The Use of Social Tags in Interactive Information Retrieval

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September 23, 2011
Against the Gods: The Remarkable History of Risk

by Peter L. Bernstein

Against the Gods: The Remarkable History of Risk (1999) is a financial history book written by Peter L. Bernstein. It explores how the concept of risk was understood and managed across various cultures and time periods, from ancient Rome to the modern financial markets. The book is notable for its interdisciplinary approach, combining insights from mathematics, economics, psychology, and history.

The book examines how risk was perceived and handled in different contexts, from insurance and gambling to investment and insurance. Bernstein argues that the ability to understand and manage risk is a key to financial success and stability. He also discusses the role of mathematics and statistics in the development of modern finance.

The book has received critical acclaim and is considered a seminal work in the field of financial history. It has been translated into several languages and is widely used in university courses on finance and economics.

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Send Vivendo do Oceo Ringtones to Cell

Vivendo do Oceo is a Brazilian rock band formed in 2006. They have released several albums and are known for their energetic performances and engaging lyrics. Their music reflects a range of influences, including rock, folk, and pop. The band's songs often explore themes of love, relationships, and everyday life.

Em 2008 eles venceram o G1 Sound, um concurso de bandas promovido pelo Guarani Antartica e transmitido pela RedeTV! E eles também venceram o prêmio de "Melhor Show" no Bahia de Todos os Rock.

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Nuclear winter is a real and present danger

The term "nuclear winter" refers to the catastrophic environmental effects that could result from a global nuclear war. The concept was popularized in the 1980s by nuclear policy analysts who argued that the climatic disruption would lead to a "nuclear winter." The term was used in the 1994 book "Nuclear Winter," written by John H. Schellhas, and by the 1983 paper "Nuclear Winter: An End to Civilization?" by Paul Crutzen and William D. Sellers.

The effects hypothesized in a nuclear winter include widespread cooling, dust-covered snow that traps and reflects sunlight, and a cycle of drought, famine, and disease. These effects could potentially lead to widespread human mortality and the collapse of civilization.

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Social structure of the Middle Ages and the contemporaneous

The social structure of the Middle Ages was significantly influenced by the political and economic developments of the time. The feudal system, characterized by a hierarchical structure between lords and vassals, was a central feature of this period. The Church also played a significant role in shaping the social hierarchy.

This period saw the development of new social classes, such as the bourgeoisie and the middle classes, which emerged as a result of the growth of trade and commerce. The role of women in society also evolved, with women often having different rights and responsibilities depending on their social status.

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Social risk factors for noncompliance with tuberculosis treatment in Pontevedra, Spain

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2003  del.icio.us
2004  Flickr
      CiteULike
      Connotea
2005  YouTube
      LibraryThing
2006  Last.fm
2007  WordPress (version 2.3)
Motivation

• In interactive information retrieval, **individuals** interact with an **information retrieval system** to find documents meeting their information needs
  – Query formulation / reformulation
  – Relevance judgment

• Research in social tagging has focused on tags, and behavior and motivations of taggers

• **How can social tags be used to enhance interactive information retrieval?**
Image Searches

• Query formulation/reformulation:
  – concept-based
  – content-based

• Different relevance criteria:
  – relevance criteria changes according to stage of search process
Research Questions

RQ1: What are the characteristics of tag and non-tag searches?

RQ2: How does the role of tags differ for text and image search across stages of the search process?

RQ3: How does prior knowledge of tags influence the use of tags during the search process?
Research Methodology

• Laboratory-based experiment study
  – compare tag and non-tag searches
  – compare image and text searches

• Sources of data collection:
  – transaction logs
  – screen recordings
  – questionnaires
  – interviews
Yelp sucks. I need unbiased reviews. Help!
Are there any websites that have unbiased restaurant reviews? I want to perhaps list restaurants. I don't even care if it costs at this point; it doesn't even matter. Yelp keeps sending me to lousy places. I've had horrible coffee... sounds a bit like Yelp to me. Is it? Anybody have any feedback on Zag around Munster, Indiana. [read more...]

Chicago -&gt; Memphis -&gt; Dallas -&gt; Austin. Looking for good recommendations. Our current plan is to take 75 and 55 down to Memphis. We might consider a detour for Big Cheap Awesome, especially if it makes a westerly route so as to pass... [read more...]

Chicago Restaurants for Cheap Locavores
What are the outstanding Chicago restaurants specializing in seasonal & I'm planning a special birthday dinner at the end of the month. I'd like to see while I'm not going to settle for a Vienna Beef, I'm not exactly ready to buy restaurants... [read more...]

SF Food
What to eat in San Francisco/the Bay Area that I can't find in Chicago? G food recs. What does San Francisco do better than Chicago? What's avg looking for restaurants, but I'll have access to a kitchen for a few days, so cool too. ... [read more...]

Train Food
Train ride from Portland to Chicago. In coach. I don't want to buy food on the train. Food should be vegetarian (no beef jerky). 2. As far as I know, there should be sufficient to sustain me for the entirety of the 46 hour train ride... [read more...]

Help me give a near-useless embedded machine a useful
Do people have ideas about what I can do with a little embedded device? I received what appears to be one of the few Cher shipped out. (There's a huge backstory to these almost-vaporware compi... received it, I was no longer... [read more...]
Tags: mpc512e, embedded, cherry PAL, greenmachine, Linux

Help me pick a new best friend for the next 4 years
Finding a new laptop is making my head spin. I'm finding a lot of advice for docs" or "people who need a mobile video editing suite" but I'm in the中级 graphics program like Flash and Photoshop and I don't do video games. [read more...]
Tags: computer, purchasing, shiny new, laptop

Second time's the charm?
Please help me rearchitect my Apple-specific wireless home network and within (sorry!). I have a big (~100GB) iTunes library I've been accumulating more recently, my DVDs as well. That project is still ongoing and may cataloging my... MyBook straight to my computer, I plugged it into the Time Machine and even used iTunes... [read more...]
Tags: backup, network, apple, hard drive, macbook

Dual-Bay SATA Enclosures
Dual-bay SATA Enclosures! Which ones let me copy from one drive to the other, and in the end, I want a box into which I can stuff two hard drives, config internal laptop hard drive and them. Bonus points if I can hook it up via USB... [read more...]
Tags: SATA, USB, hard, enclosure, mac

IKEA. O why did you discontinue the RIAN?
Collections and Tasks for Text Search

• Ask MetaFilter subsite of MetaFilter
  Online question-answering community
  All questions are archived, searchable, tagged – older questions tagged by volunteers
  On average a question has 14 comments and 4 tags attached

• Tasks
  finding information to help decide which laptop computer to buy
  finding travel information on where to stay, eat, and what to do in Chicago
<table>
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<tr>
<th>Image Search C</th>
<th>Image Search D</th>
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<tbody>
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<td><strong>new york city</strong></td>
<td><strong>women suffrage</strong></td>
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<td>submit</td>
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<td>43 matches</td>
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<tr>
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<td>Suffrage parade, 1913 (LOC)</td>
</tr>
<tr>
<td>White House Hotel (LOC)</td>
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<tr>
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<td>Rose Sanderson (LOC)</td>
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<tr>
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<tr>
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<tr>
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<td>Tags: march, suffragemovenent horse, freeman, elisabethfreemar</td>
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<tr>
<td>Inauguration crow Union Station (LOC)</td>
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Collections – Image

• The Commons collection on Flickr
  Images posted to Flickr by participating cultural heritage institutions worldwide
  Majority of images are historical
  Images can be tagged by Flickr users

• Tasks
  finding images of American women at work through the ages
  finding representative historical images of New York City
Procedure

Informed Consent

4 Search tasks

Task 1

Pre-Task Questionnaire

Search Task

Post-Task Questionnaire

• Tagged Search Image Review
• Tagged Search Text Review
• Interview
• Background Questionnaire
Subject Profiles

- 48 undergraduate students, self-identified as native English speakers
  - 30 women and 18 men
  - Ages 18 to 23, mean age of 20 years
  - 25 different majors represented – engineering, humanities, social sciences, natural sciences, business, etc.
- Majority (96%) spend at least an hour online at home, with 52% spending at least 3 hours online at home
- 27 (56%) subjects had tagged on Facebook (N=15), YouTube (N=5), blogs (N=4), Flickr (N=3), Delicious (N=2)
- 21 (44%) subjects had no tagging experience
Search Characteristics

• 48 subjects carried out four searches, for a total of 192 search sessions

• Tags used in 25 text search sessions and 25 image search sessions by 36 subjects; 14 subjects used tags for both text and image searches

• Tags used 48 times in text searches and 66 times in image searches

• Text searchers spend more time on the document page; image searchers spend more time on the SERP

• Direct and indirect tag use – 42% of tag use occurrences were indirect
Direct and Indirect Use of Tags

• Direct tag use
  – clicking on a tag
  – query reformulation

• Indirect tag use
  – using a tag without clicking on it
  – predictive judgment
  – evaluative judgment
  – basis for query reformulation

• 11 (31%) tag users only used tags indirectly
RQ1: Characteristics of Tag and Non-Tag Searches

What are the characteristics of tag and non-tag searches?

Examining the searches in which tags were used more than once, on the tagged systems subjects:

- issued a larger number of unique queries
- saw more search results
- spent more time on the SERP
- had shorter query interval durations
RQ2: Tags in Image and Text Searches

How does the role of tags differ for text searches and image searches across the search process?

- Tags were used in all three interaction processes: query reformulation, predictive judgment, and evaluative judgment.
- Tags were used most frequently for query reformulation in both text and image searches. There was proportionately more use for predictive judgment in text searches than image searches.
- Tags were used as an alternative to reading the text snippet in text predictive judgments. Tags were used as additional sources of information in image predictive judgments.
RQ3: Prior Knowledge and Tag Use

How does prior knowledge of tags influence the use of tags during the search process?

- Familiarity and experience were not related to tag use in the experiment

- Understanding (definition, origin, purpose):
  - subjects who thought tags were system-generated used them less frequently
  - high rate of tag usage in subjects who thought the purpose of tags was to lead or manipulate people to content

- Previous experience with library database systems was associated with tag use
Methodological Implications

• Direct and indirect use
  – 42% of tag use occurrences were from indirect use; 31% of subjects only used tags indirectly
  – need to measure both direct and indirect use

• Performance data and experience data
  – both performance data from the searches and experience data from the searchers was collected
  – captured indirect use of tags
  – analyzing the data in combination yielded more substantial findings
Theoretical Implications

• Tags increased the interactions with the information retrieval system

• Tags are used in all three interaction processes: query reformulation, predictive judgment, and evaluative judgment

• Tags are used differently in text and image searches: tags are present in both types of interaction objects, but searcher interaction with them depends on the resource type
Practical Implications

• Supporting predictive judgment
  – Display tags in the SERP, together with each search result

• De-emphasize the live link aspect of tags
  – emphasize the role of tags as metadata, providing information about the information object
  – let searcher retain control of the search, especially for query reformulation
Future Directions

• Tag use in specific contexts
  – Communities (e.g., hobbies)
  – Organizations (e.g., companies)

• Tag use and resource type
  – Music, video, software, …

• Use of tags for purposes other than search
  – Learning
  – Serendipity
The Hype Cycle (Gartner)

- Technology Trigger
- Peak of Inflated Expectations
- Plateau of Productivity
- Slope of Enlightenment
- Trough of Disillusionment

VISIBILITY vs. TIME
Questions?