## <u>Summary of Efficient Estimation of Word Representations in Vector Space</u>

Continuous Bag-of-Words (CBOW) and Skip-Gram—are significantly more computationally efficient and scalable than previous neural network-based models for learning word representations. These models can process billions of words in a reasonable time and still produce word vectors that capture semantic and syntactic relationships effectively. The embeddings demonstrate strong performance on tasks such as word analogy and similarity, validating the quality of the representations learned. The work laid the foundation for many advancements in natural language processing by enabling more efficient and meaningful vector representations of words.