Google Applied Bidirectional Idea to Create BERT

"I took my ... for a walk."

What's the next word?

Dog, perhaps?

Could be lots of words, but dog may be a good MLE choice.

"Cat," "snake," "Ferrari," maybe not so good.

In 2019, Google* realized the same thing, and natural language processing changed forever.

*Everyone except engineers, I meant: J. Devlin, M.-W. Chang, K. Lee, K. Toutanova, "BERT: Pre-training of Deep Bidirectional Transformers for Language Understanding," NAACL, 2019. To their credit, the authors DID mention the journalists.