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*alumni*





*alumni*

# Moving Out of Academia To ...



Laure Esteveny , Head of CERN Alumni Relations, IR



*alumni*

The High-Energy Network  
Le Réseau des hautes énergies



~3'600 network members

83% alumni or alumni within a year

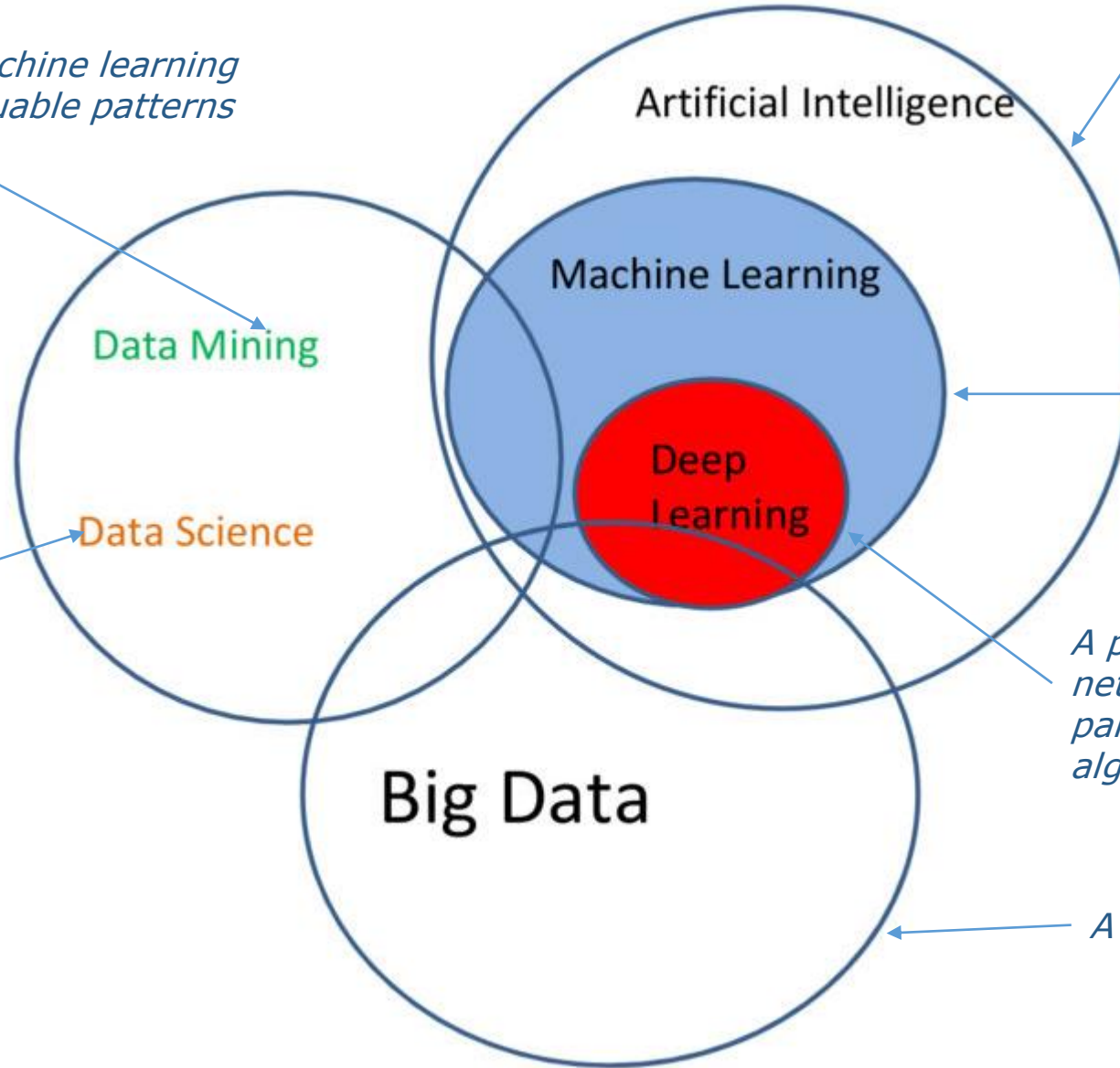
71% MPAs

42% USERS



*A process which uses machine learning algorithms to extract valuable patterns in data*

*A moving target, inspiration and motivation, what was defined in the 1960s as artificial intelligence is now in our pockets ... smartphones*



*How to construct programs that automatically improve with experience*

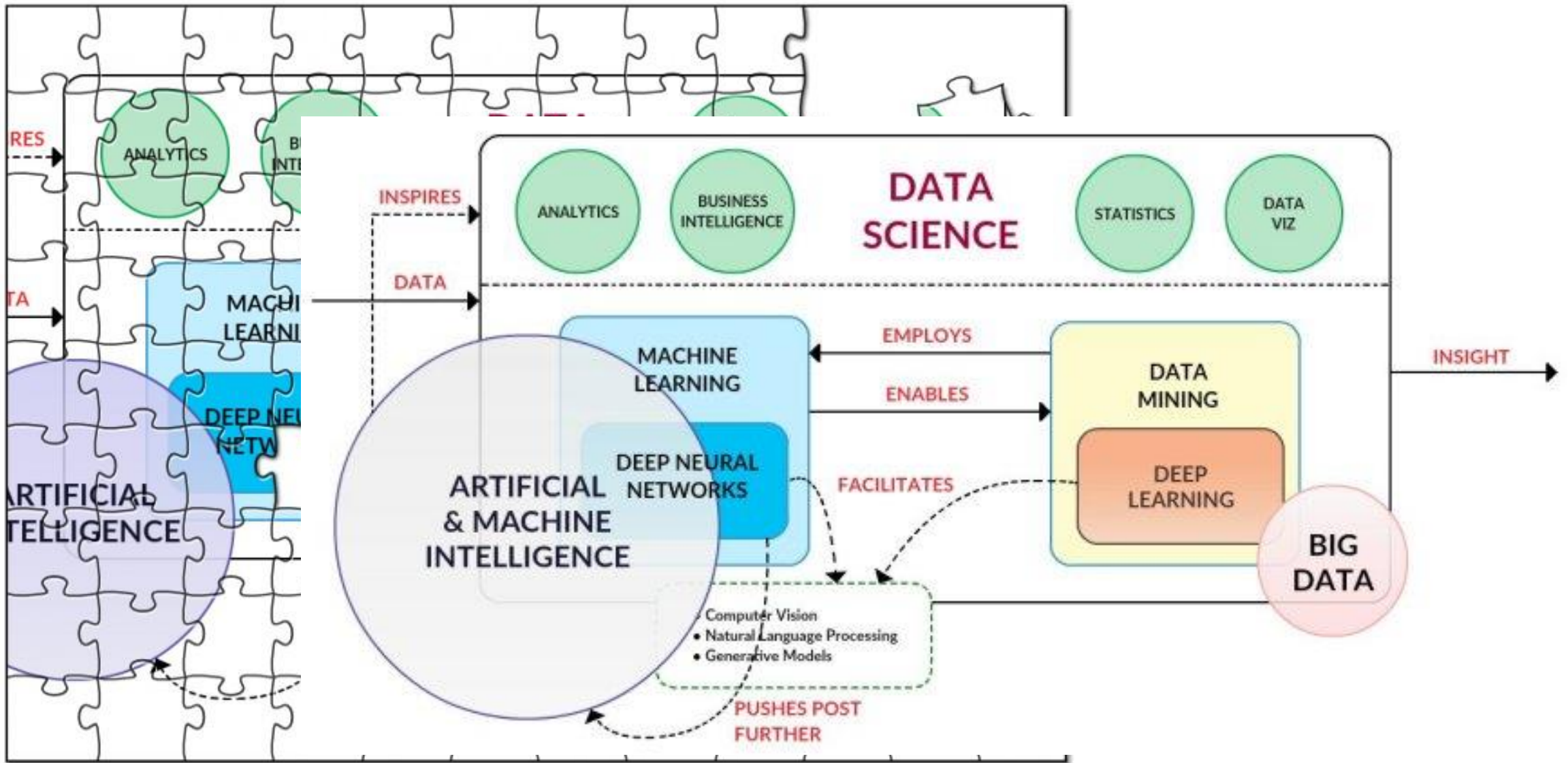
*Encompasses all the ways in which information and knowledge is extracted from data*

*A process which employs deep neural network architecture which are particular types of machine learning algorithms*

*A special application of data science...*

*\* Source KDnuggets newsletter*





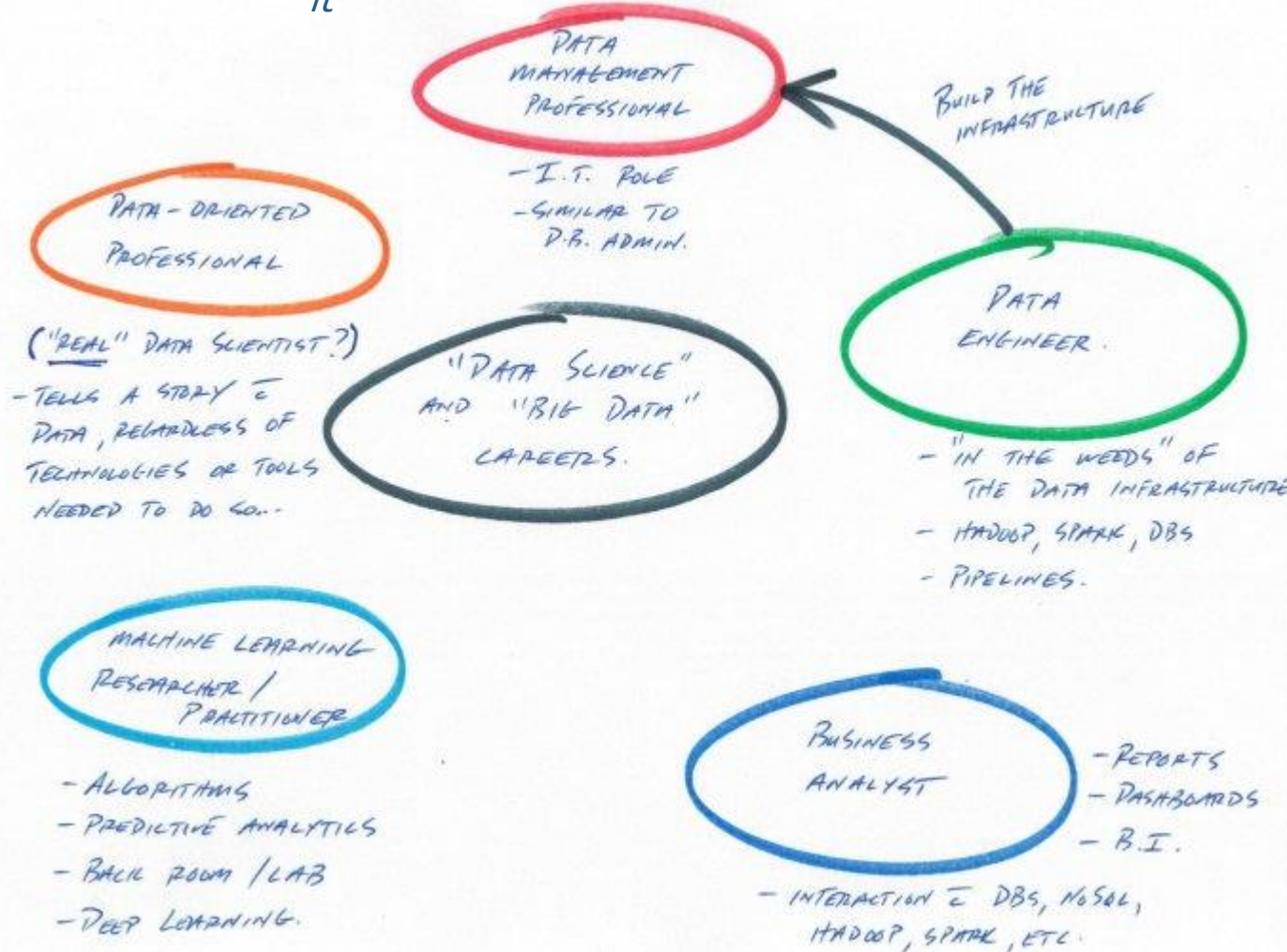
\* Source KDnuggets newsletter



**Data management professional**  
Manage data and the infrastructure that supports it

**Data scientist**

Concerned primarily with the data and the stories it can tell regardless of technologies and tools



**Data engineer**  
Design and implement data infrastructure

**Business analyst**  
Analyse and present data more or less as it exists

**Machine learning researcher**

Craft and use the predictive and correlative tools used to leverage data and elicit insight from it beyond what it tells at face value

\* Source KDnuggets newsletter



# Top big data profiles

- 1. DATA SCIENTIST**  
These people use their analytical and technical capabilities to [extract meaningful insights from data](#).  
Salary: \$65,000 - \$110,000
- 2. DATA ENGINEER**  
They ensure uninterrupted flow of data between servers and applications and are also responsible for data architecture.  
Salary: \$60,0945 - \$124,635
- 3. BIG DATA ENGINEER**  
Big Data Engineers build the designs created by solutions architects. They develop, maintain, test and evaluate big data solutions within organizations.  
Salary: \$100,000 - \$165,000
- 4. MACHINE LEARNING SCIENTIST**  
They work in the research and development of algorithms that are used in adaptive systems. They build methods for predicting product suggestions and demand forecasting, and explore Big Data to automatically extract patterns.  
Salary: \$78,857 - \$124,597
- 5. BUSINESS ANALYTICS SPECIALIST**  
A business analytics specialist supports various development initiatives, assists in testing activities and in the development of test scripts, performing research in order to understand business issues, and developing practical cost-effective solutions to problems.  
SALARY: \$50,861 - \$94,209
- 6. DATA VISUALIZATION DEVELOPER**  
They design, develop and provide production support of interactive data visualizations used across the enterprise. They possess an artistic mind that conceptualizes, design, and develop reusable graphic/data visualizations and uses strong technical knowledge for implementing these visualizations using the latest technologies.  
SALARY: \$108,000 - \$130,000
- 7. BUSINESS INTELLIGENCE (BI) ENGINEER**  
They have data analysis expertise and the experience of setting up reporting tools, querying and maintaining data warehouses. They are hands-on with big data and take a data driven approach to solving complex problems.  
SALARY: \$96,710 - \$138,591
- 8. BI SOLUTION ARCHITECT**  
They come up with solutions quickly to help businesses in making time sensitive decisions, have strong communication & analytical skills, passion for data visualization, and a drive for excellence and self-motivation.  
SALARY: \$107,000 - \$162,000
- 9. BI SPECIALIST**  
They are responsible for supporting an enterprise wide business intelligence framework. This position requires critical thinking, attention to detail, and effective communication skills.  
SALARY: \$77,969 - \$128,337
- 10. ANALYTICS MANAGER**  
An analytics manager is responsible for configuration, design, implementation, and support of data analysis solution or BI tool. They are specifically required to analyze huge quantities of information gathered through transactional activity.  
SALARY: \$83,910 - \$134,943
- 11. MACHINE LEARNING ENGINEER**  
Machine Learning engineer's final "output" is the working software, and their "audience" for this output consists of other software components that run autonomously with minimal human supervision. The decisions are made by machines and they affect how a product or service behaves.  
SALARY: \$96,710 - \$138,591
- 12. STATISTICIAN**  
They gather numerical data and then display it, and help companies to make sense of quantitative data and to spot trends and make predictions.  
SALARY: \$57,000 - \$80,110

\* Source *KDnuggets newsletter*





**Lots of information available, but only here do you have the opportunity to listen, ask and network with peers that have been through the transition and taken a successful move.**

**You are in the right place!**





### Moving out of Academia to Big Data - questions

Click the button to participate!

Ask a question

Finish

# Ask questions on menti.com

Discussion code is **59 51 98**

## Vote for the burning questions!



**Enjoy and make the most of the  
event!**

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or email [alumni.relations@cern.ch](mailto:alumni.relations@cern.ch)**

