

Heuristic evaluation

What is a heuristic evaluation?

- Heuristics are rules-of-thumb or guidelines about what makes a website usable
- The most common set of heuristics were developed by Jakob Nielsen in the early 90s
- Many different sets of heuristics exist for dedicated design domains
- They are a low-cost way of making sure that your site will avoid common usability problems by involving other people in critiquing your design

Nielsen's heuristics

- **Visibility of system status**
 - Always keep users informed about what is going on
- **Match between system and the real world**
 - Follow real-world conventions, using natural language & making information appear in a natural and logical order.
- **User control and freedom**
 - Don't box the user in. Support undo and redo.
- **Consistency and standards**
 - Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.
- **Error prevention**
 - Prevent problems from occurring
- **Recognition rather than recall**
 - 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.

[Full article on Nielsen's heuristics](#)

Nielsen's heuristics

- **Flexibility and efficiency of use**
 - Support shortcuts for experienced users
- **Aesthetic and minimalist design**
 - Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.
- **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.
- **Help and documentation**
 - Even though it is better to design a system that doesn't need documentation, if you have it make it focussed on the users' task and useful

[Full article on Nielsen's heuristics](#)

How to do a heuristic evaluation

- Get between 1 and 5 designers or researchers and brief them on the website. Give them a copy of the heuristics you're using
- Working independently, they review the relevant screens of the site against the heuristics
- In a workshop afterwards, they compare issues they found to agree a final set of prioritised usability issues
- You can also use the heuristics while you are designing as a sanity check, but others will always bring a more objective eye

Strengths & weaknesses

- Heuristics are quick to apply and have stood the test of time as principles for design
- But they are only a rule of thumb, they are not infallible
- Heuristics are only as good as the critical thinking of the person who is applying them
- No set of heuristics can address all the criteria of your website
- But they are a great way to help develop a sense of what makes up a usable website

Task: Conduct a heuristic evaluation...

- Conduct a heuristic evaluation of the TfL Journey Planner:
<http://www.tfl.gov.uk/journeyplanner>
- Search for a cycle journey from your home to St James's Path
- Use Nielsen's heuristic evaluation and make notes in these headings
 - **Website feature:** What part of the site is of interest?
 - **User implication:** What is the likely impact on users? Confusion, etc
 - **Priority:** How important is the issue
 - **Recommendation:** What should be done about the problem?
- Remember to include good as well as bad points

Cognitive Walkthrough

What is a cognitive walkthrough?

- A cognitive walkthrough is a complementary analytical technique that focuses on how easy a site is to learn
- This is a good exercise to ensure your site has a good information scent and that core tasks (like purchase) are well-supported
- Cognitive walkthroughs focus on three key questions

Will the user understand what their next action has to be to complete their task?

The screenshot shows the dabs.com website interface. At the top, the logo 'dabs.com' is followed by the tagline 'Lowering technology prices... every day!'. Navigation links include 'wishlist', 'help', and 'log in'. A horizontal menu bar contains categories like 'home', 'shop by brand', 'components & storage', 'computers', 'electronics', 'networking & communication', 'peripherals', 'software & books', 'clearance corner', and 'dabs.tv'. Below this is a search bar with 'show ex vat prices' and 'quicklink' options. A welcome message reads 'Welcome, Mr Andrew Harder (if not [click here](#))'. On the left, a 'Browse Category' sidebar lists various product categories. The main content area features a 'Product Finder' banner, a 'Dabs Value 19" Widescreen LCD' product listing with a 'star buy!' badge, and a 'HOT DEALS' section with four product cards: Lenovo S10e Atom N270, Samsung PS50A457C1D 50" Plasma TV, XFX GeForce 8800GT 512MB, and Acer EXTENSA 5230 CelM. A 'My Basket' section on the right prompts the user to add items. A large green speech bubble on the right contains the text: 'I'm looking for a nice looking USB stick with at least 4GB, what should I do?'. A 'FREE Delivery' badge is also visible near the bottom right.




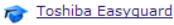
I'm looking for a nice looking USB stick with at least 4GB, what should I do?

Will the user see how to take their next action?

The screenshot shows the dabs.com website interface. At the top, the logo 'dabs.com' is followed by the tagline 'Lowering technology prices... every day!'. Navigation links include 'wishlist', 'help', and 'log in'. A main navigation bar contains categories like 'home', 'shop by brand', 'components & storage', 'computers', 'electronics', 'networking & communication', 'peripherals', 'software & books', 'clearance corner', and 'dabs.tv'. Below this is a search bar with a 'show ex vat prices' link and a 'quicklink' field. A secondary navigation bar includes 'buy now pay Mar 10', 'buying for business?', 'return goods', and a welcome message for 'Mr Andrew Harder'. The left sidebar features a 'Browse Category' menu with sub-categories like 'components & storage', 'computers', 'electronics', 'networking & communication', 'peripherals', 'software & books', and 'clearance corner'. The main content area is divided into sections: 'Product Finder' with a magnifying glass icon and the text 'Find the right component first time', 'My Basket' with an 'ADD' button, 'eCatalogue', and 'HOT DEALS'. The 'HOT DEALS' section displays four product listings: 'Dabs Value 19" Widescreen LCD with built in Freeview and DVD', 'Lenovo S10e Atom N270 1GB 160GB XP Home Black', 'Samsung PS50A457C1D 50" Plasma TV', and 'XFX GeForce 8800GT 512MB DDR3 PCIE Dual DVI TV 600/1.8'. Each listing includes a product image, a 'BUNDLES AVAILABLE' icon, a star rating, and an 'ADD' button. A large green speech bubble on the right side of the page contains the text: 'Now, where do I start... Can I search?'.

Will the user understand that they have successfully completed, or failed to complete, the right action?

- Now, what does this mean?



Refine Your Search

! Your search phrase covers products in multiple categories. To help us display the products that you are looking for please choose a category or brand from the following selection:

Brand: [Sony](#) (4), [Toshiba](#) (1)

Stock Status: [In Stock](#) (4)

Components & Storage: [Memory](#) (1)

Computers: [Desktops & Servers](#) (2), [Laptops & PDAs](#) (2)

Search Results

1 - 5 products displayed out of 5

sort by [Popularity](#) [GO](#) items per page [10](#) [GO](#) page [1](#)

COMPARE	product description	in stock	inc vat	qty
<input type="checkbox"/>	Sony - Memory Stick Micro 4GB + USB Adapter quicklinx: 5BBDWS mfr#: MSA4GU2	In stock now	£19.38	1 ADD
<input type="checkbox"/>	Toshiba Case, 4GB USB & Mouse Bundle quicklinx: 5CVFWS mfr#: PX1414-B2S	Delivery 3-5 days	£34.99	1 ADD
<input type="checkbox"/>	Sony VAIO - CS21SW Core 2 Duo T6400 4GB 320GB 14.1" WXGA DVD+/-R+/-RW Vista Home Premium quicklinx: 5FLVWS mfr#: VGNCS21S/W.CEK	In stock now	£832.51	1 ADD
<input type="checkbox"/>	Sony VAIO - CS21SW Core 2 Duo T6400 4GB 320GB 14.1" WXGA DVD+/-R+/-RW Vista Home Premium quicklinx: 5FLVWS mfr#: VGNCS21S/W.CEK	In stock now	£832.51	1 ADD
<input type="checkbox"/>	Sony VAIO - TP3Z/B Core 2 Duo T8100 2GB 500GB DVD+/-R+/-RW Vista Home Premium quicklinx: 5BVCWS mfr#: VGXTP3E/B.CEK	In stock now	£748.99	1 ADD
<input type="checkbox"/>	Sony VAIO - TP3E/B Core 2 Duo T8100 500GB 2GB DVD+/-R+/-RW Vista Home Premium quicklinx: 5BVCWS mfr#: VGXTP3E/B.CEK	In stock now	£499.10	1 ADD

sort by [Popularity](#) [GO](#) items per page [10](#) [GO](#) page [1](#)

April Issue

dabs.com
Online finance
Spread the cost of your purchase

March Components CLEAR OUT
Hurry offers won't last forever!

click here

Hot Laptop Deals

- Best Price Blu-ray Laptop - Acer 15.4inch!
- The New Lenovo S10 Netbook With XP Home
- Lenovo N500 With Vista Home Premium
- Lenovo N500 With Vista Home Premium
- Dell Latitude Laptop - In Stock For Same Day Dispatch! Under £300!
- Award Winning Samsung NC10 Netbook
- Toshiba 8.9inch Netbook With 80GB Hard Drive!

dabs.com

Am I on the right track?

Applying cognitive walkthroughs

- As another analytical method, you use the same approach as heuristics:
- Get a group of designers or researchers together with a prototype of your site and let them loose
- You then get their feedback and agree a list of common usability problems they've identified

Strengths & weaknesses

- Like the heuristic evaluation, a cognitive walkthrough is relatively quick and cheap
- It complements heuristic evaluation by focussing on the users journey through the website to complete key tasks
- This means that key features like buying will be surfaced
- Because it focuses on learnability, it won't help you cater to the needs of expert users, or help identify broader non-transactional objectives like building brand identity

Task: Conduct a cognitive walkthrough...

- Do you own cognitive walkthrough of <http://www.dabs.com>
- Use the three key questions and make notes on the same headings
 - **Website feature:** What part of the site is of interest?
 - **User implication:** What is the likely impact on users? Confusion, etc
 - **Priority:** How important is the issue
 - **Recommendation:** What should be done about the problem?