Notes on Purpose & Directions of LS Workshop

# Overview

## **Examples** of things and events in time-space. Unit of analysis that can be quantified on various features, such as location, time, size, weight, color, and the like.

## **Sample** is a set of examples that are representative of the population of all examples.

## **Latent space** is an N-dimensional Euclidean space where examples with similar features are **points** that are positioned close together. Using neural autoencoder/GAN techniques, a model is trained to best encode the example features into a latent space. This training is semi-supervised by reproducing the original feature data as faithfully as possible. IOW the loss function is based on difference of the original data to its decoded output.

## A **Cluster Map** is an integer vector that map Examples into **cluster categories**.

# Heading1