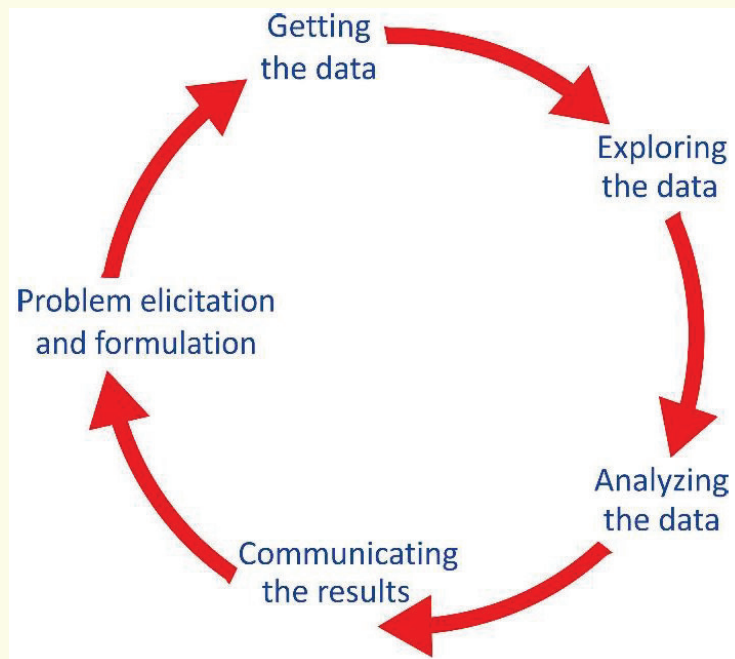
Analytics is a process of data-based problem solving!

- ◇ **Analytics**, i.e. 'the science of learning from data' or 'the science of making sense out of data', is a whole iterative **data-based problem-solving and continuous improvement process**, aimed at solving problems in a trustworthy and enduring way.

'If you can not describe what you are doing as a process, you do not know what you are doing.'

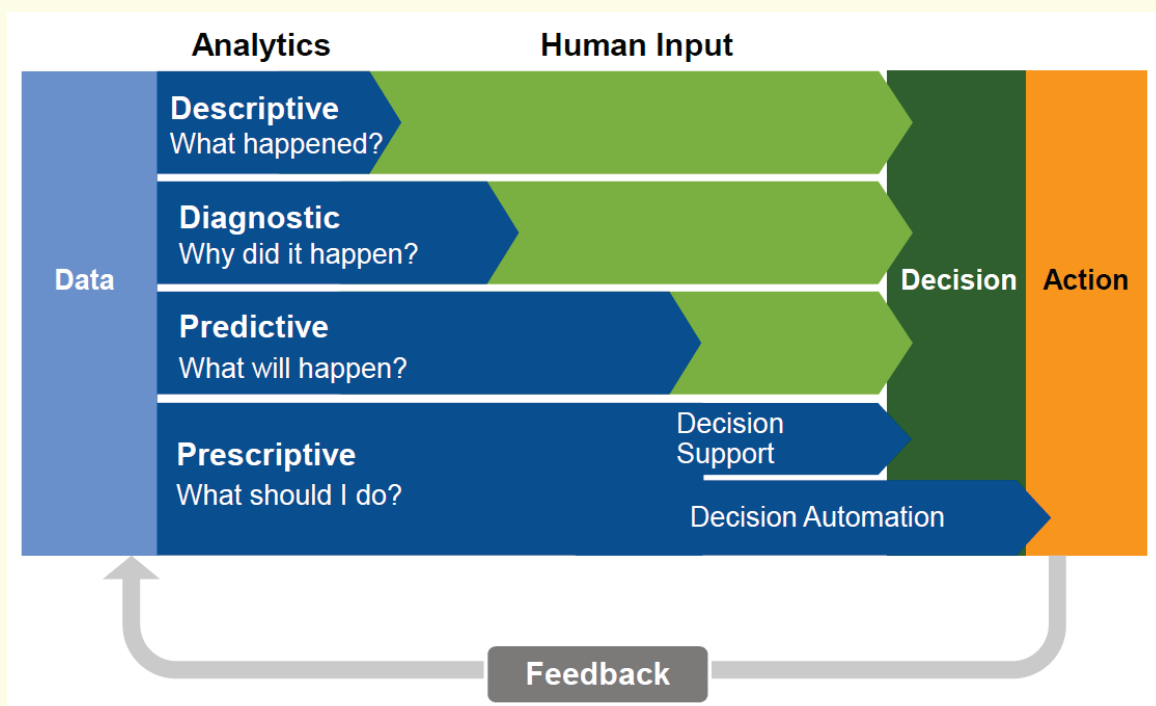
W. Edwards Deming

'The basic cycle of (the science of) learning from data'



Source: IDSSP, *IDSSP Frameworks v1.0*, Figure 1, September 2019 (idssp.org).

Questions analytics tries to answer & the 'analytics continuum'



Source: João Tapadinhas, Gartner, June 2014 (goo.gl/YmjFPB).

And then came (generative) AI...



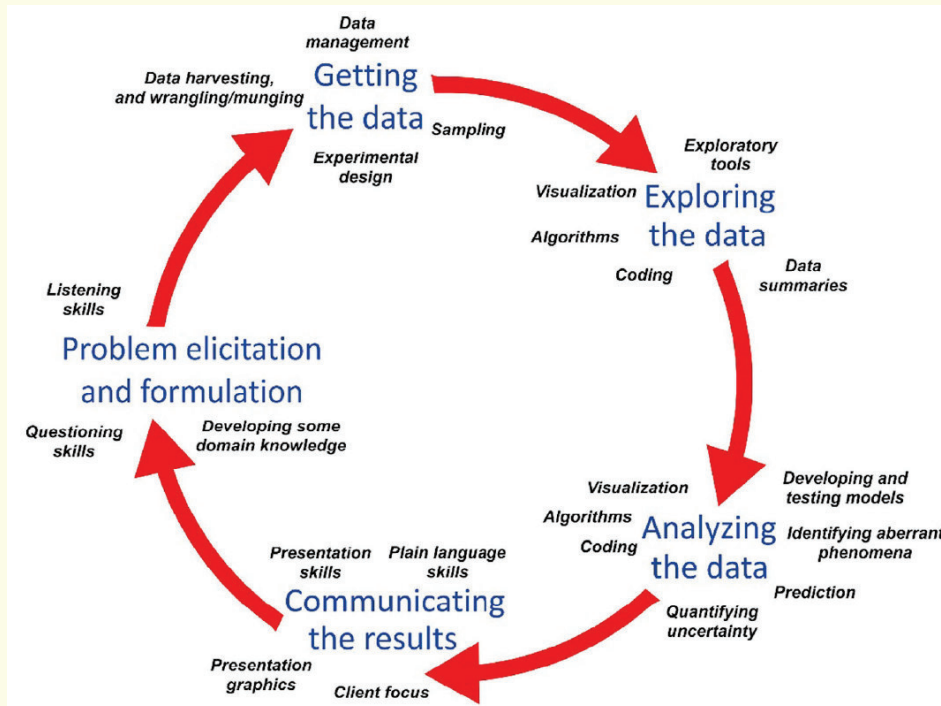
But AI is only one tool within the analytics process behind it...

- Methods from the field of AI and from 'machine learning' are **possible supporting data-based tools within the problem-solving process of analytics**, only if the potential for the **automation and rationalisation of data-intensive tasks with a repetitive character** was recognised during the problem formulation.

↪ Such tasks should be based on a **stable situation** whose rules apply today and tomorrow, whose future resembles the past and whose rules no one can violate. Nevertheless, the methods from the field of AI can support human decision-makers in cases of uncertainty.

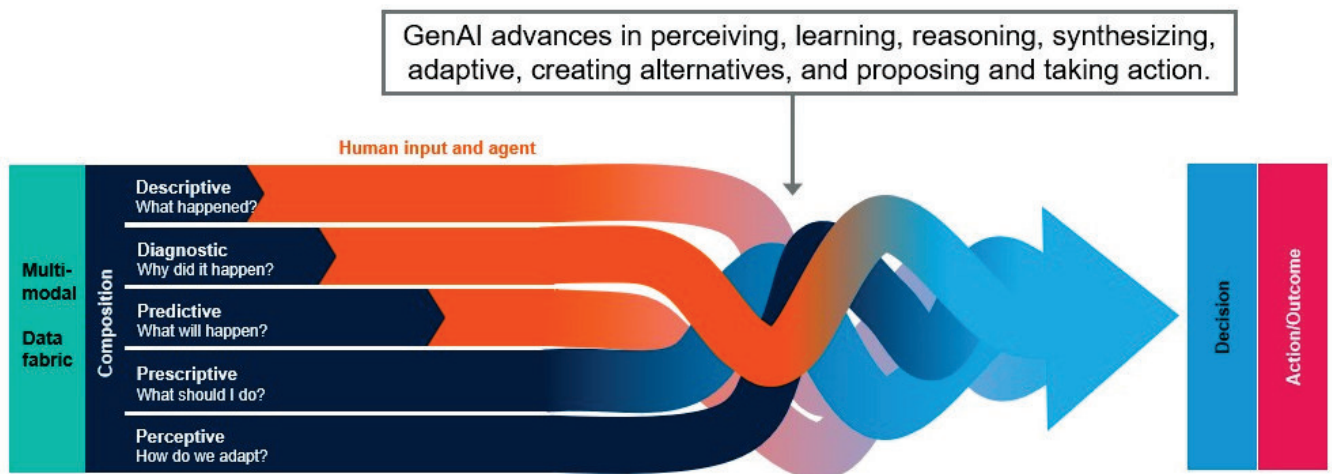
Example. Use of 'generative AI' (GenAI) to produce (generate) original content such as new texts, images, pieces of music, films or even 3D models and code sequences. The results ('generated ideas') of these 'generative AI' tools can be used for data-based support within the problem-solving process of analytics.

The varying activities involved in (the science of) learning from data



Source: 'International Data Science in Schools Project' Frameworks v1.0, September 2019 (idssp.org).

'AI-Powered, Perceptive Analytics'



Source: Gartner, June 2025 (bit.ly/4ndR5c6).

‘Coming together is a beginning. Keeping together is progress. Working together is success.’

Henry Ford

↪ Analytics is a multidisciplinary, interdisciplinary and transdisciplinary **team sport!**

‘If you do not seek out helpers and allies, then you will be isolated and weak.’

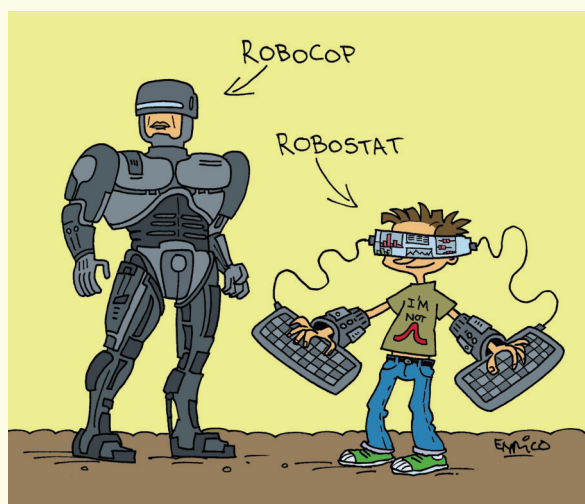
Sun Tzu

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- Analytics is an aid to thinking and not a replacement for it!
 - Data & Analytics should be envisaged to complement and augment humans!
- ↪ **Humans need to augment their strengths to become more ‘powerful’:** by automating any routinisable work and by focusing on their core competences.



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'By 'augmenting human intellect' we mean increasing the capability of a man to approach a complex problem situation, to gain comprehension to suit his particular needs, and to derive solutions to problems.'

Douglas C. Engelbart, 1962

Source: Engelbart, D. C. (1962). 'Augmenting human intellect: a conceptual framework' (1962paper.org).



(Principles-based) 'Data & Analytics Governance' that builds trust!

- **Data & Analytics governance is not an end in itself.**

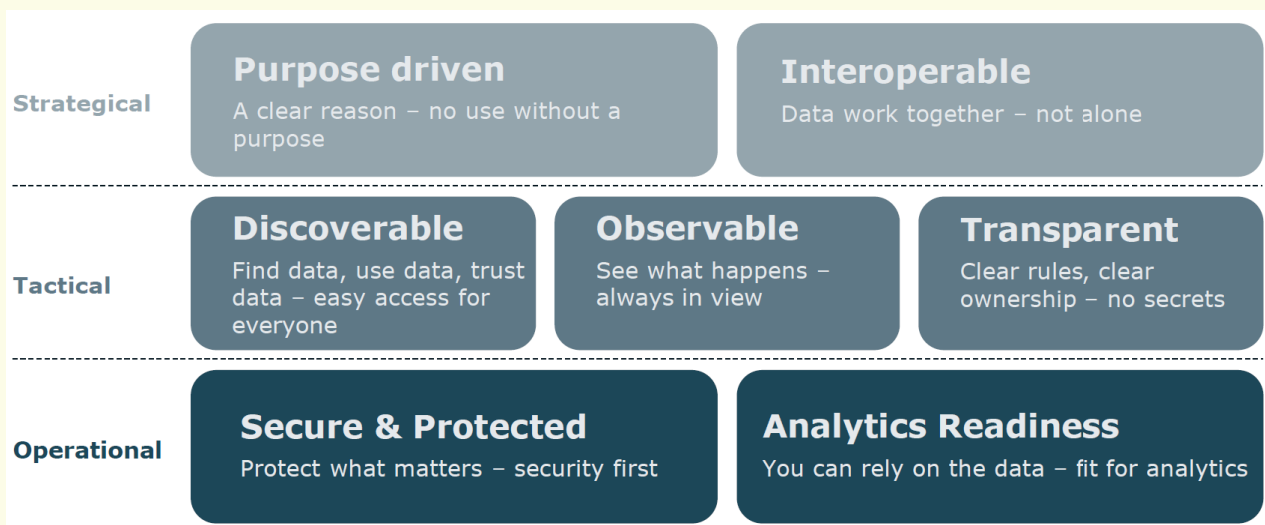
↪ It creates the conditions for data to be used in a trustworthy, responsible and effective manner for value creation.

- Governance defines **principles** ('trustworthiness characteristics'), sets clear **responsibilities**, strengthens **trust in Data & Analytics**, enables **enduring value creation** and **supports employees** in making well-informed, data-based decisions in their daily work.

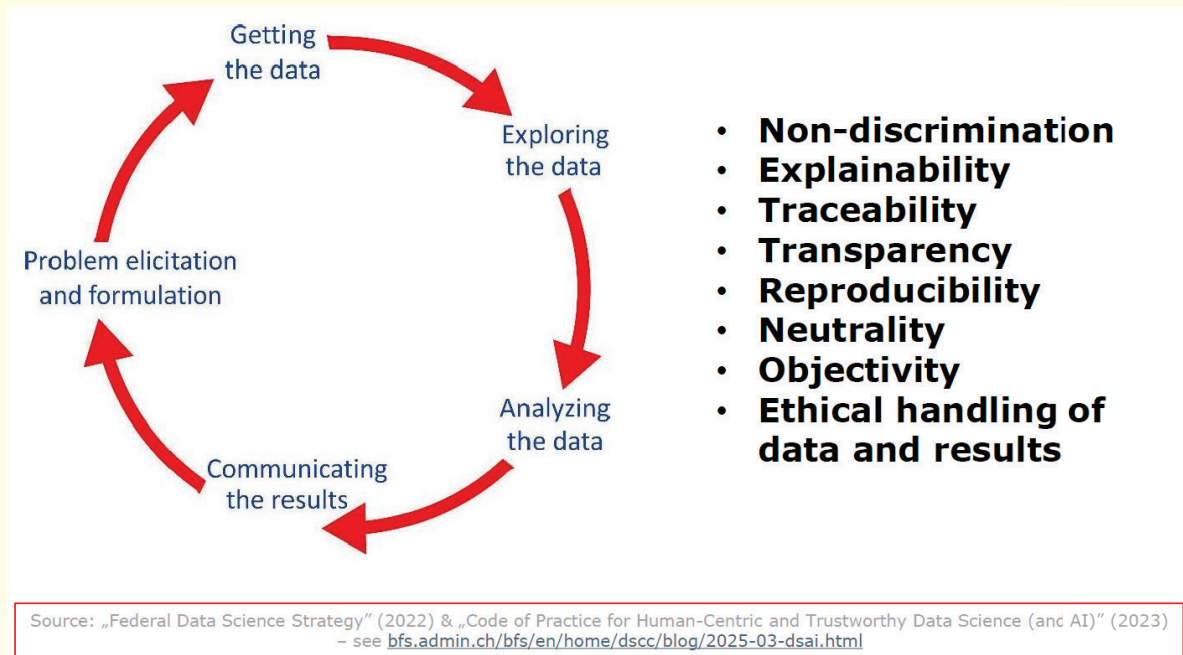
↪ In doing so, a **federated governance and operating model** is pursued, combining central steering and guidance with clearly defined decentralised responsibilities.

↪ It sets the **rules of the 'Data & Analytics game'**, ensuring that trust is earned every day through consistent trustworthiness.

◇ **Core principles** within a (principles-based) Data & Analytics governance that builds trust:



- ◇ **Complementary principles for analytics** within a (principles-based) Data & Analytics governance that builds trust:



Principles guide trade-offs — they are not on/off switches!

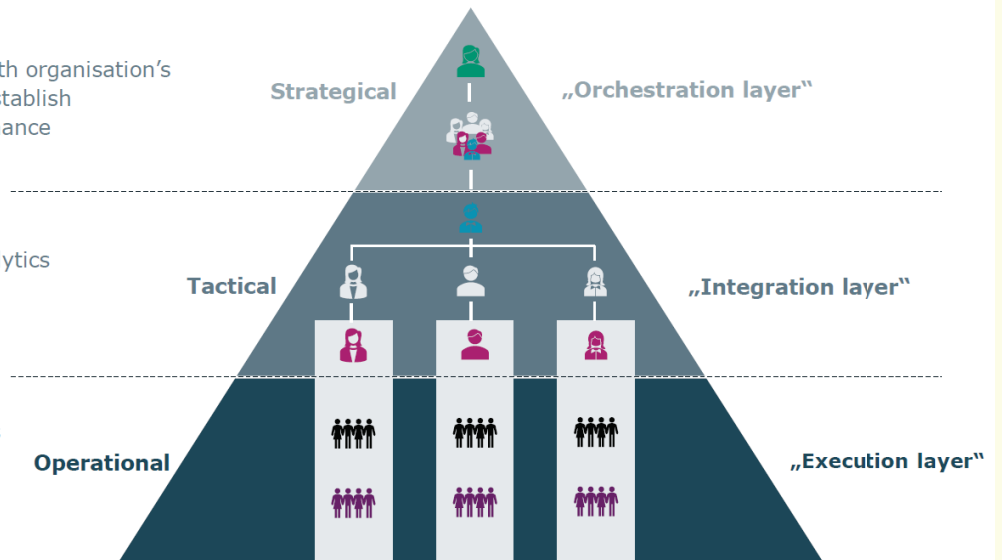


The 'Data & Analytics House' as a key to success?

Align Data & Analytics objectives with organisation's strategic and business goals, and establish corresponding principles and governance

Operationalise strategic Data & Analytics objectives and governance through concrete processes and structures

Implement specific Data & Analytics initiatives and/or „Data & Analytics products“ across business units and „data domains“



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‘Think big, start small, **start right** and start fast’!

- The objective is to define a '**Minimal Viable Governance**' approach by deliberately starting with the **smallest common denominator** and **collaboratively evolving the governance step by step** according to an **onion layer design approach**.



↪ This creates room for **continuous evolution and improvement** in the spirit of a **learning governance system**.

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- Data & Analytics must **earn trust every day through consistent trustworthiness!**
- The real risk is not technological failure, but the **illusion of organisational readiness!**

In the business of trust, Data & Analytics work not because we deploy them, but because we have **built the foundations** that make trust justified!

⇒ **‘Foundations first!’**

Successful Projects Proceed 'From Left to Right'



Source: Adapted from John Roberts' *The Modern Firm*

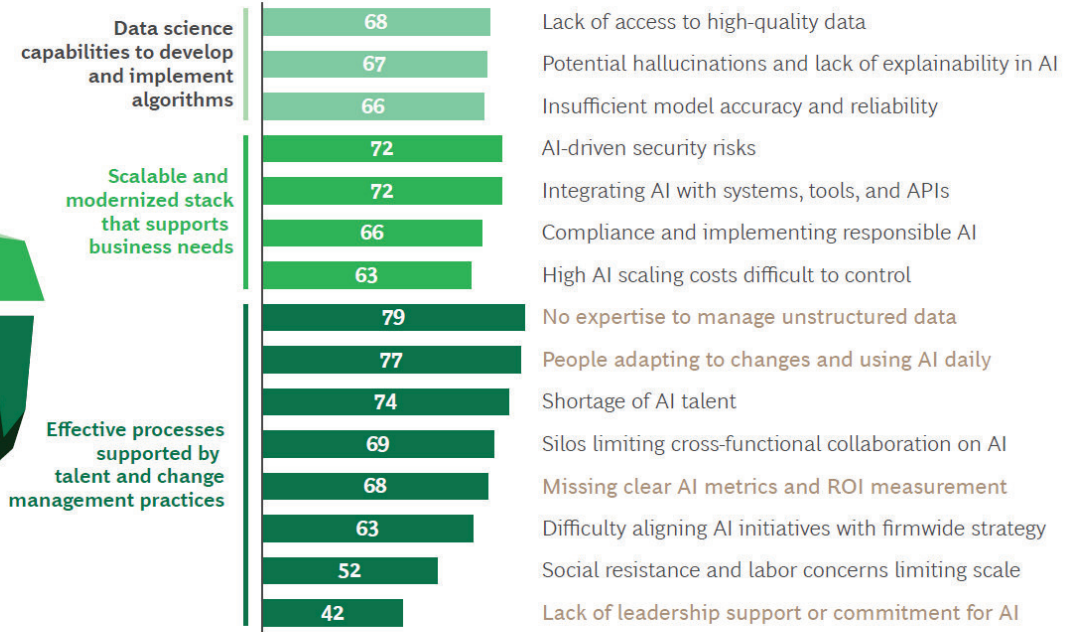
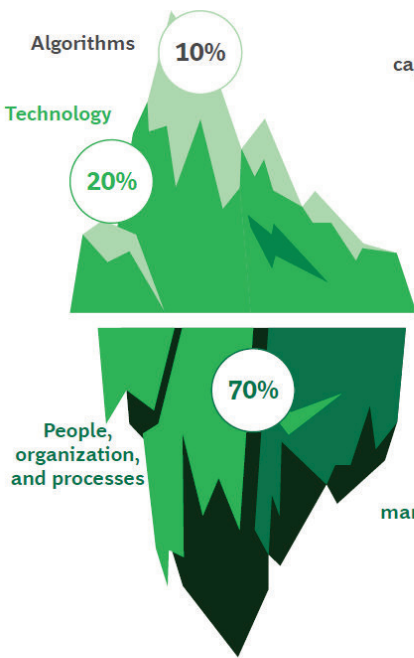
Source: Redman, T. C. (2022). *The Trust Problem That Slows Digital Transformation*. MIT Sloan Management Review, July 2022 (bit.ly/3Z8h2xA).

The idea is that a company (or any department or team) should **start at Step 1**, by sorting out what it wants to achieve — its **strategy** — and its business objectives. This makes sense: You have to know where you want to go before you start moving. Next, in **Step 2**, participants should sketch out the **organizational capabilities** they need to execute that strategy, including **people, structure, culture, and management routines**. For **Step 3**, leaders should define the **processes and data** they (and the project overall) will need to do the work. Finally, during **Step 4**, they should apply the **technology necessary** to increase scale and decrease unit cost.

Most AI Roadblocks Involve People, Organization, and Processes

BCG's 10-20-70 model

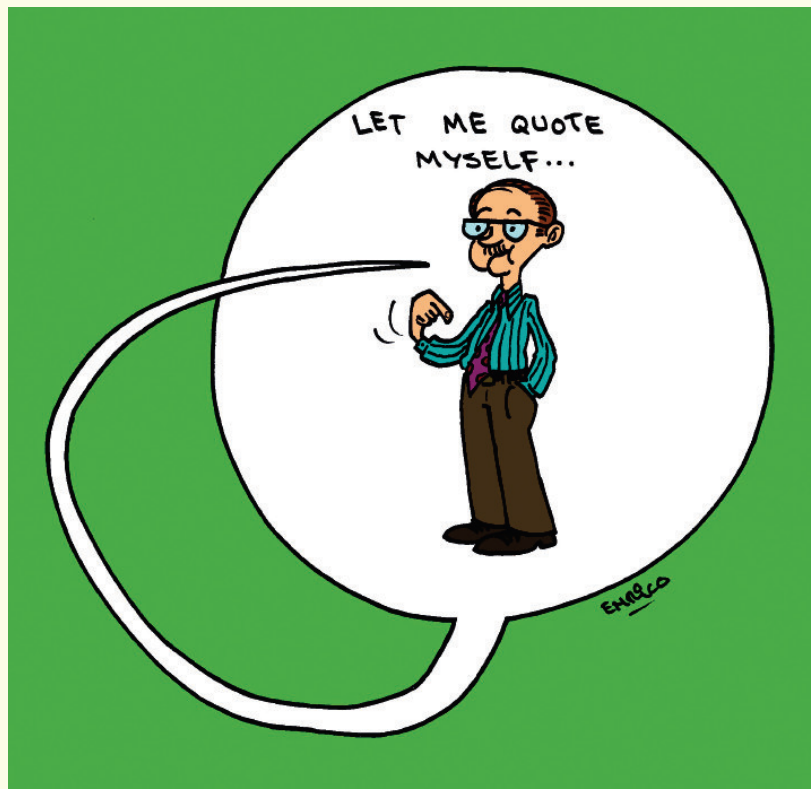
Key challenges named by respondents (%)



■ Significantly higher for laggards versus future-built

Source: BCG Build for the Future 2025 Global Study (n = 1,250).

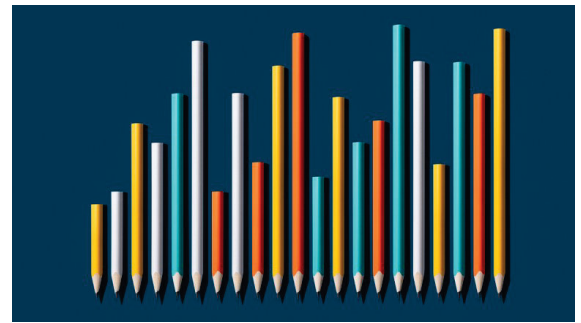
bcg.com/publications/2025/are-you-generating-value-from-ai-the-widening-gap



Your Data Strategy Needs to Include Everyone

by Tom Davenport, Roger W. Hoerl, Diego Kuonen, and Thomas C. Redman

June 07, 2023



Summary. An entirely new “management paradigm” for data is needed. As used here, a “management paradigm” embodies a common language, a holistic vision of the ways data should contribute, a clearly defined organizational structure showing how data integrates across the organization, along with clear roles and responsibilities for all involved. Eventually, it needs to incorporate corporate culture, relationships with universities and vendors, policy, and anything else that advances, or holds back the effective use of data. The new paradigm employs a more pervasive and integrated approach to using data, analytics, and AI in the business.

hbr.org/2023/06/your-data-strategy-needs-to-include-everyone

↪ Mind the ‘culture gap’!



↪ Do not let culture eat strategy — have them feed each other!

↪ Culture change is key in any transformation!

‘The transformation can only be accomplished by man, not by hardware (computers, gadgets, automation, new machinery). A company can not buy its way into quality.’

W. Edwards Deming, 1982

‘The most important takeaway is that every AI transformation is, at its heart, a people transformation. We often overfocus on the technology and miss the fact that people have to use it.’

Kate Smaje, 2026

'It is getting better... A little better all the time.'

The Beatles, 1967



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