

Extrapolation

Since some monitors will have sampled data, *ForSight* employs extrapolation for a more holistic understanding of the total data-set.

How does Extrapolation Work?

For this explanation, we will use location to explain how Extrapolation works, however, the same principles will apply to any extrapolated data in *ForSight*.

In the simplest terms, if we find that 10% of posts in our sample size are from the United States, we may extrapolate that 10% of the total conversation is also from the United States.

For example, if there are a total of 40,000 posts in 1 day for a conversation, your monitor will pull in a random sample of that conversation no larger than 10,000 posts, (see sampling for more details). If you apply a Save Filter to filter for posts located in the United States and find that 1,000 posts of the 10,000 contained within the sample are from the U.S., then we know that 10% of posts in our sample are from the U.S. Therefore, we can extrapolate that 10% of the total conversation (4,000 posts) are also from the U.S. Therefore, 4,000 posts are from the U.S.

Day 1: $1,000 \div 10,000 = 0.10 * 100 = 10\%$ of posts

10% of 40,000 = 4,000 posts from the United States.

Moreover, if your monitor finds the total conversation consists of 30,000 posts the following day, you will then have a total sample of 20,000 (10,000 from Day 1 and 10,000 from Day 2) posts in your sample. If we find that 5,000 posts of the 10,000 sample on Day 2 are from the U.S., then we will extrapolate the data for the total 30,000 posts for that day.

Day 2: $5,000 \div 10,000 = 0.50 * 100 = 50\%$ of posts

50% of 30,000 = 15,000 posts from the United States.

Finally, if we wish to look at the total sample across both days, we will simply add together the extrapolations from each day.

Day 1 + Day 2: 4,000 posts + 15,000 posts = 19,000 posts from location United States.