How Flickr Helps us Make Sense of the World: Context and Content in Community-Contributed Media Collections
Summary

• Socially shared multimedia is “rich”—i.e., contains many metadata information
• The paper is a study of Flickr (one of the first)
• Flickr images have many crowd-shared/community contributed information associated with them:
  • Media
  • Descriptive text (title, caption, tag)
  • Discussion and comments
  • View and view patterns
  • Associated communities
  • Camera related information
• Metadata information can be useful in browsing and retrieving social multimedia content
Summary

• Contributions:
  • A location-driven approach to generate aggregate knowledge in the form of “representative tags" for arbitrary areas in the world.
  • A tag-driven approach to automatically extract place and event semantics for Flickr tags, based on each tag's metadata patterns

• Research Challenges addressed in the paper:
  • (Visual) content is hard
  • Metadata text is unstructured
  • Noise
  • Scale: (1) long tail implies no supervised learning; (2) computation
  • Bias/feedback/spam

• Authors demonstrate that a location-tag-vision-based approach to retrieve images of geography-related landmarks and features from Flickr can generate summaries of large collections and improve precision when vision algorithms are applied to unconstrained domains.
Summary
What We Instagram: A First Analysis of Instagram Photo Content and User Types
Summary

• Characterize Instagram photo types and users
• Photos span eight different categories: *self-portraits, friends, activities, captioned photos (pictures with embedded text), food, gadgets, fashion, and pets*
• There are five different types of uses of Instagram
• Size of social neighborhood i.e., #followers not related to photos uploaded on Instagram
• A big limitation: only 50 users studied
<table>
<thead>
<tr>
<th>Category</th>
<th>Exemplary Photos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends (users posing with others friends; At least two human faces are in the photo)</td>
<td>![Friends Examples]</td>
</tr>
<tr>
<td>Food (food, recipes, cakes, drinks, etc.)</td>
<td>![Food Examples]</td>
</tr>
<tr>
<td>Gadget (electronic goods, tools, motorbikes, cars, etc.)</td>
<td>![Gadget Examples]</td>
</tr>
<tr>
<td>Captioned Photo (pictures with embed text, memes, and so on)</td>
<td>![Captioned Photo Examples]</td>
</tr>
<tr>
<td>Pet (animals like cats and dogs which are the main objects in the picture)</td>
<td>![Pet Examples]</td>
</tr>
<tr>
<td>Activity (both outdoor &amp; indoor activities, places where activities happen, e.g., concert, landmarks)</td>
<td>![Activity Examples]</td>
</tr>
<tr>
<td>Selfie (self-portraits; only one human face is present in the photo)</td>
<td>![Selfie Examples]</td>
</tr>
<tr>
<td>Fashion (shoes, costumes, makeup, personal belongings, etc.)</td>
<td>![Fashion Examples]</td>
</tr>
</tbody>
</table>

**Bar Graphs:**
- **Proportion of all categories:**
  - Friends
  - Food
  - Gadget
  - Captioned Photo
  - Pet
  - Activities
  - Selfies
  - Fashion

- **Density of category w.r.t cluster:**
  - C1
  - C2
  - C3
  - C4
  - C5
  - Friends
  - Food
  - Gadget
  - Captioned Photo
  - Pet
  - Activity
  - Selfies
  - Fashion
Your Reflections...
The two papers offer somewhat contrasting rationales. The former ditches analyzing visual content of photos, whereas it is what the latter adopts. Discuss the pros and cons of both approaches for different research questions.
Kennedy et al. want to derive “knowledge” out of the rich repository of social media photos on Flickr. Given the trivial nature of Instagram photos, do you think any form of knowledge may be gleaned from Instagram? If so, what would it be?
Some applications of the Kennedy et al. paper, beyond landmark image summarization and search?
[David Crandall, Lars Backstrom, Daniel Huttenlocher and Jon Kleinberg, 2009]
Visualization of photographer movement in Manhattan and the San Francisco Bay area
No real way to browse images on Facebook today, except from Timelines or Albums. What would be appropriate “visual summaries” of images on your Facebook feed? More importantly, would you like such a feature?
Tell me some limitations of the Kennedy et al paper... [Hint: comments are metadata unused here]
The Kennedy et al paper does not take into account whether tags associated with an image of a landmark are actually of the landmark. How would you fix that?
The Kennedy et al paper does not provide any personalization of the visual summaries generated. Tell me some ways to incorporate that if you were to do it.
How is the landmark image retrieval task in the Kennedy et al paper different from what search engines (probably) do today?
Size of social neighborhood i.e., #followers not related to photos uploaded on Instagram---what does it say about social performance and social media activity?
How would one’s social network *structure* (beyond simple follower count) impact the type of photo being shared on Instagram?
In Hu et al, no metadata of the Instagram photos considered, e.g., in the light of the Kennedy et al paper. How can including Instagram user’s bio, hashtags, comments, and social network impact the findings (i.e., types of photos or users)?
Selfie, food and captioned/quote containing photos were shared the most on Instagram. If we were to assume such behaviors are contagious, how can this finding be leveraged by Instagram as a platform or by other parties?