

What is Data Mining? Data Mining Is it legal?

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The answer will be in the following article!

What is data mining and how does it work?

Data mining is a process used by companies, as well as data scientists, to extract information and find trends in raw data. The data used in this process can come from a variety of sources such as online surveys, data collected through cookies or public records.

But not all data sets are equally beneficial. The data needs to be accurate, free of bias, and high in volume to deliver authentic results.

Because you work with raw data instead of pre-made statistics, data mining can be a versatile tool. You can process the same data set multiple times in multiple ways and look for different trends. That makes insights from a dataset almost unlimited.

There is no specific data mining technique, as extracting underlying trends requires a lot of creativity and skill. But the process can be broken down into 5 main steps.

1. Sourcing data

The first step is to source your data and import it into a host. This is the most important point because you need a reputable data source to ensure reliable results.

2. Choose the working environment

Whether you're working locally on your device or using a cloud-based environment, now's the time to switch it up. The environment you choose needs to be powerful enough to handle the amount of data you need. If you're working with a team, accessibility is a top priority. This makes a cloud-based environment the best choice.

3. Data Classification

Whether the data you're working with is tagged or not, you need to organize that data into categories related to the type of information or pattern you want to extract before you start processing. Depending on the size of the data, you may need to process it in pieces instead of in its entirety.

4. Data mining (data mining)

After preparing the data and determining what you want to do with it, the next step is to mine and extract the actual information. You can use specialized software for this step, or work alone in a compatible programming language like R, Python, or SQL.

Data mining uses mathematical models to find and extract base-level insights for raw data. Even so, it should not be confused with data analytics, the process of using data and insights, often generated by data mining, to build models and predictions.

5. Convert the result to a more understandable form

Mining results can be confusing. The final step is to visualize the data by turning it into a graph or table. While the visualizations aren't much use for future mining and analysis, they make it easier to understand and share your findings.

What is data mining used for?



You can use Data mining to find out information about anything for which you have raw data. However, large businesses and online sites often use it for data mining, predictive search, and behavioral analysis.

Companies operating in the retail or e-commerce sectors collect data from users' accounts by conducting surveys or logging customer and user activity on websites or apps. They can then mine the data to look for buying trends, by time of day and week to relative visit frequency and spend.

In fact, data mining is what allows stores to send people notifications and coupons at times when they are more likely to buy. This not only leads to higher sales, but also makes marketing more efficient and cost-effective.

But it's not just businesses that use Data mining. You can find the direct effect of data mining in crime analysis, allowing governments to determine which areas and times of day have higher crime rates.

Data mining also plays a certain role in weather forecasting. It helps meteorologists analyze large volumes of weather data collected about the climate in general or a specific location over a period of time.

Is data mining illegal?

Data mining itself is not illegal. The problem arises with the data source and what miners do with the results.

The data needs to be public knowledge, such as weather data, or consensus. That means users of websites and apps, as well as those who participate in online or in-person surveys, need to know that the company will store their answers and information for analysis and exploit.

Unauthorized use of data by companies and organizations that still intentionally exploit it can violate privacy laws, both locally and abroad, depending on the data source. Not to mention, most countries prohibit the use of data mining details to discriminate against individuals based on age, gender, race or religion.

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