

Heuristic Evaluation for Team Wasabi

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Human Factors and Interface Design

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Introduction

Our evaluation team thought that Team Wasabi's project addresses an area where there is a definite need, especially at Olin. We felt that, barring a few problems that are addressed below, this is an application that holds promise and has a simple interface that is easy to learn and navigate.

However, we found some issues that are currently hindering our ability to intuitively navigate the application. First, many of our team members never actually made it to the room search page because it was not made clear that the user had to press the submit button with the keyword "any" typed in the search field. While we understand that the search function is not yet implemented, the conflict between typing a room number into the search bar and using the room search page was distracting and made it harder to evaluate the actual features that the application has.

Also, the evaluation team had some concerns in regards to the conceptual model that was in place. It seems that your design is attempting to convey time and place as two separate ways to find a room, but your home page does not support this conceptual model.

Nielsen's heuristics were used to compile this report. A summary of the number of violations of each heuristic and the severity are included after the complete listing of violations. Nielsen's heuristics are as follows:

1. Visibility of system status
2. Match between system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Help users recognize, diagnose, and recover from errors
10. Help and documentation

Make a note of how many evaluators found each error.

Heuristic	Problem	#	Severit
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		People	y
H1	It is not made transparent to the user how to access the complete room listing. Instead, the action is implemented as default functionality.	3	4
H1	After creating an event, you can't go back to see the details of the room or the time for which the event was scheduled.	2	3
H1	A user needs assurance that entering a room number and time will reserve that slot, preventing other users from taking up that slot. It doesn't appear that there is currently a room collision system, since room numbers are typed by hand and could have different conventions. (homepage)	1	3
H1	When I cancel a room immediately after creating it, the notification that says, "Your room request has been submitted for approval. Expect an email with a confirmation," remains. This makes it unclear whether the room I just saved and cancelled is still saved or cancelled.	2	3
H1	In a user's reservations listing, there is no differentiation between private and public events. This is an extremely important distinction which might be made by indicating private events with a marker or by having a separate listing for private events.	1	2
H2	When you hit recurring, you are asked to input the start time before the start date, which is not an intuitive order.	2	2
H2	The "back" button on the confirmation page does not take the user back to the same screen if coming from the room-specific booking page. This is illogical because I see a page that I have never seen before and cannot get back to the page I was looking at before.	2	3
H3	Why is there the option to both type the date, and	1	2

	select it on the large calendar, when only one will be used? What happens if I use a different date in each? (Should take away the ability to type the date.)		
H3	Undo and redo not supported on room choice page. Once the user leaves the page they no longer have access to change the information (without inputting it all again).	2	2
H3	User cannot go back to the home page once you get to the search page. Leads to feeling trapped by the system.	2	2
H4	Room numbers should not be typed by hand because there is a finite set of rooms. Room numbers are typed by hand at the moment. I would suggest an autocomplete filtering function here.	1	3
H4	I tried to book the room using the room search page, except because there was a conflict during the time that I entered for one of the recurring dates, the room did not show up at all for the other three dates. There was no way to book AC 109. The only way to book the room and resolve the conflicts was to go back to the home page and directly type in AC 109.	1	4
H4	One of the dates showed up as "13/10/2013" while all the other ones are in standard US format.	1	1
H4	Words indicating identical actions should be identical. When adding a room from the search page, the checkbox indicating recurrence is labeled "Recurring?"; the checkbox indicating the same functionality is labeled "Weekly event?" from the room-specific lookup.	1	1
H5	The recurring event does not get scheduled for the start date.	1	4
H5	There are no vertical lines on the calendar to guide what day the user is dragging on (except on the all-day option).	1	1

H5	Allows submission of room registration without room number, time, or date. Does not indicate that there is a problem.	1	4
H6	Cannot see pending reservations or public events once you leave the home page. User is expected to retain all of that information while booking a room.	1	2
H8	Word “false” appears beneath calendar selection	2	1
H8	Remove the trailing commas on features for each room (ex: “projector,”).	1	1
H9	“Next” button still looks pressable when the user hasn’t entered any information, even though the user cannot go on to the next screen. There is no indication to the user that there is a problem except that when you press the button nothing happens.	1	1
H9	“Next” button is pressable when the user hasn’t entered any information. There is no indication to the user that there is a problem except that when you press the button.	1	1
H9	Error messages either do not exist (when information is not entered such as time, day, or room number of request) or force unnecessary redundancy (ex: popup asking if the user actually wants to cancel a room request).	1	2
H10	First time users will probably need some direction (for instance, what to type in the room search box) when first booking a room. This documentation is currently not available.	1	2

Count of heuristic violations

Violation Code	Number of occurrences
H1	5
H2	2

H3	3
H4	4
H5	3
H6	1
H7	0
H8	2
H9	3
H10	1

Counts of severities

Severity	Number of occurrences
0	0
1	7
2	8
3	5
4	4

OVERALL RECOMMENDATIONS

- It seems you are trying to give the user one interface to handle both of the use cases of your system (namely, “I have a time and I need a place” vs “I have a place and I need a time”). Currently your interface doesn’t seem to do a good job communicating to the user that it is supposed to handle both cases, which might cause confusion with users. The user should learn from the interface that there are two paths which your system is supposed to handle.
- Give advanced users (superusers) shortcuts. One example of this is you could make your system recognize frequent events and suggest them to the user. Perhaps you could use machine learning to do this.

- Have a different way of getting to the room search page other than trying to book “any” room.
- Allow the user to book a room directly from the home page (i.e. make the room select page the home page) to save the user the extra step
- Should take away the ability to type the date in places where it is never used.
- Once the user leaves the page they no longer have access to change the information without inputting it all again.
- Your website is confusing to us because it seems tailored to Olin, but at the same time you are intending to design for a broader audience, and we’re not sure that the features you have selected will adequately satisfy either group.

Ariana Chae
Individual Heuristic Evaluation for Team Wasabi
Human Factors and Interface Design
November 12, 2013

Scenario: You have plans to show a movie sometime this month. Schedule a room in the AC with an LCD projector at 8 p.m. for 2 hours.

1. [H2 Match Between System and the Real World] (Severity 2)
When the default search for rooms is pre-populated as “any,” it is unclear what hitting Submit will do. Will it assign a random room? etc.
2. [H1 Visibility of System Status] (Severity 3)
After the room is reserved, it is impossible to go back and make sure that the room has an LCD projector. Each room should have a page that lists its features. It is also not possible to see what times the room has been booked for, only the date.

Scenario: Book CC 100 for this coming Wednesday, for 3 hours for a SCOPE meeting.

3. [H7 Flexibility and Efficiency of Use] (Severity 4)
If I type in the room number on the home page, submit a time, but then decide to hit the back button instead of the confirm button, it takes me to the Room Select page. If I did not use this page by putting in a room number directly on the home page, I now have to restart the entire process of finding the room. I expected the back button to let me select a different time/date because that was the previous screen.

Scenario: Delete a ‘reservation’ that you had scheduled previously.

4. [H1 Visibility of System Status] (Severity 3)
When I cancel a room immediately after creating it, the notification that says, “Your room request has been submitted for approval. Expect an email with a confirmation,” remains. This makes it unclear whether the room I just saved and cancelled is still saved or cancelled.

Scenario: Schedule a weekly meeting in AC109 every Wednesday for 4 weeks.

5. [H2 Match Between System and the Real World] (Severity 2)
When creating a recurring event, the original date gets greyed out and you need to re-enter the start date before putting in the end date. (Also, the recurring event does not get scheduled for the start date.)
6. [H4 Consistency and Standards] (Severity 1)
One of the dates showed up as “13/10/2013” while all the other ones are in standard US format.

Scenario: Reserve a time in AC 109 on Tues from 11/12 - 12/3 when the room is mostly free. Try 9:30AM - 10:30AM. Skip any conflicts.

7. [H2 Match Between System and the Real World] (Severity 2)

When you hit recurring, you are asked to input the start time before the start date, which is not an intuitive order.

8. [H4 Consistency and Standards] (Severity 4)

I tried to book the room using the room search page, except because there was a conflict during the time that I entered for one of the recurring dates, the room did not show up at all for the other three dates. There was no way to book AC 109. The only way to book the room and resolve the conflicts was to go back to the home page and directly type in AC 109.

Field Notes:

- There are some aesthetic issues that could be addressed.
- The design is simple and intuitive for the most part and gets the job done quickly without any extra steps involved.

Problem 1 [H1 Visibility of system status] (2)

Webpage takes a long time to load without giving any indication of status. Indicated in instructions so I knew to wait but still was disconcerting to wait that long without knowing that the system was doing anything.

Problem 2 [H1 Visibility of system status] (2)

On search filtering options, group seating, studio, chalkboard, and lab don't appear to do anything.

Problem 3 [H2 Match between system and the real world] (3)

The "back" button on the confirmation page does not take the user back to the same screen if coming from the room-specific booking page. This is illogical because I see a page that I have never seen before and cannot get back to the page I was looking at before.

Problem 4 [H3 User control and freedom] (2)

Undo and redo not supported on room choice page. Once the user leaves the page they no longer have access to change the information (without inputting it all again).

Problem 5 [H3 User control and freedom] (3)

User cannot go back to the home page once you get to the search page. Leads to feeling trapped by the system.

Problem 6 [H4 Consistency and Standards] (1)

Enter button does nothing. According to standards, enter button should submit or send to the next page.

Problem 7 [H4 Consistency and Standards] (1)

Words indicating identical actions should be identical. When adding a room from the search page, the checkbox indicating recurrence is labeled "Recurring?"; the checkbox indicating the same functionality is labeled "Weekly event?" from the room-specific lookup.

Problem 8 [H4 Consistency and Standards] (2)

There are very different systems handling looking for a specific room versus searching for all rooms. The user cannot get to the calendar from the search feature.

Problem 9 [H5 Error prevention] (1)

There are no vertical lines on the calendar to guide what day the user is dragging on (except on the all-day option).

Problem 10 [H5 Error prevention] (3)

It is not obvious how to use the original search box, and the rest of the program hinges on successful use of it. There are then no error boxes to say that the user has done the wrong thing when the user types something that is not a room number.

Problem 11 [H5 Error prevention] (3)

User is allowed to check a box that says "do not allow this site to make any more popups" in the popup that occurs when the user cancels a room. The user can then no longer cancel a room.

Problem 12 [H5 Error Prevention] (3)

Allows submission of room registration without room number, time, or date. Does not indicate that there is a problem.

Problem 13 [H6 Recognition rather than recall] (2)

Cannot see pending reservations or public events once you leave the home page. User is expected to retain all of that information while booking a room.

Problem 14 [H7 Flexibility and efficiency of use] (2)

There is no way for advanced users to skip steps/screens or proceed at a faster pace. There are no indicated shortcuts.

Problem 15 [H8 Aesthetic and minimalist design] (0)

There are no unnecessary words that detract from the design. All information conveyed is necessary and well-laid out. Situation-specific necessary data (like recurrence information) is hidden unless requested. The one thing might be to remove the trailing commas on features for each room (ex: "projector,").

Problem 16 [H9 Help users recognize, diagnose, and recover from errors] (1)

"Next" button still looks pressable when the user hasn't entered any information, even though the user cannot go on to the next screen. There is no indication to the user that there is a problem except that when you press the button nothing happens.

Problem 17 [H9 Help users recognize, diagnose, and recover from errors] (2)

Error messages either do not exist (when information is not entered such as time, day, or room number of request) or force unnecessary redundancy (ex: popup asking if the user actually wants to cancel a room request).

Problem 18 [H10 Help and documentation] (2)

First time users will probably need some direction (for instance, what to type in the room search box) when first booking a room. This documentation is currently not available.

Good features:

- Dynamically updating search filtering system
- Persistent reservations across the bottom of the screen
- Text telling the user there are no search results (tells why the system does what it does)
- Personalization of the system
- Indication of the times other events are happening
- Buttons are very obvious and draw the user's attention
- Click and drag on calendar to color what time you want
- Responsiveness to screen size change

Questions:

- Why does it say false at the bottom of the calendar?
- Does a room just not show up in the search results if it's not available?

Evan's feedback for team Wasabi

A disclaimer to preface my feedback, at no point did it occur to me to submit the word “any” on the homepage and so never saw or knew of the existence of the room selection page. It should be understood that the following feedback is under the context of this mental model. It is my recommendation that you have another way to get to this page to prevent that from happening to any other users.

Heuristic Evaluation:

1. [H1 **Visibility of system status**] (Severity 3)
After creating an event, it at no point shows the duration, and on the homepage it only shows the date, not the start time.
2. [H2 **Match between system and the real world**] (Severity 2)
I was unaware of what room have what amenities, so I didn't know what room to pick in the AC “with a projector.”
3. [H8 **Aesthetic and minimalist design**] (Severity 1)
Word “false” appears beneath calendar selection
4. [H3 **User control and freedom**] (Severity 2)
Why is there the option to both type the date, and select it on the large calendar, when only one will be used? What happens if I use a different date in each?
5. [H6 **Recognition rather than recall**] (Severity 3)
I don't know what classrooms exist, let alone are available.
6. [H3 **User control and freedom**] (Severity 2)
There does not appear to be a way to edit an existing reservation, only cancel and start over.
7. [H1 **Visibility of system status**] (severity 2)
Newly created public event does not show up in public events on homepage.

Notes:

General:

When using the application for the first time following the instructions, I had no idea how to go about finding a room with certain amenities. I tried submitting “AC” to see if I would be able to choose a room in that building, but was presented with a date picker to book the room “AC”. There should be a way for me to see all of the available rooms (independent of time) and what amenities they have, as I do not have that information even close to memorized.

/calendar page:

I very much liked the click and drag interaction to select a date and time. It's familiar to me as an outlook user and I had no problem figuring out how to use it. However, after using this feature, I was confused as to why I was ever even given the option to type a date (use the small calendar picker). Does that information ever get used? It seems to be discarded even on the spot when creating a recurring event.

Home page:

I liked being presented with a confirmation that the even was created, but I would like if it went away after a short period of time.

Being able to cancel an event is good, but the confirmation dialog is maybe a bit out of the way.

Design Evaluation for Team Wasabi

James Wu

Problem 1. H4. Consistency and standards (3)

Room numbers should not be user-input because there is a finite set of rooms. Room numbers are typed by hand at the moment.

Problem 2. H1. Visibility of system status (2)

A user needs assurance that entering a room number and time will reserve that slot, preventing other users from taking up that slot. It doesn't appear that there is currently a room collision system, since room numbers are typed by hand and could have different conventions.

Problem 3. H7. Flexibility and efficiency of use (2)

It is not made transparent to the user how to access the complete room listing. Instead, the action is implemented as default functionality.

Problem 4. H3. Help users recognize, diagnose, and recover from errors (3)

There is no collision detection system in place when the user enters multiple reservations for the same time at the same room. Collision reservation only appears when the user opts to select the time first, letting the system select the room for them. Yes, the system doesn't need to be fully functional, but it would be nice to mock up the collision detection system for both paths.

Problem 5. H6. Recognition rather than recall (4)

Addressed in the previous point: there are two paths a user can take to book a room, and this is not made very clear to the user by the interface.

Problem 6. H2. Match between system and real world (2)

In a user's reservations listing, there is no differentiation between private and public events. This is an extremely important distinction which might be made by indicating private events with a marker or by having a separate listing for private events.