# Neural Machine Translation Introduction

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## Statistical Machine Translation (SMT)

The goal of statistical machine translation (SMT) is to produce target string from source string where models are estimated from examples. Among the possible target strings the one with max probability is chosen. The Bayes relation is used to introduce a target language model:

(1)

where is the translation model and is the language model. That is, the translation model is the probability that the source string is the translation of the target string while language model is the probability of seeing the target language string .

## Continuous Space Language Models (CSLM) for Statistical Machine Translation