Heuristic Evaluation

[Deliver]

“Create an out of the world picture that is cute, relevant to pacific northwest and about a detective finding new clues that are hidden in difficult places” ChatGPT

Deliver

Objective: Finalize and implement the best solution, and to evaluate its impact

Method: **Hi-fi prototype**, develop final product, extensive user testing & launch

Class: **Figma (hi-fi)**, **Heuristic Evaluation**, User testing

No need for working product

Outcome: polished, user-validated product, also includes includes post-launch evaluation.

Evaluation

- How it's done?
  - Analytical
    - Guidelines, heuristics, theory – without real users
    - We'll cover: Heuristic evaluation, Cognitive walkthrough
  - Empirical
    - Based on data
    - We'll cover: Usability Study
- When it' s done?
  - Formative (early stages, what is still needed?)
  - Summative (at the end, did it work?)

HEURISTIC EVALUATION

UX Knowledge Base Sketch #15

OXFORD DICTIONARY

WHAT ARE HEURISTICS?
"A METHOD OF SOLVING PROBLEMS BY FINDING PRACTICAL WAYS OF DEALING WITH THEM, LEARNING FROM PAST EXPERIENCE."

HEURISTIC EVALUATION →

- UX INSPECTION METHOD
- FOR EVALUATING EXISTING INTERFACES
- GREAT STARTING POINT FOR A REDESIGN PROJECT
- EVALUATING THE USABILITY & UX USING A SET OF PREDEFINED FACTORS, GUIDELINES.
- LIMITATIONS: IT CAN REVEAL MANY ISSUES, BUT IN ORDER TO IDENTIFY THE MOST IMPORTANT PROBLEMS TO FOCUS ON, CONSIDER USABILITY TESTING.
- ONE EXPERT CAN FIND A LOT OF PROBLEMATIC POINTS, BUT IT IS BETTER TO HAVE MORE EXPERTS.
- PREREQUISITES: UNDERSTANDING THE BUSINESS & USER GOALS. CONDUCT A STAKEHOLDER & A DOMAIN EXPERT INTERVIEW (AT LEAST)
- SET UP A FRAMEWORK:
  - > CHOOSE THE SET OF HEURISTICS
  - > DEFINE A RATING SYSTEM
  - > CHOOSE A METHOD FOR DOCUMENTATION

THERE ARE MANY LISTS OF HEURISTICS (PREDEFINED GUIDELINES), E.G.:

JAKOB NIELSEN'S 10 USABILITY HEURISTICS

1. VISIBILITY OF SYSTEM STATUS
2. MATCH BETWEEN SYSTEM AND REAL WORLD
3. USER CONTROL & FREEDOM
4. CONSISTENCY & STANDARDS
5. ERROR PREVENTION
6. RECOGNITION RATHER THAN RECALL
7. FLEXIBILITY & EFFICIENCY OF USE
8. AESTHETIC AND MINIMALIST DESIGN
9. HELP USERS RECOGNIZE, DIAGNOSE AND RECOVER FROM ERRORS
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247 WEB USABILITY GUIDELINES BY USERFOCUS

- HOME PAGE USABILITY
- TASK ORIENTATION
- NAVIGATION & IA
- FORMS & DATA ENTRY
- TRUST & CREDIBILITY
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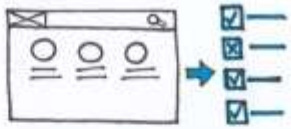
(IF YOU DO, KEEP IN MIND THAT THE RESULTS/SCORES ARE JUST AN ORIENTATION)



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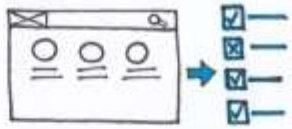

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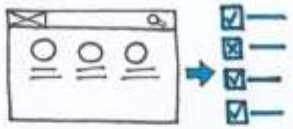

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What is heuristic evaluation? Recap

A UX inspection method in which one or more reviewers, preferably experts, compare a software, documentation, or hardware product to a list of design heuristics

- Great starting point for redesign
- From the perspective of
  - regular users of the prototype
  - predefined rules or guidelines
    - Nielsen's Heuristics <<<<
    - Cognitive style heuristics <<<<
    - Navigation and Information Architecture guidelines
    - Help feedback guidelines
    - Page layout and visual design
    - Forms and data entry
    - …

Heuristic Evaluation: How

- How:
  - Pick the usability guidelines, experts, task.
  - Brief experts on what tasks/portions of UI to evaluate.
  - Experts independently evaluate UI's conformance with those guidelines for that task (1-2 hrs.)
    - Pass 1: overall flow in the UI
    - Pass 2: focus on specific UI details.
    - Outcome: UI problems.
  - Experts meet to (1)discuss problems, (2) assign priorities,(3) suggest solutions.

Heuristic Evaluation: How

- How to prioritize:
  - Assign severity (rating system) to each problem you find
    - High, Medium, Low
  - Fix for a particular aspect of the UX
  - Fix for the core task(s)

Heuristic Evaluation: How

- How to prioritize:
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Nielsen's Heuristic

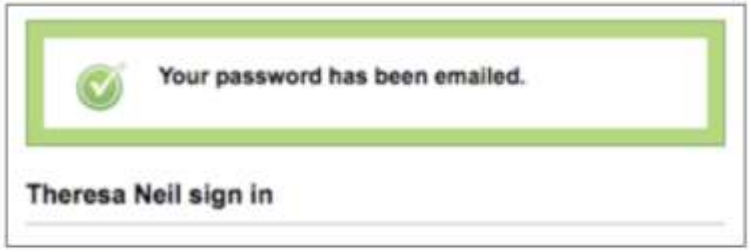
Examples from: http://designingwebinterfaces.com/6-tips-for-a-great-flex-ux-part-5

1. Visibility of system status

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

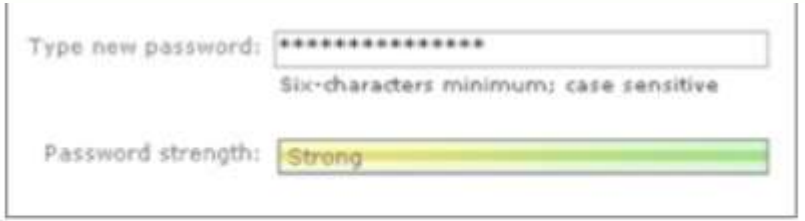
1.0 BaseCamp by 37signals

The upload button is enabled, until clicked. Then it is replaced with a progress indicator until the file has finished uploading



1.2 Tick

A feedback message is displayed when an action is performed



1.3 Windows Live Account

Password strength is shown as the password is entered

2. Match between system & 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.

2.0 iTunes

Organized as a library that contains your media library: music, movies, shows, audibooks. Beneath the Library is the Store where you can buy more media to put in your Library.

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. Supports undo and redo and a clear way to navigate.

3.2 Pages (Apple's Word Processing Product)

Cell editing shows row and column ids, and the cells used in the equation.

The equation can be saved or canceled.

3.1 Wufoo

Clearly marks where the person is and where they can go by showing the selection in each menu

3.0 CollabFinder

Search is easy to open, enter info, execute or cancel.

4. Consistency and standards

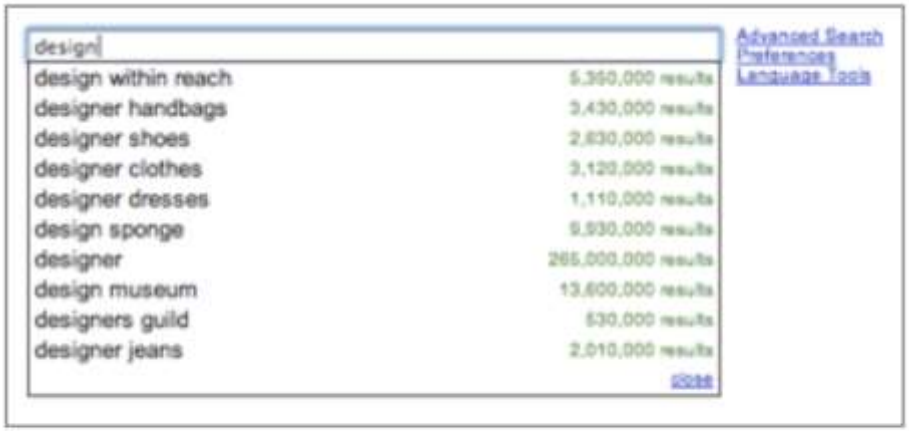
Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

4.1 Microsoft Office

Word, Excel, and PowerPoint all use the same style toolbar with the same primary menu options: Home, Insert, Page Layout… Consistency results in efficiency and perceived intuitiveness.

5. Error prevention

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



5.2 Google Auto Recommend

The auto recommend feature cuts down on mis-spellings

5.0 Yammer

Disables the update button after it is clicked, so the person cannot update the post twice by accident

6. Recognition rather than recall

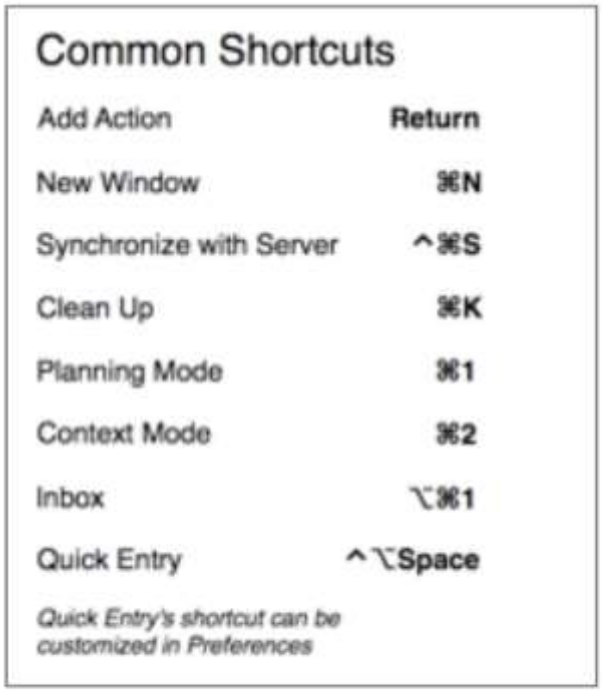
Minimize the user's memory load. Make objects, actions, and options visible.
The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

6.0 Quanta IDE

Type ahead for coding in a development environment

7. Flexibility and efficiency of use

Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions through Accelerators, Personalization, Customization

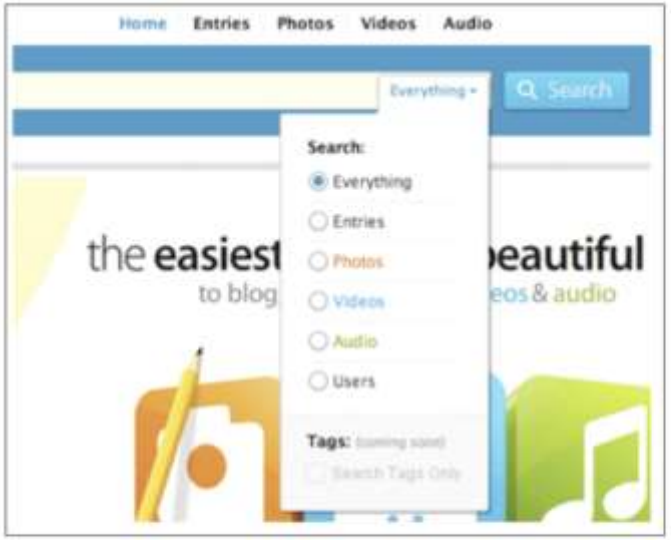


7.0 OmniFocus

List of keyboard shortcuts and accelerators

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. Visual layout should respect the principles of contrast, repetition, alignment, and proximity



8.0 Kontain

Kontain' search menu exemplifies the four principles of visual design:
Contrast: bold text is used for the two labels in the search
Repetition: the orange, blue, and green text match the media types
Alignment : strong left alignment of text, right aligned drop down
Proximity: a light rule is used to separate tags from the other options

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.

9.0 Digg

Provides immediate feedback with specific instructions

9.1 Humorous ' Page Not Found' Error

Uses a funny image and copy, but provides viable alternatives (article listings and blog link) and a course of action (report it)

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.

10.2 Zenoss

Help tips are displayed on hover, answering the most likely questions about a field or instructions

Ensure that the help documentation is easy to search, contextualized, and provides concrete steps

Heuristics	Gulfs	UX goal	Design Principles
1) Visability of system status	Eval	Safety	Feedback
2) Match to real world	Exe	Learnability	Metaphors/ External consistency
3) User control & freedom (m	-	Safety	-
4) Consistency & standards	Exe, Eval (depends on UI state)	Learnability (ext),Efficiency (int); Mayb	Consistency
5) Error prevention	-	Safety	Constraints
6) Recog > recall	Exe	Learnability, Efficiency, Safety	-
7) Flex & Efficiency (accelato	-	Efficiency	-
8) Minimalistic	-	Efficiency	-
9) Recognize, diagnose, reco	Eval	Safety	Feedback
10) Help & Doc	Exe	Learnability, Memorability	-