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 the all the criteria of your website

- But they are a great way to help develop a sense of what makes up a usable website

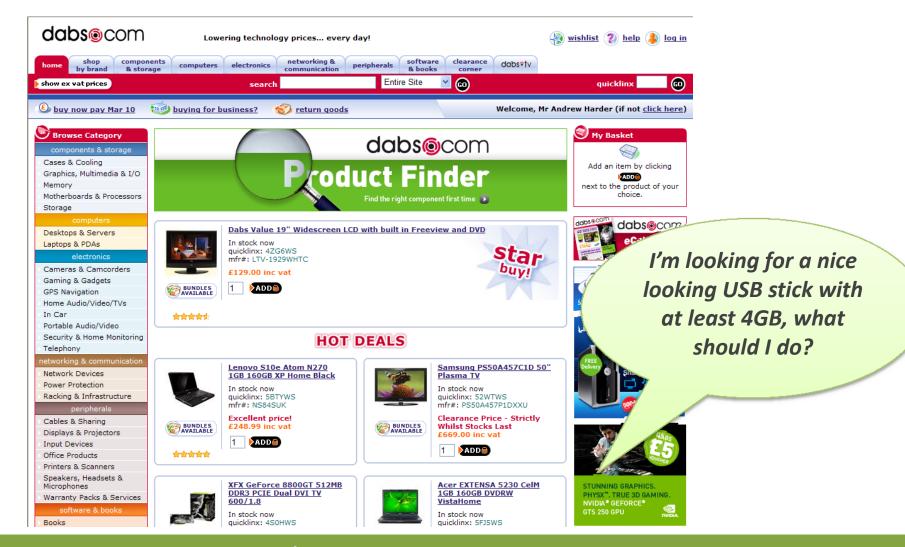# *Task:* *Conduct a heuristic evaluation…*

- 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
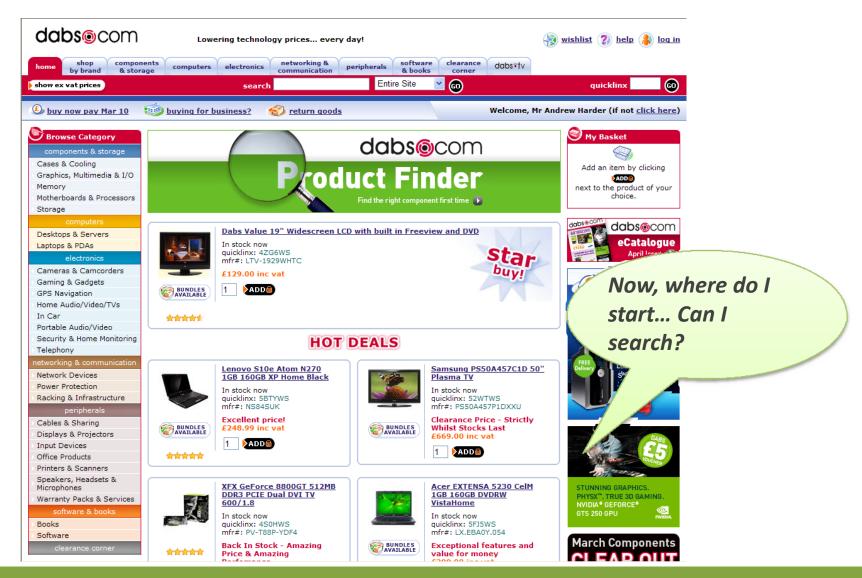
Cognitive Walkthrough

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?

Will the user see how to take their next action?

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

- Now, what does this mean?

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?