

Flickr IDR

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Overall Goal

- web-based interface
- multi-modal search on Flickr image collections
 - Image
 - Annotation

Project Phases:

- ✓ Phase 1: gather statistics about educational image groups on Flickr
 - Support need for multimodal search
 - Image-based Image
 - Text-based annotation and metadata
- ✓ Phase 2: web-based interface and basic search
 - SuperIDR image database only
 - Combine results of two existing search libraries
 - CBISC
 - Images
 - Lucene
 - Text

Project Phases

- ✓ Phase 3: generalize
 - Support indexing of Flickr image group data to enable multimodal search on it
 - Expand database to include selected Flickr image groups
- Phase 4: Research ways to best utilize multimodal data for search(stretch goal)
 - How to return and organize the best results when multiple modes of search are used
- ❖ Bonus: Release code as open source

Application

- Web application
 - Selection of image query by upload or by URL (with crop capability)
 - Javascript GUI for responsive user experience
 - Uses Jcrop library
 - Hidden formfields pass data to server
 - Image and text-based search
 - Apache Lucene
 - Commonly-used text-search library
 - CBISC
 - Image search library from UNICAMP Brazil
 - Results are combined based on normalized scores from search libraries and weights given by user
 - Flickr integration
 - User is linked to relevant Flickr image page
 - All images are hosted on Flickr, not search server

Application

- Indexing service
 - Crawls Flickr account or image group
 - Temporarily downloads images to feed to CBISC
 - Forms text data and necessary ID fields into Lucene document
 - Indexes annotations as subimages with CBISC
 - Indexes annotation text with Lucene
 - Annotations are linked to parent image by ID
 - Slow, bandwidth and CPU intensive process

DEMO

Deliverables

- Abstract
- Project Paper
 - Includes
 - Executive Summary
 - User's Manual
 - Developer's Manual
 - Testing Manual
 - Etc.
- Readme
- Source Code



Challenges

- PHP vs. ASP.net
- Javascript
- Learning new technologies
 - CBISC
 - Sparsely documented
 - Lucene
 - Well-documented

Future work

- Deploy to university server
- Implement further tests
- Improve UI design and subimage searching
 - Display more data on search results page
- Allow for automated indexing of user-specified Flickr groups
- Research effectiveness of image searching on other groups and identify optimal CBISC settings

Questions?