A Usability Evaluation of Google Calendar
Executive summary

Purpose

This study is to conduct a usability evaluation of web-based Google Calendar. Four high-level questions about the usability of this product are to be answered:

- Does it communicate its purpose?
- Is it easy to navigate between functions?
- Does the screen design support effective interaction?
- Am I guided through the interface or left on my own?

Methodology

Usability inquiry and inspection methods are employed, including

- Online user forum analysis
- Follow-up observation
- Online survey
- Global and local heuristic analysis

Global analysis and online survey focus on general usability issues that are against design principles; Local analysis and follow-up observation focus on detailed features, functions, and settings; and Online user forum analysis touches both.

Online user forum analysis

- This analysis focuses on Google Calendar online user forum (http://productforums.google.com/forum/#!forum/calendar).
- Usability-related questions posted or updated within a week are selected and analyzed.
• Most of the users on this forum are advanced users, and some of them are even experts.
• Four categories of questions have been asked the most by the users. They are about Tasks, print format, flexible calendar view, and repeating events.
• Advanced users request more flexibility of the product.

**Follow-up observation**

• This analysis is a 2-week-long follow-up observation on one participant.
• During the 2 weeks, the participant changes from beginner to intermediate user.
• The participant was tested 3 times weekly and in each test he was asked to perform 3 tasks.
• Usability problems revealed during the observation include:
  o It is not obvious where "today" is
  o Piles of problems related to Tasks.
  o Super long drop-down menu should be avoided.
  o Novice users rely on default and the default settings in Google Calendar are not trustable.
  o Vague terminology.
  o Some concepts are confusing. Explicit and clear descriptions should be provided.

**Online survey**

• This online survey is to further identify the usability problems that have been revealed by the other two inquiry methods (https://docs.google.com/spreadsheet/viewform?formkey=dDJZbWJnY1JPN085SWgwd19VU0dyX3c6MQ).
• Four categories of 12 questions are asked, including learnability, screen, visibility, and flexibility.
• Eight peoples participated, and most of them are beginners and intermediate users.
• Results revealed that this group of people are not satisfied with *visibility* and *learnability* of Google Calendar.

**Heuristic analysis**

The major usability inspection method used in this study is heuristic evaluation, in which experts, guided by a set of usability principles (heuristics), evaluate whether user-interface elements conform to principles. The heuristic analysis in this study takes a global approach and a local approach, and both approaches are based on the findings of usability inquiry but more exhaustive and expansive in order to reveal more and deeper usability problems.

**Results of global analysis**

Global analysis provides a big picture about the main usability principles that are violated in Google Calendar, including

• Visibility.
• Flexibility.
• Visual presentation.

**Results of local analysis**

Local analysis focuses on detailed usability problems of this product and reveals usability problems on the following features

• *Tasks*
• Calendar management
• Default settings
• Print
• Homepage (or calendar page)
Results summary

This study reveals that Google Calendar has the following usability problems:

- **Lack of visibility.** Functions and settings are not visible to users, which affects the learnability of the product, especially for the new users.
- **Lack of flexibility.** Functions and visual representations do not provide much room for customization and acceleration, which affects the efficiency of the product, especially for the advanced users.
- **Inappropriate visual presentation.** Hard to read, hard to detect targets, misleading, and error-prone. All these affect effectiveness, learnability and efficiency of the product.
- **Tasks** is the feature that has the most usability problems and requires improving or redesigning.

Answers to the four high-level questions

1. **Does it communicate its purpose?**

   Yes. Google Calendar makes this very clear and very straightforward.

2. **Is it easy to navigate between functions?**

   Generally speaking, the answer is Yes. On every single page, users are well informed with where they are, what they can do here, and how to get back to calendar (homepage). Overall navigation is easy and smooth. But it is difficult in some specific cases because of the lack of visibility.

3. **Does the screen design support efficient interaction?**

   No. Google Calendar is somehow trying to be consistent with other Google products, especially Gmail, on the screen design. But the two products have very different functionalities. The style that works fine for Gmail may not be necessarily good for Calendar. Compared to Gmail, Calendar has many more menus, buttons, and controls,
and items are presented in a more complicated way, which means there are more clutters. The screen design should help users to reduce those clutters so that they can detect targets easily and fast and avoid making errors. But Google Calendar does not make many efforts in that direction.

4. Am I guided through the interface or left on my own?

In terms of a specific task, such as creating an event, I am guided. People can easily create events full of details by following those explicit and implicit signs, even at the very first time.

On a higher level, such as navigating between functions or exploring the whole product, I am left on my own. But sometimes, being left alone may not necessarily cause confusion or frustration. When users become an expert at some level, they don't want to be always guided. They want to be in control and enjoy the process of mastering a new function.

Deciding what the system will do and what must be left for users sometimes is called task allocation, and it is a big trade-off. Generally speaking, Google Calendar is slightly towards to leave users in control.