

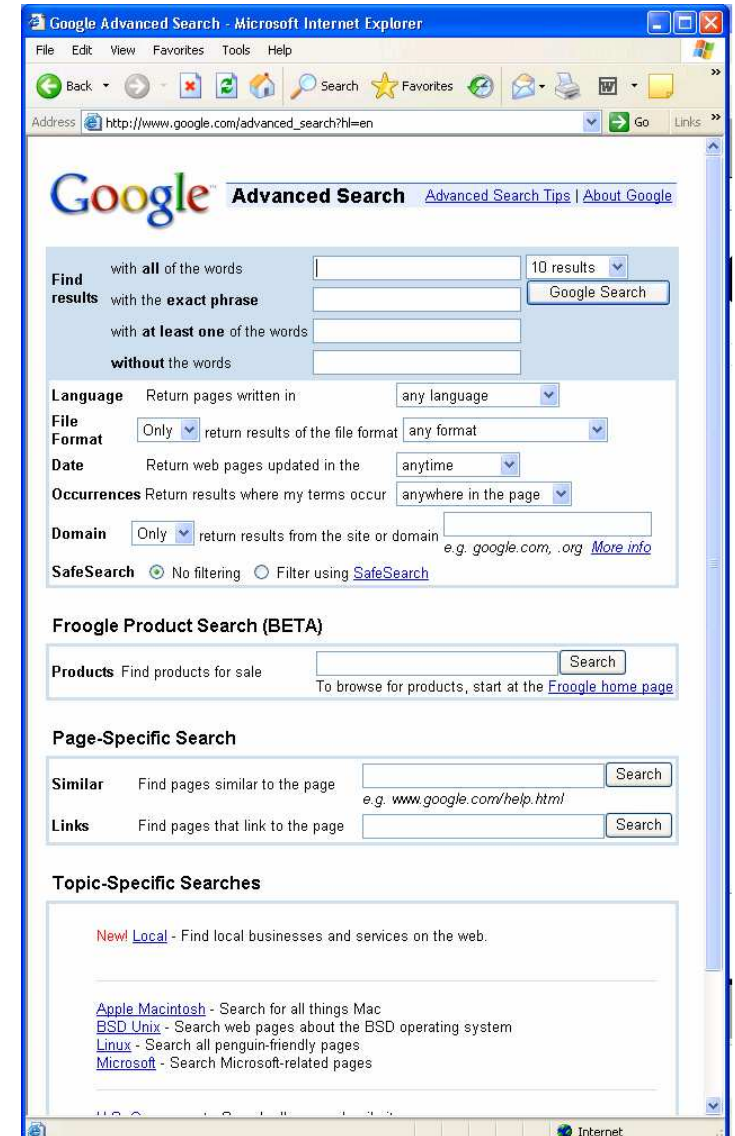
# Exploratory Analysis for non-technical users

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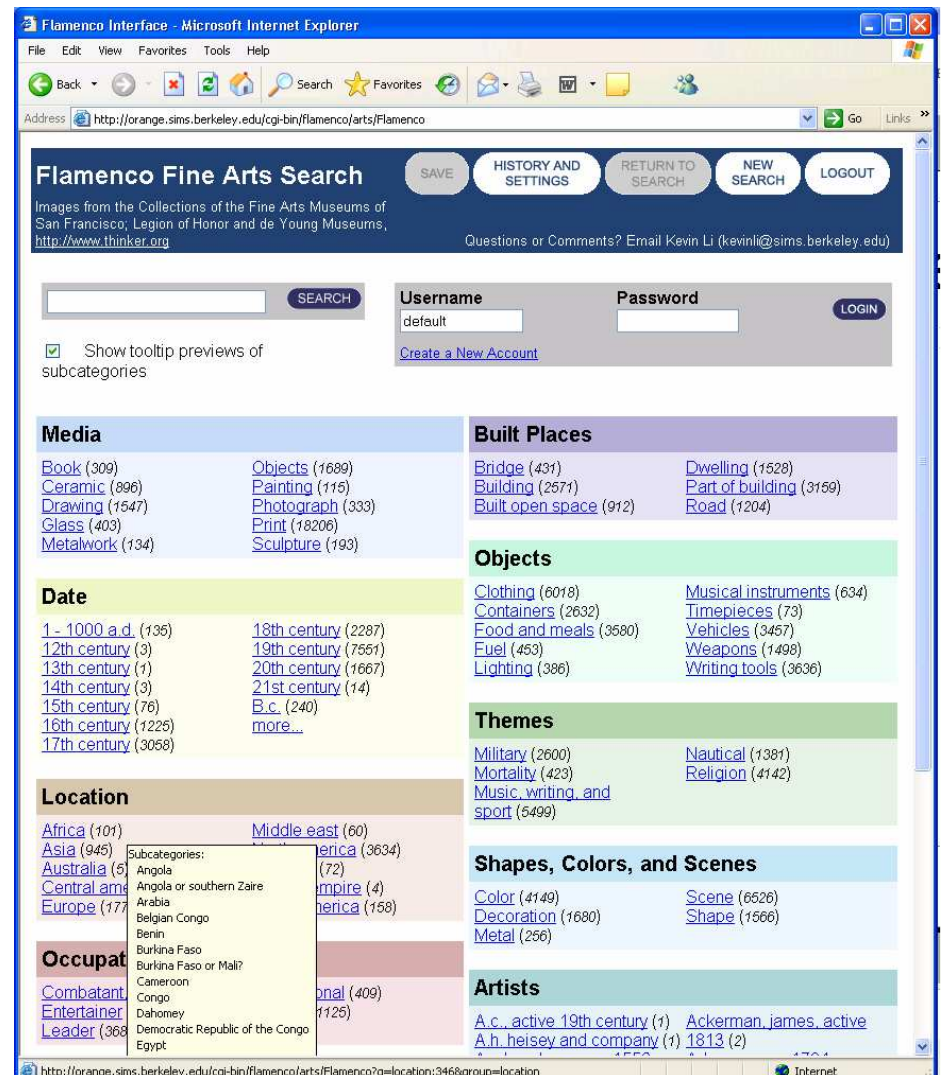
# Advanced (Fielded) Search

- Not very exploratory
  - Recall not recognition
  - Not incremental
  - Zero-hit results
  - The problems that DQ histograms overcome



# Flamenco

- Recognition not recall
- But these long lists require scrolling and multiple screens

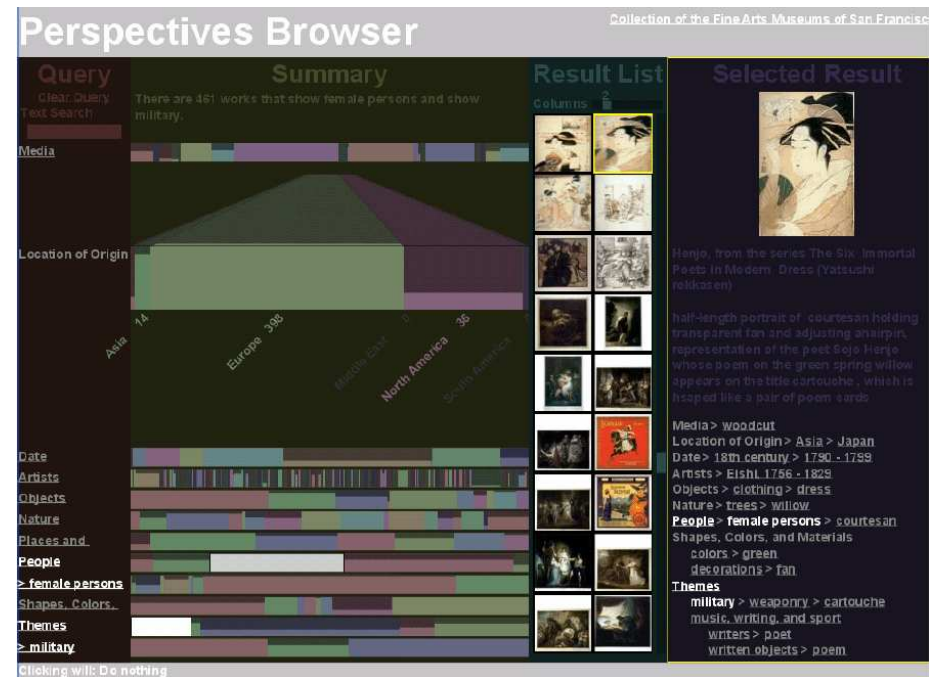


# Relation Browser

- Visual representation of cardinality
- Compares conditional to unconditional distribution
- Fits on one screen, at the cost of legibility

# Perspectives Browser

- Time multiplex labels to save space
- Supports pattern finding as well as search/browse
  - Better conditional/unconditional comparison



# Perspectives Browser

## Query

Clear Query  
Text Search

Media

Location of Origin

Date

Artists

Objects

Nature

Places and

People

> female persons

Shapes, Colors,

Themes

> military

## Summary

There are 461 works that show female persons and show military.

Asia 14  
Europe 308

## Result List

Columns 2

## Selected Result

Henjo, from the series The Six Immortal Poets in Modern Dress (Yatsushi rekkasen)

half-length portrait of courtesan holding transparent fan and adjusting an hairpin, representation of the poet Sojo Henjo whose poem on the green spring willow appears on the title cartouche, which is shaped like a pair of poem cards

Media > woodcut  
Location of Origin > Asia > Japan  
Date > 18th century > 1790 - 1799  
Artists > Eishi, 1756 - 1829  
Objects > clothing > dress  
Nature > trees > willow  
**People > female persons > courtesan**  
Shapes, Colors, and Materials  
  colors > green  
  decorations > fan

Themes  
  military > weaponry > cartouche  
  music, writing, and sport  
  writers > poet  
  written objects > poem

Demo

Clicking will: Do nothing

# Features

- Progressive disclosure
- Follows Information Seeking Mantra
- Novel histograms factor distribution into conditional and unconditional components
- Patterns visible even for minimized attributes
- Perspective Walls show patterns even in small subsets of a collection

# Usability

- 3 CMU undergraduates
  - No instruction
  - Able to search/browse
  - Not able to find patterns
    - They didn't give up, though
- 2 non-technical CMU PhD students
  - 15 minutes of instruction
  - Able to search/browse/find patterns