Homework 5
Empirical Study on Calendar Interface

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The following pages include: introduction and briefing as presented to the test subjects, questionnaire forms, explanation of metrics, survey and test results, and conclusions/interpretations
Interface Study: Briefing

Thank you for participating in this study about online calendar use. Your contribution to this research is invaluable for our project. In this study we will ask you to perform two tasks using online calendar systems. You will be performing these tasks on two different interfaces, Google calendar and Yahoo calendar. The reason we are conducting this survey is because we are trying to design an online calendar combined with a few new features. The goal of this research is to understand how users’ think regarding the existing online calendars so that we can make adjustments accordingly. We will read instructions for each task. As you perform these tasks, we ask that you think aloud and let us know why you choose to do the actions that you do to get your task accomplished. We appreciate your honesty and willingness to participate in this survey.

Already be signed in to the calendar before you start the survey. We aren’t testing them on how to sign in, just how to perform these tasks.

Task One

You are a student at the University of Illinois. Instead of using the I-Book to plan out your classes and assignments, you would prefer to use an online calendar. You already know your schedule of classes every week and you want to add this to your calendar. You pick your CS 465 class to add to your calendar first. This class meets every Wednesday and Friday from 12:30pm-1:45pm. You want this class to appear EVERY week, not just the week that you are currently in. You want to make a recurring event. Please accomplish this task.

Task Two

In addition to using your online calendar to put in your classes, you want your homework assignments to appear on this calendar as well. You have your CS 465 HW #6 due on November 5th at 10PM. You want to set up an event (your homework assignment) with a deadline (the due date/time). Please accomplish this task.
Overview
The two interfaces that we will be using are Google Calendar and Yahoo Calendar. Google Calendar is a free online shareable calendar service. There are many different features in this calendar. It allows you to keep track of important dates as well as add your own events. It is possible to share your events with family and friends. Gmail is also integrated into the calendar and you may update your calendar through your mobile. There is a search feature as well allowing you to look for something specific in your calendar. Not only that, but Google Calendar can connect to other calendar applications and devices as well as able to import information from these other calendar applications. The user is also able to control and limit how much others may see on their calendar.

www.google.com/calendar

Yahoo Calendar is also a free online calendar service. You can add or create events and edit them from anywhere as long as you have internet access. When making appointments on this calendar you can use as much or as little info as you want such as description, date, time and whether this event is recurring or not. You can also choose how much of your calendar is able to be viewed by other Yahoo users. You may also keep your calendar private and not allow anyone to see it.

calendar.yahoo.com
Pre-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

General Information

How much do you use a computer?
-  0  0  0  0  0  0  0  0
  Seldom                Often

How proficient would you rate yourself in computer usage?
-  0  0  0  0  0  0  0  0
  Unskilled             Professional

How proficient would you rate yourself in website browsing & navigation?
-  0  0  0  0  0  0  0  0
  Unskilled             Professional

Do you use or have you used any type of electronic planner/calendar?
-  0  0
  Yes                No

Do you use or have you used an online calendar?
-  0  0
  Yes                No

What is your major or profession?

____________________________

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
Post-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

Calendar Comparison

In which calendar interface was it easier to accomplish the given tasks?

Google
Yahoo!

How likely are you to recommend to a friend the calendar you chose above?

Not at all
Very

Which default view was more practical?

Monthly
Weekly

Were the advertisements on Yahoo! Calendar distracting?

Not at all
Very

Were there enough options in the event and/or task creation dialogs?

Not enough
Too many

Was anything confusing about either interface? If so, please specify which one and the problem.

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
**Metrics**

We’ll be observing and timing the users as they go through the tests without our interaction. Videos of their actions may be taken to assist with post-task analysis.

1. **Completion Times:**
   The item of most importance is the time taken to complete tasks and pertinent sub-tasks. The systems we are conducting the study on are often used for ease and the resulting speed. Naturally, the implementation that allows users to complete tasks more quickly will give the impression that it is the better one.

2. **Familiarization:**
   While only a subset of the total completion time, the time that a new user spends getting used to the system is usually important in determining whether he/she will like using the system. A short learning curve is always good, but a system that’s far too simple will be restricting later on.

3. **Errors/Indecision:**
   We expect people to occasionally make mistakes or cancel actions and try again a different way. Sometimes this helps with familiarization, and it always contributes toward completion time.
Pre-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

General Information

How much do you use a computer?

○ ○ ○ ○ ○ ○ ●
Seldom Often

How proficient would you rate yourself in computer usage?

○ ○ ○ ○ ● ○ ○ ○
Unskilled Professional

How proficient would you rate yourself in website browsing & navigation?

○ ○ ○ ○ ● ○ ○ ○
Unskilled Professional

Do you use or have you used any type of electronic planner/calendar?

○ ●
Yes No

Do you use or have you used an online calendar?

○ ●
Yes No

What is your major or profession?

Sociology

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
The User
The user is 23, Asian and a current student at the University of Illinois at Urbana-Champaign. He is currently in his last year earning a bachelor in Sociology. He is constantly on his computer for work, school, and leisure. He has never used Google calendar or Yahoo calendar.

The Tasks
1. Add your CS 465 class that meets every Wednesday and Friday from 12:30 – 1:45 pm to your calendar. This class will be continuing until December 11.
2. Add your CS 465 HW #6 due on November 5 at 10 pm to your calendar.

Yahoo!
1. Add your CS 465 class that meets every Wednesday and Friday from 12:30 – 1:45 pm to your calendar. This class will be continuing until December 11.

   The user clicks on “Add Event”. He goes through all of the things on the page to fill out. He comes to the section for “Date”. He is very confused and does not know what to do there. He moves on to the time slot where he is to fill in the time duration of this event. There is no option for “12:30” or “1:45”, there are only options for every hour (1, 2, 3, etc.) He chooses the time closest that the class corresponds to. He saves and goes to the Month view to make sure his even is there. He find its annoying that he now has to do the exact same thing all over again for Friday, because what he just did was only for Wednesday.

   *This task took 3 minutes to complete.*

2. Add your CS 465 HW #6 due on November 5 at 10 pm to your calendar.

   The user clicks on “Add Task”. He goes through all of the things on the page to fill out. There is no option for time or deadline so he simple adds “due at 10pm” in the notes option. He saves and goes to month view. He does not see the task he added.

   *This was 30 seconds so far.*

   The user is now confused and wondering if he did the task wrong. He goes through the whole process again, but it still does not show up. He is now annoyed. He then realizes that there is a tab on top labeled “Tasks”. He clicks on that tab and there are the two tasks that he had just added in. He does not like how you cannot see the task in month or weekly view, but only in the task page.

   *This task took 3 minutes to complete.*
Google

1. Add your CS 465 class that meets every Wednesday and Friday from 12:30 – 1:45 pm to your calendar. This class will be continuing until December 11.

   The user clicks on “Create Event”. He goes through all of the things on the page to fill out. He likes this calendar a lot better because he can fill in the exact time of his class, plus he can do Wednesday and Friday at the same time. He saves and goes to the Month view to make sure his class appears.

   *This task took 1 minute and 30 seconds to complete.*

2. Add your CS 465 HW #6 due on November 5 at 10 pm to your calendar.

   The user clicks on “Quick Add” because he did not see “Add Task” anywhere. He then realizes that “Quick Add” is not the right way. He then goes to November 5th on the Month view and clicks on that day. He realizes that he can just fill in the HW assignment name and time it is due, and it immediately appears. He thinks that this was a much easier way than the Yahoo one.

   *This task took 30 seconds to complete.*
Post-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

Calendar Comparison

In which calendar interface was it easier to accomplish the given tasks?

●   ○
Google   Yahoo!

How likely are you to recommend to a friend the calendar you chose above?

○   ○   ○   ○   ●   ○   ○
Not at all                      Very

Which default view was more practical?

●   ○
Monthly   Weekly

Were the advertisements on Yahoo! Calendar distracting?

●   ○   ○   ○   ○   ○   ○   ○
Not at all                      Very

Were there enough options in the event and/or task creation dialogs?

○   ○   ●   ○   ○   ○   ○
Not enough                      Too many

Was anything confusing about either interface? If so, please specify which one and the problem.

There were too many drop down menus and it was hard to navigate.

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
Pre-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

**General Information**

How much do you use a computer?

- Seldom
- Often

How proficient would you rate yourself in computer usage?

- Unskilled
- Professional

How proficient would you rate yourself in website browsing & navigation?

- Unskilled
- Professional

Do you use or have you used any type of electronic planner/calendar?

- Yes
- No

Do you use or have you used an online calendar?

- Yes
- No

What is your major or profession?

- Computer Science

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
The User
The user is 22 and a current student at the University of Illinois at Urbana-Champaign. He is currently in his last year earning a bachelor in Computer Science. He is constantly on his computer for work, school, and leisure. He uses Google calendar frequently, but not Yahoo calendar.

The Tasks
1. Add your CS 465 class that meets every Wednesday and Friday from 12:30 – 1:45 pm to your calendar. This class will be continuing until December 11.
2. Add your CS 465 HW #6 due on November 5 at 10 pm to your calendar.

Yahoo!
1. Add your CS 465 class that meets every Wednesday and Friday from 12:30 – 1:45 pm to your calendar. This class will be continuing until December 11.

The user moves the mouse over and clicks “Add Event”. The user checks the time zone, then moves on to fill in the information for the “Primary Information”. First, he fills in the title, and then selects “class” in the event type. Next, he changes the date and checks his computer calendar to figure the next Wednesday date. Then, he fills in the “Starts at” with first the hour drop down menu, and the minutes. Next, wants to enter in the end time but notices that there is not an option, but finds “Duration” instead. He pauses for a bit to figure out the length of the class (1 hour and 15 minutes) and selects the time in the drop down menus.

Next, he moves on to the next section “repeating”. He clicks on the second radio to repeat the event. He notices that it is set to repeat “Every” “Mon and Wed”. However, he notices that is not an option. He pauses to think what to do, and decides that he will have to enter the event in twice for each day. Finally, he fills in the end date by selection December 11, 2008 from the three drop down menus and scrolls down to the end of the page to click on “Save and Add Another”. Since he just entered all the information, he performs the task slightly faster. He doublechecks the event by viewing the monthly calendar.

*The task took 2 minutes and 30 seconds to perform.*

2. Add your CS 465 HW #6 due on November 5 at 10 pm to your calendar.

The user clicks on “Add Task” and enters in the information for “Title” and “Due”. After selection the date with the drop down menus and realizes that there is no place to select the time. Stomped, he moves on skimming the rest of the options. At the last option “Notes”, he types the deadline time in the box and clicks on “Save”.

Then a new page loads back to the weekly calendar view. He checks his task by looking at the side bar three fourths of the way down and sees the list of tasks.
Google

1. Add your CS 465 class that meets every Wednesday and Friday from 12:30 – 1:45 pm to your calendar. This class will be continuing until December 11.

The user moves the mouse over and clicks “Create Event”. The user types in “CS 465” in the “What” or title of the event. Then, he fills in the when with the date using the handy pop up calendar. Next, he adds the time and notices that he can only chose 30 or 00 mins. He wonders out loud if he could type in the type manual to get the exact number and it works. Next he moves on to the repeat menu and notices that there is not the mon, wed option and selects weekly instead thinking that he can just enter the event in twice.

More options appear to help define the repeating options. He reads through the options and notices that he can select more than one day to repeat weekly. He says out loud “Cool, this is easier”. He checks off the Friday box in addition to the Wednesday. Next, he enters the range of the event and scrolls to the bottom of the page to click “save”. The monthly calendar page reopens and he sees his event in the calendar.

This task took 1 minute and 30 seconds to complete.

2. Add your CS 465 HW #6 due on November 5 at 10 pm to your calendar.

The user looks at the page and asks himself “Can I add a task?” He clicks on the calendar and a pop up appears. He decides that was not what he wanted to do and instead he will just add a new event with the “Create Event” link. A new page opens and he enters the appropriate information. Then he scrolls to the bottom of the page and clicks “Save”. The monthly calendar opens and he checks to make sure the event is still there. He uses the arrows to the left of the month title, and to change to the month of November. He sees the event.

This task took 45 seconds to perform.
Post-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

Calendar Comparison

In which calendar interface was it easier to accomplish the given tasks?

Google     Yahoo!

How likely are you to recommend to a friend the calendar you chose above?

Not at all     Very

Which default view was more practical?

Monthly     Weekly

Were the advertisements on Yahoo! Calendar distracting?

Not at all     Very

Were there enough options in the event and/or task creation dialogs?

Not enough     Too many

Was anything confusing about either interface? If so, please specify which one and the problem.

repetitions on Yahoo confusing – Distinguishing between tasks and events. Not clear on Google.

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
Pre-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

General Information

How much do you use a computer?

- [ ] Seldom
- [ ] Often

How proficient would you rate yourself in computer usage?

- [ ] Unskilled
- [ ] Professional

How proficient would you rate yourself in website browsing & navigation?

- [ ] Unskilled
- [ ] Professional

Do you use or have you used any type of electronic planner/calendar?

- [ ] Yes
- [ ] No

Do you use or have you used an online calendar?

- [ ] Yes
- [ ] No

What is your major or profession?

- Electrical Engineering

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
The User
The subject is a 20-year-old B.S. junior in Electrical Engineering at UIUC. While he uses a computer and visits websites daily, he has never used any sort of planner or calendar application.

The Tasks
1. Add your CS 465 class that meets every Wednesday and Friday from 12:30–1:45pm to your calendar. This class will be continuing until December 11.
2. Add your CS 465 HW #6 due on November 5 at 10pm to your calendar.

First Test: Google Calendar
Total time taken: about 3:40 minutes

1. Add your CS 465 class that meets every Wednesday and Friday from 12:30–1:45pm to your calendar. This class will be continuing until December 11.

The user took 1:20 minutes to add a class event entry which repeated every Wednesday from now until December 11. He then took another 20 seconds to add an identical event repeating every Friday. He probably did this because he didn’t notice the “repeat on days” options pop up after he chose to repeat them weekly. The procedure was the same in both, minus first-time reading for his second event: first, a starting date was chosen followed by the starting/ending times and then repeat type. The ending date was chosen after that, and finally the event title was added.

This task took a total of 1:40 to perform.

2. Add your CS 465 HW #6 due on November 5 at 10pm to your calendar.

The user clicked Create Event like he did for adding the class, but this time took a bit longer looking around and thinking. He clicked on Quick Add and then canceled it. Finally he decided to go through the same steps he went through to add the class, except this time he chose no repeat as well as the same starting and ending times and dates. A description of “due at 10” was added even though 10pm on 11/5/08 was already chosen.

This task took a total of 2:00 to perform.
Second Test: Yahoo! Calendar
Total time taken: about 3 minutes

1. Add your CS 465 class that meets every Wednesday and Friday from 12:30–1:45pm to your calendar. This class will be continuing until December 11.

   It didn’t take long for the user to find and click the Add Event button. The Wednesday class was added in pretty much the same fashion as in Google Calendar, except he had to go back and fix the event duration (he initially chose 1 hour and 45 minutes without reading the label, thinking it meant the class ended at 1:45). He obviously carried some habits over from using Google Calendar, but this time he simply clicked Save and Add Another instead of re-clicking Create Event after saving the first event. Much of the time spent between filling in information seemed to be wasted reading all the extra options.

   This task took a total of 2:00 to perform.

2. Add your CS 465 HW #6 due on November 5 at 10pm to your calendar.

   The user almost clicked Add Event again, but saw that there was an Add Task button. Once all of the pertinent details were typed in and selected, he looked around for an option to set a due time in addition to the due date. After he gave up, he just wrote a note specifying its due time of 10:00pm.

   This task took a total of 1:00 to perform.
Post-Task Questionnaire

Please take a few seconds to fill out this survey. Your answers will be kept confidential. Thank you for your participation.

Calendar Comparison

In which calendar interface was it easier to accomplish the given tasks?

- Google
- Yahoo!

How likely are you to recommend to a friend the calendar you chose above?

- Not at all
- Very

Which default view was more practical?

- Monthly
- Weekly

Were the advertisements on Yahoo! Calendar distracting?

- Not at all
- Very

Were there enough options in the event and/or task creation dialogs?

- Not enough
- Too many

Was anything confusing about either interface? If so, please specify which one and the problem.

Thanks for your time. We rely on your feedback to help us improve our services. Your input is greatly appreciated.
Data: Visual Summaries

Task Completion Time (graph is included two pages below)

<table>
<thead>
<tr>
<th></th>
<th>Google Task 1</th>
<th>Google Task 2</th>
<th>Yahoo Task 1</th>
<th>Yahoo Task 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>User A</td>
<td>1:30</td>
<td>0:30</td>
<td>3:00</td>
<td>0:30</td>
</tr>
<tr>
<td>User B</td>
<td>1:30</td>
<td>0:45</td>
<td>2:30</td>
<td>0:30</td>
</tr>
<tr>
<td>User C</td>
<td>1:40</td>
<td>2:00</td>
<td>2:00</td>
<td>1:00</td>
</tr>
</tbody>
</table>

Interpreting the Results

Task One
Overall in task one, Google outperforms Yahoo. All the users had to enter the event for class twice for Wednesday and then for Friday in Yahoo calendar. This added an extra minute to the task. However in Google, Users A and B found and used the customization of the repetition of days when entering the event, the users appear more satisfied without the extra steps taken.

Task Two
The results do not show a consistent pattern. Yahoo’s calendar features distinction between events and tasks. There is a difference in level of events. Still, it appears that one user in each interface struggled with something, throwing off their completion time. There appears to be confusion in the presentation and wording of information. However once the users decided on what method to use, the task was performed quickly. For user B and C using Google, they struggle with deciding what method to enter the information. They both are puzzled and try the “Quick Add” but settle on creating another event the “normal” way.

Conclusion
There appear to be many ways to complete one task in both Google and Yahoo. The interfaces appear robust and possible over designed offering too many choices. There is no clear or right way to perform a task. Thus, the user spends time deciding what the function of the features and then if it is the right function. Another thing to note is that User C completed the tasks using Google first, while Users A and B used Yahoo first.

The results appear not as meaningful as intended. Clearly, these calendars have a general purpose of just entering appointments. The interfaces try to address a large group of users and the word choice is general. Since the users were trying to perform particular tasks and were looking for certain features, the users struggle with performing the tasks to their satisfaction. Therefore, the users must adopt the calendar to the best of their ability to make it into an “I-book.”
**Recommendations for Improvement**

To improve this interface, it will be important to understand the users and their desires in an online “I-book”. Thus, the interface needs to better define their users. The interface would be more useful with a more specific purpose.

Here are some improvements to meet the needs of students:

1. Distinction between regular class meetings and assignments. They are seen as events and tasks. Yahoo tries to address this with their task feature; however, there is not a space to add the time. The current options do not satisfy all their desires.

2. Easier way to repeat events and the choice of days. User C did not see the feature in Google calendar. While users A and B, intended to add the event twice only to stumble on the feature.

3. Better way to see display the tasks and events. In Yahoo, the tasks have its own view. While in Google, the tasks blend in with the events.