Preliminary Project Proposal

Project Title: Draw and Guess

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Abstract:

The goal of this project is to build a primitive AI that can handle a simplified version of the draw and guess game. Upon the completion, the AI constructed should be able to use the hand sketch as an input, and correctly, in most cases, recognize and categorize the drawing into correct type. Google once hosted a very similar AI project, and the data that project has collected has been published. The released data from Google will be used for training the decision-making component of the artificial intelligence. In order to make this project within a feasible scope, the input drawings are planned to be limited within three to five distinctive types. As of current, the team plans to implement the recognition scheme using a recurrent neural network (RNN). Besides, once the service is deployed, the data received can be served as a basis for the reinforcement of the intelligence. Therefore, the ultimate goal of this project is to train an AI using RNN, and meanwhile, set up a reinforcement scheme that enhances the performance of the module as it proceeds.

Source:

Google Quick! Drae Dataset:

https://github.com/googlecreativelab/quickdraw-dataset

DRAW: A Recurrent Neural Network For Image Generation

https://arxiv.org/abs/1502.04623