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Maritime Alliance for fostering the European Blue Economy through a Marine Technology Skilling Strategy

ED2MIT: Education and Training for Data Driven Maritime Industry

Digital and Data Skills Training to Enable the Digital Transformation of the Maritime Industry

Industry 4.0 and Digital Transformation: Digital Skills and Data Driven Culture

Data-Driven Culture in Enterprise: Introducing the 4 Pillars

Data maturity. Solid data maturity is foundational to a data culture.

- Organization's data maturity manifests itself in every individual having an appropriate level of access to the clean and accurate data they need.
- Importance of a well-defined CDO role and other related roles

Data-driven leadership. Leaders define the culture of organization.

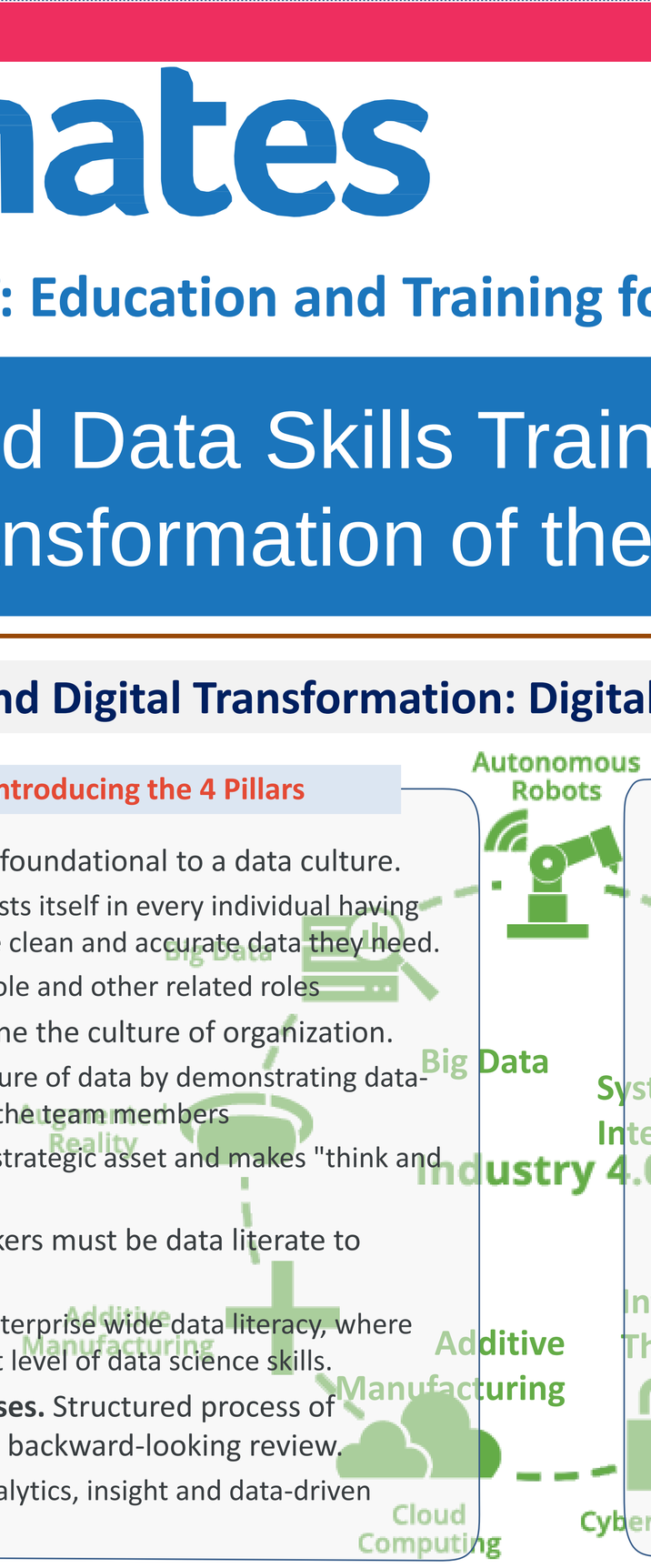
- A data-driven leader supports a culture of data by demonstrating data-driven decision making and involve the team members
- A data-driven leader sees data as a strategic asset and makes "think and act data" a key strategic priority.

Data literacy. Individual decision makers must be data literate to leverage their data

- The CDO office needs to invest in enterprise wide data literacy, where every role is upgraded with the right level of data science skills.

Data-driven decision-making processes. Structured process of forward-looking decision making and backward-looking review.

- Build experience of aligning data analytics, insight and data-driven decision-making processes.



Five Characteristics of a Data-Driven Company

#1. Creative executives who run their businesses with passion and curiosity

Being data-driven requires a bit of a researcher's mindset -- the curiosity to dig into the data and glean insights from it that can be of use for the business.

#2. Data democratization

Data-driven organizations emphasize the importance data access for all employees.

#3. Data literacy

An organization's ability to succeed in the digital era is heavily dependent on its employees' data literacy: the ability to read, work, analyze, and argue with data. Example of how to respond to a data literacy problem is Data University at Airbnb that helps bringing data powered decision making in every room.

#4. Automation of data management workloads

A core criterion for a data-driven organization is how much data analytics tools are automated and provide information is a form that can be easy for decision making

#5. A company wide, data-driven culture

Becoming data-driven involves more than technology and tools. It also requires a shift in the enterprise's mindset and culture.

ED2MIT Training: Digital and Data Competence Groups

A. Data – B. Cloud – C. Digital Content – D. Data Science & Analytics

Compliant with DigCom 2.2

A. Data related competences and technologies

B. Cloud services and cloud economics

C. Digital content creation, access and management

D. Data Science and Big Data Analytics

B. Cloud services and cloud economics

A. Data – B. Cloud – C. Digital Content – D. Data Science & Analytics

B. Cloud services and cloud economics

B.1. Cloud service models: IaaS, PaaS, SaaS, Apps. Use examples and Cloud Service Providers. Cost model of cloud services.

B.2. Company IT infrastructure migrating to cloud: benefits and problems

B.3. Cloud and Big Data, Cloud based Big Data platform and services

B.4. Data storing, backing up, sharing and processing in clouds (for organisational and private data)

B.5. Practical exercises with cloud services: Cloud management console and cloud services deployment and access

C. Digital Content

A. Data – B. Cloud – C. Digital Content – D. Data Science & Analytics

C. Digital content creation, access and management

C.1. Internet and World Wide Web

C.2. HTML, CSS, JavaScript for active pages

C.3. UX design and web portal services

C.4. Web applications security

A. Data related competences and technologies

A. Data – B. Cloud – C. Digital Content – D. Data Science & Analytics

A. Data related competences and technologies

A.1. Big Data definition and technologies: 6V of Big Data and challenges for companies. Big Data examples from research and industry

A.2. Data collection, access and sharing

A.3. Data formats, data models, metadata

A.4. Data Storage and databases, SQL scripting and simple commands

A.5. Data inspection, Data protection, data backup and archiving

A.6. Cloud based services and tools for data storage, sharing and management

A.7. Open Data repositories, test datasets, developer communities

A.8. Organisational and private Data Management, FAIR Data Principles, organisational roles, Data Stewards

D. Data Science and Big Data Analytics

A. Data – B. Cloud – C. Digital Content – D. Data Science & Analytics

D. Data Science and Big Data Analytics

D.1. Statistical methods and Probability theory

D.2. Data description and Statistical Data Analysis

D.3. Data preparation: data loading, data cleaning, data pre-processing, parsing, transforming, merging, and storing data

D.4. Qualitative and Quantitative data analysis

D.5. Classification: methods and algorithms

D.6. Cluster analysis basics and algorithms

D.7. Performance of data analytics algorithms and tools

D.8. Visualizations of data analysis and dashboards

D.9. Organizing data analytics process following CRISP-DM and Data Science Process

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Thematic Group Digitalisation and Digital Skills coordinator

Yuri Demchenko y.demchenko@uva.nl

UvA Universiteit van Amsterdam

EDISON building the data science profession