

Information Architecture Research

Why and when

Many web sites have an information architecture (IA) based on an 'organisational' view of the site's content that does not reflect how users go about achieving their goals. Having a user-centred structure for a site IA (i.e. how user goals are chunked into a hierarchy), and having labels that are understood by users, is key to getting users to their goals quickly and providing a good user experience. The best way to develop a usable IA is to involve users in its development.

IA research is ideally done at an early stage of web site development, after the user goals the site is to support have been established but before any work on site design and layout; however, existing sites with a poor IA also benefit from this type of research.

Our approach

The approach we adopt offers a combination of both quantitative and qualitative research, using quantitative research to understand the closeness of the relationship between user goals, and qualitative research to gain insights into user behaviour and the language used.

We tend to use open rather than closed card sorting (i.e. with open card sorting users choose the labels for categories rather than putting them under predefined headings) as this does not prejudice the language they will use.

How we do it

IA development is in two parts:

- **Developing a prototype** – this involves understanding how users 'chunk' tasks and the labels users give to these chunks, so that a prototype IA can be drawn up

- **Testing a prototype** – testing the prototype with users

Developing an IA prototype

In order to develop the prototype it is necessary to understand how users group tasks i.e. how they 'chunk' them and what labels they give to these groups. This research is undertaken by writing all the various user goals that the site is to support onto individual cards and getting potential site users to sort these into groups. This clearly requires the user goals the site is to support be identified in detail, often there are 50-100 or more supported user goals. This may require user research to identify these goals if they are not understood. It also requires a clear site strategy so the user goals to be supported (and not supported) are clear.

During this sorting process, a WUP moderator probes to understand why the tester is sorting the tasks in a particular way, and what labels they would attach to the various groups. An initial top level sort may be followed by sorting each group in turn into sub groups.

This work can be conducted in two ways:

- Qualitatively
- Quantitatively

Qualitative Prototype IA Development

The process adopted in qualitative IA development augments some existing understanding of how users chunk and label their goals. It is a relatively low cost way to gain some additional insight into user's behaviour and uses a limited number of respondents (e.g. 6). The client is, necessarily, an active participant in the IA development process. The research is conducted as follows:

- The research is typically conducted at our premises and takes place over one day. The session is attended by 2-3 client

- personnel.
- Prior to the test day, WUP would agree a set of user goals with the client to be used in the research. Sets of cards listing the user goals would be prepared
 - WUP recruits the respondents – profiles of which would be agreed with the client
 - The research is split into two parts: user testing in the morning and consideration of the results in the afternoon to draw up the draft IA
 - Each respondent participates in the research session for c. 50 minutes individually
 - The respondent would be asked to group the goals; the moderator explores with the respondents their reasons for placing goals in the various categories, to suggest names for the groups and explore respondents' confidence of the 'fit' of goals under these headings
 - In the afternoon of the research day, the results of card sorting are reviewed and WUP facilitates and contributes to a discussion to produce a draft IA
 - Subsequently, a detailed first draft information architecture is produced in HTML or paper format for further testing
 - A report is produced that summarises the research, analysis and detailing the prototype IA

Quantitative IA Prototype Development

A more comprehensive approach to IA prototype development involves larger numbers of respondents so that the outputs of a card sorting exercise (as described above) can be subject to cluster analysis to identify the closeness of the relationships of the groups into which respondents sort the goals. The research is conducted as for the qualitative IA prototype development but:

- Typically 12-15 people are used in the research (or possibly more) depending on the number of target users for the site
- Following the user research, WUP analyses the results. This includes cluster analysis to determine the closeness of the user goals as chunked by the different users.

- The results of the research are presented at a workshop of client stakeholders where selected parts of the research sessions are reviewed on video; the outputs of the analysis presented; and a discussion facilitated to produce a draft IA
- A report is produced that summarises the research and analysis and details the prototype IA

Testing the Prototype

The prototype is ideally tested and refined through a series of research sessions with representative target users. Two or three iterations of user research are normally ideal. The research is conducted as follows:

- Each research session is typically conducted at our premises and takes place over one day. The session is attended by 2-3 client personnel.
- The research is split into two parts: user testing in the morning and consideration of the results in the afternoon to refine the prototype IA
- Prior to the test day, WUP agrees a set of user goals with the client to be used in the research – normally the same goals as used for the prototype development
- WUP recruits the testers – profiles of which are agreed with the client
- WUP prepares a simple HTML representation of the prototype IA to be used in the research session based on the outcomes of the prototype development research
- Each tester tests the prototype for c. 40 minutes individually.
- The testers are asked "Where would they click" to achieve each goal through as many levels as there are in the prototype IA. The results are recorded on a template.
- On the same day, following the user testing, WUP facilitates and contribute to a discussion to produce a revised prototype information architecture for the next round of testing
- A report is produced summarising the research, analysis and detailing the

revised prototype IA

While we are happy to undertake as many iterations of testing of the prototype IA as may be required, we also offer a training service so that clients can undertake some of this research themselves. Typically, we run a single iteration and, during this, train a member of the client's staff in the required facilitation skills and other techniques so they can undertake any additional research sessions.

Outputs

The output of the research is an information architecture for the site, which is detailed in a series of reports:

- Following the development of the prototype – including videos of the card sorting exercise
- Following each iteration of prototype testing – including videos of each of the test sessions showing the screen being viewed, tester head shot, and the audio of the session

Client examples

Examples of IA research we have undertaken include:

Client	Project	Date
Houses of Parliament	Card sorting research and IA prototype testing 36 respondents	April 2006
Natural Environment Research Council	Card sorting research and IA prototype testing with 15 respondents	November 2005
Medical Research Council	Card sorting research and IA prototype testing with 15 respondents	September 2005
Home Office	Card sorting research and IA prototype testing with 24 respondents	September 2004

Fees

Most of our work is tailored to individual client's requirements and we quote an inclusive price each piece of work. However, the following gives an illustration of typical costs:

- Qualitative Prototype IA Development (6 testers) - £4,950
- Quantitative IA Prototype Development (12 testers) - £7,950
- Prototype testing (each session) (6 testers) - £4,950