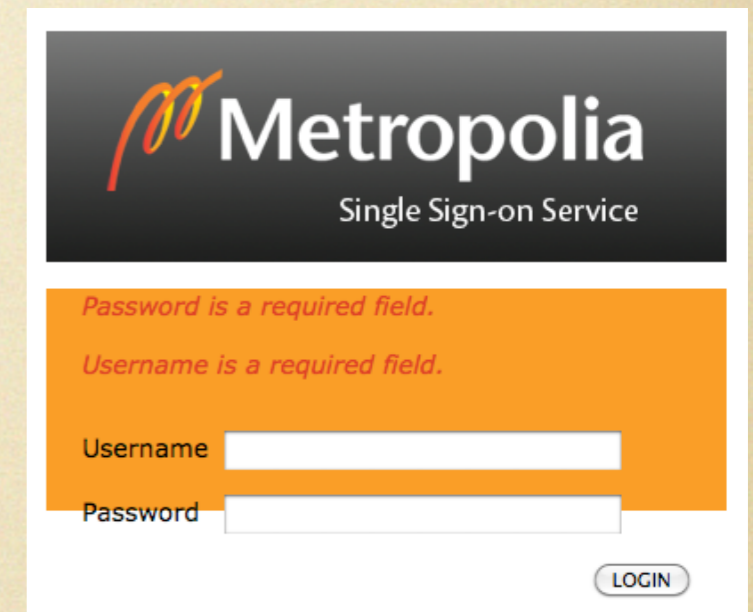
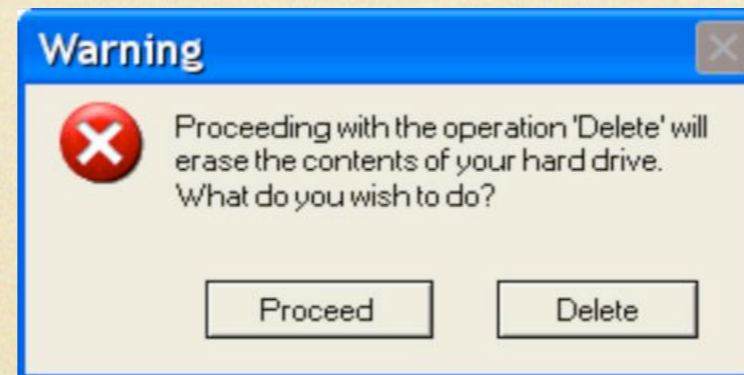


Errors and web design!



The Metropolia Single Sign-on Service login form. It has a dark grey header with the Metropolia logo and the text "Metropolia Single Sign-on Service". Below the header, there are two red error messages: "Password is a required field." and "Username is a required field.". There are two input fields: "Username" and "Password". At the bottom right, there is a "LOGIN" button.

People make mistakes!



What do people think?



User

Is this my fault?

Am I doing this wrong?

Am I not smart enough?

Feels stupid, embarrassed, loses confidence = stops using your site / app

What do people think?



Developer

You didn't watch the road!
(use software correctly)

You're just too dumb!

Problem with our logic?

- We need to handle errors **before** and **after** they occur
- The best way to handle errors is to prevent them from ever occurring

Poka-yoke

ポカヨケ

Is a Japanese term that means
"error-proofing" or "mistake-proofing".

Its purpose is to **prevent, correct** or
draw attention to errors as they occur.

Poka-yoke

ポカヨケ

- Prevention (control) devices

Overflow prevented!



Poka-yoke

ポカヨケ

- Detection (warning) devices

Can't prevent fire!
But I can detect and notify it!



Poka-yoke and web design?

- Inline validation
- Error messages
- Errors into opportunities
- Auto-complete
- Mixed situation

Inline validation

What's happening?

This is a tweet! Now I have 93 characters left!

93 Tweet

Prevention device!

Inline validation

The image shows the Twitter sign-up page with the following elements:

- Twitter logo** in the top left corner.
- Join the Conversation** header.
- [Already on Twitter? Sign in.](#) link in the top right.
- [Already use Twitter on your phone? Finish signup now.](#)
- Full name** field: A text input box with a grey rounded button to its right containing the text "enter your first and last name". Below the input box is the text "Your full name will appear on your public profile".
- Username** field: A text input box with the text "Your public profile: http://twitter.com/ USERNAME" below it.
- Password** field: A text input box.
- Email** field: A text input box with a checked checkbox and the text "Let others find me by my email address" below it, and "Note: Email will not be publicly displayed" below that.
- Terms of Service** section: A scrollable area with the text "Terms of Service" and "These Terms of Service ('Terms') govern your access to and use of the services and Twitter's websites (the 'Services'), and any information, text, graphics, or other materials uploaded, downloaded or appearing on the Services (collectively referred to as the 'Services')".

Inline validation

twitter

Join the Conversation

Already on Twitter? [Sign in.](#)

Already use Twitter on your phone? [Finish signup now.](#)

Full name ✓ ok
Your full name will appear on your public profile

Username → pick a unique name on twitter.
Your public profile: [http://twitter.com/ USERNAME](http://twitter.com/USERNAME)

Password

Email

Let others find me by my email address
Note: Email will not be publicly displayed

Terms of Service [Printable version](#)

Terms of Service
These Terms of Service ("Terms") govern your access to and use of the services and Twitter's websites (the "Services"), and any information, text, graphics, or other materials uploaded, downloaded or appearing on the Services (collectively referred

Inline validation

twitter

Join the Conversation

Already on Twitter? [Sign in.](#)

Already use Twitter on your phone? [Finish signup now.](#)

Full name ✓ ok
Your full name will appear on your public profile

Username can't be blank
Your public profile: [http://twitter.com/ USERNAME](http://twitter.com/USERNAME)

Password

Email can't be blank

Let others find me by my email address
Note: Email will not be publicly displayed

Terms of Service [Printable version](#)

Terms of Service
These Terms of Service ("Terms") govern your access to and use of the services and Twitter's websites (the "Services"), and any information, text, graphics, or other materials uploaded, downloaded or appearing on the Services (collectively referred

Inline validation

WRONG!

Welcome! [English \(US\)](#) ▼

Already a member? [Login](#).



[Home](#)


[Sign Up \(Free!\)](#)

[Services](#)

[Blog](#)

[Help](#)

Sign Up

 [Sign up with your Google Account](#)

First Name

Last Name Last name is required

Username

Password

Confirm Password

Email Address

Which Looks Right 14/02/11 02/14/11

I have read and accept the [Terms of Use](#).

Boring error message

The image shows a screenshot of a Google search page. At the top left is the Google logo. Below it is a sidebar with navigation options: 'Kaikki', 'Kuvahaku', 'Videot', and 'Lisää'. Underneath is a location selector set to 'Helsinki' with a link to 'Muuta sijaintia'. Below that are links for 'kaikkialta internetistä suomenkielisiltä sivuilta', 'sivuilta maasta Suomi', 'Käännetyt vieraskieliset sivut', and 'Lisää...'. The main search area has a search bar containing the text 'Epäjärjestelmällistyttämättömyydellänsäkäänköhäänsä' and a 'Haku' button. Below the search bar is a link for 'Tarkennettu haku'. The search results section shows the message: 'Hakusi - Epäjärjestelmällistyttämättömyydellänsäkäänköhäänsä - ei vastaa yhtään sivua.' Below this, under the heading 'Ehdotuksia:', there is a list of three suggestions: 'Varmista, että kaikki sanat on kirjoitettu oikein.', 'Kokeile eri hakusanoja.', and 'Kokeile yleisempiä hakusanoja.' At the bottom of the page, there is another search bar with the same text and a 'Haku' button, followed by links for 'Hakuvihjeitä' and 'Anna palautetta'. At the very bottom, there are several footer links: 'Google Etusivu', 'Googlen mainontaratkaisut', 'Yritysratkaisut', 'Tietosuoja', and 'Tietoja Googlesta'.

Google

Epäjärjestelmällistyttämättömyydellänsäkäänköhäänsä

[Tarkennettu haku](#)

Hakusi - **Epäjärjestelmällistyttämättömyydellänsäkäänköhäänsä** - ei vastaa yhtään sivua.

Ehdotuksia:

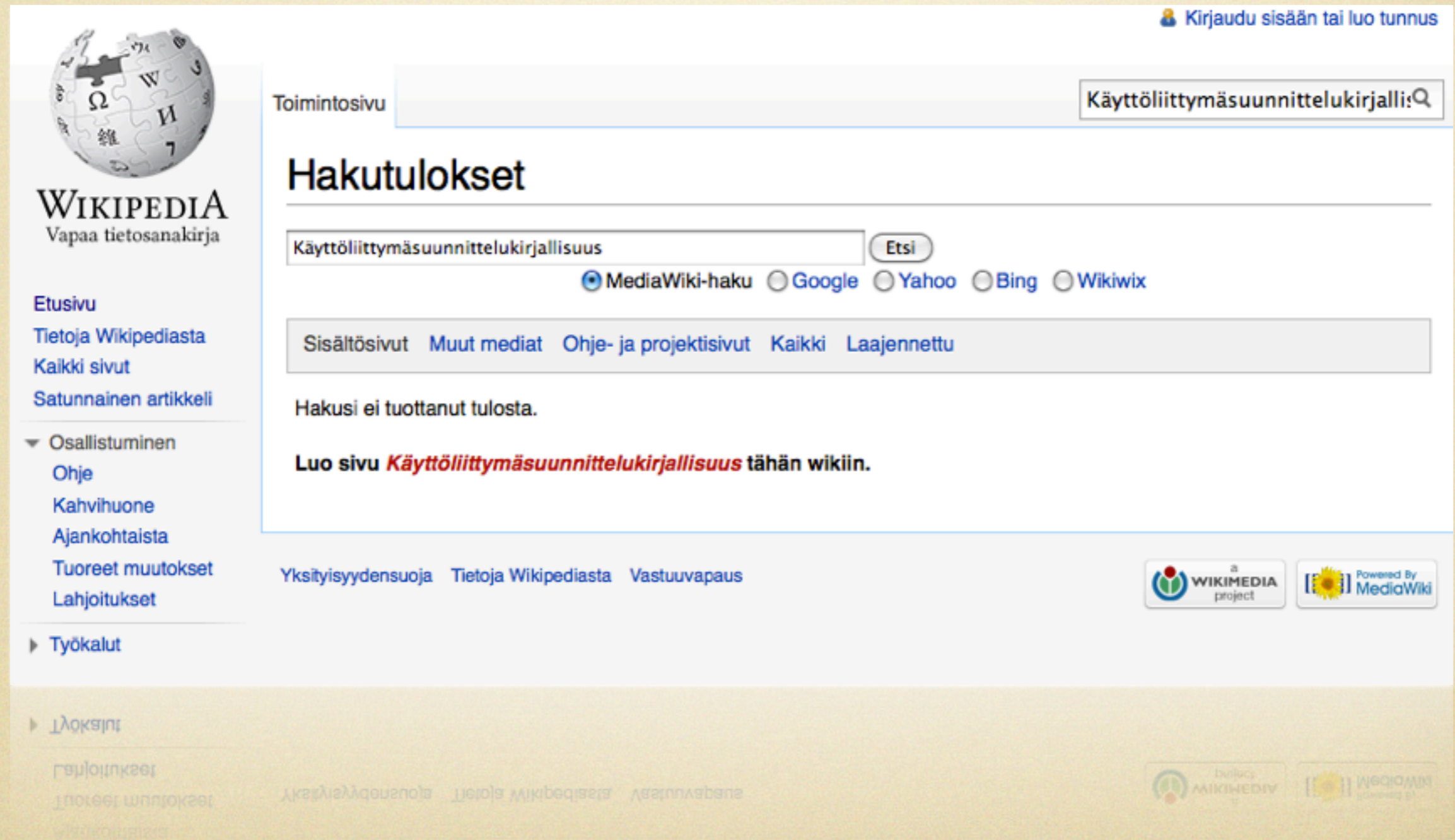
- Varmista, että kaikki sanat on kirjoitettu oikein.
- Kokeile eri hakusanoja.
- Kokeile yleisempiä hakusanoja.

Epäjärjestelmällistyttämättömyydellänsäkäänköhäänsä

[Hakuvihjeitä](#) [Anna palautetta](#)

[Google Etusivu](#) [Googlen mainontaratkaisut](#) [Yritysratkaisut](#) [Tietosuoja](#) [Tietoja Googlesta](#)

Turn the error into advantage!



Kirjaudu sisään tai luo tunnus

Toimintosivu

Hakutulokset



MediaWiki-haku Google Yahoo Bing Wikiwix

[Sisältösivut](#) [Muut mediat](#) [Ohje- ja projektisivut](#) [Kaikki](#) [Laajennettu](#)

Hakusi ei tuottanut tulosta.

Luo sivu *Käyttöliittymäsuunnittelukirjallisuus* tähän wikiin.

[Yksityisyydensuoja](#) [Tietoja Wikipediasta](#) [Vastuuvapaus](#)

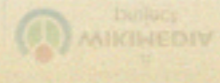
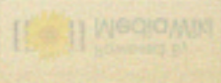
[Etusivu](#)
[Tietoja Wikipediasta](#)
[Kaikki sivut](#)
[Satunnainen artikkeli](#)

▼ [Osallistuminen](#)
[Ohje](#)
[Kahvihuone](#)
[Ajankohtaista](#)
[Tuoreet muutokset](#)
[Lahjoitukset](#)

► [Työkalut](#)

► [Tulokset](#)

[Lahjoitukset](#) [Tietoja Wikipediasta](#) [Vastuuvapaus](#)

Turn the error into advantage!



Käyttöliittymäsuunnittelukirjallisuus



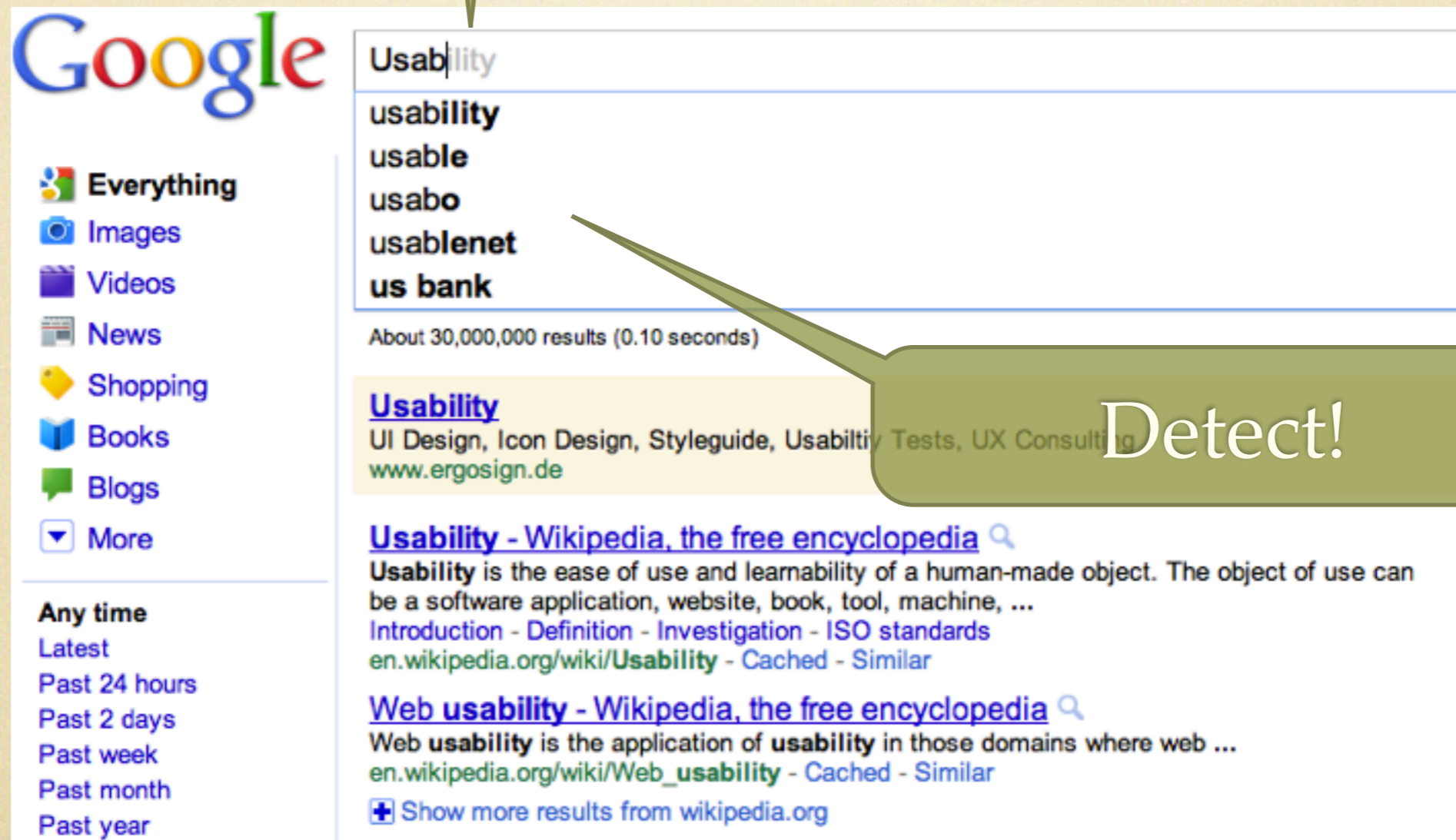
Congratulations! You are one of the **FIRST** to search for this topic in Squidoo. Why not be one of the first to **BUILD A LENS** on it?.

one of the first to BUILD A LENS on it?.

Congratulations! You are one of the FIRST to search for this topic in Squidoo. Why not be

Auto-complete + mixed situation

Prevent!



The image shows a Google search interface. The search bar contains the text "Usability". Below the search bar, a dropdown menu displays auto-complete suggestions: "usability", "usable", "usabo", "usablenet", and "us bank". A green callout bubble with the word "Prevent!" points to this dropdown menu. Below the suggestions, the search results are displayed. The first result is a link to "Usability" on the website "www.ergosign.de", with a description: "UI Design, Icon Design, Styleguide, Usability Tests, UX Consulting". A second green callout bubble with the word "Detect!" points to this result. Below this is a Wikipedia entry for "Usability", with a description: "Usability is the ease of use and learnability of a human-made object. The object of use can be a software application, website, book, tool, machine, ...". A third green callout bubble with the word "Detect!" points to the Wikipedia entry. The search results also include a link to "Web usability" on Wikipedia and a "Show more results from wikipedia.org" button.

Google

Everything
Images
Videos
News
Shopping
Books
Blogs
More

Any time
Latest
Past 24 hours
Past 2 days
Past week
Past month
Past year

Usability

usability
usable
usabo
usablenet
us bank

About 30,000,000 results (0.10 seconds)

[Usability](#)
UI Design, Icon Design, Styleguide, Usability Tests, UX Consulting
www.ergosign.de

[Usability - Wikipedia, the free encyclopedia](#)
Usability is the ease of use and learnability of a human-made object. The object of use can be a software application, website, book, tool, machine, ...
Introduction - Definition - Investigation - ISO standards
en.wikipedia.org/wiki/Usability - Cached - Similar

[Web usability - Wikipedia, the free encyclopedia](#)
Web usability is the application of usability in those domains where web ...
en.wikipedia.org/wiki/Web_usability - Cached - Similar

Show more results from wikipedia.org

Downside of Poka-yoke

- No one will ever realize how clever you were
- Users don't see the errors that **could have** happened.

Conclusion

Don't tell that the user has done something wrong!
(pop-up, error message, etc...)

Design the system in such way that the user **never** has a change to make a mistake!



