

# Title: Learning of Attributes and Semiotics for Semantic Analysis of Constructed Images (LASSO)

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**Supervision team: James Orwell (SEC), Karen Cham (FADA), Darrel Greenhill (SEC)**

Abstract:

The proposed PhD, in collaboration with The Design School at Kingston University, will propose methods and methodologies to investigate the automatic extraction of semantic concepts out of constructed images. In particular, permission has been established to use a 4-million item database of music album cover art, with associated metadata. The project scope may also encompass other collections.

Many categories of constructed images are produced following the well-established codes and conventions of graphic design to convey concepts and vary across different genres of music, over time and in relation to different sub genres etc. Such visual conventions act to engage the viewer in an image based 'identity system' for specific types of media. This project will explore what aesthetic commonalities may be found in this archive to illuminate those conceptual systems and how those commonalities might relate to the attendant metadata.

By investigating techniques for automatic analysis of this content, and then developing appropriate representations to allow machine learning of the relationship between the content and the metadata, one possible outcome of this research is the automatic tagging of image content using high level semantic concepts, which can then be used to underpin more effective content-based search and retrieval.