

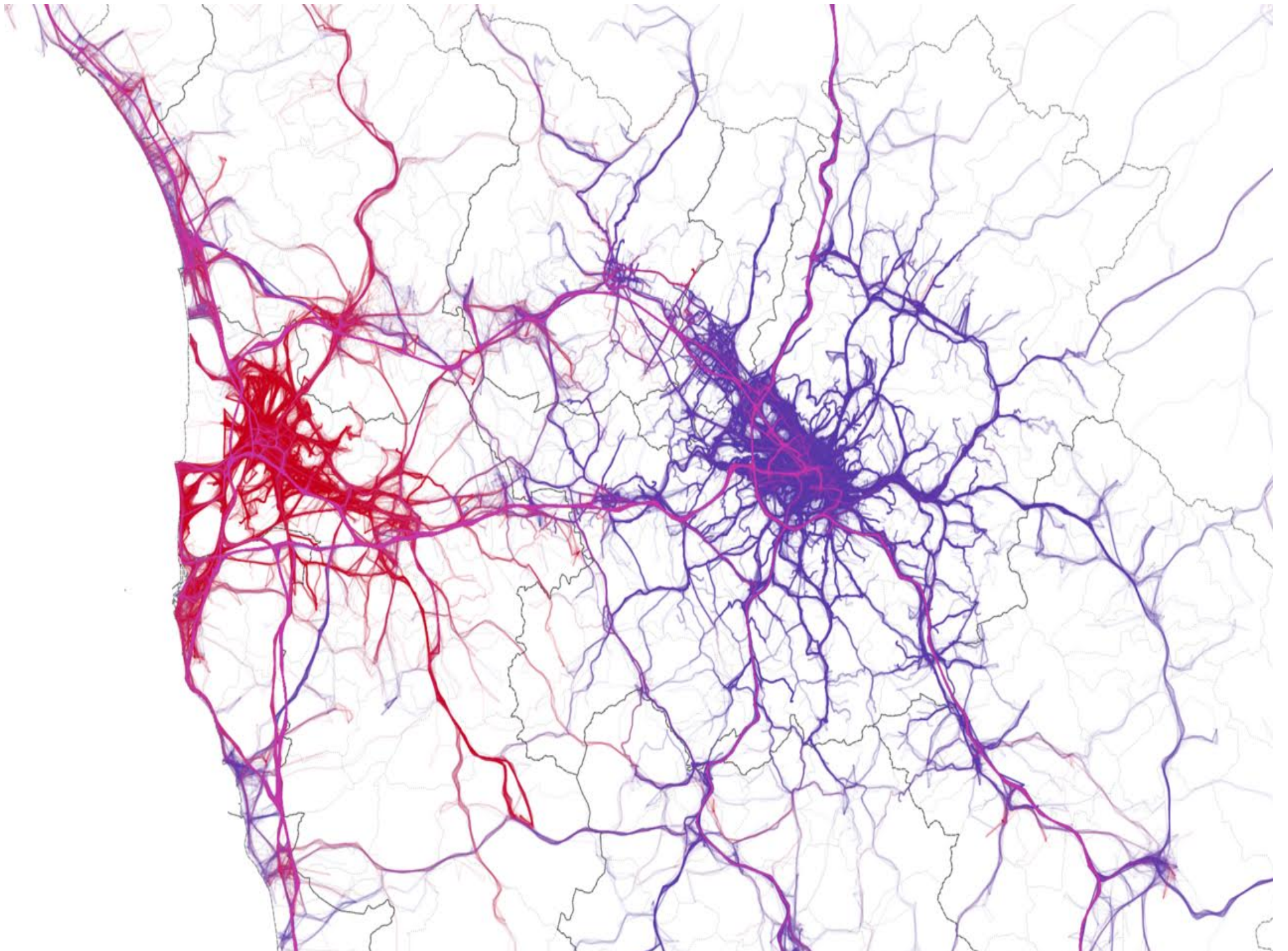
Laurea magistrale in Computer Science

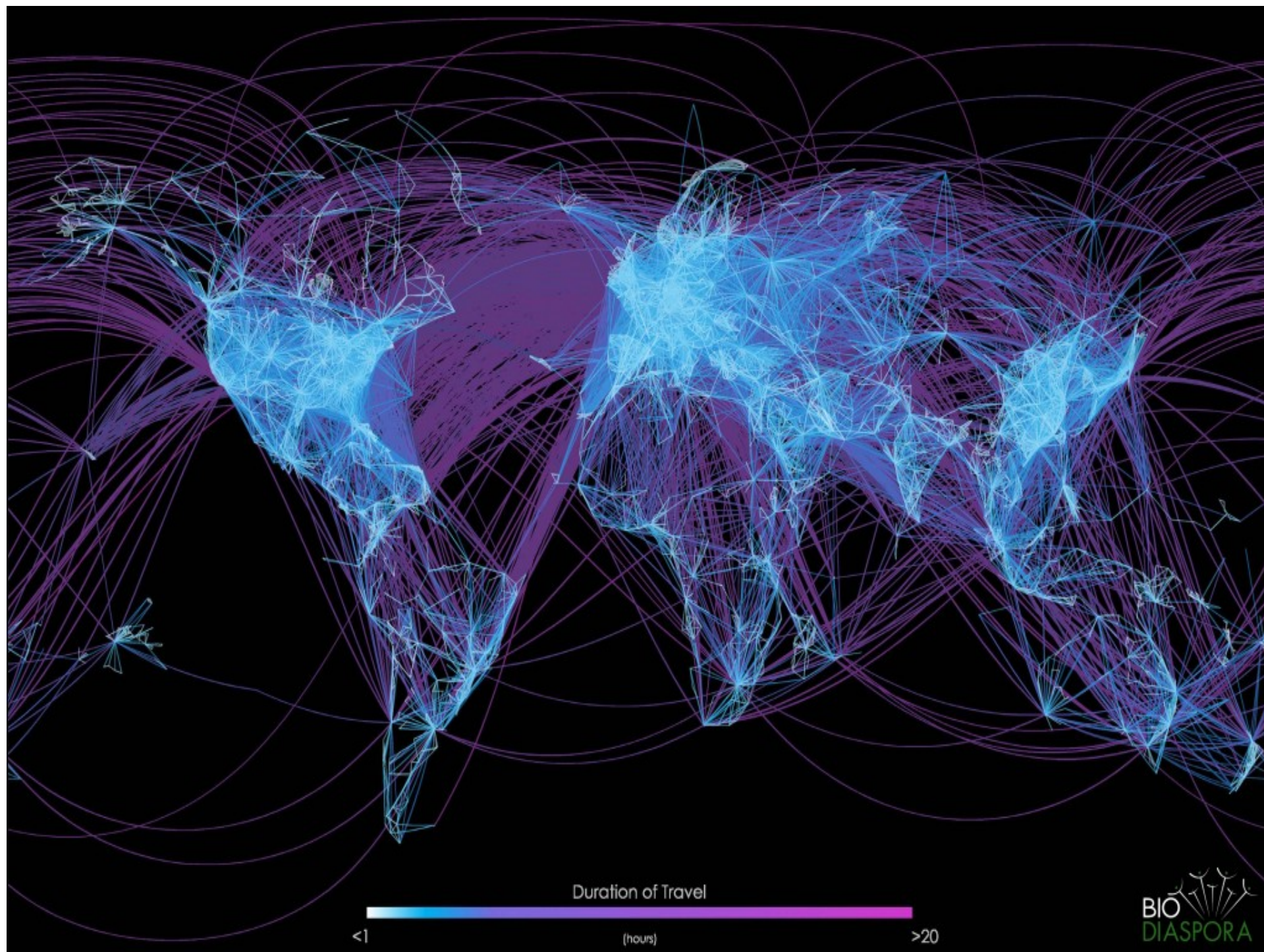
curriculum

Data & Knowledge: Science & Technologies

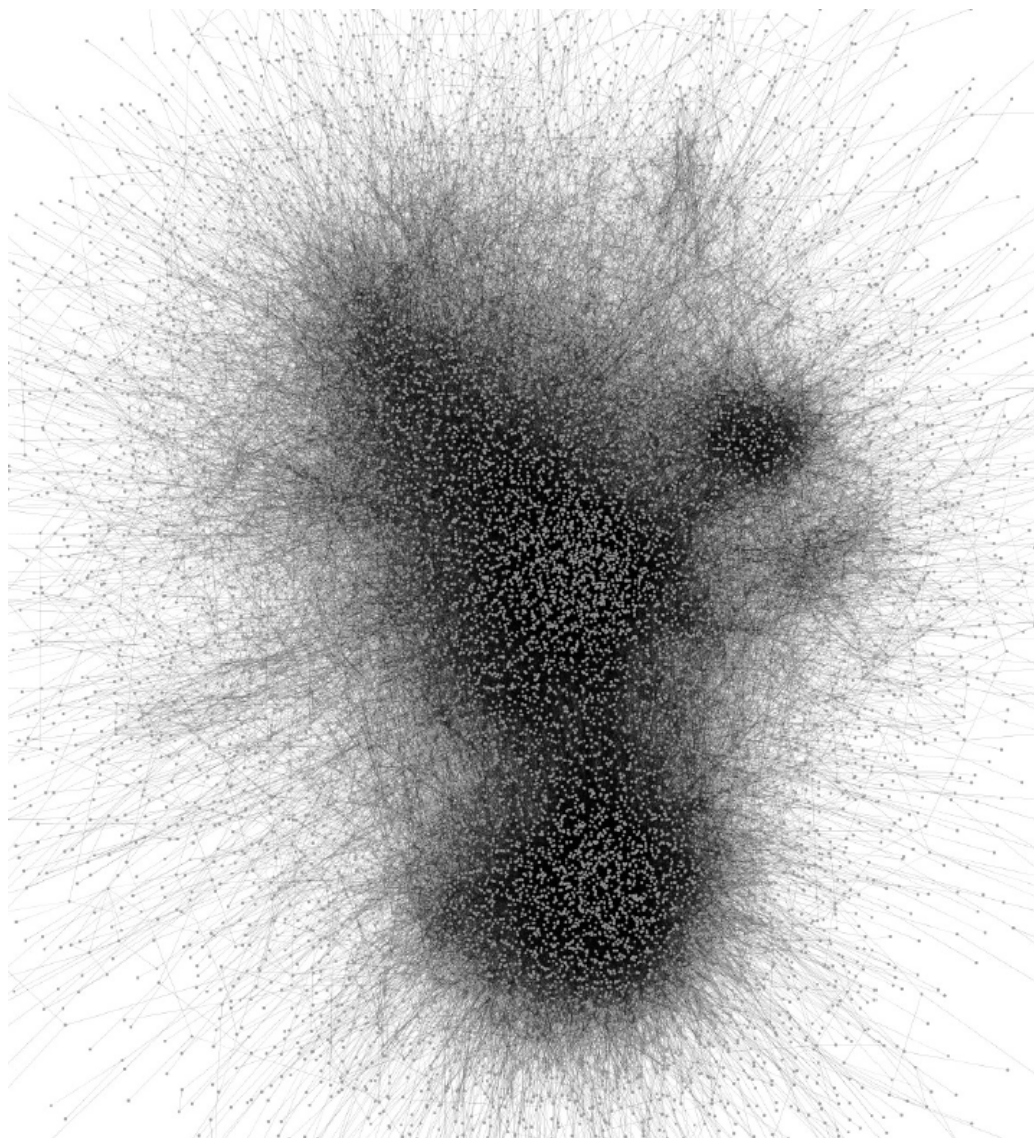
Dino Pedreschi

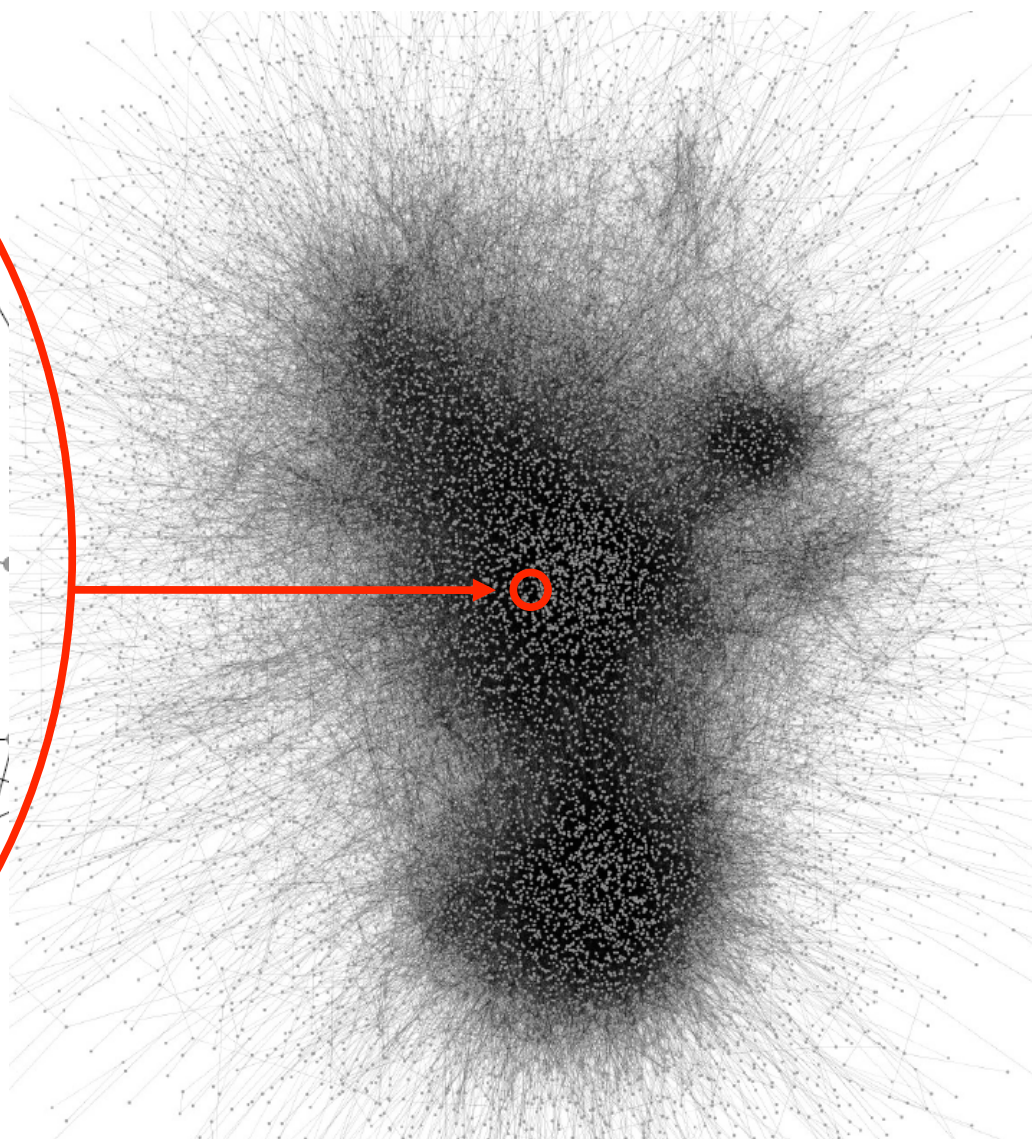
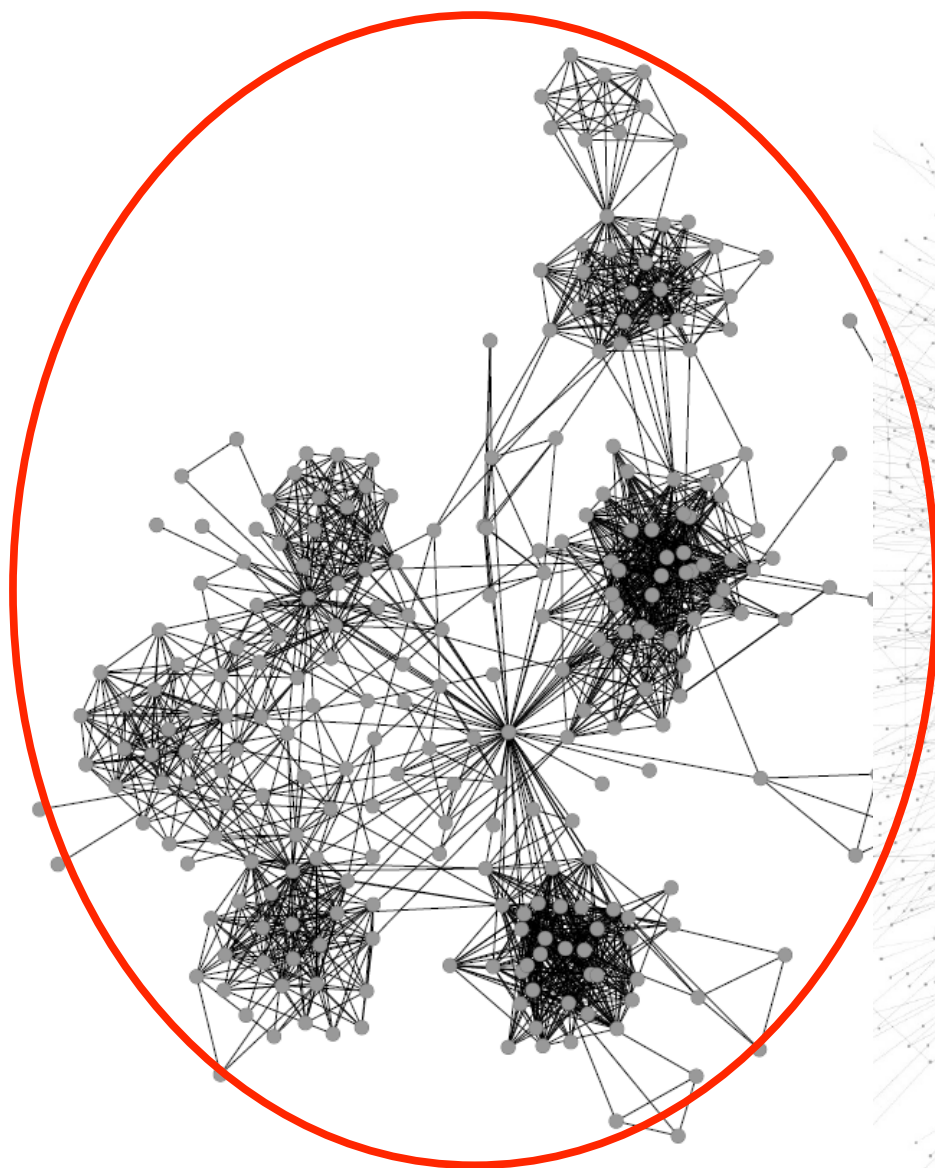


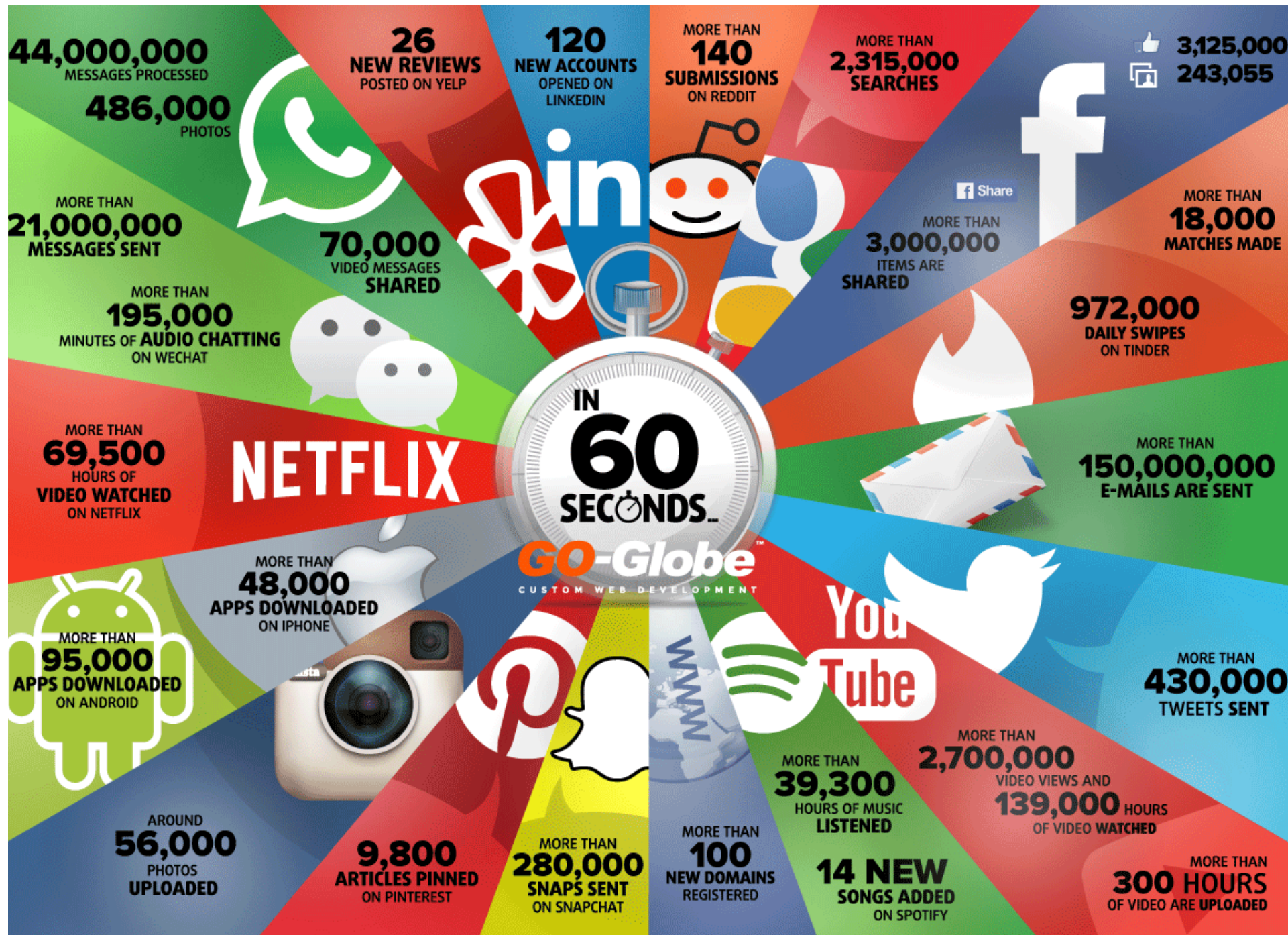


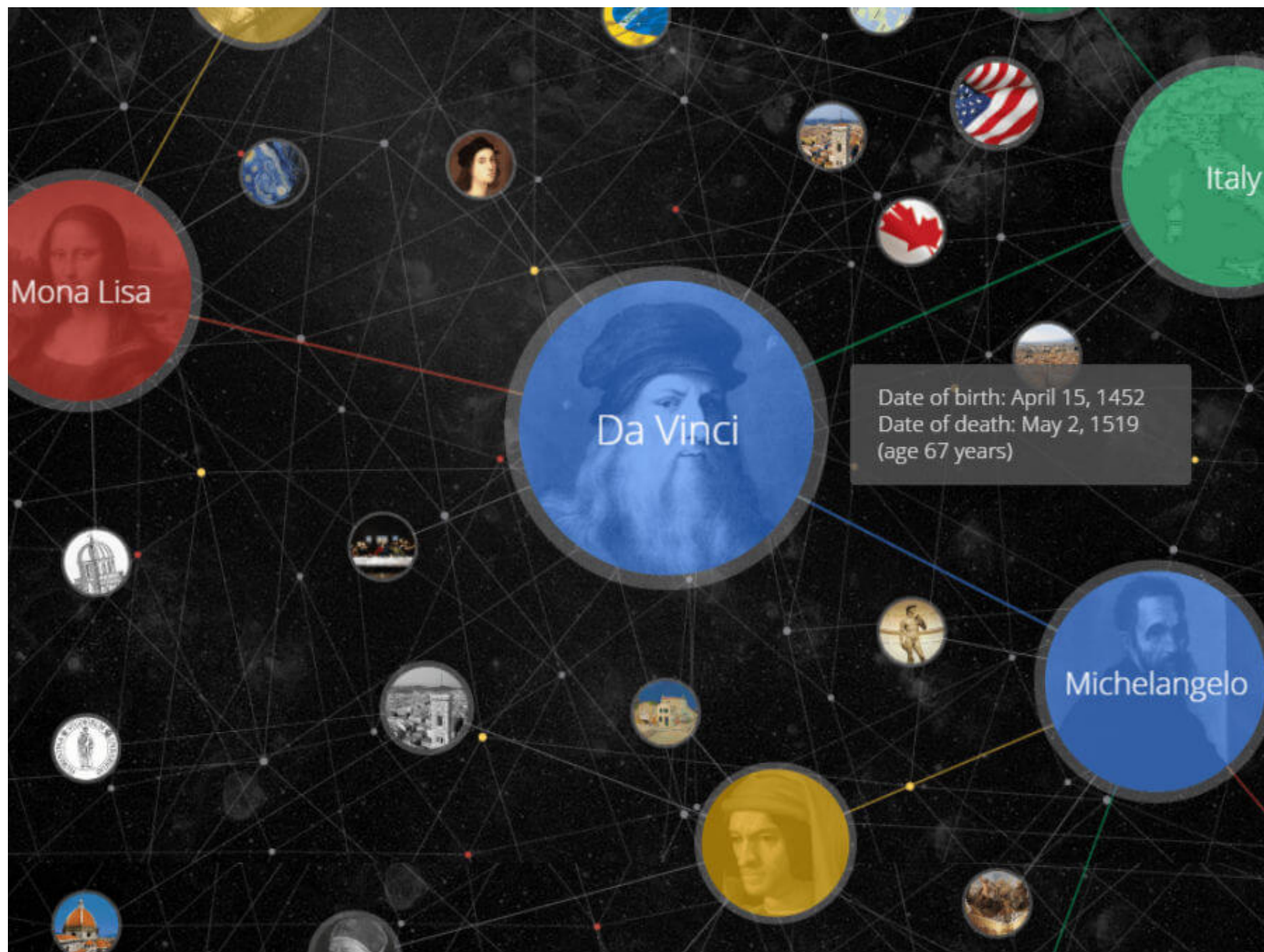


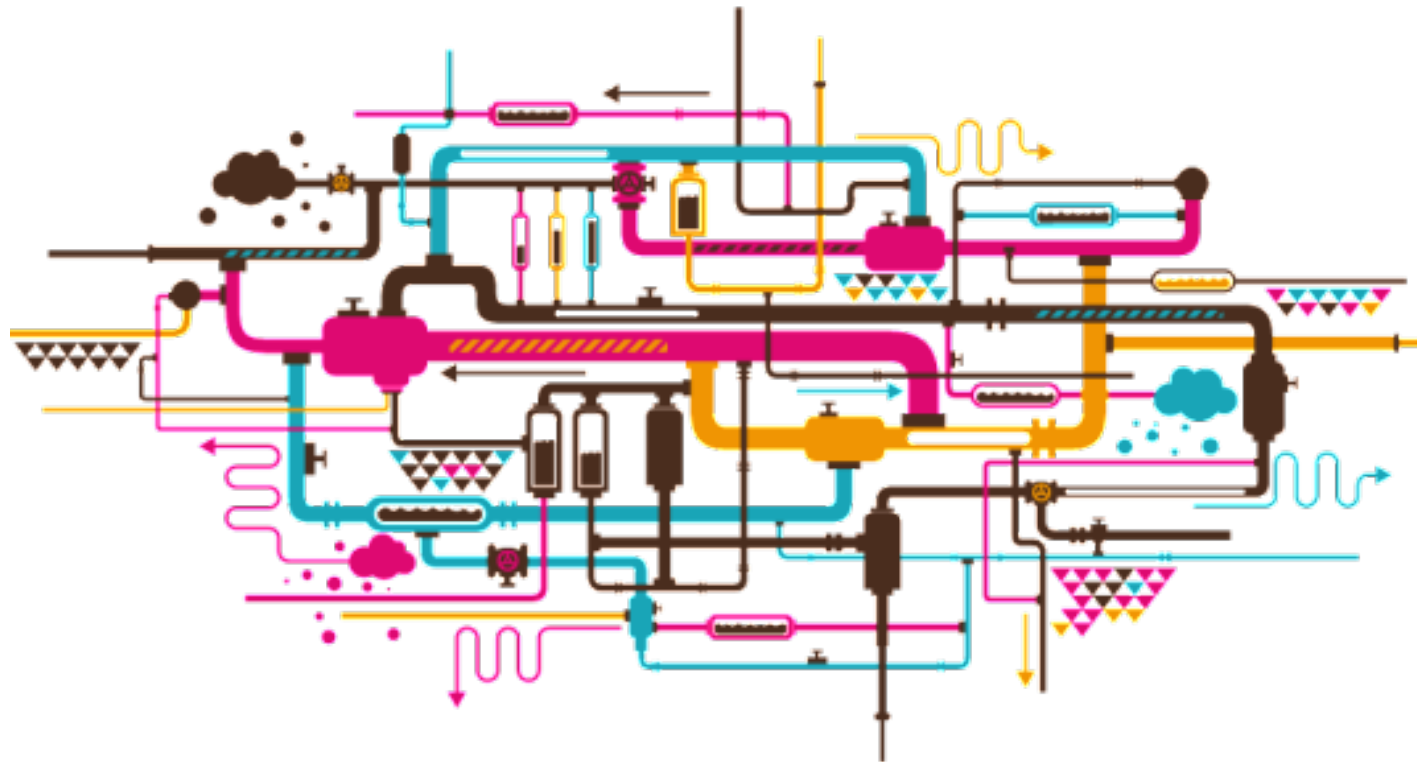
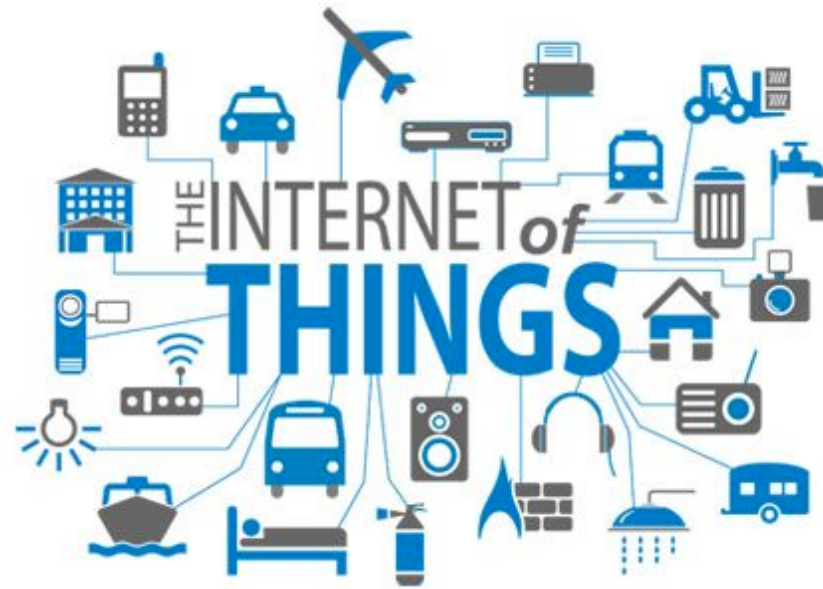




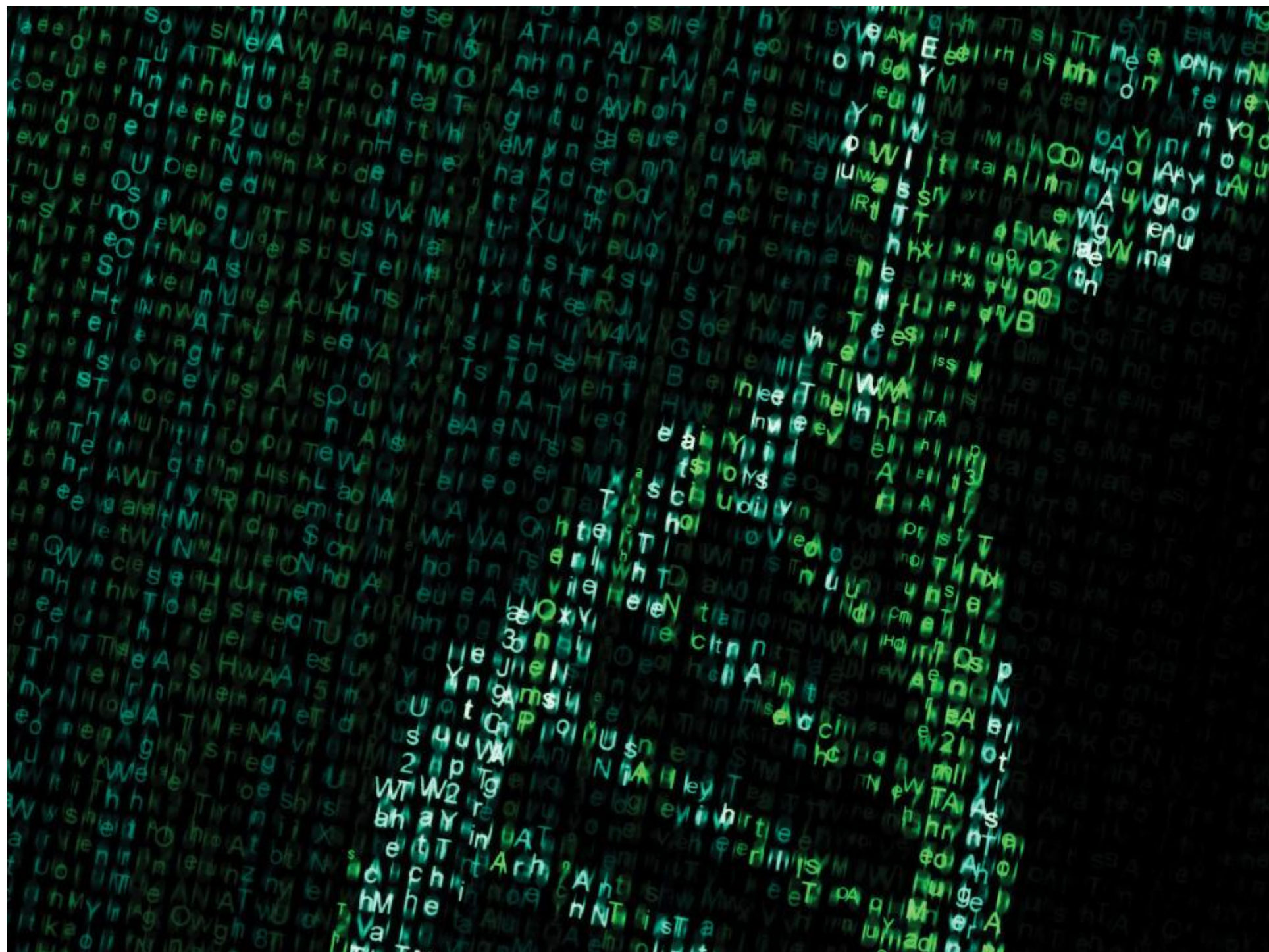


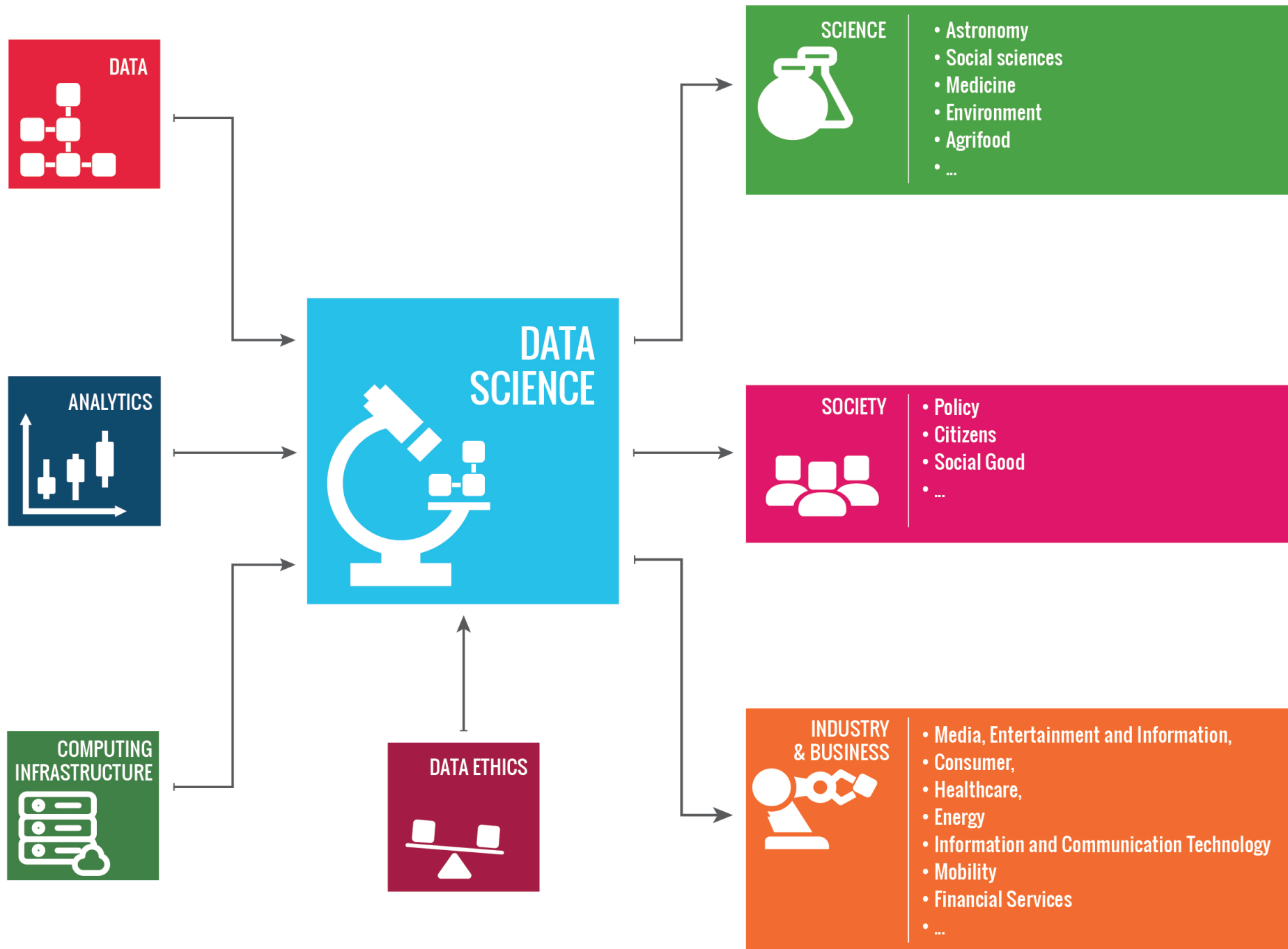






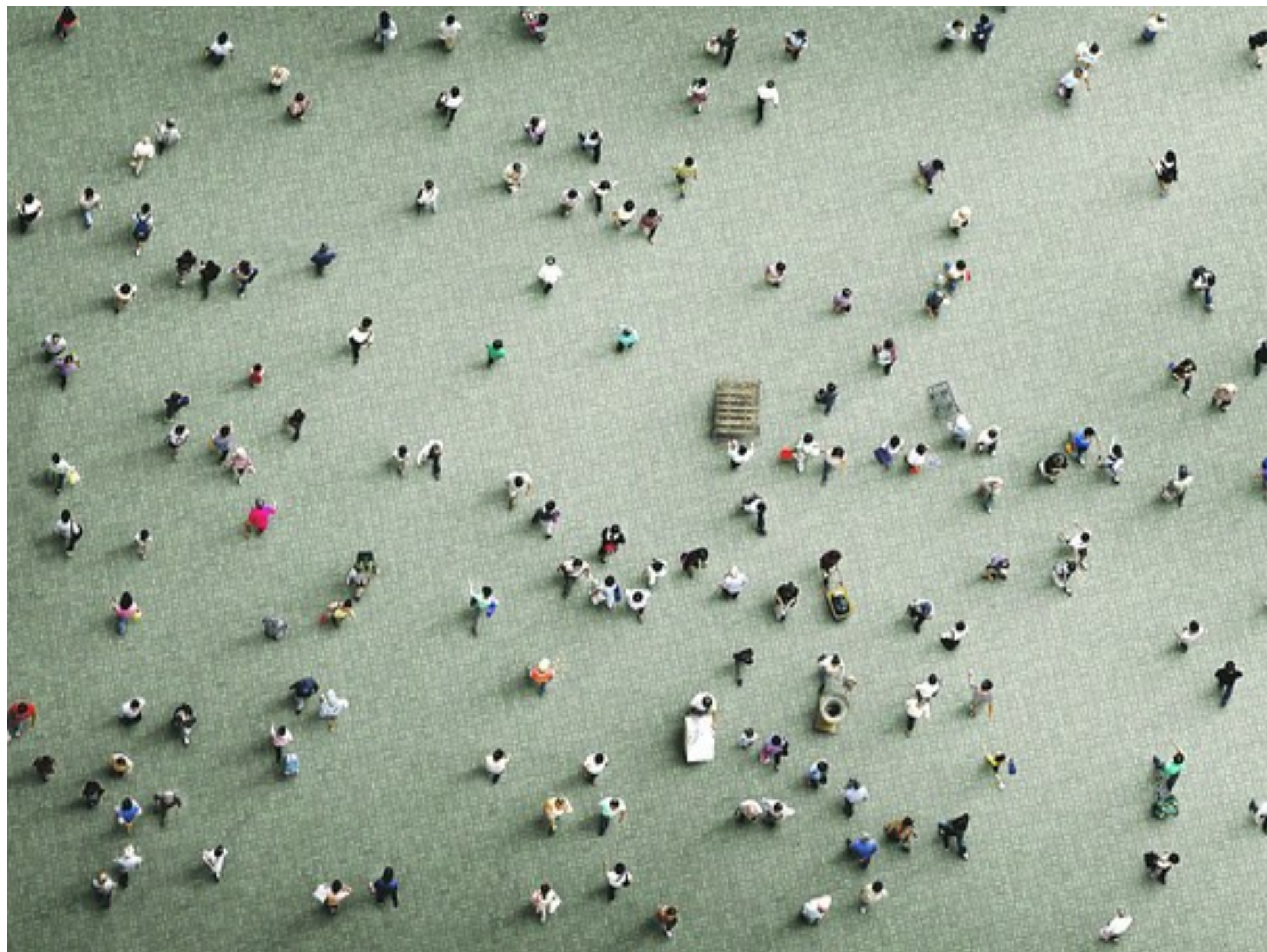


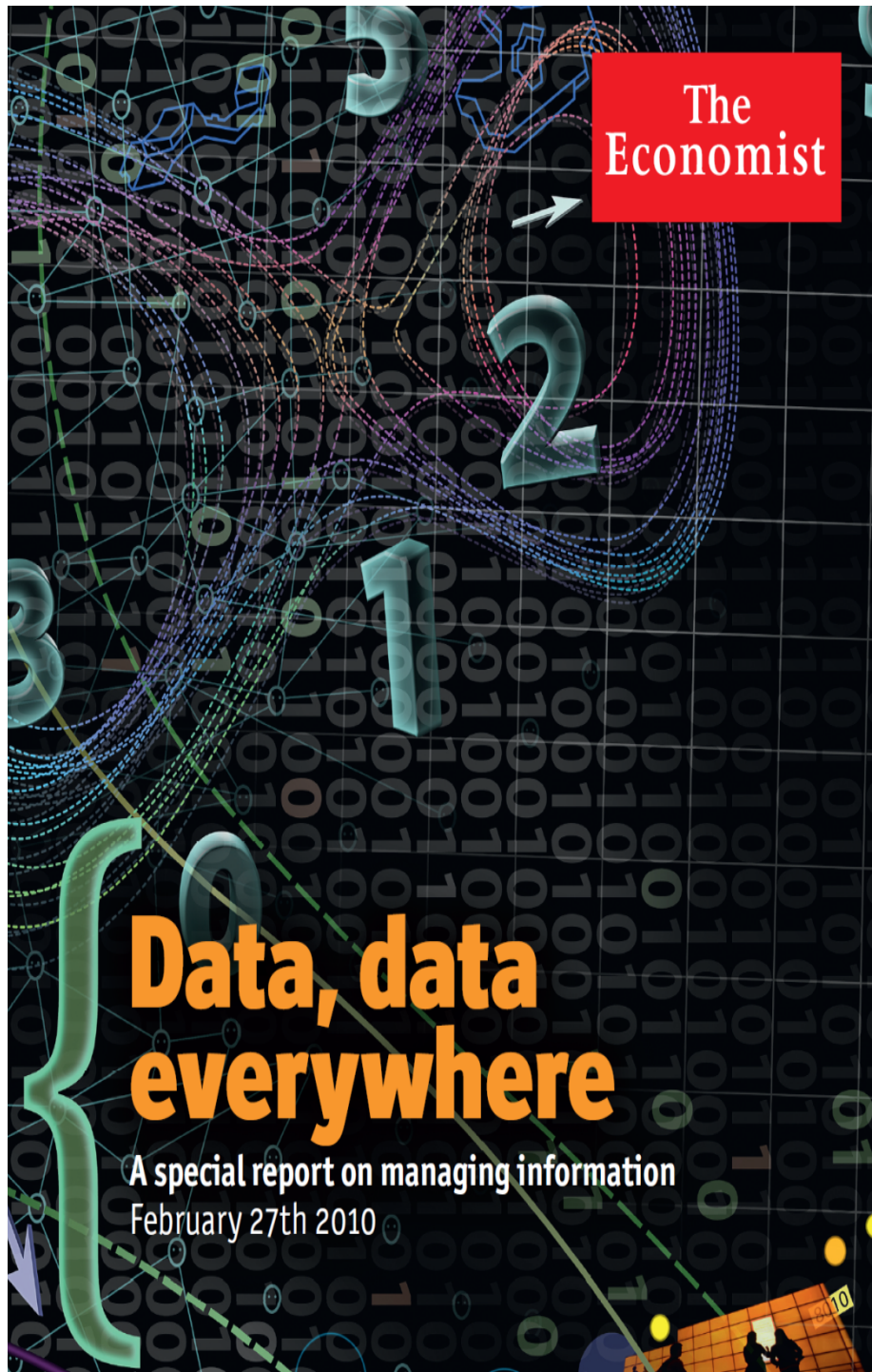






**a tool to
measure,
understand,
and possibly predict
human behavior**





Data scientist

- A new kind of professional has emerged, the **data scientist**, who combines the skills of **software developer**, **statistician** and **storyteller/artist** to extract the nuggets of gold hidden under mountains of data.

The Future of Jobs

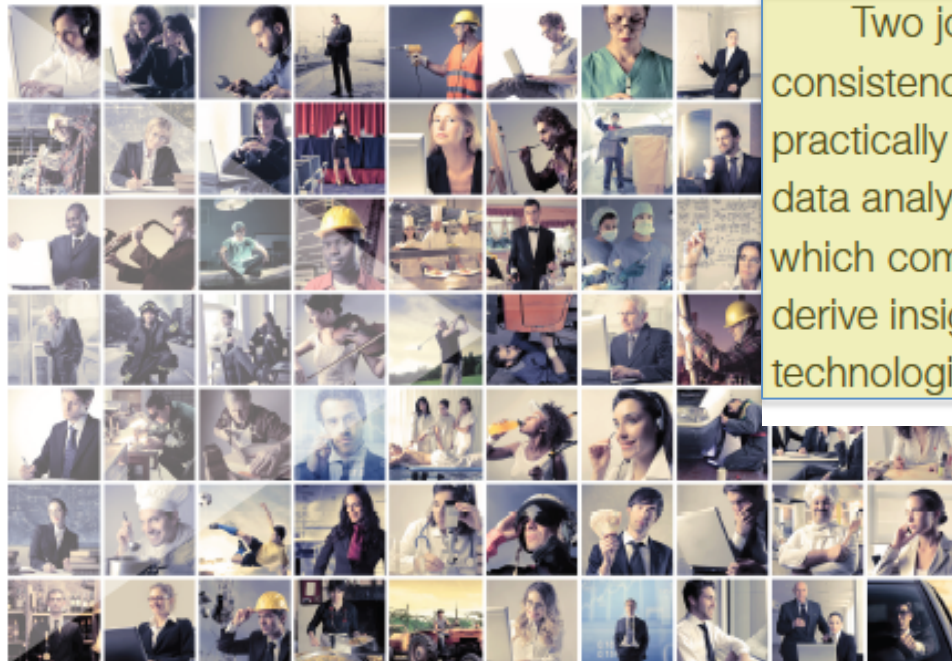
Employment, Skills and
Workforce Strategy for the
Fourth Industrial Revolution

January 2016

New and Emerging Roles

Our research also explicitly asked respondents about new and emerging job categories and functions that they expect to become critically important to their industry by the year 2020, and where within their global operations they would expect to locate such roles.

Two job types stand out due to the frequency and consistency with which they were mentioned across practically all industries and geographies. The first are data analysts, as already frequently mentioned above, which companies expect will help them make sense and derive insights from the torrent of data generated by the technological disruptions referenced above. The second



http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf

Find Jobs

KEYWORDS:

LOCATION:



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175



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Share 851

Jobs Rated Report 2017: Ranking 200 Jobs



Data Scientist

Overall Rating: 5/199

Median Salary: \$111,267

Work Environment

Very Good

12/199

Stress

Very Low

37/199

Projected Growth

Very Good

37/199

[View Raw Scores](#)

[Search Data Scientist Jobs](#) ➔



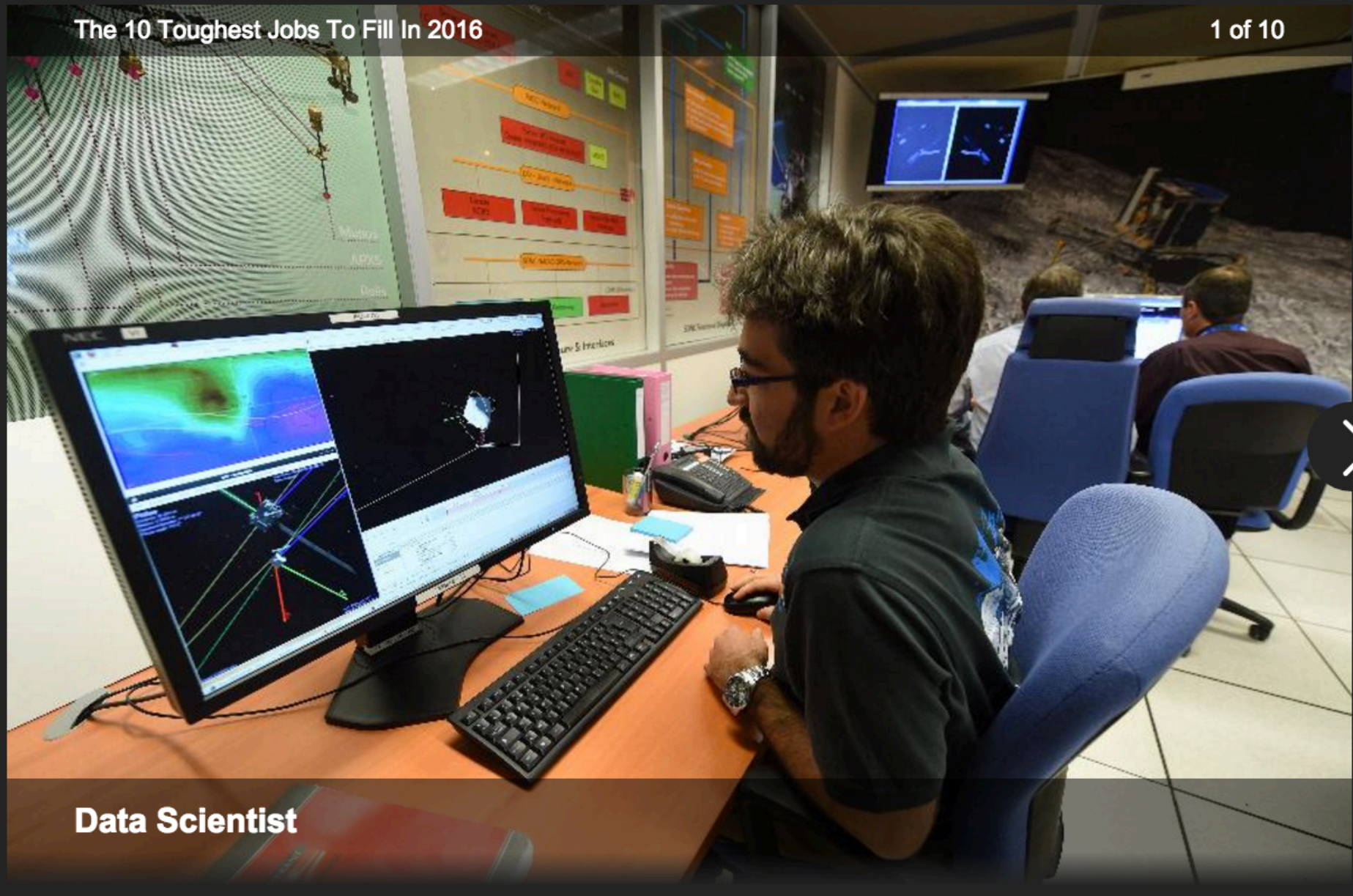
 **Gallery**

The 10 Toughest Jobs To Fill In 2016

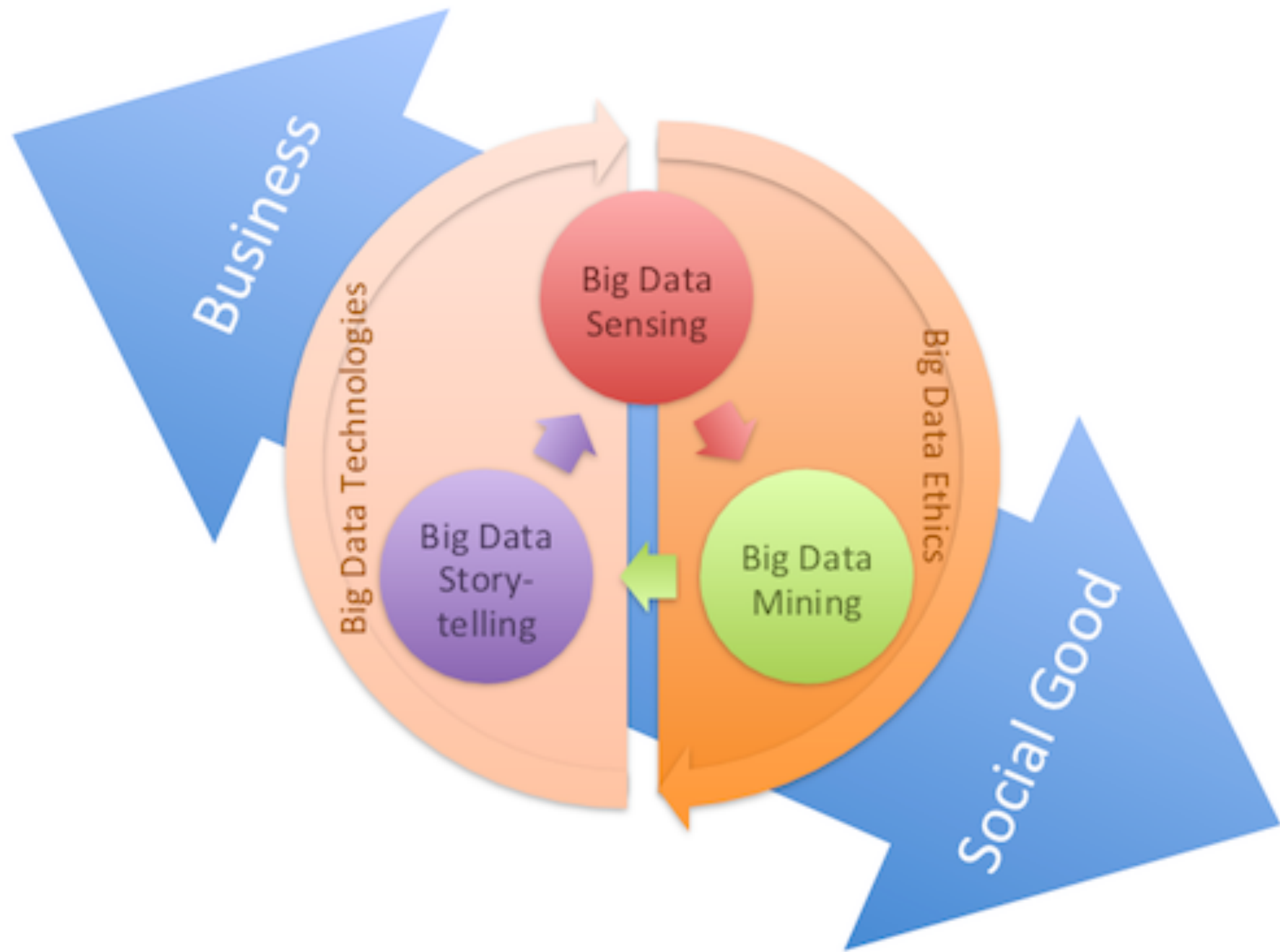
Launch Gallery

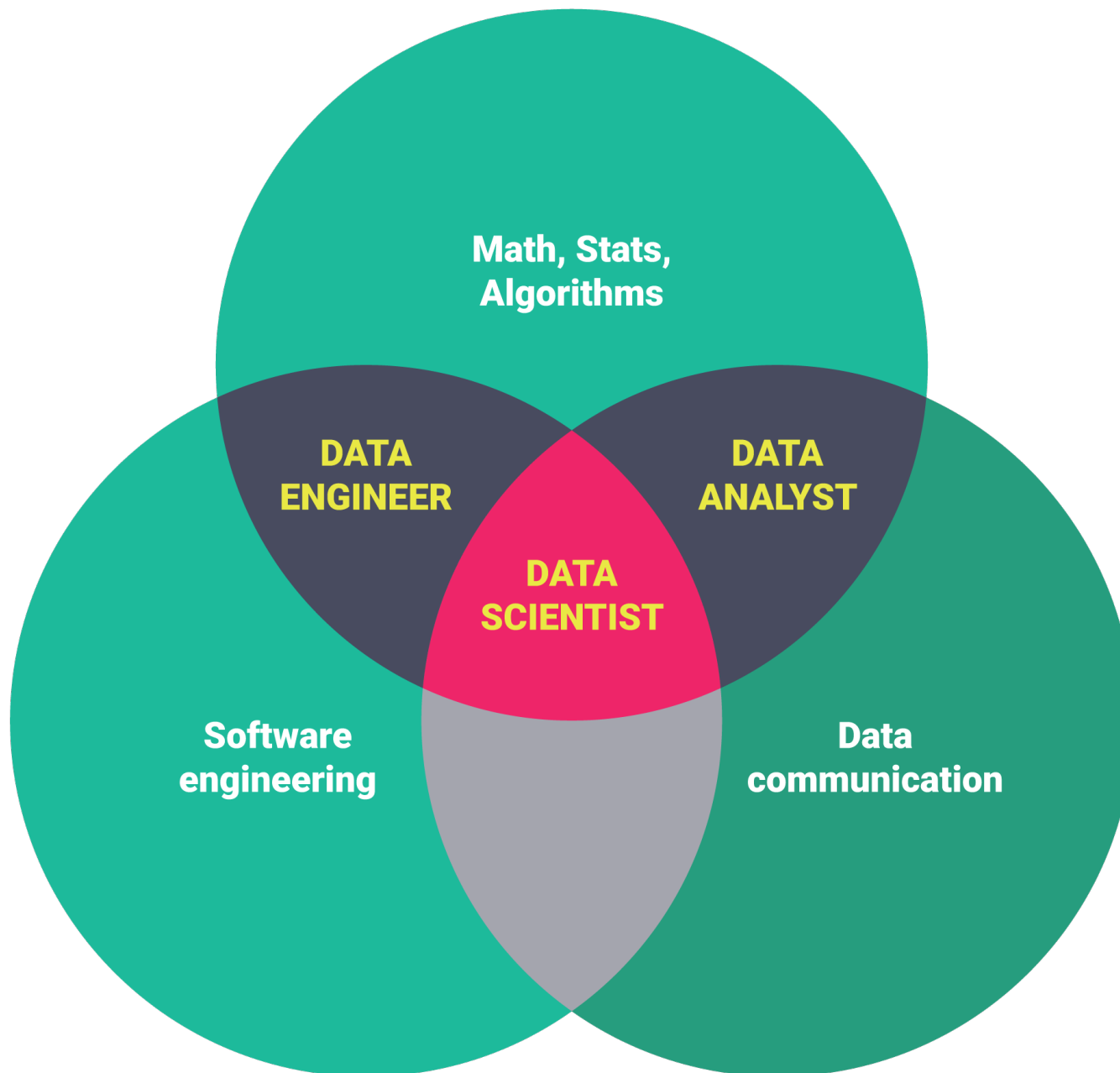
10 images



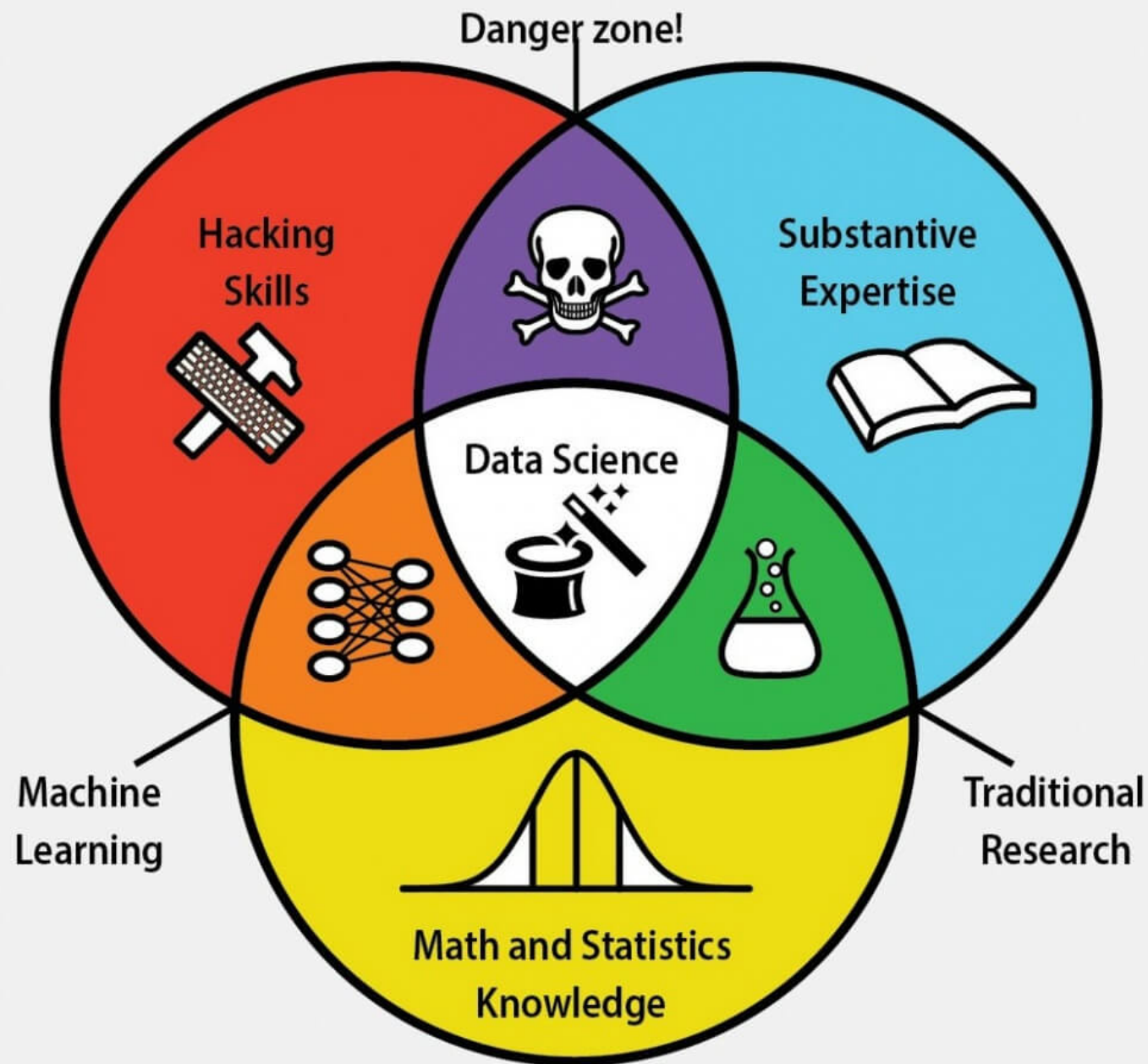


Data Scientist





DATA SCIENCE SKILLSET



Data Mining/ML



BI/Visualization



ETL/DW



Data Processing



Data Storage



Goal: data science architects

- create the next generation of “**data architects**” and “**software and algorithm engineers**”
 - deep computational, methodological and modeling skills to design and implement the **future data-intensive algorithms, tools and platforms**,
 - master cutting-edge technologies for **big-data analytics**, such as Hadoop, Spark, together with the tools for data and text mining, machine learning, complex system modeling

Study plan

First year

Semester 1	CFU	Semester 2	CFU
Algorithm engineering	9	Advanced databases	9
Data Mining	9	Bioinformatics	6
Information Retrieval	6	Parallel and distributed systems: paradigms and models	9
Computational mathematics for learning and data analysis	9	Group: KD elective 6 cfu	6
	33		30

Second year

Semester 3	CFU	Semester 4	CFU
Group: free choice	9	Thesis	24
Group: KD elective 9 cfu	9	Group: KD elective 9 cfu	9
Group: KD elective 6 cfu	6		
	24		33

Group: KD electives (9 CFU)

Human languages technologies (AI)
ICT risk assessment (ICT)
Mobile and cyber physical systems (ICT)
Machine learning (AI)

Group: KD electives (6 CFU)

Big data analytics (WBI)
ICT infrastructures (ICT)
Peer to peer systems and blockchains (ICT)
Scientific and large data visualization (CNR)
Social and ethical issues in computer technology