

Result of the OOP-Session: ,Bewerten und Entdecken von Patterns in E-Business Anwendungen' (Evaluating and Mining of Patterns in E- Business Applications)

Please find below the abstract of the session, for details (in German only) follow this [link](#):
E-Business applications are challenging for designer: They have to support the user, so she finds what she is looking for and furthermore they have to simplify the shopping process. In the first part of the session some patterns are presented, which deal with the domain of navigation. The second part of the session uses interactive techniques – pattern mining – for detecting and collecting more patterns in the domain of e-business applications. The main authors or rather the project leaders of the [E-Business Patterns Project](#) are [Gustavo Rossi](#) and [Fernando Lyardet](#).

This page has been set up to show the result of the pattern mining part, which lasts for 40 minutes only, but which is really impressive!!

Some of the mined patterns have already a name, a problem statement, forces and a partial solution. Others have e.g. the problem statement only. Some of the proto-patterns might hide a couple of patterns, other could be combined to a single one and again others might (after revising) not even be patterns. The proto-patterns are separated using ‘***’.

When translating I tried to clean up things a little bit without changing the original contents. Furthermore I couldn't resist to comment some things – please find my comments in italics. Names with a concluding question mark are the names I invented while translating. I tried to give each of the proto-patterns a name, because it's easier to refer to a specific one by name than by text only.

If the proto-pattern specifies an author, this means that these authors volunteered for revising this proto-pattern (leading it from a proto to a pattern without proto ;-)

Well and one last word: I didn't assemble this page with respect to the mined patterns. So the information might be overwhelming...

CORPORATE BROWSING

Problem:

Explore the web jointly with members of the helpdesk team

Forces:

- Is the technology already there?
- Will it be accepted?

SAME LOOK

Problem:

Different browser use different presentation styles. Or even worse the site doesn't work properly because e.g. Java Script isn't enabled, or Opera or Mozilla is used. Depending on the provider it's hard – if not impossible – to install the plug-in.

Forces:

- The site expects a specific screen resolution

Solution

Therefore use standard HTML only. It might also help to use the shockwave site.

OVERWHELMING INFORMATION?? (*better to rename it so it reflects the solution*)

Problem:

The menu structure is hard to follow and understand. There is much too much information per page.

REPRODUCING GENERIC URL?

Problem:

It is difficult to orientate yourself if the URL doesn't change in dynamically generated pages. This happens most often in portals (*context???*).

If you try to go to that page using a generic entry like a bookmark or using a search engine either this page isn't reachable, or the presentation of the page is incomplete because the context is missing.

Forces:

- Expectations of the user versus implementation effort

HONEST INFORMATION??

Problem:

The user mistrusts the provider: what kind of (secret) information is stored about the user? The user doesn't know what kind of information is stored in cookies or even worse on the server.

Forces:

- Because of bad experience the user stays suspicious. Even if the provider admits which information is stored, the user wouldn't believe it. (*This might even go to the discussion section, because it could happen that this pattern will not be able to resolve this*)

Solution:

Use "readable" cookies.

Provide a page about "Stored information about you".

REPEATABLE SEARCH?? (*name should reflect solution*)

AUTHOR: klug@fh-swf.de, www.dr-baumann.de

Problem:

The user wants to make repeatable searches, e.g. weekly search for open positions or real estates.

Forces:

- The user doesn't want to enter the search parameters for each search, because they don't change over time.
- The user doesn't want to make the search parameter persistent at an unknown place (→ relation to HONEST INFORMATION)
- Storing the search parameter might also contradict with existing data protection.
- Transparency (*I don't know what was meant with that??*)

Solution:

Store the information in a leaflet (bookmark?) using an artificial user name.
Independent provider provides a certificate for the shop, like a surrogate inspection
(*isn't this related to SUBJECTIVE ACCESS*, published by: Lyardet, Fernando und Rossi, Gustavo *Web Usability Patterns*. Proceedings der EuroPLoP 2001?)
A session, which runs automatically provides a privacy policy by only using a transient storage mechanism.
Include the search parameter as part of the URL and store the URL as a bookmark.

RESPECT HITCOUNTS?

Problem:

How can I find what I'm looking for? For example if the user wants to take a look at the price list of Atelco (www.atelco.de ??*not sure if the site is correct*) takes too long when following the starting page.

Forces:

- Shop versus Sell: Transparency in the sense of 'everybody can find everything' versus direct lead the user towards the target.

Solution:

Organize the sitemap with respect of the hit counts.
Provide a 'What's related' link for often accessed pages/contents.

Discussion:

Sitemap can change over time.
Isn't the whole thing related to URL AFFORDANCE, published by: Lyardet, Fernando und Rossi, Gustavo *Web Usability Patterns*. Proceedings der EuroPLoP 2001??

SEARCH REFINEMENT?

AUTHOR: dabbous@saxess.com

Problem:

A search often leads to a lot of un-relevant hits.

Solution:

Allow complex searches.
Investigate in your search strategy by using a rating after each search: 'Has this search been successful? Yes/No'
Allow to further filter and or refine the hits. (known use: www.n-tv.de)
Allow to classify the search domain by providing attributes to which the user can assign certain values.
Categorize the hit results further by providing folders with collections of hits, which are in turn partial results.

MEANINGFUL OVERVIEW?

AUTHOR: stefan.hammerer@ecosoft-gmbh.de, dabbous@saxess.com, klug@fh-swf.de

Problem:

How to provide a good overview of the domain, all pages over all categories? (→ *There was this picture on the flip chart, which looked like a hierarchical org chart, or rather a tree*)

Forces:

- A hierarchical (graphical) presentation is not useful for all kinds of information: domains, projects, organization of the site with the focus on the represented contents)

- Meaningful names versus compact presentation
- Dynamically generated leads to actual information (*I don't get this!?*)

Solution:

Provide a sitemap, which presents the whole contents on one page.

Provide different views for different groups of users (*this is related to CONTENT PERSONALIZATION*, published by: Rossi, Gustavo, Schwabe, Daniel, Danculovic, Juan, Miaton, Leonardo. *Patterns for Personalized Web Applications*. Proceedings of EuroPLoP 2001.). The site administrator will define the view, but allow the user to further refine it.

Provide an expandable navigation tree.

Combine navigation with search by using classification.

Provide further information by using tool tip (known use: www.osnabrueck.de)

It seems this one is related to the following COMBINE SEARCH AND NAVIGATION

COMBINE SEARCH AND NAVIGATION?

AUTHOR: dabbous@saxess.com

Problem:

Searching and navigating are separated. The result of a search is a collection of links, which doesn't help any further for a follow-up search.

This seems to be related to SEARCH REFINEMENT.

Solution:

Limit the follow-up search by the former search results.

Categorize the search results and instead of providing a list of links, provide new nodes for navigation.

Allow to search in a pre-defined domain (known uses: www.amazon.com, www.ibm.com, www.sun.com, ...)

Provide a link for "page/article" combined with the associated domain (navigation/entry page) (*not sure if I understand that*)

FOCUSED INFORMATION? (*actually this pattern name is stolen from the related pattern, see below*)

Problem:

How to provide the maximum information about the products without overwhelming the user?

Forces:

- Provide as much information or rather entry points to my products as possible.
- Providing all information about the products uses too much space, providing links to more detailed information means more navigation and could still be overwhelming.
- The user shouldn't be overwhelmed or even worse annoyed by the amount of information

Solution:

Magical number seven: Humans can easily deal with 7 +/- 2 information points

Provide the information only at one place in the shop (*you might want to compare this to the DRY-principle: Don't Repeat Yourself, which is further explained in the Pragmatic Programmer by Dave Thomas and Andy Hunt*)

This pattern seems to be related to FOCUSED INFORMATION written by Andreas Rueping, published in the Proceedings of EuroPLoP '98, by UKV Konstanz, 1999, p. 291.

TESTIMONIAL?

AUTHOR: kontakt@tim-wellhausen.de

Problem:

How to convey a feel of the product, so the user knows how it looks (shape, color, size, etc), what its nature is and what kind of quality it provides?

Forces:

- No way of providing neither a sense of smell nor of touch via the internet.

Solution:

Use 3-D model.

Use a car configurator (*what's that?? Please explain*)

Provide the possibility of a detailed view of the product.

Provide a link to – if possible: independent – testimonials (consumer survey, (quality-) testing organizations)

Present testimonials of your customers.

LET ME REMEMBER?

Problem:

I have been around a couple of days ago, but where has this interesting thing disappeared to? (related to REPEATABLE SEARCH and URL AFFORDANCE, published by: Lyardet, Fernando und Rossi, Gustavo *Web Usability Patterns*. Proceedings der EuroPLOP 2001.)

Solution:

Provide a search functionality if possible by respecting SEARCH REFINEMENT and RESPECT HITCOUNTS.

Provide a site-map.

Provide an index like it is known in books.

TRUST MY ANSWER?

Problem:

The server annoys the user with repetitive dialogs. For example the server asks if you want to install a cookie and although you deny the server doesn't stop asking.

BROWSER or RESPECT CONFIGURATION?

Problem:

The site requires a specific browser configuration (flash, java script), but the user doesn't want to activate these things.

(This is related to SAME LOOK and HONEST INFORMATION)

Solution:

Allow different views.

KNOWLEDGE WEB?

AUTHOR: kontakt@tim-wellhausen.de

Problem:

The user can't navigate to all pages using the menu. She has to navigate through different (un-interesting) pages.

Solution:

Provide a dynamically generated site-map (tree view).

Connect the pages using relation (knowledge web)

RE-ESTABLISHING A SESSION?

Problem:

Invalid session after a timeout of the internet connection.

Solution:

Use cookies.

Rewrite the URL if you don't want to use a cookie.

Discussion:

The browser configuration might not support cookies.

URL-rewrite might require a lot of effort if the page is dynamically generated and the URL doesn't respect URL AFFORDANCE, published by: Lyardet, Fernando und Rossi, Gustavo *Web Usability Patterns*. Proceedings der EuroPLoP 2001.

CUSTOMIZED NAVIGATION?

AUTHOR: klug@fh-swf.de, andreas.schoerk@infor.de

Problem:

The site requires too many clicks to work even on routine tasks.

FORCES:

- Some users want to work on a single article while others have to work on a whole group of articles.
- Drag and drop as well as allowing the user to working via tables are difficult to implement.

Solution:

Provide short cuts for functions, which are often used.

Provide a customized user interface.

Provide a customized history function.

This is related or even the same as either LINK PERSONALIZATION or CONTENT PERSONALIZATION, both are published by: Rossi, Gustavo, Schwabe, Daniel, Danculovic, Juan, Miaton, Leonardo. *Patterns for Personalized Web Applications*. Proceedings of EuroPLoP 2001.

ACTUAL SHOPPING BASKET?

Solution:

Provide a shopping basket in a separate always-visible window, which reflects always the actual status of the purchase.

SURROGATE?

Problem:

The user wants to send a representative in the shop. So the surrogate or proxy should be allowed to act as if she would be the original user.

Solution:

Implement an administrator for the user.

Provide groups of users.

LEGAL ACCEPTANCE?

Problem:

Accept legally valid signed forms. (SigG)

MICROPAYMENT

Problem:

How to efficiently pay small amounts of money.

Solution:

Allow using TAN-numbers via a 0190- phone number.

Use an economy information office like Alleco and withdraw the amount via the phone bill.

Consequences:

No transparent interaction anymore, because the user has to switch from the internet to the phone.

CORE INFORMATION? (added by Hans Haller Baggesen)

Problem:

The menu structure is hard to follow and understand. There is much too much information per page.

Problem domain:

A Simple system gone Chaotic -*System in this context is not the just computer/software system but the whole system/organisation were the information was generated in - software and humans alike. It seems very unlikely, to me, that that the root cause is the menu structure and the information per page (it got there some how :))

Solution:

Act: Delete information until it makes sense.

Then Sense & Respond to the system feedback.