Hochschule für Angewandte Wissenschaften Hamburg
Hamburg University of Applied Sciences

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

Report for Germany

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* http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=1_39740

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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.

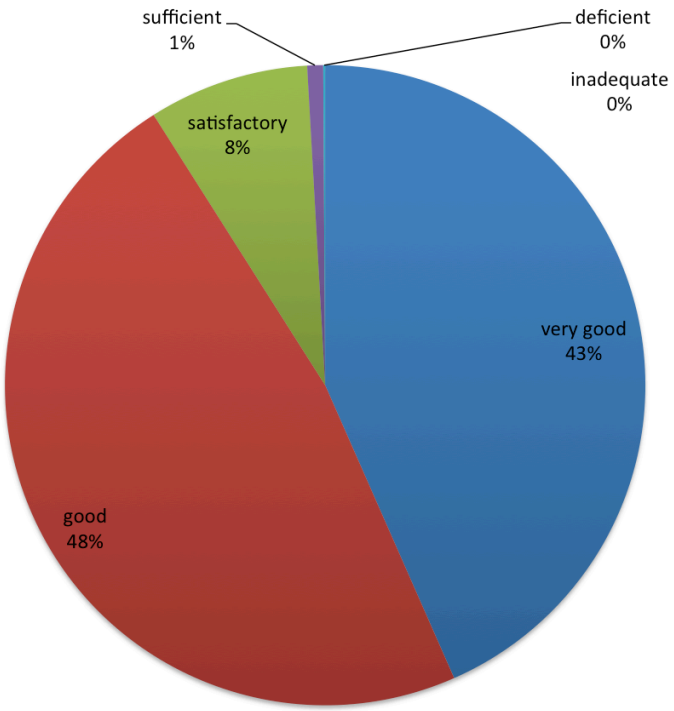
Representative online survey of 1000 German internet users*

- 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.

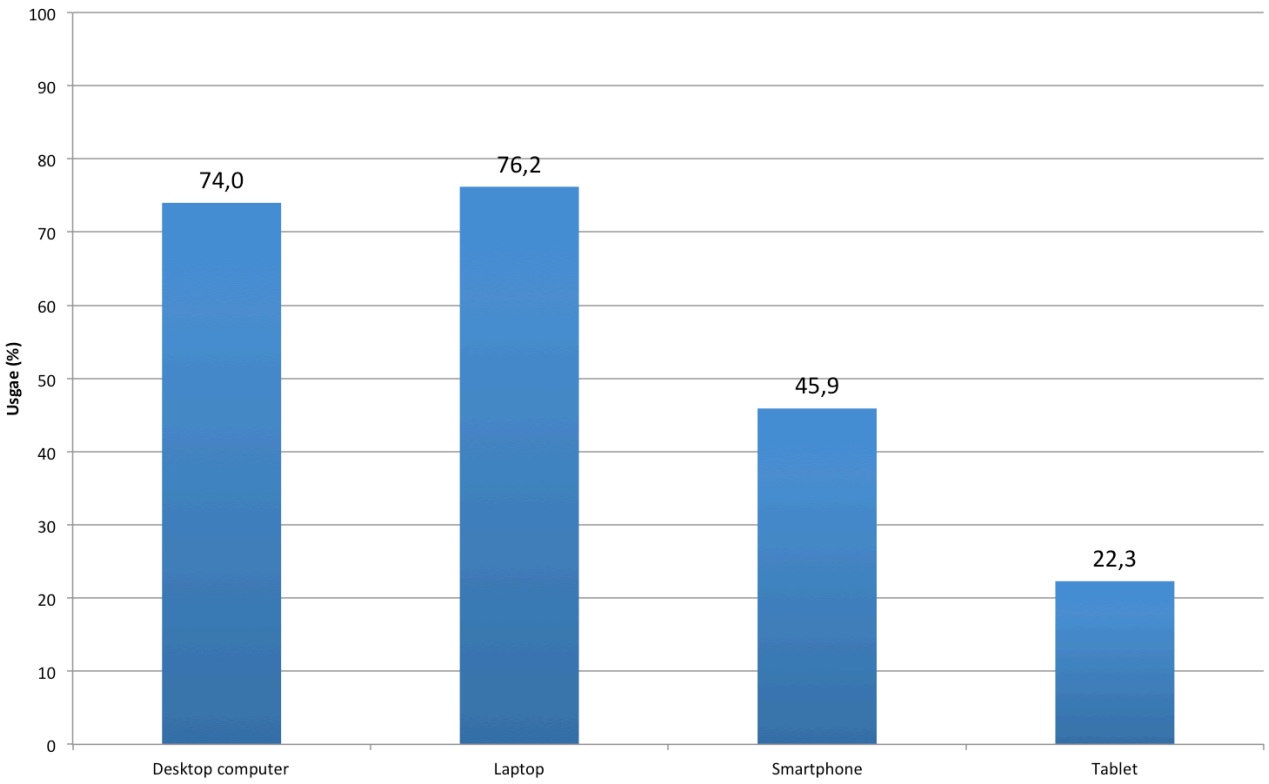
Part 1: Questions regarding the use of the Google search engine, the estimation of one's own research skills, and the familiarity with the various services provided by Google

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

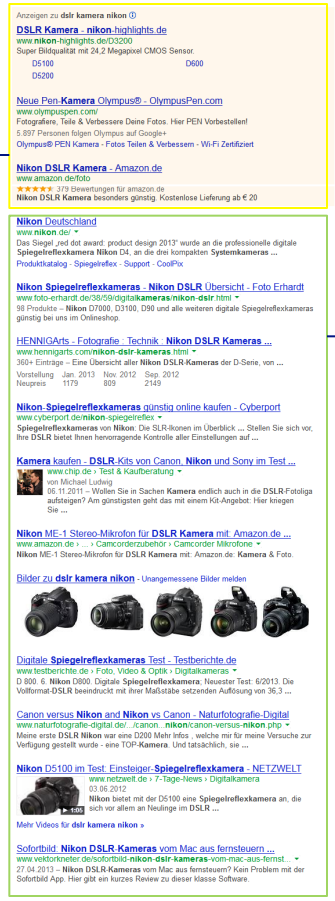


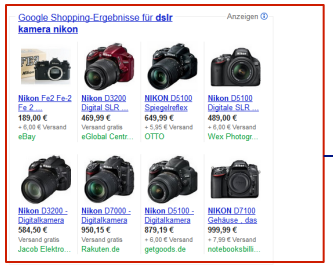
Question:
Which devices do you use Google on?

Contents of Google search results pages (1/4)

Layout of a Google results page

Google Ads





Google Shopping Results

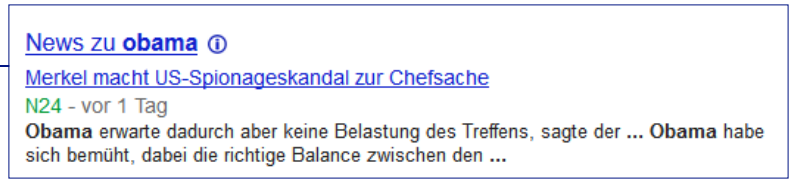
Organic results with Universal Search results (images, videos, news)

Question:
Which of the items have you previously seen on the search results pages when using Google?

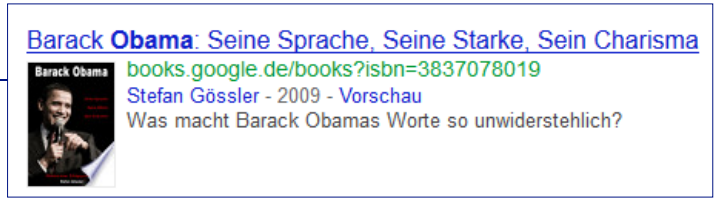
Contents of Google search results pages (2/4)

Shopping Results

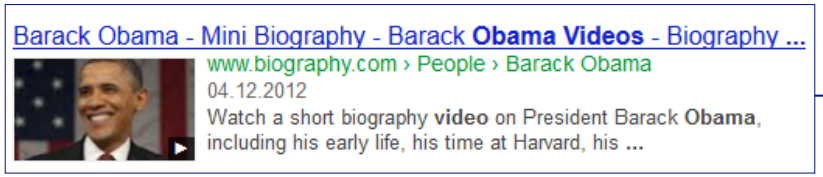
News



Books

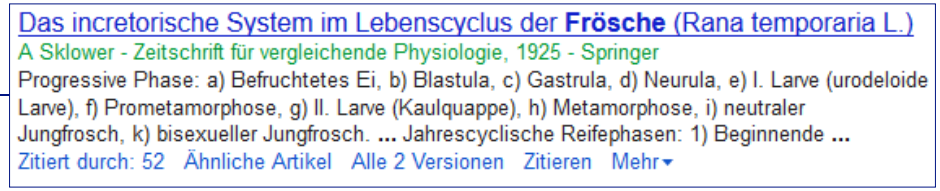


Videos



Images

Scientific articles



Contents of Google search results pages (3/4)

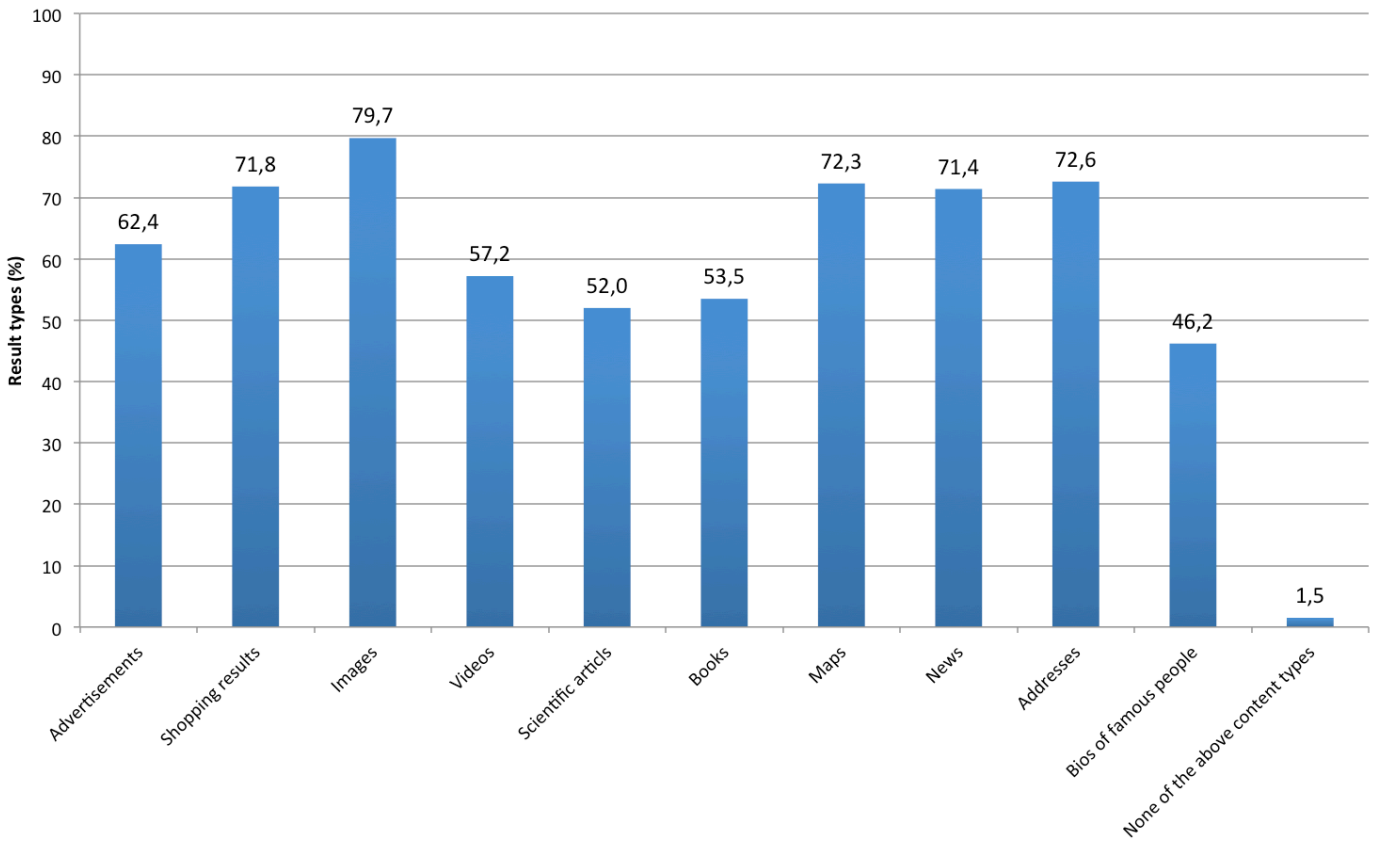
Maps

Bios of famous people

Addresses

Ads

Contents of Google search results pages (4/4)



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)

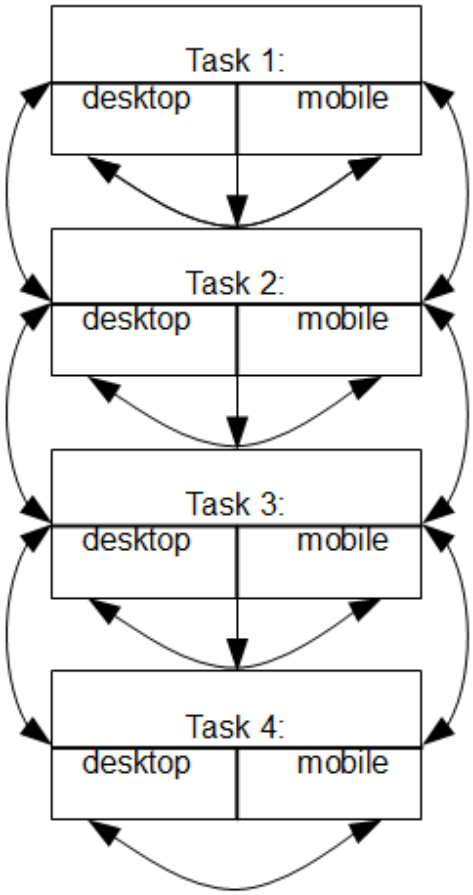
Design and execution for click tasks (1/2)

- 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 (ⓘ), 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.

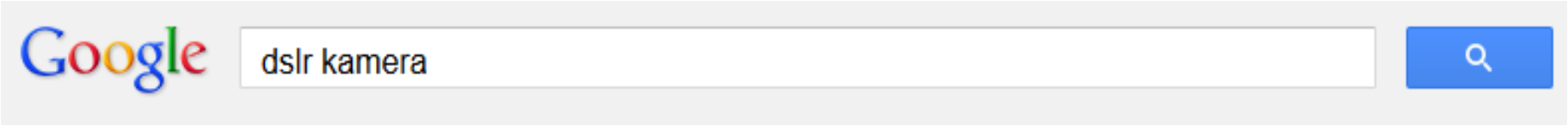


Tasks (1/2)

1

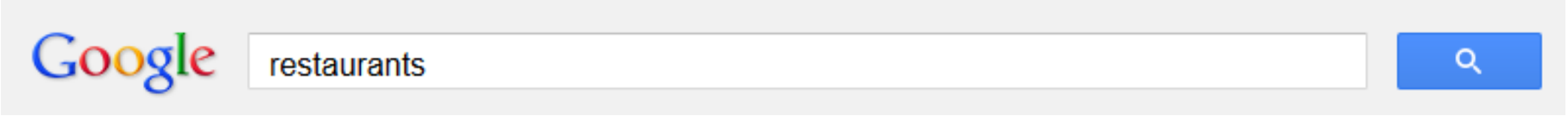
Let's assume you would like to find information on single lens reflex cameras and compare prices. Google gives you the following results for your search.

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.

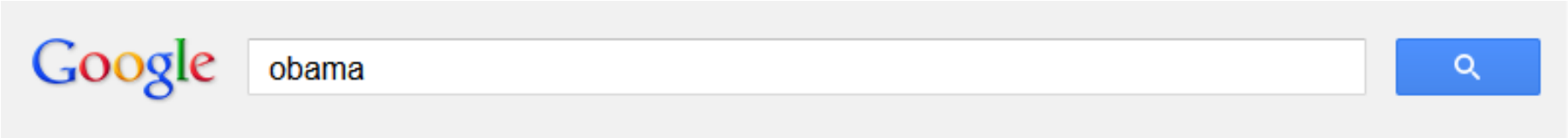


Tasks (2/2)

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.

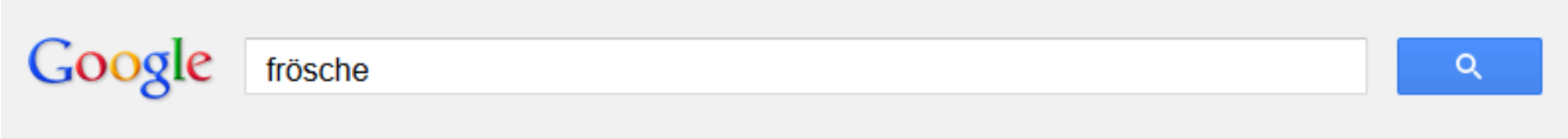
What would you spontaneously click on?



4

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

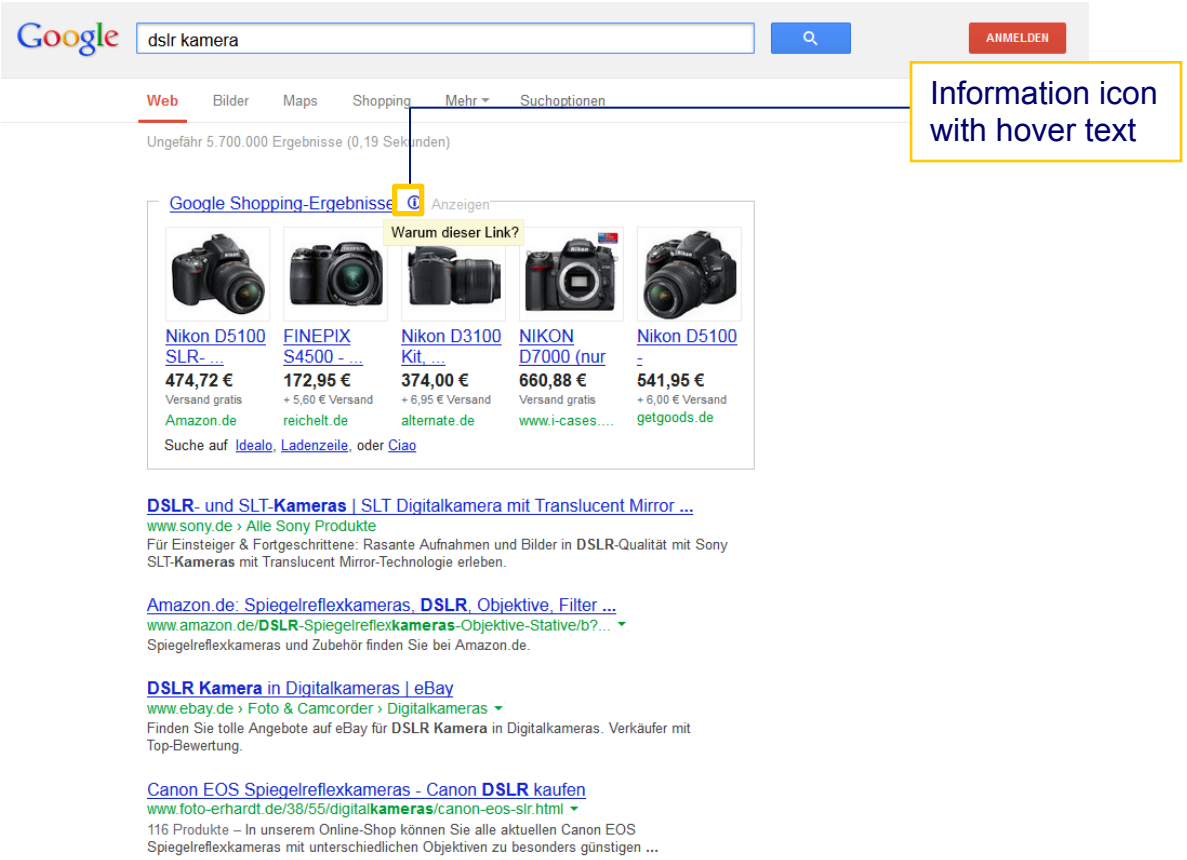
What would you spontaneously click on?



Task 1: DSLR camera

Hover effect for the information icons

Desktop layout



Information icon with hover text

Clickable areas

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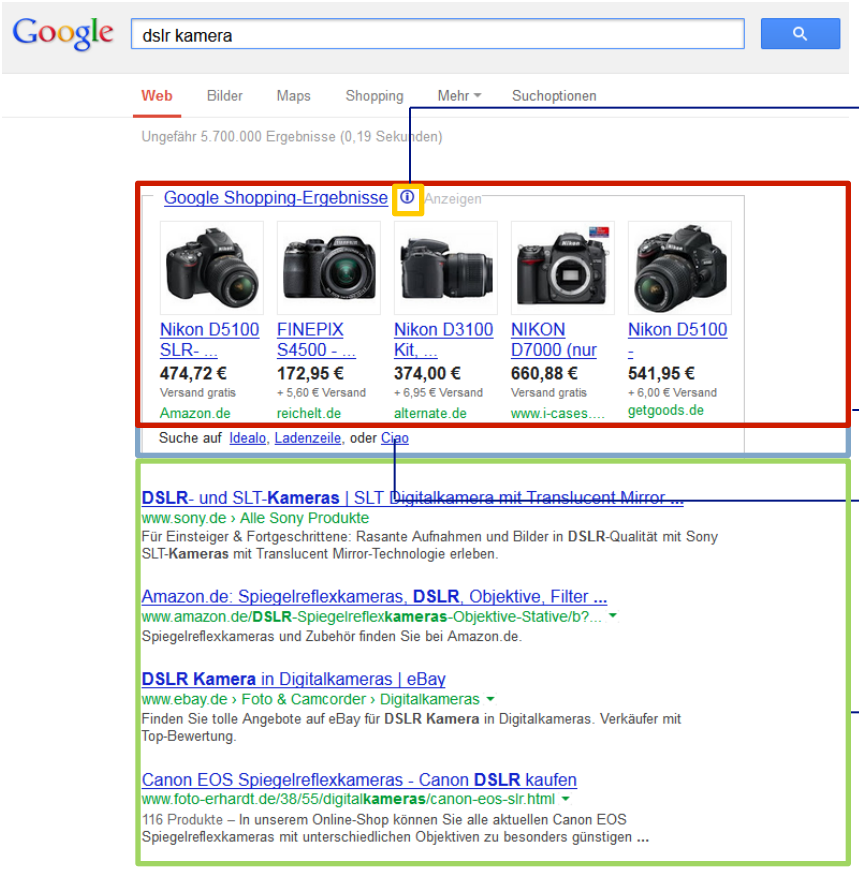
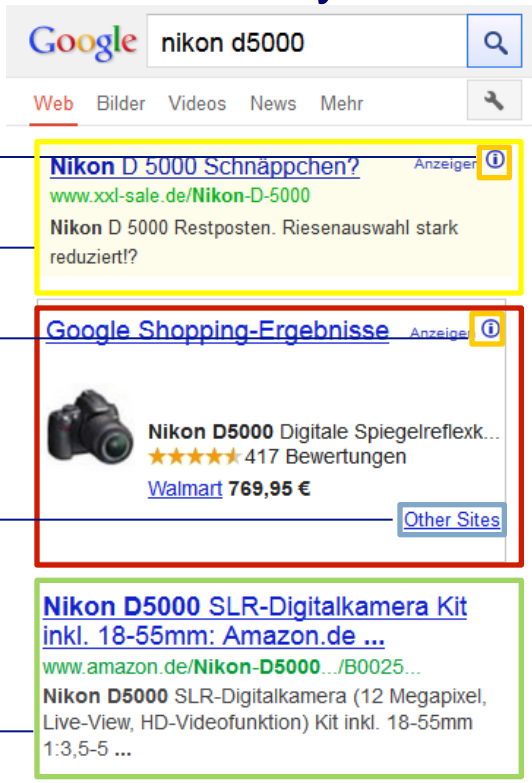
Desktop layout



Mobile layout



Information icon with hover text

Google Ads

Information icon with hover text

Google Shopping results

Rival links

Organic results

Clickable areas with additional information displayed

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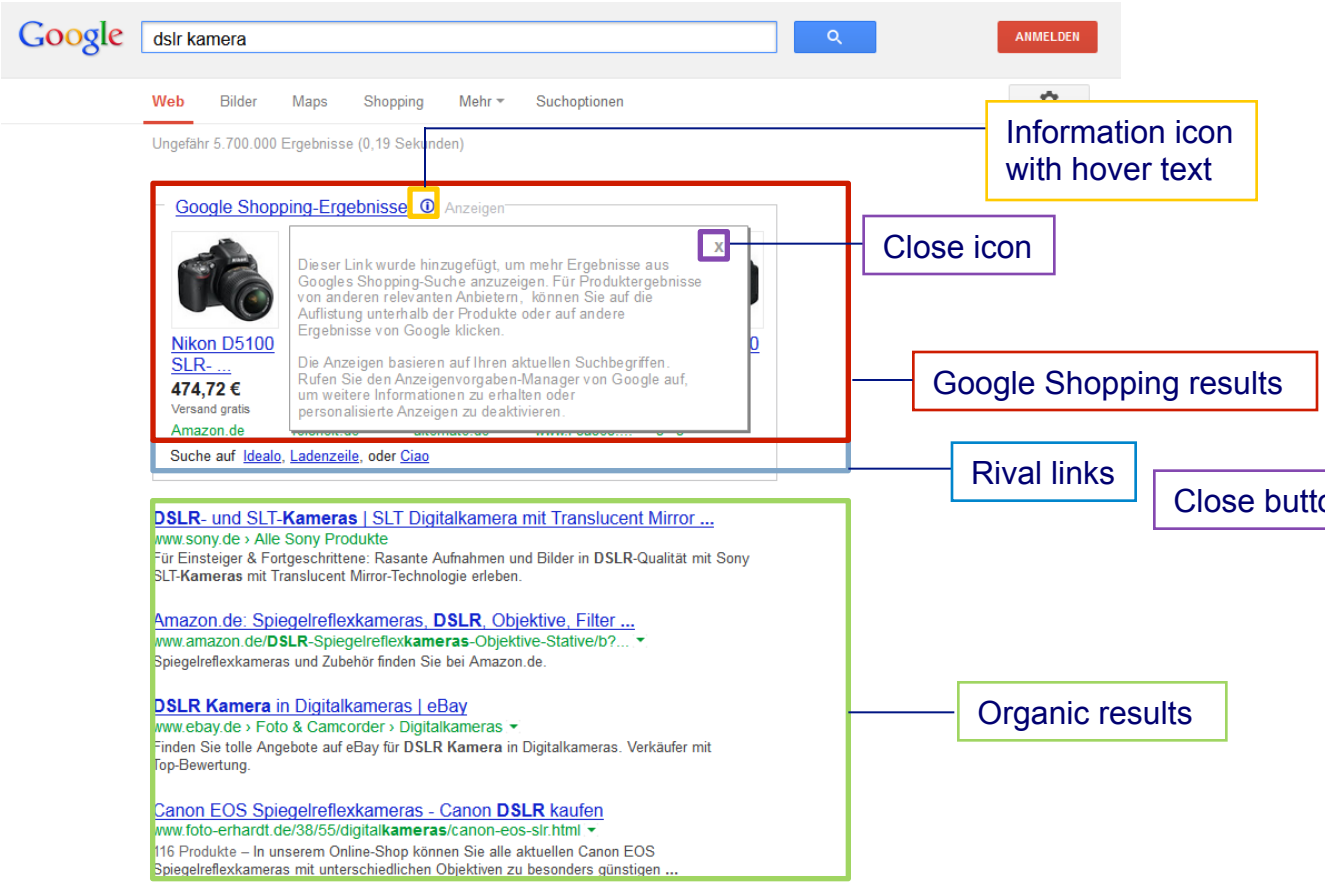
Desktop layout



Information icon with hover text

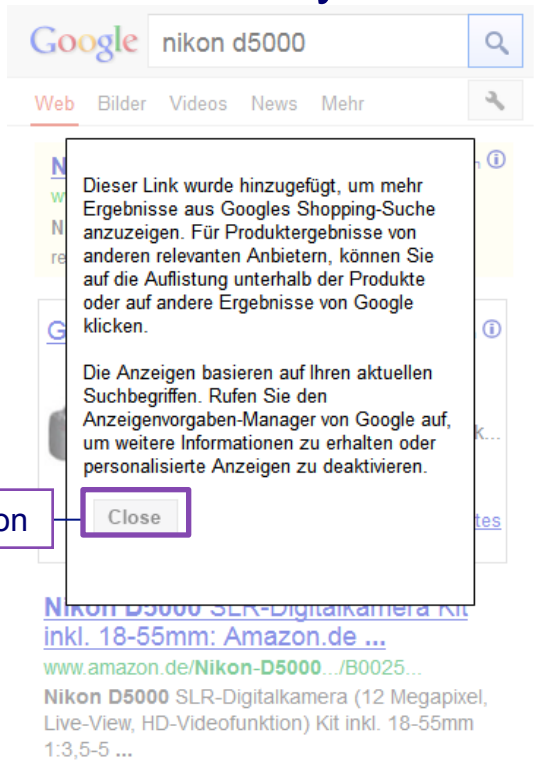
Close icon

Google Shopping results

Rival links

Organic results

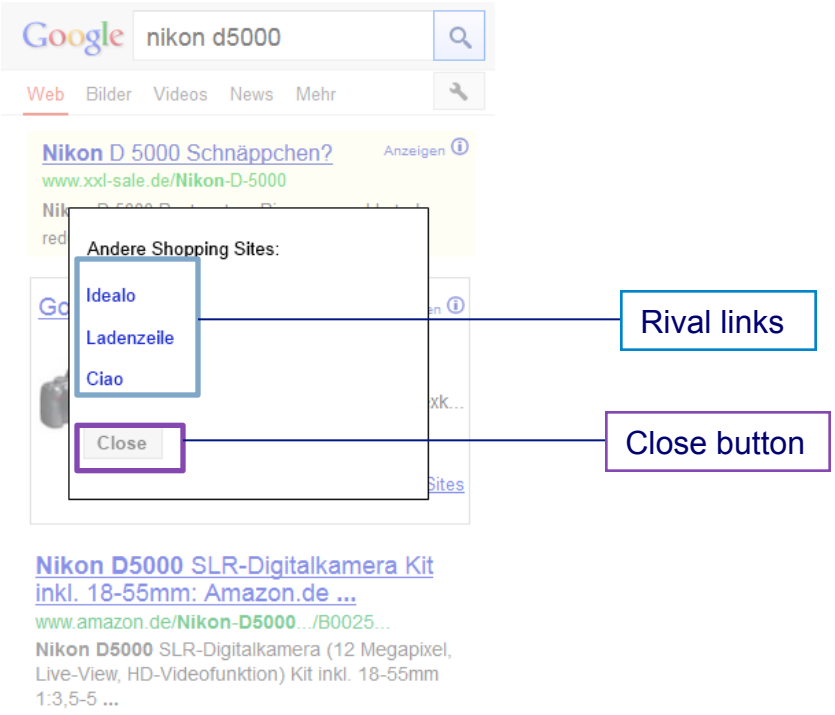
Mobile layout



Close button

Clickable areas with rival links

Mobile layout



Logged clicks (desktop layout)

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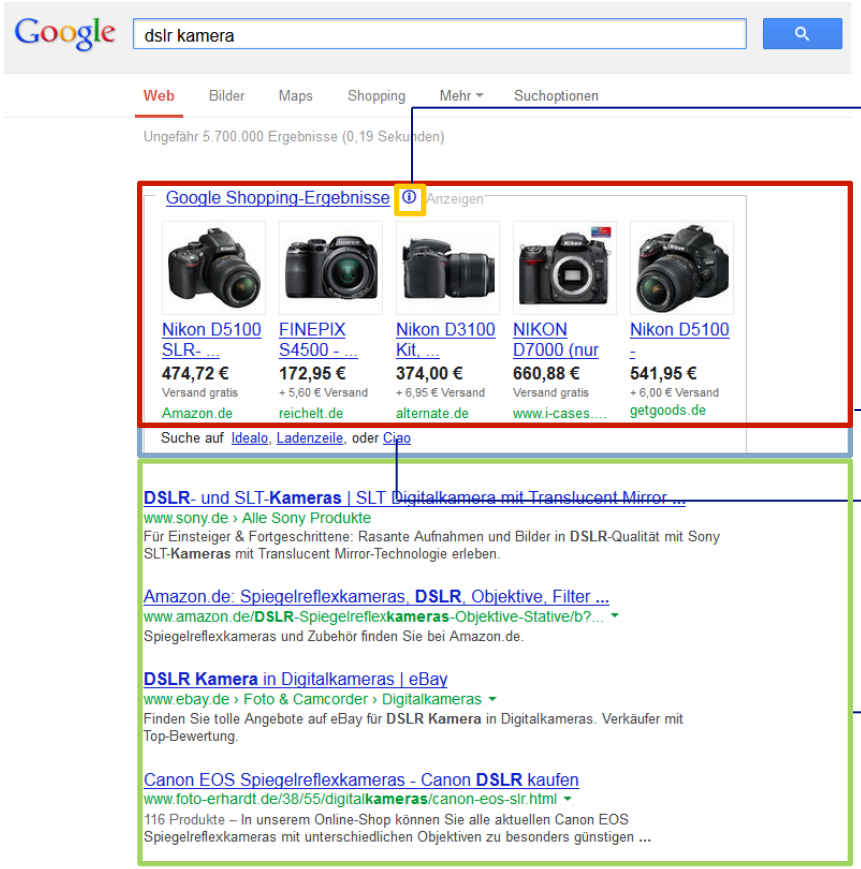
Desktop layout

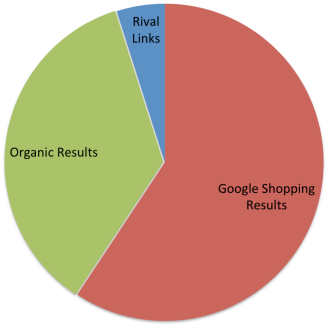


0 clicks (0%)

593 clicks (59.3%)

49 clicks (4.9%)

358 clicks (35.8%)



Total number of clicks: 1000

Number of clicks on shopping results and links to rival offerings: 642

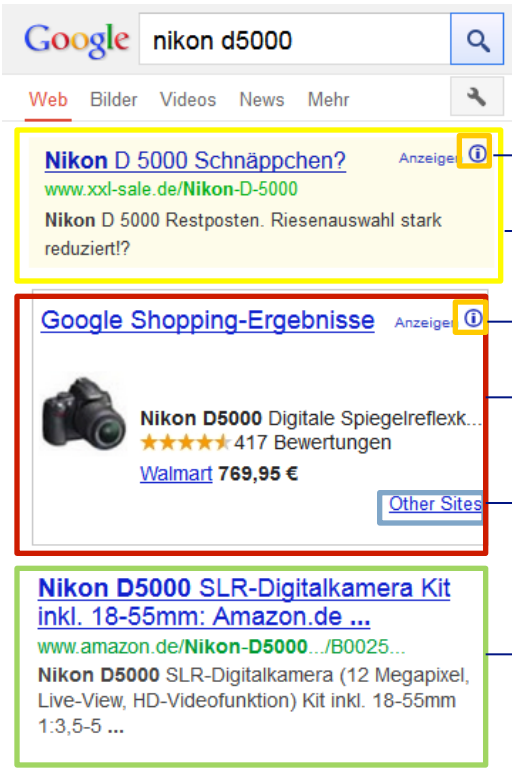
Most of the clicks were on organic results and Google Shopping results (93%).

Clicks on rival offerings (desktop layout)

Idealo	Ladenzeile	Ciao	Total number of clicks
49	0	0	49

Logged clicks (mobile layout)

Mobile layout



0 clicks (0.0%)

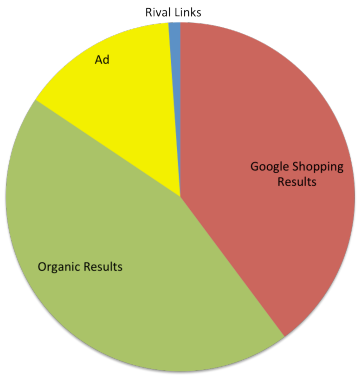
145clicks (14.5%)

0 clicks (0.0%)

398 clicks (39.8%)

11 clicks (1.1%) on rival links, 3 clicks (0.3%) on close button

446 clicks (44.6%)



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%).

Clicks on rival offerings (mobile layout)

Idealo	Ladenzeile	Ciao	Total number of clicks
7	2	2	11

Summary of clicks (desktop vs. mobile layout)

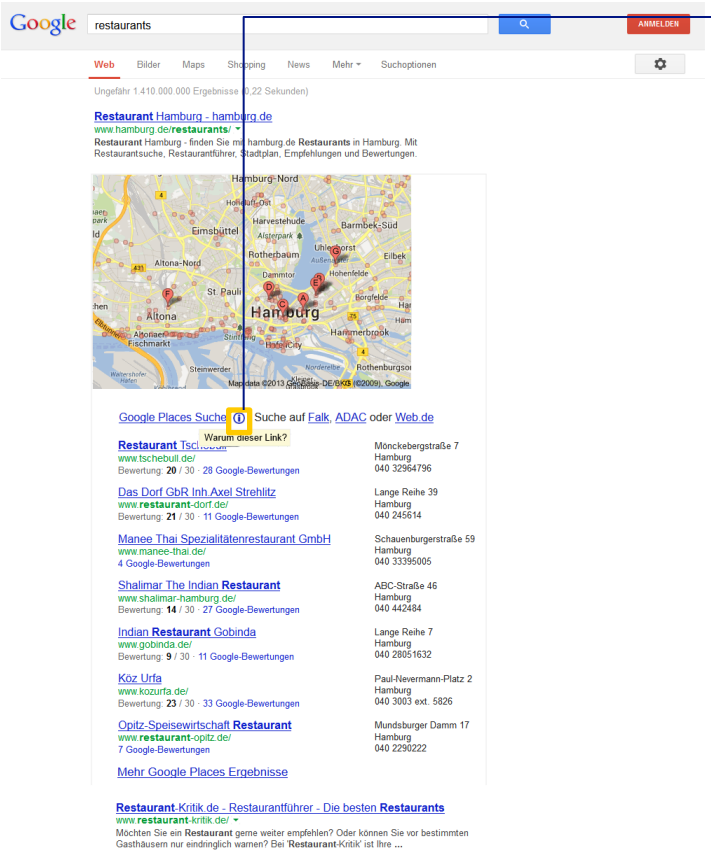
The majority of users did not click on rival offerings.

	Google Shopping results	Organic results	Rival links	Info icon	Close Button (rival links)	All clicks
Desktop	593	358	49	0	n/a	1000
Mobile	398 (+ 145 on ad)	446	11	0	3	1003

Task 2: restaurants

Hover effect for the information icons

Desktop layout

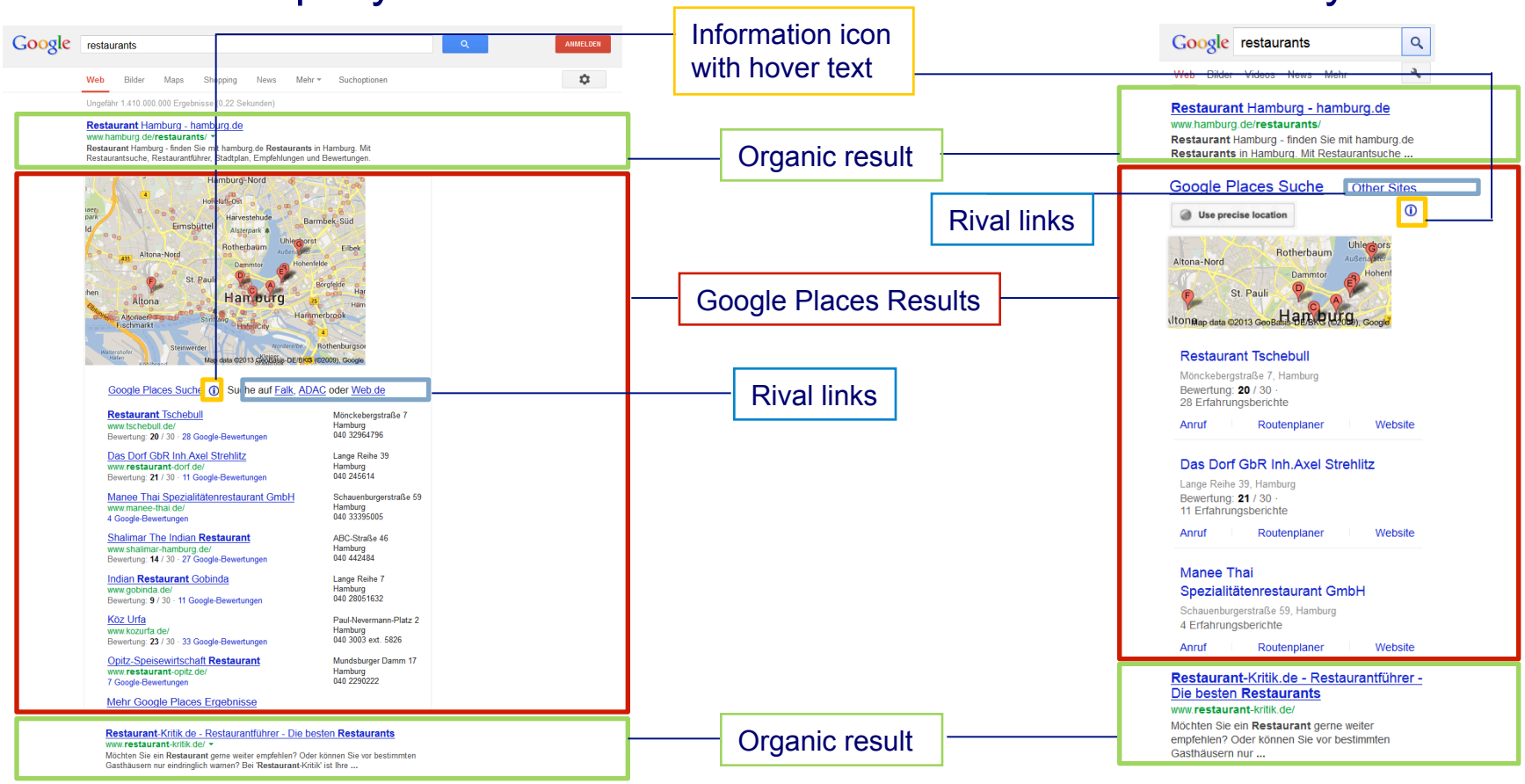


Information icon with hover text

Clickable areas

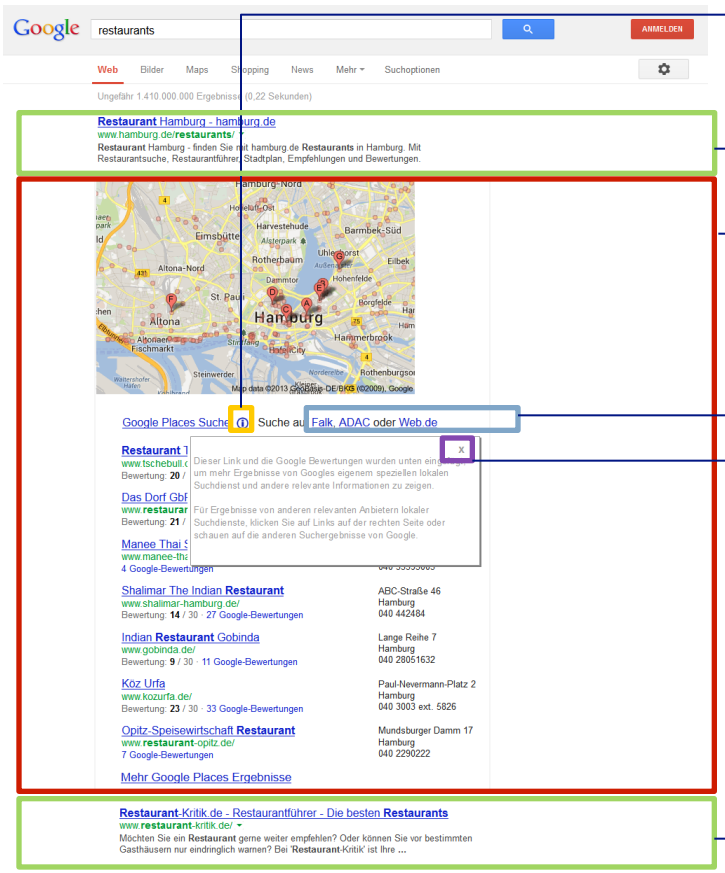
Desktop layout

Mobile layout



Clickable areas with additional information displayed

Desktop layout



Information icon with hover text

Organic result

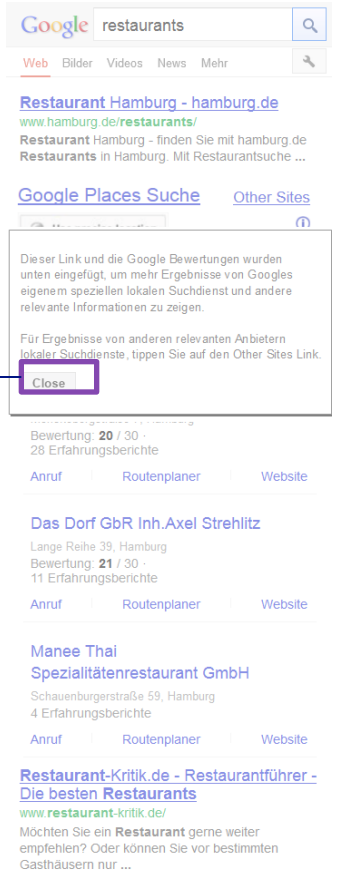
Google Places Results

Rival links

Close icon

Organic result

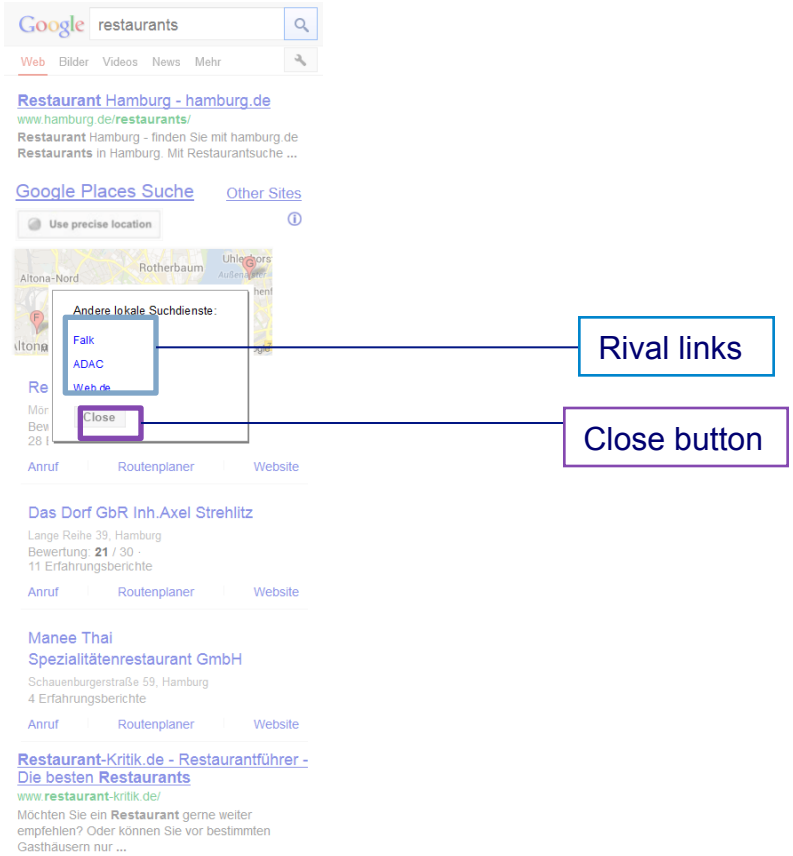
Mobile layout



Close button

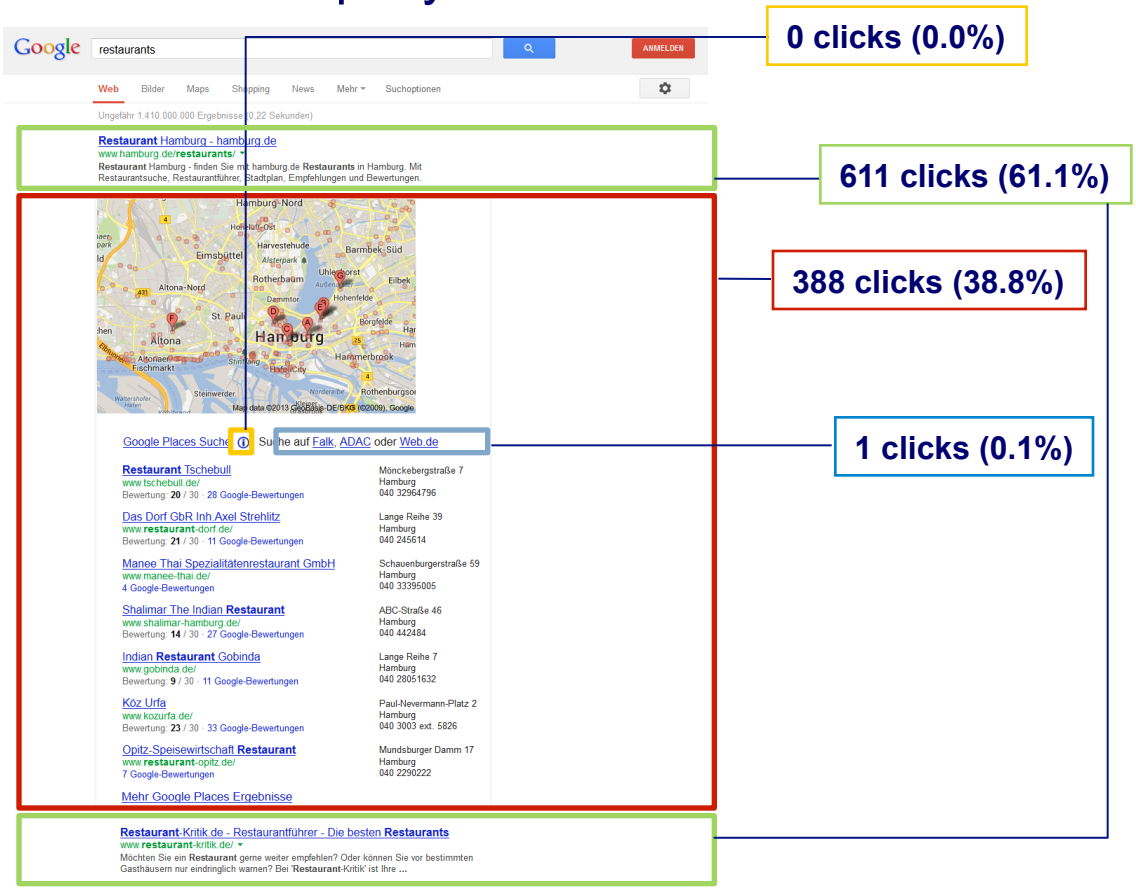
Clickable areas with rival links

Mobile layout



Logged clicks (desktop layout)

Desktop layout

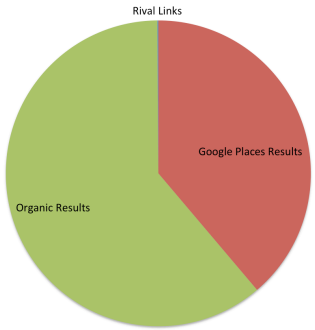


0 clicks (0.0%)

611 clicks (61.1%)

388 clicks (38.8%)

1 clicks (0.1%)



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%).

Clicks on rival offerings (desktop layout)

Falk	ADAC	Web.de	All clicks
1	0	0	1

Logged clicks (mobile layout)

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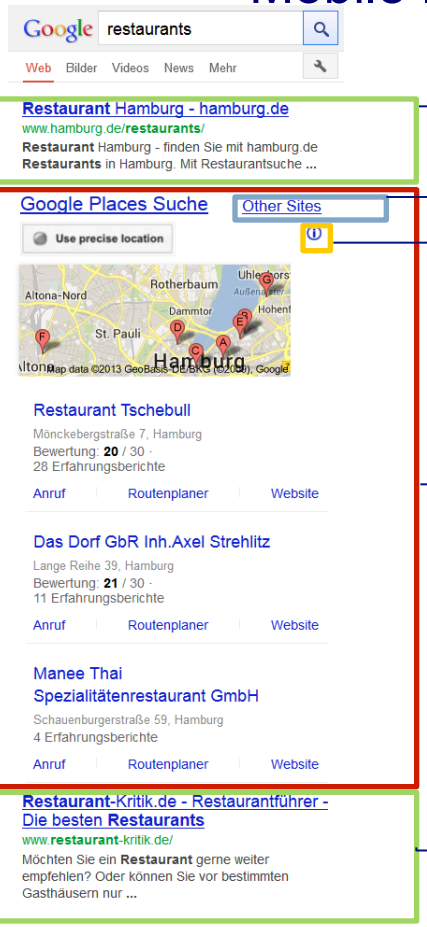
Mobile layout

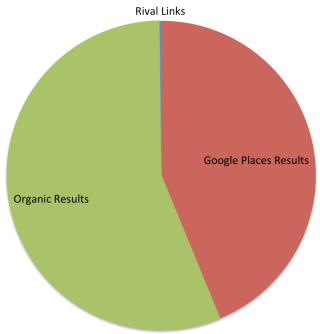


560 clicks (56.0%)

2 clicks (0.2%), 1 click (0.1%) on close button

1 clicks (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)

Falk	ADAC	Web.de	All clicks
0	1	1	2

Summary of clicks (desktop vs. mobile layout)

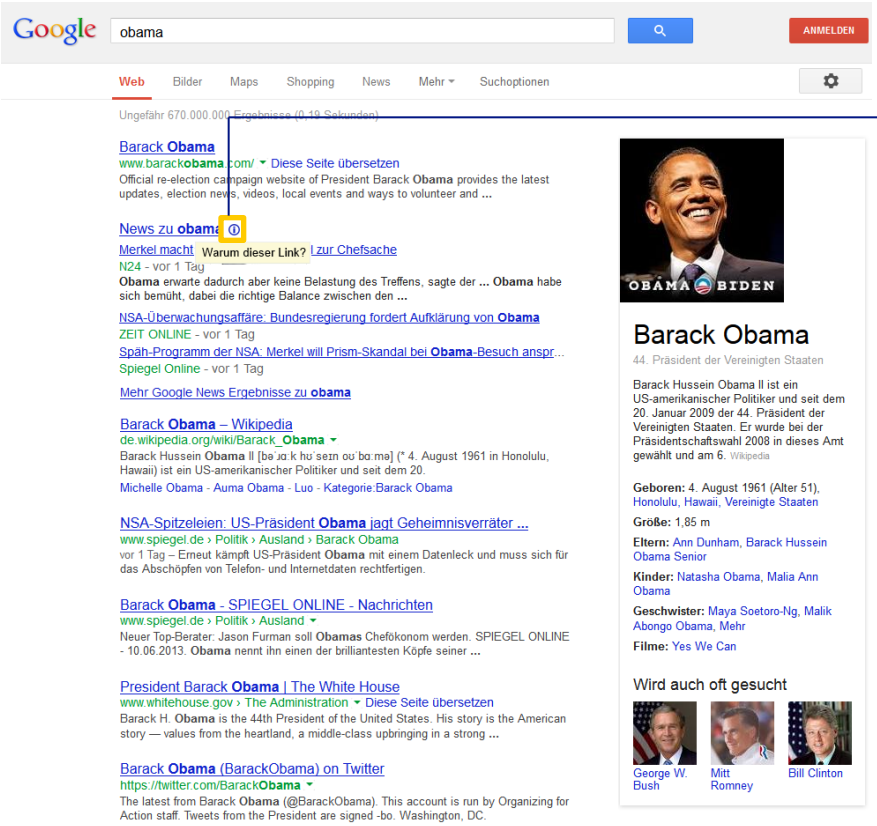
The majority of users did not click on rival offerings.

	Google Places results	Organic results	Rival links	Info icon	Close Button (rival links)	All clicks
Desktop	388	611	1	0	n/a	1001
Mobile	438	560	2	1	1	1002

Task 3: Obama

Hover effect for the information icons

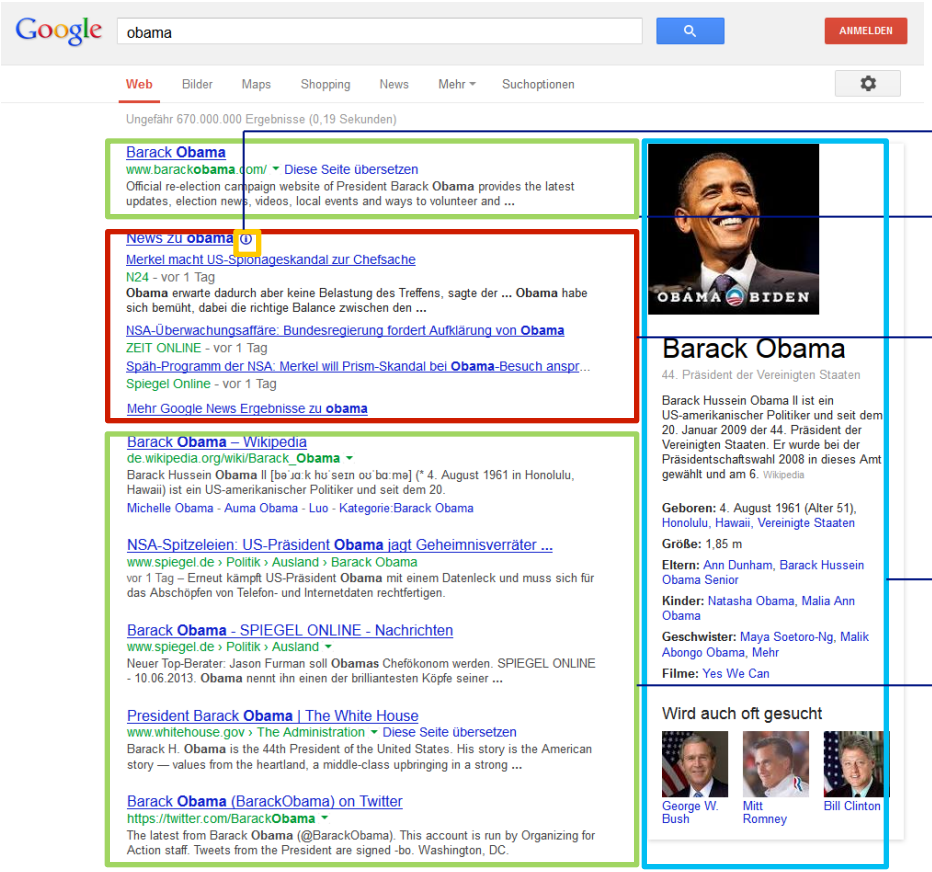
Desktop layout



Information icon with hover text

Clickable areas

Desktop layout



Information icon with hover text

Organic results

News result

News results

Knowledge Graph

Organic results

Mobile layout

Clickable areas with additional information displayed

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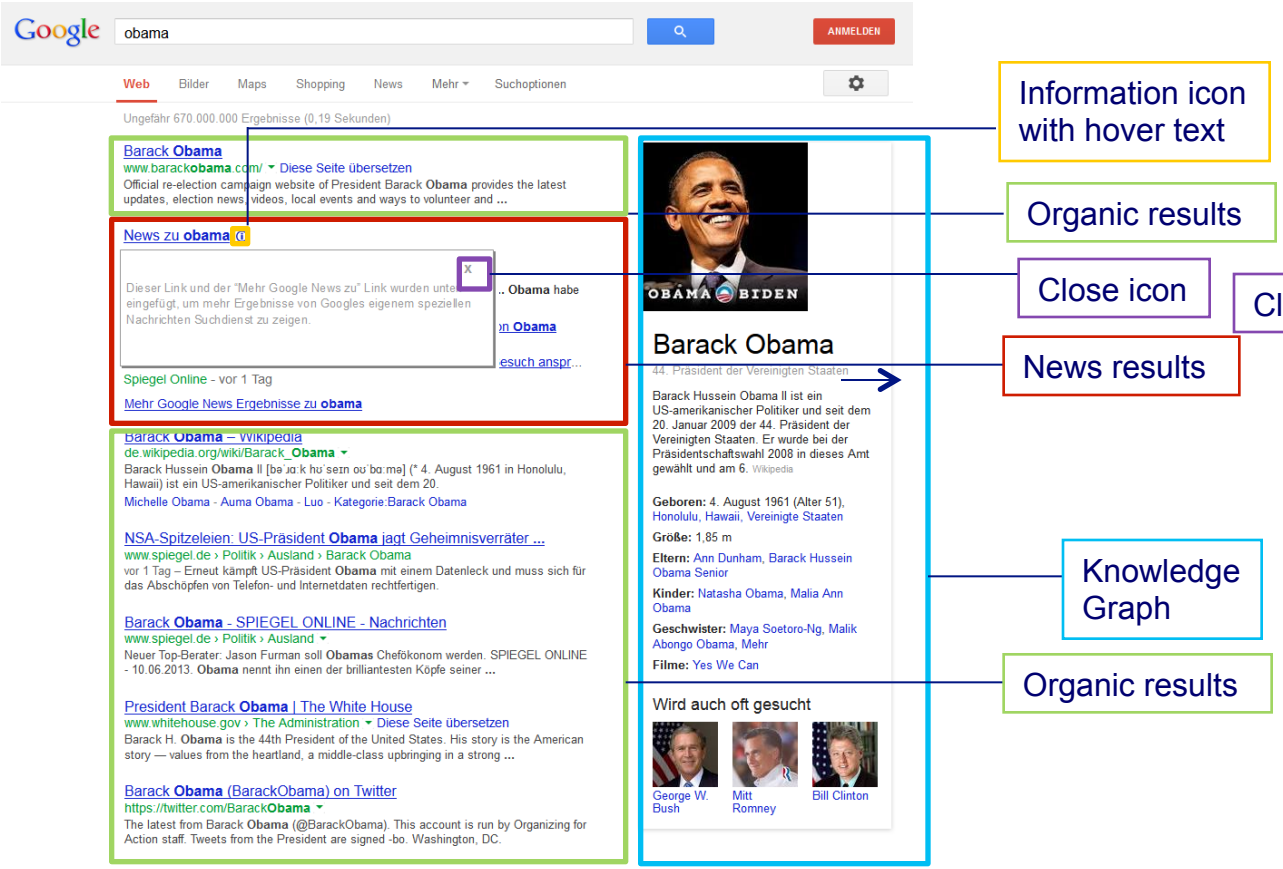
Desktop layout



Mobile layout

Logged clicks (desktop layout)

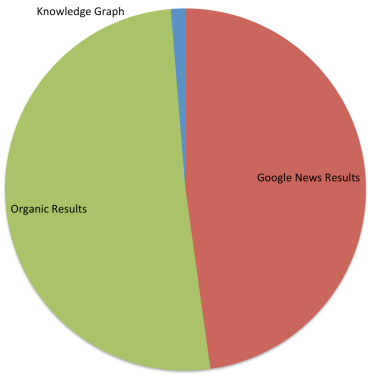
Desktop layout

3 clicks (0.3%)

509 clicks (50.9%)

478 clicks (47.7%)

13 clicks (1.3%)



Total number of clicks: 1000

Most of the clicks were on organic results and News results.

Organic Result Position	Clicks
1	214
2	146
3	66
4	69
5	10
6	4

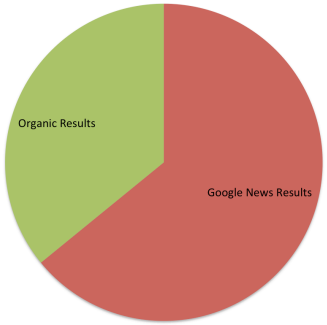
Logged clicks (mobile layout)

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.

Summary of clicks (desktop vs. mobile layout)

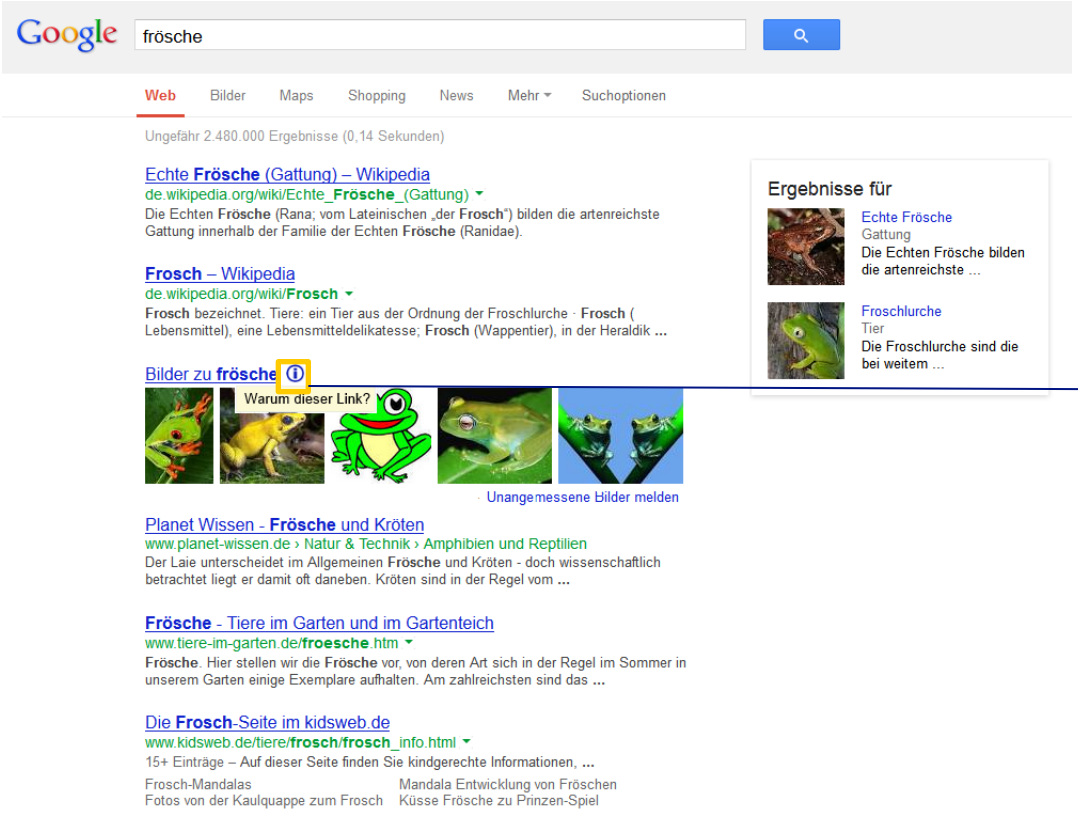
The majority of users ignored the information icon.

	Google News results	Organic results	Knowledge Graph	Info icon	All clicks
Desktop	478	509 (214 of these on the first organic result)	13	3	1003
Mobile	641	359	n/a	3	1003

Task 4: Frogs

Hover effect for the information icons

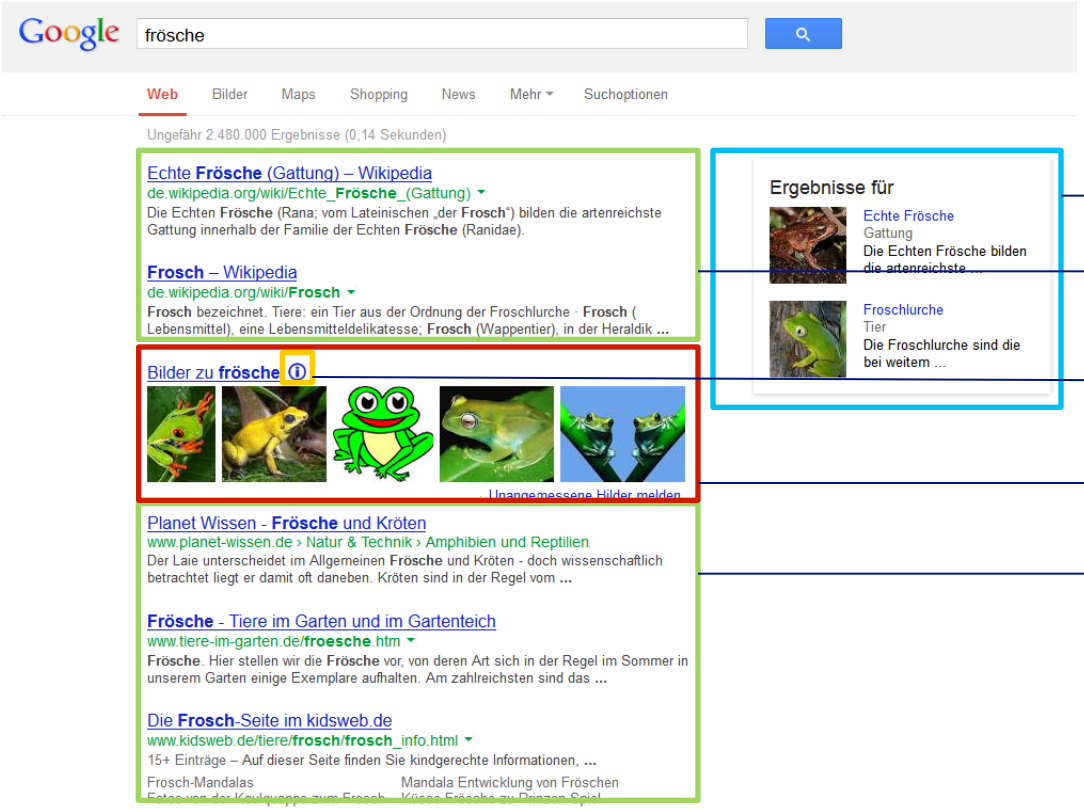
Desktop layout



Information icon with hover text

Clickable areas

Desktop layout



Information icon with hover text

Ad

Knowledge Graph

Organic results

Information icon with hover text

Image results

Organic results

Mobile layout

Clickable areas with additional information displayed

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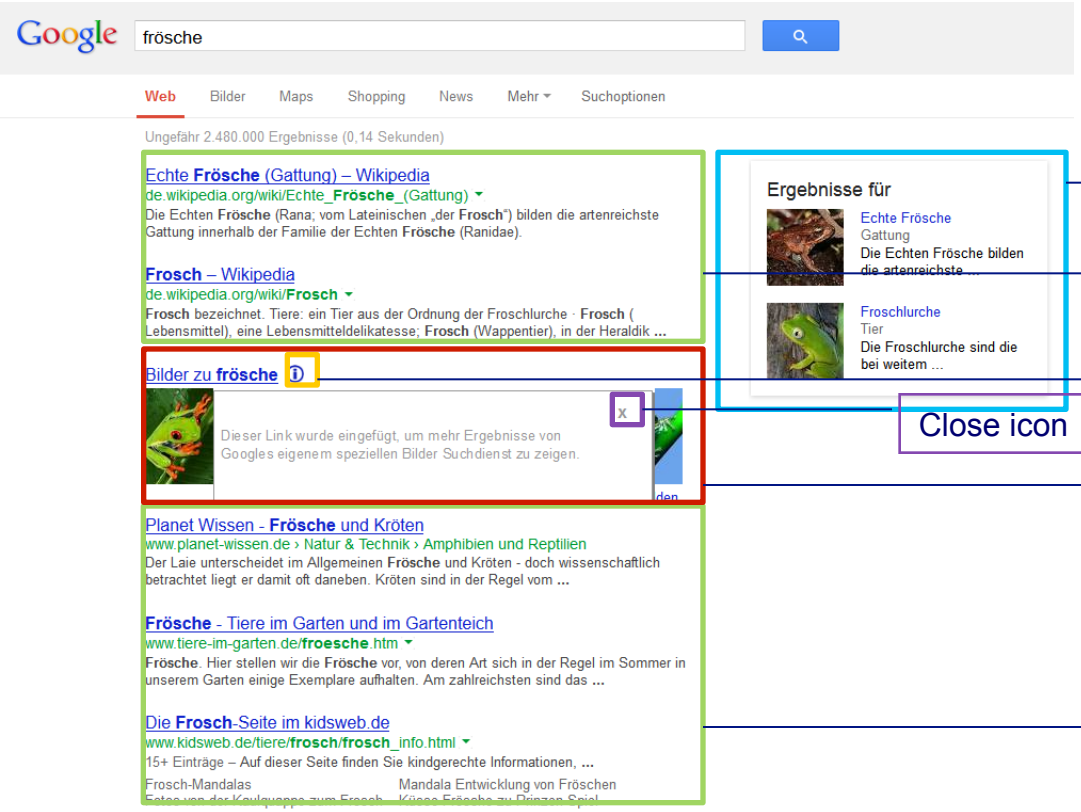
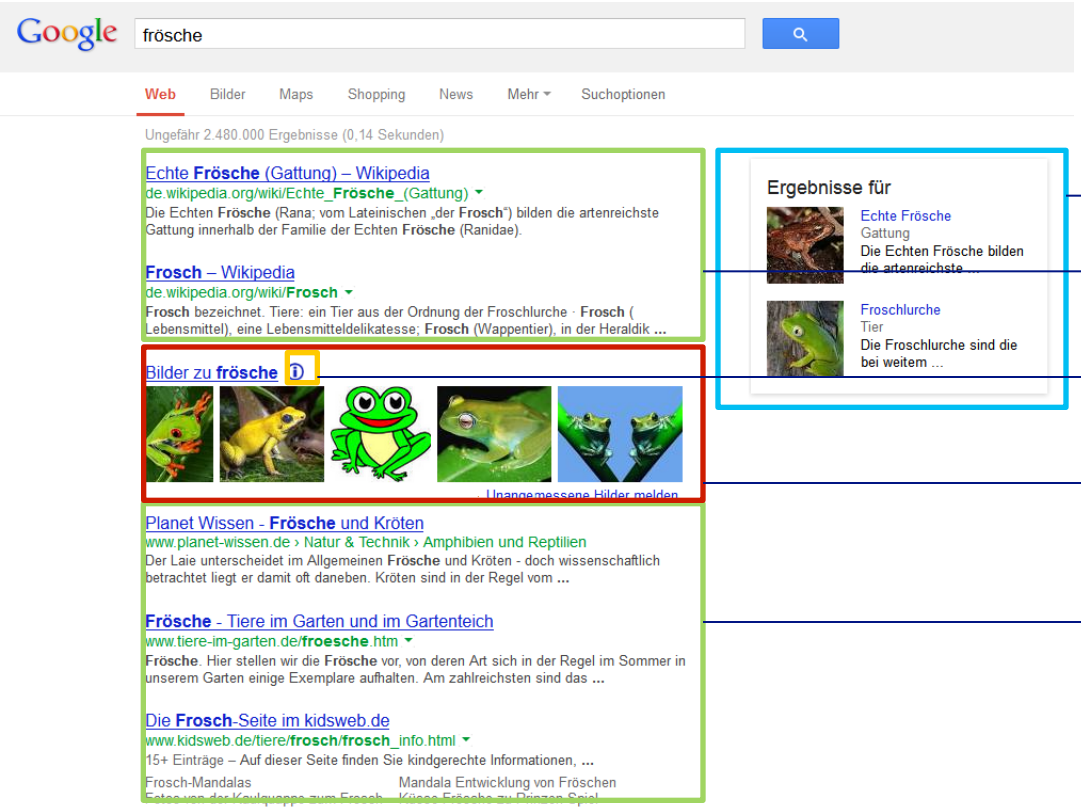
Desktop layout

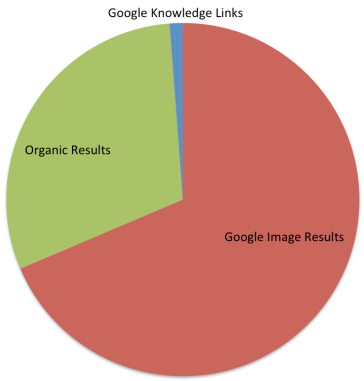


Mobile layout

Logged clicks (desktop layout)

Desktop layout





12 clicks (1.2%)

302 clicks (30.2%)

3 clicks (0.3%)

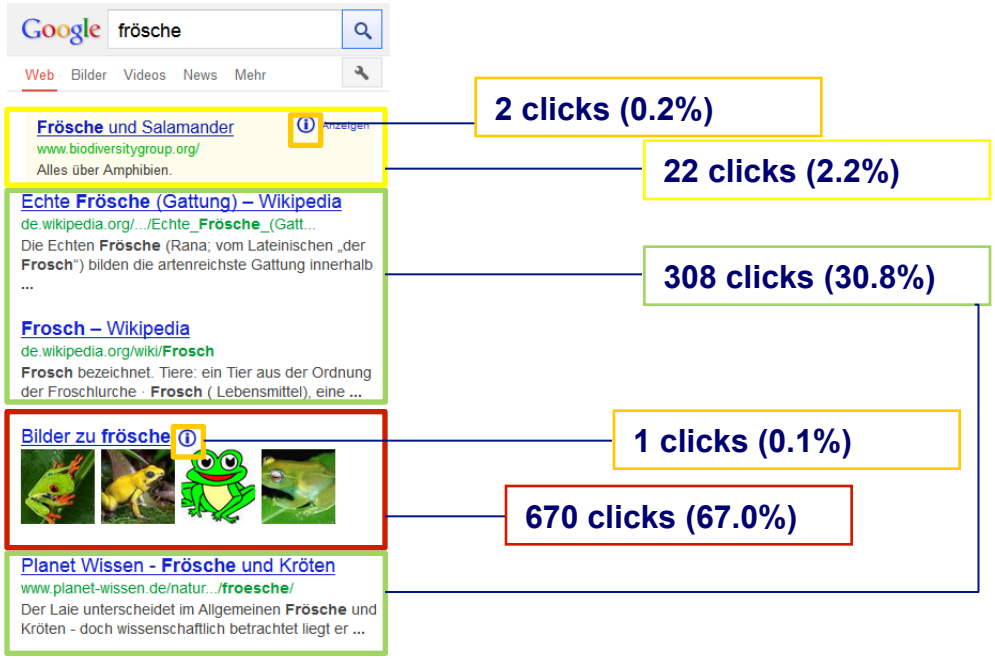
686 clicks (68.8%)

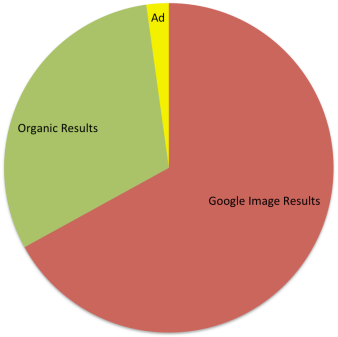
Total number of clicks: 1000

Nearly all of the clicks were on organic results and image results.

Logged clicks (mobile layout)

Mobile layout





Total number of clicks: 1000

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

Summary of clicks (desktop vs. mobile layout)

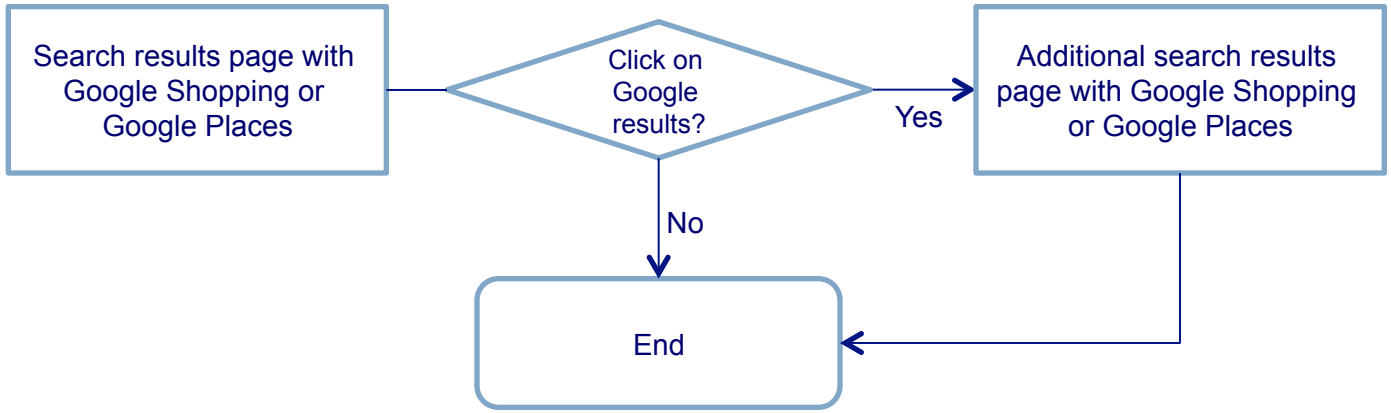
The majority of users click on images.

	Google Image results	Organic results	Google Knowledge Graph	Info icon	All clicks
Desktop	686	302	12	3	1003
Mobile	670 (+ 22 on ad)	308	n/a	3	1003

Supplemental tasks to assess the perception and usage of competing offers placed on Google results pages

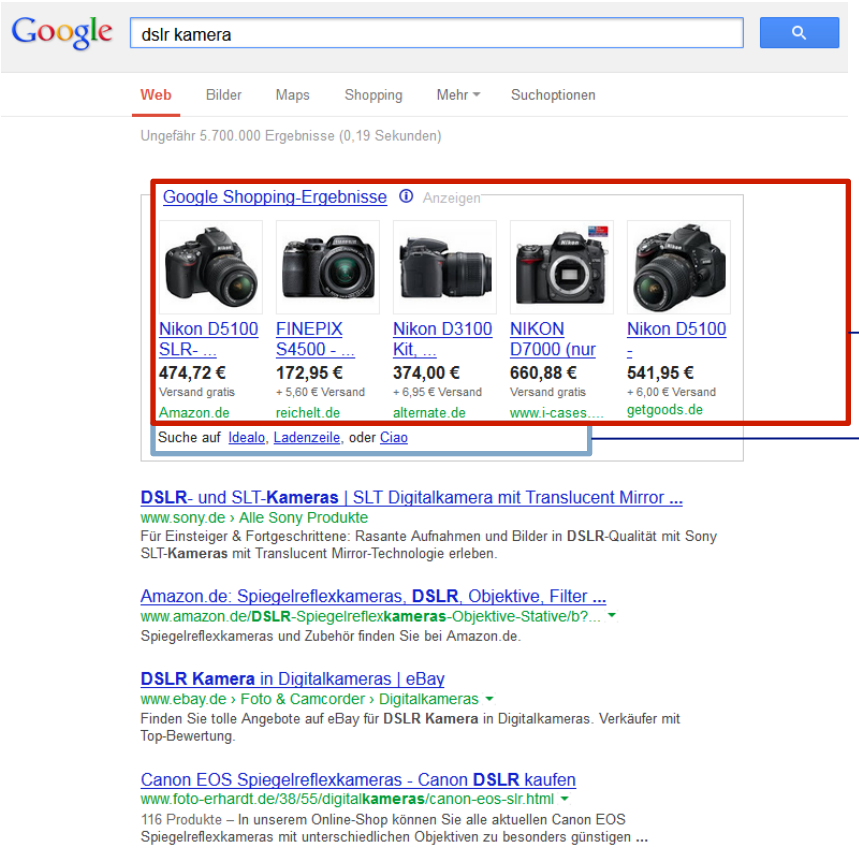
Additional tasks: Methods

- 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



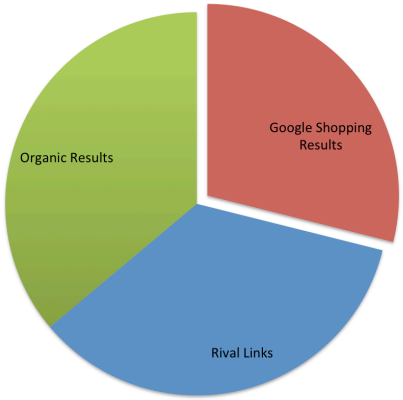
Google Shopping results

Rival links

Results

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)

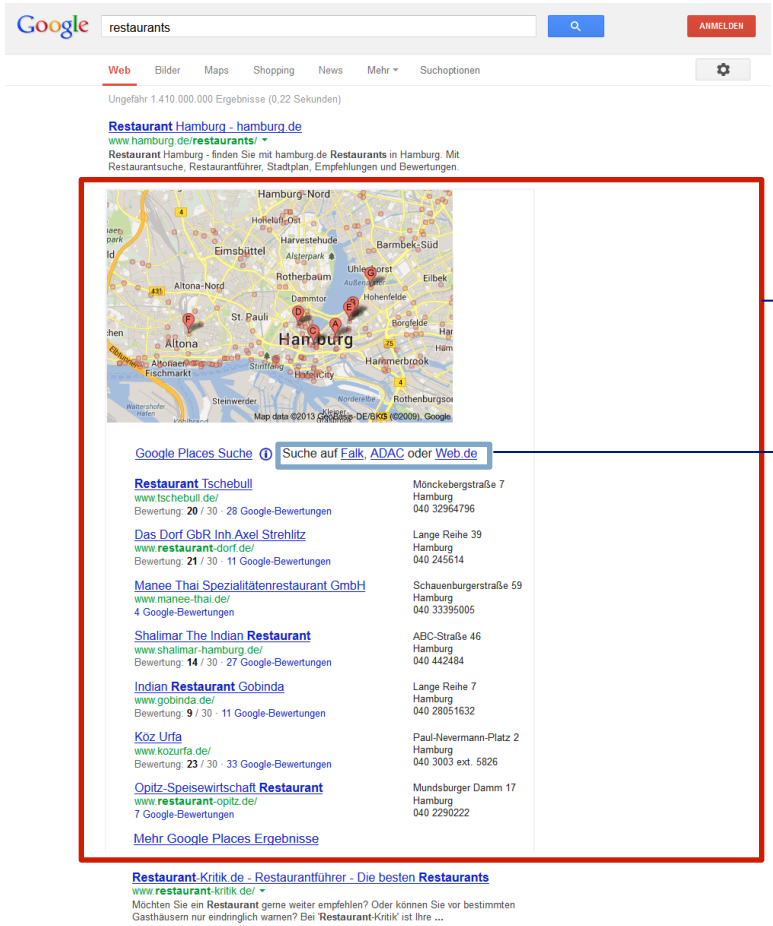


Second request to click (n = 289)

	1st step	2nd step	Percentage after the second step
Clicks on Google Shopping	289 (28.9%)	80 (27.7%)	
Clicks on rival search engine	350 (35.0%)	35 (12.1%)	385 (38.5%)

Additional task 2: restaurants

Google Places results and rival links



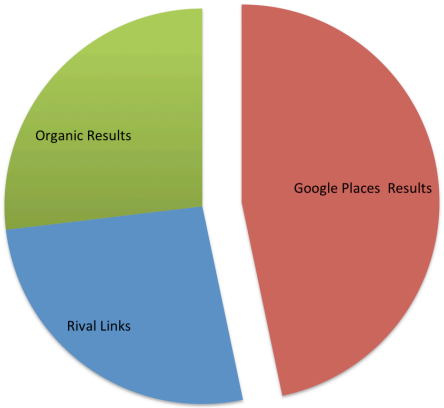
Google Places Results

Rival links

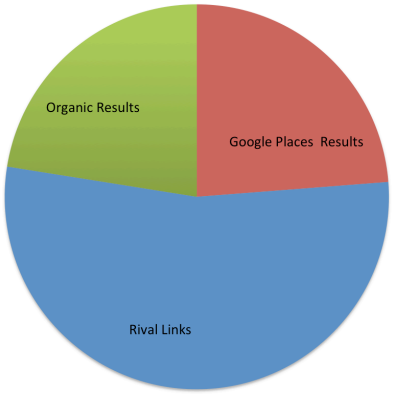
Results

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)



Second request to click (n = 600)



	1st step	2nd step	Percentage after the second step
Clicks on Google Places	467 (46.7%)	111 (23.8%)	
Clicks on rival search engine	264 (26.4%)	251 (53.8%)	515 (51.1%)

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

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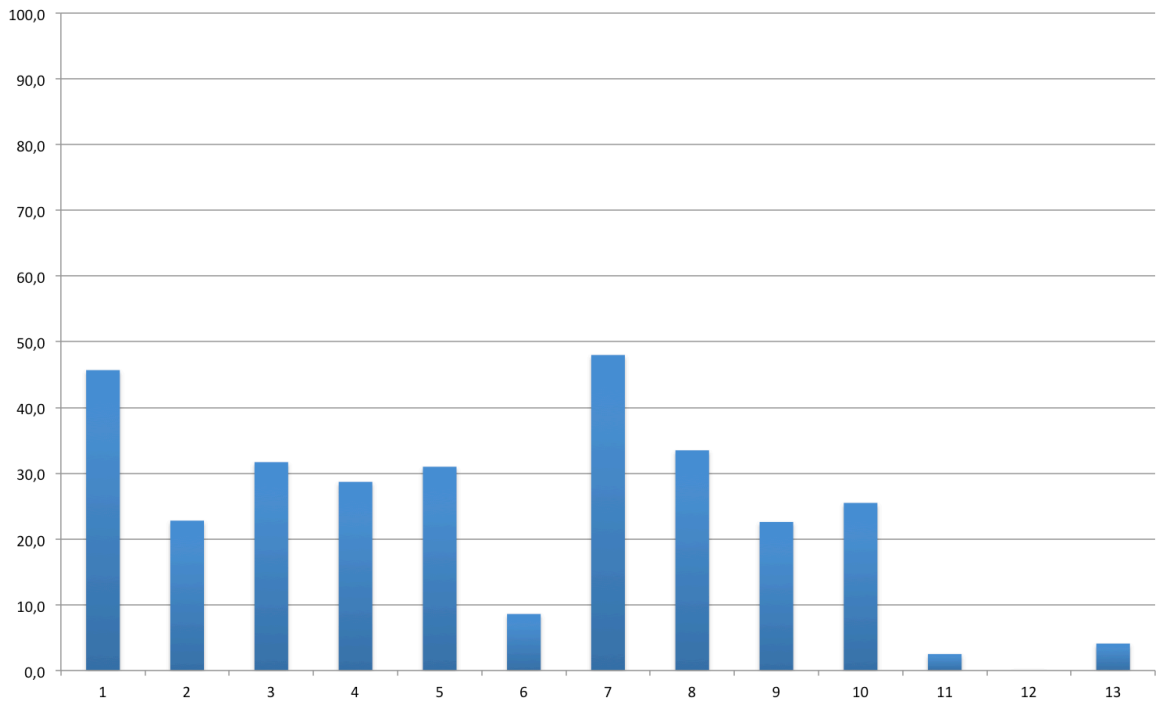
Question: Which of the following labels and/or content on the results page did you notice when completing the tasks?

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

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Hamburg University of Applied Sciences

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

Possible answers:

1 –

2 –

3 –

4 – **(incorrect response)**

5 – **(incorrect response)**

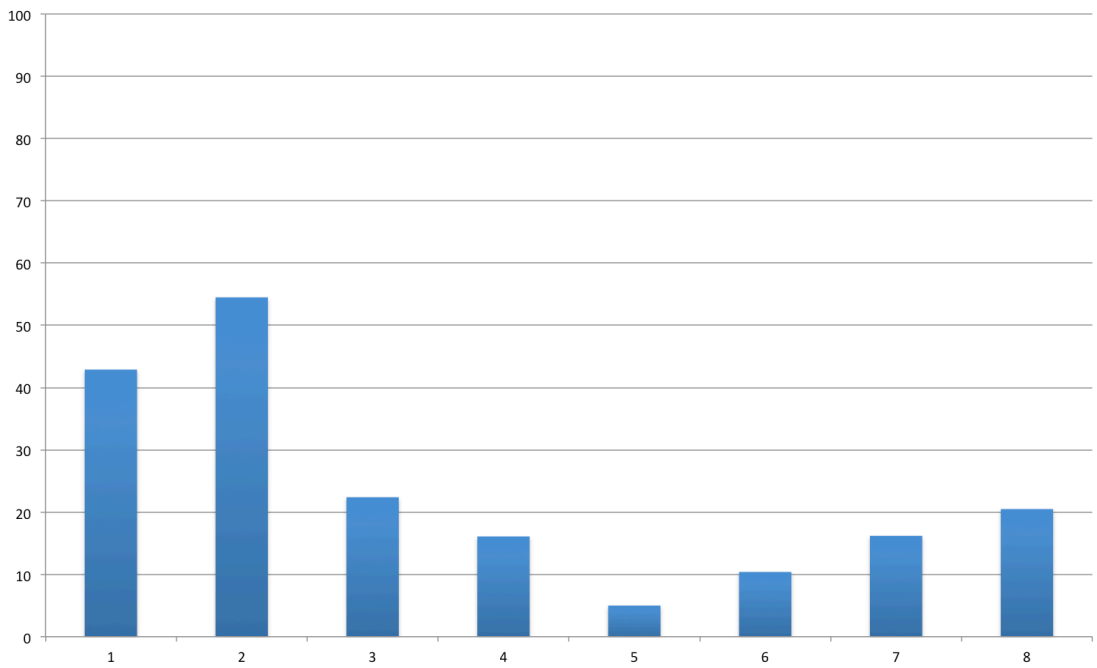
6 –

7 –

(incorrect response)

8 – None of the icons listed

Most users were able to name at least one of the pictograms. But only a few users were able to completely name all the pictograms correctly.



Appendix

Appendix 1: Study outline

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

Appendix 2: Complete questionnaire (English; 1/5)

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

Appendix 2: Complete questionnaire (English; 2/5)

Task group 1

5	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?	
6	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?	
7	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?	
8	You would like to find pictures of frogs. Searching Google gives you the following results. What would you spontaneously click on?	

Appendix 2: Complete questionnaire (English; 3/5)

Task group 2

9	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.	
(9a)	Task 9 is repeated if Google is selected as the comparison shopping engine. (If Google is selected again, go to next task/question.)	
10	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.	
(10a)	Task 10 is repeated if Google is selected as the online map service. (If Google is selected again, go to next task/question.)	

Post-test questionnaire

11	Please recall for a moment the tasks which you have completed. Which of the following labels and/or content on the results page did you notice when completing the tasks?	Response choices (multiple responses possible — choices are randomized): 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 = I didn't see any of the listed content items.
12	Which of the following icons did you see when completing the tasks?	Response choices (multiple responses possible — choices are randomized): 1 = 2 = 3 = 4 =	5 = 6 = 7 = 8 = None of the icons listed

Demographic data

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

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

Vorbefragung

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

Appendix 3: Complete questionnaire (German; 2/5)

Aufgabenblock 1

5	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?	
6	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?	
7	Sie wollen sich zu aktuellen Nachrichten zum amtierenden US-amerikanischer Präsidenten Obama informieren. Eine Suche bei Google hat zu den folgenden Ergebnissen geführt. Wo würden Sie spontan drauf klicken?	
8	Sie möchten Bilder zu Fröschen finden. Die Suche bei Google liefert dazu folgende Treffer. Wo würden Sie spontan drauf klicken?	

Appendix 3: Complete questionnaire (German; 3/5)

Aufgabenblock 2

9	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.	
(9a)	Wiederholung von Aufgabe 9, wenn Google als Vergleichssuchmaschine gewählt wurde. (Wird erneut Google ausgewählt, zur nächsten Aufgabe/ Frage wechseln.)	
10	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.	
(10a)	Wiederholung von Aufgabe 10, wenn dort Google Maps als Kartendienst ausgewählt wurde. (Wird erneut Google ausgewählt, zur nächsten Aufgabe/ Frage wechseln.)	

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

Nachbefragung

11	Denken Sie noch einmal an die Aufgaben, die Sie bearbeitet haben. Welche der folgenden Kennzeichnungen und / oder Inhalte auf den Ergebnisseiten sind Ihnen bei der Bearbeitung der Aufgaben aufgefallen?	Antwortmöglichkeiten (Mehrfachnennung möglich; Antwortmöglichkeiten randomisiert): 1 = Anzeigen 2 = Bezahlte Ergebnisse 3 = Sponsored Links 4 = Bilder zu 5 = Google Maps Suche 6 = Videos zu	7 = News zu 8 = Google Shopping-Ergebnisse für 9 = Alle Treffer anzeigen 10 = Ähnliche Suchen 11 = Familienfilter 12 = Ich habe keinen der aufgezählten Inhalte gesehen.
12	Welche der folgenden Symbole haben Sie bei der Bearbeitung der Aufgaben gesehen?	Antwortmöglichkeiten (Mehrfachnennung möglich; Antwortmöglichkeiten randomisieren): 1 = 2 = 3 = 4 =	5 = 6 = 7 = 8 = Keines der aufgeführten Symbole

Demographische Daten

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