

## 21.3: Working with data

In the days of traditional media, actionable data was a highly desired but scarce commodity. While it was possible to broadly understand consumer responses to marketing messages, it was often hard to pinpoint exactly what was happening and why.

As the Data driven decision making chapter showed, in the digital age, information is absolutely everywhere. Every single action taken online is recorded, which means there is an incredible wealth of data available to marketers to help them understand when, where, how and even why users react to their marketing campaigns.

### Note

Read more about this in the [Data driven decision making](#) chapter.

Remember, this also means there is a responsibility on marketers to make datadriven decisions. Assumptions and gut feel are not enough – you need to back these up with solid facts and clear results.

Don't worry if you're not a 'numbers' person – working with data is very little about number crunching (the technology usually takes care of this for you) and a lot about analysing, experimenting, testing and questioning. All you need is a curious mind and an understanding of the key principles and tools.

Here are some data concepts you should be aware of.

### Performance monitoring and trends

Data analytics is all about monitoring user behaviour and marketing campaign performance over time. The last part is crucial. There is little value in looking at a single point of data, you want to look at trends and changes over a set period to encourage a dynamic view of data.

For example, it is not that helpful to say that 10% of this month's web traffic converted. Is that good or bad, high or low? But saying that 10% more users converted this month than last month shows a positive change or trend. While it can be tempting to focus on single 'hero' numbers and exciting-looking figures such as 'Look, we have 5 000 Facebook fans!', these really don't give a full picture if they are not presented in context. In fact, we call these 'Vanity metrics' they look good, but they don't tell you much.

### Note

Pay close attention to any changes in the expected data, good or bad, and investigate any anomalies.

### Big data

'Big data' is the term used to describe truly massive data sets, the ones that are so big and unwieldy that they require specialised software and massive computers to process. Companies like Google, Facebook and YouTube generate and collect so much data every day that they have entire warehouses full of hard drives to store it all. Understanding how it works and how to think about data on this scale provides some valuable lessons for all analysts.

- **Measure trends, not absolute figures:** The more data you have, the more meaningful it is to look at how things change over time.
- **Focus on patterns:** With enough data, patterns over time should become apparent so consider looking at weekly, monthly or even seasonal flows.
- **Investigate anomalies:** If your expected pattern suddenly changes, try to find out why and use this information to inform your actions going forward.

### Data mining

Data mining is the process of finding patterns hidden in large numbers and databases. Rather than having a human analyst process the information, an automated computer program pulls apart the data and matches it to known patterns to deliver insights. Often, this can reveal surprising and unexpected results, and tends to break assumptions.

## Data mining in action

Krux (2016) offers the example of examining an enormous dataset for an automotive brand that wanted to improve brochure downloads and increase requests for test drives. The data they analysed related to consumers, consumer attributes, and marketing touchpoints.

To determine a pattern, they had to explore 47 000 000 000 000 000 000 000 combinations of factors, obviously, too many to evaluate without using machines. These combinations came from 35 touchpoints, including the website, campaigns, and other marketing channels, and 37 analytics points, including auto buyers and smartphone users.

The brand was able to spot relevant patterns, such as that consumers who bought a certain brand of car were more likely to download brochures, but not more likely to request test drives. This allowed them to segment the consumers who bought cars into those who started the purchase process by downloading a brochure, and those who started with a test drive.

The first group was detail-oriented, so ads featuring specific models with links to the specifications page helped to drive conversions.

The second group wanted to know how driving the car felt, so they were targeted with ads that appealed to their senses and included a call to action about scheduling a test drive. This helped to drive media efficiency and campaign performance.

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