



TECHNISCHE UNIVERSITÄT
CHEMNITZ

Faculty of Computer Science
Professorship Distributed and self-organizing Systems

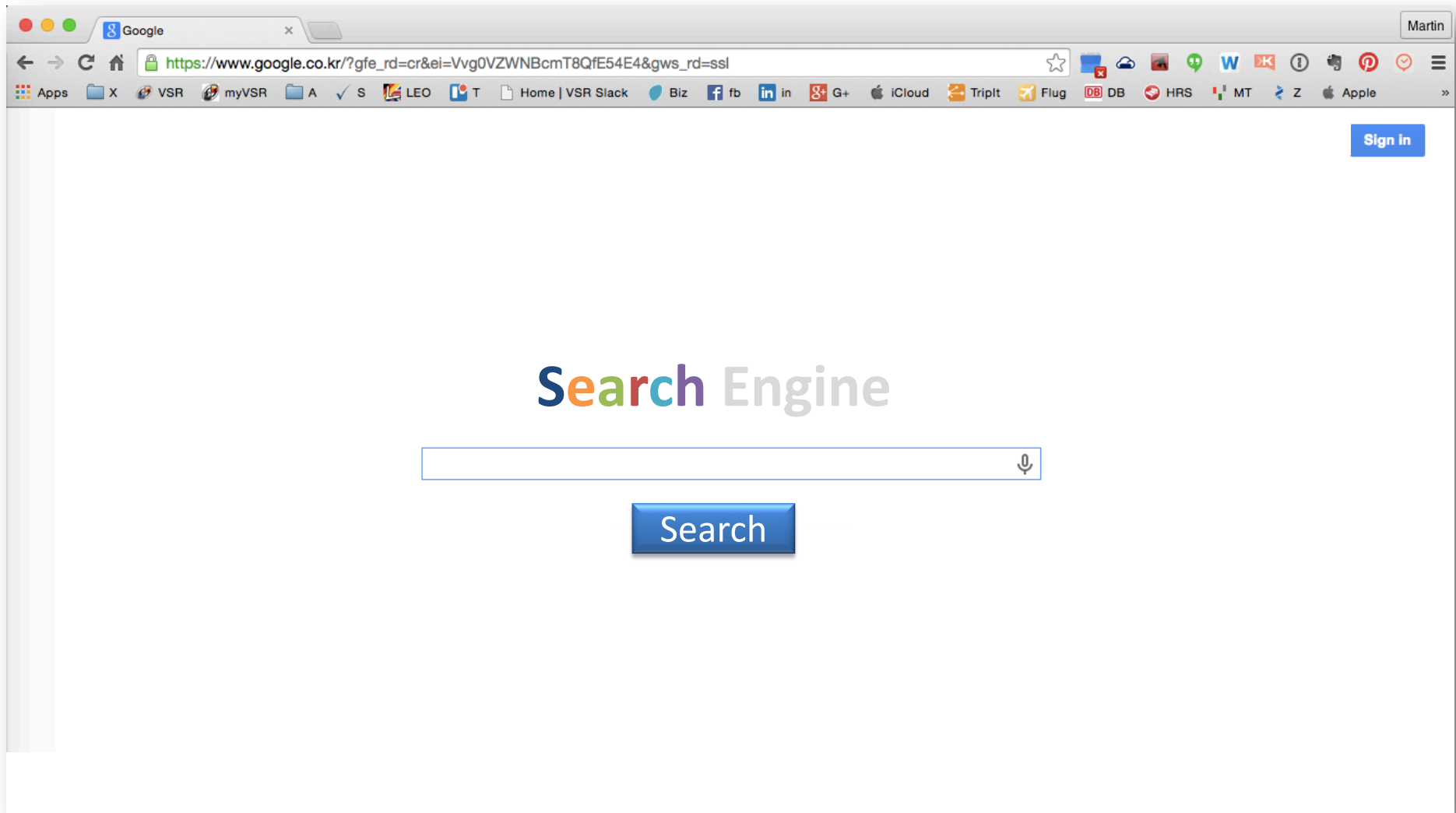
Good bye conversion rate

**a smarter way to optimising Search Engine
Results Pages**

///// IS-SWIS 2017, Rotterdam, February 9, 2017///

MartinGaedke.com

VSR.Informatik.TU-Chemnitz.de



Search Engine Result Pages (SERPs)

Google search results for "Albert einstein". The page shows a search bar with "Albert einstein" entered. Below the search bar, there are tabs for "Web", "Images", "Videos", "News", "Books", and "More". The main content area features a large image of Albert Einstein's face. To the left, there are several search results, including a Wikipedia entry, a biography, and a list of quotes. To the right, there is a "People also search for" section with images of Isaac Newton, Stephen Hawking, Thomas Edison, Galileo Galilei, and Marie Curie.

Bing search results for "Albert einstein". The page shows a search bar with "Albert einstein" entered. Below the search bar, there are tabs for "Web", "Bilder", "Videos", "Karten", "News", and "Mehr". The main content area features a large image of Albert Einstein's face. To the left, there are several search results, including a Wikipedia entry, a biography, and a list of quotes. To the right, there is a "People also search for" section with images of Isaac Newton, Thomas Alva Edison, Hans Albert Einstein, Marie Curie, and Stephen Hawking.

A search engine result page for "Albert einstein" showing a grid of related images and text. The grid contains several items, each with a small image and a brief description. The items include: "Albert Einstein Award", "Albert Einstein Institution", "Albert Einstein Medical Center", "UNESCO Albert Einstein medal", and "Albert Einstein Medal". Below the grid, there are several search results, including a Wikipedia entry, a biography, and a list of quotes.

A search engine result page for "Albert einstein" showing a grid of related images and text. The grid contains several items, each with a small image and a brief description. The items include: "Albert Einstein Award", "Albert Einstein Institution", "Albert Einstein Medical Center", "UNESCO Albert Einstein medal", and "Albert Einstein Medal". Below the grid, there are several search results, including a Wikipedia entry, a biography, and a list of quotes.



(simplified) Motivation

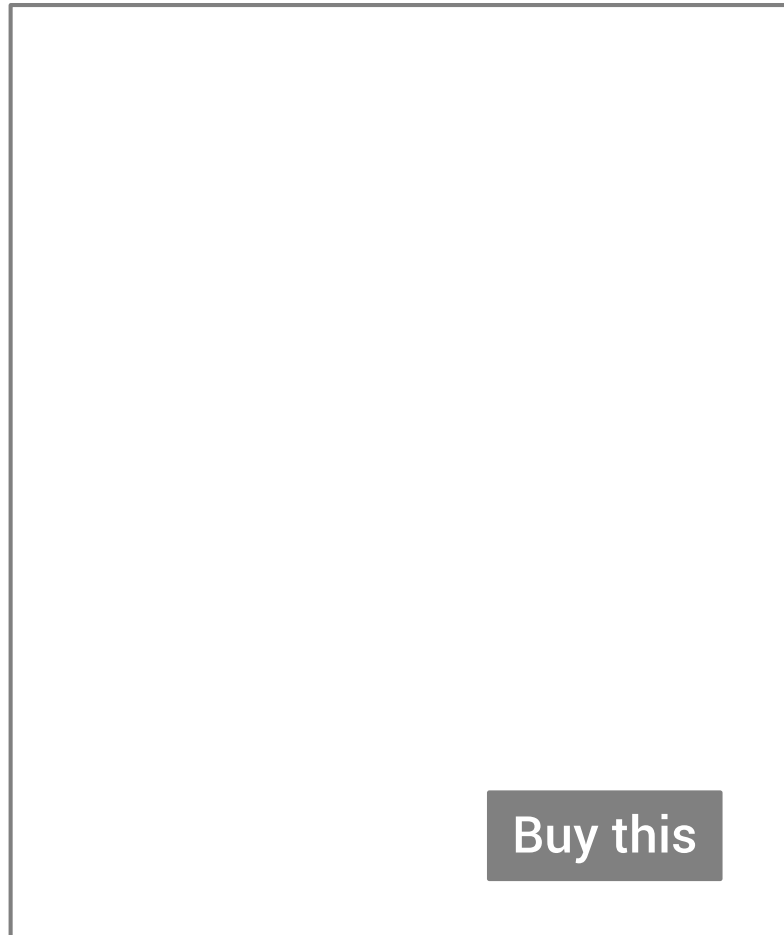
Evaluation Method	Efficient?	Effective?
-------------------	------------	------------

User Testing		
--------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

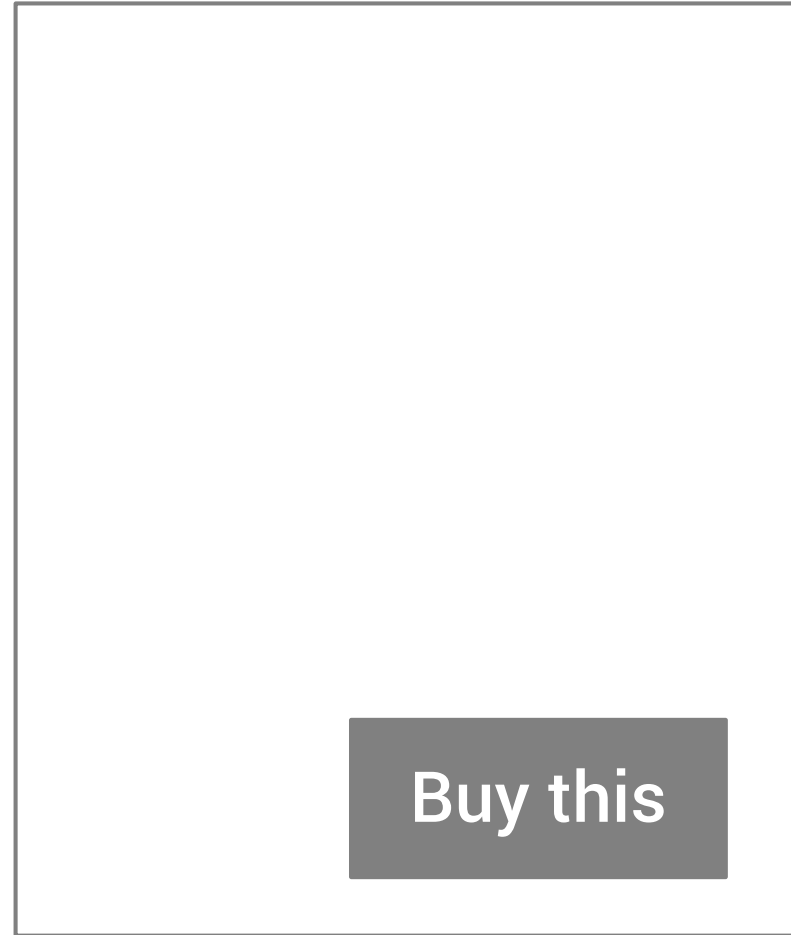
Usability Inspection		
----------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

Split Testing		
---------------	---------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------

Split Testing



Version A



Version B

The problem with Split Testing

Conversion Rate:

proportion of visitors to a website who take action due to subtle requests from marketers, SEOs, (semantic) data providers etc.

$$\text{Conversion rate} = \frac{\text{Number of Goal Achievements}}{\text{Visitors}}$$

(source: Wikipedia.com)

Version A: Getting the User's Zip Code

Get your FREE quote on trusted AAA Insurance

Switch today for great low rates, hassle-free claims, and insurance as dependable as AAA Emergency Road Service.

Enter your information below and an agent will call you back.

Schedule a Call

Product of Interest

First Name

Last Name

Address

State/Province

Zip

Phone


Email

Best Time To Call: --Select-- :

Schedule It

Or, visit your local AAA branch today to speak to an agent.

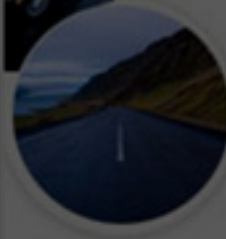


All fields are required.



Welcome to AAA

So that we may better serve you, please enter your Zip Code.

Zip Code:



\$\$\$ ≠ Usability

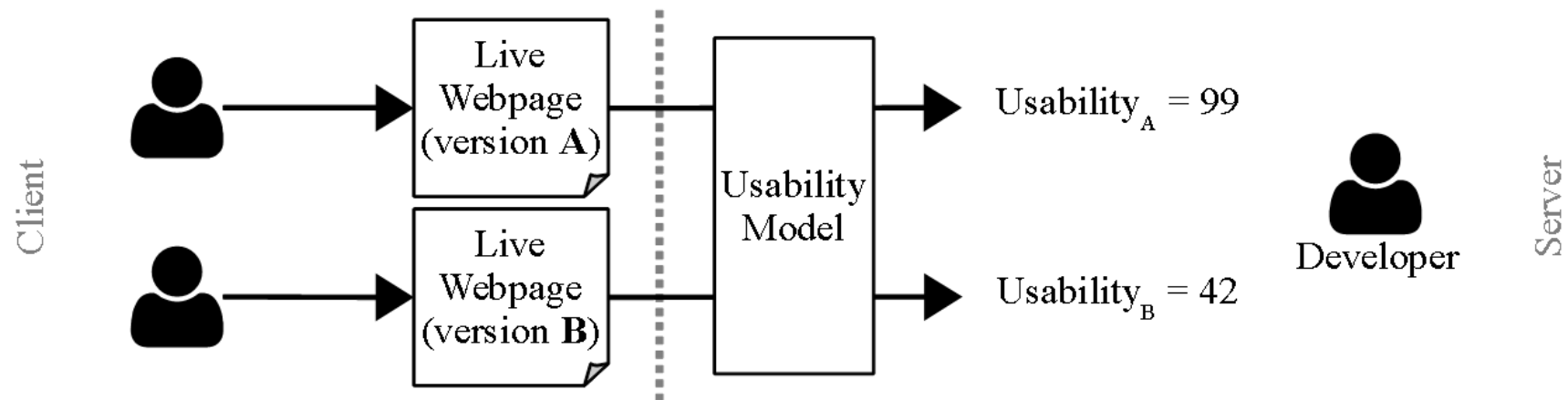
Jakob Nielsen: Putting A/B Testing in Its Place,
<http://www.nngroup.com/articles/putting-ab-testing-in-its-place/>

Goal:
to leverage the
advantages of split
testing AND to
facilitate effective
usability evaluation

Idea:

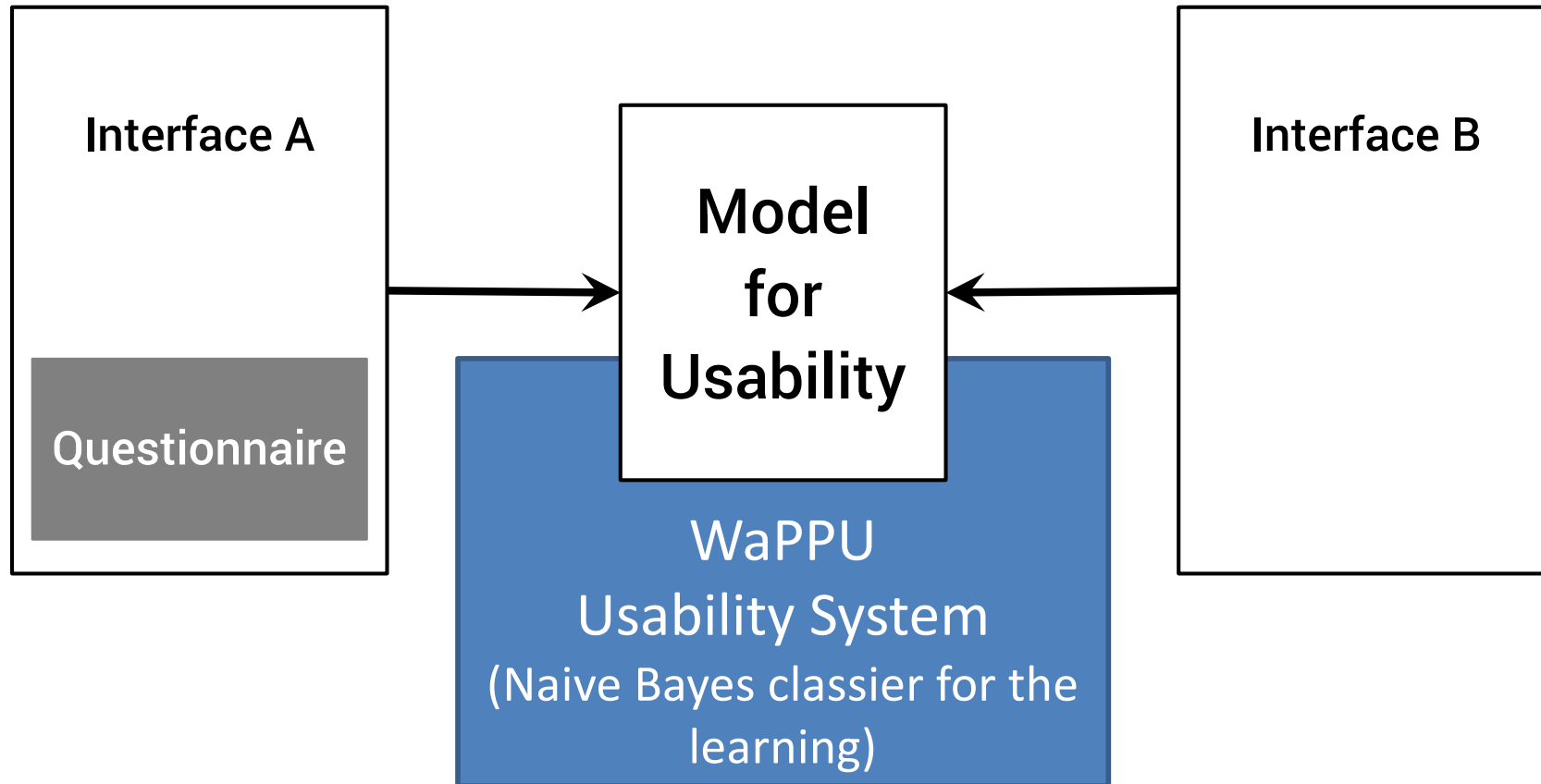
**Rethink the target measure
from the users point of
view (i.e. development &
user – not sales) :**

**Usability as a measure
for split testing**



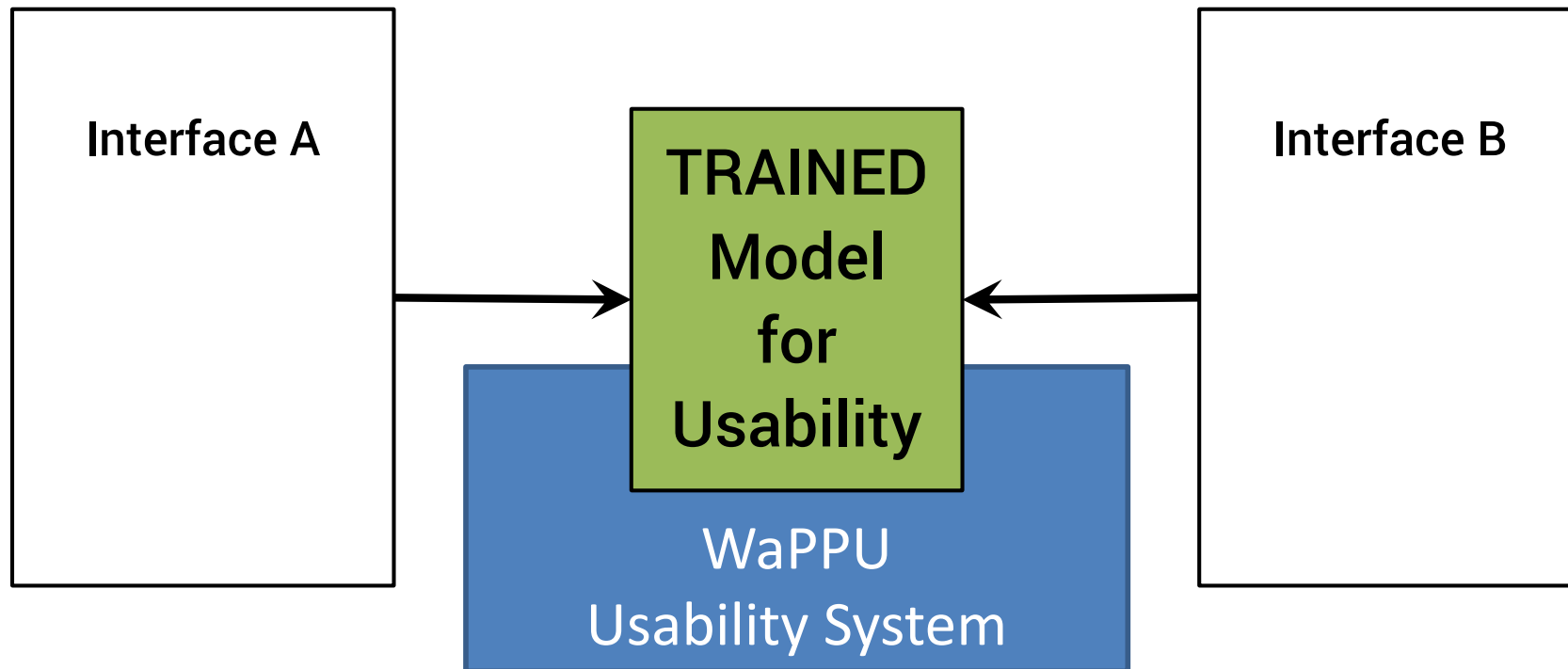
Idea: Infer quantitative measure of usability from user interactions.

Usability-based Split Testing



[WaPPU – Usability based A/B-Testing
Speicher, Both, Gaedke, **ICWE2014**]

Usability-based Split Testing

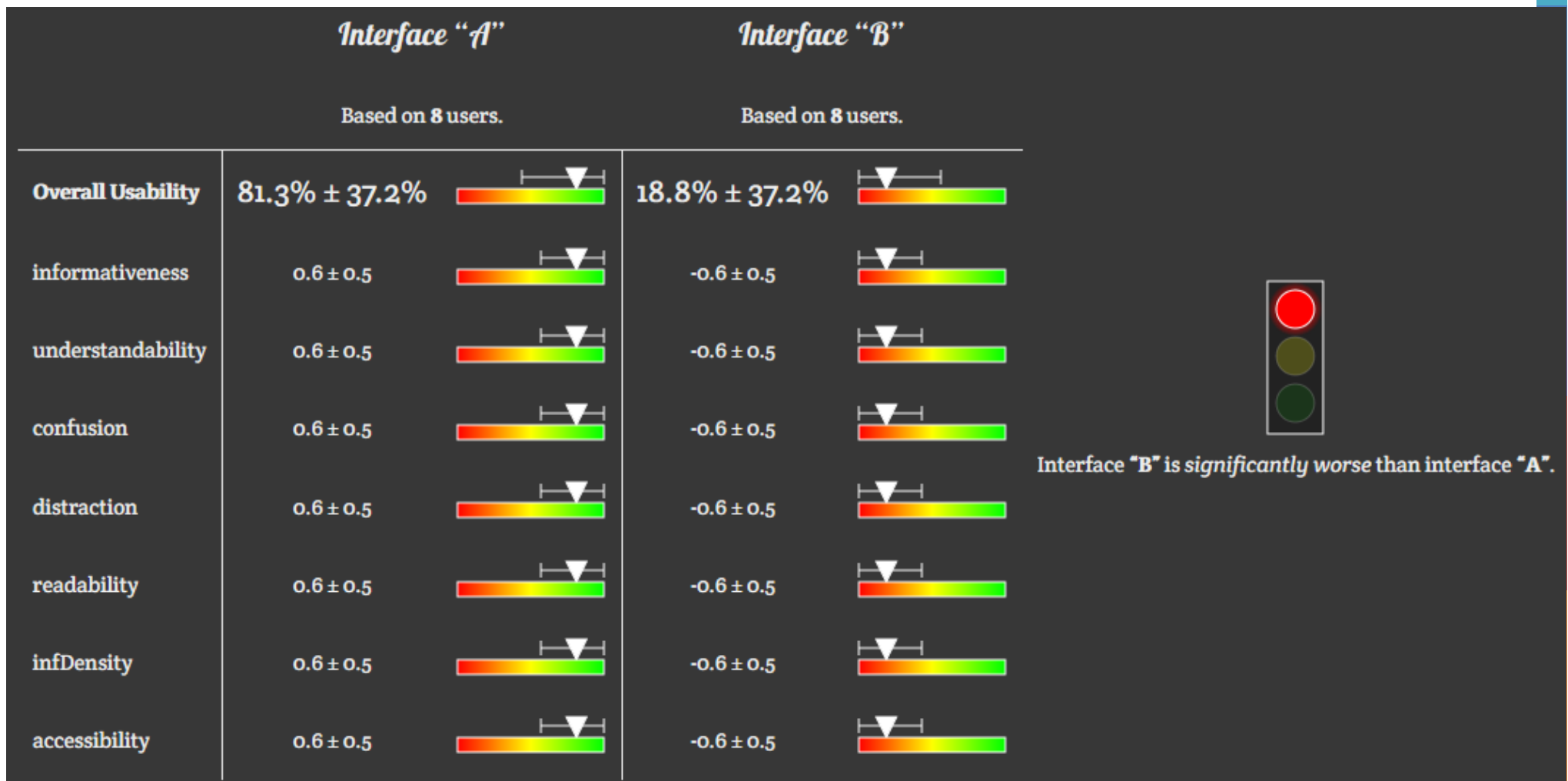


[WaPPU – Usability based A/B-Testing
Speicher, Both, Gaedke, **ICWE2014**]

Usability Model allows for:

$$f(\text{cause}) = \text{score}$$

(cause is part of usability)



Limitations?

Sure!

f(cause) = score

this function is *not bijective*

(Not possible to infer *optimizations* from usability scores)

How to overcome the
f(cause) = score
limitations?

Catalog of best practices a.k.a. Set of causes and optimizations

SERP Optimization Suite (S.O.S.)

WaPPU
for evaluation

Catalog
of best practices



Gefördert aus Mitteln
der Europäischen Union

Europa fördert Sachsen.



Europäischer Sozialfonds

[S.O.S.: Does Your Search Engine Results Page (SERP) Need Help?
Speicher, Both, Gaedke, **CHI 2015**]



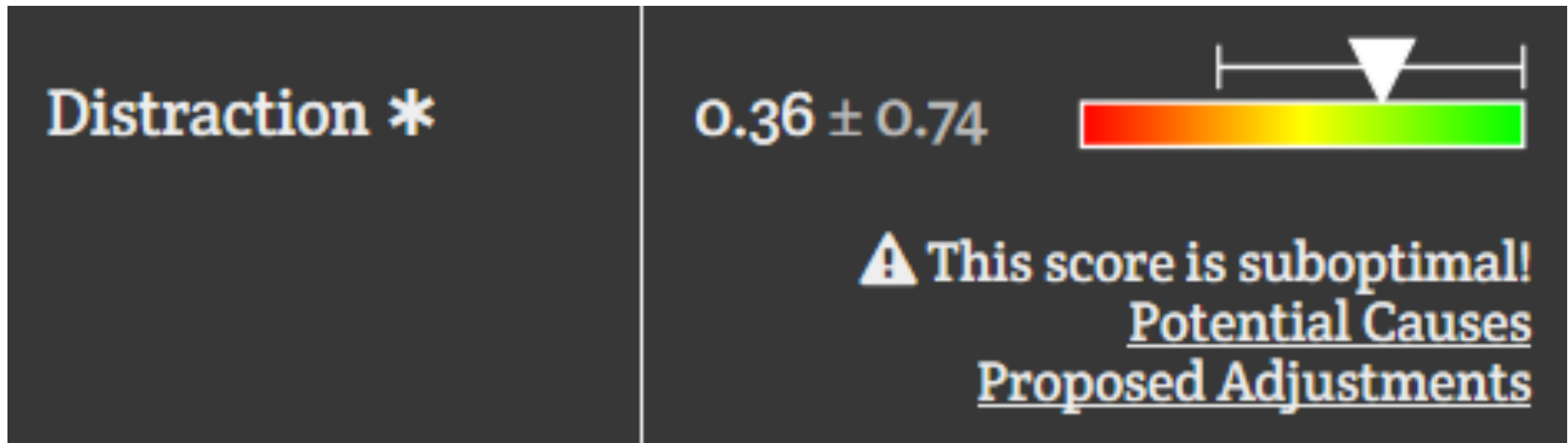
$$f_u(\text{score}) = \{C, C'\}$$

u = usability item number

C = potential causes

C' = countermeasures

S.O.S. example: "We have a problem with Distraction"



A. Informativeness

- I. bad index quality (desired result[s] not present on page)
- II. bad ranking quality (desired result[s] not present or ranked too low)
- III. desired result not clearly identifiable:
 - a. inappropriate title and/or abstract
 - b. too many other results
 - c. too much content other than results
2. ⑨ provide search suggestions / related search terms
6. clarify layout:
 - b. ①④⑧ clearly separate results from other content such as ads (or remove the latter) [2-1]
 - c. ①②③ reduce amount of content other than results
 - e. ④ clearly separate title from abstract [3-0]

B. Understandability

C. Confusion

- II. too many irrelevant results [3-0]
- III. too much content other than results
- IV. too many advertisements which are poorly marked as such; no clear separation between advertisements / sponsored results and real results [6-0]
2. ⑧ clearly highlight results and mark other content as such
5. ①②③ reduce amount of content other than results

D. Distraction

- I. too much content other than results
- III. too many images
- IV. non-results more salient than results [2-1]
- V. overloaded results (e.g., displaying secondary information, social media buttons etc.)
 1. ①②③ reduce amount of content other than results
 3. ③ reduce amount of images
 4. ③④⑤⑥⑦⑧ ensure that results are more salient than other content [3-0]
 5. clarify presentation of results:
 - a. ② reduce to: title, URL, abstract

E. Readability

- I. wrong font size or character spacing (too small / too large) [9-0]
- II. wrong line height (too small / too large) [6-0]
- V. text not properly grouped (e.g., via white space or separation lines) [3-0]
- VII. inconsistent alignment of results and/or other elements of the page
 1. ⑤ adjust font size or character spacing (or offer according option to reader) [11-1]

2. ⑤ adjust line height [9-0]

5. add white space:

- a. ④⑦ between title, URL and abstract of result
- b. ④ between results
- c. ④⑦ between results and other content

7. ⑥⑦ align results and other elements of the page consistently

F. Information Density

- III. too much content other than results; content that is not related to results [3-0]
- IV. too little white space
- V. missing visual hierarchy with salient results [2-1]
- VI. overloaded results (e.g., displaying secondary information, social media buttons etc.)
 3. ①②③ reduce amount of content other than results
 4. add white space:
 - a. ④⑦ between title, URL and abstract of result
 - b. ④ between results
 - c. ④⑦ between results and other content
 5. ⑥⑦⑧ introduce contrast and visual hierarchy to separate results from content other than results [3-0]
10. clarify presentation of results:
 - a. ② reduce to: title, URL, abstract
11. ③ remove unnecessary icons/abbreviations or add explaining tooltips [3-0]

G. Accessibility

- I. too much scrolling effort for user:
 - a. too much content other than results, especially above results
 - d. bad ranking quality (desired result[s] not present or ranked too low)
- II. desired result(s) not immediately identifiable:
 - b. missing visual hierarchy [2-1]
 - c. missing contrast between results and other content [3-0]
1. reduce scrolling effort:
 - a. ① reduce amount of content other than results, especially above results
2. better highlight results / improve result presentation:
 - b. ⑧ introduce contrast and visual hierarchy to separate results from content other than results [2-1]
 - c. ③④⑤⑥⑦⑧ ensure that results stand out against other content

A. Informativeness

- I. bad index quality (desired result[s] not present on page)
- II. bad ranking quality (desired result[s] not present or ranked too low)
- III. desired result not clearly identifiable:
 - a. inappropriate title and/or abstract
 - b. too many other results
 - c. too much content other than results

2. ⑨ f

6. clar
b.

c.

e.

B. Understandability

C. Confusion

- II. too
- III. too
- IV. too

no c
sults

2. ⑧ c

5. ①②

D. Distractibility

- I. too
- III. too
- IV. non-
- V. over

soci

1. ①②

3. ③ r

4. ③④⑤⑥⑦⑧

ensure that results are more salient than other content [3-0]

5. clarify presentation of results:

a. ② reduce to: title, URL, abstract

E. Readability

- I. wrong font size or character spacing (too small / too large) [9-0]
- II. wrong line height (too small / too large) [6-0]
- V. text not properly grouped (e.g., via white space or separation lines) [3-0]
- VII. inconsistent alignment of results and/or other elements of the page
 1. ⑤ adjust font size or character spacing (or offer according option to reader) [11-1]

2. ⑤ adjust line height [9-0]

5. add white space:

- a. ④⑦ between title, URL and abstract of result
- b. ④ between results
- c. ④⑦ between results and other content

7. ⑥⑦ align results and other elements of the page consistently

F. Information Density

5. ①②③ reduce amount of content other than results

D. Distraction

I. too much content other than results

III. too many images

IV. non-results more salient than results [2-1]

V. overloaded results (e.g., displaying secondary information, social media buttons etc.)

1. ①②③ reduce amount of content other than results

3. ③ reduce amount of images

4. ③④⑤⑥⑦⑧ ensure that results are more salient than other content [3-0]

5. clarify presentation of results:

a. ② reduce to: title, URL, abstract

E. Readability

4. ③④⑤⑥⑦⑧ ensure that results are more salient than other content [3-0]

5. clarify presentation of results:

a. ② reduce to: title, URL, abstract

1. desired result(s) not immediately identifiable.

b. missing visual hierarchy [2-1]

c. missing contrast between results and other content [3-0]

1. reduce scrolling effort:

a. ① reduce amount of content other than results, especially above results

2. better highlight results / improve result presentation:

b. ⑧ introduce contrast and visual hierarchy to separate results from content other than results [2-1]

c. ③④⑤⑥⑦⑧ ensure that results stand out against other content

User Study

- 81 participants (~62% male)
- avg. age = 31.08 years
- Task: Solve a problem

“Find a birthday present for a good friend that does not cost more than 50 Euros.”



New York City

[alle Hotels in der Nähe anzeigen](#)

New York [nu:ˈjɔʊk] (offiziell **City of New York**) ist eine Weltstadt an der Ostküste der Vereinigten Staaten. Sie liegt im Bundesstaat **New York** und ist mit mehr a... [mehr](#) ▶

- [Sehenswürdigkeiten in New York City](#)
- [Hotels Vereinigte Staaten](#)
- [Last Minute New York City](#)
- [Flüge New York City](#)
- [Flüge Vereinigte Staaten](#)
- [Hotels New York City](#)

[Details](#) Relevanz: 0 0 Kommentare: 0 Gefällt mir +1



NEU! **Hotel Mallorca Khao Lak** -70% +++ Ramada - **Khao Lak** - Spanien

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leip...

http://www.hlx.de/Hotel%2CThe+Westin+Leipzig%2CHot_22910

[Details](#) Relevanz: 0 0 Kommentare: [Sei Erster!](#) Gefällt mir +1



Hotel Mallorca Khao Lak: Ihr luxuriöses 4.5 Sterne **Hotel**

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leip...

<http://www.weg.de/hotel/the-westin-leipzig-4209>

[Details](#) Relevanz: 0 0 Kommentare: [Sei Erster!](#) Gefällt mir +1



NEU! **Hotel Mallorca Khao Lak** -70% +++ Ramada - **Khao Lak** - Spanien

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leip...

http://www.booking.com/Hotel%2CThe+Westin+Leipzig%2CHot_22910

[Details](#) Relevanz: 0 0 Kommentare: [Sei Erster!](#) Gefällt mir +1



Verwandte Suchanfragen:

- [Wetter Mallorca 14 Tage](#)
- [Mallorca Wetter 14 Tage](#)
- [Wetter Auf Mallorca](#)
- [Wetter in Mallorca](#)
- [Mietwagen Mallorca](#)
- [Wetter Mallorca](#)
- [Wettervorhersage Mallorca](#)
- [Mallorca Wetter](#)
- [Hotel Mallorca](#)
- [Flug Mallorca](#)



Hotel Mallorca Khao Lak: Ihr luxuriöses 4.5 Sterne **Hotel**

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leip...

<http://www.weg.de/hotel/the-westin-leipzig-4209>

[Details](#) Relevanz: 0 0 Kommentare: [Sei Erster!](#) Gefällt mir +1

Martin Gaedke - <http://vsr.informatik.tu-chemnitz.de>



1 Reduce amount of advertisements

1 Google-Anzeigen zu Hotel auf Mallorca

Laufen Reisen bis -90%
[reisen.ab-in-den-urlaub-deals.de/ Laufen Reisen](#) Schnäppchen Deals Jeden Tag Hotel Rabatte bis zu -90%!
 ★★★★★ 40 Bewertungen für ab-in-den-urlaub-deals.de

Neckermann Reisen
[reisen.neckermann-reisen.de/ Traum-Reisen](#) Neckermann ab €399. Lastminute Deals bis 50% sparen!

trivago® Urlaubshotels
[www.trivago.de/Hotels-Urlaub](#) Urlaubshotels bis -78% günstiger. Alle Anbieter, über 600.000 Hotels!
 ★★★★★ 32 Bewertungen für trivago.de

Wessinghages Laufseminare
[laufen.fit-mit-wessinghage.de/](#) Trainingspläne vom Lauf-Professor! Richtig **Laufen** und Spaß haben.

N=4

2 Reduce results to title, URL and abstract

2 New York City

alle Hotels in der Nähe anzeigen

New York [nuːˈjɔʊk] (offiziell **City of New York**) ist eine Weltstadt an der Ostküste der Vereinigten Staaten. Sie liegt im Bundesstaat **New York** und ist mit mehr a... [mehr](#) >

→ Sehenswürdigkeiten in **New York City** → Hotels **Vereinigte Staaten** → Last Minute **New York City**
 → Flüge **Vereinigte Staaten** → Flüge **New York City** → Hotels **New York City**

Details Relevanz: ↑ 0 ↓ 0 Kommentare: 0 Gefällt mir +1 3

3 Remove social media buttons

NEUI **Hotel Mallorca Khao Lak -70% +++ Ramada - Khao Lak - Spanien**

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leipzig...

http://www.hk.de/Hotel%2CThe+Westin+Leipzig%2CHot_22910

Details Relevanz: ↑ 0 ↓ 0 Kommentare: Sei Erster! Gefällt mir +1

4 Add white space

Hotel Mallorca Khao Lak Ihr luxuriöses 4.5 Sterne Hotel

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leipzig...

<http://www.weg.de/hotel/the-westin-leipzig-4209>

Details Relevanz: ↑ 0 ↓ 0 Kommentare: Sei Erster! Gefällt mir +1

5 Increase font size / line height

NEUI **Hotel Mallorca Khao Lak -70% +++ Ramada - Khao Lak - Spanien**

Hotel The Westin Leipzig, Leipzig, Sachsen 168 Hotelbewertungen für The Westin Leipzig Angebote The Westin Leipzig, Urlaub The Westin Leipzig...

http://www.booking.com/Hotel%2CThe+Westin+Leipzig%2CHot_22910

Details Relevanz: ↑ 0 ↓ 0 Kommentare: Sei Erster! Gefällt mir +1

6 Better alignment

7 Clearer separation between images & text

8 Separate results more clearly

9 Optimize related search terms

Verwandte Suchanfragen:

→ Wetter **Mallorca** 14 Tage → **Mallorca** Wetter 14 Tage
 → Wetter Auf **Mallorca** → Wetter in **Mallorca**
 → Mietwagen **Mallorca** → Wetter **Mallorca**
 → Wettervorhersage **Mallorca** → **Mallorca** Wetter
 → **Hotel Mallorca** → Flug **Mallorca**

9

1 Reduce amount of advertisements

1 Google-Anzeigen zu Hotel auf Mallorca

lastminute.de
[www.lastminute.de/](#)

★★★★★ 32 Bewertungen für lastminute.de
 Buchen Sie Ihre Sonderschnäppchen: Natürlich beim **Lastminute-Experten!**
 17.022 Personen folgen lastminute.de - Testsieger bei Stiftung Warentest auf Google+
 Antalya 4* ab 333€ p.P. - Kanaren 4* ab 444€ p.P. - Griechenland 4* ab 488€

100% Lastminute Angebote - Lastminute-bei Ab-in-den-Urlaub.de
[lastminute-bei.ab-in-den-urlaub.de/](#)

★★★★★ 979 Bewertungen für ab-in-den-urlaub.de
Lastminute Schnäppchen im Vergleich beim Lastminute Testsieger buchen!
 10.441 Personen folgen Ab-in-den-Urlaub.de auf Google+
 Last Minute bis zu -65% - Alle All Inclusive Reisen - Ab-in-den-Urlaub: Nr.1

N=2

reisen-last-minute.ch - Flugtickets für Linienflüge, Charterflüge und Billi...
<http://reisen-last-minute.ch/>

Top-Angebote und günstige Preise für **Last Minute** Reisen, Flüge, Hotels, Pauschalreisen. Mallorca und alle weiteren Reiseziele. z.B. Türkei, Dubai, Ägypten. Jetzt schnell Urlaub buchen

2

Lastminute -70% +++ Last Minute » Last Minute Reisen » Last Minu...
<http://www.ab-in-den-urlaub.de/lastminute-pauschalreisen.htm>

Top-Angebote und günstige Preise für **Last Minute** Reisen, Flüge, Hotels, Pauschalreisen.

8

Last Minute Ägypten » Billigreisen.de
<http://www.billigreisen.de/last-minute-aegypten/>

Last Minute Ägypten: die bekanntesten Hotels zum besten Preis online buchen. Topreiseangebote & Veranstalter auf einen Blick - Buchen Sie jetzt bei 5 vor Flug@!

7

Last Minute Spanien » Billigreisen.de
Last Minute Spanien: die bekanntesten Hotels zum besten Preis online buchen.

Last Minute Tunesien » Billigreisen.de
Last Minute Tunesien: die bekanntesten Hotels zum besten Preis online buchen.

Last Minute Türkei » Billigreisen.de
Last Minute Spanien: die bekanntesten Hotels zum besten Preis online buchen.

Last Minute Portugal » Billigreisen.de
Last Minute Spanien: die bekanntesten Hotels zum besten Preis online buchen.

mehr zur billigfluege.de

6

Verwandte Suchanfragen zu "last minute"

Last minute **reisen all inclusive** Last minute **reisen mallorca** Aldi **reisen last minute**
 Hofer **reisen last minute** Last minute **reisen deutschland** Last minute **reisen ab hamburg**

9

Lastminute -70% +++ Last Minute » Last Minute Reisen » Last Minu...
<http://www.ab-in-den-urlaub.de/lastminute-pauschalreisen.htm>

Results

	old SERP		new SERP
informativeness	-0.17 ↓	<	-0.02 ↓
understandability	0.34 ↓	<	0.45 ↓
confusion	0.30 ↓	<	0.38 ↓
distraction*	0.36 ↓	<	0.62 ↗
readability	0.45 ↓	<	0.52 ↓
information density*	0.04 ↓	<	0.43 ↗
accessibility	0.06 ↓	<	0.07 ↓
overall usability*	59.86% ↓	<	67.50% ↗

Concluding thoughts

Conclusions

- *S.O.S.* significantly improved SERP usability
- Approach developed using HCD/DT
 - obtaining usability scores through *WaPPU* and
 - recommendations for optimization from a *catalog* for suboptimal scores
 - <http://vsr.informatik.tu-chemnitz.de/demo/SOS>

Future Work

- Catalogs for other categories of Web pages
 - Creating trained model for web page and site categories
 - Crating more generic and reusable catalogs
 - Reducing the learning time
- Applying the approach to the quality of linked enterprise data
 - Improving: incorrect, incomplete etc. data
 - Dealing with: Co-evolution, Coherence etc.
 - Data Quality → Fit for business use
 - LEDS project:
<http://www.leds-projekt.de/>

```

:person22 <http://purl.org/ontology/mol/group> "professor" .
:person22 <http://schema.org/email> "gaedke@informatik.tu-chemnitz.de" .
:person22 <http://schema.org/familyName> "Gaedke" .
:person22 <http://schema.org/faxNumber> "+49 371 531 25539" .
:person22 <http://schema.org/givenName> "Martin" .
:person22 <http://schema.org/image> "/images/people/gaede.png" .
:person22 <http://schema.org/latitude> "50.83907" .
:person22 <http://schema.org/longitude> "12.85407" .
:person22 <http://schema.org/telephone> "+49 371 531 25539" .
:person22 <http://schema.org/url> "http://www.martin-gaedke.de" .
:person22 <http://purl.org/ontology/mol/group> "researcher" .
:person143 <http://purl.org/ontology/mol/group> "researcher" .
:person143 <http://schema.org/email> "andre.langer@informatik.tu-chemnitz.de" .
:person143 <http://schema.org/familyName> "Langer" .
:person143 <http://schema.org/faxNumber> "+49 371 531 8 30469" .
:person143 <http://schema.org/givenName> "André" .
:person143 <http://schema.org/image> "/images/people/andrelanger.png" .
:person143 <http://schema.org/telephone> "+49 371 531 30469" .
:person143 <http://schema.org/url> "http://vsr.informatik.tu-chemnitz.de/people/andrelanger/" .
:person143 <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://schema.org/Person> .
:person143 <http://xmlns.com/foaf/0.1/title> "Dipl.-Inf." .

```

$$DQ_{context} = \langle \sum_{Levels} \sum_{reqs} \omega_{req} \cdot fulfill(req, obj) \rangle + \varphi$$

Data Quality can be interpreted as the degree to which data fits to current requirements

```

sqc:QualityChecker
  a prov:SoftwareAgent ;
  rdfs:label "SemQuire Quality Assessment component"^^xsd:

sqa:Activity1
  a prov:Activity;
  rdfs:label "The checking of myDatasetDistribution's qual
  prov:wasAssociatedWith sqc:QualityChecker;
  prov:used sqd:DatasetDistribution;
  prov:generated sqr:ContentTypeMeasurement ;
  prov:startedAtTime "2016-10-24T11:16:02Z"^^xsd:dateT
  prov:endedAtTime "2016-10-24T11:16:03Z"^^xsd:dateTi

sqd:MovieDataset
  a dcat:Dataset ;
  dcterms:title "Movies from DBpedia" ;
  dcat:distribution :RDFDumpDatasetDistribution .

sqd:RDFDumpDatasetDistribution
  a dcat:Distribution ;
  dcat:downloadURL <http://www.semquire.net/Data/Distribut
  dcterms:title "RDF Dump of DataSet" ;
  dcat:mediaType "application/rdf+xml" ;
  dcat:byteSize "5321928"^^xsd:decimal
  dqv:hasQualityMeasurement :ContentTypeMeasurement, :Dere

sqr:ContentTypeMeasurement
  a dqv:QualityMeasurement ;
  dqv:computedOn :RDFDumpDatasetDistribution ;
  dqv:isMeasurementOf sqc:NoMisreportedContentTypeMetric ;
  dqv:value "true"^^xsd:boolean
  prov:wasAttributedTo :QualityChecker ;
  prov:generatedAtTime "2016-10-24T11:16:03Z"^^xsd:dateTim
  prov:wasGeneratedBy sqa:Activity1 .

sqr:DereferencedForwardLinksMeasurement
  a dqv:QualityMeasurement ;
  dqv:computedOn :RDFDumpDatasetDistribution ;
  dqv:isMeasurementOf sqc:DereferencedForwardLinksMetric ;
  dqv:value "3216"^^xsd:integer
  prov:wasAttributedTo :QualityChecker ;
  prov:generatedAtTime "2016-10-24T11:16:09Z"^^xsd:dateTim
  prov:wasGeneratedBy sqa:Activity2 .

sqc:Accessibility a dqv:Category ;
  skos:prefLabel "Accessibility dimensions"@en .

sqc:Availability
  a dqv:Dimension ;

```



LINKED ENTERPRISE DATA SERVICES

First Inspiring Results

Output of Fitness results of our Quality Assessment tool with the means of the data quality vocabulary (dqv)

Feel free to visit:
www.leds-projekt.de

GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung





Thank You!

martin@gaedke.com

VSR.Informatik.TU-Chemnitz.de

 [@gaedke](https://twitter.com/gaedke)

 [/gaedke](https://facebook.com/gaedke)

