User behaviour on the web, heuristics & design principles


BEDONIA 57
carabinieri
S. STEFANO D'AVETO 58
SALVATORE
CARASCO
SCOFFERA
CICAGNA 10
passo del Bocco
GENOVA
LA SPEZIA
LAVAGNA 2
COGORNO 2
BORZONASCA 15
VILLA
NGM

Hick's law

- **The time it takes to make a decision increases as the number of alternatives increases**
- However, if lesser options involve more work, such a reading sentences, the law may not be applicable.
- When you add page loading time, it often becomes much quicker to have more options (hence the preponderance of "information-dense" Web sites around! e.g. www.bbc.co.uk)
- Think of the impact of structure, typography etc when designing pages with many options

Flexibility-Usability trade-off

- **As the flexibility of a system increases, the usability decreases**
- Flexible designs that perform more functions are harder to learn because of increased complexity

Fitt's law

- The **time required to move to a target is a function of the target size and distance to the target** e. g a smaller, more distant target is harder to acquire than a closer & larger target.
- Here's an interactive demonstration of Fitts Law, and an account of how it was used to guide some of the design of Microsoft Office 2007

Small button

Large button

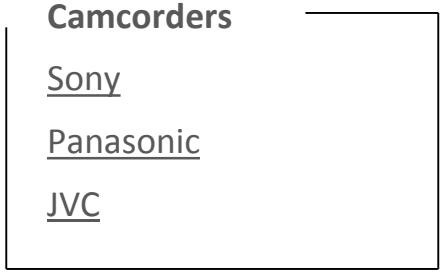
Information scent

- Based on studies from Xerox PARC on **“information foraging”.**
- When hunting for information, people follow the **same tactics as animals hunting for food.**
- In an information-rich environment people always make **instant analyses of the cost versus the probable benefit** of following a trail.
- **Some links “smell” more strongly** of what you’re looking for than others.
- **Their benefit seems more certain.** So the effort is more worthwhile.

Information scent

The factors that improve information scent are:

- **Straightforward** links with no puns or made up words
- **Longer link phrases:** don't be scared of using more words for clarity
- **Explanatory information associated with the link** (but be careful what form that information takes). E.g. TITLE attributes in HTML.
- **Nearby links** that have strong scent.
- **"Trigger words":** The words people tend to think of first when doing a particular task.
- **Adding Boxes & titles** to the list:



An information scent example

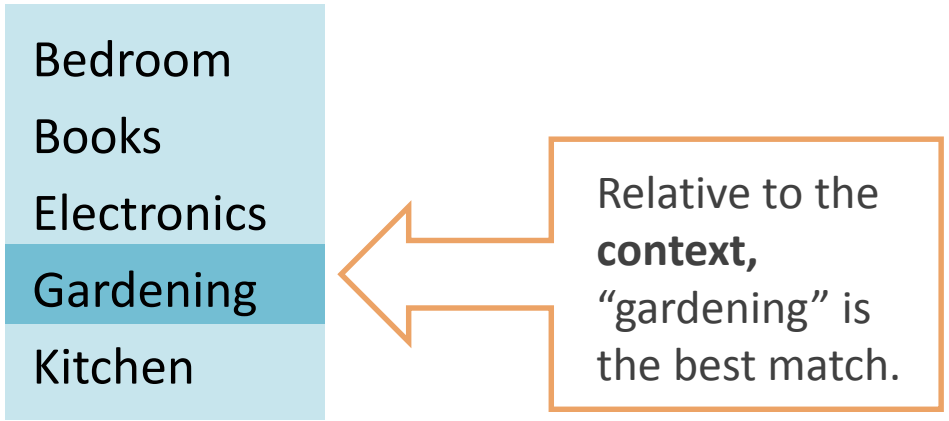
Here's a navigation bar…

Bedroom
Books
Electronics
Gardening
Kitchen

Task: "Find Wellington boots"

An information scent example

Here's a navigation bar…



Task: "Find Wellington boots"

An information scent example

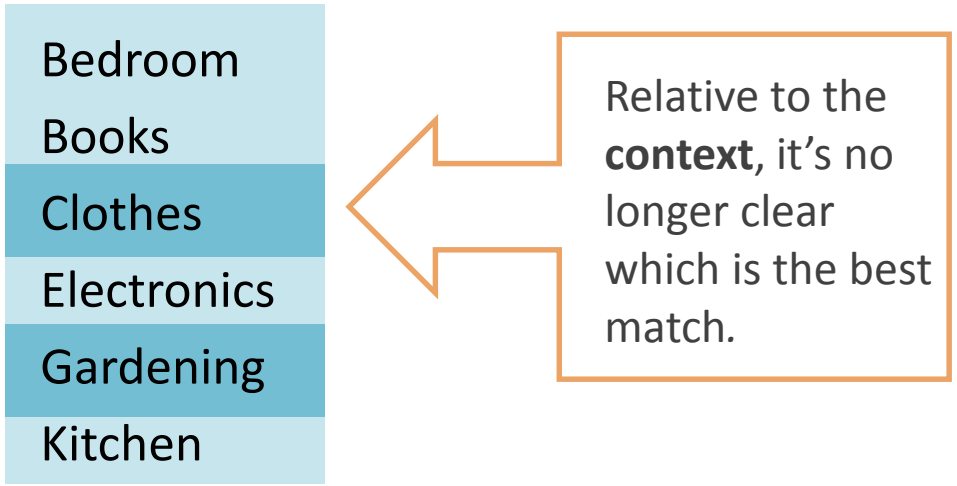
Here's a different navigation bar…

- Bedroom
- Books
- Clothes
- Electronics
- Gardening
- Kitchen

Task: "Find Wellington boots"

An information scent example

Here's a different navigation bar…



Task: "Find Wellington boots"

An information scent example

Here's yet another navigation bar…

Bedroom: Quilts, pillow, covers…

Books: Bestsellers, factual, education…

Clothing: Jumpers, coats, shoes…

Electronics: CD players, TVs, Hi-fi…

Gardening: Seeds, plants, pots…

Kitchen: Pots and pans, cutlery…

Task: "Find Wellington boots"

An information scent example

Here's yet another navigation bar…

Task: "Find Wellington boots"

Induction: Examples vs. descriptions

- Human brains are very good at inducing general rules from specific examples.
- We often find it easier to induct information than to read abstract descriptions.




Induction: examples vs. descriptions

- Examples are often better than descriptions.
- If you choose good examples, you'll score direct hits (trigger words).
- But even if you don't score a direct hit, it's easier for people to induct than to read descriptions.

Scanning

We often scan pages, picking out individual words and sentences.

"In a recent study John Morkes and I found that 79 percent of our test users always scanned any new page they came across; only 16 percent read word-by-word."
Jakob Nielsen

Help users scan read by using effective text hierarchy, good layout, and writing for the web guidelines.

http://www.useit.com/alertbox/9710a.html

Satisficing

- It's often preferable to settle for a satisfactory solution, rather than pursue the optimal solution
- Therefore usually we don't inspect all the options. **We choose the *first* option that seems *good enough.***

Why?

- We're in a hurry.
- Not much penalty for guessing wrong.
- Experience on the Web teaches us that careful thought doesn't help.
- Guessing is less work.

Muddling through

“Paradox of the Active User”: People rush in, then suffer productivity losses in the longer term because they don’t really know what they are doing.

Why do we muddle through?

- People **don’t care enough** to actually go to all the effort of reading the manual.
- People stick with whatever way they first discovered of getting the job done, e.g. Google gets thousands of searches every day for full URLs like *www.bbc.co.uk.*

The perpetuate intermediate

Because we like to muddle through, most of us stay intermediate users all our lives.