**Background**
- Microblogging is an emerging application in the Web 2.0. Most Internet users share life and opinion with microblogs.
- Microblog messages posted by users indicate their interests.
- Modeling user interests will make it easier for users to find what they need.

**LifeCircle: Portray User Life Status**
- Goal: present a compact interactive visualization prototype, LifeCircle, as an efficient summary for exploring long-term life status of microblog users.
- Method
  - Chinese Word segmentation & POS tagging
  - Topic Summarization using LDA
  - Combination of the frequency-based and the translation-based methods for interest keyword extraction
  - Combination of the dictionary-based and the emoticon-based methods for monthly sentiment analysis
  - Visualization in a multi-layered, time-aware, radial and compact manner
- Develop a prototype on Sina Weibo for user study.

**Image & Word Cloud**
- Goal: Mine and visualize microblog user interests according to both keywords and images in his/her microblogging posts.
- Method: Semantic preserving placement
  - Build semantic relationship among images and words
    - Visual consideration: Position & Color
    - Colors of keywords depend on most related images
      1) Reduce the image into a palette of 16 to 32 colors
      2) Pick background color from the four borders with the most number of pixels
      3) In the remaining colors, pick color the most different from background based on HSB (or RGB)
      4) Redo #3 for a secondary color, if no significant difference is found, use white or black depending on the intensity of the background
  - Measuring semantic similarity: Assign tags to images with tags in microblogging posts
    - Build semantic relationship among words
    - Visual consideration: Position
    - Semantic similarity computation: LDA
    - Consider Additional information
      - Semantic hierarchy
      - Co-occurrences of words and images

**Visualization Example**
- Annual overview of a microblog user including his concern topics, monthly keywords and sentiments. The keywords related to the specific topic “旅游 (travel)” are highlighted in green. The posts related to the selected keyword “吉隆坡 (Kuala Lumpur)” are shown in the left box.