Representative online study to evaluate the commitments proposed by Google as part of EU competition investigation AT. 39740-Google

Report for Germany

Study conducted by:
Prof. Dr. Dirk Lewandowski
Hamburg University of Applied Sciences
dirk.lewandowski@haw-hamburg.de

M. A. Sebastian Sünkler
Hamburg University of Applied Sciences
sebastian.suenkler@haw-hamburg.de

Study commissioned by:
Olswang Germany LLP  Potsdamer Platz 1, 10785 Berlin

06-26-2013

Table of Contents

1. Summary of findings
2. Research question and methodology
3. Questions regarding the use of the Google search engine, the estimation of one's own research capabilities, and the familiarity with the various services provided by Google
4. Click study based on screenshots provided by Google
5. Supplemental tasks to assess the perception and usage of competing offers placed on Google results pages
6. Appendix 1: Study outline
7. Appendix 2: Questionnaire (English)
8. Appendix 3: Questionnaire (German)
Summary of findings
Summary of findings

1. Users to a large degree click on Google’s vertical results
   - Proposed labeling of rival results does not lead to users clicking on them considerably.

2. Users largely ignore the info icon
   - Proposed info icon does not lead to users clicking on them, even though they saw this icon in some context for the first time in this study.

3. Click behavior differs for desktop and mobile SERP layouts, but major findings hold true.
   - Differences may be explained with larger screen real estate for rival links in the mobile layout.

4. Even when explicitly asked to click on a rival vertical search engine, a large number of users is not able to fulfill the task
Research objective / topic of inquiry

How do internet users perceive the search result page layouts suggested by Google?

The online study is based on Google's suggestions for labeling its own vertical search services and the placement of topical rival offerings. With the assistance of search tasks and questionnaires, we will attempt to determine the perception and acceptance of the new content.
Method

Representative online survey of 1000 German internet users*

- Part 1: Questions regarding the use of the Google search engine, the estimation of one's own research capabilities, and the familiarity with the various services provided by Google
- Part 2: Click study based on the screenshots provided by Google (adapted to the respective local language)
- Part 3: Post-test questions pertaining to the perception of the displayed content and the labeling of the search results pages

* Representative as defined by AGOF. Details on the design and execution of the study can be found in the Study Outline at the end of this report and in the appendix.
Part 1: Questions regarding the use of the Google search engine, the estimation of one's own research skills, and the familiarity with the various services provided by Google
Self-assessment of research skills in percent (n = 1000)

Question: How would you rate your own ability to do research using a web search engine such as Google? Please grade yourself.
Use of Google on devices

Question:
Which devices do you use Google on?

![Bar chart showing the percentage of devices using Google]

- Desktop computer: 74.0%
- Laptop: 76.2%
- Smartphone: 45.9%
- Tablet: 22.3%
Question: Which of the items have you previously seen on the search results pages when using Google?
Contents of Google search results pages (2/4)

News

- Merkel macht US-Spionageskandal zur Chefsache
  - vor 1 Tag
  - Obama erwarte dadurch aber keine Belastung des Treffens, sagte der ... Obama habe sich bemüht, dabei die richtige Balance zwischen den ...

Books

- Barack Obama: Seine Sprache, Seine Starke, Sein Charisma
  - books.google.de/books?isbn=3637078019
  - Stefan Gössler - 2009 - Vorschau
  - Was macht Barack Obamas Worte so unwiderstehlich?

Videos

- Watch a short biography video on President Barack Obama, including his early life, his time at Harvard, his ...

Images

- Unangemessene bilder melden

Scientific articles

- Das incenterische System im Lebenscyclus der Frösche (Rana temporaria L.)
  - A Sklower - Zeitschrift für vergleichende Physiologie, 1925 - Springer
  - Progressive Phase: a) Befruchtetes Ei, b) Blastula, c) Gastrula, d) Neurola, e) I. Larve (urodeleide Larve), f) Prometamorphose, g) II. Larve (Kaulquappe), h) Metamorphose, i) neutraler Jungfrosch, k) bisezueler Jungfrosch. ... Jahrescyclusche Reifephasen: 1) Beginnende ... Zitiert durch: 52  Ähnliche Artikel  Alle 2 Versionen  Zitieren  Mehr
Contents of Google search results pages (3/4)

Maps

Bios of famous people

Addresses

Ads

Barack Obama

44. Präsident der Vereinigten Staaten


Geboren: 4. August 1961 (Alter 51), Honolulu, Hawaii, Vereinigte Staaten
Größe: 1,85 m
Vorheriges Amt: Senator (Ill.) 2005–2008
Eltern: Barack Hussein Obama Senior, Ann Dunham
Kinder: Natasha Obama, Malia Ann Obama
Geschwister: Maya Soetoro-Ng, Malik Abongo Obama, Mehr

Das Dorf Gbr Inh Axel Strehlitz
www.restaurant-dorf.de/
Bewertung: 21 / 30 - 11 Google-Bewertungen

Krameramtsstuben
www.krameramtsstuben.de/
Bewertung: 22 / 30 - 47 Google-Bewertungen

Collin's Restaurant
www.coellns-restaurant.de/index2.php
7 Google-Bewertungen

Lange Reihe 19
Hamburg
040 245614

Krayenkamp 10
Hamburg
040 365900

Brodschrangen 1-5
Hamburg
040 364153

Anzeigen zu dell komra "
DLSKamera - Der Testkicker in Fototest 04/2012
www.nikon-highlights.de/D3200
Full-HD-Vide (30 Bilder/Sek.)
DS100
DS200
D600
Question: Which of the items have you previously seen on the search results pages when using Google?
Part 2: Click study based on the screenshots provided by Google (adapted to the respective local language)
Design and execution for click tasks (1/2)

- Saving the search results pages for the search requests provided by Google in the Proposed Commitments.*
- Modification of the saved pages with highlighted passages and the layout from the Google Commitments in a desktop version, a laptop version, and a mobile layout for smartphone users.
- Definition of individual clickable areas to make it possible to describe where the study participants clicked and simulation of the hover texts for the information icons within the desktop layout.
- Randomization of the order of tasks and the respective layouts.
- Logging the clicks on the clickable areas as well as the interaction with an information icon (ℹ), which promises to provide additional information on results from Google's vertical search services.
- Counting the clicks on the clickable areas.

* http://ec.europa.eu/competition/antitrust/cases/dec_docs/39740/39740_8608_5.pdf
Design and execution for click tasks (2/2)

- All tasks are assigned in random order.
- Both layouts are displayed for each task in random order.
- A click on a result on the displayed pages leads to the next task until all tasks have been completed.
 Tasks (1/2)

1. Let's assume you would like to find information on single lens reflex cameras and compare prices. Google gives you the following results for your search.

What would you spontaneously click on?

2. Let's assume you would like to find information on restaurants close to you. Searching with Google gives you the following results.
3. You would like to find information on current news stories about the current US president, Barack Obama. Searching Google gave you the following results.

What would you spontaneously click on?

4. You would like to find pictures of frogs. Searching Google gives you the following results.

What would you spontaneously click on?
Task 1: DSLR camera
Hover effect for the information icons

Desktop layout

Information icon with hover text
Clickable areas

**Desktop layout**

**Google**

- dslr kamera

---

**Google Shopping results**

- Nikon D5100
  - 474,72 €
  - Verpackt gratis
  - reschick.de

- Nikon D3100
  - 172,95 €
  - Verpackt gratis
  - reschick.de

- Nikon D7000
  - 374,00 €
  - Verpackt gratis
  - reschick.de

- Nikon D7000 tour
  - 541,95 €
  - Verpackt gratis
  - reschick.de

---

**Google Ads**

- Information icon with hover text

---

**Rival links**

- Amazon.de: Spiegelreflexkameras
  - Spiegelreflexkameras-Objektive-Filter,...
  - Spiegelreflexkameras und Zubehör finden Sie bei Amazon.de

- eBay: DSLR Kamera in Digitalkameras
  - Finden Sie tolle Angebote auf eBay für DSLR Kamera in Digitalkameras. Verkaufte mit Top-Bewertung.

---

**Organic results**

- DSLR und SLR-Kameras | SLR Digitalkameras mit Translucent Mirror ...
  - www.sony.de: Alle Sony Produkte

- Amazon.de: Spiegelreflexkameras
  - Spiegelreflexkameras-Objektive-Filter,...
  - Kaufe & Verkaufe Spiegelreflexkameras

---

**Mobile layout**

**Google**

- nikon d5000

---

**Google Shopping results**

- Nikon D 5000 Schnäppchen?
  - www.xol-sal.de/Nikon-D-5000
  - Nikon D 5000 Restposten. Rosenauswahl stark reduziert?

---

**Google Ads**

- Information icon with hover text

---

**Rival links**

- Other Sites

---

**Organic results**

- Nikon D5000 SLR-Digitalkamera Kit
  - inkl. 18-55mm: Amazon.de ...
  - www.amazon.de/Nikon-D5000 ...
Clickable areas with additional information displayed

**Desktop layout**

- Google search bar
- Google Shopping results
- Information icon with hover text
- Close icon
- Rival links
- Close button
- Organic results

**Mobile layout**

- Google search bar
- Google Shopping results
- Information icon with hover text
- Close button
- Organic results
Clickable areas with rival links

Mobile layout

Rival links

Close button
Logged clicks (desktop layout)

**Desktop layout**

Google search for "dslr kamera"

- **Total number of clicks:** 1000
- **Number of clicks on shopping results and links to rival offerings:** 642

- **593 clicks (59.3%)**
- **49 clicks (4.9%)**
- **358 clicks (35.8%)**

Most of the clicks were on organic results and Google Shopping results (93%).
<table>
<thead>
<tr>
<th></th>
<th>Idealo</th>
<th>Ladenzeile</th>
<th>Ciao</th>
<th>Total number of clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clicks</td>
<td>49</td>
<td>0</td>
<td>0</td>
<td>49</td>
</tr>
</tbody>
</table>
Logged clicks (mobile layout)

Total number of clicks: 1000

Number of clicks on shopping results and links to rival offerings: 409

Most of the clicks were on organic results and Google Shopping results (84.4%).

Mobile layout

Google search for "nikon d5000"

- 0 clicks (0.0%) on rival links
- 145 clicks (14.5%) on rival links
- 0 clicks (0.0%) on close button
- 398 clicks (39.8%) on organic results
- 11 clicks (1.1%) on rival links, 3 clicks (0.3%) on close button
- 446 clicks (44.6%) on Google Shopping results
<table>
<thead>
<tr>
<th></th>
<th>Idealo</th>
<th>Ladenzeile</th>
<th>Ciao</th>
<th>Total number of clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clicks</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>

Clicks on rival offerings (mobile layout)
Summary of clicks (desktop vs. mobile layout)

The majority of users did not click on rival offerings.

<table>
<thead>
<tr>
<th></th>
<th>Google Shopping results</th>
<th>Organic results</th>
<th>Rival links</th>
<th>Info icon</th>
<th>Close Button (rival links)</th>
<th>All clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop</td>
<td>593</td>
<td>358</td>
<td>49</td>
<td>0</td>
<td>n/a</td>
<td>1000</td>
</tr>
<tr>
<td>Mobile</td>
<td>398 (+ 145 on ad)</td>
<td>446</td>
<td>11</td>
<td>0</td>
<td>3</td>
<td>1003</td>
</tr>
</tbody>
</table>
Task 2: restaurants
Hover effect for the information icons

Desktop layout

Information icon with hover text
Clickable areas with additional information displayed

**Desktop layout**

- Information icon with hover text
- Organic result
- Google Places Results
- Rival links
- Close icon
- Organic result

**Mobile layout**

- Information icon with hover text
- Organic result
- Close button
- Google Places Results
- Rival links
- Close icon
- Organic result

---

Hochschule für Angewandte Wissenschaften Hamburg

*Hamburg University of Applied Sciences*
Clickable areas with rival links
Logged clicks (desktop layout)

Total number of clicks: 1000
Number of clicks on places results and links to rival offerings: 389
Nearly all of the clicks were on organic results and Google Places results (99.9%).

Logged clicks (desktop layout)

Desktop layout

0 clicks (0.0%)
611 clicks (61.1%)
388 clicks (38.8%)
1 clicks (0.1%)
# Clicks on rival offerings (desktop layout)

<table>
<thead>
<tr>
<th>Falk</th>
<th>ADAC</th>
<th>Web.de</th>
<th>All clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Logged clicks (mobile layout)

Mobile layout

560 clicks (56.0%)
2 clicks (0.2%), 1 click (0.1%) on close button
1 click (0.1%)
438 clicks (43.8%)

Total number of clicks: 1000
Number of clicks on places results and links to rival offerings: 440
Nearly all of the clicks were on organic results and Google Places results (99.8%).
## Clicks on rival offerings (mobile layout)

<table>
<thead>
<tr>
<th>Falk</th>
<th>ADAC</th>
<th>Web.de</th>
<th>All clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Summary of clicks (desktop vs. mobile layout)

The majority of users did not click on rival offerings.

<table>
<thead>
<tr>
<th></th>
<th>Google Places results</th>
<th>Organic results</th>
<th>Rival links</th>
<th>Info icon</th>
<th>Close Button (rival links)</th>
<th>All clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Desktop</strong></td>
<td>388</td>
<td>611</td>
<td>1</td>
<td>0</td>
<td>n/a</td>
<td>1001</td>
</tr>
<tr>
<td><strong>Mobile</strong></td>
<td>438</td>
<td>560</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1002</td>
</tr>
</tbody>
</table>
Task 3: Obama
Hover effect for the information icons

Desktop layout

Information icon with hover text
Lewandowski, Sünkler: Representative online study to evaluate the commitments proposed by Google as part of EU competition investigation AT.39740-Google

Hochschule für Angewandte Wissenschaften Hamburg
Hamburg University of Applied Sciences
Lewandowski, Sünkler: Representative online study to evaluate the commitments proposed by Google as part of EU competition investigation AT.39740-Google
Logged clicks (desktop layout)

**Desktop layout**

- **Total number of clicks**: 1000
- **Most of the clicks were on organic results and News results.**

<table>
<thead>
<tr>
<th>Organic Result Position</th>
<th>Clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>214</td>
</tr>
<tr>
<td>2</td>
<td>146</td>
</tr>
<tr>
<td>3</td>
<td>66</td>
</tr>
<tr>
<td>4</td>
<td>69</td>
</tr>
<tr>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

- **3 clicks (0.3%)**
- **509 clicks (50.9%)**
- **478 clicks (47.7%)**
- **13 clicks (1.3%)**

**Logged clicks (desktop layout)**

- **Desktop layout**
  - **Google**
  - **Obama**
  - **Barack Obama**
    - www.barackobama.com * Diese Seite übersetzen
    - Official re-election campaign website of President Barack Obama provides the latest updates, election news, videos, local events and ways to volunteer and ...
  - **News zu Obama**
    - Merk zu Obama
    - Merk zu Obama
    - USA mit US-Sprachschutz zur Sicherheit
    - NSA - vor 1 Tag
    - Obama erwachte aber ohne Belastung des Terrors, sagt der ... Obama habe sich bemüht, dabei die richtige Balance zwischen den ...
    - NSA-Überwachungspflicht, Bundesregierung fordert Aufklärung von Obama
    - Späth-Programm der NSA. Merkt es? Prinzip Standby bei Obama
    - Mehr Google News Ergebnisse zu obama

- **Organic Result**
  - **Barack Obama**
    - de.wikipedia.org/wiki/Barack Obama
    - Barack Hussein Obama II (3 August 1961 in Honolulu, Hawaii) is an American politician and served as the 44th President of the United States. His story is the American story — values from the heartland, a middle-class upbringing in a strong ...
    - Michelle Obama - Auma Obama - Lus - Kategorie Barack Obama
    - NSA, Spitzel: NSA-Präsident Obama jagt Geheimnisse ... www.spiegel.de - Politik - Aussen - Barack Obama vor 1 Tag: 
    - Barack Obama - SPIEGEL ONLINE - Nachrichten
      - www.spiegel.de - Politik - Aussen - Barack Obama vor 1 Tag: 
    - President Barack Obama | The White House
      - www.whitehouse.gov - The Administration - Diese Seite übersetzen
      - Barack H. Obama is the 44th President of the United States. His story is the American story — values from the heartland, a middle-class upbringing in a strong ...

- **Google News Results**
Logged clicks (mobile layout)

Mobile layout

3 clicks (0.3%)

641 clicks (64.1%)

359 clicks (35.9%)

Total number of clicks: 1000

Nearly all of the clicks were on organic results and News results.
The majority of users ignored the information icon.

<table>
<thead>
<tr>
<th></th>
<th>Google News results</th>
<th>Organic results</th>
<th>Knowledge Graph</th>
<th>Info icon</th>
<th>All clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop</td>
<td>478</td>
<td>509</td>
<td>13</td>
<td>3</td>
<td>1003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(214 of these on the first organic result)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile</td>
<td>641</td>
<td>359</td>
<td>n/a</td>
<td>3</td>
<td>1003</td>
</tr>
</tbody>
</table>
Task 4: Frogs
Hover effect for the information icons

Desktop layout

Information icon with hover text
Click on the image to view it in full size.
Clickable areas with additional information displayed

Desktop layout

Mobile layout

Knowledge graph

Organic results

Information icon with hover text

Close icon

Image results

Close button

Organic results
Logged clicks (desktop layout)

Total number of clicks: 1000

- 686 clicks (68.8%) on organic results and image results.
- 302 clicks (30.2%) on organic results.
- 3 clicks (0.3%) on image results.
- 12 clicks (1.2%) on organic results.

Nearly all of the clicks were on organic results and image results.
Logged clicks (mobile layout)

Mobile layout

The vast majority of the clicks were on organic results and image results.

Total number of clicks: 1000

670 clicks (67.0%)

308 clicks (30.8%)

22 clicks (2.2%)

2 clicks (0.2%)

1 clicks (0.1%)
The majority of users click on images.

<table>
<thead>
<tr>
<th></th>
<th>Google Image results</th>
<th>Organic results</th>
<th>Google Knowledge Graph</th>
<th>Info icon</th>
<th>All clicks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop</td>
<td>686</td>
<td>302</td>
<td>12</td>
<td>3</td>
<td>1003</td>
</tr>
<tr>
<td>Mobile</td>
<td>670 (+ 22 on ad)</td>
<td>308</td>
<td>n/a</td>
<td>3</td>
<td>1003</td>
</tr>
</tbody>
</table>
Supplemental tasks to assess the perception and usage of competing offers placed on Google results pages
Additional tasks: Methods

- Use of click dummies from task 1 (product search) and test 2 (local search) within the desktop layout

- Users are instructed to click on the search results pages of one of the competing search engines
  - Example task 1: "Now you will see another search results page for the search about the digital single lens reflex camera. Please look for a link within these results that will take you to a comparison shopping engine and click on it."

- If the user selects Google as the comparison shopping engine, the task is repeated.
Additional task 1: DSLR camera
Shopping results and rival links
A large number of users continue to click on Google shopping even when they are prompted a second time to click on a competing offer.

Initial request to click (n = 1000)

- Clicks on Google Shopping: 289 (28.9%)
- Clicks on rival search engine: 350 (35.0%)

Second request to click (n = 289)

- Clicks on Google Shopping: 80 (27.7%)
- Clicks on rival search engine: 35 (12.1%)

Percentage after the second step:

- 385 (38.5%)
Additional task 2: restaurants
Google Places results and rival links
A large number of users continue to click on Google shopping even when they are prompted a second time to click on a competing offer.

**Initial request to click (n = 1000)**

<table>
<thead>
<tr>
<th>Option</th>
<th>1st step</th>
<th>2nd step</th>
<th>Percentage after the second step</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clicks on Google Places</td>
<td>467 (46.7%)</td>
<td>111 (23.8%)</td>
<td></td>
</tr>
<tr>
<td>Clicks on rival search engine</td>
<td>264 (26.4%)</td>
<td>251 (53.8%)</td>
<td>515 (51.1%)</td>
</tr>
</tbody>
</table>
Part 3: Post-test questions pertaining to the perception of the displayed content and the labeling of the search results pages
Post-test questionnaire

- Post-test questionnaire on the types of results and designations noticed during the click study
  - A question regarding the labeling of the results types
  - A question on the pictograms used in the search results pages
- In both cases, actually existing labels as well as imagined labels were reported.
- The order of the results types and pictograms presented was randomized.
- Evaluation for two conditions: 1. without tolerance threshold, 2. with tolerance threshold (an incorrect answer is tolerated).
Perception of the result type labeling on the search results pages

**Question:** Which of the following labels and/or content on the results page did you notice when completing the tasks?

**Possible answers (multiple answers possible):**

1 = advertisements
2 = paid results
3 = sponsored links
4 = images of
5 = Google Maps search
6 = videos of
7 = news about
8 = Google Shopping results for
9 = show all results
10 = related searches
11 = Safe Search
12 = other sites
13 = I didn't see any of the listed content items.

Most users were able to name at least one of the labels. But only a few users were able to completely name all the labels correctly.
Perception of the pictograms on the search results pages

**Question:** Which of the following icons did you see when completing the assigned tasks?

**Possible answers:**

1 – ![Icon 1](image1.png)
2 – ![Icon 2](image2.png)
3 – ![Icon 3](image3.png)
4 – ![Icon 4](image4.png) (incorrect response)
5 – ![Icon 5](image5.png) (incorrect response)
6 – ![Icon 6](image6.png)
7 – ![Icon 7](image7.png) (incorrect response)
8 – None of the icons listed

**Graph:**

Most users were able to name at least one of the pictograms. But only a few users were able to correctly name all the pictograms.
Appendix
### Research objectives

Verification of the search results page layouts suggested by Google with respect to:
- The selection behavior of German internet users for desktop and mobile search
- How the labels used are perceived

### Method

- Online survey with search tasks
  - Pre-test and post-test questionnaires
  - The study’s main component was carried out as an interactive click study on the search results page layout suggested by Google for the following searches:
    - DSLR camera (product search scenario)
    - Restaurants (local search scenario)
    - Obama (news search scenario)
    - Frogs (image search scenario)

### Sample

- A representative sample as defined by AGOF of 1000 German internet users

### Fieldwork and tests conducted

- June 17-23, 2013
- Survey conducted by eResult GmbH, Göttingen, Germany
## Pre-test questionnaire

1. Have you used the Google search engine in the past three months?  
   1 = yes  
   2 = no

2. How would you rate your own ability to use a web search engine such as Google? Please grade yourself.  
   1 = very good  
   2 = good  
   3 = satisfactory  
   4 = sufficient  
   5 = deficient  
   6 = inadequate

3. Which devices do you use Google on?  
   1 = desktop computers (at home or in the office)  
   2 = laptop  
   3 = smartphone  
   4 = tablet  
   5 = other, specifically … (open-ended response)

4. Which of the following types of content have you seen on search results pages when using Google in the past?  
   1 = advertisements  
   2 = shopping results  
   3 = images  
   4 = videos  
   5 = scientific articles  
   6 = books  
   7 = maps  
   8 = news  
   9 = addresses  
   10 = bios of famous people  
   11 = none of the above content types
### Task group 1

<table>
<thead>
<tr>
<th></th>
<th>Let's assume you would like to find information on single lens reflex cameras and compare prices. Google gives you the following results for your search. What would you spontaneously click on?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Let's assume you would like to find information on restaurants close to you. Searching with Google gives you the following results. What would you spontaneously click on?</td>
</tr>
<tr>
<td>6</td>
<td>You would like to find information on current news stories about the current US president, Barack Obama. Searching Google gave you the following results. What would you spontaneously click on?</td>
</tr>
<tr>
<td>7</td>
<td>You would like to find pictures of frogs. Searching Google gives you the following results. What would you spontaneously click on?</td>
</tr>
</tbody>
</table>
### Task group 2

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Now you will see another search results page for the search about the digital single lens reflex camera. Please look for a link within these results that will take you to a comparison shopping engine and click on it.</td>
</tr>
<tr>
<td>(9a)</td>
<td>Task 9 is repeated if Google is selected as the comparison shopping engine. (If Google is selected again, go to next task/question.)</td>
</tr>
<tr>
<td>10</td>
<td>Here you will see another search results page for the restaurant search. Please look for a link within these results that will take you to an online map service and click on it.</td>
</tr>
<tr>
<td>(10a)</td>
<td>Task 10 is repeated if Google is selected as the online map service. (If Google is selected again, go to next task/question.)</td>
</tr>
</tbody>
</table>
### Post-test questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>Response choices (multiple responses possible — choices are randomized):</th>
<th>Possible responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 Please recall for a moment the tasks which you have completed.</td>
<td>1 = advertisements</td>
<td>7 = news about</td>
</tr>
<tr>
<td></td>
<td>2 = paid results</td>
<td>8 = Google Shopping</td>
</tr>
<tr>
<td></td>
<td>3 = sponsored links</td>
<td>results for</td>
</tr>
<tr>
<td></td>
<td>4 = images of</td>
<td>9 = show all results</td>
</tr>
<tr>
<td></td>
<td>5 = Google Maps search</td>
<td>10 = related searches</td>
</tr>
<tr>
<td></td>
<td>6 = videos of</td>
<td>11 = Safe Search</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 = I didn’t see any of the listed content items.</td>
</tr>
<tr>
<td>Which of the following labels and/or content on the results page did</td>
<td></td>
<td></td>
</tr>
<tr>
<td>you notice when completing the tasks?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Which of the following icons did you see when completing the tasks?</td>
<td>1 =</td>
<td>5 =</td>
</tr>
<tr>
<td></td>
<td>2 =</td>
<td>6 =</td>
</tr>
<tr>
<td></td>
<td>3 =</td>
<td>7 =</td>
</tr>
<tr>
<td></td>
<td>4 =</td>
<td>8 = None of the icons listed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Demographic data

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
|13 | Please indicate your gender                                     | 1 = female  
                                           | 2 = male  |
|14 | Please provide your age                                         |   |
|15 | Please select the highest level of education you have completed | 1 = none  
                                           | 2 = Hauptschulabschluss (lower secondary education level)  
                                           | 3 = mittlere Reife (secondary education, high school diploma)  |
|16 | Please select your current employment status                    | 1 = attending vocational training or university  
                                           | 2 = employed  
                                           | 3 = not seeking employment or unemployed  |
Vorbefragung

<table>
<thead>
<tr>
<th></th>
<th>Frage</th>
<th>Antwortmöglichkeiten</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Haben Sie in den letzten 3 Monaten die Suchmaschine Google verwendet?</td>
<td>1= ja</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2= nein</td>
</tr>
<tr>
<td>2</td>
<td>Wie schätzen Sie Ihre Fähigkeiten ein, bei einer Websuchmaschine wie z. B. Google zu recherchieren? Bitte geben Sie sich eine Schulnote.</td>
<td>1 = sehr gut</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = gut</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = befriedigend</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = ausreichend</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = mangelhaft</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 = ungenügend</td>
</tr>
<tr>
<td>3</td>
<td>Auf welchen Geräten nutzen Sie Google?</td>
<td>1 = Desktop-Computer (zu Hause oder im Büro)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = Laptop</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = Smartphone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = Tablet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = Sonstige, und zwar … (freies Antwortfeld)</td>
</tr>
<tr>
<td>4</td>
<td>Welche der genannten Inhalte haben Sie bei Ihrer Nutzung mit Google bisher auf den Suchergebnisseiten gesehen?</td>
<td>1 = Anzeigen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = Shopping-Ergebnisse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = Bilder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = Videos</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = Wissenschaftliche Artikel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 = Bücher</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 = Landkarten</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8 = Nachrichten</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9 = Adressen</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 = Kurzbiografien zu Persönlichkeiten</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11 = keinen der genannten Inhalte</td>
</tr>
</tbody>
</table>

Appendix 3: Complete questionnaire (German; 1/5)
### Aufgabenblock 1

<table>
<thead>
<tr>
<th></th>
<th>Aufgabenstellung</th>
<th>Antwort</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Stellen Sie sich vor, Sie möchten sich über Spiegelreflexkameras informieren und deren Preise vergleichen. Google liefert Ihnen folgende Treffer zu Ihrer Suche. Wo würden Sie spontan drauf klicken?</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Nehmen wir an, Sie wollen sich über Restaurants in Ihrer Nähe informieren. Die Google Suche hat Ihnen dazu folgende Ergebnisse geliefert. Wo würden Sie spontan drauf klicken?</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Sie möchten Bilder zu Fröschen finden. Die Suche bei Google liefert dazu folgende Treffer. Wo würden Sie spontan drauf klicken?</td>
<td></td>
</tr>
</tbody>
</table>
### Aufgabenblock 2

<table>
<thead>
<tr>
<th></th>
<th>Aufgabenleiter</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Sie sehen erneut eine Suchergebnisseite zu der Suche nach einer digitalen Spiegelreflexkamera. Bitte suchen Sie in diesen Ergebnissen nach einem Link, der Sie zu einer Vergleichssuchmaschine für Produkte führt und klicken diesen an.</td>
</tr>
<tr>
<td>(9a)</td>
<td>Wiederholung von Aufgabe 9, wenn Google als Vergleichssuchmaschine gewählt wurde. (Wird erneut Google ausgewählt, zur nächsten Aufgabe/ Frage wechseln.)</td>
</tr>
<tr>
<td>10</td>
<td>Hier sehen Sie noch einmal eine Suchergebnisseite zu der Suche nach Restaurants. Bitte suchen Sie in diesen Ergebnissen nach einem Link, der Sie zu einem Kartendienst führt und klicken diesen an.</td>
</tr>
<tr>
<td>(10a)</td>
<td>Wiederholung von Aufgabe 10, wenn dort Google Maps als Kartendienst ausgewählt wurde. (Wird erneut Google ausgewählt, zur nächsten Aufgabe/ Frage wechseln.)</td>
</tr>
</tbody>
</table>
## Nachbefragung

<table>
<thead>
<tr>
<th>Frage</th>
<th>Text</th>
<th>Antwortmöglichkeiten</th>
<th>Optionen</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Welche der folgenden Symbole haben Sie bei der Bearbeitung der Aufgaben gesehen?</td>
<td>Antwortmöglichkeiten (Mehrfachnennung möglich; Antwortmöglichkeiten randomisieren): 1 = 2 = 3 = 4 = Keines der aufgeführten Symbole</td>
<td>8</td>
</tr>
</tbody>
</table>

Appendix 3: Complete questionnaire (German; 4/5)
### Demographische Daten

<table>
<thead>
<tr>
<th>13</th>
<th>Bitte geben Sie Ihr Geschlecht an</th>
<th>1 = weiblich, 2 = männlich</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Bitte geben Sie Ihr Alter an</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Bitte wählen Sie den auf Sie zutreffenden höchsten Bildungsabschluss aus</td>
<td>1 = kein, 2 = Hauptschulabschluss, 3 = mittlere Reife, 4 = Hochschulreife, 5 = Hochschulabschluss</td>
</tr>
<tr>
<td>16</td>
<td>Bitte wählen Sie den auf Sie zutreffenden beruflichen Status aus</td>
<td>1 = in Ausbildung bzw. Studium, 2 = berufstätig, 3 = nicht oder nicht mehr berufstätig</td>
</tr>
</tbody>
</table>