

An Evaluation of the Search Experience of 25 Norwegian Websites

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ABSTRACT

In this paper we describe the findings, conclusions and recommendations from an evaluation of what we label "the search experience" of 25 norwegian websites. The evaluation was conducted by WM-data User Experience between april and june 2004, and concludes that the website search experience of norwegian websites has a large potential for improvements. The evaluation was conducted by testing a number of search queries based on typical user scenarios for 5 sites in each of the following niches: governmental, municipal, online newspapers, ecommerce sites and company portals. The recommendations are divided in to three separate levels: First, websites should fullfill the minimum requirements for a search functionality. Second, they should emphazise offering recommendations and intelligent post-filtering of search results. And lastly, the should look at website search as a ongoing conversation between the website and the user, continually improving the search experience through mining the search log and building recommendations, synonym rings and taxonomies based on these findings.

Author Keywords

Search, evaluation, user experience, search experience.

ACM Classification Keywords

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION

WM-data User Experience (formerly the HCI and Design group of IconMedialab Norway) have previously conducted a set of extensive user tests of norwegian and european ecommerce sites, involving 125 test users from five different countries. During the course of these evaluations, as well as in a number of inter- and intranet projects for paying clients, we frequently find that a large amount of user problems has to do with the interaction with a website search engine. We therefore set out to try document the user experiences people have with website search engines. We labelled this part of the user experience the "search experience". Our hypothesis was that norwegian websites would score well belowe the standard set by international best practises in the field.

METHODOLOGY

The 25 websites in the evaluation was selectes as to be as representative as possible, yet at the same time possible to compare to each other. We evaluated 5 sites in each of the following niches: governmental, municipal, online newspapers, ecommerce sites and company portals. The evaluation was conducted by usability and design professionals in WM-data User Experience.

We used the following procedure in the evaluation:

First we defined a set of evaluation criterias, based on our our extensive experience in combination with similar evaluations and reports on search (see references 1-15). We have primarily used well-documented guidelines and research from recognised capacities in the field, and combined these with our own experiences. The result is a set of evaluation criterias which can be seen belowe.

Second we chose which websites to evaluate, trying to cover the largest possible specter of websites while maintaing the possibility to compare results within and between the different site segments. We strived to select the presumably best and most important websites within each category; for instance we chose all the municipal sites which had received the highest possible rating by the Quality Assurance investigation performed by Norway.no.

Thirdly we chose the relevant search expressions to use when evaluating. The queries was picked in order to be representative for the most important use scenarios for the different sites tested. For instance we searched for "bob dylan", "bob dyland" and "dylan love and theft" on the music shop Platekompaniet.no. For each site we chose (and tested) at least 6 relevant search expressions, 6 combined search expressions and 6 misspellings and synonyms. We only searched for products, articles and services that we knew would be present on the website.

Next we tested the chosen search queries on each website. We tried to only perform simple searches, avoiding advanced search as much as possible.

Lastly, we documented search results and other relevant parts of the search experience, and gave scores from -1 to +1 for each of the defined crtierias. The lowest score was given when the website didn't live up to our minimum

requirements for a search experiences. The highest score was defined as "international best practice".

Evaluation criterias

All of the evaluation criterias used can also be formulated as questions:

1. *Finding, understanding and performing search*: "Is it easy to find the search function, understand it and perform a search?". Sub-criterias included: Is the search field easily located and consistently placed throughout the website? Is the search field and search button presented intuitively? Is it possible to perform a search without having to make selections? Finne, forstå og utføre søkEr det enkelt å finne søkefunksjonen, forstå den og gjøre et søk?
2. *Search results*: "Are the search results precise, relevant and does the presentation make it easy to evaluate which results are relevant?" Sub-criterias included: Are the most important hits (as in answering the question in the user scenario) presented first? Are there redundant, outdated and/or trivial results? Are the result titles and descriptions relevant and well presented?
3. *Navigation, filtering and the way forward*: "Is it easy to 'get beyond' the search result, i.e. by getting more or fewer hits, sorting results, etc?"
4. *Combination of search criterias*: "Does the search function understand what I mean when I use combinations of several search word, and does it give me a more precise result?"
5. *Misspellings and synonyms*: "Does the search function understand what I mean even if misspell something or use an other word than the site owners?"
6. *No hits*: "Do I have start over when I get no hits, or do I get relevant help and tips to get to the results I want?"

FINDINGS

Our findings was by and large disappointing, suggesting that norwegian websites does not give sufficient attention to the search experience.

- All the 25 websites had at least to or more critical errors in their search experience that should be fixed immediately (rating -1 on to or more of the search criterias).
- None of the 25 reached an positive average score. +6 was the best possible score, our "test winner" CDON.no scored an average of 0.
- Results are more or less equally disappointing across the five different segments tested, all though municipal websites scored consequently worse than others.
- 11 of 25 have so to speak "invisible" search functionality, meaning that the search field is hidden either behind a text link or some arbitrary place below

all other navigation. Specialley online newspapers (except VG.no) hide their search functions well.

- 16 of 25 give their users consistently irrelevant, unprecise or very-hard-to-read results. Vague result titles, meaningless result descriptions and visual noise is abundant.
- Only 2 of 25 sites try to give their user recommendations for top search scenarios.
- 22 of 25 support neither synonyms nor misspellings. CDon.no is the only site offering both.
- 15 of 25 offer no help whatsoever when no hits are found. No one gives both polite, relevant and constructive help.

RECOMMENDATIONS

From our findings, it seems obvious that site owners need to take a different approach to search in order to leverage the results (both for the users and the company bottom line) one would expect from serious websites.

We recommend an approach similar to Maslows Needs pyramide, where the bottom requirements must be met before "climbing" upwards:

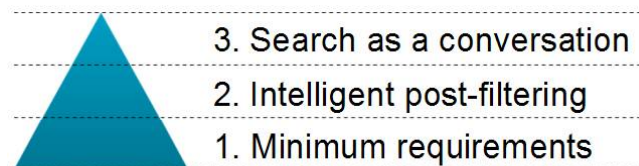


Fig 1: A needs pyramid for search experiences. Start at the bottom, and climb upwards as lower requirements are met

1. Minimum requirements

These include a.o.:

- A clear search field and -button on all pages
- Consequent use of page titles
- Navigation removed for search descriptions
- Redundant, outdated and trivial results removed
- Acceptable response time

If these minimum requirements are not met, we recommend seriously considering removing search from the site until fixed.

2. Intelligent post-filtering

When minimum requirements are met, site owners should concentrate on continously increasing the quality of search results:

- Avoid pre-filtering of results done by user; that is: make it easy to filter results after the search is executed if necessary.

- Provide a relevant categorization/grouping of many results.
- Provide means of sorting results, where needed.
- Make a sensible prioritization of results (i.e. date for news, popularity, number of hits, etc.).
- Give recommendations for prioritized search scenarios
- Support usual misspellings and synonyms within your domain.

Search as a conversation

Ideally, search should be experienced as a conversation between the user and the website. The answers given should try to match the ones one would get from an experienced librarian or salesman:

- The "answer" to users question should be given as often and as high on the result list as possible.
- Search results should provide relevant assistance, and feedback.

And last, but not least, search should give clear and relevant recommendations whenever possible.

CONCLUSION

We suspect focus so far has been squarely on the technological aspects of search, while we conclude that four factors should be given equal weight in order to provide better search experiences:

User focus

Site owners need to leverage their domain competence through search results, by working continuously with search logs in order to get to know their users and their needs.

Content focus

Site owners must gain control of their own content, by working with content quality and metadata bearing in mind how content bits will be presented in search results.

Organisation

The website organisation must work continuously with the search log and search results, seeing optimization of search as a continuous part of site maintenance.

Technology

Finally, the search engine technology and other systems must support the demand for supporting search log analysis, recommendations, synonyms, etc.

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