# Online Choice Architecture

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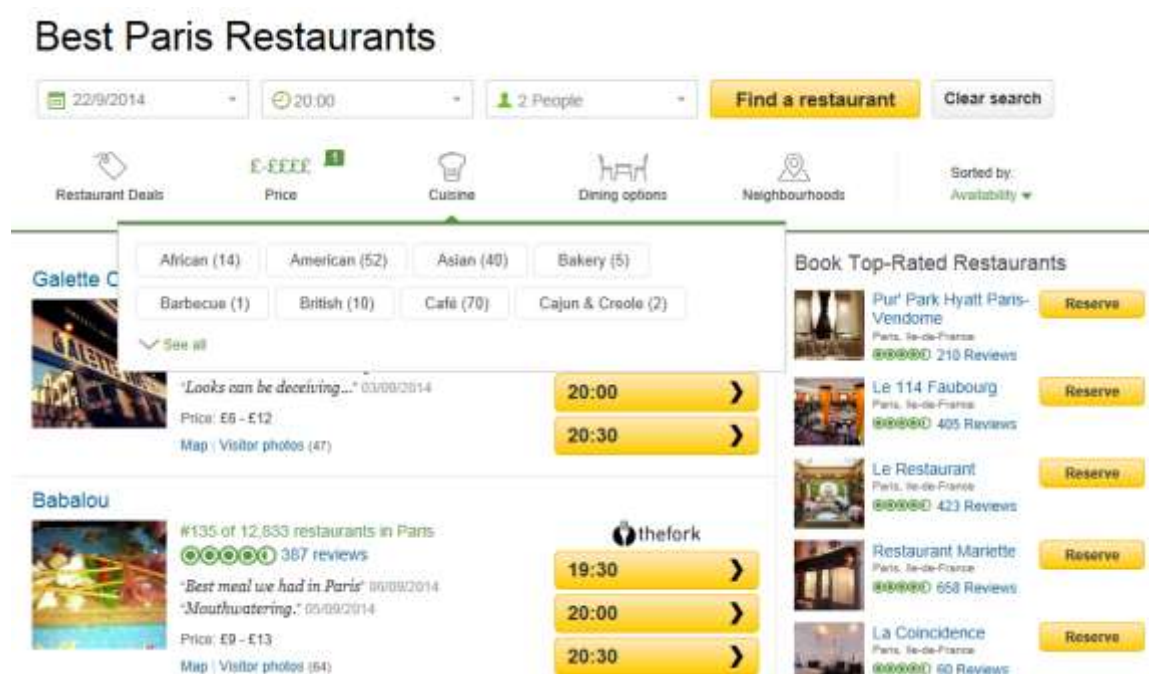
**London School of Economics**

Behavioural Research Lab | **LSE** | Department of **Management**

**A talk prepared for LIMRA– 22 September 2014, Paris**
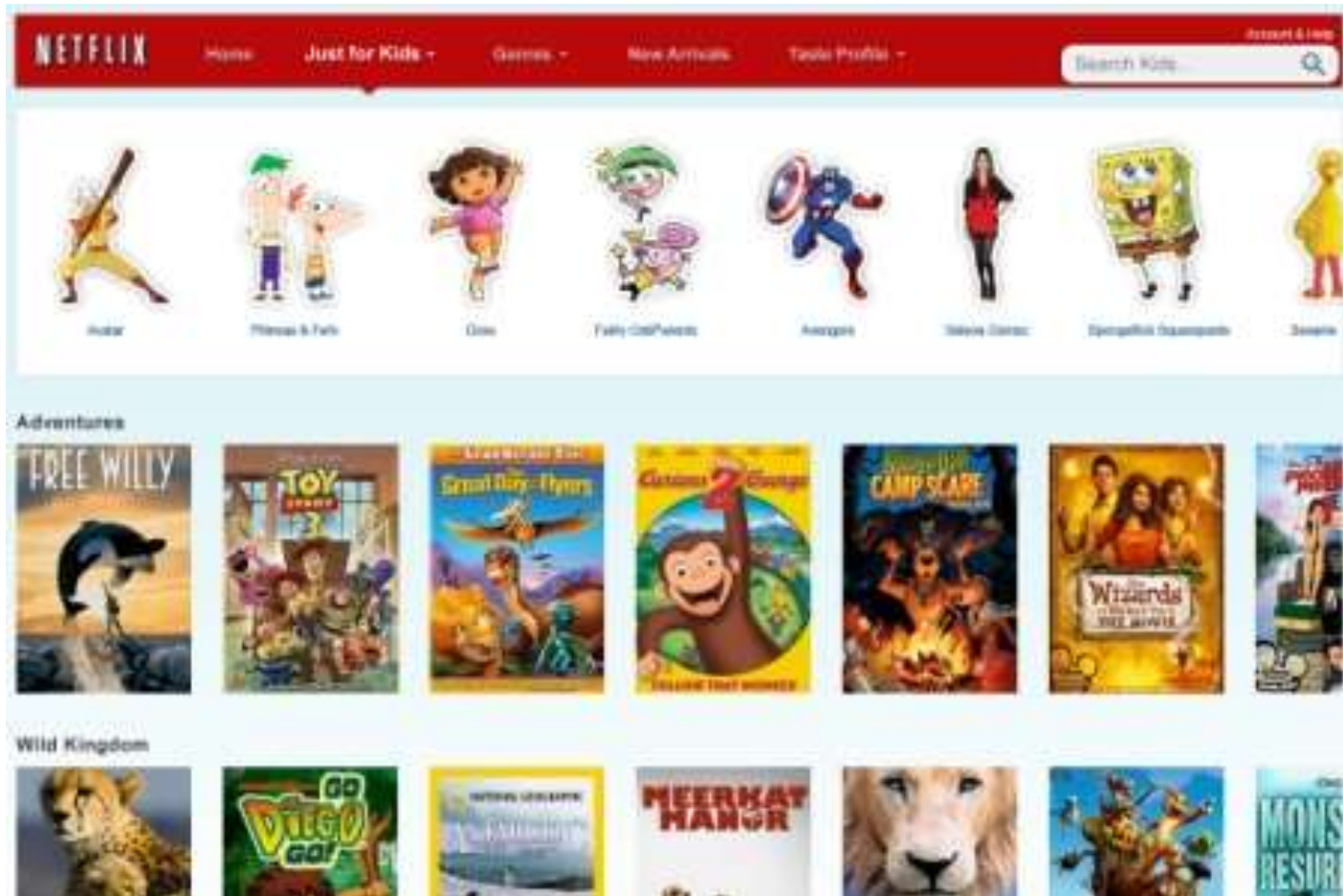
**European Annual Meeting**

# Most of our choices are digital



85% respondents said mobile devices are a central part of everyday life—and 90% between 18-24.
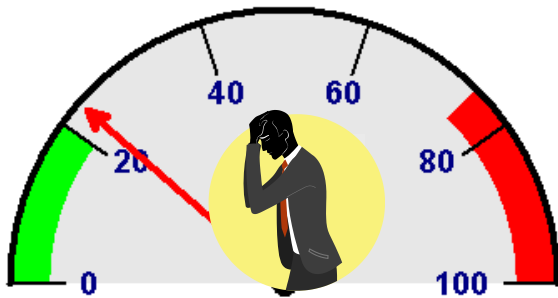*2014 Mobile Behavior Report*

# Even kids choose online

# Movies & Restaurants: Realistic benchmarking for understanding life insurance choice behaviour?
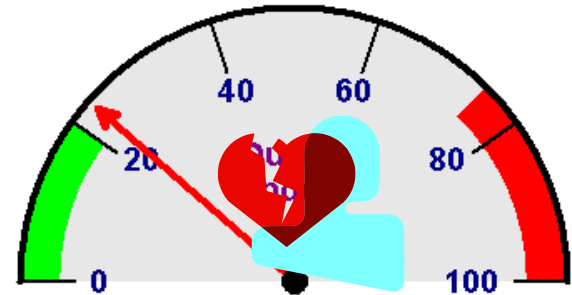
# Life insurance choice can be more



effortful



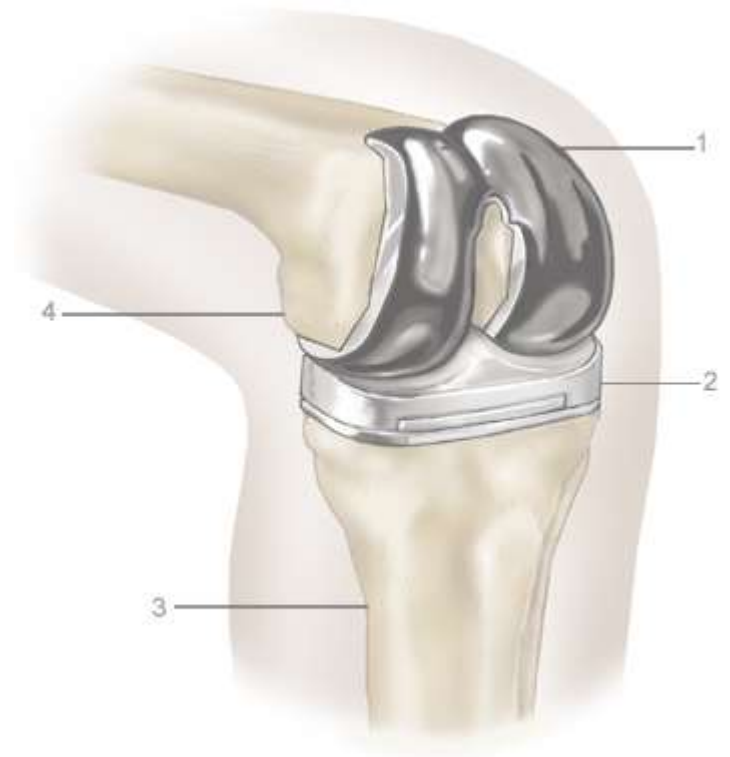heartbreaking

… especially so for older people.

Result: avoid choice!

… especially so for younger people.

Result: avoid choice!

# Health industry a better benchmarking

- Choice of hospital for elective care
  - E.g. Knee Replacement Surgery

**NHS** choices
Your health, your choices

## Information about the organisations (e.g. Trusts) running the hospitals that provide this treatment

| Click on the questions below to link to a full explanation of what they mean | Chelsea and Westminster Hospital NHS Foundation Trust | West Middlesex University Hospital NHS Trust | St George's Healthcare NHS Trust | North West London Hospitals NHS Trust |
|---|---|---|---|---|
| How long will I wait from referral to treatment? (note that NHS and independent hospitals report their waiting times in different ways, which may mean they are not comparable – click here to see details) | 92% of patients were treated within 18 weeks | 86% of patients were treated within 18 weeks | 90% of patients were treated within 18 weeks | 81% of patients were treated within 18 weeks |
| | 50% of patients were treated within 11 weeks | 50% of patients were treated within 14 weeks | 50% of patients were treated within 10 weeks | 50% of patients were treated within 13 weeks |
| Data Source: Department of Health | | | | |
| How long am I likely to spend in hospital? | Patients stay in hospital for an average length of 9 days | Patients stay in hospital for an average length of 6.2 days | Patients stay in hospital for an average length of 15.8 days | Patients stay in hospital for an average length of 7 days |
| Data Source: Commissioning Data Sets | | | | |
| What is the risk that I will be readmitted to hospital? | ★★★ Lower than Expected 1.4 per cent of patients are readmitted to hospital within a month of being discharged | ★★☆ As Expected 7.2 per cent of patients are readmitted to hospital within a month of being discharged | ★★☆ As Expected 5.6 per cent of patients are readmitted to hospital within a month of being discharged | ★★☆ As Expected 5 per cent of patients are readmitted to hospital within a month of being discharged |
| Data Source: Commissioning Data Sets | | | | |
| Does the surgical department have a lot of experience in this operation? | This service performs this operation 169 times per year | This service performs this operation 56 times per year | This service performs this operation 84 times per year | This service performs this operation 233 times per year |
| Data Source: Commissioning Data Sets | | | | |
| Is the survival rate for this treatment better or worse than expected, for the types of cases treated? (The "expected range" for an organisation is determined by the number and types of cases it treats. Click here to see details) | The survival rate is within the expected range | A comparable survival rate could not be calculated due to low numbers (operations and/or deaths) | The survival rate is within the expected range | The survival rate is within the expected range |
| Data Source: Commissioning Data Sets | | | | |
| What is the risk of developing a wound infection after surgery at this hospital? | ★★☆ Average This hospital scored 104.5 on this measure | ★★☆ Average This hospital scored 179.2 on this measure | ★★★ Lower than average This hospital scored 0 on this measure | ★★☆ Average This hospital scored 331 on this measure |
| Data Source: Health Protection Agency | | | | |
| How well does this organisation control MRSA blood infections for elective patients (patients who have planned their treatment in advance)? (note that NHS and independent hospitals report their MRSA rates in different ways – click here to see details) | The organisation running these hospitals had 0.5 infections for every 10,000 elective bed days | The organisation running these hospitals had 2.2 infections for every 10,000 elective bed days | The organisation running these hospitals had 2.2 infections for every 10,000 elective bed days | The organisation running these hospitals had 0.3 infections for every 10,000 elective bed days |
| Data Source: Department of Health | | | | |
| Click on the questions below to link to a full explanation of what they mean | Hospitals run by Chelsea and Westminster Hospital NHS Foundation Trust: Chelsea and Westminster Hospital (1.68 miles) | Hospitals run by West Middlesex University Hospital NHS Trust: Chiswick Health Centre (1.99 miles) | Hospitals run by St George's Healthcare NHS Trust: St George's Hospital (Tooting) (4.09 miles) | Hospitals run by North West London Hospitals NHS Trust: Central Middlesex Hospital (4.18 miles) |
| What is the overall quality of service? | The Care Quality Commission rated the quality of services Good for the trust which ran this hospital More Details | The Care Quality Commission rated the quality of services Fair for the trust which ran this hospital More Details | The Care Quality Commission rated the quality of services Good for the trust which ran this hospital More Details | The Care Quality Commission rated the quality of services Fair for the trust which ran this hospital More Details |
| Data Source: Care Quality Commission | | | | |
| How did patients rate their overall care? (Note: these results may be affected by differences among hospitals in the types of patients they treat and in the treatments they offer. Click here to see details) | The hospital scored 6.2 out of 10 | Data not available | The hospital scored 8.0 out of 10 | The hospital scored 7.7 out of 10 |

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# Difficult Choice + Digital Deluge = Dumb Decisions

- Hospital
  - Most patients choose hospital that is closest to them rather than has best infection or mortality rates, and they regret it.

- Life Insurance
  - Almost 40 % of policyholders surveyed are not confident they have adequate coverage
  - About 40 % policyholders surveyed said they don't know what's in their policies.
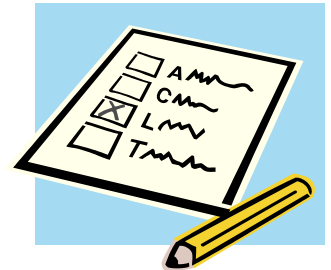    - Source: CNBC 2014

**NHS** choices
Your health, your choices

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| Data Source: Commissioning Data Sets | | | | |
| **Does the surgical department have a lot of experience in this operation?** | This service performs this operation 169 times per year | This service performs this operation 56 times per year | | |
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| **Is the survival rate for this treatment better or worse than expected, for the types of cases treated? (The "expected range" for an organisation is determined by the number and types of cases it treats. Click here to see details)** | The survival rate ... the expected ... | | | The survival rate is within the expected range |
| Data Source: Commissioning Data Sets | | | | |
| **What is the risk of developing a ... after surgery at this ...** | | ...ospital scored 179.2 on this measure | ★★★ Lower than average This hospital scored 0 on this measure | ★★☆ Average This hospital scored 331 on this measure |
| Data Source: He... | | | | |
| **How ...** | ...re organisation running these hospitals had 0.5 infections for every 10,000 elective bed days | The organisation running these hospitals had 2.2 infections for every 10,000 elective bed days | The organisation running these hospitals had 2.2 infections for every 10,000 elective bed days | The organisation running these hospitals had 0.3 infections for every 10,000 elective bed days |
| ...of Health | | | | |
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**No Choice Architecture**

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# **Raise your hand if you agree that:**

1.  Pre-sorting products for your clients is good (they choose the top-ranked items on search lists).

2.  A "pre-selected" product is chosen more often than one that is not.

3.  Clicks = attention (What is clicked more is chosen more)

4.  The simpler something is to read on the screen the better

# Are these good principles of Online Choice Architecture?

Pieters, & Warlop, 1999

Search Engines

Bernard et al., 2002

Read-ability

INTERACTION DESIGN

beyond human-computer interaction

Pre-selection

Goldstein et al., 2008

Guan & Cutrell 2007; Keane, O'Brien & Smyth, 2008

Clicks/ Attention

**Search Engines**

Government's goal: Increase proportion of people **choosing highest quality hospital** on NHS Choices online portal

**Two hospital search engines:**
**1) pre-sorted by Quality**
**2) pre-sorted by Distance**

Which engine

do you think made

more people choose

the best quality hospital?

Fasolo Reutskaja Dixon Boyce 2010

# % choosing best quality hospital out of 5 (two different diseases)
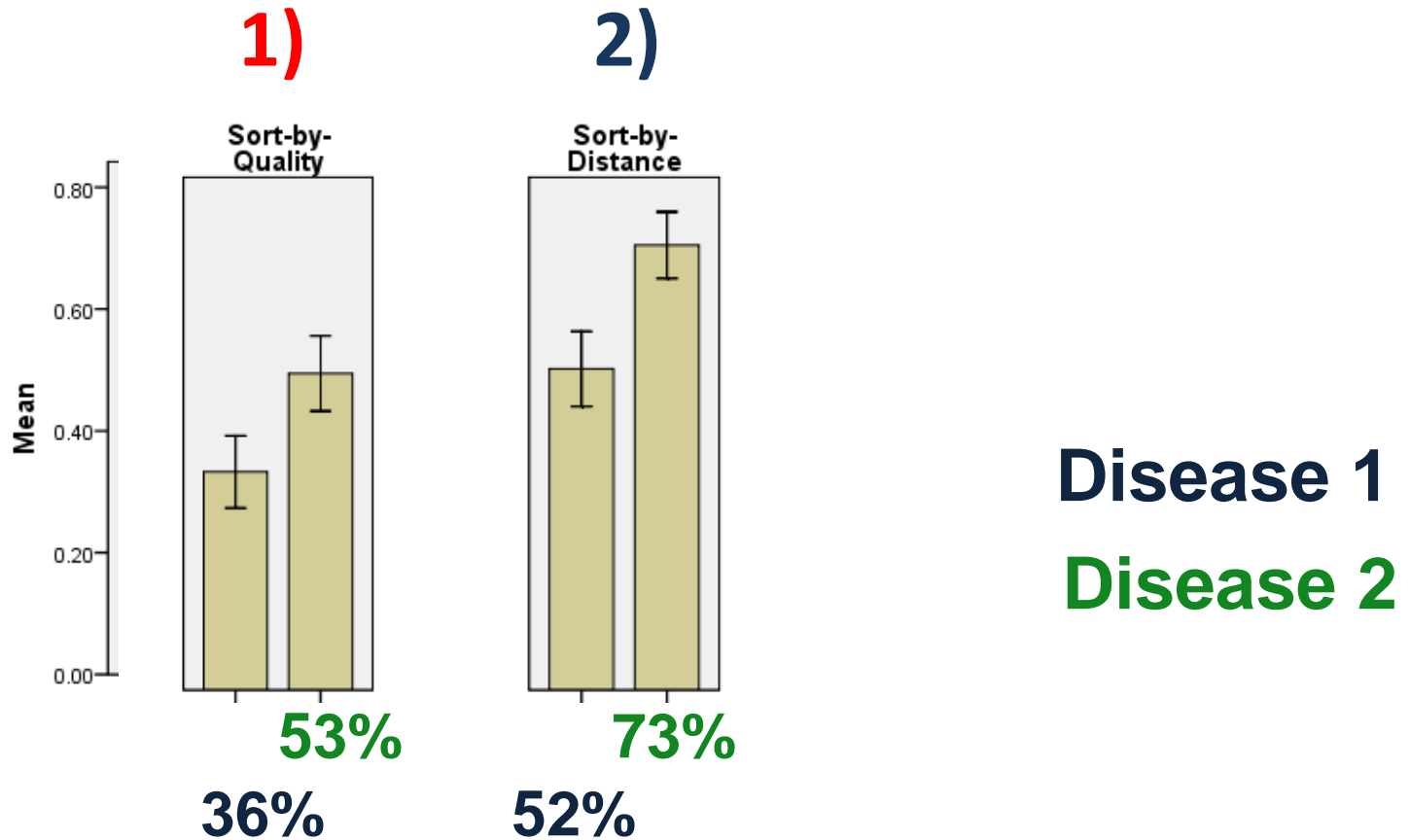


Reutskaja, Elena and Fasolo, Barbara (2013). It's not necessarily best to be first. Harvard Business Review, 91(1), 28-29.

# Principles of  ~~Web-Design~~
# **Choice Architecture**

1. Search Engines are not always good choice architecture: Clients **do not always** choose the top-ranked items.

Pre-selection

When we **pre-selected**
the best hospital,
did more people choose it (more than
when the best was not pre-selected)?

# Pre-selection

Scorecard Pre-sorted by Quality

**Best is highlighted and pre-selected**

*Johnson and Goldstein, 2003;*
*Johnson et al., 2012;*
*Herrmann et al 2011*

# Pre-selection



*Reutskaja, Elena and Fasolo, Barbara (2013). It's not necessarily best to be first. Harvard Business Review, 91(1), 28-29.*

# Principles of **Choice Architecture**

1. Search Engines are not always good CA: Users **do not always** choose the top-ranked items.

2. Pre-selection is **not always**  the best choice architecture you can implement

**Clicks/ Attention**

Did people click more on the product they chose
vs those they did not?

# People clicked more the first... but chose more the fourth!



e01: Heatmap of the Average Time per Cell (Time, ms)
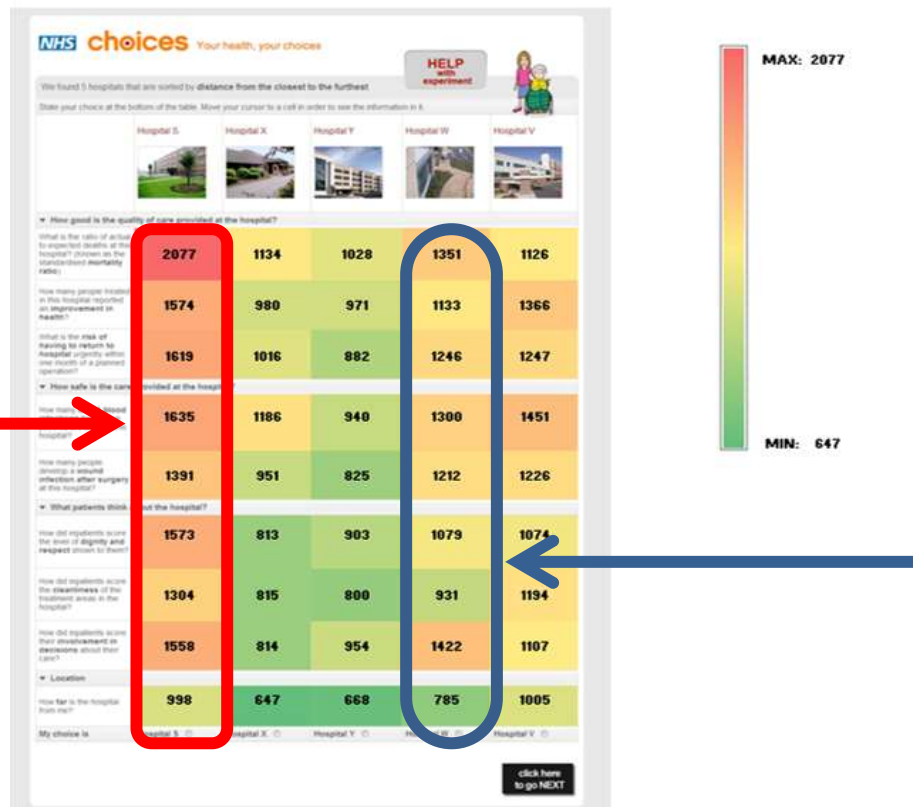
Redder / **most clicked on**

**chosen most,** best quality

# Principles of **Choice Architecture**

1.  Search Engines are not always good : Users **do not always** choose the top-ranked items.

2.  Pre-selection is **not always** the best choice architecture you can implement

3. Clicks are not 'likes' - What people click on a lot might not be what they choose. Clicks are paths to choice.

**Read-ability**

# A behavioural experiment

@TECHBIZ

DARREN WOOD'S WEEKLY COLUMN
REVIEW OF MP3 PLAYER
MODEL ▉▉▉▉▉▉

This is an excellent MP3 player. It is very popular amongst everyday people and celebrities, comes in a range of colors, and was rated as the most attractive MP3 player by a consumer group. It's perfect for jogging, going to the gym, or just listening to when you're at home. I highly recommend this player.

Alter, Adam L., et al. "Overcoming intuition: metacognitive difficulty activates analytic reasoning." Journal of Experimental Psychology: General 136.4 (2007): 569.

# One Group: **Hard** to read headline

@ ₩eekly ®epØ®t Øn G@dget$ @nd GïzmØ$
MØnd@y, Feβ®u@®y 2Ø 2ØØ6.

DARREN WOOD'S WEEKLY COLUMN
REVIEW OF MP3 PLAYER
MODEL ████████

This is an excellent MP3 player. It is very popular amongst everyday people and celebrities, comes in a range of colors, and was rated as the most attractive MP3 player by a consumer group. It's perfect for jogging, going to the gym, or just listening to when you're at home. I highly recommend this player.

# Other Group: **Easy** to Read Headline

A WEEKLY REPORT on GADGETS and GIZMOS
MONDAY, FEBRUARY 20 2006

DARREN WOOD'S WEEKLY COLUMN
REVIEW OF MP3 PLAYER
MODEL

This is an excellent MP3 player. It has a very large storage capacity of 60GB, a longer battery life per charge than any of its competitors, and is also able to withstand repeated dropping from a height of six feet. Customers have also reported that it is very easy to use and highly recommend this player.

# Principles of **Choice Architecture**

1. Search Engines are not always good CA: Users **do not always** choose the top-ranked items.

2. Pre-selection is **not always** the best choice architecture you can implement

3. Clicks are not likes.

4. Easy in, easy out. Winning choice architecture is 'desirably difficult' (typeface we are less used to)

All your clients need smart choice architecture to choose well online.

What they need will differ depending on age and expertise.

Behavioural science can help you understand how.

All your clients need smart choice architecture to choose well online.

What they need will differ depending on age and expertise.

Behavioural science can help you understand how.

# Thank you

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# Back up slides

# 1. Best First (Sort-by-Quality)

# 2. Best in Hotspot (Sort-by-Distance)



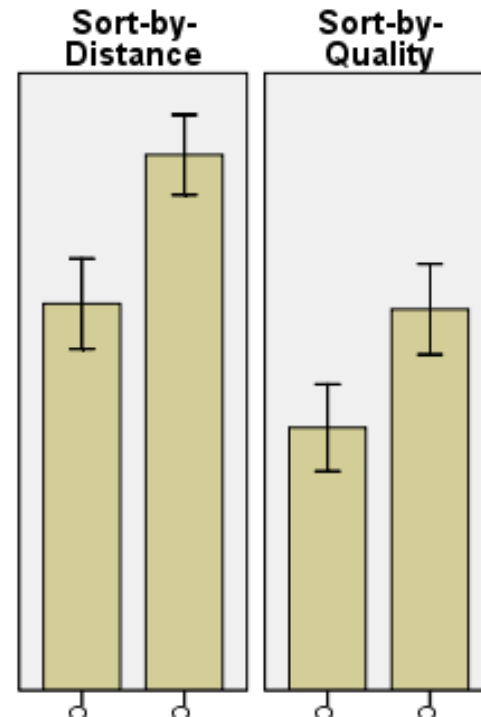**Best hospital 1st**

**Best hospital 4th**

# % choosing best hospital out of 5
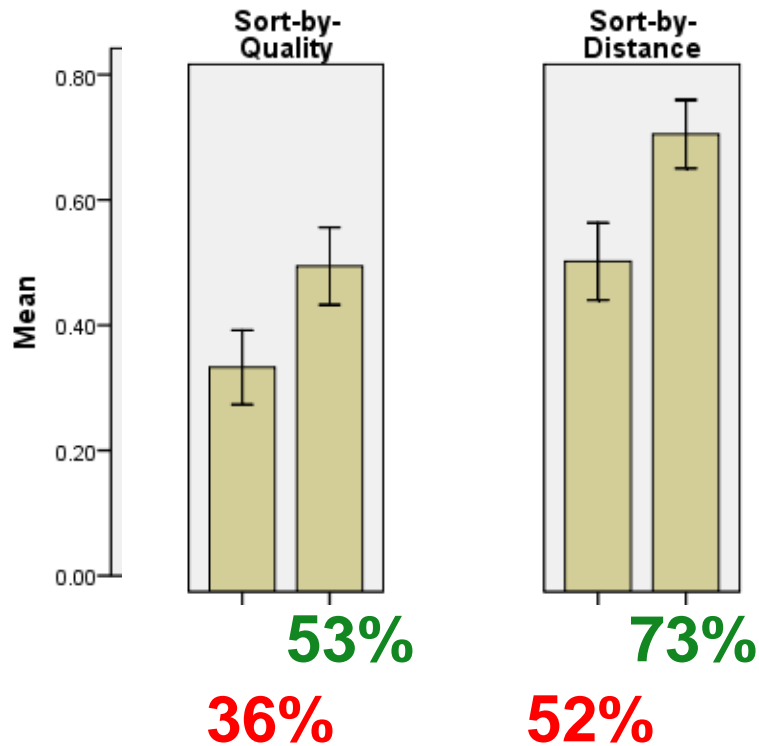


Hospital 1
Hospital 2

# Sort-by-Distance better than Sort-by-Quality!

## Why?

# Sort-by-Distance better than Sort-by-Quality!

## Why?

- When searching is easy (as on comparison websites or scorecards) people over-search

- Due to spatial position of hospitals presented simultaneously and horizontally: unconscious attraction towards the middle

(Diehl 2005; Valenzuela, Fitzsimons et al., 2002**)**