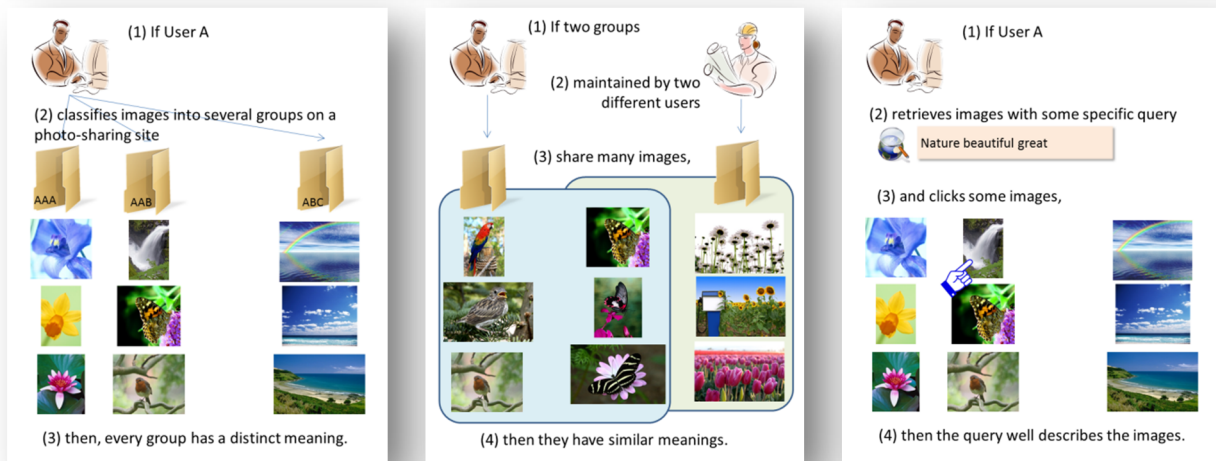


Abstract

Spontaneous user behavior as regards handling, browsing and sharing multimedia content is closely related to the meaning of the content. For example, users of content curation services such as Pinterest manually collect image content from other users, and organize their own groups so that they can easily and quickly find the images they want. Therefore, most images in a group share the same meaning that the user has in mind. In this process, popular images are distributed from group to group, which constitutes a diffusion network. This implies that two groups sharing many images often share some specific meaning. Our method makes full use of this insight, thus enabling us to discover, describe and retrieve various kinds of meanings engraved in every multimedia content.

Spontaneous user behaviors on the Web help us understand multimedia content

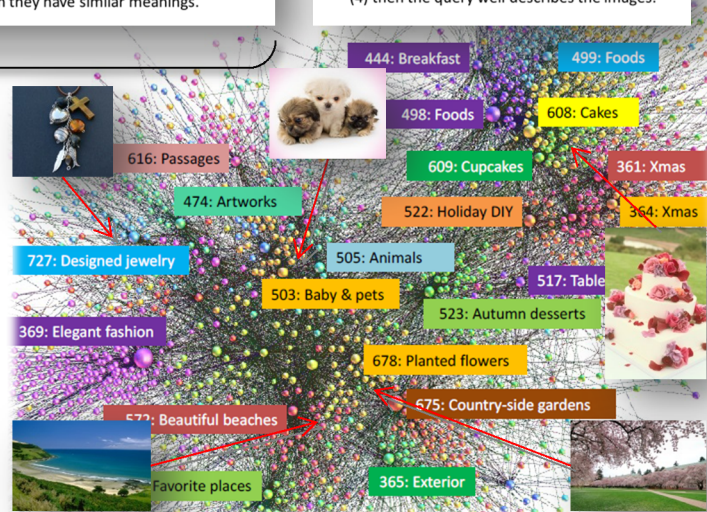


(1) Discovering groups of images sharing similar meanings with the help of content diffusion [1]

- Despite knowing nothing about the image content.

(2) Deriving image features that represent meanings by augmenting the benefit of content diffusion. [2]

- This enables us to build context-aware image-to-image retrieval.



Related work

- [1] A. Kimura, K. Ishiguro, A. Marcos Alvarez, K. Kataoka, K. Murasaki, M. Yamada "Image context discovery from socially curated contents," in *Proc. ACM International Conference on Multimedia (ACMMM)*, 2013.
- [2] A. Marcos Alvarez, M. Yamada, A. Kimura "Exploiting socially-generated side information to improve dimensionality reduction," in *Proc. International ACMMM Workshop on Sociality-Aware Multimedia (IWSAM)*, 2013.
- [3] A. Marcos Alvarez, M. Yamada, A. Kimura, T. Iwata "Clustering-based anomaly detection in multi-view data," in *Proc. CIKM2013*.

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