Automatically derive characteristics of social media images for counting people in the crowd

Problem description

Given an Instagram picture, can you tell the whether it was a selfie or group picture? taken from parallel or top view? in the street or in the square?



Recent studies found that characteristics information derived from social media images, such as indoor or outdoor, selfie or group pictures, urban environment (e.g. square, canal, street, park), and so on, has impact on counting people and estimating density of people from social media images. However, how these characteristics can be derived automatically from a large number of social media images are still unclear.

Assignment

Develop an algorithm/method/program to derived a set of image characteristics automatically from a large number of social media images for counting people in the crowd.

This research entails the following steps:

- Studying state-of-art works about deriving image characteristics.
- Select or propose methods to derive these characteristics.
- Design and perform experiments to investigate the performance of methods.
- Analyse the result.
- Critical discussion about findings and their implications.

Information:

Transport & Planning department Thesis supervisor: Prof. dr. ir. Serge Hoogendoorn Daily supervisors: ir. Vincent X. Gong & dr. ir. Winnie Daamen Contact: x.gong-1@tudelft.nl

