

# Correlations in Artworks to Popularity on Pinterest

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March 15, 2024

## 1 Introduction

This project is a lecture based around estimating the causal relationship between categorical variables. The motivation behind this subject is that I want to study how to compute a best fitting model in a more complicated scenario involving variables of mixed types. This I can use in my own studies later. I believe I will do good with further deepening my understanding in how to score graphs in order to later to move on to a more complicated scenario.

My initial idea was to create a model that explains what causes an artwork to gain likes on social media. There might be many parameters involved that influence this outcome. Over the time there had been many influential artists and different movements with each their own theme. Certain types of paintings might be liked more then others due to the content, what kind of paint is used, who was the artist, what is the purpose. Some artist might have spend their whole life painting, while others just do it as a hobby.



Figure 1: Art works made with oil<sup>1</sup>, watercolor<sup>2</sup>, AI<sup>3</sup>, acryl<sup>4</sup> respectively.

To use these variables in a model we have to format them using some abstract formulation. We could say what kind of paint is used is a categorical variable that can take a number of values, for example acryl, oil, watercolor. On the other hand we have the experience an artist has. This is difficult to obtain, since it is not known how many hours someone has been painting. Also