

# How It Can Be Used

## Facebook Profits

In the beginning of 2012, Facebook had about five months before they went public on the stock market. One of their main goals was to prove how profitable Facebook was as a company. Facebook's main generation of revenue was through targeted advertisements on their website; these ads worked so well because Facebook was able to target individuals more personally based on the personal data they collect via Facebook "likes" and viewing history.

But Facebook was going to step it up a notch. Facebook had collaborated with many data collecting agencies in order to better understand the wants and needs of each individual. These data collecting agencies gave Facebook information about users far past their name and birthday. They analyzed trends of each individual, and could accurately list their location, their favorite stores, their habits, their driving route, and much, much more. It is scary how much information these social media websites could hold. Because of this enhanced data collection, Facebook ad revenue skyrocketed, leading to a very successful IPO.



## Lookalike Modeling Machine Learning

In order to find a wider audience to target ads towards, many companies will utilize Lookalike Modeling Machine Learning.

What this specific machine learning does is analyze the behaviors of as many users as possible. Once the data is collected, a profile can be created for each individual user based on stereotypes in their behavior. For example, many people who buy basketballs online would most likely be profiled as basketball fans, which means these users would most likely be susceptible to NBA advertisements. There is no proof that these hypothetical people would be NBA fans nor that they are basketball fans at all. Regardless, machine learning recognizes their viewing and spending habits as a basketball fan.

In the instance of Lookalike Modeling Machine Learning, machine learning is trying to find people whose online behavior is similar to those who are susceptible to advertisements. Let's say hypothetically that 10% of people clicked on a specific ad campaign. These 10% would have their profiles examined through machine learning, and the machine learning would try to find people who also matched these descriptions that have not been targeted yet.

Along with this, machine learning is constantly updating its description of the "optimal user". As more people click on the advertisement, more and more information is learned about both the users themselves and the trends of which types of people are more likely to click these ads in the first place.

Machine Learning is why when you click an ad once you are more likely to see it over and over again. You have shown interest in the ad once, and therefore machine learning believes you have an interest in the subject. Machine learning is only growing more powerful, and soon companies will be able to know what you want before you may even know yourself.



