# Responsive Design

- Build a website for a mobile phone.
- Serve every user that site.
- Adapt the design, content, and features to a device's properties with progressive enhancement.

Wednesday, 9 March 2011

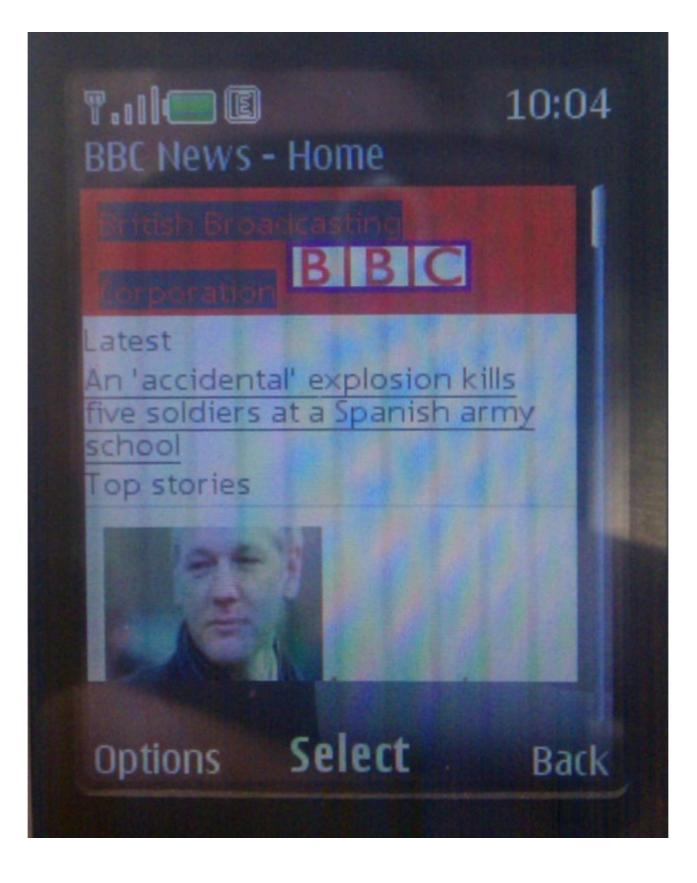
- cf. alistapart.com/articles/responsive-web-design/

- Alternative to device detection (i.e. doesn't need DEMI)

### http://bit.ly/bbcnews8

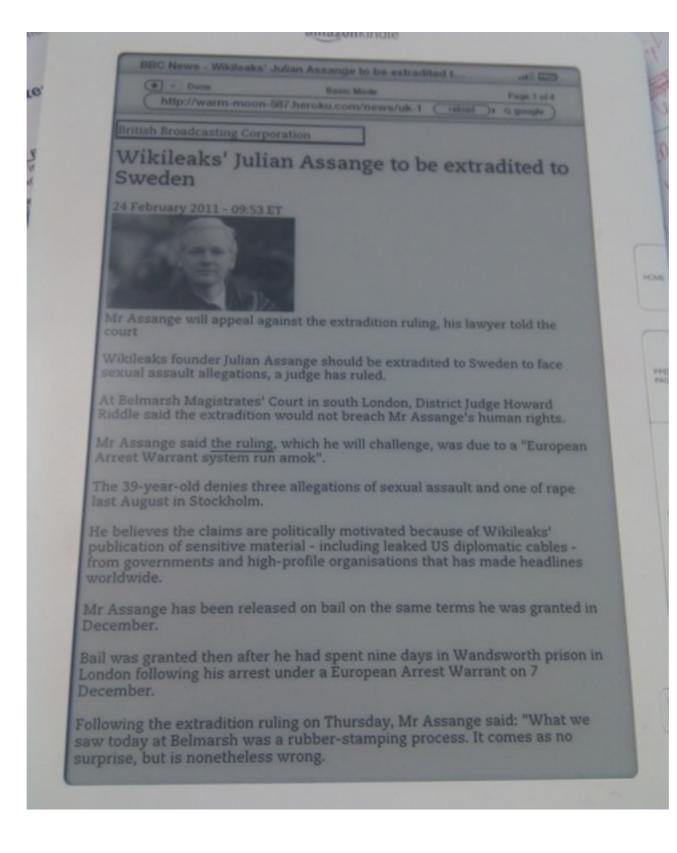
- Prototype as live with 60 second delay (missing galleries, video)
- Load it on to your device. Some bugs. ~2 days effort.
- Mostly managed with CSS media queries & a little bit of JS.

### Feature Phone



- Low end devices. Minimal experience.
- Looks rough around edges.

### Kindle



- Kindle. Big screen, slow hardware, no javascript.
- Users really just want something to read.

### Smart phone



- Average smart-phone.
- Long and thin, Nice to scroll down. Big links to touch, CSS3 Ticker.
- Not unlike current mobile site.
- Fluid, linearized design GEL is pretty suited to this.

### Tablet (portrait)

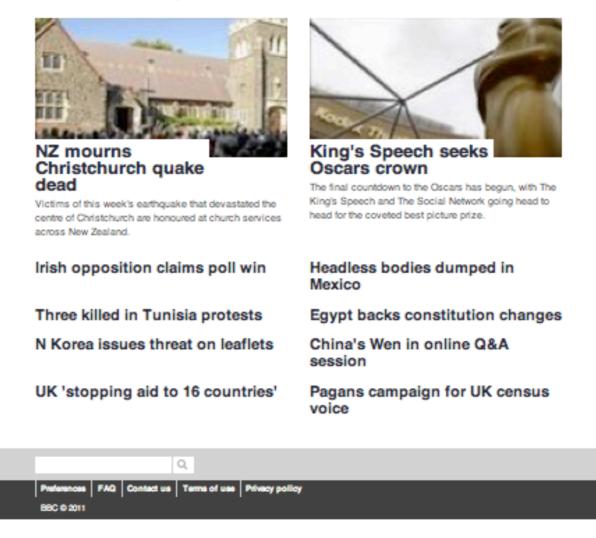
#### BBC

LATEST North Korea says it will fire at South Korea, if South continues to send propaganda leaflets over border



#### UN imposes sanctions on Gaddafi

The UN Security Council votes unanimously to impose sanctions on Muammar Gaddafi's Libyan regime for its attempts to put down an uprising.



- Tablet in portrait.
- One main story, two columns for 2nd & 3rd. Bigger images (for fingers, not mouse).
- More room for LATEST carousel at top.

### Tablet (landscape) & Netbook

### BBC

Home World UK England N. Ireland Scotland Wales Business Politics Health Education Sci/Environment Technology Entertainment

LATEST French Foreign Minister Michele Alliot-Marie resigns after weeks of criticism over her contacts with toppled Tunisian regime



### Libya exodus sparks border crisis

Libya's western border with Tunisia is being overrun with migrants, many of them from Egypt, fleeing the turmoil in Libya, aid workers say.

Two killed during Oman	Bomb attack hits Afghan dog
protests	fight
French FM quits after Tunisia	NZ mourns Christchurch quake
criticism	dead
New Irish leader in bailout vow	Turkey's first Islamist PM dies
China lowers growth rate target	England & India in thrilling tie



Tunisian PM resigns over protests

Tunisian Prime Minister Mohammed Ghannouchi announces he is resigning, a key demand of demonstrators following last month's uprising.



Oscars crown The final countdown to the Oscars has

begun, with The King's Speech and The Social Network going head to head for the coveted best picture prize.

- Move top three stories to right-hand side to keep within viewport.
- Horizontal navigation inserted in top.
- Tablet landscape is not that far away from current desktop look.

Desktop



- Desktop has extra content + interface design for mouse clicking (not fingers).
- We didn't build the desktop version, but agreed the principals of how we can.
- Remember, it's the same code running in all 6 devices.

## Dimensions, Connection Speed, Interaction

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- Screen size is most important thing for quality of UX, then connection speed, then interaction.

- Dictates amount of content i.e. Can't serve everything at low-spec phones.

- We need to decouple device size from connection speed

... iPad 3g needs a optimized experience to the iPad wifi.

## Content Models



- We need to reduce the amount we initially serve to devices :-
  - Core what's baked in to the initial page load headlines, story, video
  - Secondary related, eg. Most Read, Promotion, 'Features'
- Also. Brand (GEL) + Navigation + Search.
- It's an editorial judgement or a users judgement?
- The core model supports crappy hardware and old IE4/5/6 browsers too.
- Current desktop site has ~65 assets and a page weight of 0.5MB
  - ... a core model might be  $\sim$ 3 images and 6kb of HTML

bbc.co.uk/news/breaking bbc.co.uk/news/popular bbc.co.uk/news/popular/read bbc.co.uk/news/:article/comments bbc.co.uk/news/:article/more

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Problem when we remove content we make it inaccessible to Google, to Non-JS devices, so we need to mint more pages so users can still traverse all the content.
Easy on forge, quite hard on CPS (?)

## Image enhancement

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- If connection speed + device size allow we replace the images with high resolution versions.

### Gestures

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- JS implementation of swipe ok on Android 2.2, iOS, Samsung tablet.

- Needs to use CSS3 transitions for performance (not JQuery).

## Local storage

- Ran out of time to integrate properly.
- We think it's not impossible, but 2/3 weeks effort.
- The sync model is the complicated part.

## Product

- Validate content models with Editors
- Personalisation
- Pan-BBC

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- Pan-BBC? Eg, Land on the News homepage, swipe left for Weather, swipe right for Sport

- Personalisation - Apps allow this, desktop doesn't

# Design

- Do you tie together to many disparate users experience? Or is bespoke better?
- Gestures/UX are more limited that native apps.
- Existing desktop site as fluid layout?
- CPS images are too low-res

## Technical

- JS loaded editorial content.
- Need to test the a hybrid app.
- Flash -> SVG (Specials)
- Reliable way to detect bandwidth
- DEMI? Do we really need it?
- Big screen applicability?

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- DEMI, probably more useful for hard to detect things like media support

- JS loaded content mildly controversial.

## Next

- Scope & more investigation
- Dependencies -> BLQ, EMP mobile ...
- CPS output
- Staff

- Scope. probably not going to take it as far as desktop by July.
- Mainly within our control, though touches on other products.
- 3 developers for 3/4 months with help from existing mobile team.