This project guide outlines the process for undertaking card sorting: a quick, simple, and cost-effective technique used as input into designing the structure of a site. It provides guidelines on when to undertake card sorting, how to prepare for it, how to analyse the results, resources and time required, and the steps involved.

About card sorting

Card sorting is a technique used to gain input into the design of the structure of an intranet. It is quick, simple and cost-effective, and is one way to involve users in the design process.

In a card sorting session:

- A group of staff are brought together for a card sorting session
- They are provided with a pile of cards, each labelled with a piece of content or functionality that might be included on the site
- They are asked to group the cards into piles that make sense to them
- Once the piles have been determined, they create a label for each pile
- The groups and labels are used by the intranet team as an input into the site structure. They generate suggestions for the intranet's information architecture, as well as ideas for navigation, menus and possible metadata.

When to use

Card sorting is a valuable technique when faced with a large list of intranet content and functionality that needs to be organised into a high-level information architecture.

It can also be used to structure a new section of the intranet or restructure an existing section.

Use card sorting when:

- The top level categories for the intranet's information architecture need to be identified
- The information architecture for individual sections of the intranet need to be created
- There is a need to identify alternative ways of structuring information
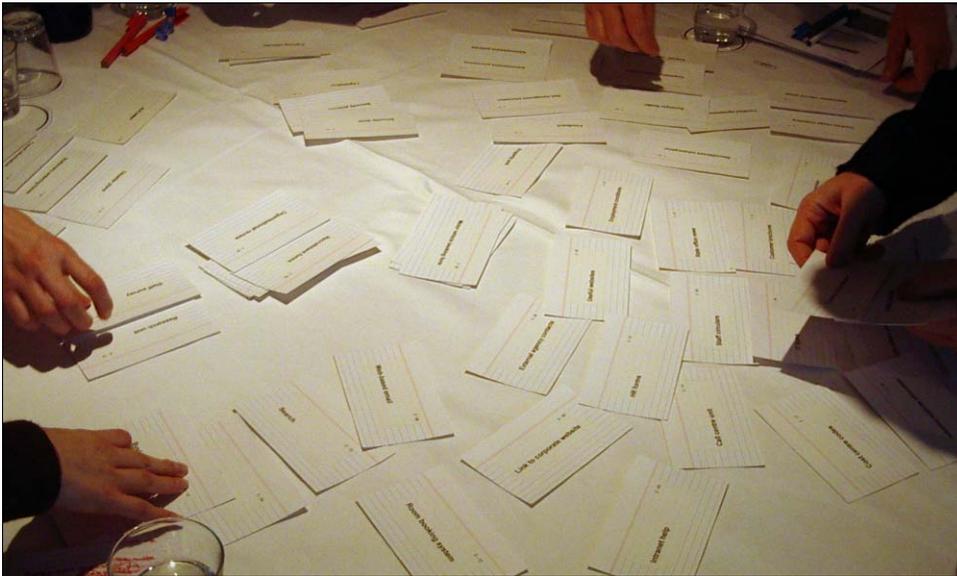
Figure 1: A card sorting session underway

- There are a number of ways to organise the information architecture (such as by subject, process or business group) and previous analysis has failed to shed light on the best approach

- There is a lack of agreement amongst intranet team members or project stakeholders about the best way to structure the information architecture, including names of groups and labels

- There are a number of very distinct staff groups within the organisation, and no analysis has been conducted to uncover differences in the ways the groups approach information

- There is a need to demonstrate to a particular group of staff or stakeholders, such as intranet authors, that users think differently and there are many ways to group content

Card sorting is only one input into the design of an intranet's information architecture, and by no means produces a final structure. It should not be used as the only user-centred design technique, and is best supplemented with other techniques. See *Related techniques* (page 3).

Key strengths

Using card sorting provides a number of key benefits:

- Card sorting is simple and easily understood. It can be explained to participants in a matter of minutes.
- Card sorting is quick and cheap to run. Several card sorts can be performed in a short period of time, involving a significant number of users, and providing a large number of ideas about the structure of the intranet.
- Card sorting involves users in the design process, and demonstrates that the intranet will be created with their needs in mind.
- Card sorting provides insight into natural groupings of content and functionality.
- Card sorting provides an opportunity to market the intranet, increase user enthusiasm, and reduce resistance to change when the new intranet is implemented.
- Card sorting provides an avenue to communicate to staff information about the timetable and scope of the intranet project.

Related techniques

Card sorting is only one input into a user-centred design process. It is best teamed with the results of other analysis, design and evaluation techniques, such as:

- Task analysis

  Card sorting is a content-centric technique and does not consider the tasks users will conduct on the intranet. Without some form of task analysis, the project runs the risk of developing an information structure that is unusable when real tasks are attempted.

- Scenarios

  Scenarios communicate user tasks and can be used to guide the analysis of card sorting results.

- Card based classification evaluation

  If an information architecture is primarily decided from the results of card sorting, it is best validated through a task-based evaluation technique, such as card based classification evaluation.

- Usability testing

  Usability testing is another task-based evaluation technique, that can be used to validate an information architecture based on the results of card sorting.

Important note

Card sorting does not replace analysis into the information needs of the organisation and its users. Card sorting is effective when it follows on from needs analysis techniques, such as:

- Contextual enquiry
- Staff interviews
- Task analysis

Pre-requisites

Before using this technique, the following activities need to be conducted:

- Conduct needs analysis

  Needs analysis identifies the information needs of users. This can be used as an input to the card sorting sessions (as a list of required content and functionality), and can provide context when analysing card sorting results.

  Needs analysis also identifies the staff groups that will use the intranet, and therefore the type and number of participants required for the card sorting sessions.

- Develop content inventory

  If an existing intranet is being redesigned, an inventory of current content and functionality can be used to create the list of topics to be included in the card sort. It is important that the inventory is carefully examined to ensure that only the content and functionality needed by users (as determined by the needs analysis) is included in the card sorting.

- Identify required content

  If an intranet is being designed for the first time, the required content and functionality needs to be defined. This creates the list of topics to be included in the card sort.

Deliverables

The deliverables from this technique are:

- one or more possible information structures
- ideas about frequently used content and functionality
- ideas for labels
- feedback provided by users
- report summarising the card sorting approach and findings

For example deliverables, refer to *Samples* (page 21).

Resources required

Card sorting sessions

Card sorting is conducted in one or more sessions, with groups of representative users.

The staff resources needed include:

- a staff member to prepare materials for the sessions
- a staff member to facilitate the sessions
- end users to attend the sessions

Number of users

The number of users required will depend upon the number of distinct groups of staff that will use the intranet. However, patterns in groupings of content and functionality tend to emerge within five groups of users (approximately three users per group, making a total of 15 users).

Consider the following guidelines:

- If there is no real difference between users of the intranet, involve approximately five groups of users (15 users in total).
- If there are a number of distinct staff groups, aim to include approximately two to four groups of users for each distinct category (6–12 users per staff group)

  A single card sorting session must have at least three participants. Any less than this and there is insufficient discussion and opinions to come up with meaningful results.

Important note

It is critical that the session participants are actual end users of the intranet. There is little value in running the sessions with a group of senior project stakeholders (unless they are a distinct user group for the intranet), as their way of thinking is unlikely to reflect the day-to-day users of the intranet.

Example

It is important to involve a representative cross-section of staff within each organisation. In most larger organisations, that may mean running card sorting sessions for groups such as:

- customer service staff
- administrative staff
- managers
- corporate services staff
- field staff

specialist staff (such as clinical staff, engineers, researchers, etc)

Location

Card sorting sessions can be held in any quiet location where participants have enough room to spread out. The location needs a table to spread the cards out on and room to move around the table. A meeting room, conference room, training room or office is suitable.

Other resources

In addition to the resources listed above, this technique requires:

- index or filing cards sized about 76 x 127 mm (approximately 50–100 cards per group of users)
- pen or mailing labels to transfer content and functionality titles onto the cards

Analysis of results

Once the card sorting sessions have been completed, a staff member is required to document and analyse the results.

Time required

Card sorting is a rapid technique and appropriate when time is limited.

Table 1 shows the typical effort in person days, providing high and low estimates for each step. Note that these estimates are provided as a guideline only and will depend upon a range of factors, such as:

- number of distinct user groups and therefore the number of card sorting sessions to be conducted
- the amount of variation between the different card sorting results and therefore the amount of analysis required
- whether you are experienced in the card sorting technique

Step	Low estimate	High estimate
Prepare for sessions • create list of topics • create cards • select participants • prepare session materials	1.5 days	3 days
Run sessions Note: For the card sorting session itself, organise a two hour timeslot. This allows one hour to complete the card sort, as well as sufficient time to introduce the session and wrap up.	1 day	2 days
Analyse card sorting results	0.5 day	1 days
Write report	0.5 days	1 day
Totals	**3.5 days**	**7 days**

Table 1: Typical effort for card sorting (person days)

Undertaking card sorting

The major steps involved in undertaking a card sorting session include:

1. Create a list of topics
2. Create cards
3. Select participants
4. Prepare session materials
5. Run sessions
6. Analyse results
7. Write report

Each of these steps is described in the sections below.

1. Create a list of topics

The first step in planning a card sorting session is to determine the list of topics that will be placed on the cards. Each topic represents a piece of content or functionality that will be delivered as part of the new or redesigned intranet.

As explained in the section *Pre-requisites* (page 4), determine the list of topics from:

• results of needs analysis activities and techniques

• an inventory of existing intranet content and functionality

• future content and functionality requirements

In addition to these sources, topics can also be derived from existing documents and manuals, and from descriptions of business groups and processes.

Use as many sources as possible. This helps to create structures that work for current content and functionality as well as for future materials. Adding new items in the future should therefore require minimal rework if the structure is designed to cater for these items.

For tips on selecting topics, see "Creating a workable list of topics" on page 13

2. Create cards

Write each topic from the list on an index card (sometimes called a filing card) in clear and readable handwriting. Alternatively, print mailing labels that can be stuck onto the index cards. This is particularly useful if you need to create multiple sets of cards as it will save a lot of time writing.

Number each card uniquely. This helps to identify individual cards when analysing the results. Keep the numbers small so they do not distract users from the actual topic titles.

Have sufficient blank cards to add new topics identified during the sessions, as well as to write headings for groups.

3. Select participants

Decide on the number of participants required to attend the sessions. For guidelines, see *Resources required* (page 5). To ensure the results reflect actual user needs and ways of thinking, it is crucial that participants are, or will be, end users of the intranet.

Where there are a number of distinct staff groups, hold one session for each group. This allows the results to be compared across the different staff groups and identify similarities and differences in their requirements.

When inviting participants, tell them they will be performing a simple exercise to help design or redesign the intranet. Let them know there is no preparation required.

4. Prepare session materials

Gather together all the materials required for the card sorting sessions:

- sets of labelled cards
- sufficient blank cards for writing new topics and group headings
- thick marker pen for writing on cards
- rubber bands for bundling up the cards at the end of the sessions
- form to record participant names and job roles (you may not know in advance who is going to attend)
- notepad and pen for recording participants' verbal feedback

As participants frequently ask what is meant by certain topics, ensure the session facilitator understands each of the cards. Alternatively, have a person sitting in on the sessions who knows the subject matter well.

5. Run sessions

Allocate two hours for each session. This allows approximately an hour to complete the card sort, as well as sufficient time to introduce the session and wrap up.

Introduce the session

Introduce the session in the following way:

- Introduce yourself and the purpose of the session.
- Provide an overview of the project. Assume that users have been told nothing about the project, and start by discussing the overall goals and aims. Fill the users in on what will be delivered by the project, along with a realistic outline of the project timetable.
- Walk the users through the card sorting process and show them how each stage works.
- Highlight to the users that they should organise the cards in a way that makes sense to them. Ask them to forget everything they know about how the information is currently organised. This is their chance to structure the intranet to meet their needs.
- Where appropriate, take the opportunity to market the intranet. The more enthusiastic the users are, the lower the resistance to change once the intranet is implemented.

Sort the cards

Provide each group with a set of cards, and ask them to sort the cards into piles.

When the majority of cards are grouped, allow participants to create sub-groups under each heading (if appropriate). Ask them to write a short description of what the group includes (on an blank index card). A. This is an important part of the session, as the headings are candidates for menu items (or top level categories) on the intranet.

Take notes of important issues participants raise during the card sort. Briefly discuss issues as they arise, but be careful not to distract from the main task of sorting the cards.

Sorting the cards takes time, so allow enough time for participants to work through the cards. They may want to rearrange the cards more than once as well as change the headings for each pile of cards.

As participants sort the cards, they may notice gaps in the content. Provide additional cards and allow them to write content ideas to include in the groups.

Figure 2: Sorting the cards into groups

Wrap up the session

When all the cards have been sorted, and a general consensus has been reached, wrap up the session:

- If you have conducted other sessions and have done some preliminary analysis, discuss what other groups have come up with. Participants are usually interested in how the other group organised the cards, and this activity highlights the fact that different people think in different ways.

- Thank the participants for their involvement and highlight the importance of their efforts.

- Record the headings identified by the participants and the card numbers for each heading. The full card titles can be assigned to the headings during the analysis of the results.

- Bundle up the cards, taking care to keep the groups intact, and bind them together using rubber bands.

Figure 3: Labelling the groups

6. Analyse card sorting results

With the raw results from the card sorting sessions, decide how to present the outputs. Methods include:

- Present the information in a spreadsheet showing each content card and the label that each group assigned the card to. Although it may be a lot of information to assimilate, it clearly shows similarities and differences between the groups. See *Sample analysis spreadsheet for all groups* (page 22) for an example.

- Present the information in a table or spreadsheet, with the outcome from each group listed separately. While this is quick to create, it can be hard to gain a clear picture of the similarities and differences between each group. See *Sample analysis spreadsheet for individual groups* (page 21) for an example.

Analyse the outcomes from each group to identify important trends, such as:

- Have the participants grouped information by subject, process, business group or type of information?

- What are the consistently used labels?

- What are the key similarities and differences between the results from each group?

- How similar or different are the needs of users throughout the organisation? Are there common structures or categories across the different user groups?

Particularly take note of areas where there are significant differences. This may point to differences in the way the information is used, or the types of activities that the different user groups conduct. These differences will need to be taken into account when determining the information architecture.

Also look for any new user requirements identified by the card sorting activity that have not been uncovered by previous needs analysis techniques. This can be fed back into content and functionality requirements for the intranet. See *Applying the results* (page 19).

7. Write report

Gather together the results of the card sorting sessions and create a report. Include the following information:

- date of the sessions

- who participated in the sessions

- brief summary of the activities conducted

- analysis of the results

- any other comments or conclusions drawn

Ensure the report is self-contained and easy to read. Once it is complete, send it to a number of key groups:

- the manager of the project

- the managers of the participants

- the participants themselves

The participants are the most important audience for the report, and should be sent the feedback as soon as possible. If necessary, edit the report to remove any conclusions or comments that might cause an issue for the project.

Guidelines and suggestions

Creating a workable list of topics

When creating the list of topics to be transferred onto cards, there are a number of issues that need to be considered.

- Ensure the number of cards is manageable. Too few items and there is little scope for users to create sensible groups. Too many items, and the card sorting exercise can become daunting and confusing.

- Do not reflect existing intranet categories and structures in the topics. It is important not to 'pre-judge' the structure by including clues that will lead users back to the current way of arranging content and functionality.

- Do not use words such as *manual* and *guide* in the topic names. These reflect the current format of materials, not the actual content.

- Find the right level of detail in the list of topics. That is, how much information is encompassed by each item. A topic such as *human resources* is likely to be too broad, while *rate of leave accrual* is possibly too specific. As a general guide, each item on the list needs to be self-contained, cover one logical group of content and have the same level of granularity.

- Avoid including grouping terms, such as *company news,* as the whole purpose of the card sorting exercise is to get users to group the cards. By including headings in the list, users are encouraged to place cards under them, instead of identifying more natural groupings.

- Ensure the terms in the list are meaningful to the session participants. Ask a person knowledgable about the subject matter and working environment to check the list.

- If running a number of card sorting sessions with different user groups, revise the list between the sessions and change topics that did not make sense to users.

Ensure participants have a similar background

It is important to ensure that participants at a card sorting session are all drawn from roughly the same level or type of work within the organisation. For example, senior staff and more junior staff should not be involved in the same session, nor should IT and administrative staff. Having a similar background allows participants to work well together without pressure from some group members.

Consider index cards or Post-it® Notes

It is possible to do card sorting with Post-it® Notes instead of index cards. However, cards tend to be more durable, easier to handle, easier to move around the table, and easier to bundle up at the end of the sessions.

Maintain the energy during the session

A session typically has three phases:

- The card sorting starts slowly, as the participants become familiar with the process.
- In the middle of the session, progress tends to be rapid, as the 'easy' cards are grouped together.
- Towards the end, only the 'difficult' cards are left, and things slow down.

During each of these phases, it is important to facilitate the group's progress and maintain their energy and enthusiasm.

During the first phase, encourage users and remind them of how the session works. During the middle of the session, encourage discussion but avoid users getting side-tracked by issues. If participants get distracted, bring them back to the task at hand: sorting the cards.

As users struggle with the more difficult topics towards the end, help them complete the card sort. Strategies include:

- Allow a *to be determined* pile to be created.
- Where users are trying to decide between two locations for a card, get the group to create a spare card and put the card in two places.
- If the meaning of a card is unclear to everyone in the group, discard it.

Ensure all participants contribute

Whilst the card sorting exercise is in progress, ensure that all participants have an opportunity to contribute.

- If one participant tries to take over the card sort and starts making all the decisions, ask the other participants what their thoughts are on placing the next card. If one of the participants sits back and is not engaged in the process, ask them a question about the next card to be grouped.

Expect many different approaches to sorting

The approach taken to the card sorting will vary greatly between groups. Common group behaviours include:

- One person in the group volunteers to read each card, and to place it according to the consensus of the group.
- Each individual in the group conducts a 'mini card sorting' with a subset of the cards, and then an attempt is made to rationalise these into a single set of groups.
- Cards are spread out across the entire table, and a 'free for all' ensues whereby discussions within the group are used to create the groups.

These variations are normal, and shouldn't impact upon the outcome of the card sorting session.

Keep it friendly and fun

Keep the sessions light and casual, and avoid using acronyms, jargon or buzz words. This is a chance to show users that the project has a 'human face'. The card sorting can be fun and a good distraction from the day-to-day activities of the users.

Initial brainstorming

The card sorting session can start with an initial brainstorming of possible intranet content amongst the participants. These ideas are then written onto cards, and sorted with the prepared set of cards. This provides insight into the key information and resources used or considered important by the participants. As such, it can be used to conduct some further needs analysis as part of the card sorting session.

Identify home page links

During the card sort, ask participants to place to one side the cards they would like to access from the home page. This helps to identify commonly accessed content and functionality.

Allow cards to be renamed

If participants don't understand the label on a card, provide an explanation. If the group suggests that another name would make more sense, allow them to rename the card. This provides the team with valuable information about the terminology used by staff.

Allow cards to be discarded

If the group doesn't feel that a particular card is useful or relevant to the site, allow them to discard it from the card sorting. These cards should then be noted by the facilitator, and considered when determining the information architecture.

Note: participants should be discouraged from discarding cards too early in the process, and should not be allowed to discard card simply because they are 'hard to group'.

Use tasks to validate the card sort

If there is time left at the end of the session, conduct a brief validation of the categories using tasks.

Ask the users to:

• bundle up the piles of cards so only the top level categories are showing
• identify a small number of tasks they perform on a daily basis, or pieces of content they regularly look for
• walk through the structure to find the content or functionality to support the task

As this can highlight weaknesses with the structure, allow time for the group to make minor corrections to the card sort.

Variations on card sorting

Closed card sorting

A variation on this technique is to a closed card sorting session. This involves providing participants with pre-defined primary groups and asking them to place cards into these groups.

When to use

Use closed card sorting when:

- adding new content and functionality to an existing information structure

- there is a need to gain additional user feedback after conducting an open card sort.

Using the technique

Follow the steps outlined in *Undertaking card sorting* (page 8) with the following exceptions:

- Identify the primary categories that will be provided to participants. They may be existing categories on the intranet, or categories that arose from a previous open card sort.

- Create cards for the pre-defined categories.

- When introducing the card sorting session, explain that cards need to be grouped into the categories provided. At first encourage users to place each card within a category. However, after the session has been going for some time, allow participants to create a *to be determined* pile.

- During the analysis of results, look to see how well the pre-defined categories held up. Were most of the cards allocated to a category or did users place a large number of cards into the *to be determined* pile? If several card sorts were conducted, were similar cards placed within the same categories?

Card sorting with individual users

A variation on this technique is to conduct card sorting with individuals rather than groups of users.

When to use

Conduct card sorting with individual users when:

- it is difficult to get users together at the same time
- there is a need to involve particular users that are unable to attend the card sorting group sessions
- users are located remotely or in different locations

Although it is easier to schedule individuals than groups of participants, individual card sorts tend to provide less valuable results, with fewer similarities between sorts. This is because:

- individuals can find it difficult to sort large numbers of cards, and may rush the activity
- individuals may not consider the different ways to group the content, whilst groups tend to walk each other through options and questions about content and functionality

Using the technique

Follow the steps outlined in *Undertaking card sorting* (page 8) with the following exceptions:

- When conducting card sorting with individuals there is less opportunity to involve large numbers of users. To gain a reasonable sampling, aim for seven to 10 users.
- In place of facilitated sessions, develop instructions on how to complete the card sort and deliver the cards and the instructions to the participants. Once they have completed the card sort, ask them to bundle up the cards and send them back for analysis.

Card sorting software

There are a range of software tools that can be used to conduct the card sorting session or assist with analysis. The tools generally have three components:

- an administration tool for setting up the card sort
- a tool for participants to conduct the sort (or for the facilitator to enter outcomes from the sort)
- an analysis tool.

While there are a number of card sorting software tools, many of the tools are still immature and difficult to use. A list of tools is maintained on the IAwiki:

www.iawiki.net/CardSorting/

Cluster analysis

Many of the card sorting tools provide the ability to analyse the results using cluster analysis. This is a statistical technique that analyses how frequently two cards were put together by the different participants.

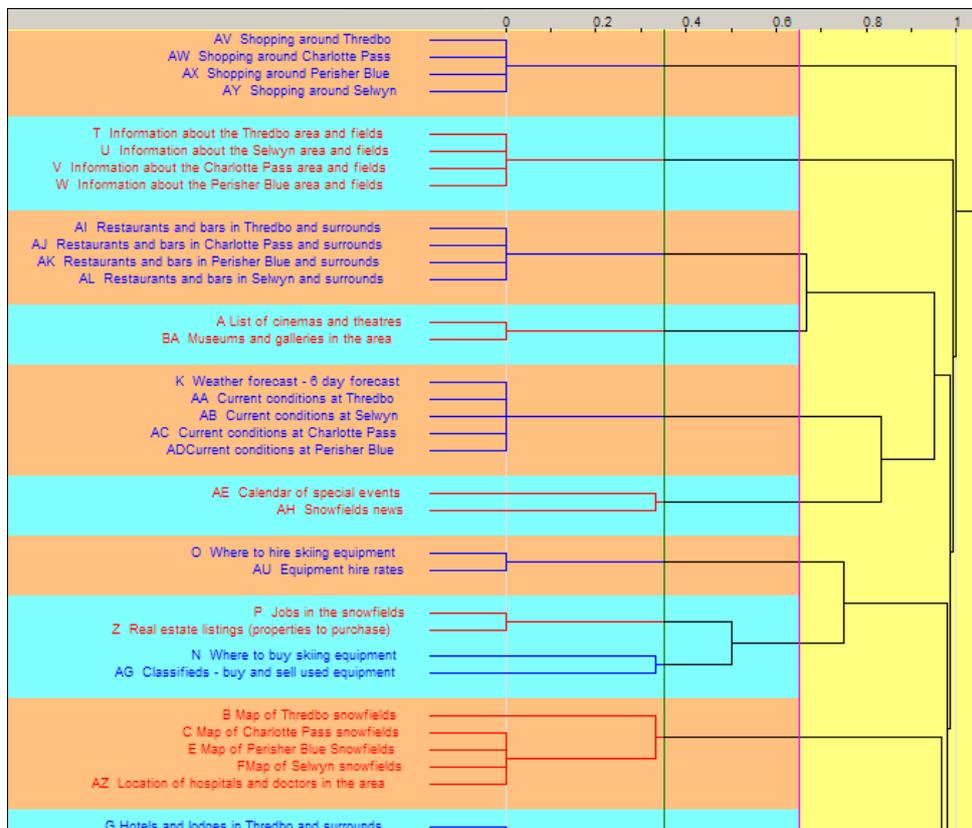The cluster analysis is represented as a hierarchical tree diagram showing similarity groups:

Figure 4: Sample cluster analysis diagram

Applying the results

The information structures developed with this technique are primarily used as input to the information architecture. The results help to:

- determine how the intranet is best organised, such as by subject, process, business group or information type
- identify top level categories for the intranet, including the categories to become navigation items
- identify how many top level categories are required and how deep the information architecture should go
- identify areas where users disagree about the groupings, to be further investigated through user-centred design and evaluation techniques

Case study

This case study is based on a card sorting exercise conducted as part of the information architecture and page layouts for a government department intranet.

Research conducted prior to the card sort

A number of activities had been conducted to learn about what staff needed from the intranet and how they used information in their work. This was achieved primarily via stakeholder interviews. Usage statistics from the existing intranet we also analysed, and an inventory completed of all content.

From this research, ideas were generated to improve the grouping of information. For some types of information (such as team details and department services), the team was confident that a sensible approach was already known. For other areas, more information was needed to create usable groupings.

As the goal was to focus on the areas where more information was needed, specific sections were we excluded from the card sorting, such as the team and department service information. This reduced the amount of content covered with the card sort. The content inventory was used, along with an understanding of information gaps, to identify 100 topics to include in the sort.

Conducting the card sorting sessions

The Department had three locations in the one city and offices in each State. In the main city, facilitated card sorts were run with five participants in each group. Each location was included to make sure that a wide range of staff were involved.

It took each group around an hour to sort 100 cards. The facilitator didn't get very involved in the exercise, instead they just listened to the discussions as the groups sorted, and answered any questions that they had. The discussions were very interesting and gave a better understanding of how the participants viewed the content.

As it wasn't possible get to the State offices within the project time frame, cards were sent in the post to individual participants, with instructions on how to complete the activity. Participants sent the cards back in the post when they had finished.

Analysing the results

To analyse the results, all the results were keyed into one spreadsheet with the card titles in the first column and results from each group in the other columns (for an example, see Figure 6 on page 22). This showed the groups participants put each card into, and made it easy to identify the similarities and differences between the groups.

The card sort showed which types of information were consistently grouped together. For example, almost all participants put travel information in an 'administration' category and budget information in a 'finance' category. Many people split administration information into personal (leave, conditions, etc) and business (travel, room bookings etc). The card sort showed that people used the label 'HR' more than they used 'personnel', and 'learning and development' more than 'training'. There was some information that participants grouped very differently – mostly content that they didn't use very often or did not understand.

Applying the results

The card sort results were not used directly to create the information architecture. Instead, they were combined with the other activities, and an understanding of the users and the Department. To make sure that the result was usable, the final information architecture was usability tested.

Samples

Sample analysis spreadsheet for individual groups

Figure 5 shows a spreadsheet with the card sort result from one group.

	A	B	C	D	E	F	G	H
1	Card sort results - Group 2							
2	HR	Locations	Admin	Strategic info	Committees	IT Projects	Finance	Library
3	Accident Reporting Forms	Accommodation Directory	Airline bookings	Annual Report 2002-2003	Budget Policy Committee	Changing Passwords	Debt Management Policy	Electronic Journals
4	After Hours Personal Safety	Learning Centre Location Map	Booking airfares	APS Code of Conduct	Budget Policy Committee	Installing non-standard software on your PC	Developing a Budget Strategy	Library Catalogue
5	Applying for Purchased Leave	Map showing locations	Claiming petty Cash	APS Values	Guidelines for the establishment of committees	IT Review Committee	Financial Regulations (CEI's)	Schedule for Library Training
6	Bereavement Guide		Corporate travel card	Certified Agreement	IT Review Committee	IT Security Policy		
7	Development Opportunities		Courier Runs	Financial Regulations (CEI's)		IT Systems Access Forms		
8	Employee Assistance Program		Creating Departmental Files	Orientation Guide		Reporting a problem with a printer		
9	Eyesight testing		File Creation Form	Service Charter		Using Email		
10	Filling out your time sheet		Lights and Minor Office Maintenance	Strategic Plan 2002-2005		Using the Electronic Calendar		
11	Flexible working arrangements		Meal allowances	Style Guide				
12	Flu Vaccination Information							

Figure 5: Sample analysis spreadsheet showing result from one group

Sample analysis spreadsheet for all groups

Figure 6 shows a spreadsheet with the card sort result for all groups.

	Number	Card	Group 1	Group 2	Group 3	Group 4	Group 5
1	Number	Card	Group 1	Group 2	Group 3	Group 4	Group 5
2	1	Accident Reporting Forms	HR	HR	Personnel	Health & wellbeing	OH&S
3	2	Accommodation Directory	Accommodation	Locations	General admin	Travel	Travel
4	3	After Hours Personal Safety	Property	HR	OH&S	Health & wellbeing	Security
5	4	Airline bookings	Travel	Admin	General admin	Travel	Travel
6	5	Annual Report 2002-2003	Departmental reports	Strategic info	Strategic	Reports & speeches	Publications
7	6	Applying for Purchased Leave	HR	HR	Personnel	Pay & conditions	Personnel
8	7	APS Code of Conduct	Legislation	Strategic info	Personnel	Department docs	Personnel
9	8	APS Values	Legislation	Strategic info	Personnel	Department docs	Personnel
10	9	Bereavement Guide	HR	HR	Personnel	Health & wellbeing	Personnel
11	10	Booking airfares	Travel	Admin	General admin	Travel	Travel
12	11	Budget Policy Committee	Committees	Committees	Financials	Groups and committee	Committees
13	12	Cabcharge Request Form	Travel	Admin	General admin	How To	Travel
14	13	Changing Passwords	IT	IT Projects	IT policy & guides	IT How To	IT
15	14	Claiming petty Cash	Travel	Admin	Financials	How To	Financial managemer
16	15	Corporate travel card	Travel	Admin	General admin	Travel	Travel
17	16	Courier Runs	Property	Admin	General admin	How To	Corporate
18	17	Creating Departmental Files	Records management	Admin	General admin	How To	Records managemen
19	18	Debt Management Policy	Policy	Finance	Financials	Docs/manuals	Financial managemer
20	19	Development Opportunities	L&D	HR	Personnel	Training	L&D
21	20	Electronic Journals	Library	Library	Library	Library	Library &Research
22	21	Employee Assistance Program	Diversity/equity	HR	Personnel	Health & wellbeing	Personnel

Figure 6: Sample analysis spreadsheet showing results from all groups

Further information

For more information on card sorting, refer to the resources listed below:

- **Card sorting: a definitive guide**

  www.boxesandarrows.com/archives/card_sorting_a_definitive_guide.php

  Good overview of open card sorting. Includes an excellent script for introducing the card sorting session.

- **Analyzing card sort results with a spreadsheet template**

  www.boxesandarrows.com/archives/ analyzing_card_sort_results_with_a_spreadsheet_template.php

  Explains how to quickly derive easily-read, quantitative results from a card sorting activity by entering data into a spreadsheet template.

- **Everything you've always wanted to know about card sorting**

  www.syntagm.co.uk/design/cardsort.pdf

  This article has good coverage of different ways to analyse card sorting data.

- **IA wiki**

  www.iawiki.net/CardSorting

  Lists a range of resources on card sorting, including articles and card sorting tools. This page is regularly updated as new information on card sorting becomes available.

Authors of this guide

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