

crunchbase + W

Crunchbase Knowledge Center Usability Study Report

University of Washington, HCDE 517, Winter 2021



Research Team
Anders Herberg
Adoniah Carmeline
Claire Lee-Kim
Elaine Zhou

Table of Contents

Executive Summary	03
Overview	
Participants and Methodology	
Result and Recommendations	
Introduction	05
Study objectives	
Description of Study	06
Participants	
Methods	
Card sorting	
Moderated walkthrough	
Logistics and Protocols	
Testing Environment and Setup	
Data Collection	
Findings (Analysis)	10
Recommendations	15
Conclusion	17
Appendices	19 - 30
A: Research Questions	
B: Heuristic Evaluatai	
C: Scenarios	
D: Tasks	
E: Screener questions before Tree Test	
F: Tree Test & Result	
G: Logistic material	
H: Pre-task questions & Post-task questions	
I: Tree testing	
J: Partcipant data	
K: Affinity Diagram	
L: Rainbow chart of severity	
References	31



Executive Summary

The goal of this study is to evaluate the information architecture of Crunchbase's Knowledge Center. There is currently little data available to assess the efficacy of users' experience navigating the Knowledge Center and its navigation logic. Because of this, it is necessary to determine if the intended purpose of the Knowledge Center achieves its goal to provide an efficient self-service product to help users understand Crunchbase's services and offerings.

Crunchbase's objective for this usability study is a broad understanding of how to make educating users more intuitive. After assessing the high-level onboarding experience, it was determined that the Knowledge Center could optimize users' interactions, utility, and investment in Crunchbase products. The final decision was for our team to evaluate the Knowledge Center's usability amongst 4 primary personas: Salespeople, Founders, Investors, and marketing professionals who use market research products like, or similar to, Crunchbase.

The primary research questions we determined were:

1. Are the current Knowledge Center articles categorized similar to users' perceptions?
2. Can users successfully navigate to specific content in the Knowledge Center?
3. What options do users want to see when browsing the Knowledge Center?
4. Can users recover from errors they encounter while navigating the Knowledge Center?

Participants & Methodology

For this study, we completed 2 separate research methods, a card sorting exercise and a tree test, respectively. In total, 58 participants contributed to the study, with 7 of those completing the second stage of the study.

Using Optimal Workshop, we shared a link to the card sorting exercise via social media platforms--the study did not have any restrictions as to who could complete the exercise. The purpose was to document how people organize article titles into predetermined categories, and to what extent they would create their own categories to align with their own mental models.

Following the card sorting exercise, we used screening questions from the exercise to identify 7 target users to complete the tree test (3 founders, 2 marketers, 1 investor, 1 salesperson). We recorded moderated walkthrough sessions with the 7 participants and presented them with 5 scenario-based tasks to find specific article titles in a set of categories based on results from the card sorting exercise.

Findings & Recommendations

To highlight the main findings and recommendations to optimize the Knowledge Center's information architecture and user needs, please refer to the table below. For additional insights, visit the Findings (p. 10) and Recommendations (p. 15) sections.

Finding	Recommendation
Users rely on key terms and words in article titles to dictate their navigation of categories.	Avoid using category-specific terms in article titles not located in categories with similar labels.
Users had trouble with the distinction between pricing and payments.	Create a centralized category for users to access any information pertaining to Cost and Pricing across Crunchbase subscriptions.
Vague terminologies in article titles impacted users' ability to distinguish its meaning and relevance to existing categories.	Establish Crunchbase-specific terminologies to reduce the use of ambiguous wording.

Introduction

Crunchbase is a leading platform for professionals to discover innovative companies, connect with the people behind them, and uncover new opportunities. Over 50 million professionals use the product including founders, entrepreneurs, investors, market researchers, and salespeople to inform their business decisions.

The current Knowledge Center at Crunchbase is a collection of web pages containing published articles that includes frequently asked questions (FAQ), how-to guides, glossaries, definition lists, and troubleshooting instructions. The webpages are intended to supplement users in finding information on the product, services, help, and navigation. They contain resources for user education and services to improve the user experience and place finding content logically under a single umbrella.

Users have two options to find articles: using the search bar with keywords or by using the category filter buttons. Each of these functions provides users the flexibility to find resources for self-service, self-education, and self-solving of problems. Each article is categorized by keywords or services that Crunchbase offers.

Study Objectives

The purpose of the study was to improve the information architecture of Crunchbase's Knowledge Center. After our initial heuristic evaluation, the part of the onboarding experience we focused on was the discoverability of Knowledge Center articles and logical advancement of the information architecture. Throughout this exercise, we listed questions covering a wide range of issues within the Knowledge Center website (Appendix A: Research Questions). Below is the final list of research questions we investigated during our study:

1. Are Knowledge Center articles categorized similar to users' perceptions?
2. Can users successfully navigate to specific content in the Knowledge Center?
3. What options do users want to see when browsing the Knowledge Center?
4. Can users recover from errors they encounter while navigating the Knowledge Center?

Description of Study

We had 2 separate processes to collect data from participants. The first was an unmoderated web-based card sorting via Optimal Workshop. We received 148 responses between February 25 - March 4, 2021, of which 74 were completed, and the other 74 were abandoned by participants. Due to a spamming incident, we were able to use only 58 respondents' data. The link was distributed via LinkedIn, Facebook, and personal connections. For the card sorting, participants organized a list of 48 article titles into 1 of 10 premade groups, or create their own group to place an article if they desired.

The second method was a moderated walkthrough using a tree test via Optimal Workshop. Each session was 30 to 45 minutes long and presented 5 scenario-based tasks to participants. We chose a think-aloud protocol to understand the participants' thinking processes and to collect qualitative data for supplemental analysis.

Participants

We recruited participants that fit the following criteria: between the ages 18 to 64 who have used web-based market research tools or software in their current occupation.

To ensure the accuracy of data, we exclude participants who were not familiar with web-based market research tools or software. We then screened the card sorting respondents for those who fit the client's target user personas.

We invited a total of 7 participants including 3 founders, 2 marketers, 1 investor, and 1 salesperson (2 female, 5 male) all between ages 18 to 34. Participants differed in expertise, industries, and frequency of market research tool usage.

Methods

Card Sorting

For the first recruitment activity, we sent out hybrid card sorting links with questionnaires to the public to collect quantitative data and evaluate how people organize the articles into categories. We asked participants to either drag and drop the list of articles into premade categories or create their own, custom labelled categories. We chose the card sorting method to understand participants' mental models in evaluating and organizing the content categories.

We were able to collect data from 58 participants. The link was distributed through our personal networks over Slack, social media (Facebook and Twitter), LinkedIn, Reddit, and other online platforms. Participants' voluntary card sorting activities took 10 to 15 minutes to complete. Participants were recruited from a wide range of demographics consisting of a broad range of users. Unfortunately, our team had an incident where we received more than 10 spammed results during the recruitment process which were excluded from this study.

Moderated Walkthrough (Tree Test)

Based on the first data collection, we combed through the list of participants and sent email invitations for the next stage of our study to participants who fit our criteria. Once we got confirmation from the participants, we invited them to Zoom sessions and conducted a tree test activity. We were using tree testing to evaluate the hierarchical category structure of the Knowledge Center's information architecture using real-world scenarios.

We were initially planning to have a moderated walkthrough with target participants to browse the Crunchbase website and the Crunchbase Knowledge Center, but the plan had to be changed due to time constraints.

At the beginning of the study, we spent the first 5 minutes setting up the session. The next 10 minutes were for greeting, confirming that the participant understands the

consent form and signing it, and then sending the tree testing link to the participant. For the remaining 30 minutes, we conducted a moderated walkthrough with a think-aloud method to collect participants' qualitative data. During the walkthrough, participants navigated the simulated Knowledge Center and performed a list of 5 tasks that were provided to them. The final 15 minutes were spent on follow-up and post-test questions. We estimated the time to complete the moderated walkthrough to be 45 minutes to one hour, but participants were able to complete their 5 tasks in less than 40 minutes, including the pre-questionnaires and post-questionnaires.

Logistics & Protocols

To manage participant interview schedules, we assigned a team member to act as the sole point of contact with each participant. All schedules were booked using calendly.com and once participants confirmed the date, invitations were sent via Google calendar with the consent form and each moderator's Zoom link attached.

Each moderated walkthrough session lasted up to 45 minutes, featuring 1 moderator, 1 note-taker, and 1 observer in each walkthrough. At the beginning of the session, the moderator began with pre-test logistics including the confirmation of consent and permission to record the session. After the validation of the consent form, the moderator explained the purpose of the study and then sent the Optimal Workshop tree testing links through Zoom chat. Once participants accessed the link, the moderator explained the process of the session, instruction for the tree testing tasks, and the think-aloud protocol.

The task began with 3 question pre-questionnaire that focused on the participants' familiarity with web-based market research tools. Following the completion of the questions, the moderator provided 5 scenario-based tasks (see Appendix A: Scenarios) for the participant along with a specific article title to find. We selected article titles based on the card sorting data. Our focus in the scenario was understanding how participants identified the article titles and made sense of the organized categories in relation to the results from the card sorting exercise.

Logistics & Protocols

Since the pandemic affected our ability to meet participants in-person, we invited participants to join the session via Zoom video conference. Participants received Google calendar invitations with the following requirements:

1. Confirm your session by accepting the calendar invite.
2. Link to review and sign the participation consent form
3. Come equipped with a laptop or desktop computer with a webcam (no mobile devices, i.e. Phone, Tablet, etc.)
4. Install Zoom on the device they will be using. <[Zoom download link](#)>
5. Enable camera and audio in Zoom before the session.
6. Be in a quiet place free of distractions during the study.

All participants had no trouble accessing the moderators' Zoom link and the walkthrough activity link. Each participants' session was recorded and kept for the study.

Logistics & Protocols

We logged qualitative and quantitative data and prepared two separate forms: "Datalog" and "Note". Quantitative data was gathered from screening questionnaires with the card sorting links that we sent out to the public. The card sorting activity had a list of 48 article titles and 10 premade groups. We gathered measurements of how users grouped cards into different categories, the most frequently grouped articles, and new categories created by the users (Appendix B: Questionnaires for full details).

Qualitative data included participants' comments, feelings, and behavior made during the session gathered through transcription from the recordings and observers' notes. After the walkthrough, we organized participants' comments using thematic coding and analyzed them using affinity diagrams and rainbow chart based on patterns in participants' behavior and thoughts.

Findings (Analysis)

Successes

We asked the users to demonstrate through card sorting how they would organize the articles on the website, and then ran followup tests with tree jack. Out of the 48 cards that were tested, 24 of them were added in the same category by most of the participants as it was organized on the website. This shows us that crunchbase met user's expectations of discovering a card in a certain category 50% of the time. For example, when we asked one of our users how easy or difficult it was for them to find an article in the tree test, which was categorized in the same category on the website and the card sorting the users said:

"If I want to get to know something, first thing I want to know is pricing and it was good to know crunchbase had pricing right there. So that's about where I would go."

"I found it very easy. I naturally went here to look for it because the category says add or edit profiles. My thought process and saying how to update my employees from current past team took me here."

Furthermore, when users were asked to rate how easy it was for them to find the article on a scale of 1 to 5, with 1 being very difficult and 5 being very easy, 6 out of 7 users gave it an average rating of 3 or more which means finding articles was on the easier side for them.

Opportunities

Through the card sorting activity done by 46 users, and tree test done by 7 users, we found some common, overarching themes in how users grouped data. Our findings and recommendations are based on these overarching themes that emerged through different stages of our research.

For the study, our team developed a priority rating for the areas of improvement based on the scale given below:

Priority rating 1: Critical - Hinders with discoverability

Priority rating 2: Required - Needs to be resolved soon

Priority rating 3: Recommended - Should be done to enhance discoverability

Priority rating 4: Nice to have - Doesn't interfere with discoverability

These priority ratings indicate how soon the problem identified should be addressed.

In the following section, we will discuss each finding and indicate why it has been given a certain priority rating.

Finding 1: Cards were added in all categories except the actual

Priority rating: 1 - Urgent

Why? Less than 10% of total participants added cards in actual categories

Description: We marked cards as high priority if less than or equal to 5 out of 46 users, i.e. 10% of total users, put them in the actual category. Out of the 46 cards tested, 9 cards were added into categories other than their original categories by over 41 users. Table 1 shows these 9 cards, their actual categories, and sorted categories. These are urgent because users added these cards were sorted into different categories by 90-100% of the users.

Table 1: Cards that were sorted by participants in categories other than actual

Article Name	Actual Category	# Participants add in actual category	Sorted Category	# Participants add the card in leading sorted category
How do I manage my Crunchbase Pro subscription?	User Account Management	0	Crunchbase Pro	36
How do I set up and manage my alerts?	Crunchbase Pro	0	User Account Management	28
What's the difference between Pro and the API?	Crunchbase Enterprise	1	Crunchbase Pro	20
What are the differences between searches and lists?	Crunchbase Pro	1	Get to know Crunchbase	19
What is a drill-in?	Crunchbase Pro	1	Other	19
Why am I unable to import a list?	Crunchbase Pro	1	Other	17
What types of searches can I build?	Crunchbase Pro	2	Get to know Crunchbase	18
How does Salesforce integrate with Crunchbase?	Get to know Crunchbase	4	Salesforce Integration with Crunchbase	42
How do I request to deactivate my user account?	User Data & Privacy	4	User Account Management	33

Finding 2: Participants associate category with article through certain keywords

Priority rating: 1 - Urgent

Why? At atleast one point in their moderated walkthrough and followup interviews, each of the 7 participants mentioned using keywords in the article title as indicators of which category they will expect the article to be in.

Description: In our tree test activity, we had 7 participants perform 5 tasks each. This gave us 7 variants of our 5 scenarios and thus a total of 35 unique data points. Each of the 7 participants used the category name to locate the article. The participants explicitly mentioned using category name to locate the article 16 out of 35 times.

Finding 2 Data

Article Name	Category	Participant quote
How do I register for a Crunchbase account?	User Account Management	"Probably user account management. Would be my first choice because it talks about having an account . Yep how do I register for crunchbase."
Where does Crunchbase get their data?	User Data & Privacy	"Data partners or data privacy because it says data ." "if I was getting specific as to how does crunchbase manage users data I would go here in user data and privacy"
How do I get API access?	Other	"if it didn't say salesforce integration just said integrations, then I would imagine it to be there" "For this problem itself, I would think about Salesforce. If the title matches better, it would be easier. "
How much does Crunchbase cost?	Get to know Crunchbase	"I go to pricing payments and billing right away that's the first thing I see "

Finding 3: Users want unique categories

Priority rating: 3 - Recommended - Should be done to enhance discoverability

Why? During the interviews, participants suggested some categories that they would like to see to enhance discoverability of articles. However, participants did not create these categories in the card sorting, hence it has a priority rating of 3.

Description: During the tasks when participants were asked to find articles in the given categories, they were going back and forth in some categories and 4 out of 7 participants suggested having a new category for API and Integrations. However, none of the participants create a special category for API in the card sorting activity. Out of 46 participants, 8 users put “How do I get API access?” in “Crunchbase data partners”, 7 put it in “Others”, and 7 put it in User account management.

Quotations: “OMG it’s so hard..normally using API, I would think about salesforce, I would think it’s like a whole integration. It should have a category called Integration with subcategories.”

Finding 4: Article titles need to be self explanatory

Priority rating: 2 Required - Needs to be resolved soon

Why? The cards with vague titles were added into ‘other’ category by users

Description: According to the new categorization through Card sorting, 9 out of 48 cards were added into the ‘Other’ category by most users. These 9 cards have vague titles as shown in the table 2 below which do not tell the user much about the content of the article.

Not only this, when we tested articles with well explained titles the users had no difficulty finding it in a category despite not having any keywords similar to category name. Figure 1 below shows that 71% of the participants, i.e. 5 out of 7 users, clicked on add or edit profile first when they were asked to find the article “How do I update an employee from current team to past”.

Table 2:

Cards in 'Other'
How do I edit a funding round?
How do I filter by pre-money valuation?
How do I get research access as an academic or journalist?
Is there a glossary of funding types?
What are the differences between searches and lists?
What cities are in the Dallas/Fort Worth region?
What is a drill-in?
Why am I unable to import a list?
Why can I only see 1,000 results?

Figure 1: Task 3 Scenario where users searched for the article title, “How do I update an employee from current team to past?”

Label	Visited first	Visited during
Get to know Crunchbase	0%	14%
Payments & Billing	0%	14%
Add or Edit Profiles	71%	100%
Crunchbase Pro Subscription	0%	14%
Crunchbase Enterprise Subscription	0%	29%
Salesforce Integration	0%	14%
User Account Management	29%	43%
Crunchbase Data Partners	0%	14%
User Data & Privacy	0%	0%
Other	0%	14%

Finding 5: Participants group cards together based on keywords

Priority rating: 2 Required - Needs to be resolved soon

Description: Through our card sorting activity, we saw that users put cards together in a category if the titles of the articles had similar keywords. 27 out of 48 participants grouped cards together based on similar words used in the title.

Data: Below is the similarity matrix which shows how often two cards were grouped together. When compared to existing grouping on the website, 3 out of 9 articles were not grouped together.

Table 4:

Card 1	Card 2	Similarity score	Grouped together?
What are the requirements to edit a profile?	What information can I remove from a profile?	79%	Yes
How do I build a search?	How do I create a list?	65%	Yes
What are the differences between searches and lists?	How do I build a search?	62%	Yes
How do I request to permanently delete my user account?	How do I request a password reset?	60%	No
How do I create a list?	Why am I unable to import a list?	60%	Yes
How do I manage my Crunchbase Pro subscription?	Is there a monthly subscription option for Crunchbase Pro?	60%	No
How do I manage my Crunchbase Pro subscription?	How do I cancel my Crunchbase Pro subscription?	60%	No
Where can I find my receipt?	Is there a monthly subscription option for Crunchbase Pro?	60%	Yes
Can I try Crunchbase Pro for free?	What do I do if I'm getting a payment error?	60%	Yes

Recommendations

Terminology & Categories

1. User suggested new categories

"None of the other categories were relevant to the API access."

(When searching for "How do I get API access?")

Participant's answer:

Get to know Crunchbase, Salesforce Integration

Correct Answer:

Others

Marketly Knowledge Center
Get to Know Marketly
Payments & Billing
Add or Edit Profiles
Marketly Pro Subscription
Marketly Enterprise Subscription
Salesforce Integration
User Account Management
Marketly Data Partners
User Data & Privacy
Other

Marketly Knowledge Center
Get to Know Marketly
Payments & Billing
Add or Edit Profiles
Marketly Pro Subscription
Marketly Enterprise Subscription
Salesforce Integration
User Account Management
Marketly Data Partners
User Data & Privacy
Other

+ API / API Integrations / Integrations



2. Use direct phrases or terms to avoid confusion

"Most websites have a 'plans and pricing' tab where you can see different features and prices in tabular form. So I suggest a 'Plans & Pricing' category"

(When searching for "How much does [Crunchbase] cost?")

Participant's answer:

Payment & Billings

Correct Answer:

Get to know Crunchbase

Marketly Knowledge Center
Get to Know Marketly
Do you have direct contact information on Marketly?
Does Marketly offer Excel exports?
How are regions in Marketly defined?
How do I build a search?
How do I create a list?
How do I get research access as an academic or journalist?
How much does Marketly cost?

Marketly Knowledge Center
Get to Know Marketly
Payments & Billing
Add or Edit Profiles
Marketly Pro Subscription
Marketly Enterprise Subscription
Salesforce Integration
User Account Management
Marketly Data Partners
User Data & Privacy
Other



3. Avoid repeating vague terminology for the main menu buckets, users struggled deciding which to click.

"These two sections right over here, which is '[Crunchbase] Data Partners' and the 'User Data and Privacy'"

(When searching for "Where does [Crunchbase] get their data?")

Participant's answer:

Get to know Crunchbase, Crunchbase Data Partners

Correct Answer:

User Data & Privacy

Marketly Data Partners
User Data & Privacy

Marketly Data Partners
User Data & Privacy
Suggested: Privacy at Crunchbase



Recommendations

Terminology & Categories

4. Try to combine some categories into one category if possible

"(Hover over between Marketly pro and enterprise subscription) mentioned that "breaks it down into two different payment categories which seems weird"
(When searching for "How much does [Crunchbase] cost?")



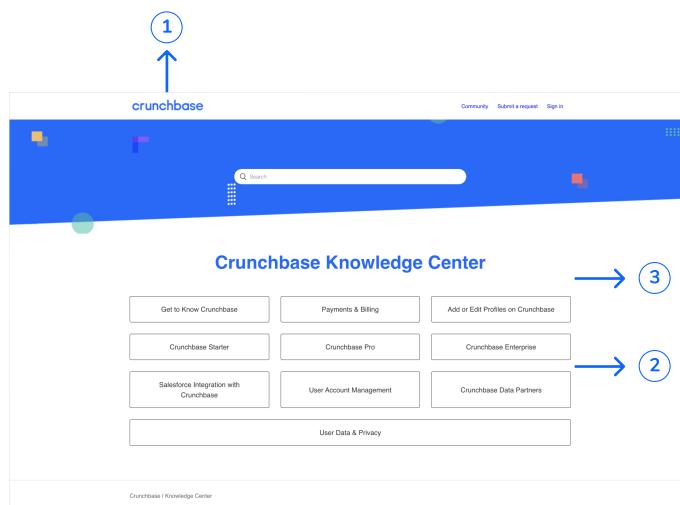
Participant's answer:
Crunchbase Pro subscription, Crunchbase Enterprise subscription



Correct Answer:
Get to know Crunchbase

Interactions

1. Make Logo clickable and return to main site homepage
2. Try to use graphics / icons for the buckets to make it easy to understand
3. Try to add most clicked FAQs samples above the buckets



Conclusion

Overall, the Knowledge Center's information architecture was relatively intuitive, however the study did identify gaps and user behavior patterns that suggest the Knowledge Center could benefit from reorganization efforts. Participants commonly partnered article titles with similar terms and keywords, regardless of the article's assumed meaning. When certain article referenced similar concepts such as "data" or financial topics, users gravitated to topics that were best aligned with those topics (i.e. "Cost" and "Pricing" was associated with "Payments and Billing"). For a majority of the tree test tasks, participants found articles with relative ease, but data focusing on first clicks and indirect pathways to discover articles conveyed a slight separation from assumption and actuality.

Limitations

Though we discovered key insights, revealing a disconnect in the Knowledge Center's current information architecture and user mental models, we experienced limitations during this study that limited our full understanding of the issues.

Due to the COVID pandemic, all interactions between the team and users required virtual communication, which could have impacted our ability to better evaluate users' behaviors and reactions during moderated walkthroughs, and overall communication. Next, our study only leveraged tools offered by Optimal Workshop to complete usability studies. Because of this, we never tested users' behavior on Crunchbase's actual Knowledge Center, which could have affected users' patterns and their contextual understanding of the Knowledge Center's structure.

Additionally, our walkthrough study was limited to only 5 articles to be further evaluated out of the 48 articles we originally tested in the card sort. This could have impacted the thoroughness of the overall results and inferences. Finally, the actual Knowledge Center features a search bar where users can opt to use a keyword search over the physical clicking of buttons to navigate the Center; this study did not account for the case of users who prefer search bars over discovering support pages via clicking.

Further Research

Results from this study can set the framework for future research into the Knowledge Center. Our team suggests evaluating the actual Knowledge Center webpage when observing user behaviors and mental models. Furthermore, this study only approached the topic of the Knowledge Center's information architecture; we also suggest evaluating the physical layout of the Knowledge Center and how that could be redesigned to better improve the intuitiveness of the product.

Thank You!

We would like to thank our client, Crunchbase, and our sponsor, Jeffrey Wong, for this great experience. We appreciate the time and guidance he gave us throughout the study. And thank you to Brook Sattler and Akeiyah DeWitt for your insight and recommendations throughout the process as well!

Appendix A:

Research Questions

1. Are the current Knowledge Center articles categorized similar to users' preceptions?
2. Can users successfully navigate to specific content in the Knowledge Center?
3. What options do users want to see when browsing the Knowledge Center?
4. Can users recover from errors they encountered while navigating the Knowledge Center?

Appendix B:

Heuristic Evaluation

Evaluate articles

Article Name	Clicked Helpful	Viewed	Satisfaction Rate	Color Code Matrix
How do I update an employee from current team to past?	5	10	50.00%	Satisfaction < 60%
What information can I remove from a profile?	12	20	60.00%	60% < Satisfaction < 75% && View > 20
Why are my edits not appearing?	4	5	80.00%	View < 2
What are the requirements to create a Crunchbase profile?	49	61	80.33%	
What are the requirements to edit a profile?	18	28	64.29%	
How do I add Diversity Spotlight data to Crunchbase?	15	16	93.75%	
How do I add a founder?	2	6	33.33%	
How do I edit a funding round?	8	9	88.89%	
Does Crunchbase get access to my Salesforce data when leveraging the Sync API?	1	1	100.00%	
What is Crunchbase Pro with Data Boost?	13	16	81.25%	
How do I correct my Crunchbase information on Yahoo Finance?	2	2	100.00%	
Why can I only see 1,000 results?	20	23	86.96%	
Is there a monthly subscription option for Crunchbase Pro?	15	41	36.59%	
Why am I unable to import a list?	2	7	28.57%	
What industries are included in Crunchbase?	57	62	91.94%	
What is a drill-in?	3	3	100.00%	
How are regions in Crunchbase defined?	4	4	100.00%	
What cities are in the Dallas-Fort Worth region?	67	78	85.90%	
How do I filter by pre-money valuation?	0	1	0.00%	
What types of searches can I build?	3	5	60.00%	
How do I build a search?	5	11	45.45%	
What are the differences between searches and lists?	1	1	100.00%	
How do I set up and manage my alerts?	1	2	50.00%	
How do I create a list?	5	10	50.00%	
Can I try Crunchbase Pro for free?	28	33	84.85%	
How do I register for a Crunchbase account?	33	44	75.00%	
Do you have direct contact information on Crunchbase?	10	18	55.56%	
Does Crunchbase offer Excel exports?	1	7	14.29%	
How do I get API access?	4	8	50.00%	
How do I get research access as an academic or journalist?	6	9	66.67%	
Is there a glossary of funding types?	252	264	95.45%	
How does Salesforce integrate with Crunchbase?	3	3	100.00%	
How much does Crunchbase cost?	16	23	69.57%	
What is the difference between a free Crunchbase account, Crunchbase Pro, Enterprise, Applications, and Marketplace?	14	20	70.00%	
Where does Crunchbase get their data?	31	44	70.45%	
What do I do if I'm getting a payment error?	7	15	46.67%	
When does my subscription renew?	0	1	0.00%	
Where can I find my receipt?	25	35	71.43%	
How do I cancel my Crunchbase Pro subscription?	N/A	N/A	N/A	
How do I request a password reset?	5	8	62.50%	
How do I reassign my subscription?	4	6	66.67%	
How do I manage my Crunchbase Pro subscription?	25	41	60.98%	
How do I update my email preferences?	7	15	46.67%	
How does Crunchbase use personal data?	8	15	53.33%	
How do I request to deactivate my user account?	20	42	47.62%	
How do I request to permanently delete my user account?	43	90	47.78%	
How has Crunchbase prepared for GDPR compliance?	1	4	25.00%	
What's the difference between Pro and the API?	0	0	0.00%	
Can I upgrade from Pro to Enterprise?	0	0	0.00%	

Decision made based on heuristic evaluation severity

Questions	User Clicked Helpful	Total Views	Satisfaction Rate	Adoniah's severity	Anders's severity	Claire's severity	Elaine's severity	Decision
How do I update an employee from current team to past?	5	10	50.00%	4	3	3	3	4 Q3
How do I add a founder?	2	6	33.33%	2	3	3	3	3
Is there a monthly subscription option for Crunchbase Pro?	15	41	60.00%	1	1	1	2	
How do I set up and manage my alerts?	1	2	50.00%	1	1	2	1	
How do I create a list?	5	10	50.00%	3	2	3	2	
Do you have direct contact information on Crunchbase?	10	18	55.56%	2	2	2	3	
Does Crunchbase offer Excel exports?	1	7	14.29%	2	2	3	1	
How do I get API access?	4	8	50.00%	4	3	4	3	Q4
Why am I unable to import a list?	2	7	28.57%	2	2	1	2	
What types of searches can I build?	3	5	60.00%	3	2	2	3	
How do I build a search?	5	11	45.45%	2	3	1	1	
What information can I remove from a profile?	12	20	60.00%	3	1	1	3	
What are the requirements to edit a profile?	18	28	64.29%	2	1	2	1	
How do I register for a Crunchbase account?	33	44	75.00%	4	3	3	4	Q1
How much does Crunchbase cost?	16	23	69.57%	4	3	4	4	Q5
Where does Crunchbase get their data?	31	44	70.45%	3	4	3	4	Q2
Where can I find my receipt?	25	35	71.43%	1	1	1	2	
How do I manage my Crunchbase Pro subscription?	25	41	60.98%	1	1	2	1	
How do I filter by pre-money valuation?	0	1	0.00%	1	1	1	2	
When does my subscription renew?	0	1	0.00%	1	2	2	3	
What's the difference between Pro and the API?	0	0	0.00%	2	1	1	2	
Can I upgrade from Pro to Enterprise?	0	0	0.00%	1	1	2	1	

Appendix C:

Scenarios

1. **Scenario 1:** For your first scenario, you want to register for a [Crunchbase] account. Where would you go to find the article titled "How do I register for a [Crunchbase] account?"
2. **Scenario 2:** In this scenario, it is very important for you to know how [Crunchbase] collects the information that you see on company profile pages. Where would you go to find the article titled "Where does [Crunchbase] get their data?"?
3. **Scenario 3:** In this scenario, you manage your company's profile page on [Crunchbase], some of your employees have left the company and you need to move them into your "Past Employees" section. Where would you go to find the article titled "How do I update an employee from current team to past?"
4. **Scenario 4:** In this scenario, you want to integrate [Crunchbase] into your company's website/app using their API. Please find the article titled "How do I get API access?"
5. **Scenario 5:** For your final scenario, suppose you want to sign up for a paid service on Marketly, but you don't know the price. Where would you go to find the article titled "How much does [Crunchbase] cost? "?"

Appendix D:

Tasks

Task	Starting State	Completion Criteria
Find the article titled "How do I register for a Marketly account?"	The "Crunchbase Knowledge Center" bucket on Tree testing page for Task 1	Successfully locate to the correct answer within 3 minutes
Find the article titled "Where does Marketly get their data?"	The "Crunchbase Knowledge Center" bucket on Tree testing page for Task 2	Successfully locate to the correct answer within 3 minutes
Find the article titled "How do I update an employee from current team to past?"	The "Crunchbase Knowledge Center" bucket on Tree testing page for Task 3	Successfully locate to the correct answer within 3 minutes
Find the article titled "How do I get API access?"	The "Crunchbase Knowledge Center" bucket on Tree testing page for Task 4	Successfully locate to the correct answer within 3 minutes
Find the article titled "How much does Marketly cost?"	The "Crunchbase Knowledge Center" bucket on Tree testing page for Task 5	Successfully locate to the correct answer within 3 minutes

Appendix E:

Screener questions before Tree Test

Are you willing to participate in this study?

- Yes
- No

What is your age?

- Under 18
- 18 - 24
- 25 - 34
- 35 - 44
- 45 - 54
- 55 - 64
- 65 +

Which of the following categories best describes the industry you work in?

- Technology (Software, Hardware, Internet, etc.)
- Finance
- Sales
- Marketing
- Retail
- Health Care
- Education
- Other

Which of the following categories best describes your current role or occupation?

- Salesperson
- Director
- Investor
- Marketer
- Founder
- IT Professional
- Individual Contributor
- Entrepreneur
- Student (Full-time)
- Other

In your current role, do you use market research tools or software? (EX: Sales Navigator, ZoomInfo, Marketo, etc.)

- Yes
- No

Appendix F:

Tree Test

The screenshot shows the OptimalSort interface for a tree test. At the top, there are buttons for 'View instructions', 'Leave a comment', and 'Finished'. On the left, a sidebar lists 49 questions. The main area displays a hierarchical tree structure with four main categories: 'Markety Data Partners', 'Marketly Pro Subscription', 'Salesforce Integration', and 'Payments & Billing'. Each category has a collapsed icon. Under 'Markety Data Partners', there is one item: 'Marketly Enterprise Subscription'. Under 'Marketly Enterprise Subscription', there are three items: 'Add or Edit Profiles', 'Get to Know Marketly', and 'User Data & Privacy'. All other items under 'Marketly Data Partners' are collapsed. Under 'Salesforce Integration' and 'Payments & Billing', there are also collapsed sections. A progress bar at the bottom indicates '49 of 49 remaining'.

- How do I update an employee from current team to past?
- Where can I find my receipt?
- How do I reassign my subscription?
- Does Marketly offer Excel exports?
- How do I request a password reset?
- Where does Marketly get their data?
- How do I register for a Marketly account?
- Do you have direct contact information on Marketly?
- Why are my edits not appearing?
- What do I do if I'm getting a payment error?
- What types of searches can I build?
- What industries are included in Marketly?
- What are the differences between searches and lists?
- What information can I remove from a profile?
- When does my subscription renew?

Tree Test result

Article Name	Actual Category	# times in sort	Sorted Category	# times in sort
How do I manage my Crunchbase Pro subscription?	User Account Management	0	Crunchbase Pro	36
How do I set up and manage my alerts?	Crunchbase Pro	0	User Account Management	28
How does Salesforce integrate with Crunchbase?	Get to Know Crunchbase	4	Salesforce Integration with Crunchbase	42
How do I request to deactivate my user account?	User Data & Privacy	4	User Account Management	33
What's the difference between Pro and the API?	Crunchbase Enterprise	1	Crunchbase Pro	20
What are the differences between searches and lists?	Crunchbase Pro	1	Get to Know Crunchbase	19
What is a drill-in?	Crunchbase Pro	1	Other	19
Why am I unable to import a list?	Crunchbase Pro	1	Other	17
What types of searches can I build?	Crunchbase Pro	2	Get to Know Crunchbase	18
Does Crunchbase get access to my Salesforce data?	Crunchbase Enterprise	6	Salesforce Integration with Crunchbase	34

Appendix G:

Logistic material

Script for moderator

Introduction		
Hi, my name is [name], thank you for participating in our study!		
Today we will also be joined by [Notetakers name], but they will be in the background taking notes, so don't worry about them.		
Before we begin, I want to confirm that you completed the consent form that we sent you.		
<input type="checkbox"/> YES	<input type="checkbox"/> NO	Consent Form Link
Great! It looks like we have it, so let's move on to the activity.		
It looks like we don't have that. Here is the link to the form, if you can look over and sign that quick, we can get everything started.		
Same as before, please rate the level of difficulty you had with this task.		
Before getting started, here is some background information about our research. We are conducting a usability study of a market research website that provides business insights for business development account managers, entrepreneurs, investors, and market analysts.		
For the purpose of this study, the website we are researching is called "Marketly".		
This study should take about 45 minutes in which you will be tasked to find article titles from a set of options we provide you. Today, you will be completing a True/False test to help us evaluate the discoverability of topics on our client's website.		
Just to confirm, your identity and everything we're doing today is completely confidential and will only be used for the purpose of this study.		
There are a few things to keep in mind as well.		
We are not testing you, we are testing the system you will be interacting with.		
There are no right or wrong answers in this study.		
Feel free to speak up about any confusion that you may have.		
If you have questions about any tasks, please feel free to ask me.		
At the end of this activity, you may ask me any other questions that you might have.		
Do you have any questions before we begin?		

Consent form

Crunchbase NDA Form: Research

Please read and sign this form.

During the research interviews, I agree to participate in an online or in-person session using my computer and/or mobile phone. During the session, I will be interviewed about my business, my experience using Crunchbase products and other tools, and how you find new opportunities.

I agree that I will keep confidential and not disclose to any other third-party any information obtained about the Crunchbase or Crunchbase's services from the online session. I agree that I will not disclose my participation in the session to a third-party without the prior written consent of Crunchbase. The prevailing party on any suit or claim to enforce the terms of this NDA shall be entitled to reasonable attorneys' fees incurred by the prevailing party in connection with such suit or claim.

I understand and consent to the use and release of the customer interview by Crunchbase. I understand that the information and recording are for research purposes. I understand that my story, name, title, company, image, and company logo may be used for research and marketing purposes on Crunchbase properties. I relinquish any rights to the recording and understand the recording may be copied and used by Crunchbase without further permission.

I understand that participation is voluntary, and I agree to immediately raise any concerns I might have.

Please sign below to indicate that you have read and understood the information on this form and that any questions you might have about the session have been answered.

Date _____

Entity Name: _____

Please print your name: _____

Please sign your name: _____

Qualitative note-taking

*V = Verbal

*NV = Non verbal

*T = Time on task

*E = Error

Person	Task	Time	Observation	Category	Importance
Glen	T1	9:00 - 9:02	The person is reading instruction carefully	NV	
Glen	T1	9:05	"For this, am I just making a standard count or am I looking for pro or enterprise."	V	***
Glen	T1	9:06	"I guess just start, do get to know"	V	
Glen	T1	9:06	"Again pro or enterprise I'd be looking at those if I was looking to specifically start that."	V	
Glen	T1	9:07	"Yes, I would assume somebody already has an account, go to that..."	V	
Glen	T1	9:08	Explained his reason "	V	

Data-logging

Session name: User testing With Glen

Date: 3/1/2021

Test Facilitator: Adoniah

*Y= Yes

*N = No

*ATC = Actual time to complete

Task 1: Complete Optimal Sort

Sub-Task	Start time	End time	ATC	# Error	Success? Y/N	Comments
"How do I register for a Crunchbase account?"	09:04:00	09:07:00		2	Y	Participants clicked multiple categories to find the answer.
What made it difficult?						Assumed they wouldn't go to "user account"
What would you do to make it easier?						
"Where does Crunchbase get their data?"	09:08:00	9:09:00		1	Y	

Appendix H:

Pre-task questions before Tree testing

When you have questions about a website and its offerings, where do you go to find answers?

- Website help center or FAQ page
- Google - web search
- Customer Support - Call/Email
- Other

How often do you use web-based market research tools?

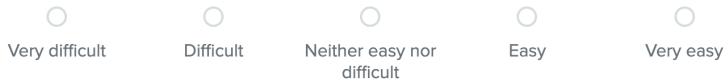
- Frequently
- Occasionally
- Rarely
- Never

How long would you be willing to spend on a website's help center to find the answer to a question?



Post-task question after Tree testing

How easy or difficult was it for you to find the article?



Continue

Appendix I:

Tree testing

Task 1 of 5

[Skip this task](#)

For your first scenario, you want to register for a Marketly account. Where would you go to find the article titled "How do I register for a Marketly account?"

Marketly Knowledge Center

User Account Management

How do I register for a Marketly account?

← [I'd find it here](#)

Task 1 of 5

For your first scenario, you want to register for a Marketly account. Where would you go to find the article titled "How do I register for a Marketly account?"

How easy or difficult was it for you to find the article?

Very difficult

Difficult

Neither easy nor difficult

Easy

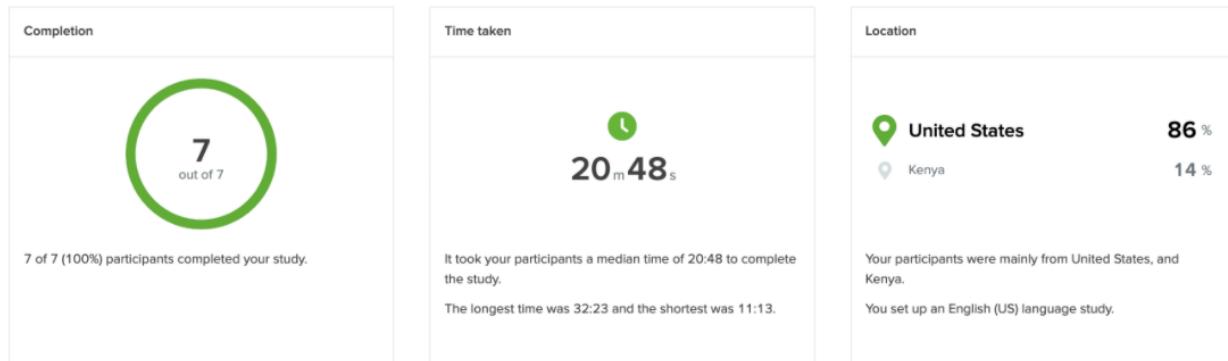
Very easy

[Continue](#)

Appendix J:

Participants Data

Participants

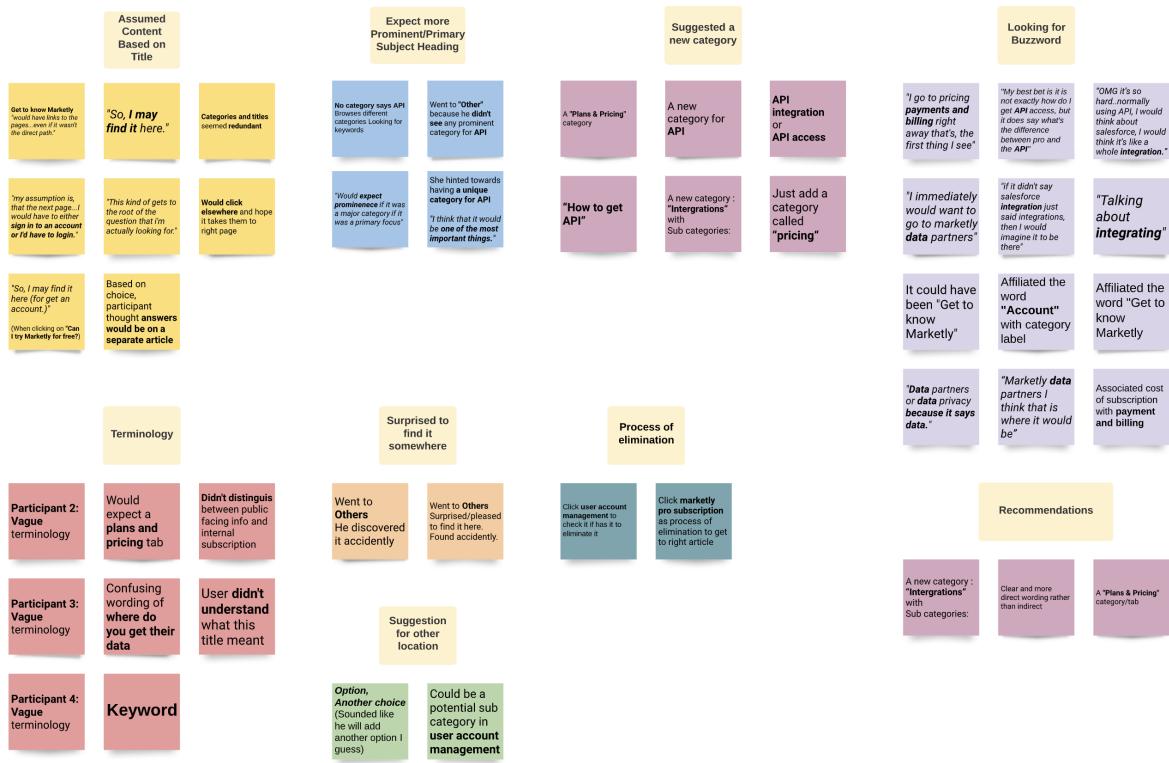


Tasks



Appendix K:

Affinity Diagram



Appendix L:

Rainbow chart of severity

