VERY DEEP LEARNING

DEEPDRAW

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1 INTRODUCTION

For the very deep learning project, we decided to build, train and manage a neural network that can draw pictures of simple concept. We use the Quick Draw Dataset, a google's game, that provide a huge dataset of labelised simple drawing.

2 ABOUT QUICKDRAW–DATASET

The Quick Draw Dataset [1] is a collection of 50 million drawings across 345 categories, contributed by players of the game Quick, Draw ! [2]. The drawings were captured as timestamped vectors, tagged with metadata including what the player was asked to draw and in which country the player was located.

The Quick Draw game principle is to draw specific picture given by the computer. This one try to recognize, with machine learning, your drawing.

FIGURE 1 – Quick Draw example.

The Quick Draw Dataset provides preprocessed dataset. We choose to use the **Simplified Drawing files** preprocessed dataset. They've simplified the vectors, removed the timing information, and positioned and scaled the data into a 256x256 region. The data is exported in ndjson format with the same metadata as the raw format. We use a binary version of this format, for efficiency purpose.

3 DEEPDRAW CODE

The final goal of this project is to reverse the principle given in the previous section : with give a class (a number) to the computer and this one try to draw the corresponding drawing.

4 CODE

Présenter les choix, les NN et tout ce merdier

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1. https://github.com/googlecreativelab/quickdraw-dataset
2. https://quickdraw.withgoogle.com/#

4.1 Get the data

Isma présente son petit merdier (il est tout fier)

4.2 First NN : GAN

Générateur...

4.3 Second NN : DCGAN

Discriminative...

5 PROBLEMS

Les problèmes qu'on a eu, outre les problèmes de natel de Mick...

6 RÉSULTAT

On présente les résultats et on nique des mères... histoire de fêter ça...

7 FURTHER WORK

Warsserstein
WaffenSS

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RÉFÉRENCES