

Heuristic Evaluation

Recap: What is design research?

Design research is about learning from people in the context of their lives. Evaluation is a form of research.

Find Problems

Understand a Topic

Build Empathy

Heuristic Evaluation

A method for comparing a design to an established list of best practices, in order to identify usability problems.

Heuristic Evaluation is an expert review: a way for a professional to formalize an evaluation of an interface and ground their opinions in an accepted framework. The method relies on heuristics, or guidelines for best practices.

A heuristic...

- Is defined by a person or a group of people
- Is deemed to be a “good principle” to follow
- Is recognized by others as a “good principle”
- Is not a hard/fast rule
- Is not always right

Heuristic Evaluation

A commonly accepted set of heuristics are the ten developed by Jakob Nielsen.

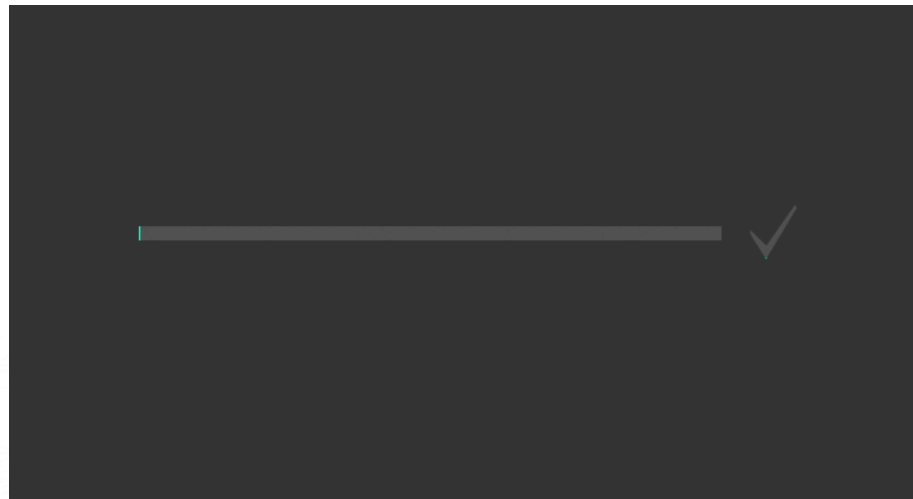
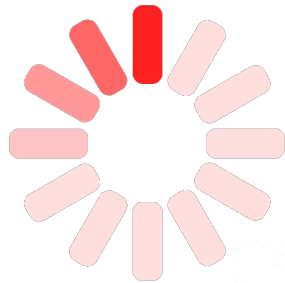
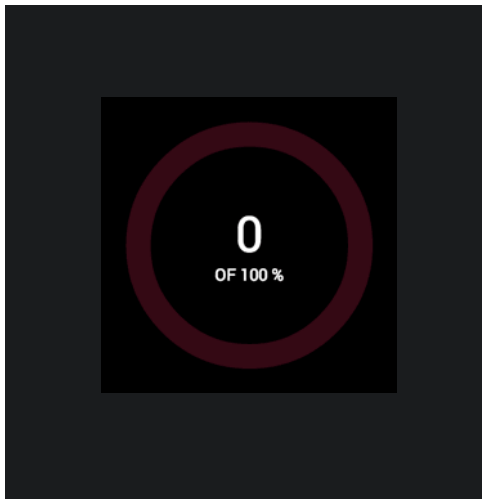
1. Visibility of system status
2. Match between system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition rather than recall
7. Flexibility and efficiency of use
8. Aesthetic and minimalist design
9. Help users recognize, diagnose and recover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



Heuristic Evaluation

1. Visibility of system status

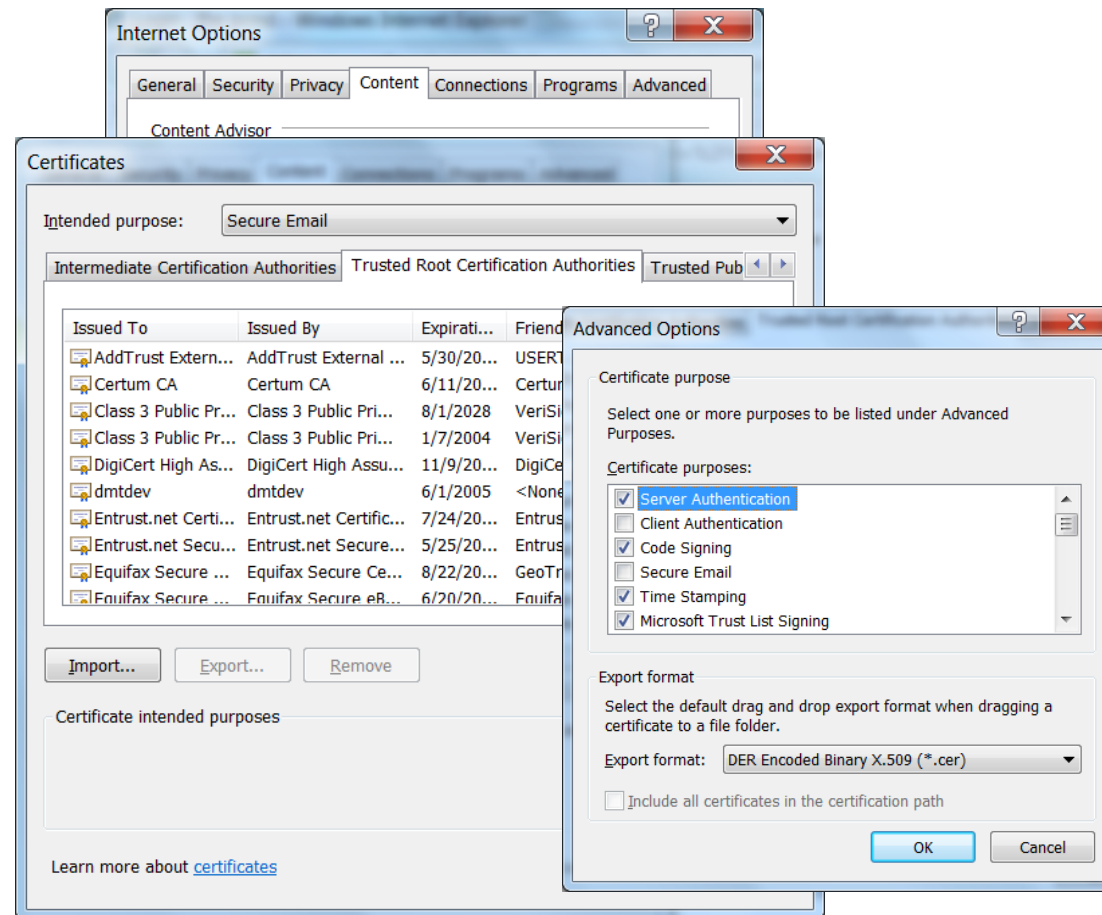
“The system should always keep users informed about what is going on, through appropriate feedback within reasonable time”



Heuristic Evaluation

2. Match between system and the real world

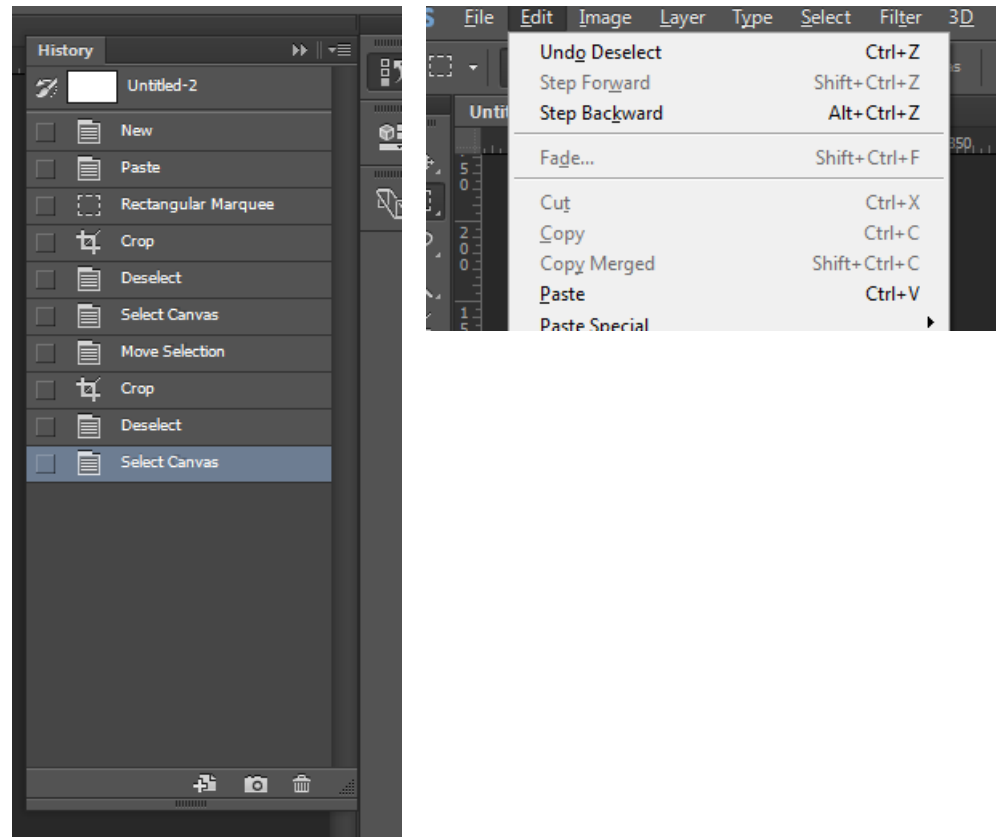
“The system should speak the users’ language, with words, phrases, and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order”



Heuristic Evaluation

3. User control and freedom

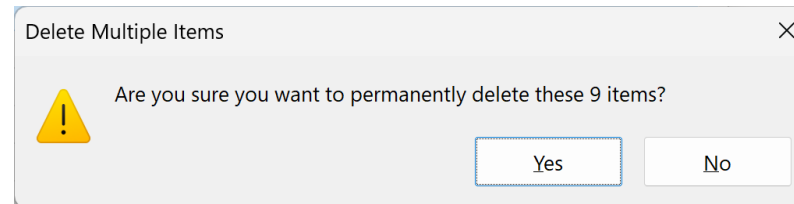
“Users often choose system functions by mistake and will need a clearly marked ‘emergency exit’ to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.”



Heuristic Evaluation

4. Consistency & standards

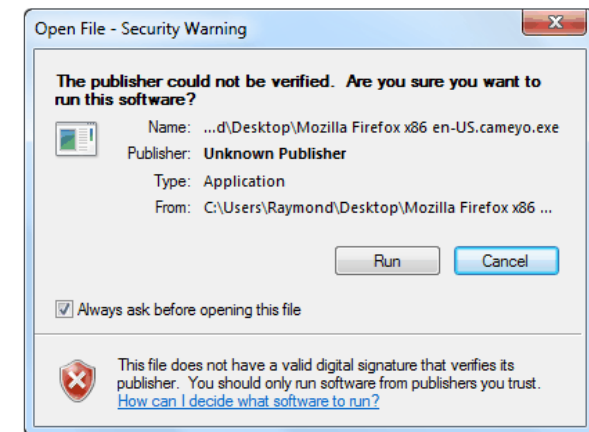
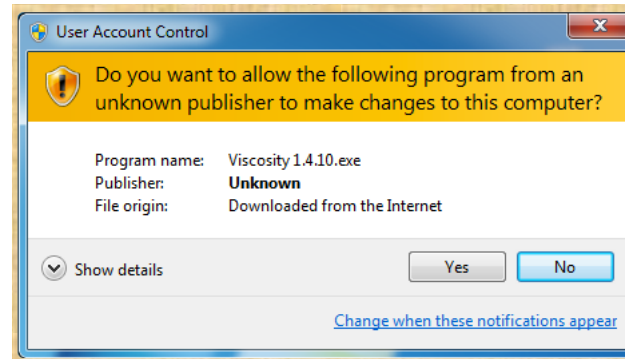
“Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow software/hardware platform conventions.”



Heuristic Evaluation

5. Error prevention

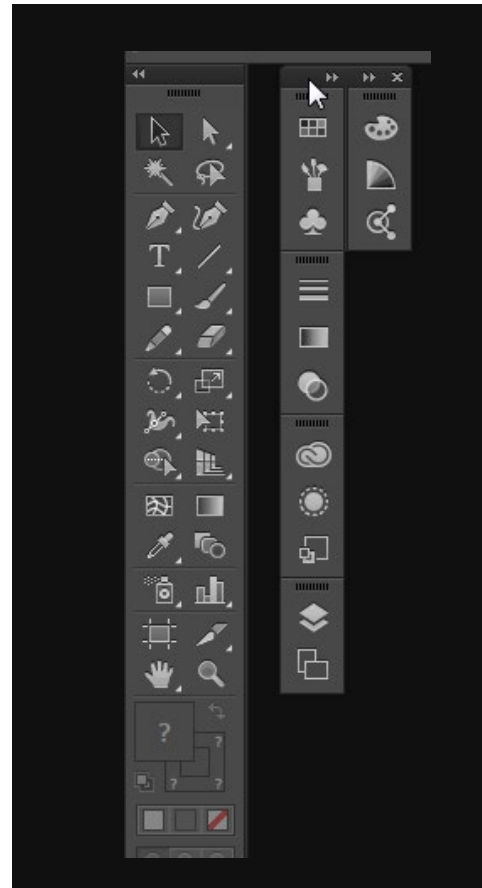
“Even better than good error messages is a careful design which prevents a problem from occurring in the first place”



Heuristic Evaluation

6. Recognition rather than recall

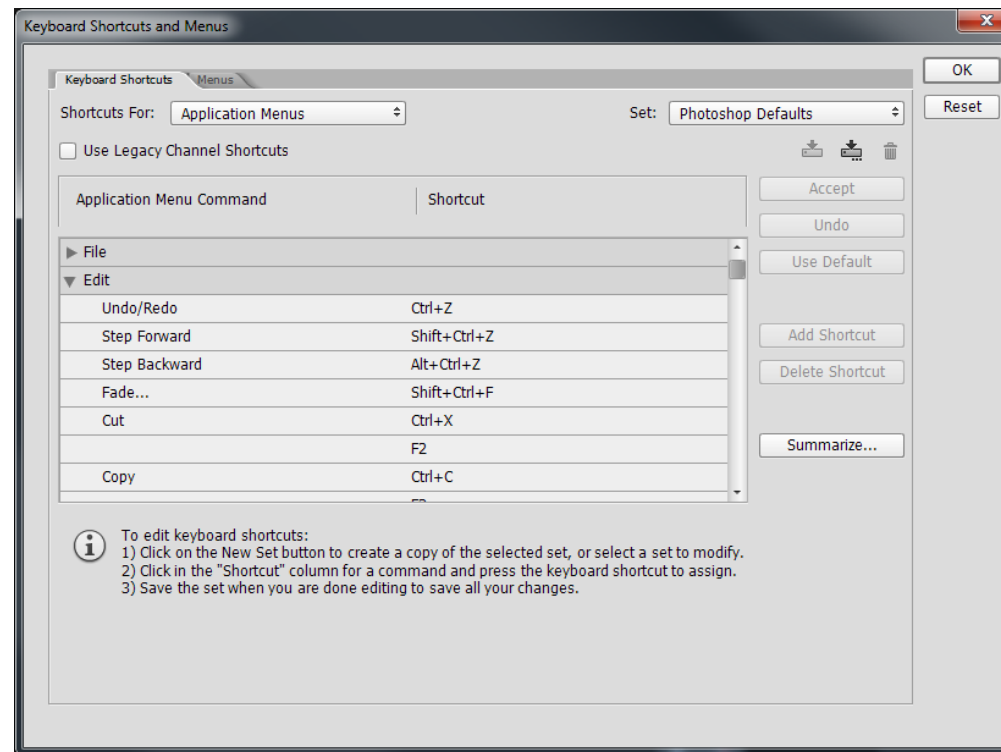
“Make objects, actions and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.”



Heuristic Evaluation

7. Flexibility and efficiency of use

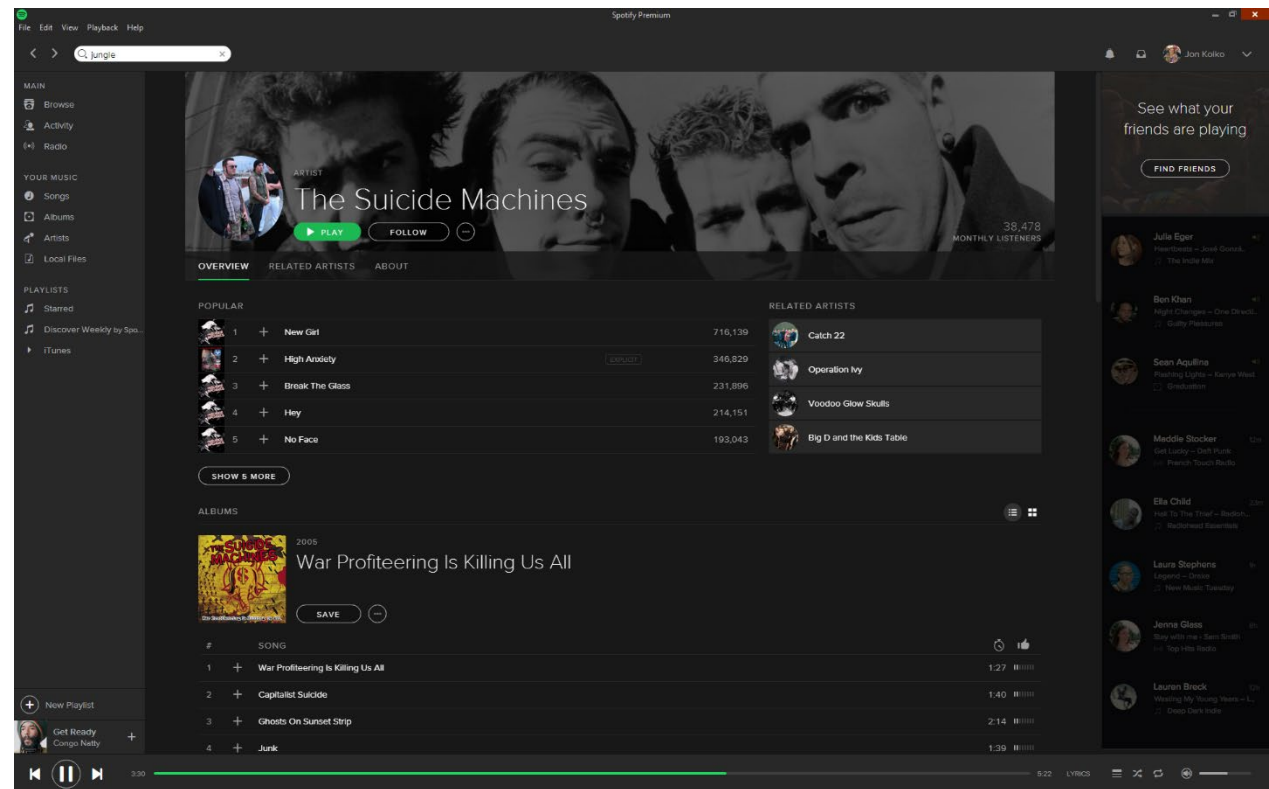
“Accelerators – unseen by the novice user – may often speed up the interaction for the expert user to such an extent that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.”



Heuristic Evaluation

8. Aesthetic and minimalist design

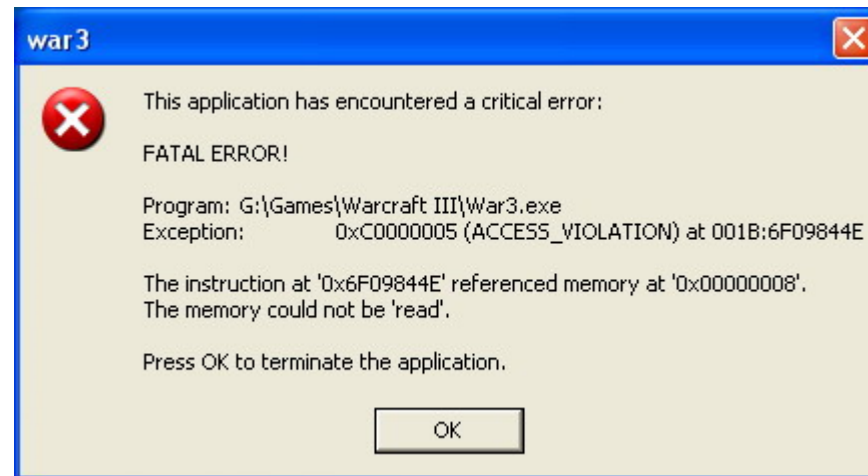
“Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility”



Heuristic Evaluation

9. Help users recognize, diagnose and recover from errors

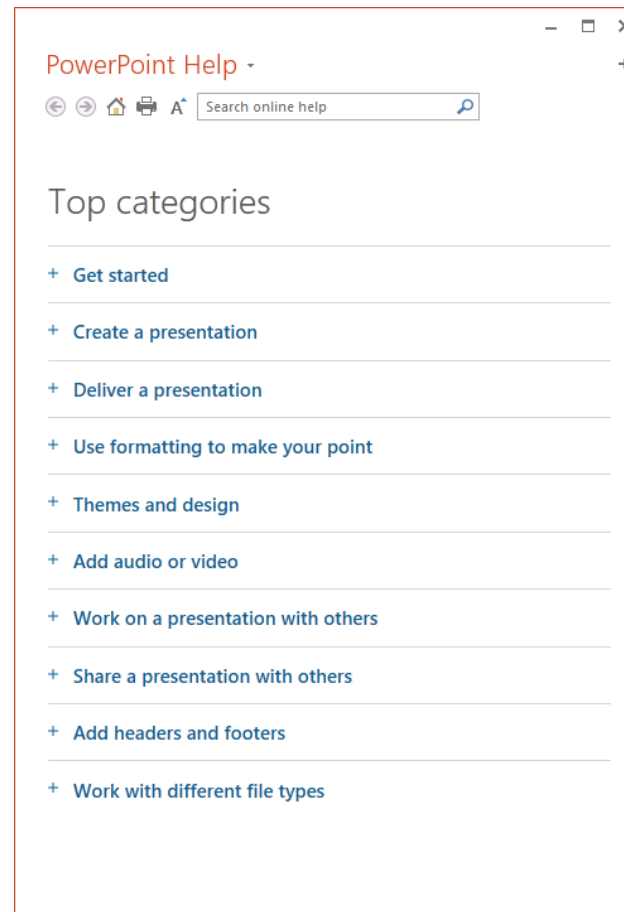
“Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution”



Heuristic Evaluation

10. Help and documentation

“Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user’s task, list concrete steps to be carried out, and not be too large”

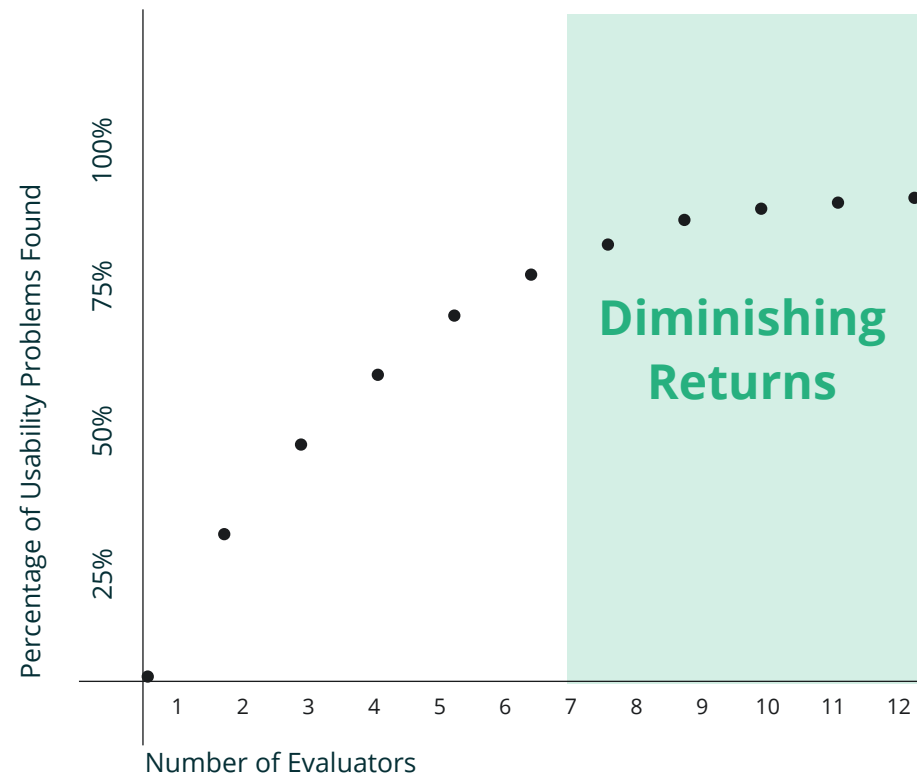


Heuristic Evaluation

Use 5-6 evaluators.

No users required in Heuristic Evaluation. Instead, do the initial evaluation yourself, and then combine your results with a team.

Different evaluators find different problems, with diminishing returns after 5-6 evaluators:



Heuristic Evaluation

How to conduct a Heuristic Evaluation:

Identify which heuristics (guidelines) you will use as your criteria for *good* and *bad*.

On your own, compare an interface to a list of heuristics:

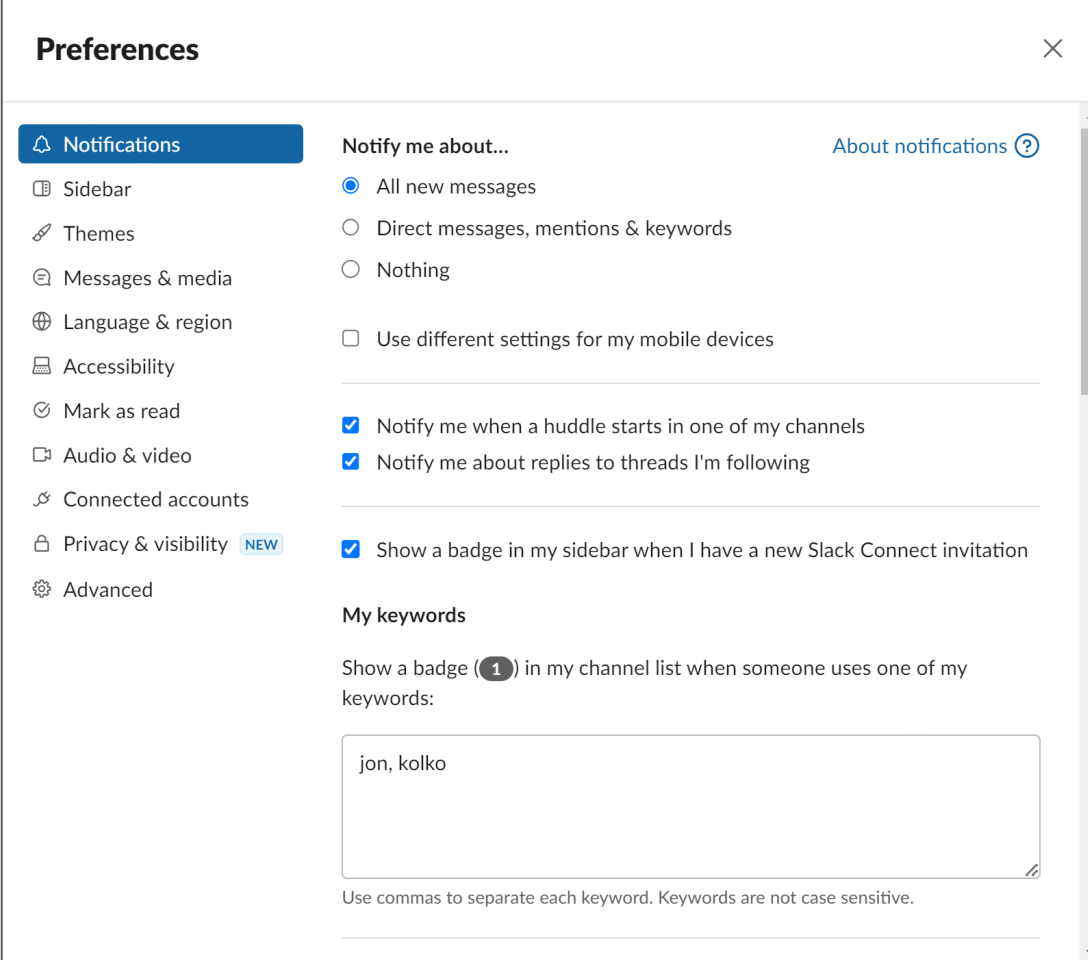
- Print every screen of your interface.
- Walk through each control area on the screen, screen by screen, and identify areas where it conflicts with any heuristic. You will probably find multiple errors per screen.
- Document the problem area, noting specifically which screen(s) are addressed and which controls are problematic.
- Err on the side of 'too many' instead of 'too few'.

As a group, combine these lists into a more exhaustive listing

Identify redesign suggestions

For example...

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
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The screenshot shows the 'Preferences' dialog box in Slack, with the 'Notifications' section selected. The left sidebar lists various preference categories: Notifications (selected), Sidebar, Themes, Messages & media, Language & region, Accessibility, Mark as read, Audio & video, Connected accounts, Privacy & visibility (marked as 'NEW'), and Advanced. The main content area is titled 'Notify me about...' and includes a link for 'About notifications'. Under this heading, there are three radio button options: 'All new messages' (selected), 'Direct messages, mentions & keywords', and 'Nothing'. Below these are two checkboxes: 'Use different settings for my mobile devices' (unchecked) and 'Notify me when a huddle starts in one of my channels' (checked). Another checked checkbox is 'Notify me about replies to threads I'm following'. A third checked checkbox is 'Show a badge in my sidebar when I have a new Slack Connect invitation'. The 'My keywords' section is also visible, with a text input field containing 'jon, kolko' and a note that says 'Use commas to separate each keyword. Keywords are not case sensitive.'

For example...

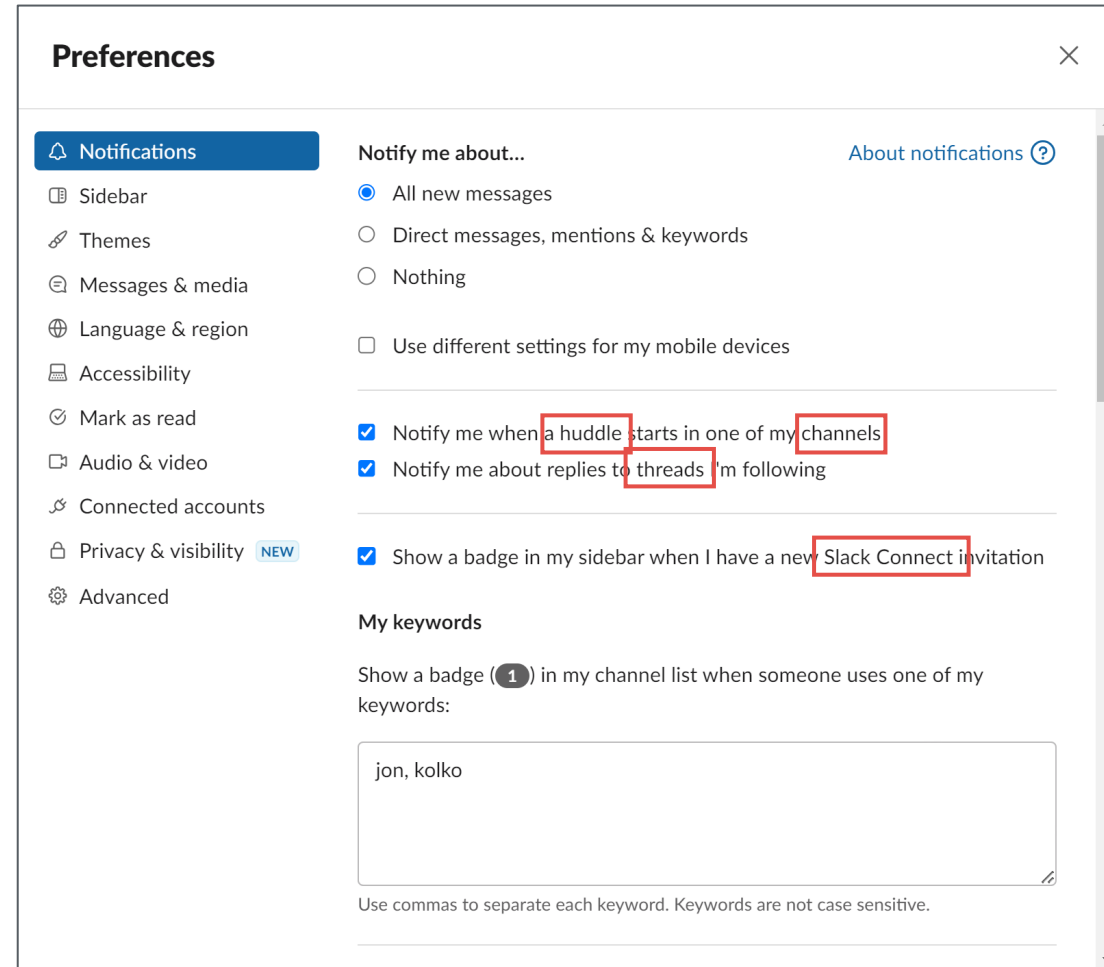
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Have the changes been saved? There's no Save button, and no confirmation upon making a change.

For example...

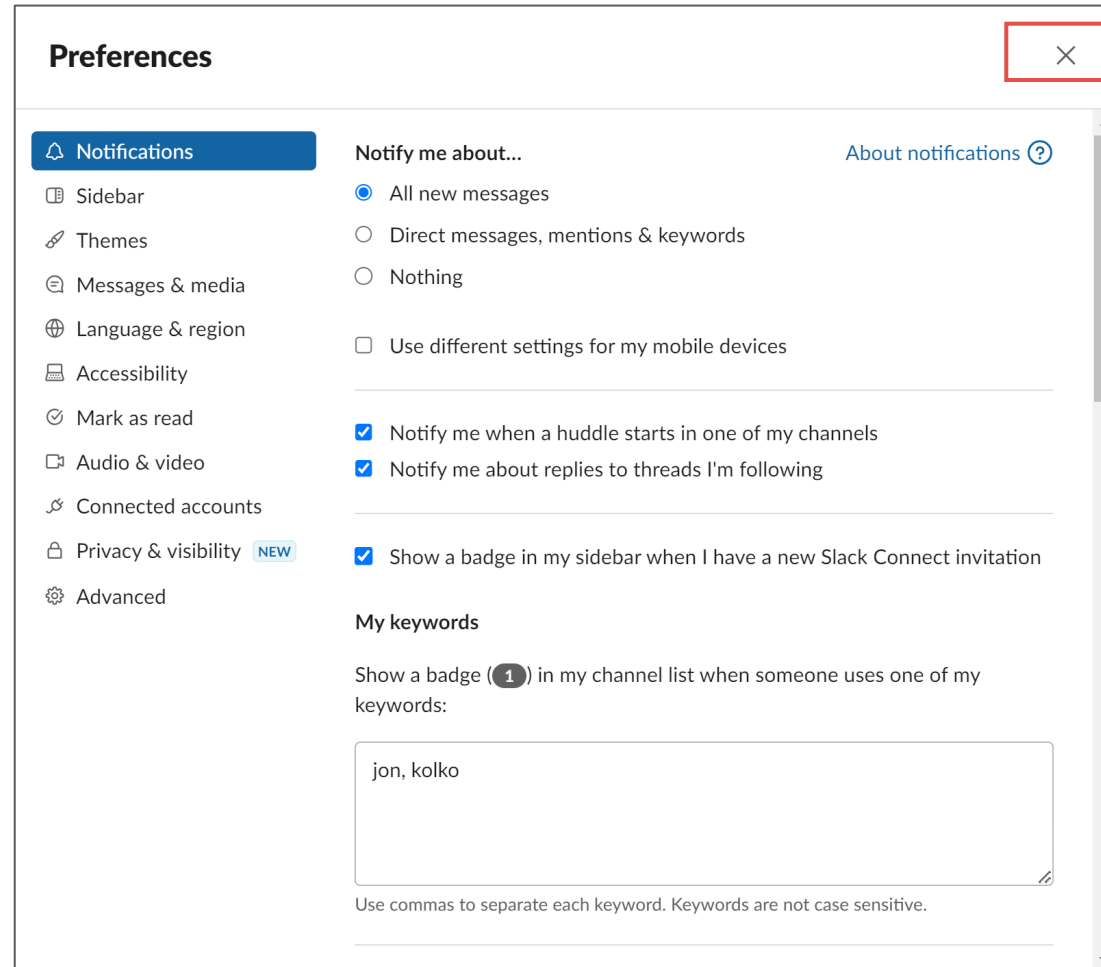
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The phrases “Huddle”, “Threads”, “Channels” and “Slack Connect” are system (branded) words that don’t necessarily have meaning to a user.

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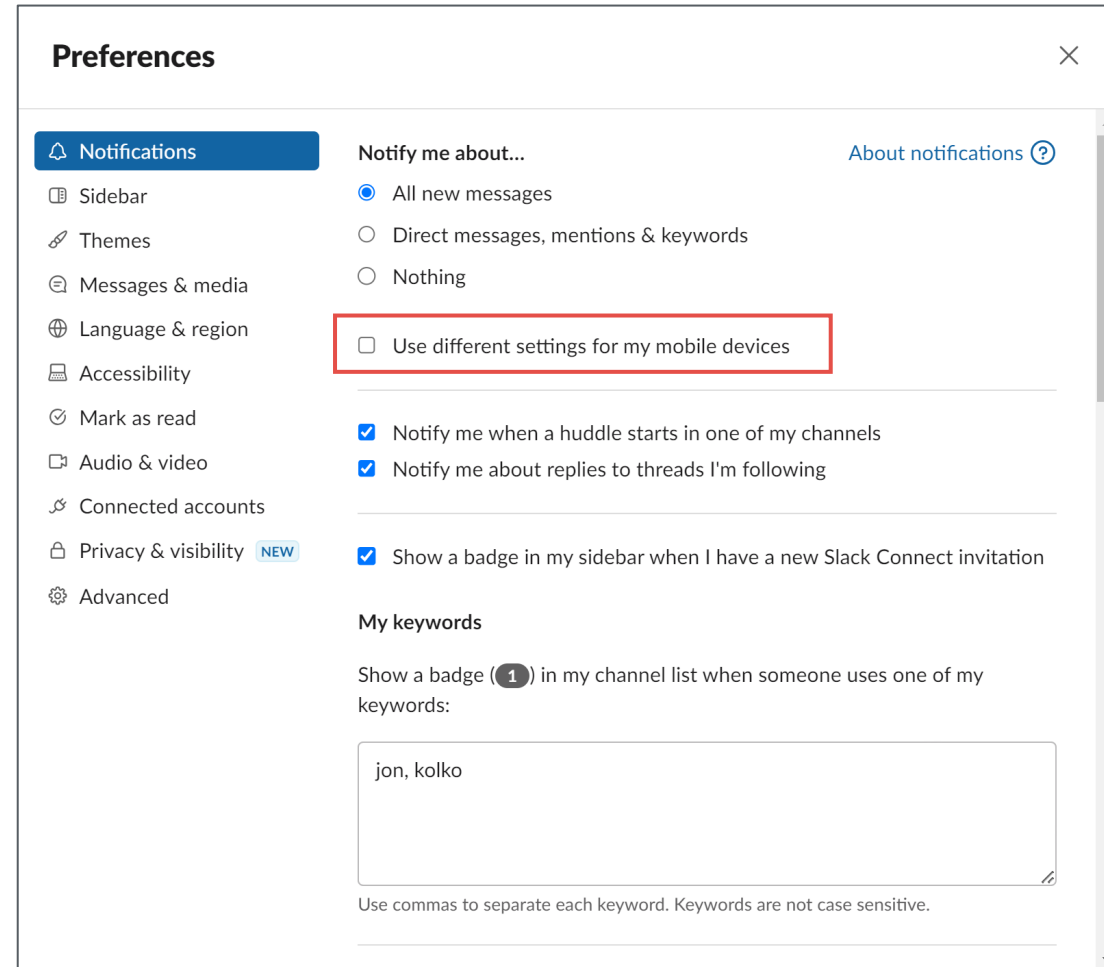
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There is no Cancel button, and it's unclear if the X in the top right corner will cancel with or without saving changes.

For example...

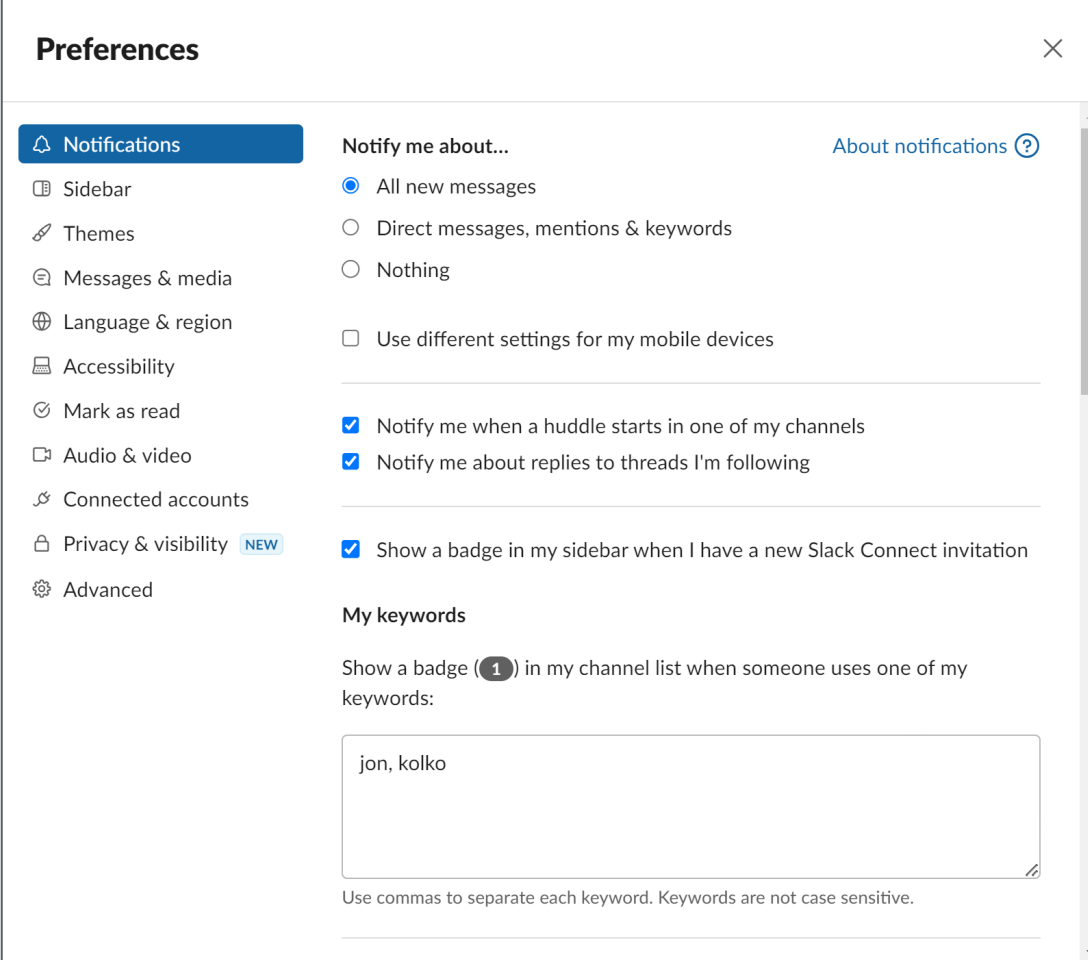
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Most products have offered no precedent for having different settings on a phone than a computer, which may make this difficult for users to understand.

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Preferences [Close]

Notifications [About notifications ?]

- Sidebar
- Themes
- Messages & media
- Language & region
- Accessibility
- Mark as read
- Audio & video
- Connected accounts
- Privacy & visibility **NEW**
- Advanced

Notify me about...

- All new messages
- Direct messages, mentions & keywords
- Nothing
- Use different settings for my mobile devices

Notify me when a huddle starts in one of my channels

Notify me about replies to threads I'm following

Show a badge in my sidebar when I have a new Slack Connect invitation

My keywords

Show a badge (1) in my channel list when someone uses one of my keywords:

jon, kolko

Use commas to separate each keyword. Keywords are not case sensitive.



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The phrases “Huddle”, “Threads”, “Channels” and “Slack Connect” are system (branded) words that don’t necessarily have meaning to a user, and they may not remember what they are even if they’ve been introduced to those words before.

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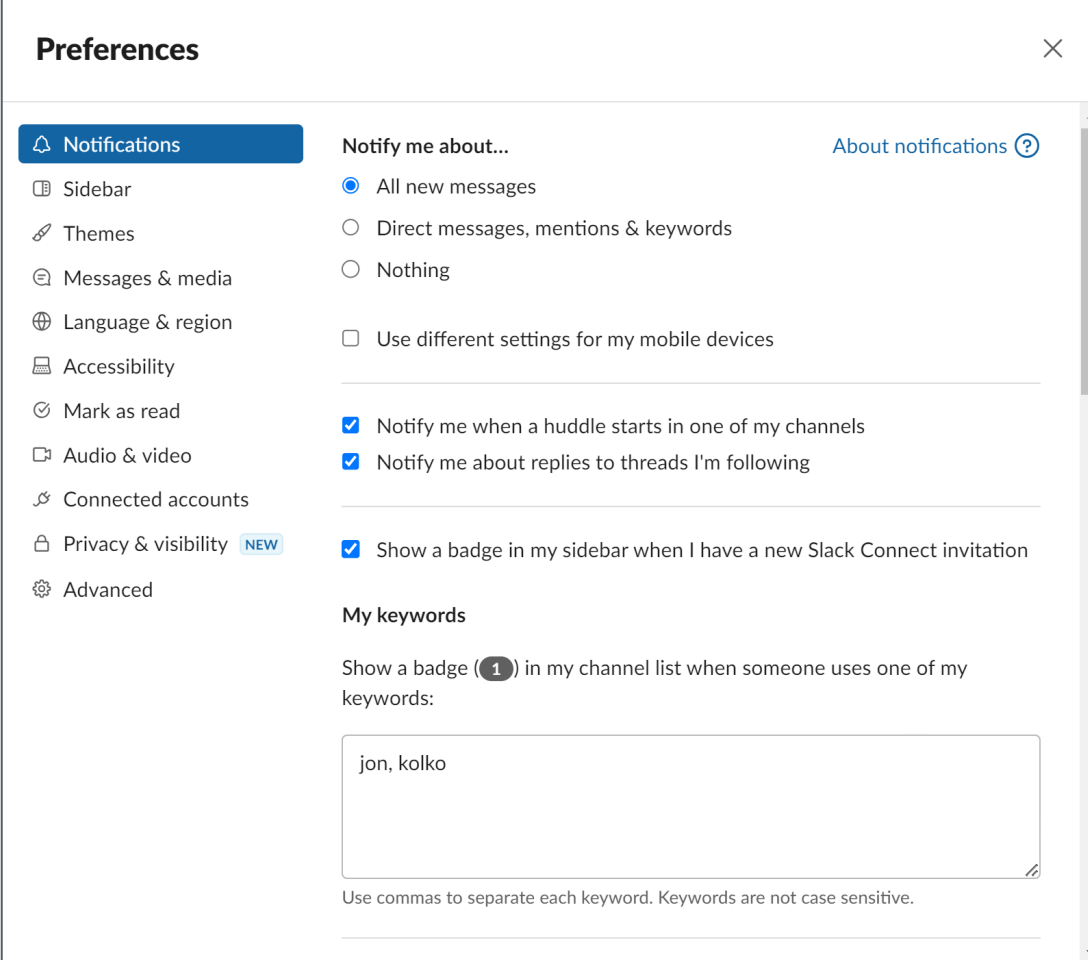
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The screenshot shows the 'Preferences' dialog box with the 'Notifications' section selected. The 'Notify me about...' section has 'All new messages' selected. The 'My keywords' section has a text input field containing 'jon, kolko' and a note that 'Use commas to separate each keyword. Keywords are not case sensitive.'

No issues found

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The screenshot shows the 'Preferences' dialog box in Slack, with the 'Notifications' section selected. The 'Notify me about...' section is expanded, showing options for notification frequency and content. The 'My keywords' section is also visible, with a text input field containing 'jon, kolko' and a note that keywords are not case sensitive.

Preferences [Close]

Notifications [About notifications ?]

Notify me about...

- All new messages
- Direct messages, mentions & keywords
- Nothing
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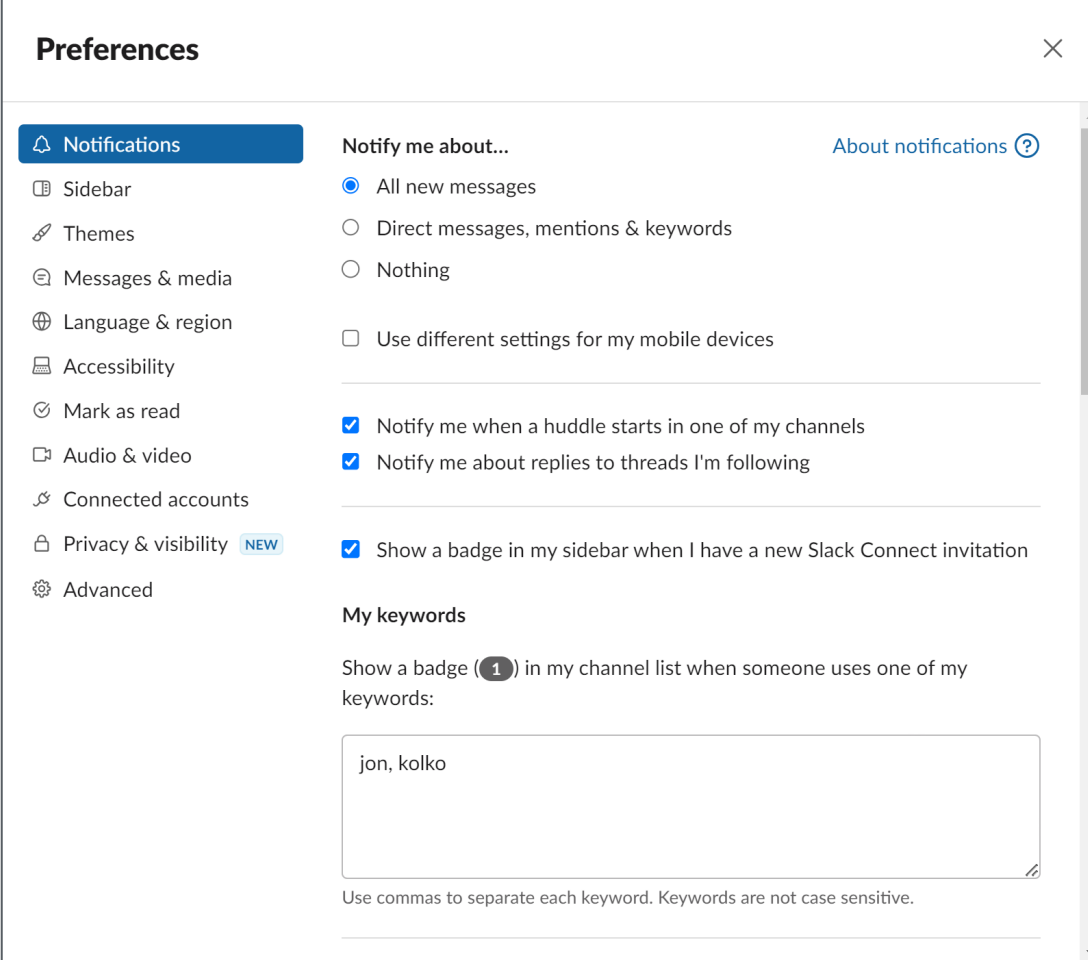
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The screenshot shows the 'Preferences' dialog box in Slack, with the 'Notifications' section selected. The 'Notify me about...' section has 'All new messages' selected. The 'My keywords' section has a badge with the number '1' and a text input field containing 'jon, kolko'.

Preferences [Close]

Notifications [About notifications ?]

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Use commas to separate each keyword. Keywords are not case sensitive.



There is no way to get help on what the unique words mean, only on the overall idea of Notifications (using the About link in the top right corner).

Summary

Heuristic Evaluation is an evaluative research method focused on finding problems.

Find Problems

Understand a Topic

Build Empathy

Thank you!

jkolko@wonderfulnarrative.com