

Search Data Science Ce [Search](#)

- [Sign Up](#)
- [Sign In](#)



**Data Science Central®** THE ONLINE RESOURCE FOR BIG DATA PRACTITIONERS

- [HOME](#) [AI](#) [ML](#) [DL](#) [ANALYTICS](#) [STATISTICS](#) [BIG DATA](#) [DATAVIZ](#) [HADOOP](#) [PODCASTS](#) [WEBINARS](#) [FORUMS](#) [JOBS](#) [MEMBERSHIP](#) [GROUPS](#) [SEARCH](#)
- [CONTACT](#)

Subscribe to DSC Newsletter

- All Blog Posts
- My Blog
- Add

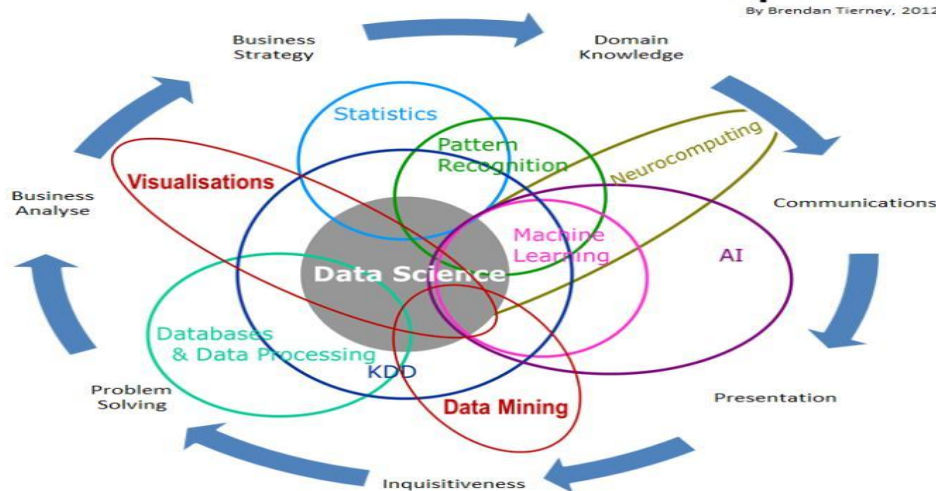


## Difference of Data Science, Machine Learning and Data Mining

- Posted by Leonard Heiler on March 20, 2017 at 10:30am
- [View Blog](#)

### Data Science Is Multidisciplinary

By Brendan Tierney, 2012



Data is almost everywhere. The amount of digital data that currently exists is now growing at a rapid pace. The number is doubling every two years and it is completely transforming our basic mode of existence. According to a paper from IBM, about 2.5 billion gigabytes of data had been generated on a daily basis in the year 2012. Another article from Forbes informs us that data is growing at a pace which is faster than ever. The same article suggests that by the year 2020, about 1.7 billion of new information will be developed per second for all the human inhabitants on this planet. As data is growing at a faster pace, new terms associated with processing and handling data are coming up. These include data science, data mining and machine learning. In the following section- we will give you a detailed insight on these terms.

#### What is data science?

Data Science deals with both structured and unstructured data. It is a field that includes everything that is associated with the cleansing, preparation and final analysis of data. Data science combines the programming, logical reasoning, mathematics and statistics. It captures data in the most ingenious ways and encourages the ability of looking at things with a different perspective. Likewise, it also cleanses, prepares and aligns the data. To put it more simply, data science is an umbrella of several techniques that are used for extracting the information and the insights of data. Data scientists are responsible for creating the data products and several other data based applications that deal with data in such a way that conventional systems are unable to do.

#### What is data mining?

Data mining is simply the process of garnering information from huge databases that was previously incomprehensible and unknown and then using that information to make relevant business decisions. To put it more simply, data mining is a set of various methods that are used in the process of knowledge discovery for distinguishing the relationships and patterns that were previously unknown. We can therefore term data mining as a confluence of various other fields like artificial intelligence, data room virtual base management, pattern recognition, visualization of data, machine learning, statistical studies and so on. The primary goal of the process of data mining is to extract information from various sets of data in an attempt to transform it in a more understandable structure for practical use. Data science is thus a process which is

## Weaponizing Data in the Fight Against White Collar Crimes

1/21 - 2:30 PM GMT - In this latest DSC webinar analyst and advisor Alasdair Anderson will discuss how escalating global white collar crime activity is driving adoption of advanced analytics at a pace never before seen in mature enterprises.

[Register today](#)

## Weaponizing Data in the Fight Against White Collar Crimes - Jan 21

REGISTER TODAY &gt;



hidden insights without any help from an external program. In order to gain the best results from data mining, complex algorithms are paired with the right processes and tools.

**What is the difference between these three terms?**

As we mentioned earlier, data scientists are responsible for coming up with data centric products and applications that handle data in a way which conventional systems cannot. The process of data science is much more focused on the technical abilities of handling any type of data. Unlike data mining and data machine learning it is responsible for assessing the impact of data in a specific product or organization.

While data science focuses on the science of data, data mining is concerned with the process. It deals with the process of discovering newer patterns in big data sets. It might be apparently similar to machine learning, because it categorizes algorithms. However, unlike machine learning, algorithms are only a part of data mining. In machine learning algorithms are used for gaining knowledge from data sets. However, in data mining algorithms are only combined that too as the part of a process. Unlike machine learning it does not completely focus on algorithms.

Source: Firmex.com

**Most Popular Content on DSC**

To not miss this type of content in the future, subscribe to our newsletter.

- [Book: Statistics -- New Foundations, Toolbox, and Machine Learning Recipes](#)
- [Book: Classification and Regression In a Weekend - With Python](#)
- [Book: Applied Stochastic Processes](#)
- [Long-range Correlations in Time Series: Modeling, Testing, Case Study](#)
- [How to Automatically Determine the Number of Clusters in your Data](#)
- [New Machine Learning Cheat Sheet | Old one](#)
- [Confidence Intervals Without Pain - With Resampling](#)
- [Advanced Machine Learning with Basic Excel](#)
- [New Perspectives on Statistical Distributions and Deep Learning](#)
- [Fascinating New Results in the Theory of Randomness](#)
- [Fast Combinatorial Feature Selection](#)

**Other popular resources**

- [Comprehensive Repository of Data Science and ML Resources](#)
- [Statistical Concepts Explained in Simple English](#)
- [Machine Learning Concepts Explained in One Picture](#)
- [100 Data Science Interview Questions and Answers](#)
- [Cheat Sheets | Curated Articles | Search | Jobs | Courses](#)
- [Post a Blog | Forum Questions | Books | Salaries | News](#)

**Archives:** [2008-2014](#) | [2015-2016](#) | [2017-2019](#) | [Book 1](#) | [Book 2](#) | [More](#)

**Follow us:** [Twitter](#) | [Facebook](#)

Views: 46540

Tags: [data](#), [learning](#), [machine](#), [mining](#), [science](#)

Like

5 members like this

Share [Tweet](#) [Facebook](#)

Like 546

Comment

You need to be a member of Data Science Central to add comments!

[Join Data Science Central](#)



Comment by Dr S Kotrappa on November 25, 2017 at 7:51am

Very useful article and it makes it clear and simple to understand about DS/ML/DM.



Comment by William Kurth on March 24, 2017 at 5:45am

Great explanation1

RSS

Welcome to  
Data Science Central

[Sign Up](#)  
or [Sign In](#)

Or sign in with:

**Weaponizing Data in the Fight Against White Collar Crimes**

1/21 - 2:30 PM GMT - In this latest DSC webinar analyst and advisor Alasdair Anderson will discuss how escalating global white collar crime activity is driving adoption of advanced analytics at a pace never before seen in mature enterprises.

[Register today](#)

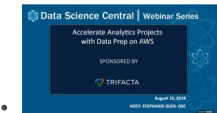
Weaponizing Data in the Fight Against White Collar Crimes - Jan 21  
REGISTER TODAY >



RESOURCES

- [Subscribe to DSC Newsletter](#)
- [Free Books](#)
- [Forum Discussions](#)
- [Cheat Sheets](#)
- [Jobs](#)
- [Search DSC](#)
- [DSC on Twitter](#)
- [DSC on Facebook](#)

VIDEOS



DSC Webinar Series: Accelerate Analytics Projects with Data Prep on AWS  
Added by Tim Matteson 0 Comments 2 Likes



Weaponizing Data in the Fight Against White Collar Crimes




1/21 - 2:30 PM GMT - In this latest DSC webinar analyst and advisor Alasdair Anderson will discuss how escalating global white collar crime activity is driving adoption of advanced analytics at a pace never before seen in mature enterprises.

Register today

Weaponizing Data in the Fight Against White Collar Crimes - Jan 21  
REGISTER TODAY >





DSC Webinar Series: ML/AI Models: Continuous Integration & Deployment

Added by Tim Matteson 0 Comments 0 Likes

- Add Videos
- View All

--	--

Weaponizing Data in the Fight Against White Collar Crimes



1/21 - 2:30 PM GMT - In this latest DSC webinar analyst and advisor Alasdair Anderson will discuss how escalating global white collar crime activity is driving adoption of advanced analytics at a pace never before seen in mature enterprises.

Register today