Taking Search to New Frontiers

Harry Shum
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Microsoft Corporation
WWW 2008
The History of Search

Search Past

Technology
- Directories
  - Very manual process
  - UI required many clicks
  - Millions of docs in catalog

Users
- New
  - Most users on dial up
  - Relatively new to web
  - Willingness to wait, try

Search Present

Technology
- Keywords
  - Efficient index and serve
  - KWs, links determine rank
  - Index with billions of docs

Users
- Experienced
  - Strong mix of broadband
  - Average user online 8+ yrs
  - Greater set of expectations
40% unanswered queries
50% require refinement
- queries to sessions
- action oriented
- hole page relevance
A Practical Approach to Semantics
Understand > Extract > Expose

- Data-driven
- Incremental
- Interactive
Intra-page Intelligence

Inter-page Intelligence

Temporal Understanding
Video Search

Researchers:
Kit Thambiratnam, Roger Peng Yu, Neema Moraveji, Frank Seide
Guanxi

Demo

Researchers:
Zaiqing Nie, Yunxiao Ma, Yong Cao,
Ruochi Zhang, Bo Zhang, Xin Zou, and
Ji-Rong Wen
Technical Quests

Contextual Intelligence

Intent Refinement

Cholesterol
Search Health

Refine your search for Cholesterol

Conditions
- Hypercholesterolemia
- Coronary Artery Disease
- High Blood Pressure

Personal Health
- Smoking
- Exercise
- Recipes And Diets

Drugs & Substances
- Lipitor
- Insulin
- Zocor

Alternative Medicine
- Soy
- Omega-3 Fatty Acids
- Tocopherol

Mobile Awareness
The Opportunity for Search

**Technology**
- **Search Past**: Directories
- **Search Present**: Keywords
- **Search Future**: Semantics
  - Content to Concepts
  - Users to People
  - Users to People

**Users**
- **New**
- **Experienced**
- **Sophisticated**
  - Desire to take action
  - Richer types of content
  - Discovery and Insights
Live Search

Demo