boxesandarrows

Card sorting: a definitive guide

by Donna Spencer

April 7th, 2004 48 Comments

"Card sorting is a great, reliable, inexpensive method for finding patterns in how users would expect to find content or functionality."

Introduction

Card sorting is a technique that many information architects (and related professionals.) use as an input to the structure of a site or product. With so many of us using the technique, why would we need to write an article on it?

While card sorting is described in a few texts and a number of sites, most descriptions are brief. There is not a definitive article that describes the technique and its variants and explains the issues to watch out for. Given the number of questions posted to discussion groups, and discussions we have had at conferences, we thought it was time to get all of the issues in one place.

This article provides a detailed description of the basic technique, with some focus on using the technique for more complex sites. This article does not cover some issues such as the use of online tools, which will be covered in a future article.

Why

Card sorting is a quick, inexpensive, and reliable method, which serves as input into your information design process. Card sorting generates an overall structure for your information, as well as suggestions for navigation, menus, and possible taxonomies.

While card sorting might not provide you with final structure, it can help you answer many questions you will need to tackle throughout the information design phase. For example, more than likely there will be some areas that users disagree on regarding groupings or labels. In these cases, card sorting can help identify trends, such as:

> Do the users want to see the information grouped by subject, process, business group, or information type?
>
> How similar are the needs of the different user groups? >
>
> How different are their needs?
>
> How many potential main categories are there? (typically relates to navigation)
>
> What should those groups be called?

Card sorting can help answer these types of questions, making you better equipped to tackle the information design phase.

Definition

Card sorting is a user-centered design method for increasing a system's findability. The process involves sorting a series of cards, each labeled with a piece of content or functionality, into groups that make sense to users or participants.

According to *Information Architecture for the World Wide Web*, card sorting "can provide insight into users' mental models, illuminating the way that they often tacitly group, sort and label tasks and content within their own heads."

Card sorting is a great, reliable, inexpensive method for finding patterns in how users would expect to find content or functionality. Those patterns are often referred to as the users' mental model. By understanding the users' mental model, we can increase findability, which in turn makes the product easier to use.

Method

There are two primary methods for performing card sorts.

> **Open Card Sorting:** Participants are given cards showing site content with no pre-established groupings. They are asked to sort cards into groups that they feel are appropriate and then describe each group. Open card sorting is useful as input to information structures in new or existing sites and products.
>
> **Closed Card Sorting:** Participants are given cards showing site content with an established initial set of primary groups. Participants are asked to place cards into these pre-established primary groups. Closed card sorting is useful when adding new content to an existing structure, or for gaining additional feedback after an open card sort.

Closed card sorting will be detailed in a future article.

Advantages and disadvantages

As with any other method, card sorting has both advantages and disadvantages. Keeping these in mind will help you determine whether the technique is appropriate for your situation and make decisions about how you run the activity.

Advantages

> **Simple –** Card sorts are easy for the organizer and the participants.
>
> **Cheap –** Typically the cost is a stack of 3×5 index cards, sticky notes, a pen or printing labels, and your time.
>
> **Quick to execute –** You can perform several sorts in a short period of time, which provides you with a significant amount of data.
>
> **Established –** The technique has been used for over 10 years, by many designers.
>
> **Involves users –** Because the information structure suggested by a card sort is based on real user input, not the gut feeling or strong opinions of a designer, information architect, or key stakeholder, it should be easier to use.
>
> **Provides a good foundation –** It's not a silver bullet, but it does provide a good foundation for the structure of a site or product.

Disadvantages

Does not consider users' tasks – Card sorting is an inherently content-centric technique. If used without considering users' tasks, it may lead to an information structure that is not usable when users are attempting real tasks. An information needs analysis or task analysis is necessary to ensure that the content being sorted meets user needs and that the resulting information structure allows users to achieve tasks.

Results may vary –The card sort may provide fairly consistent results between participants, or may vary widely.

Analysis can be time consuming – The sorting is quick, but the analysis of the data can be difficult and time consuming, particularly if there is little consistency between participants.

May capture "surface" characteristics only – Participants may not consider what the content is about or how they would use it to complete a task and may just sort it by surface characteristics such as document types.

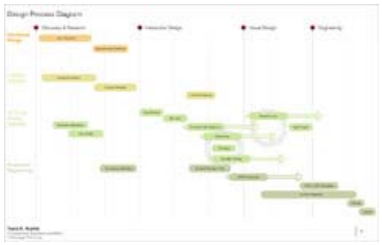
When should card sorting be used?

Card sorting is a user-centered, formative technique. It should be used as an input to:

designing a new site

designing a new area of a site

redesigning a site



Card sorting in the overall design process. Click to enlarge.

Card sorting is not an evaluation technique and will not tell you what is wrong with your current site.

Card sorting is not a silver bullet to create an information structure. It is one input in a user-centered design process and should complement other activities such as information needs analysis, task analysis, and continual usability evaluation. It is most effective once you have completed:

research into what users need out of the site

a content (functionality) audit/inventory (for an existing site) or detailed content list (for a new site). For an existing site, it is crucial that the content inventory is examined carefully to include only content that is needed by users.

Card sorting will provide benefit to most sites, but can be challenging to use against some sets of information. The table below summarizes when card sorting works well and provides good results, and when it is challenging both to run and to analyze.

	Easy	Challenging
Site size	Small	Large
Type of	Homogeneous (e.g., product	Heterogeneous (e.g., intranets,

content	catalogues, lists of services, directories of web sites)	government web sites)
Complexity of content	Participants understand most of the content	Complex or specialist content

Table 1.1

For sites with characteristics listed in the last column, card sorting will provide less direct input into the information structure; you may need to undertake a range of card sorts and more user-centered design activities.

Card sorting can be useful to demonstrate to people that others think differently. We have successfully included it as an exercise in workshops for web site and intranet authors.

Preparation

Preparing for a typical card sorting exercise requires the following:

1. Selecting content
2. Selecting participants
3. Preparing the cards

Selecting content

The first step in conducting a card sort is to determine the list of topics. This list should be drawn from a wide variety of sources:

existing online content

descriptions of business groups and processes

planned applications and processes

potential future content

By including potential future content it becomes possible to create a structure that not only works now, but also will work for future content and functionality. Adding new items in the future should require minimal rework if the structure is designed correctly.

Granularity and sampling content.

Content selected for the cards can be individual pages, functionality, small groups of pages, or whole sections of the site. Be consistent with your chosen granularity — participants will find it difficult to group content at different levels of granularity.

If you choose to use small groups of pages or sections of the site, ensure that the groups are of items that belong together. For example, don't include a grouping of "media releases," as this may not suit users and their tasks (they may prefer individual media releases to be grouped with other pages of similar topic.). Instead, include some individual media releases and see what participants do with them.

The content for the card sort should be representative of the site (or the part of site that you are investigating). It is important to ensure that the content has enough similarity to allow groupings to be formed. If the content chosen is too varied, participants will not be able to create natural groupings.

Selecting participants

Card sorting may be performed individually or in groups. Keep in mind that the exercise will be performed multiple times. So, if you're using individuals, try and get seven to ten for a good sampling. If you're using groups, our preferred method, five groups of three participants per group (a total of 15 participants) works best. Whether you choose to use individuals or groups, the most important aspect of selecting participants is that they come from and are representative of your user group. (If you have multiple user groups, it is important to include a representative sample from each, as they may view the information differently).

Scheduling individuals can be easier than scheduling groups of participants, especially if you have individuals located remotely. However, individuals can find it difficult to sort larger numbers of cards, providing less valuable input.

A benefit of group sorts is that they typically provide richer. data than individual sorts. Whereas individuals need to be prompted to "think aloud," groups tend to discuss their decisions aloud openly. Combine this with the group's ability to handle larger numbers of cards effectively and their tendency to walk each other through questions about content or functionality, and you have a rich data set with greater insight into users' mental model.

The number of groups needed may depend upon the size and complexity of the site or product. However, we've found that patterns tend to emerge within five groups. These patterns become the basis for the site or product's information architecture.

When inviting participants, it's not necessary to tell them they'll be performing a card sort. Instead, simply tell them they'll be asked to perform a simple task, or exercise that will help you (re)design the site or product. Additionally, let them know they don't need to prepare ahead of time; they should simply come as they are.

Preparing the cards

Each item on your list should be placed on a card. The labels you use on the cards are extremely important. They should be short enough that participants can quickly read the card, yet detailed enough that participants can understand what the content is. When necessary, the label can be supplemented with a short description or image on the back of the card.

Labels may be printed on standard (Avery) mailing labels, or printed by hand. We recommend using mailing labels as this saves time and the labels will be more legible.

Mark each card with a letter or number to make analysis easier once the sorting is done.

You can use whatever cards you have on hand, but we recommend 3″ x 5″ (10cm x 15cm). Index cards are durable, easy to see from a distance, and readily available at office supply stores. You may also use Post-it® notes, but it is our experience that cards are more durable and easier to handle.

Number of cards.

While there is no magic number, we have found that between 30 and 100 cards works well. Fewer than 30 cards typically does not allow for enough grouping to emerge and more than 100 cards can be time consuming and tiring for participants. However, we have performed successful card sorts with over 200 cards where participants understood the content well.

In addition to the labeled cards, be sure to include some blank cards in case participants need to add something. And don't forget a pen.

Execution

For the purpose of this article, we will describe an ideal execution for a card sorting exercise. Keep in mind that there are several variations, as described above.

The cards have been labeled using Avery labels on 3″ x 5″ index cards. On the back of each card is a letter/number combination, as well as a short description or image as necessary. The letter/number combination will be used during analysis; the short description or image is provided to clarify titles that might prove confusing. The cards are shuffled prior to participants entering the room. The shuffled cards, a stack of 20 blank cards, and an ink pen are placed on the table. Three participants are brought into the room and given an introduction with some basic instructions, like these:

> First of all, we'd like to thank you for coming. As you may be aware, we're in the initial stages of (re)designing a (web site, product, intranet). In order to make it as easy to use as possible, we'd like to get some input from the people who will be using it. And that's where you come in. We're going to ask you to perform a very simple exercise that will give us some great insight into how we can make this (web site, product, intranet) easier to use.
>
> Here's how it works. In front of you is a stack of cards. Those cards represent the content and functionality for this (web site, product, intranet). Working together, you should try and sort the cards into groups that make sense to you. Don't worry about trying to design the navigation; we'll take care of that. Also, don't be concerned with trying to organize the information as it is currently organized on your (web site, product, intranet). We're more interested in seeing how you would organize it into groups you would expect to find things in.
>
> Once your groups are established, we'd like to have you give each group a name that makes sense to you. You are allowed to make sub-groups if you feel that's appropriate. If you feel something is missing, you can use a blank index card to add it. Additionally, if a label is unclear, feel free to write a better label on the card. Finally, if you think something doesn't belong, you can make an "outlier" pile.
>
> Oh, and one last thing. Feel free to ask questions during the exercise if you

> feel the need. I can't guarantee that I can answer them during the exercise, but I'll do my best to answer them when you're finished.

Facilitating card sorts can be tricky. During the exercise, your main job is to observe and listen. Your secondary job is to keep the momentum going without leading the participants. Take notes on a small notepad to keep track of insightful comments made by participants, or questions that come up during the session.

Try to make sure each participant has the opportunity to provide input. If one of the participants tries to "take over" the sort, gently prompt the other participants. If one participant sits back, gently prompt that participant. If the group creates a "miscellaneous" group, ask them if they are satisfied with that group, or if they would like to take another look at it to see if it needs to be sorted further. Make sure not to lead them too much.

Once the sort is complete, you may see something that looks like this:

Sample of card sorting exercise.
Click to enlarge.

Once the participants are finished, walk them through a particular task. This helps validate the results. For example, if the site has some type of account management, or profile feature, ask them to walk you through updating their address information.

Analyzing the results/next steps

Analyzing card sort data is part science, part magic. Analysis can be done in two ways: by looking for broad patterns in the data or by using cluster analysis software.

When performing analysis on smaller numbers of cards, you may be able to see patterns by simply laying the groups out on a table, or taping them on a whiteboard. You will be able to see patterns through similar groupings and labeling.

When performing analysis on larger numbers of cards, we suggest using a spreadsheet. Enter the results into a spreadsheet, making sure to capture the title and number on each card. If the participants changed the label on a card, record the new label and place the old label in parentheses. Once you've entered the data, begin looking for patterns across the groups. Keep in mind the discussions held between the group participants during the sort, as they provide additional insight that might not appear in the spreadsheet. At this point, you are not looking for a definitive answer, but for insights and ideas.

Another technique for analyzing data can be found in "Analyzing Card Sort Results with a Spreadsheet Template"; by Joe Lamantia.. Follow the instructions in Lamantia's article to prepare the spreadsheet. As he mentions, look at the results for high-agreement cards and low agreement cards.

In both types of analysis, patterns will emerge. These patterns will likely be sensible for the actual users. It is important to note that areas of difference also provide useful insights. Areas of difference tell us about:

- content that participants haven't understood well
- content that could belong to more than one area
- alternative paths to content (for example, a list of all "how-to" articles could be created)
- how different types of participants see information

There definitely is some magic in the analysis step, and it is difficult to provide exact instructions on what to look for. Allow yourself some time to explore more than one organizational model based on the information provided from your analysis. Remember that it is not necessary to jump straight to a taxonomy at this point. Your card sort results can be supplemented with additional user research and task analysis.

Issues/Variations.

There are a range of additional tasks that you can ask participants to do during the exercise, including these:

- Home page content: ask participants to put to one side content that they would use so often that they would want a link on the home page to it.
- Information- seeking task: after the exercise, bundle up the piles of cards on the table so only the top level is showing. Ask participants where they put particular content. (It is worth doing this if you suspect that the participants were not thinking about how they would use the content as they sorted)

The resulting draft information architecture can be evaluated using Donna's card-based classification evaluation. This technique provides additional information about the grouping of the content, as it focuses on tasks that users would do rather than just focusing on content. Frequently, participants will create groupings of content in a card sort that they then cannot use when asked to perform a scenario.

Summary

In summary, card sorting is a simple, reliable, and inexpensive method for gathering user input for an overall structure. It is most effective in the early stages of a (re)design. And while it's not intended to be a silver bullet, when done correctly, it is instrumental in capturing helpful information to answer questions during the information design phase – ultimately making the product easier to use.

Invitation

One reason we wanted to write this article was to get a detailed explanation of card sorting in one place. Please expand this article into a definitive card sorting resource by adding comments with your own variations or observations.

Donna Maurer works as a usability specialist and information architect for Step Two Designs, an Australian consultancy focusing on intranets, content management, usability and information architecture. She is currently researching, designing and testing information systems for Australian government and public sector clients, and is presenting usability evaluation workshops.

In her spare time Donna tutors Information Systems Design at the University of Canberra, studies for a Masters in Human Factors, and maintains a weblog, imaginatively called DonnaM, about IA, usability, and interaction design.

Todd Warfel is a Principal User Experience Architect at MessageFirst in upstate NY. With over 10 years of experience practicing user research, information architecture, interaction/interface design, and usability his work has produced several industry firsts and patented products. His work has included projects for Fortune 500 firms, government agencies, and educational institutions, including Adobe, Albertsons, Apple, AT&T Wireless, Bank of America, Charles Schwab, Cornell University, Dell, EDS, Macromedia, Palm, and Philips Electronics. In 1996, Todd developed DIVE©, a proprietary process for improving products' ease-of-use. The DIVE process has been used across more than a hundred products, many of which are industry firsts.

Todd is currently working on a PhD in Information Science at Cornell University and has a B.A in English and Cognitive Psychology from Ball State University.

Additional Resources

The IAwiki has a page on card sorting that is updated frequently.
http://www.iawiki.net/CardSorting

Gaffney, Gerry. "What is Card Sorting?" *Information & Design* (2000).

Maurer, Donna. "Card-Based Classification Evaluation," Boxes and Arrows, April 2003.
http://www.boxesandarrows.com/view/card_based_classification_evaluation.

Rosenfeld, L. and Morville, P. *Information Architecture for the World Wide Web: Designing Large Scale Web Sites.* O'Reilly & Associates, 2002.

Warfel, Todd. "Modeling Organization – Methods for Increasing a System's Findability," Message First Corp., 2001.
http://messagefirst.com/downloads/ModelingOrganization.pdf

Posted in Findability, Methods, Process and Methods | 48 Comments »

48 Comments

Kobus Myburgh
February 28, 2006 at 9:49 am

I love this technique. I have implemented a variation of this technique before, so I know for sure it works! Great article!

Debra Cuming
March 19, 2006 at 1:43 pm

Thank you for writing such a practical guide to this topic. I sometimes find it difficult to grasp IA concepts that are new to me as they tend to be hard to define in words. Metadata being described as “data about data” being a classic example! Having a practical description of a card sorting exercise was invaluable to me.

Hillary Carey Steckbauer
April 1, 2006 at 3:29 am

This is a great guide to Card Sorting. I would appreciate some more information about accounting for user segments. The different types of users who access a site must complicate the research, I would think. The way someone uses a site would change over time, so newbies might sort categories differently than experienced users. What is your experience with that?

Ann Vandor
April 25, 2006 at 11:35 pm

Wonderful article. One question: I’m confused when you indicate that all cards should have topics of same granularity, yet at end you suggest that

“after the exercise, bundle up the piles of cards on the table so only the top level is showing”

What is the top level if all cards are of same value/level/granularity?

Prof A P Macmillan Coxon
December 3, 2006 at 3:05 pm

Fascinating stuff: But I am astonished how the three main user-communities of sorting seem to know nothing (or ignore?) others: Cognitive anthropology (“pile-sorts”), social scientists “free-sorts”). There’s some relevant info in my Sage QASS monograph (Sorting Data: Collection and Analysis, 1999 ISBN 0-8039-7237-7) and also http://www.methodofsorting.com

Donna Spencer

May 16, 2007 at 7:29 am

Thanks Prof Coxon. I'm always surprised at what I don't know from other fields as well – it is tough to know what terminology a completely different field uses to know what to look for to then find the info. I recently bought the Sage monograph & am finding it useful to get a deeper understanding of the history and analysis methods.

Donna Spencer
June 7, 2007 at 8:16 am

I have just released the spreadsheet I use to analyse card sort data. My spreadsheet is great for analysing open sorts – it manages participant results, helps you explore the data and does some basic statistical analysis. Check it out!

Sim M
July 3, 2007 at 6:34 pm

Donna, you are more gracious that I am. I, on the other, hand would like to thank Prof Macmillan Coxon for being the pompous ass that he is.

Yes usability practitioners could benefit from more knowledge from linguistics, statistics, cognitive science, psychology and many others fields. I'd also like to point out that a specialty in any branch of study isn't equal to the memory of ALL of the facts that you don't routinely practice. So in closing, thanks professor Coxon for taking the time to lecture us how moronic we all are. And thanks for enlightening us with your entitled point of view and links to your content-free site, which will invariably help us understand what you do with much more clarity.

Christian Sweningsen
September 21, 2007 at 5:20 pm

Great article, thanks much. But – a broken link

Warfel, Todd. "Modeling Organization – Methods for Increasing a System's Findability," Message First Corp., 2001.
http://messagefirst.com/downloads/ModelingOrganization.pdf

Found on the Wayback Machine at
http://web.archive.org/web/20060912182735/http://messagefirst.com/downloads/ModelingOrganization.pdf

Maciej Lipiec
December 26, 2007 at 5:27 pm

It really sucks that there is still no good computer application for card sorting in A.D. 2008 and we're left to use Excell spreadsheets or ancient IBM software. (WebSort is not so good – interface is crap and dendrograms it generates looks kind of strange).

Donna Spencer
January 11, 2008 at 5:26 am

Maciej Lipiec – have a look at Optimal Sort: http://www.optimalsort.com/

Richard Hall
February 4, 2008 at 10:12 pm

I've used websort http://websort.net and it's also a great tool.

joanne w
August 13, 2008 at 8:05 am

Hi Donna,
you mention that one of the disadvantages of the card sort is that it doesn't account for user tasks. do you have/know of any data or any readings that discuss this topic?

Donna Spencer
August 14, 2008 at 9:29 am

Hi Joanne. For a good approach to task-driven user research and IA, I really like Indi Young's approach: http://www.rosenfeldmedia.com/books/mental-models/

Vanessa Battaglia

October 1, 2008 at 3:43 pm

Hi Donna,

I've been reading up about card sorts and enjoyed your article. Do you know of a standard incentive for card sort participants, or is this research method brief enough that participants are just willing to offer their time? Online card sorts in particular seem similar to online website surveys, and perhaps would not require an incentive. What has been your experience? Thanks, Vanessa

Vanessa Battaglia
October 1, 2008 at 3:47 pm

I just re-read my post and wanted to add that I'm interested in other readers' experiences as well!
~Vanessa

Donna Spencer
October 2, 2008 at 10:12 pm

Hi Vanessa

I think the incentive for a card sort would be the same as for any other user research activity. For online sorts, consider how much time the card sort will take (it may be longer than an online survey), whether your audience is likely to donate their time or what the appropriate incentive would be to get them involved.

I too would be interested in hearing the experience of others – particularly about incentives for online sorts...

warren anthony
March 3, 2009 at 10:43 pm

This is an excellent article and your walkthrough Excel resources make the job a no-brainer.

I have to check myself about how easy it is to get great user input to my projects; it almost feels like I'm not really working!

Thanks Donna!

James Breeze
November 8, 2009 at 9:02 am

Hi Donna,
Nice article.
I have extended your section about selecting cards. It is really important, for some clients, to justify the cards that are in the sort.
Here's my article on how I did it.
http://usableworld.com.au/2009/11/08/the-missing-chapter-justifying-your-design-decisions/
Was so successful!
James

rick davies
March 20, 2010 at 9:35 am

Hi Donna
You are your audience may be interested in a different approach to the anaysis of card sort results. This involves network visualisations. Cards can be seen as being connected by being in the same pile. Categories (of cards) can be seen as being conencted by having overlapping sets of cards. People doing the card sorts can be seen as being connected by having overlaps in the way they have sorted their cards. All these kinds of relationships can be visualised using social network analysis sortware. I have provided some details of how to do this here http://mande.co.uk/special-issues/participatory-analysis-and-aggregation-of-qualittaive-data-paaqi/

rick davies
March 27, 2010 at 5:57 pm

Sorry, the web link on my 20th March 2010 posting above has changed. The correct link is:
http://mande.co.uk/special-issues/participatory-aggregation-of-qualitative-information-paqi/

usabiliTEST com
October 5, 2011 at 4:32 pm

Card Sorting is a great technique, but its real value stems from the results analyses. Clear and actionable data empowers product owners to continue making product improvements. Joe Lamantia wrote a great article, mentioned above, about using spreadsheet template.

However, the data analysis is still a very time-consuming process. We built a tool that automates some of it. Basically our analytic tool converts raw numbers into percentages and even allows grouping percentages into logical clusters.

Daniel Szuc
April 8, 2004 at 9:05 pm

Super article!

Other questions we have asked during card sorts include:
– What terms do customers find confusing?
– Are there any items be included in more than one section?
– What action would you take if you could not find the information you need here?
– What items and groupings were easy to create?
– What items and groupings were difficult to create?

We also find we can run a quick interview prior to the card sort to elicit some information that may assist us understand the types of information people are looking for on the web site.

Alex
April 20, 2004 at 8:54 am

this article has just been translated into Russian and published at
http://www.webmascon.com/topics/planning/19a.asp

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April 20, 2004 at 8:55 am

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Alex
April 20, 2004 at 8:56 am

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Alex
April 20, 2004 at 8:57 am

sorry for multiple postings. This form is throwing 404 messages.

Jacob
April 27, 2004 at 6:15 am

A truly great article, I just have two questions after reading it.

Doing card sorting group-wise, should the groups (consisting of 3 persons) do the card sorting while being the only group in the room, or could you have all five groups in the room at the same time? I am figuring you can only have one seeing as how you need to note all these data down.

Second, I am thinking of doing this for a project I am working on.. the local commerce organization is having their website re-designed by the company I work for, and a card sort would be great here. I am wondering if the board of this organization also could participate alongside with their target group?

Todd Warfel
April 27, 2004 at 7:15 am

The recommended setup is to have one group of three in the room at a time accompanied by the moderator. Having more than one group distracts them from the task at hand.

If the stakeholders want to observe, it's best to have them do so behind a one-way mirror. Alternatively, we've used a large conference/ball room before to allow the stakeholders observe at a distance. Their reaction is interesting – you get to see the lightbulb go off in their head once they see the participants actually performing the task. It helps with buy-in to the technique as well. Just make sure you communicate with them upfront that they're there to observe and should remain still and quite.

As to having the board participate, we've also had good experience with this in the past. One of our clients questioned the reliability of the technique prior to seeing the results. So, we ran them through the same exercise, quickly mapped out their results then presented their results with the analyzed results from the five participant groups and showed them how 85-90% of their input overlapped with the participants'. They were pretty amazed and we got instant buy-in.

I would caution you against putting any of the board members in with target groups at this stage as this takes considerably more moderation to make sure the board members don't outweigh the target group.

You really shouldn't try something like that until you've gotten the technique down and have practiced the moderation.

Good moderation is one of the keys to a successful, balanced, representative result.

Michael
April 27, 2004 at 8:48 am

EZSort, a free tool from IBM uses statistical cluster analysis to help visualize sorting patterns on a sliding scale of affinity . . what a mouthful I know. but try the tool. It's FREE, a little clunky, but is a great aid in visualizing card sorting data from multiple subjects. http://www-3.ibm.com/ibm/easy/eou_ext.nsf/Publish/410

Jacob
April 27, 2004 at 2:08 pm

First of all thank you for your answers Todd, and fast answers I must say – what a service!

I could infact also use some specific examples of how the cards could look like, both the front and the back.

Is there any chance you could find an old card and type in waht it says, or maybe even better scan/photograph it?

Thanks again.

dvd
April 28, 2004 at 11:20 pm

I am so glad to have found this article, and additionally, the concept.

This will be a great help in addressing the shortcomings of sites which seem to confuse rather than inform users.

Marsha Waren
April 30, 2004 at 1:30 pm

We attempted to use EZsort on a recent project and found that we were unable to draw conclusions from the output. My experience with drawing people to consensus within a room has been far more successful, and you get immediate buy-in from everyone.

— Marsha Waren,
University Information Technology Services
Indiana University

Anna
May 11, 2004 at 3:10 pm

Great article–both informative and thought-provoking!

You recommend group card-sorting (groups of three) over individual sorting for efficiency and richer data. But what about the idea that _individuals_, not groups, use the web? To what extent does group think bias the results?

Thanks again!

Anna
May 11, 2004 at 3:12 pm

Great article–both informative and thought-provoking!

You recommend group card-sorting (groups of three) over individual sorting for efficiency and richer data. But what about the idea that _individuals_, not groups, use the web? To what extent does group think bias the results?

Thanks again!

Anna
May 11, 2004 at 3:16 pm

Two other questions as I review the article:

First, do you have any sample lists that you used for card content? That is, can we see examples of what would go on the cards for a particular site?

Donna Maurer
May 11, 2004 at 4:07 pm

Thanks Anna – good question

In sorts that I have done where both groups and individuals participated, the only difference between the results is that those done by groups are a little more internally consistent (because there has been discussion about placement), and I obtain richer information about the reasoning for the groups. Overall the resulting groupings aren't wildly different.

The more important issue is that individuals use the web *to undertake tasks* not to group content. This doesn't necessarily bias the results (and it's not a scientific study, so perhaps bias is irrelevant anyway), but it can mean that the results from the sort don't allow easy task performance. That's why we emphasise that it isn't a silver bullet, and you get just as much (or more) insight from other user research activities.

For your second question, I don't have examples as most of my work is on intranets, and examples wouldn't make any sense out of context. Maybe Todd will have some, or another reader 😉

Richard
June 4, 2004 at 2:53 am

How much do you thnk that the particpiants' ingrained IA expectation affects the outcome? For example, while you emphasise that the group should ignore their current web site, surely they have a built in subconscious picture of this because it is what they're used to. This is some ways gives them certain perceptions of what the IA should be, categorisations of information and level of hierarchy. But this may not be the best way to define the IA for their particular use/value. Can you get an outcome that is best for the IA, or is the point that you get an IA that is suited to the customer's current expectation, regardless whether it is good IA? (Hope that makes sense)

Trent Mankelow
June 4, 2004 at 3:55 pm

A couple more tips for labelling cards:

* Where possible be consistent in the casing of the card labels. It is quite common to see participants assume that card labels that have all their words start with a capital letter must be a higher level heading.

* Where possible avoid obvious patterns in the card labels. If participants see several cards that start with the same word then they consistently group the cards together without paying much attention to the meaning of the cards.

donna
June 5, 2004 at 7:17 pm

Good point Richard about expectations of the existing IA. I have more often seen people think of the org chart (eg team A does this) than the existing IA, but sometimes people will put things together because it's where they already are (particularly so on an intranet).

This could indicate that they are already grouped well, or just that it's an easy grouping to make so they can get the exercise finished.

Other activities (user research, content analysis, goals), the outcomes of the sorts from other participants, and a decent round of usability testing of a draft IA will provide guidance on the final IA anyway...

donna
June 5, 2004 at 7:20 pm

John, AIfIA has some spreadsheets in it's design tools collection that may be of use to you.

http://aifia.org/tools/

Donna Maurer
October 11, 2004 at 4:20 am

Casey, with your very brief description, I'd include the names of the software products (or the descriptions if the names are too jargony). I can't see any value in going more granular than that, assuming that you aren't going to be breaking up the software products.

Todd Warfel
September 7, 2005 at 5:06 pm

Jonathan,

I think the point we were attempting to make is that larger samples for card sorting can be challenging. Two different cases come to mind in having participants sort over 220 cards. The size of the pile of cards can appear overwhelming for participants initially. That initial feeling does subside, however, and they do move along pretty well.

It is a great tool, though. We've even started using it to model design patterns in our wireframes. There are a number of uses for the tool.

Thanks again for your comments. Glad you found interest in the article.

barbara
October 6, 2005 at 1:37 pm

What are your thoughts on web-based card sorting tools, like WebSort (http://www.websort.net/) ?

Card sorting: Uma janela para a menteMax Andriani | Design em Itapema – SC | Design estratégico | Websites
November 20, 2012 at 2:18 am

[...] Donna; WARFEL, Todd. Card sorting: a definitive guide. Publicado em 7 de abril de 2004 no endereço http://boxesandarrows.com/card-sorting-a-definitive-guide, acessado em 18 de novembro de [...]

Complete Beginner's Guide to Design Research - UX Booth | UX Booth
November 25, 2012 at 2:02 am

[...] More information: Card Sorting: a definitive guide. [...]

Card sorting beginner - Blog by Rebecca ToppsBlog
December 7, 2012 at 12:24 am

[...] If you want to know more in-depth information on card sorting here's a good article: boxesandarrows.com/ [...]

villalji
March 6, 2013 at 9:32 am

Great article! I will try the exercise in my organization, I have big expectations on the outcome! thanks for sharing Donna

Sorry, comments are closed.

Donna Spencer

Donna Spencer is a freelance information architect and interaction designer, a mentor, writer and trainer. She has 8 years experience working in-house and as a consultant doing both strategic and tactical design. She has designed large intranets & websites, e-commerce & search systems, complex business applications, a set of design patterns and a content management system. She believes deeply in the value of user-centred design and uses a range of user-centred approaches on her projects – from quick analysis of existing research to deep ethnography. She also believes deeply in team-based and iterative design – continually surprising her colleagues by talking to people rather than computers and designing the old-fashioned way with pencil, sticky notes and much coloured paper. Donna is an experienced speaker who has taught full-day workshops and presented sessions at many local and international conferences, on the topics of information architecture, interaction design and whatever else crosses her mind. She spends her remaining spare time weaving, gardening and writing a book on card sorting to be published soon by Rosenfeld Media.

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