



**Institute of Applied Information Technology  
Zurich University of Applied Sciences  
Information Engineering Group**

**FROM EVALUATION TO APPLICATIONS  
(Beyond evaluating retrieval effectiveness of IR systems)**

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(with work by Melanie Imhof & Stefan Rietberger)

08.02.2013



# Content

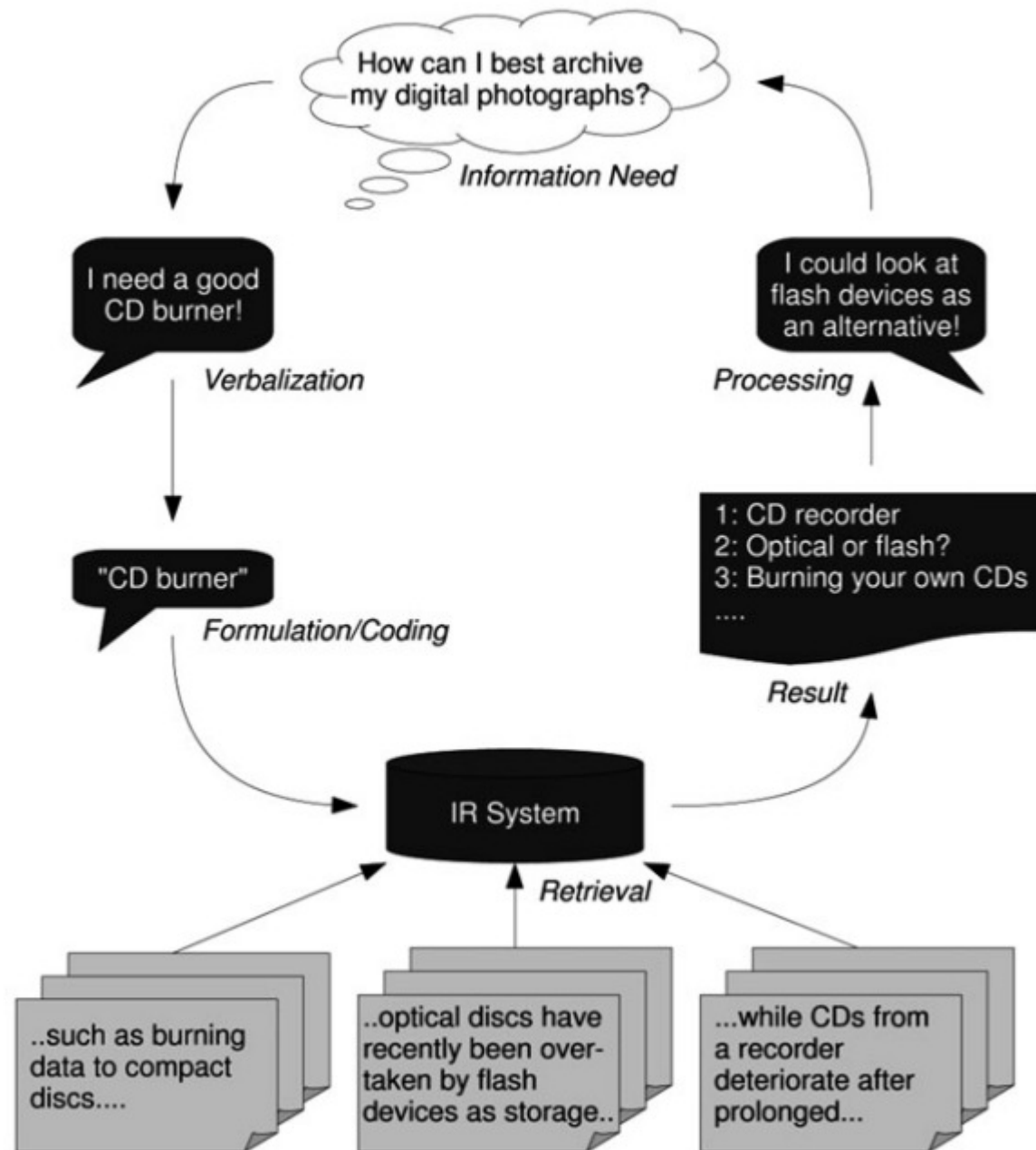
- Retrieval problem/IR cycle
- IR applications
- Application-centric evaluation
- Guerilla campaign
- Criteria
  - Index
  - Query/Document matching
  - User interaction
  - Search results
- Results
- Conclusion

# The Retrieval Problem

- Robertson et al. (1982):  
“ . . . . the function of a document retrieval system is to retrieve all and only those documents that the inquiring patron wants (or would want).”
- => this is a difficult problem, due to a number of factors, as will be demonstrated with the following example:

# Information Retrieval Cycle

- Example taken from Peters et al. (2012)



## Challenges for IR

- Information needs are not verbalised or formulated well enough
- Language is ambiguous: Synonyms, Homonyms, Paraphrasings, Metaphors, Word forms, Typos
- Documents are unstructured and inhomogenous
- Misleading content (spam etc.)
- Authority, source, actuality, copyright.
- Conflicting goals: recall vs. precision
- Relevance is subjective, context dependent, personal preferences, completeness of answer

## Cranfield-style evaluations

- "Back-bone" of evaluation campaigns such as TREC, CLEF, NTCIR, ...
- Extensively studied, well understood (including limitations!)
- Needs test collections, needs (costly) relevance assessments
- Is an evaluation of IR \*systems\*

# IR applications

- An information retrieval application covers the whole information retrieval cycle
- IR applications support knowledge-intensive business processes (e.g. recruiting, compliance, search for innovation etc.)
- IR applications often have a communication and integration role
- Consider extranets: communication with the customer (user can abort communication at any time!)
- Consider intranets: integrating multiple data sources at search time
- IR application = IR system + data collection + configuration/application layer

# Application-centric evaluation

- Cranfield = evaluation of retrieval effectiveness of IR systems
- How to evaluate IR applications? What to evaluate?



# Motivation

- Very few system developers
- Many more IR application deployers, implementors and operators
- The latter are actually interested in how well their IR applications perform (this is not just a system development question!)
- We believe IR evaluation can successfully be conducted from the "front" (application) or the "back" (system)

## Why not Cranfield?

- IR applications support a *\*specific\** knowledge-intensive business process.
- The performance on the *\*actual\** underlying data collection is important
- There are different motivations for evaluation:
- Not just tuning, but also monitoring, continuous evaluation etc.
- There are different requirements for evaluation:
- Not comparative evaluation. Absolute performance is important!

# Interesting problem

- How to measure?
- What to measure?
- Alternative methodologies
- There is some prior work, but there is a lot to do
- Additional, related problems (→ validation, certification, ...)

## What to measure?

- Operators of IR applications are typically not interested in retrieval effectiveness per se.
- It is more important that the application is "good enough" than if the retrieval effectiveness is (theoretically or practically) optimal
- What to measure is still a research question
- We attempt to measure some form of "user perception" of the application

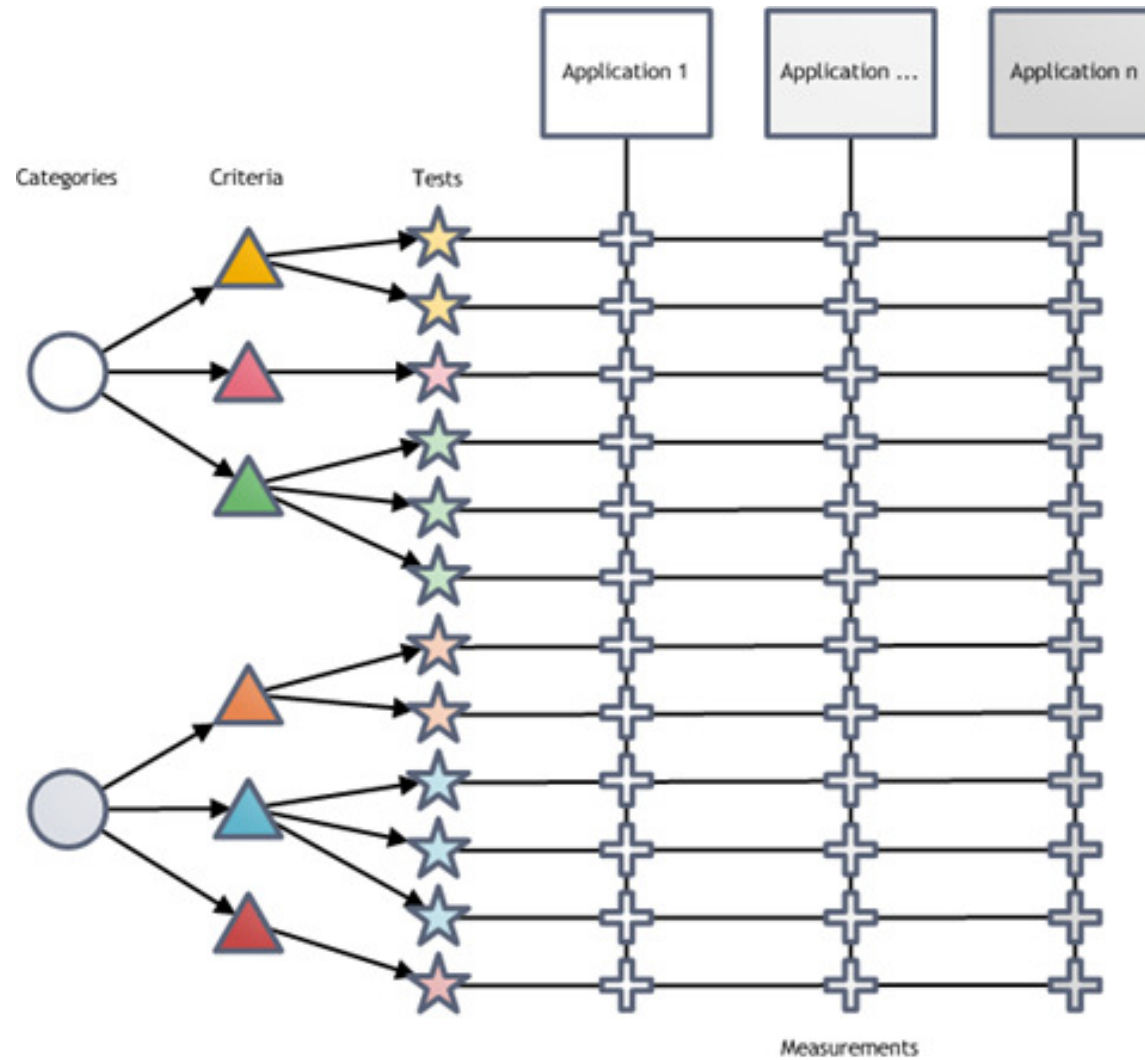
# Evaluation Methodology

- We used a "guerrilla campaign" setup to develop/verify the methodology
- Part of the work in work package 4 of the Promise NoE
- Sites are treated as black box applications
- No ranking of sites

## Evaluation Methodology (cont.)

- Measurement is based on a wide range of criteria (large number of tests)
- Scoring of individual tests is simple by design (simple counts etc.)
- Weighting the different tests, and aggregation, is still subject of research
- There is a "script" guiding the testers ("creativity" of testers needs to be minimized as much as possible!)
- Testers are also asked about their subjective experience

# Evaluation Methodology



## Instantiating the grid of tests

- The methodology can be adapted to different use cases by use-case specific pruning
- This is still work in progress



# Example of a single test: Completeness

## Assumption

Users expect to potentially find all documents that can be publicly accessed in any way on the site (namely, through browsing the site) when using the search functionality.

## Irregularity

Publicly accessible documents (known through browsing or obtaining a direct link) cannot be found using the search functionality.

## Root causes

The index is incomplete – documents/sets of documents are missing

The index is incomplete – the index is out of date (→ Freshness)

The index is incomplete – documents of certain types are missing (→ Format support)

# Example of a single test: Completeness (cont.)

## Test

The content scope of the test is decidedly narrow. No linked resources in the application are expected to be accessible through the search. E.g. if a retailer owns another shopping outlet, the latter's products need not be found.

- Locate 3 documents which match the following criteria:
  - Takes at least 5 clicks to locate document
  - Document is at least 3 levels from root as determined by URL (optional if URL-rewriting is used in the application)
  - URL is at least 100 characters long (optional as above)
- If no documents matching these criteria are found, abort
- For each document
  - Extract a characteristic phrase (2-4 words) from a central location within the document
  - Search for the document using that phrase
  - Score according to the number of documents which can be located within the top 10 search results (0, 1, 2, 3)

# Example of a single test: Completeness (cont.)

## Use Case Domain Adaptations

Search for Innovation: the notion of completeness is defined by a user's expectation of the presence of specific content rather than the inclusion of all browsable content. Therefore, there is no way to objectively and easily test this feature.

# Tested Sites for Guerilla Campaign

## Enterprise Search

[www.abb.ch/](http://www.abb.ch/)  
[www.about.hm.com](http://www.about.hm.com)  
[www.axa-winterthur.ch](http://www.axa-winterthur.ch)  
[www.credit-suisse.com/](http://www.credit-suisse.com/)  
[www.e-coop.it/](http://www.e-coop.it/)  
[www.efginternational.com/](http://www.efginternational.com/)  
[www.generalit.it/](http://www.generalit.it/)  
[www.hm.com/se](http://www.hm.com/se)  
[www.hug-ge.ch](http://www.hug-ge.ch)  
[www.ikea.com/se/sv/](http://www.ikea.com/se/sv/)  
[www.insel.ch/](http://www.insel.ch/)  
[www.nestle.ch/](http://www.nestle.ch/)  
[www.novartis.ch/](http://www.novartis.ch/)  
[www.poste.it/](http://www.poste.it/)  
[www.rai.it/](http://www.rai.it/)  
[www.sf.tv/](http://www.sf.tv/)  
[www.swissre.com/](http://www.swissre.com/)  
[www.telecomitalia.com/](http://www.telecomitalia.com/)  
[www.trenitalia.com/](http://www.trenitalia.com/)  
[www.ubs.com](http://www.ubs.com)  
[www.unicreditgroup.eu/](http://www.unicreditgroup.eu/)  
[www.vattenfall.de/](http://www.vattenfall.de/)  
[www.volkswagen.de](http://www.volkswagen.de)

## Cultural Heritage

[www.beniculturali.it/](http://www.beniculturali.it/)  
[www.bundesarchiv.de/](http://www.bundesarchiv.de/)  
[www.culture.fr/collections/](http://www.culture.fr/collections/)  
[www.dhm.de/](http://www.dhm.de/)  
[www.europeana.eu/](http://www.europeana.eu/)  
[www.europeana.eu/portal/](http://www.europeana.eu/portal/)  
[www.gallica.bnf.fr/](http://www.gallica.bnf.fr/)  
[www.helveticaarchives.ch/](http://www.helveticaarchives.ch/)  
[www.ige.ch/](http://www.ige.ch/)  
[www.pinakothek.de/](http://www.pinakothek.de/)  
[www.smb.museum/](http://www.smb.museum/)  
[www.staedelmuseum.de/](http://www.staedelmuseum.de/)  
[www.unesco.org/](http://www.unesco.org/)

## Patent

[www.boliven.com/patents/](http://www.boliven.com/patents/)  
[www.epo.org/](http://www.epo.org/)  
[www.freepatentsonline.com/](http://www.freepatentsonline.com/)  
[www.google.com/patents/](http://www.google.com/patents/)  
[www.patft.uspto.gov/](http://www.patft.uspto.gov/)  
[www.wipo.int/](http://www.wipo.int/)

## Other Domains

[www.aphp.fr/](http://www.aphp.fr/)  
[www.archives.elysee.fr/](http://www.archives.elysee.fr/)  
[www.bag.admin.ch/aktuell/](http://www.bag.admin.ch/aktuell/)  
[www.bium.univ-paris5.fr/histmed/medica.htm](http://www.bium.univ-paris5.fr/histmed/medica.htm)  
[www.bsip.com/](http://www.bsip.com/)  
[www.centerpartiet.se/](http://www.centerpartiet.se/)  
[www.elysee.fr/](http://www.elysee.fr/)  
[www.health.ch/](http://www.health.ch/)  
[www.hon.ch/](http://www.hon.ch/)  
[www.hon.ch/HONmedia/index\\_f.html](http://www.hon.ch/HONmedia/index_f.html)  
[www.hu-berlin.de](http://www.hu-berlin.de)  
[www.inpi.fr/](http://www.inpi.fr/)  
[www.kth.se/](http://www.kth.se/)  
[www.lara.inist.fr/](http://www.lara.inist.fr/)  
[www.medicalinfo.ch/](http://www.medicalinfo.ch/)  
[www.moderat.se/](http://www.moderat.se/)  
[www.policlinicogemelli.it/area/](http://www.policlinicogemelli.it/area/)  
[www.santeromande.ch/](http://www.santeromande.ch/)  
[www.spotify.com/](http://www.spotify.com/)  
[www.unilabs.ch/](http://www.unilabs.ch/)

# Criteria

## Index

How are documents processed and stored for retrieval?

## Query/Document Matching

How are queries matched to documents?

## User Interaction

What are the presentation options and what is the usability of the search functionality?

## Search Results

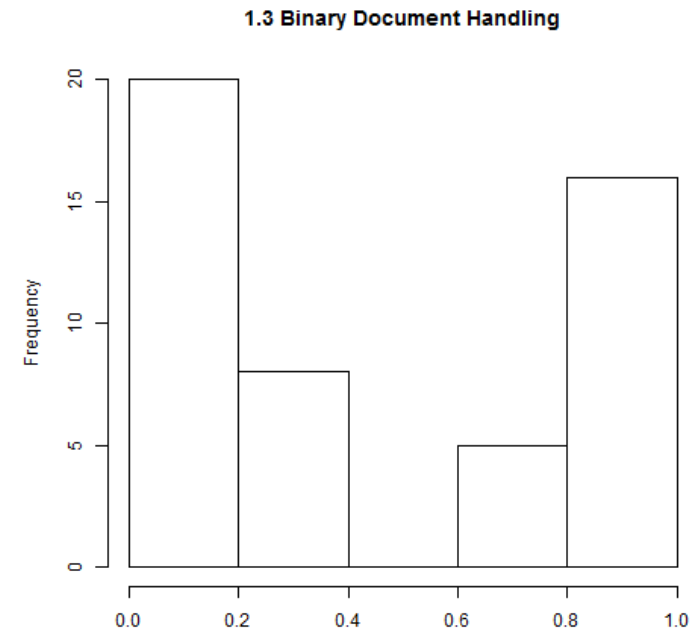
What is the quality of the search result?

# Criteria

## 1. INDEX

1/4

- **Completeness**
  - Is everything indexed?
  - 80% of the tested sites are **complete**
    - BP: Make sure that all documents are reachable and processable by the indexer
- **Freshness**
  - Are new pages indexed?
  - 50% of the tested sites are **not fresh**
    - BP: Update the index at least daily
- **Binary Document Handling**
  - Can binary documents (e.g. PDF, Office documents,...) be found?
  - No clear tendency ( $\mu = 0.45$ ,  $\sigma = 0.44$ )





Schweiz

## Search

Neuer Leiter der Unternehmenskommunikation von UBS Schweiz

Search

1 Suchergebnis

Suchergebnisse insgesamt 1 - 1 für alle Sprachen

Sortieren nach Häufigste Treffer



### UBS Location Finder

Finden sie UBS-Filialen in schweiz

<http://apps1.ubs.com/locationfinder/searchForm.do?GeoEntityId=1&GeoEntityType=3>

microsoft powerpoint - pr% c3% a4sentation\_ubs\_schweiz\_-deutsch.ppt [read-only]

... CEO UBS Schweiz Human... Seiler1 Unternehmenskommunikation: Peter Hartmeier1...Berichterstattung an die Leiter Funktion... Roger von Mentien... Schlatter COO UBS Schweiz Sabine...Grösste Bank in der Schweiz...



# Criteria

## 1. INDEX

2/4

- Separation of Actual Content and Representation
  - Have structural elements (header, footer, etc.) been indexed?
  - No clear tendency ( $\mu = 0.56$ ,  $\sigma = 0.5$ )
    - BP: Detect and remove structural document parts (e.g. header, footer)
- Special Characters
  - Are diacritics (e.g. ö, ä, é, ...) processed?
  - No clear tendency ( $\mu = 0.42$ ,  $\sigma = 0.49$ )
- Synonyms or Domain Specific Terminology
  - Is there functionality to help users select technical terms?
  - Nearly **no domain specific terminology** ( $\mu = 0.11$ )





### 13. Mostra Internazionale di Architettura - La Biennale di Venezia

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sites HONcode	sites Web	HONsélect	News (en)	Conférences	Images
Index A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	Chercher HONmédia: <input type="text"/> <input type="button" value="chercher"/>			Ajout d'image A propos de HONmedia Version anglaise	

Liste des images avec terme commençant par "W"

Liste des images avec terme commençant par "W"

# Criteria

## 1. INDEX

3/4

- Duplicate Documents
  - Are duplicates shown in the result list?
  - No clear tendency ( $\mu = 0.61$ ,  $\sigma = 0.49$ )
    - BP: Detect and remove duplicate documents using checksum or full vector comparison
- Meta-Data Quality
  - Is searching in meta-data fields available?
  - No clear tendency ( $\mu = 0.47$ ,  $\sigma = 0.46$ )
- Tokenization
  - Is domain specific tokenization (e.g. F/A-18, Hans-Peter O'Brian) implemented?
  - No clear tendency ( $\mu = 0.61$ ,  $\sigma = 0.43$ )
    - BP: Treat domain specific terms with tokenization characters (-, /, .) separately

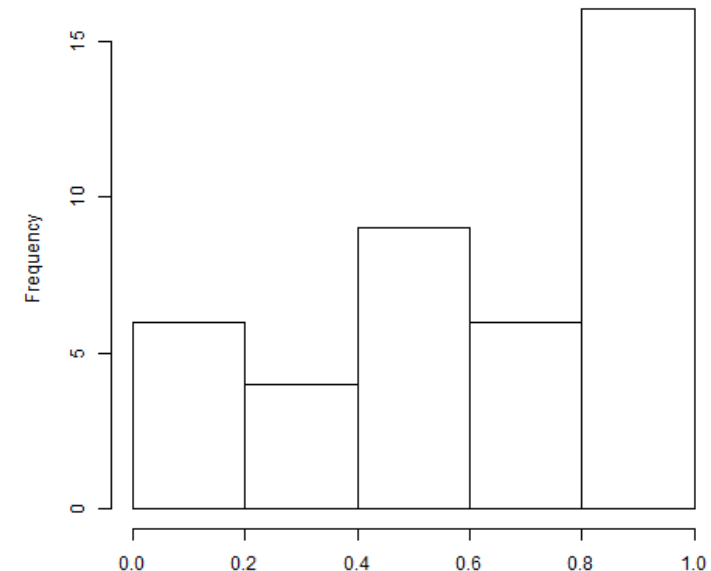
# Criteria

## 1. INDEX

4/4

- Core Business Entities
  - Can clearly defined entities (persons, products) be found?
  - No clear tendency
    - BP: Index business entities as single features
- Stemming
  - Can different word forms (plurals, verbal forms) be found?
  - 63% of the tested sites **don't support stemming**
    - BP: Use stemming to overcome mismatches between word forms

1.10 Core Business Entities



## Résultats de recherche pour « Hôpitaux »

[Actualités](#)[Pages](#)

## Mentions Légales

...projet La définition, la conception, la coordination du projet portail internet et multimédia ont été réalisées par le Centre de Compétences et de Services Travail Collaboratif et Co de l'Assistance Publique Hôpitaux de Paris. Composition de l'équipe : Anne-Christine St directrice de projet Phuong DANG-TRAN, directeur technique Chanfi MAOULIDA, chef d'internet et multimédia Equipe projet internet et multimédia : St...

## Les hôpitaux de l'AP-HP

...

## Contacter un hôpital de l'AP-HP

Vous pouvez contacter directement un des hôpitaux ou un des services généraux de l'AP-HP des boîtes aux lettres ci-dessous : Les hôpitaux (classés par ordre alphabétique) ALBERT CHENEVIER : direction.secretariat@ach.aphp.fr ANTOINE BECLERE : contact.beclere@abc.aphp.fr ARMAND TROUSSEAU : info.trousseau@trs.aphp.fr AVICENNE : contact.avicenne@avc.aphp.fr BEAUJON : infos.beaujon@bjn.aphp.fr BICHAT-CLAUDE BERNARD : contact.bc...

## Résultats de recherche pour « Hôpital »

[Actualités](#)[Pages](#)

## Liste des services et médecins classés par hôpital

Choisissez un hôpital, pour voir la liste des services médicaux et des médecins : Hôpital Albert Chenevier Hôpital Antoine-Béclère Hôpital Avicenne Hôpital Berck Hôpital Bichat-Claude Bernard Hôpital Broca Hôpital Charles-Richet Hôpital Corentin-Celton Hôpital Fernand-Widal Hôpital européen Georges-Pompidou (HEGP) Hôpital Henri-Mondor Hôtel-Dieu Hôpital Joffre-Dupuytren Hôpital La Roche-Guyon Hôpital Lariboisière Hôpital Necker-Enfants-...

## Contacter un hôpital de l'AP-HP

Vous pouvez contacter directement un des hôpitaux ou un des services généraux de l'AP-HP sur l'une des boîtes aux lettres ci-dessous : Les hôpitaux (classés par ordre alphabétique) ALBERT CHENEVIER : direction.secretariat@ach.aphp.fr ANTOINE BECLERE : contact.beclere@abc.aphp.fr ARMAND TROUSSEAU : info.trousseau@trs.aphp.fr AVICENNE : contact.avicenne@avc.aphp.fr BEAUJON : infos.beaujon@bjn.aphp.fr BICHAT-CLAUDE BERNARD : contact.bc...

## Nous contacter

Informations en Santé, cultes à l'hôpital Gériatrie/long séjour Fonctionnement du site internet Emplois, stages, concours et formations du personnel non médical Pour les demandes de rendez-vous ou de renseignement général sur un hôpital, merci de vous adresser directement aux services concernés. Coordonnées Siège social Assistance Publique-Hôpitaux de Paris 3, avenue Victoria 75004 Paris Téléphone : 01 40 27 30 00 ...

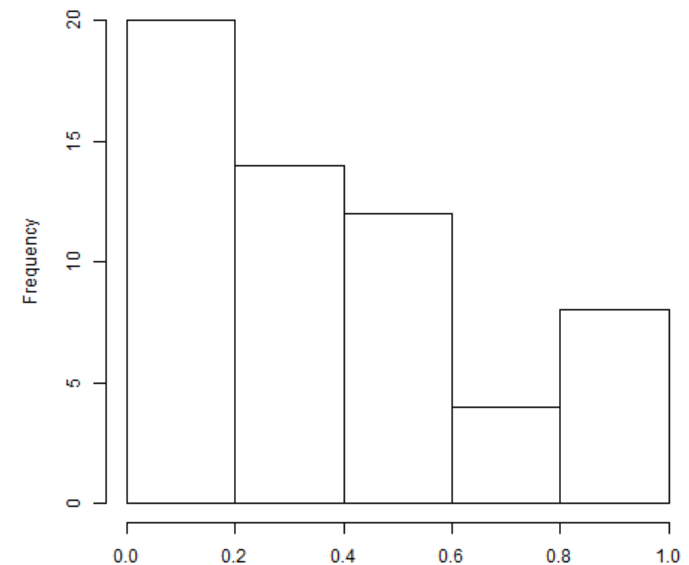
# Criteria

## 2. QUERY/DOCUMENT MATCHING

1/3

- Phrasal Queries
  - Are phrasal queries (“man bites dog”) supported?
  - 67% **support Phrasal Queries**
- Query Syntax
  - Are Boolean queries supported? (AND, OR, NOT)
  - No clear tendency
- Over- and Under-Specified Queries
  - Are there results if we over-specify queries?
  - Are there suggestions if we under-specify queries?
  - Sites with **a good overall score can deal** with over- and under-specified queries

2.2 Query Syntax



# Criteria

## 2. QUERY/DOCUMENT MATCHING

2/3

- Feedback
  - Can user give feedback about search results?
  - Most of the sites **do not allow** users to give **feedback** about the results ( $\mu = 0.22$ )
- Multimedia
  - Is it possible to retrieve multimedia (e.g. images, videos, music)?
  - **Multimedia** retrieval is **rarely** supported ( $\mu = 0.26$ )
    - BP: Use text-based multimedia retrieval (i.e. captions, filenames, subtitles)

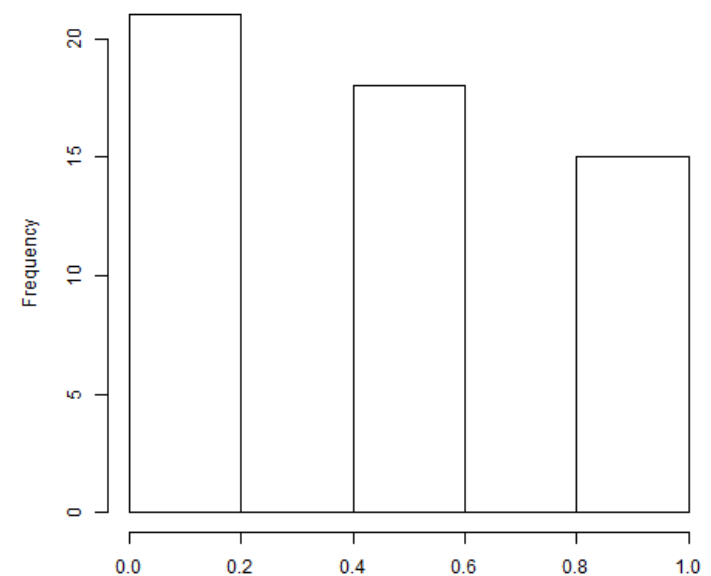
# Criteria

## 2. QUERY/DOCUMENT MATCHING

3/3

- Cross-Language Information Retrieval
  - Can a user retrieve documents in different languages? (language-neutral terms, main language)
  - No clear tendency
    - BP: Use combinations of translation resources, translate metadata, maximize vocabulary coverage of translation resource

2.6 Cross-Language Information Retrieval





## Search Center



Internet (410) | News (6) | Standortverzeichnis | Geldautomaten

Geben Sie Ihren Suchbegriff ein.

Hypothek

## Suchergebnisse

5 empfohlene Links + 410 weitere Treffer für Hypothek

[Erstes Wohneigentum  
Finanzierung - Wohnraum  
Hypothekenrechner](#)

**Credit Suisse - Die Flex-Rollover-Credit Suisse - Die Flex-Rollover-Hypothek**  
Unter den verschiedenen **Hypothek**arvarianten finden Sie sicher das Finanziell Beste, was Ihnen entspricht.  
<https://www.credit-suisse.com/ch/unternehmen/kmugrossunternehmen/d>

**Credit Suisse - Die Fix-Credit Suisse - Die Fix-Hypothek** - 2012-08-20  
Profitieren Sie bei der Fix-Hypothek von den Vorteilen voraus budgetierbar  
Suisse macht Ihren Plänen keinen Strich durch die Rechnung.  
<https://www.credit-suisse.com/ch/unternehmen/kmugrossunternehmen/d>

**Credit Suisse - Die Termin-Fix-Credit Suisse - Die Termin-Fix-Hypothek** -  
Unter den verschiedenen **Hypothek**arvarianten finden Sie sicher das Finanziell Beste, was Ihnen entspricht.  
<https://www.credit-suisse.com/ch/unternehmen/kmugrossunternehmen/d>

**Credit Suisse - Die variable Hypothek** - 2012-08-20  
Profitieren Sie mit der variablen **Hypothek** der Credit Suisse von hoher Flexibilität und  
Wechselmöglichkeiten.  
<https://www.credit-suisse.com/ch/unternehmen/kmugrossunternehmen/d>

## Filter your search:

## By media type

- + IMAGE (61,905)
- + TEXT (6,853)
- + SOUND (594)
- + VIDEO (476)

## By language

## By date

## By country

## By copyright

## By provider

☒ Include content contributed by users

## Legend:

- Image
- Video
- Text
- Sound
- 3D

## Explore Europe's cultural collections

Search

[Refine your search](#)[Help](#)

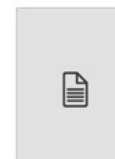
## Matches for: world war



Results 1 - 12 of 69,828 Page: 1 2 3 4 5 6 →

Like

0

**CHEADLE HULME WAR  
MEMORIAL VADS****Percy Levy's Book of  
Life - page 74****Percy Levy's Book of  
Life - page 83****Cup and spoon dated  
1914 belonging to He...****Cup and spoon dated  
1914 belonging to He...****HIGHER LANE WAR  
MEMORIAL VADS****Photographs of  
Michael Gleeson,****Medals, two  
photographs and****Medals, two  
photographs and****Medals, two  
photographs and****The Wiggans Family,  
item 2****The Wiggans Family,  
item 3**

Results 1 - 12 of 69,828 Page: 1 2 3 4 5 6 →

Like

0



# Criteria

## 3. USER INTERACTION

1/7

- Performance/Responsiveness
  - How responsive are the sites?
  - 86% of the tested sites had a response time **smaller than 5sec**
- User Guidance
  - Is there any guidance for the user? E.g. Term suggestion, spell checker,...
  - Most of the pages **do not offer user guidance** features ( $\mu = 0.16$ )
- Browsing
  - Is there usable browsing functionality?
  - 82% of the tested sites **offered browsing** functionality

powered by

ws (20)

→ [Weitere Ergebnisse im Download Center aufrufen](#)

h|

hz 150

hard to find

hp 150

h 150

hvd

## Produkte & Leistungen für w

### ABB W - Cabinets (Sub Distribution Boards)

Low Voltage Products and Systems > Enclosures  
> Sub Distribution Boards > Cabinets > W  
... availability... Condition. Product ... Global alias  
... Price ... Availability. 0. Quantity. The W wall-  
mounting and floor-standing cabinet. ...

### ABB Rozłączniki i produkty bezpiecznikowe w obudowach ...

Produkty niskiego napięcia > Rozłączniki i  
produkty bezpiecznikowe w obudowach  
... Collection of plastic and metal enclosed  
switches. Rozłączniki w obudowach i produkty  
bezpiecznikowe. ... Skontaktuj się z ABB w Inne.  
...

### ABB FCU200-W - Flow Computer Units (Flow Measurement ...

Measurement Products > Flow Measurement >  
Flow Computer Units > FCU200-W  
... Checking price and availability... Condition.  
Product ... Global alias ... Price ... Availability. 0.  
Quantity. FCU 200-W (SensyCal-W). ...

→ [Weitere Ergebnisse in Produkte & Leistungen ansehen](#)

## Produktkatalog für w

### ABB15FGR643W2LA140

Product ID: ABB15FGR643W2LA140  
PC, Dynics Industrial w/Enet

### 2240 W-54 / 6500-0-0792

Product ID: 6500-0-0792  
Product Main Type: Alarm- and control devices  
Twilight switch

### 2240 W-53 / 6500-0-0791

Product ID: 6500-0-0791  
Product Main Type: Alarm- and control devices  
Twilight switch

→ [Weitere Ergebnisse im Produktkatalog ansehen](#)

### ABB W - Cabinets (Sub Distribution Boards)

Low Voltage Products and Systems > Enclosures > Sub Distribution Boards > Cabinets > W  
... availability... Condition. Product ... Global alias ... Price ... Availability. 0. Quantity. The W wall-mounting and floor-  
standing cabinet. ...

Webseite

Aktualisiert am: 2012-08-23

### ABB FCU200-W - Flow Computer Units (Flow Measurement ...

Measurement Products > Flow Measurement > Flow Computer Units > FCU200-W  
... Checking price and availability... Condition. Product ... Global alias ... Price ... Availability. 0. Quantity. FCU 200-W  
(SensyCal-W). ...

Webseite

Aktualisiert am: 2004-09-14

# Criteria

## 3. USER INTERACTION

2/7

- Personalization
  - Is it possible to personalize the search? E.g. user profiles, user preference, search history,...
  - **Only rarely** there were **personalization** features available
- Social Aspects
  - Can search result be shared with other user? Is content suggested based on searches by other users?
  - In general **no social aspects** are available ( $\mu = 0.17$ )
- Exception Handling
  - What happens if invalid input is entered in the search field?
  - No clear tendency ( $\mu = 0.43$ ,  $\sigma = 0.44$ )

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Autor (1.000 erste Ergebnisse)

- Kumārājīva, Traducteur (117)
- Xuan zang 玄奘, Traducteur (32)
- Galilei, Galileo (1564-1642) (21)
- Anville, Jean-Baptiste Bourguignon d' (1697-1782). Cartographe (16)
- Havez, Charles (16...av 1780 ; ingénieur des Ponts et Chaussées). Cartographe (15)

Erscheinungsdatum

- XIXe siècle (65 649)
- XXe siècle (15 718)
- XVIIIe siècle (9 236)
- XXIe siècle (5 614)
- XVIIe siècle (1 641)

Sprache

- Français (95 653)
- Latin (1 907)

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> Home > 101.500 Suchergebnisse 1 auf 6.767

Verfeinern

Meine initiale Suche

Einfache Suche: re

In den Suchergebnissen suchen

Dokumenttyp

- Buch (95.778)
- Presse und Zeitschriften (4.522)
- Handschriften (622)
- Noten (202)
- Karte (180)

Autor (1.000 erste Ergebnisse)

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- Havez, Charles (16...av 1780 ; ingénieur des Ponts et Chaussées). Cartographe (15)

Erscheinungsdatum

- 19. Jahrhundert (65.649)
- 20. Jahrhundert (15.718)
- 18. Jahrhundert (9.236)
- 21. Jahrhundert (5.614)
- 17. Jahrhundert (1.641)

Sprache

- Französisch (95.653)
- Latein (1.907)
- Englisch (579)
- Mehrsprachig (563)
- Deutsch (347)

Thema

- Französische und verwandte

101.500 Ergebnisse

Display : 15 Ergebnisse pro Seite

Seite 1 auf 6.767

Module de recherche

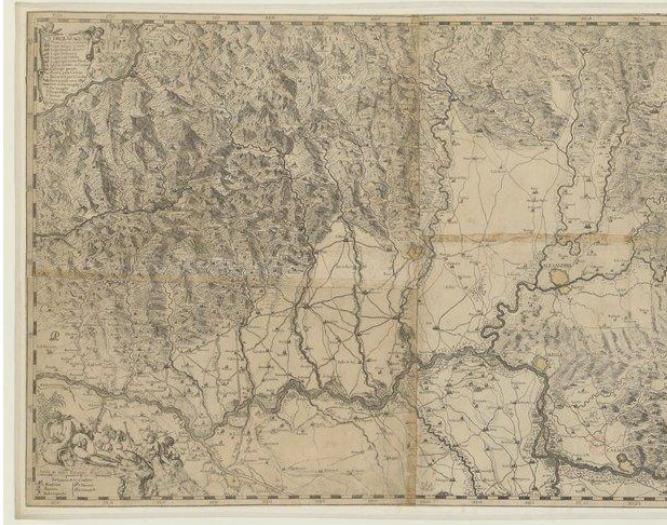
Mappa geografica exactissima delle provincie del Tortonese, Pavese, ...

Ausführliche Informationen

Display Legenden Zum Bild 1 (Ansicht 1 / 1)

Laden Beitragen Eine Kopie bestellen Drucken Hilfe

Mappa geografica exactissima delle provincie del Tortonese, Pavese, Alessandrino contenute dal corso del Fiume Po, Tanaro e Tidone con l'adjacinte montagne della Liguria / por D. Joseph Chafiron Ingr. del Ex. conte de Melgar, governador y capitan General del estado de Milan ; da Marc Ant. Dal Ré incisore in Rame



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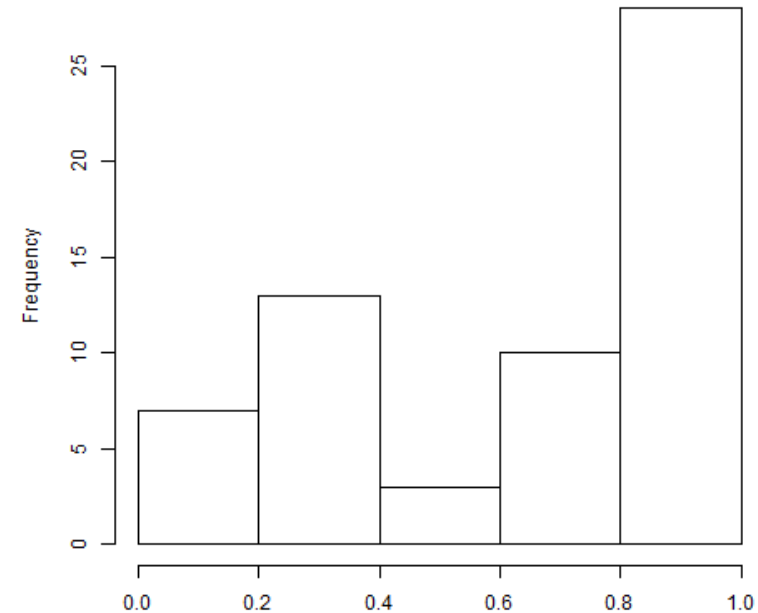
# Criteria

## 3. USER INTERACTION

3/7

- Result List Presentation
  - How are the results presented? Snippets, highlighting, arrangement
  - No clear tendency
    - BP: Offer document snippets in the result list
- Entertainment
  - Is the search functionality entertaining?
  - Most of the sites have **decent usability and aesthetics**
- Localization
  - Are different languages selectable? Is the localization consistent?
  - No clear tendency ( $\mu = 0.48$ ,  $\sigma = 0.44$ )

3.7 Result List Presentation



# Criteria

## 3. USER INTERACTION

4/7

- Facets
  - Is it possible to filter?
  - 56% provide filters, 44% don't
- Result List Import/Export
  - Can the result list be imported or exported?
  - 84% of the tested sites **don't offer import or export**
- Sorting of Result List
  - Can the result list be sorted?
  - 65% provide sorting, 35% don't
    - BP: Offer multiple ways to sort the result list; adapt to requirements of use case domain

# Criteria

## 3. USER INTERACTION

5/7

- Justification of Results
  - Can the result be justified based on snippets, highlighting and the number of results?
  - Some of the sites already provide it, but still capacity to improve ( $\mu = 0.68$ )
- Monitoring
  - Can the queries be monitored over time?
  - 85% of the sites **don't provide monitoring** functionality
- System Override
  - Can user input modifying features be overridden or disabled?
  - 81% of the sites **don't allow system overrides**



**L'inventaire des objets mobiliers religieux des XIXe et XXe siècles : méthodologie**

Verre à pied du XVIIIe siècle à usage profane, utilisé comme calice à Saint-Martin-de-Ré (Charente-Maritime) sous la Révolution

Source : In Situ

Notice Abrégée

**La datation des objets : quelques exemples concrets**

Tableau de broderie daté de 1846, exécuté à Ars-en-Ré (Charente-Maritime)

Source : In Situ

Notice Abrégée

**- visites guidées - expositions virtuelles - Clermont-Ferrand : l'artiste et ses muses**

aussi une invitation à la (re)découverte de grandes oeuvres et de figures célèbres

**Ex-votos et curés d'Ars : l'inventaire de la dévotion en série**

Les Portes-en-Ré (Charente-Maritime), église paroissiale Saint-Eutrope

Source : In Situ

Notice Abrégée

**La chute d'Adam. Benjamin Alard**

Praeludium en ré mineur BuxWV 140 ... Passacaille en ré mineur BuxWV 161 / Christian Ritter Suite en ut mineur / Johann Sebastian Bach ... Canzona en ré mineur BWV 588

Source : Eve

Notice Abrégée

1 2 3 4 5 6 7 8 9 10 ➔ fin

S'abonner à cette recherche

## Recherche collections

Diesen Feed abonnieren über

Google Reader

Abonnieren

### Jean-Baptiste Tropicman

Donnerstag, 6. September 2012 13:44:03



© MuCEM, Dist. RMN / image

MuCEM un personnage de fiction, re -convocé à chaque nouvelle affaire criminelle, héros tragique de complaintes puis de films et d'émissions télévisées Oeuvres étudiées : Condamnation et exécution de Jean-Baptiste... / Exécution de Jean-Baptiste Tropicman. Date : 1870-01-19 / 1870-01-19 Lieu de conservation : MuCEM / MuCEM

### Une leçon de France

Donnerstag, 6. September 2012 13:44:03



© Photo RMN - G. Blot ré Oeuvres

étudiées : En Alsace - La première leçon (FABIANO Fabien)  
Date : 1914 Lieu de conservation : MuCEM

### Réseau des sites majeurs de Vauban

Donnerstag, 6. September 2012 13:44:03



Besançon, Briançon, Mont-Dauphin,

Villefranche-de-Conflent, Mont-Louis, Blaye/Cussac-Fort-Médoc, Saint-Martin-de-Ré, Camaret-sur-Mer, Saint-Vaast-la-Hougue, Arras, Longwy, Neuf-Brisach ... Saint-Martin-de-Ré

### Les Guides Joanne : invention d'une collection

Donnerstag, 6. September 2012 13:44:03



Iles de Noirmoutier, d'Yeu, de Ré, d'Aix

et d'Oléron Auteur de l'article : Hélène Morlier

### Ministère de la Culture - Les dieux égyptiens

Donnerstag, 6. September 2012 13:44:03



Ré

### Le label « bateaux d'intérêt patrimonial »

Donnerstag, 6. September 2012 13:44:03



Belote et Re, thonier-chalutier

traditionnel, construit en 1957 à Saint-Gilles Croix-de-Vie



# Criteria

## 3. USER INTERACTION

6/7

- Related Content
  - Does the application suggest other content that might be relevant?
  - 78% of the tested sites **don't suggest other content**
    - BP: Link additional sources and resources that provide context information
- Context Information
  - Does the application present contextual information? E.g. #views, #citations
  - 78% of the tested sites **don't provide contextual information**



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# Criteria

## 3. USER INTERACTION

7/7

- Navigational Aids
  - Is it possible to navigate back and forth in the query history?
  - 82% of the tested sites **don't offer a navigation possibility**
- Mobile Access
  - Is there a mobile version of the site and the search functionality?
  - 82% of the tested sites **don't have a mobile version** of the search functionality

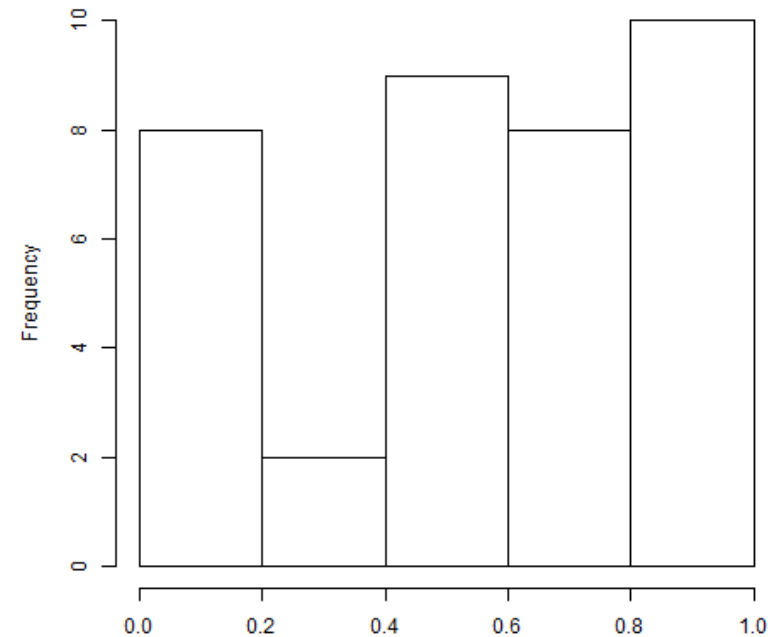
# Criteria

## 4. SEARCH RESULTS

1/2

- Navigational Queries
  - Can navigational entry points be found by queries?
  - 50% success, 50% don't
- Factual Queries
  - Can facts be found through the search functionality?
  - No clear tendency

4.2 Factual Queries



# Criteria

## 4. SEARCH RESULTS

2/2

- Known Item Retrieval
  - Can known items be re-found?
  - 77% of the tested sites **succeeded** in finding a **known item**
- Diversity
  - Are the retrieved results diverse?
  - 80% of the tested sites are felt to **deliver diverse** results
- Geo-Location
  - Is the user's geo-location part of the retrieval functionality?
  - 87% of the tested sites **don't consider the geo-location**

# Criteria Results Summary

## GOOD RESULTS

- Completeness
- Phrasal Queries
- Performance/Responsiveness
- Browsing
- Known Item Retrieval
- Diversity
- Office Document Handling
- Separation of Actual Content and Representations
- Special Characters
- Duplicate Documents
- Meta Data Quality
- Tokenization
- Named Entities
- Query Syntax
- Over- and Under-Specified Queries
- Cross-Language IR
- Exception Handling
- Result List Presentation
- Entertainment
- Localization
- Facets
- Sorting of Result List
- Justification of Results
- Navigational Queries

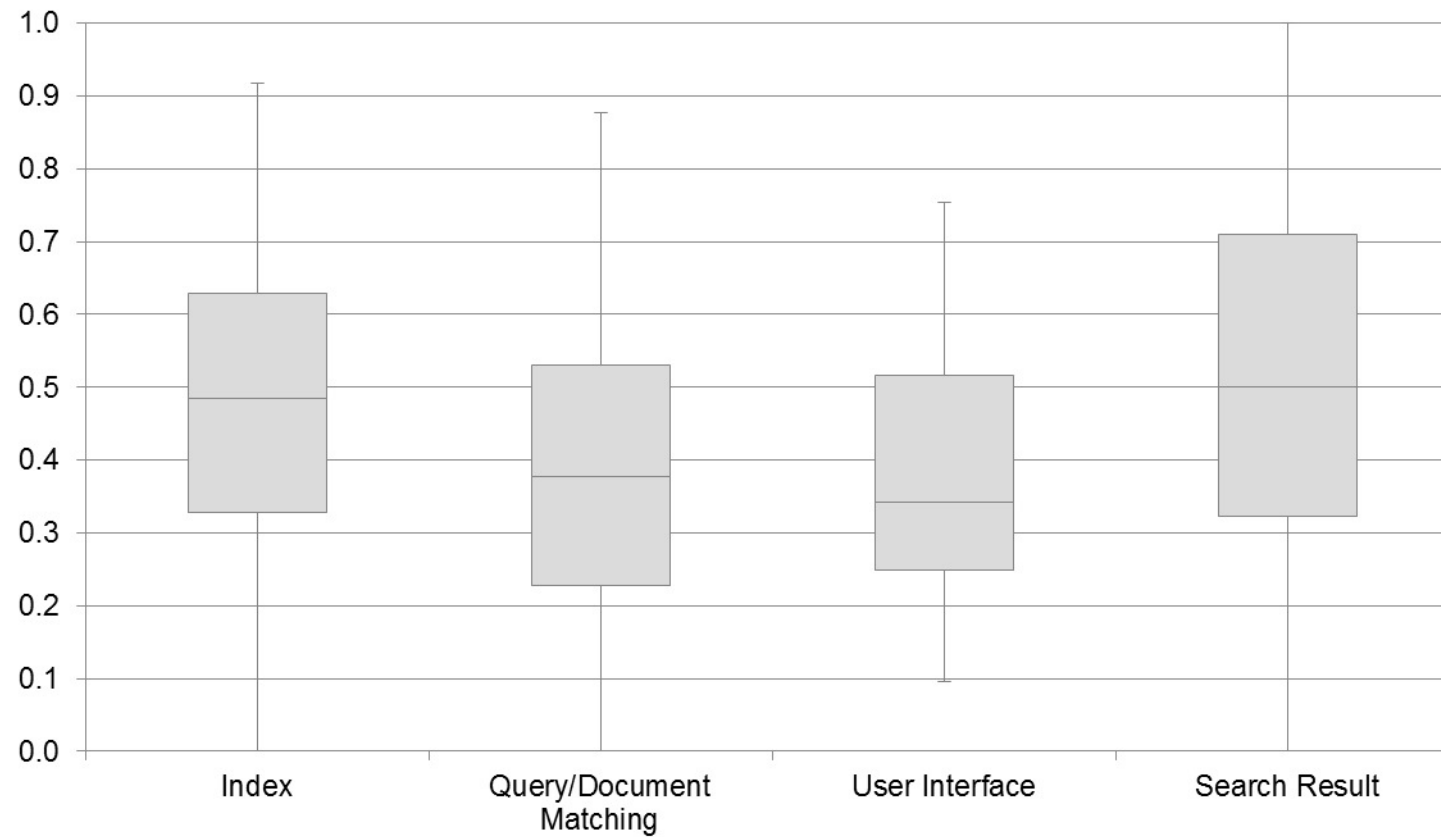
## POOR RESULTS

- Freshness
- Synonyms
- Stemming
- Feedback
- Multimedia
- User Guidance
- Personalization
- Social Aspects
- Result List Import/Export
- Monitoring
- System Override
- Related Content
- Context Information
- Navigational Aids
- Mobile Access
- Geo-Location

# Best Practice

- Even though best practices exist (→ e.g. Promise NoE work package 2), most of the sites achieve poor results for the following tests
  - Freshness
  - Stemming
  - Multimedia
  - Related Content
  - Separation of Actual Content and Representation
  - Tokenization
  - Cross-Language Information Retrieval
  - Result List Presentation
  - Sorting of Result List

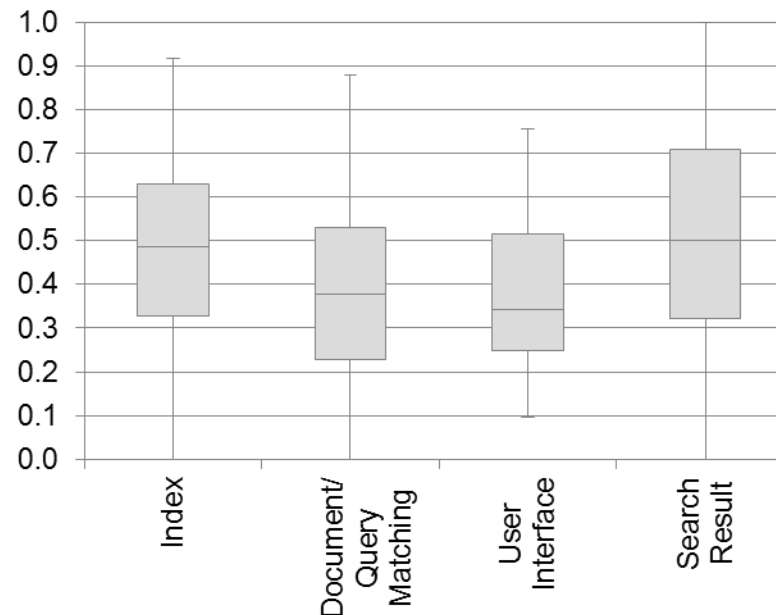
# Overall Result



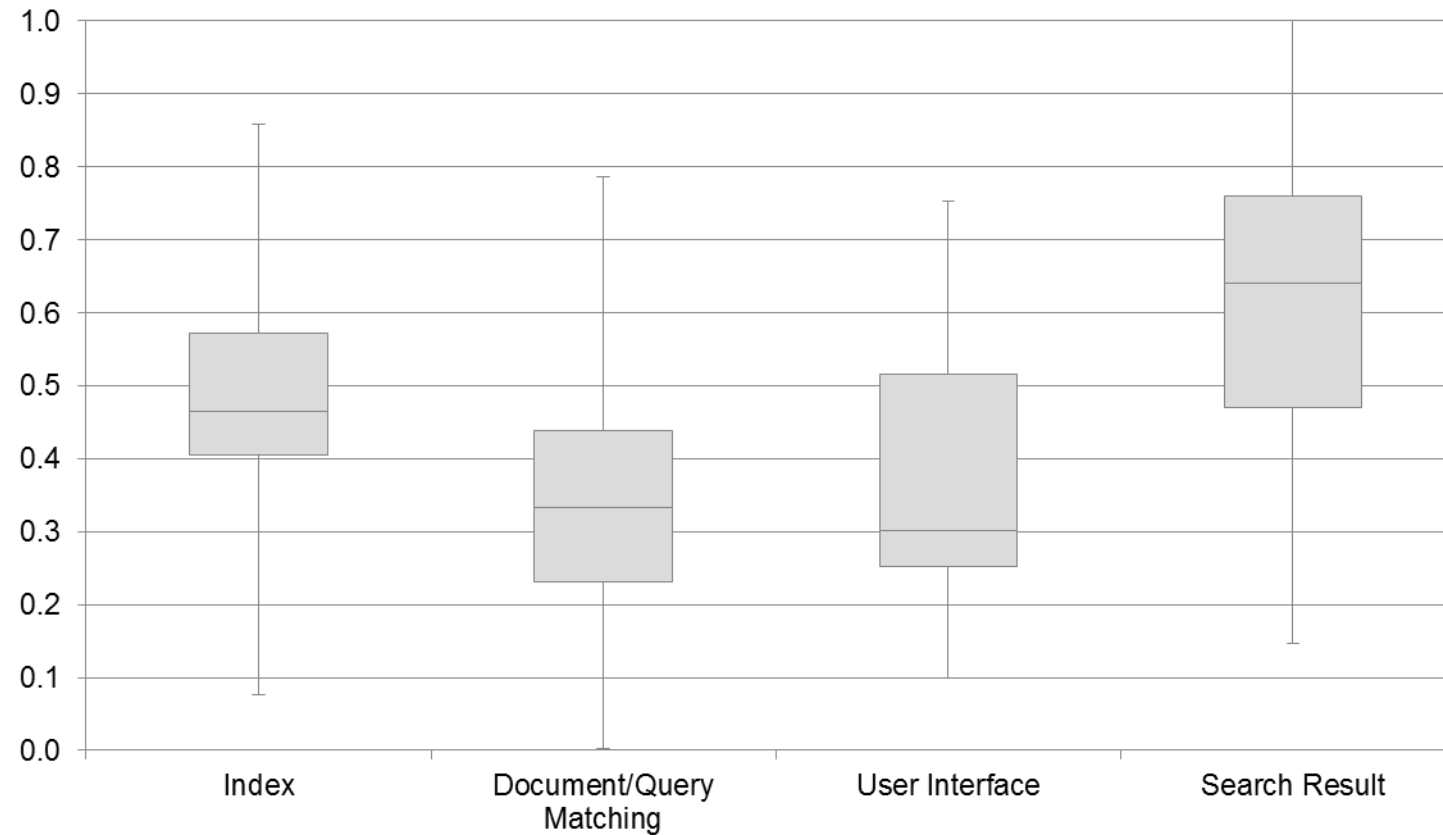


# Overall Result Interpretation

- High scatter (different use cases)
- User interface has lowest mean and smallest standard deviation
  - most of the sites have a poor performance in this category
- Search results is the only category where the maximal score is reached

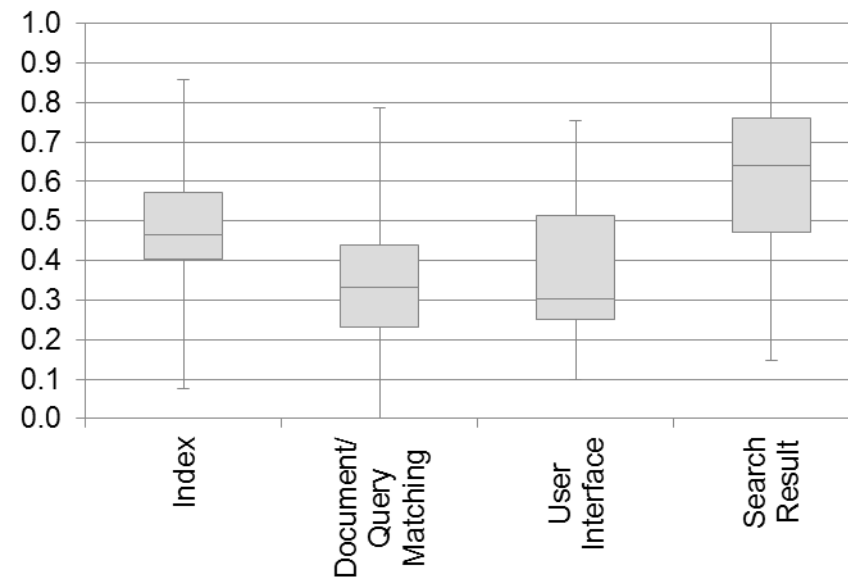


# Enterprise Search Result

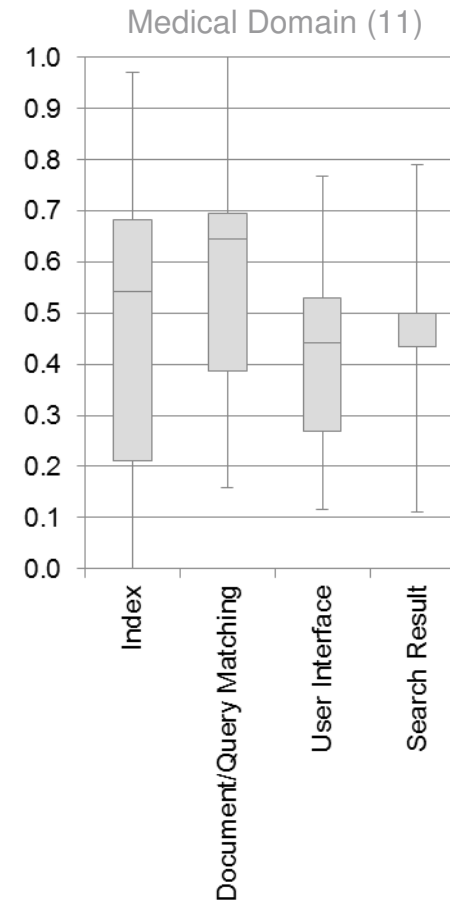
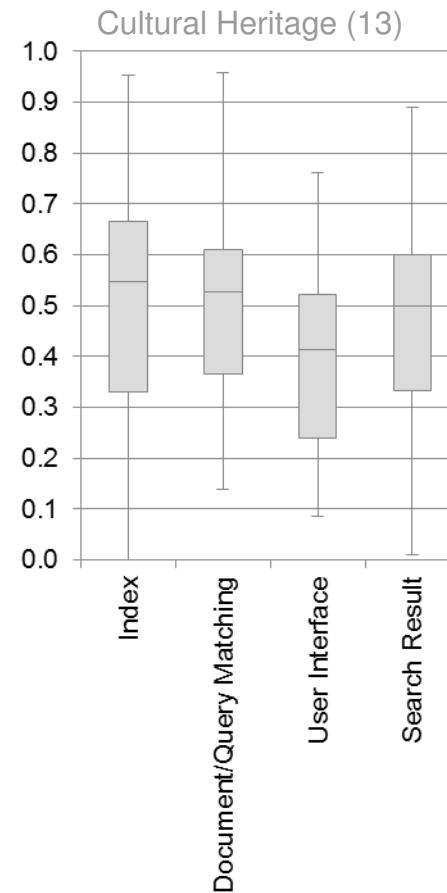
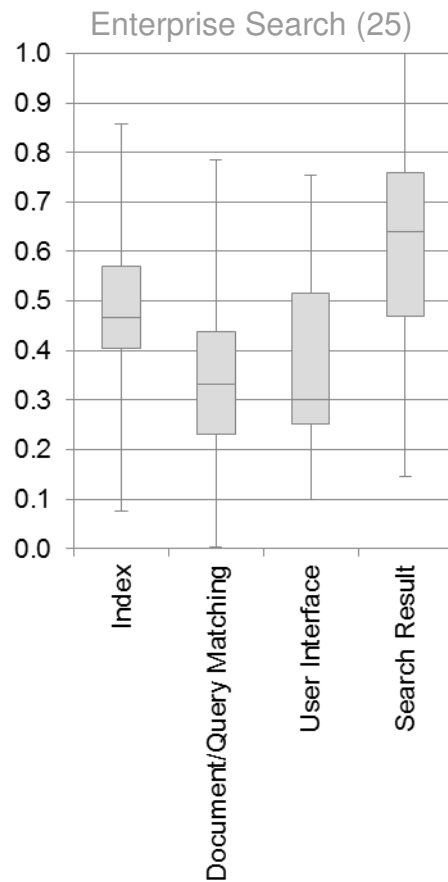


# Enterprise Search Result Interpretation

- Smaller scatter
- Higher mean in search result category
- Lower mean in document/query matching



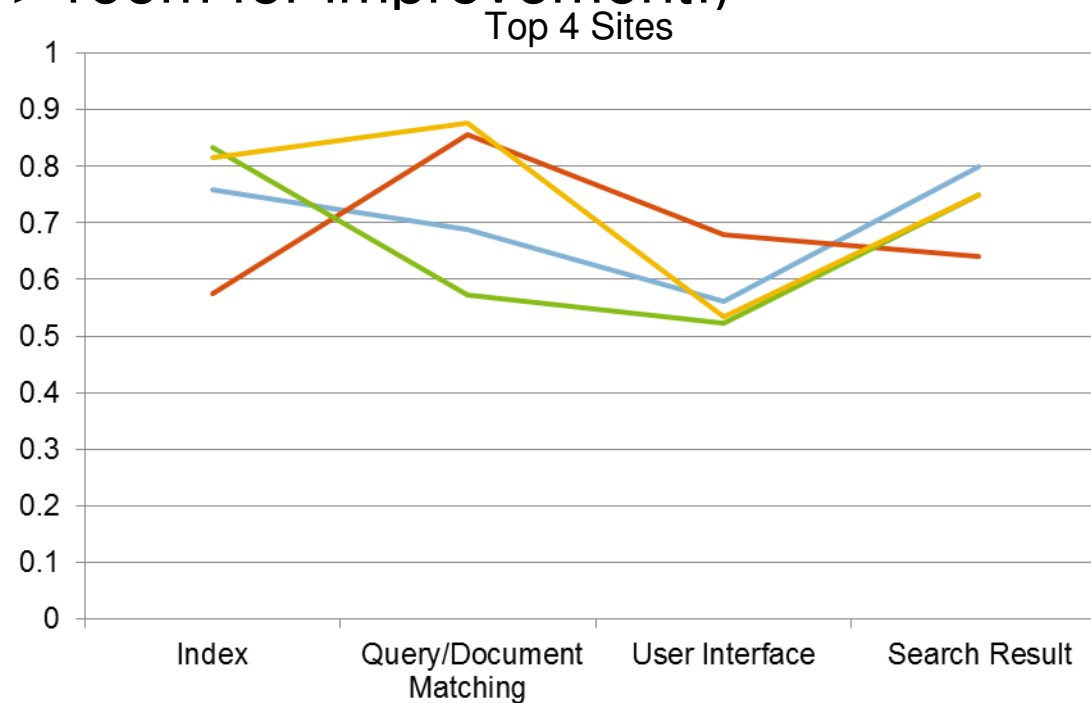
# Use Case Domains



- Due to too little data these plots are not representative (→ work in progress)

# Ranking

- Correlation between rankings based on the four categories is low
- the four best category scores were achieved by four different sites (-> room for improvement!)



# User Experience vs. Overall Score

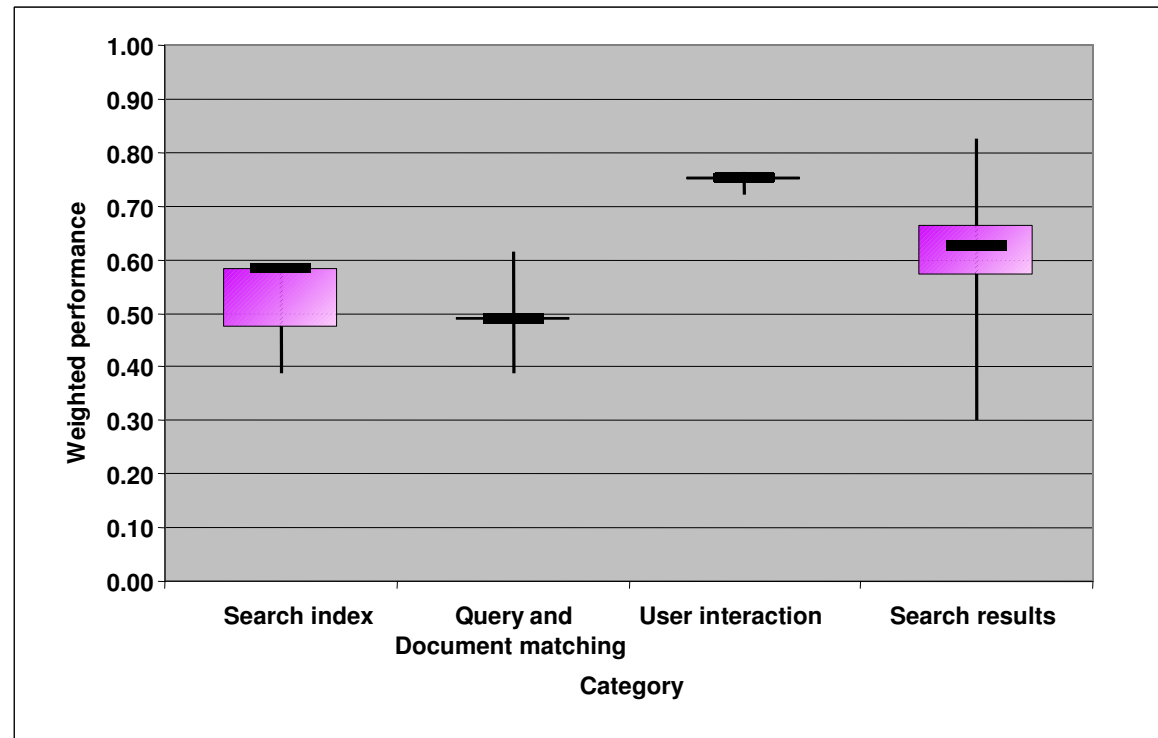
Correlation of User Experience and Overall Score: 0.53

# Conclusion

- **Index**
  - Keep index fresh
  - Apply stemming
- **Query/Document Matching**
  - Allow the user to give feedback about the search result
  - Include multimedia objects in index
- **User Interface**
  - User guidance (term suggestions, spell checking, ...)
  - Benefit from other users (social aspects, related content, context information)
  - Advanced search functionality (result list import/export, monitoring, system override)
- **Search results**
  - Consider geo-location in the search

# Future work

- Comparing to Google baseline (fixed system!, shows variation from application)
- Already explored in earlier study
- "What would happen, if one used Google web search instead of a specific site search?"
- Evaluation of a search with Google web search and a site restriction (www.google.de site:...)
- Mediocre results





## Future work

- Explore automation of tests (such as completeness, freshness, responsiveness...)
- Explore more deeply the actual use of IR applications inside organizations

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