

Assignment M2

Julia Nething
nething@gatech.edu

Abstract—Over the course of the M assignments, I will be investigating the task of searching for local events, with a focus on the Meetup.com website. Meetup.com’s search page currently has two main page views and several filters, but there are some use cases that are difficult to accomplish (for example, searching for certain types of events).

1 NEEDFINDING EXECUTION 1

The first needfinding plan that I executed was participant observation.

1.1 Results

During this exercise, I went to the Meetup.com website and tried out specific use cases for finding a local event. The data is below. Screenshots can be viewed in *Appendix 7.1: Needfinding Exercise 1 Screenshots*. The table floats down below, please scroll down to find it.

1.2 Takeaways

One clear takeaway for me is that the Meetup.com website requires you know what you are looking for and that you not make any mistakes in finding a particular group or event. It is not friendly for users simply browsing for local meetups in a particular genre, for example. It also does not predict typical user mistakes (such as not setting the location distance correctly) and just shows an uninformative error.

1.3 Controlling for Biases

Two biases that I attempted to avoid were confirmation bias and observer bias. I have previous experience using the site, so I have an idea of how I think other users will use the site. To avoid this, I tried to create use cases that I do not typically engage in in order to include other user types. I also tried to avoid bias by using more quantitative and objective data such as number of clicks.

Table 1—Evaluating different tasks on Meetup.com

Task	Result
Finding a particular genre of event (for example, a running meetup)	First, I navigated to the Meetup.com homepage and searched for "running" in the searchbar. As shown in the screenshot, the site shows two results, neither of which are related to running. I then clicked the "All upcoming events" button to show more events, and then clicked each date in the calendar until I found an event. The first relevant result came up when I finally clicked on June 18th. So after searching for "running" I had to make a total of 6 more clicks before finding a relevant event.
Finding events over a range of dates (for example, this weekend)	I first navigated to the Meetup.com homepage. By default it shows the current date and "your groups and suggestions". I clicked on Saturday's date, and it showed one event for Saturday and below that a few events for Tuesday. I then clicked on "all upcoming events", which resulted in showing 8 events for Saturday and 3 events for Sunday. In total, I made 2 clicks to find multiple events for this weekend.
Finding the next time a particular group is meeting up (for example, a specific book club)	I first navigated to the Meetup.com homepage. By default it shows the "Calendar" view. I knew from previous experience that there is a group called the "Austin Classics Book Club", so I typed that into the search bar and submitted. The results page said that no such event existed, but a similar event (the group I am looking for) did show below that alert. So it did show the next meeting time for the group, though it also gave me an error.
Finding a particular group while in a different location	I used to be in a Meetup group called The LA Girly Book Club, but I now live in Austin. I tried searching for the LA Girly Book Club while on the "groups" page and the page gave me an error because the group did not exist in my default distance range, even though I am a member of the group. I had to change the distance to "any distance" in order to find it.

2 NEEDFINDING EXECUTION 2

The first needfinding plan that I executed was sending out a survey to ask users how they currently find local meetups.

2.1 Results

The raw data can be viewed in *Appendix 7.2: Needfinding Exercise 2 Survey Responses*.

The users were primarily aged 18-29 (32%) or 30-39 (56%) and primarily live in either an urban (52%) or suburban (44%) setting. The users were asked to think back to a recent year not affected by COVID-19 (e.g. 2019).

They were then asked how many times in that year they searched for a local meetup. These answers formed a bell curve with the most common answers

being 1-3 times per year (36%) and 4-6 times per year (32%). They were then asked how many times in that year they attended a local meetup, and this time the answers skewed to the lower end with the most common answers being 0 times (24%) and 1-3 times (52%).

The most important factor in determining if the user would attend a meetup was reported as being the genre (e.g. book club) (44%), the date/time (36%) and the location (20%). The second-most important factor was reported as being the date/time (48%), then the genre (32%), then the location (20%).

Users searched for events usually 1-2 weeks in advance (56%) or 1-6 days in advance (36%) (this was a "choose multiple" question), and they typically searched for social events (68%), recreation/sports (52%), or career/networking (36%) (also a "choose multiple" question).

Users reported that it was a mix of browsing for new events and knowing what they were searching for (64% said it was a mix). The most common websites used were Meetup.com (64%), Facebook (56%), local websites (36%), and Google or another search engine (36%) (a "choose multiple" question). Finally, they typically used either their smartphone (96%) or their laptop (48%) to search (also a "choose multiple" question).

2.2 Takeaways

Interestingly enough, searching for meetups was not a common activity for these users. The majority searched for meetups up to 6 times per year and attended up to 3 times per year. Therefore, it seems that these would be novice users of a meetup search site (they are more focused on ease than efficiency). It seems that I did correctly identify the main goals for finding a meetup (the "other" option was not chosen), with the most important factor being the genre, then the date/time, then the location. They also tend to look a few days in advance so there is no urgency in their search, but they typically use their smartphone so it should be optimized for smartphone usage. They also were looking for meetups for fun (social events and recreation/sports, not for career or for learning). Finally, I primarily advertised this survey on Facebook groups so it is not surprising that Facebook and Meetup.com were the most common sites for searching for a new meetup.

2.3 Controlling for Biases

One bias that I did not think about ahead of time was the bias for certain platforms. I primarily advertised this survey on various Facebook group pages that I am part of, and over half of users reported using Facebook to search for events. If they are already comfortable with the Facebook platform and use it more often, they might answer in a way that reflects how Facebook displays events. In the future, I could avoid this by advertising the survey on multiple platforms (such as Reddit, etc.).

To avoid "confirmation bias", I added an "other" answer to all multiple-choice questions (such as "what platforms do you use to find events") so that I did not biasing my participants towards only platforms that I am familiar with.

Finally, to avoid "voluntary response bias", I tried to tell participants very little about the survey before they took it.

3 NEEDFINDING EXECUTION 3

The third needfinding plan that I executed was an evaluation of existing user interfaces. The most common sites used according to the survey were Meetup, Facebook, local websites, Google/search engines, and Instagram. For this event, I chose to look at Facebook and a local website called Do512, which is local to Austin, Texas.

3.1 Results

The table floats down below, please scroll down to find it.

3.2 Takeaways

Part of the problem seems to be that groups are not advertising their meetups on all websites. So for example, I am in a running club that meets weekly in Austin (and displays their events on Facebook), yet based on these findings one might think that that was not the case because I was unable to find those events. It is easier to find particular events on local websites, probably because they are more fine-tuned to local events and locations. Browsing for random events is a lot easier on Do512 than on Facebook; Facebook wants you to filter by something first, even though it makes the most sense for it to default filter by location for you. Finally, if you know where the event is or the group that is hosting the event,

Table 2—Comparison of executing tasks on Do512 and Facebook

Task	Do512	Facebook
Finding a particular genre of event (for example, a running meetup)	On the homepage there is a filter that is default set to "All events", so I changed that to "Sports & Activities". This brought me to a list of events, but there were no running events. I then put "running" in the search bar and a "running events" list popped up, but it was also empty. Therefore I was unable to find a running event.	I went to the homepage and then "Events" on the left-hand side. I then typed "running" in the "search events" search bar. The page displayed a long list of events, but not in Austin. Then I filtered the list to Austin, Texas, and the page displayed 3 events, none of which were related to running. Therefore, I was also unable to find a local running event.
Finding events over a range of dates (for example, this weekend)	On the homepage is a date filter that only allows you to choose one date at a time. When I change it to Saturday, it shows approximately 25 events.	After navigating to the Events page, there is no date filter. There is only a "This week" button. If I click that and scroll down, I do see a variety of events coming up this weekend. You have to search for a keyword or topic before you are shown a date filter. The date filter includes a "this weekend" option. This shows a variety of online events, but if I filter by Austin nothing appears.
Finding the next time a particular group is meeting up (for example, a specific book club)	On the homepage, I search for "Meanwhile Brewing" to see what events are being held by that group. As I type, results pop up of events that are being held at the location. Three events show in the preview. If I choose the Meanwhile Brewing location result, then a list of 8 events show.	If I search for a group that I am in (and has an upcoming event) on the Facebook Events home page, such as "ATX Girls Book Club", the event does not show up. I cannot find it on either the main Events page nor on the "Your Events" page. The best way is to go to the actual group's Facebook page, then scroll through the feed to find the upcoming events.
Finding a particular group while in a different location	This is irrelevant because it is a page for Austin events only.	After searching for an event on the Events home page, it is possible to filter by location.

going to their page directly seems to be the easiest way to find their event.

3.3 Controlling for Biases

One potential bias was "confirmation bias". I already have a typical flow for finding events, so it makes sense that I would use my typical platforms and patterns. I mitigated this bias by asking in the survey (needfinding exercise 2) what platforms they use. I also chose a local website that I had heard of but not used before. That way, I tried to evaluate these platforms the same way the participants of the survey did.

Another bias was "recall bias", or the possibility that I would forget what I did after the fact. I mitigated this by taking notes while I did the task on each platform so that I did not forget what my thoughts were.

4 DATA INVENTORY

4.1 Who are the users?

Based on the survey results from the needfinding exercise 2, the users are adults (ages 18+) and they are relatively technologically savvy (can use a smartphone/laptop/etc.) but they are novices at finding events (they do not do it often).

4.2 Where are the users?

Based on the survey results from the needfinding exercise 2, the users are typically in urban or suburban communities. Based on the small quantity of events that I found for Austin on popular sites such as Meetup and Facebook during needfinding exercises 1 and 3, it makes sense that the user is probably in a mid to large size city (which would have more events).

4.3 What is the context of the task?

Based on the survey results from the needfinding exercise 2, 84% of users reported that they sometimes browsed for new events (not necessarily knowing what they were looking for). Browsing is a more passive activity, which might suggest that their attention was divided by other activities such as watching TV. If users had reported that they knew what they were looking for, that would indicate a more focused context.

4.4 What are their goals?

Based on the survey results from the needfinding exercise 2, users were looking for fun events such as social and recreational/sports meetups. They also reported that the genre of the activity was the most important factor in determining if they attended. Therefore, their goal is to find an enjoyable local event.

4.5 What do they need?

Though I can infer the information they need based on some of their answers to the survey (they indicated location and date/time were both important factors for determining if they went to the event), I did not specifically ask what information they looked for in the body of the event. I should have also asked them what information they needed from the website about the event for them to commit to it (address, time, another website, testimonials, etc.).

4.6 What are their tasks?

Their tasks are to decide what type of event they want to go to, and then navigate the website to find that event. These were especially obvious to me in the needfinding exercises 1 and 3, where trying to find different events based on different criteria posed different challenges; it is necessary to decide on some filtering criteria first.

4.7 What are their subtasks?

Also based on the needfinding exercises 1 and 3, it was clear that the users' subtasks include evaluating the many filters and prioritizing which of those filters are most important to them. They need to try different filters in different combinations in order to find an event that appeals to them. It also helps if they first browse and join different groups so that those groups' events will be shown more prominently later. Finally, they need to learn how the current website displays events and if it is more calendar-based or group-based, and then filter from there accordingly.

5 DEFINING REQUIREMENTS

There needs to be a way to filter or browse by genre, date, and location. By default the interface should show events that are between 1 day and 2 weeks away. I am focusing on more novice users (users who might casually use the website

a few times a year), so learnability is extremely important. The user should be able to see the filter they want from the home screen and they should be able to use the filter of their choice in 1-2 clicks. The searching functionality should suggest different types of search results such as events, groups, and venues. It also must be compatible with smartphones and laptops. Ideally the site should be free to both users and groups so that more groups will advertise the events on the platform.

Some criteria that could be used is we could ask users to accomplish a certain task (for example, find a running event near them on Saturday) on the legacy interface and the new interface and see which one requires fewer clicks to find a list of events. Another criteria is we could ask the same user to find the same event using both a smartphone and a laptop and see how quickly they can accomplish both tasks.

6 CONTINUED NEEDFINDING

There seems to be a disconnect between searching for meetups and actually attending meetups. I would like to ask users why they searched for but did not attend a meetup. I also would like to know what they typically filter by first. I asked in the survey what was the biggest factor in attending a meetup, but I did not ask what their first filtering step was in searching for a meetup. I'm not sure how I would catalog all of these, but I would like to also have a list of possible filters and ask users to check off which filters they found helpful and which ones they do not use or do not find helpful. Finally, I would like to ask users what information they are looking for in the body of the event (address, time, another website, testimonials, etc.).

This could be a great opportunity to observe a participant and ask them to do a think-aloud of them searching for a meetup. I would see how they engage with the interface, what they filter by first, and what they do if the results do not show them what they are expecting.

7 APPENDICES

7.1 Needfinding Exercise 1 Screenshots

The screenshots have floated down below, please scroll to find them.

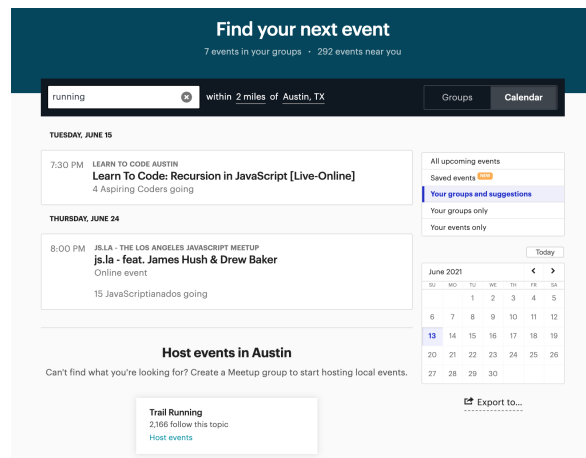


Figure 1—The Meetup.com results page after searching for "running"

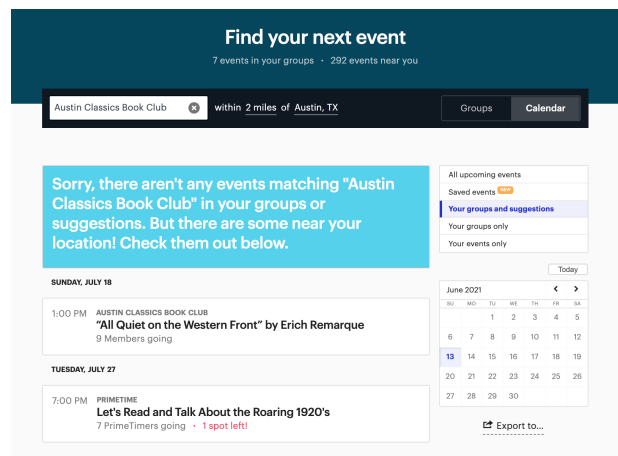


Figure 2—The Meetup.com results page after searching for "Austin Classics Book Club"

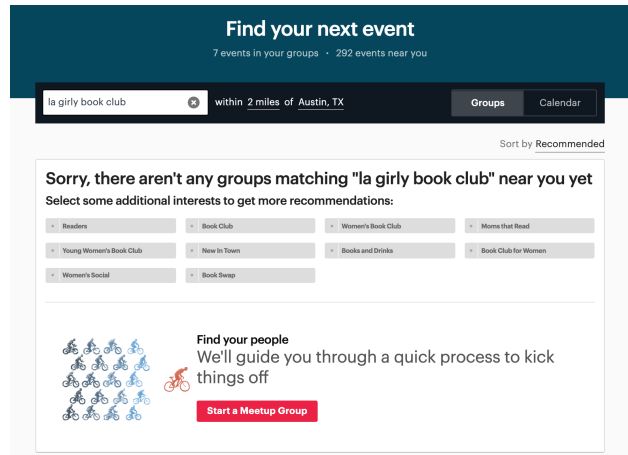


Figure 3—The Meetup.com results page after searching for "LA Girly Book Club"

7.2 Needfinding Exercise 2 Survey Responses

For all results below, the question is in the table caption, the possible answers are the columns, and the percentages are the percentage of respondents who chose that answer (out of 25 respondents). For questions that allowed for multiple answers (denoted as "choose multiple" in the question), the percentages might not add up to 100.

Table 3—Select your age

Under 18	18-29	30-39	40-49	50-64	65+
0%	32%	56%	4%	8%	0%

Table 4—Which of the following best describes the area you live in?

Urban	Suburban	Rural
52%	44%	4%

Table 5—Please think back to a recent year that was unaffected by COVID-19 (e.g. 2019). Approximately how many times in that year did you search for a local meetup?

0 times per year	1-3 times per year	4-6 times per year	7-10 times per year	11+ times per year
12%	36%	32%	12%	8%

Table 6—Please think back to a recent year that was unaffected by COVID-19 (e.g. 2019). Approximately how many times in that year did you attend a local meetup?

0 times per year	1-3 times per year	4-6 times per year	7-10 times per year	11+ times per year
24%	52%	12%	8%	4%

Table 7—When searching for a meetup, what is the most important factor in determining if you will attend?

Genre (e.g. book club)	Date/time (e.g. this weekend)	Location	Guest list size	Other
44%	36%	20%	0%	0%

Table 8—When searching for a meetup, what is the second-most important factor in determining if you will attend?

Genre (e.g. book club)	Date/time (e.g. this weekend)	Location	Guest list size	Other
32%	48%	20%	0%	0%

Table 9—How far in advance do you typically search for events? (Choose multiple)

Same-day	1-6 days in advance	1-2 weeks in advance	3-4 weeks in advance	More than 4 weeks in advance
8%	36%	56%	24%	4%

Table 10—What types of meetups do you typically search for? (Choose multiple)

Career or networking	Learning or academic	Recreational/sports	Social (e.g. happy hour)	Other
36%	28%	52%	68%	4%

Table 11—Do you typically browse for new events or do you know what you are searching for?

Browse for new events	Mix of both	Know what I’m searching for
20%	64%	16%

Table 12—What websites do you typically use to find or search for meetups? (Choose multiple)

Face-book	Reddit	Insta-gram	Meetup-.com	Twitter	LinkedIn	TikTok	Local website	Google or other search engine	Other
56%	8%	20%	64%	0%	16%	4%	36%	36%	4%

Table 13—What devices do you typically use to find or search for meetups? (Choose multiple)

Laptop	Desktop	Smartphone	Tablet	Other
48%	20%	96%	8%	0%