



Are we data-illiterates in
a data-hungry world?

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FastTrack

YOUR TRANSFORMATION, FACILITATED!

DATA LITERACY: WHAT ARE WE TALKING ABOUT?

literacy

/ˈlɪt(ə)rəsi/

noun

1. the ability to read and write
2. competence or knowledge in a specified area (e.g., computer literacy)

- Literacy is traditionally understood as “the ability to read and write”
- Over time, the meaning has been expanded to include the ability to **use language** (spoken, written, numbers, images, etc) **to understand others and express oneself**
- Literacy today includes the capability to
 - analyze and synthesize
 - compare
 - interpret
 - think critically
 - etc.

DATA LITERACY: WHAT ARE WE TALKING ABOUT?

- The general expectation towards literacy is “mastery” (not everyone needs to become an expert)



DATA LITERACY: WHAT IS IT?

- Today, there are just so many literacies
 - Cultural literacy
 - Digital literacy (fluency)
 - Media literacy
 - ...
 - **Data literacy**
- An evolving **Data Literacy definition**
 - 1998 – ability to **READ** data
 - ...
 - 2015 – ability to **COLLECT, MANAGE, EVALUATE, and APPLY** data in a critical manner
 - ...
 - 2022 – ability to **VISUALIZE** data (interpret/produce)

DATA LITERACY: WHAT IS IT?

- Hard skills

- Data collection
- Data management (databases)
- Metadata
- Statistics
- Technical (tool) knowledge
- Visualization
- ...

- Soft skills

- Communication
- Critical thinking
- Decision making
- Ethics, privacy, and personal data
- Problem solving
- Systems Thinking
- ...

WHY IS DATA LITERACY SO IMPORTANT?

- Becoming a Data-Driven organization
- Establishing a Data Culture
- Modern Work
- Successful Digital Transformation

(according to articles in Forbes, HBR, Sloan, etc)



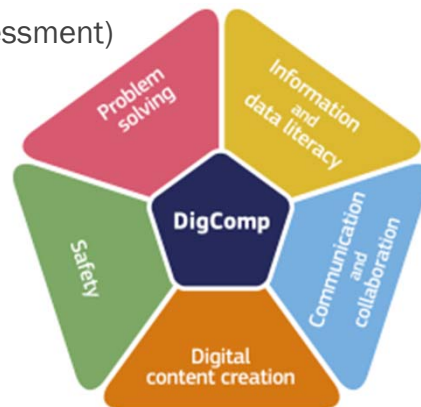
DATA LITERACY CHALLENGES



- Data Literacy is...
 - Poorly understood (limited to understanding/interpreting data)
 - Overrated by individuals
 - Ignored by organizations
 - Critical to our future (Digital Transformation)
 - Difficult to measure
 - Not being taught (as a life skill)

MEASURING DATA LITERACY

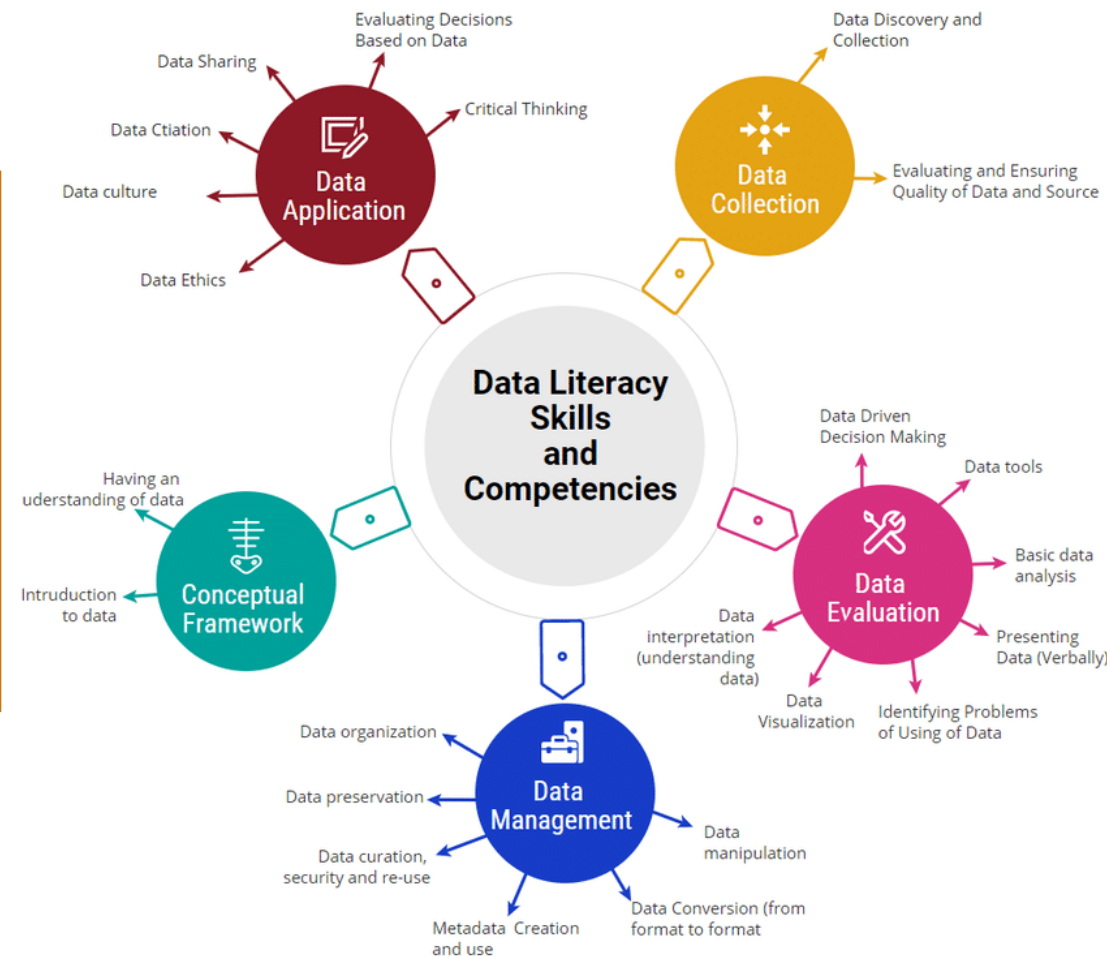
- Data Literacy has been part of broader evaluations
- Examples
 - EC - DIGCOMP (Digital Competence Framework for Citizens)
 - UNESCO - Digital Literacy Global Framework (DLGF)
- Data literacy is also measured in private approaches
 - Databilities (10-minute self-assessment)
 - QuantHub (persona-driven assessment)



- The focus is mostly on citizens, not organizations
- Measurement is often at aggregated level
- Data literacy is only a small component of these tests
- Often “data” is equated with “information” or “content”
- Large Frameworks use proxies such as combining computer and information management skills
- Private frameworks are either for sale or intended to sell learning programmes
 - Often behind paywalls
 - Often too naïve
 - Often too limited

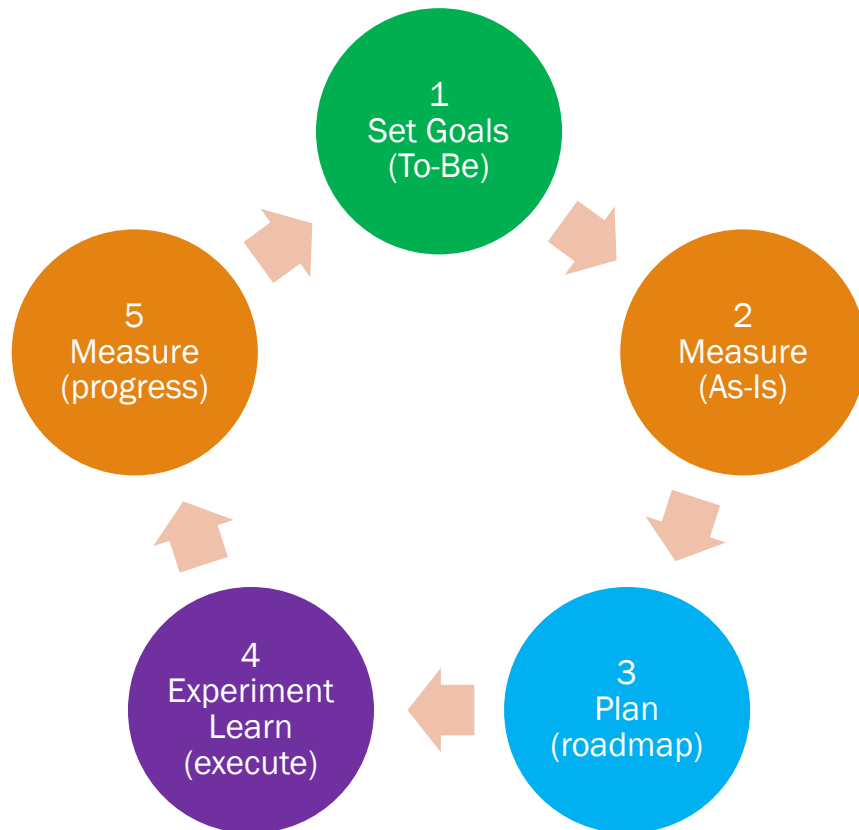
MEASURING DATA LITERACY

- Towards an **open-source** data literacy framework allowing for **comparative benchmarking** across private & public organizations and industries/sectors
 - We need a standard metric
 - Accessible to everyone
 - Useful at both individual & organizational levels



Source: Güler, Gülşen. (2019). Data literacy from theory to reality: How does it look? VUB Master's Thesis (Researchgate)

IMPROVING DATA LITERACY



1. **Set Goals (To-Be)** - Where do we need/want to be?
2. **Measure (As-Is)** - Acknowledge the current situation, establish a baseline
3. **Plan (roadmap)** - How can we get there?
4. **Experiment & Learn (execute)** - Manage the change
5. **Measure (progress)** - Are we there yet?

IMPROVING DATA LITERACY

- Iterative process
- Aligned with business objectives
- No one-size-fits-all
 - Not everyone starts from the same situation
 - Not everyone needs to reach the same level
- But... there are base competencies that everyone needs
- Make it a process, not a one-shot (e.g., onboarding)
- Choose your measurement framework wisely
 - You will need it more than once!





Q & A



THANK YOU

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