Tools and Techniques for Creating Responsive Web Content
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- Consultant and trainer for User Assistance tools and technologies
- Technical Director of annual UA Europe conference
The questions we’ll answer in this session

- What is Responsive Web Design (RWD)?
- What are the key concepts that I need to know about?
- What is the technology behind RWD?
- How can I put RWD into practice?
- How do our tools support RWD?
Responsive Web Design

- Design for an optimal viewing experience over a range of different device sizes and types
- Term coined by web designer Ethan Marcotte
Key characteristics of a responsive site

- As size of **Viewport** changes:
  - Images resize automatically
  - Column widths resize automatically

- At specific **Breakpoints**:
  - Multi-column layouts automatically switch to single column layouts
  - Navigation controls change position and/or presentation
  - Page elements change position or disappear altogether
Responsive example #1: UAConference.eu

UA Europe?
ANNUAL CONFERENCE
5-6 June 2014, Kraków, Poland

Conference Agenda
- Wednesday 4th June
- Thursday 5th June
- Friday 6th June

Wednesday 4th June (Eve of Conference)
- 5.30pm - 8.00pm Conference check-in
- 7.00pm - 8.30pm Informal social gathering in the bar of the Park Inn by Radisson Kraków hotel

Top of page

Thursday 5th June
- 8.00am - 8.45am Conference check-in
- 9.00am - 9.15am Welcome to the Conference (Matthew Ellison, UA Europe)
- 9.15am - 9.50am Who are we? A mirror for UA professionals (Joe Wellinske, WritersUA)
- 9.50am - 10.30am Responsive web design in user assistance (Dr Tony Self, HyperWrite)
- 10.30am - 11.00am Tea/coffee break

Top of page
Responsive example #2: Microsoft.com

Say hello to Cortana on a Lumia 635 or HTC One (M8) for Windows

Learn more  Shop now

Say hello to Cortana on a Lumia 635 or HTC One (M8) for Windows

Learn more  Shop now

Macbook Air vs. Surface Pro 3. Compare now.

Sept. 7-13: buy Xbox One. choose a game for free.

Your complete office in the cloud. Learn more.

For work  For home
Responsive example #3: Barracuda docs

Step 3 - How to Configure Backups

Before configuring the web interface, complete Step 2 - How to Configure Barracuda Backup.

You can configure where your data is backed up and in what manner. This article refers to data sources, which are subsets of data on each server that is to be backed up.

In this article:
- Where Data is Backed Up
- Supported Data Types
- Related Articles
  - Backing Up Data Sources
  - Replicating Data
  - Deployment Options

Where Data is Backed Up

You configure how and when your data is to be backed up. All data is first backed up to a local Barracuda Backup Server. If you have more than one local Barracuda Backup Server, you must decide which one backs up which systems.

Data on the local Barracuda Backup Server can then be backed up, or replicated, to another Barracuda Backup Server in a remote location, to the Barracuda Cloud Storage, or to a combination of the two. See Site-to-Site Deployment or Site-to-Cloud Deployment for deployment options. The location of the replicated data is specified for each data source. You can also choose to not replicate the backed-up data at all.
Key issues

- Graceful degradation?

or

- Progressive enhancement?

which leads us to another important term...
Mobile First

- Term coined by Luke Wroblewski

- Design web content for viewing on mobile devices, and adapt for desktop screens

- Why?
  - Forces you to focus
  - Mobile viewing set to outstrip desktop
  - Extends your capabilities
An alternative view

- "A responsive design should linearise the layout and optionally buttonise the navigation."

[Nicholas Johnson]
http://www.sitepoint.com/disable-responsive-design-option/
What is the technology behind RWD?

- Fluid/Flexible images (and videos)
  - `img {max-width: 100%;}`

- Fluid/Flexible grids
  - % for margins and widths of `div`
  - `{float: none}` for small screens

- CSS 3:
  - Media Queries
Media Queries

- Enable you to change format and layout based on the width of the viewport
- Introduced in CSS 3
- "Conditional styles"
Media Query: single style sheet

- Within single CSS file:

```css
@media screen and (max-width: 810px) {
    h1 {color:green}
    ...
}
```

- This applies specific styles from within a single style sheet, based on the width of the device.
Media Query: multiple style sheets

- Within Head section of HTML page:

  `<link href="css/tablet.css" rel="stylesheet" type="text/css" media="screen and (min-width: 401px) and (max-width: 809px)" />

- This applies an appropriate style sheet based on the width of the device
Simple example

| Column 1 text column 1 text column 1 text column 1 text column 1 text |
| Column 2 text column 2 text column 2 text column 2 text column 2 text |

16% 16% 16%

42% float: left 42%

100%
Simple example: viewport less wide

Heading text heading text heading text

Column 1 text column 1 text column 1 text column 1 text

Column 2 text column 2 text column 2 text column 2 text

42% float: left

100%
Simple example: past breakpoint

Heading text heading text heading text

Column 1 text column 1 text column 1 text column 1 text column 1 text

Column 2 text column 2 text column 2 text column 2 text column 2 text

100% float: none
Case study: UA Europe Conference website

UA Europe ANNUAL CONFERENCE
5-6 June 2014, Kraków, Poland

Technical Communicators: Registration for UA Europe 2014 is Now Open

UA Europe 2014 takes place in the wonderful city of Kraków, Poland, on June 5th - 6th, 2014.

UA Europe is an annual conference for technical communicators that focuses on software user assistance and online help. It provides a unique update on the latest industry trends, technical developments, and best practice in software user assistance.

Register Now

Special Track on Mobile User Assistance

Surveys show that end-users are increasingly using mobile devices such as smartphones and tablets to access user assistance – and the traditional design models for user assistance do not work well on these platforms. As a result, UA Europe 2014 features an optional track that focuses on one of the hottest topics facing today’s technical communicators: Mobile User Assistance.

The track includes the following sessions:

- Designing user assistance for mobile business apps (William van Woelden)
- Responsive web design in user assistance (Dr Tony Soff)
- Trends in mobile user assistance (Joe Welsens)
Assumptions on which redesign was based

- Business users researching the conference are likely to be using a desktop or laptop computer
- Users will register for the conference using a desktop or laptop computer
- Users may want to check key facts using a mobile device
- Users travelling to and attending the conference are likely to be using mobile devices
Technique #1: Showing/hiding specific elements

- HTML:

```html
<div class="desktoponly">
  <p>This content appears only on large screens</p>
</div>

<div class="mobileonly">
  <p>This content appears only on small screens</p>
</div>
```
Technique #1: Showing/hiding specific elements

- CSS:

```css
.desktoonly {
    display:block;
}

.mobileonly {
    display:none;
}

@media screen and (max-width: 810px) {
    .desktoonly {
        display:none;
    }
    .mobileonly {
        display:block;
    }
}
```
Technique #2:
Left-hand navigation pane for large screens

Desktop

Mobile
Technique #2: Left-hand navigation pane for large screens

- HTML:

```html
<div id="content">
 ...
</div>

<div id="nav">
<p class="nav"><a href="index.html">Overview</a></p>
<p class="nav"><a href="registration.html">Registration</a></p>
 ...
</div>
```
Technique #2: Left-hand navigation pane for large screens

- CSS (large screen):

```css
#content
{
    float: right;
    width: 615px;
    border-left: 3px solid #314975;
    padding-left: 10px;
}

#nav
{
    position: relative;
    width: 158px;
}
```
Technique #2: Left-hand navigation pane for large screens

- CSS (small screen):

```css
@media screen and (max-width: 810px) {
  #content {
    float: none;
    width: 100%;
    border-left: none;
    padding-left: 0;
    margin: 0;
  }

  div#nav {
    display: none
  }
}
```
Technique #3: Top navigation menu for small screens

Conference Sessions
On day 1 of the conference, one of the two optional session tracks will focus on Mobile User Assistance.
All conference sessions and workshops are presented in English.

Sessions in Mobile User Assistance track
- Responsive web design in user assistance (Dr Tony Self)
- Tool support for creating mobile user assistance (Matthew Ellison)
- Trends in mobile user assistance (Joe Welinske)
- Designing user assistance for mobile business apps (William van Weelden)

General sessions
- Practical HTML/CSS3 for real writers (Dave Gash)
- A technical writer's role in redesigning the application UI (Agnieszka Tkaczyk)
- Agile documentation in practice (Ulrike Parson)
- From user assistance to user guidance (Jang F.M. Graat)
- Getting to know users (Dr Chris Atherton)
- A dive into the quantum funnel (Ray Gallon)
- Embedded Help: nuts and bolts (Dave Gash)
- Automating and managing multiple projects in a multilingual environment (Thomas Bro-Nielsen)
Technique #3: Top navigation menu for small screens

- HTML:

```html
<body>
<div id="topbar">
    <a href="index.html">Home</a>
    <a href="agenda.html">Agenda</a>
    <a href="speakers.html">Speakers</a>
    <a href="sessions.html">Sessions</a>
    <a href="flightinfo.html">Flights</a>
</div>
</body>
```
Technique #3: Top navigation menu for small screens

- CSS (large screen):

```html
div#topbar {
    display:none;
}
```
Technique #3: Top navigation menu for small screens

- CSS (small screen):

```css
@media screen and (max-width: 810px) {
  div#topbar {
    display: block;
    top: 0;
    width: 100%;
    padding-top: 1em;
    padding-bottom: 1em;
    position: fixed;
    background-color: #ffffff;
    opacity: 1.0;
    z-index: 1;
    border-bottom: 1px solid #ccc;
    font-size: 100%;
  }
}
```
Technique #4: Resizing and centering images for small screen

Desktop

Mobile
Technique #4: Resizing and centering images for small screen

- HTML:

```html
<div class="centerimage">
<img style="float:left;margin:15px 15px 15px 0;" src="images/ParkInnKrakow350.jpg" alt="Photo of UA Europe 2014 venue: Park Inn, Kraków" title="UA Europe 2014 venue: Park Inn, Kraków" width="350" height="232" />
</div>

<p>The hotel has extensive state-of-the-art conference facilities, and features spacious and colourful bedrooms with free Wi-Fi.</p>
```

```html
</div>
</img style="float:left"
```
Technique #4: Resizing and centering images for small screen

- CSS (small screen):

```css
@media screen and (max-width: 810px) {

div.centerimage {
    text-align: center;
}

div.centerimage img {
    width: 75%;
    height: auto;
    float: none !important;
}
}
```
Technique #5: Setting the ideal viewport width

- HTML

```html
<meta name="viewport" content="width=device-width,initial-scale=1" />
```
Technique #5: Setting the ideal viewport width

- Without meta tag:
Technique #5: Setting the ideal viewport width

- With meta tag:
RoboHelp...
Setting up the Responsive HTML5 output

- Title Bar: Help for Paint
- Favicon:
- Output Folder and Start Page: D:\Documents\Consulting\ISTC\Communicator\RoboHelp 11 Review\Windows
- Manage Layout:
  - Select: Theme1_Standard
  - Customize Selected Layout...
  - Preview...

- Save and Generate
Editing a Responsive Layout

Layout Customization: Theme1_Standard

Layout Components:
- Header
- Function bar
- Global
- Sidebar
- Search
- TOC Desktop
- TOC Mobile/Tablet
- Index Desktop
- Index Mobile/Tablet
- Glossary Desktop
- Glossary Mobile/Tablet
- Title Mobile
- Navigation Mobile/Tablet

Properties:
- Background: #0079AC
- Logo: logo.png
- Font: "Arial Black", Arial, sans-serif
- Font weight: 900
- Color: FFFFFF
- Hover color: FFFFFF

Logo:
The logo used in the layout. Use an image of 80x80 pixels for best results.

Click on the button to view/edit properties of the component.

Great embedded UA

Clickable buttons
Media Queries

[Image of the Media Queries settings in a style editor, highlighting the 'Media' dropdown set to 'Phone'. The character preview shows a hyperlink.]
Flare...
Enabling responsive output in HTML5 skin

Breakpoints between different Media types
Editing HTML5 layout (Styles in skin)

Styles cascade: Web > Tablet > Mobile
Media Queries

- No built-in support in Flare's style sheet editor

- You can manually enter required code, for example:

```css
@media only screen and max-width: 767px) {
  a { font-size: 200%; }
}
```
DITA...
Third party DITA authoring/publishing tools

- Oxygen XML Editor’s Mobile WebHelp
- Antidot’s Fluid Topics
Growing Flowers

**Content**
- Introduction
- Care and Preparation
- Flowers by Season
- Glossary
- Copyright

**Search**

**Index**
Migrating from DITA 1.1 to 1.2

For documents that do not use the standard OASIS DITA doctypes for which the strict task model from DITA 1.0 and 1.1 is desired, the strict task model can be restored by using the strict Taskbody Constraint module, by creating and integrating a constraint module similar to the strict Taskbody Constraint, or by adjusting the specialization’s content models to impose the appropriate constraints.

To integrate the strict Taskbody Constraint module in a DTD, add the following content immediately before the section that imports the “topic.mod” file. The strictTaskbodyConstraint.mod file must be defined in any catalog used to locate DTD modules. See the task.dtd file in the OASIS DITA 1.2 DTD package for a sample.

```xml
<!ENTITY % strictTaskbody-c-def
PUBLIC "-//OASIS//ELEMENTS DITA 1.2 Strict Taskbody Constraint//EN"
"%strictTaskbodyConstraint.mod">
&strictTaskbody-c-def;
```

To do the same thing for a schema, the strictTaskbodyConstraint.xsd file must be defined in the catalog used to resolve the schema using the following URN. The <xs:include> element should be placed immediately before the <xs:include> for topicMod.xsd:

```xml
<xs:include
    schemaLocation="urn:oasis:names:tc:dita:xsd:strictTaskbodyConstraint"
    /
```

Documents which use the task document type from OASIS and wish to make use of the general <taskbody> model must also be migrated. In this case, the documents must be updated to reference the General Task document type.
Publishing from DITA using a HAT

- DITA -> Flare -> Responsive HTML5
- DITA -> ePublisher -> WebWorks Reverb
References and resources

- http://alistapart.com/article/responsive-web-design
- http://unstoppablerobotninja.com/entry/fluid-images
- http://mediaqueri.es/
- http://assets.madcapsoftware.com/webinar/Presentation_ContentAuthoringforResponsiveDesign.pdf
References and resources

- http://www.quirksmode.org/blog/archives/2010/04/a_pixel_is_not.html
- http://gamon.org/blog/2013/04/26/css-pixel-ratios-or-why-all-mobile-sites-are-320-pixels/
- http://www.responsinator.com/
- http://dita4publishers.sourceforge.net/
- http://mobiledita.com/
Gift for TCUK 2014 attendees

- Free download of all slides from UA Europe 2014 in Kraków

Go to:

uaconference.eu/TCUK

...and enter your contact details to receive username and password
Questions?

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