Exercise 3: Conduct User Research

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To better understand the information architecture of a personal website, ten participants were identified and asked to group and label a multitude of files related to the final content of the website. Using a digital open card sorting technique, participants organized the existing information into groups, labeled these groups and were asked to describe why they made these decisions. An array of groups were created in this process, showcasing similarities and differences in participants' logic processes. Most groups were organized by subject, information type and/or process. The number of groups each participant identified ranged significantly from four to thirteen. And the labels for these groups contained significant similarities as well as interesting deviants. For the sake of examination, the following table displays the card sorting work of the participants.

Person#	Group Labels	# of Groups
1	*Mom, Dad, Phil, Nancy, Ann, Work, School, Holidays, Fun*	9
2	*Emails, Photos, Letters, Work, School, Holidays, Activities, Social*	8
3	*Emails, Photos, Work/School, Memorabilia*	4
4	*Mom, Dad, Phil, Nancy, Ann, Work, School, Holidays, Documents, Hiking, Boating, Swimming Photos, Friend Photos*	13
5	*Mom, Dad, Phil, Nancy, Ann, Work/School, Holidays, Adventure, Miscellaneous*	9
6	*Mom, Dad, Phil, Nancy, Ann, Hiking, Boating/Swimming, Work/School, Work Events*	9
7	*Letters/Emails, Photos, Work, School, Food, Hiking Maps*	6
8	*Mom, Dad, Phil, Nancy, Ann, Hiking, Holidays, School, Work, Boating, Miscellaneous*	11
9	*Mom ,Dad, Phil, Nancy, Ann, School, Work, Hiking, Aquatic Activities, Holidays, Other*	11
10	*Photos, Letters, Email, Professional Documents, Recreation*	5

When analyzing the participants' card sorting results, it becomes clear that categorizing the cards by subject matter (by person) is a common response. Out of the ten participants, six created groups relevant to each person, such as: Ann, Nancy, Phil, mom, and dad. Within these category labels, most participants associated files like “Ann’s letters” and “Ann’s emails” with their specified group label. The second popular way of categorizing the items is by information type, also known as file type. Groups like “emails”, “photos”, “work”, and “school” were commonly created as labels for the cards. For instance, under the label “photos”, files titled “pix of mom”, “swimming photos”, or “photos of my brother” are sorted into this particular category. It is evident that there is a clear pattern that emerged from this card sorting assignment. There were two specific patterns that the ten participants sorted their cards in, which was by subject and information type. The participants categorized based on word relevancy and connection. Furthermore, these modes of organization reveal that the participants sorted on what they assumed might be easier to access by the website user.

Though this card sorting study helps create useful data and insight from the participants, leading to a general structure for the information and providing ideas for navigation and language or taxonomies for the final information architecture, it is not the one-size-fits-all solution that many would prefer. Many authors and researchers would agree that card sorting must be only one of many other factors in an effective design process because their experience and the experiences of others have proven this. Card sorting is intended to cover a broad base of participant impressions that can complement other important elements of the design process such as “information needs analysis, task analysis, and continual usability evaluation” (Spencer, 2004). This card sorting survey clearly outlines important similarities in participant thinking as

well as the stark differences. These similarities and differences are helpful in informing the final organization and design of the website.

When comparing the different groupings of each participant, a few differences are highlighted. One difference among the participants is the number of categories each participant made in their respective card sorting activity. Some participants had as few as four categories while other participants had as many as eleven or thirteen categories. While there is no correct number of categories needed in the card sorting activity, designers of the activity can utilize closed card sorting after the initial open card sorting as a way to “pre-establish the primary groups” for another round of sorting (Spencer 2004).

Another difference is how specific cards can be categorized drastically differently compared to other users. Nielsen states that “the main quantitative data from a card sorting study is a set of similarity scores that measures the similarity of user ratings" (Nielsen 2004). A similarity score of 100% would indicate that cards were placed in the same pile while a similarity score of 50% would indicate that a card was in one pile by half the participants and another pile by the other half of the participants. An example of this from our participants is the card “menu”. The card “menu” was placed in a variety of different categories ranging from “fun” “social” to “other” and “memorabilia", indicating the variety of ways a single card can be categorized.

The variance of these categories can also indicate how differently each participant understood the information presented to them. Users will have a variety of justifications for their organization and can provide insight on how these users will navigate a website. As an example, one participant placed cards with “letters” under a category named “memorabilia”. The participant justified the organization stating that letters would be more sentimental and should be

grouped accordingly. Another participant organized each category by file type, noting that file types such as professional documents would be in similar digital formats such as PDFs.

Through this survey it becomes clear that card sorting is an impactful early-stage technique in the process of designing a website. As students trying out this approach for the first time, card sorting is an excellent procedure -for students and professionals alike- to understand information organization from a variety of viewpoints. While designers of a website may have ideas for organizing information, receiving feedback from potential users can unveil organization ideas that may have been unseen by the designer, leading to a website that is more intuitive to navigate by users. Going forward, implementing mathematical models through the use of spreadsheets would shed further insight on the information behaviors of users if designers were to expand the number of participants needed in a card sorting activity.

References

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