

1. Introduction

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Need for image retrieval

- lower prices for image acquisition devices
- increased storage capacity

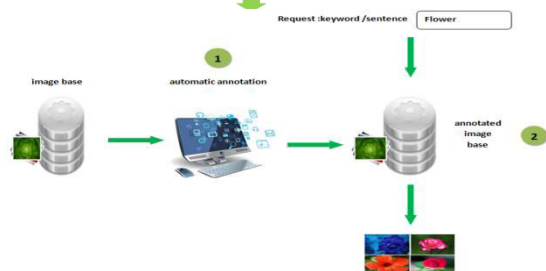


- huge amount of image



problem of locating the desired images in reasonable

solution



Need for automatic image annotation



Manual annotation ❌

Automatic annotation ✅

Slow
Cost
Tired

Fast
Cheap
Easy

Problematique

How to automatically annotate the images?



2. methodology

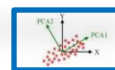
2. methodology

features
extractin



	Feature1	feature2	feature4
Img1	23	45	10
Img2	65	43	22
Img3	16	25	53
Img4	44	30	62

principal
component
analysis



clustrin
g



Classificatin
model

- KNN ,SVM,NB ,other strategie.....

$$\begin{aligned}
 P_{\text{svm}}(X|C1) &= W_{11} * P(X|C1_1) + W_{12} * P(X|C1_2) + W_{13} * P(X|C1_3) \\
 P_{\text{svm}}(X|C2) &= W_{21} * P(X|C2_1) + W_{22} * P(X|C2_2) \\
 P_{\text{svm}}(X|C3) &= W_{31} * P(X|C3_1) + W_{32} * P(X|C3_2) \\
 P_{\text{svm}}(X|C4) &= W_{41} * P(X|C4_1) + W_{42} * P(X|C4_2) + W_{43} * P(X|C4_3) \\
 P_{\text{svm}}(X|C5) &= W_{51} * P(X|C5_1) + W_{52} * P(X|C5_2)
 \end{aligned}$$

For to annotate image : we select the first three concepts having obtained the highest scores

3. Experimentation

3. experimentation

features extraction

means

mr	mg	mb
66.7687	33.2885	25.2975
63.1855	32.1387	24.7723

standard
deviation

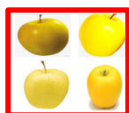
sdr	sdg	sdb
66.7687	33.2885	25.2975
63.1855	32.1387	24.7723

K means

Cluster1

Cluster2

Cluster3



4. Representative samples from our dataset

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