

# Determining the cultural interpretation of minimalism in photography through the flickr database

Marion Kramer  
EPFL  
Switzerland  
marion.kramer@epfl.ch

Rémi Petitpierre  
EPFL  
Switzerland  
remi.petitpierre@epfl.ch

Valentine Bernasconi  
EPFL  
Switzerland  
valentine.bernasconi@epfl.ch

## ABSTRACT

The following paper attempts to determine the possible cultural impact on the interpretations of the artistic movement minimalism in photography. In order to determine the different trends within minimalism and to see if they are culturally specific, the flickr database was used. The corpus included 1'027'777 auto-tagged images, among which 4'356 images were also user-tagged and 193'153 were geolocalized. Based on these tags, the Louvain algorithm was applied to perform communities clustering. The outcome was 5 clusters representing different artistic trends: house and indoor activities, urban and geometry, landscapes, lights and nature.

## KEYWORDS

flickr, clustering, minimalism

## 1 INTRODUCTION

Minimalism is a contemporary art movement born in the 60s and is still today widely used and applied, among other fields, in photography. The core idea of minimalistic photography is to capture simple lines or repetitive patterns and restricted subjects and amount of colors. These simple guidelines can easily let a great place to different trends within the movement and might also vary according to different cultural contexts. Furthermore, the aspect of evolution of an artistic movement in time is not negligible, especially with the rise of new technologies, the change of lifestyles and visual landscapes that occurred over the last 50 years.

Nowadays, artistic movements, such as minimalism, can benefit from greater exposures thanks to social media. The diversity of the platforms available, such as Instagram, Pinterest or Youpic, enable to easily share and explore similar content. Small and larger communities are thus established by these shared inspirations and trends are created, usually thanks to the use of tags or hashtags. In this era of globalisation, cross-cultural exchanges are more easily performed and the variety of possible expressions expand.

Thereby, the social platform flickr, which allows professionals and non-professionals to share pictures and provide them with a variety of tags to connect with their peers, has a strong community of minimalistic photographers. Grouped under tags such as '*minimalis*', '*минимализм*', '*极简主义*', '*ミニマリズム*', '*미니멀리즘*', the pictures seem to embrace a great variety of possible interpretation of the movement. It is based on this community of tags that the project tries to establish the variety of existing trends in minimalism and to determine their possible correlations with cultural backgrounds based on the geo-location of the provided pictures. The following paper first describes the dataset used from the Yahoo Flickr Creative Commons and the set of methods applied to the

data. In order to determine the trends, tag-based clustering was used, followed by a set of classifiers in order to determine a time and place dependence. In addition to this first range of work, image processing was performed in order to obtain more features based on the content of the images. Finally the results are discussed in Section 4 and a final conclusion is made.

## 2 DATA

The data used in the context of the project is the Yahoo Flickr Creative Commons dataset that can be downloaded via the flickr api at <https://www.flickr.com/services/api/>. Each image contains a photo\_id, a jpeg url, a title, a description, a camera type and tags. The corpus thus includes 1'027'777 auto-tagged images, among which 4'356 images are also user-tagged and 193'153 are geolocalized. The dataset also contains time information 99,99% of the time.

## 3 METHOD

## 4 RESULTS

## 5 CONCLUSIONS

## 6 APPENDIX

## A ONLINE RESOURCES

Nam id fermentum dui. Suspendisse sagittis tortor a nulla mollis, in pulvinar ex pretium. Sed interdum orci quis metus euismod, et sagittis enim maximus. Vestibulum gravida massa ut felis suscipit congue. Quisque mattis elit a risus ultrices commodo venenatis eget dui. Etiam sagittis eleifend elementum.

Nam interdum magna at lectus dignissim, ac dignissim lorem rhoncus. Maecenas eu arcu ac neque placerat aliquam. Nunc pulvinar massa et mattis lacinia.