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(54) **Title:** GENERATING NEURAL NETWORK OUTPUTS BY ENRICHING LATENT EMBEDDINGS USING SELF-ATTENTION AND CROSS-ATTENTION OPERATIONS

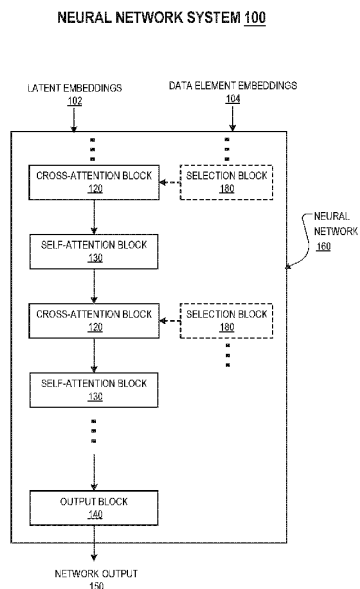


FIG. 1

(57) **Abstract:** This specification describes a method for using a neural network to generate a network output that characterizes an entity. The method includes: obtaining a representation of the entity as a set of data element embeddings, obtaining a set of latent embeddings, and processing: (i) the set of data element embeddings, and (ii) the set of latent embeddings, using the neural network to generate the network output characterizing the entity. The neural network includes: (i) one or more cross-attention blocks, (ii) one or more self-attention blocks, and (iii) an output block. Each cross-attention block updates each latent embedding using attention over some or all of the data element embeddings. Each self-attention block updates each latent embedding using attention over the set of latent embeddings. The output block processes one or more latent embeddings to generate the network output that characterizes the entity.

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