Using the ADAPT Model to Become Mobile Friendly

GSA MobileGov Community of Practice
Feb. 25, 2020
Agenda

- What is mobile friendliness?
- Why is mobile friendliness Important?
- What does it take to become mobile friendly?
- What is the ADAPT Model?
- Questions
What is Mobile Friendliness?

Mobile Friendly Definition

“A website that is **easy-to-use** on a **mobile device**, especially the small screens of smartphones.”

“**In today’s world it is essential that your site is optimized for mobile users.** The site display must be able to shrink down to **display on a mobile device** while **still being functional and user-friendly**.”
Why is Mobile Friendliness Important?

Percentage of Mobile Hits Across Federal Government Websites
(Reported by analytics.usa.gov)

There were **3.54 billion** visits over the past 90 days.

### Devices
- Desktop: 49.7%
- Mobile: 46.8%
- Tablet: 3.5%

*Based on rough network segmentation data, we estimate that less than 5% of all traffic across all agencies comes from US federal government networks.*

*Much more detailed data is available in downloadable CSV and JSON. This includes data on combined browser and OS usage.*

### Browsers
- Chrome: 49.5%
- Safari: 30.8%
- Internet Explorer: 6.2%
- Edge: 4.3%
- Firefox: 4%
- Samsung Internet: 2.5%
- Safari (in-app): 1%
- Other: < 0.1%

### Operating Systems
- Windows: 38%
- iOS: 28.2%
- Android: 21.4%
- Macintosh: 9.9%
- Chrome OS: 1.4%
- Linux: 1%
- Other: < 0.1%
What Does it Take to be Mobile Friendly?

Mobile friendliness can mean a multitude of things, depending on who you’re talking to. It can be helpful to think of it in terms of three goals for improving your site’s user experience: **Presentation, Content, and Performance.**

- Mozilla.org

**Attributes of Mobile Friendliness**

1. **Usability** - Users are on the go
2. **Mobile Device Limitations** - Mobile devices are generally not as robust as PCs
3. **Performance** - Less powerful hardware and slower network connections
What is the ADAPT Model? (1 of 2)

A - Assess Your Site
D - Determine Challenges
A - Align Solutions
P - Perform Enhancements
T - Test Again
**What is the ADAPT Model? (2 of 2)**

<table>
<thead>
<tr>
<th>Steps</th>
<th>Sample Tools</th>
</tr>
</thead>
</table>
| **Assess Your Needs and Site**| • Assess your needs  
• Build in Mobile Friendliness  
• Assess your site |
| **Determine Challenges**      | • Static testing  
• Dynamic testing |
| **Align Solutions**           | • Find solutions  
• Prioritize challenges |
| **Perform Enhancements**      | • Enhance the code  
• Redeploy the app |
| **Test Again**                | • Retest  
• Compare results  
• Further enhance the application |

**21st Century IDEA**  
**Connected Government Act**  
**DAP Analytics**  
**Digital.gov articles**  
**8 mobile friendly principles**  
**U.S. Web Design System**  
**Google’s mobile friendly test**

**Static**  
- PageSpeed Insights  
- Varvy SEO Tool  
- GTmetrix  
- mobiReady

**Dynamic**  
- Federal CrowdSource Mobile Testing Program

**Test tool results reports**  
**Balance impact with requirements**

**Test tool results reports**  
**U.S. Web Design System**

**Repeat the process using the same tools**
### Assess Your Needs

<table>
<thead>
<tr>
<th>Research regulatory requirements</th>
<th>Find out who is or will be using your site</th>
<th>Find out about mobile friendliness (8 Mobile Friendly Principles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>21st Century IDEA Act</td>
<td>Digital.gov guide to using the Digital Analytics Program (DAP)</td>
<td>JavaScript is really cool, when used with care</td>
</tr>
<tr>
<td>Connected Government Act</td>
<td>DAP dashboard and insights</td>
<td>The <strong>viewport</strong> is the window to your site</td>
</tr>
<tr>
<td>Other articles...</td>
<td></td>
<td>Remember That We Navigate Mobile Sites Using Our Fingers</td>
</tr>
<tr>
<td>Digital.gov</td>
<td></td>
<td>Installing additional software to properly view your site should not be necessary</td>
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<tr>
<td></td>
<td></td>
<td><strong>Conserve resources</strong>, recycle when possible</td>
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<tr>
<td></td>
<td></td>
<td>The <strong>smaller the better</strong>, when it comes to page resources!</td>
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<tr>
<td></td>
<td></td>
<td>Properly <strong>configure the server</strong></td>
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<tr>
<td></td>
<td></td>
<td>Don’t forget <strong>accessibility</strong>!</td>
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</tbody>
</table>
Assess Your Needs & Site (2 of 3)

Build in Mobile Friendliness

U.S. Web Design System
https://designsystem.digital.gov/

- Components
- Design Tokens
- Utilities
- Page Templates
Assess Your Needs & Site (3 of 3)

Assess Your Site

Google’s Mobile-Friendly Test
https://search.google.com/test/mobile-friendly

- Generic Pass/Fail
- Software Uncommon on Mobile Devices (e.g. Flash)
- Text Size
- Content Sized To Screen
- Link Spacing
## Determine Challenges (1 of 2)

### Static Testing

<table>
<thead>
<tr>
<th>PageSpeed Insights</th>
<th>W3C MobileOK Checker</th>
<th>mobiReady</th>
<th>Varvy SEO Tool</th>
<th>Gtmetrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>Markup Validation</td>
<td>JavaScript</td>
<td>Duplicate Resources</td>
<td>Key Performance indicators</td>
</tr>
<tr>
<td>User Experience</td>
<td>Structure of the Page</td>
<td>CSS</td>
<td>DNS Lookups</td>
<td>indicators</td>
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<tr>
<td></td>
<td>CSS Style Sheets</td>
<td>Caching</td>
<td>Tables</td>
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<td></td>
<td>Images/Objects</td>
<td>HTML Minimize</td>
<td>Pop-ups</td>
<td></td>
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<tr>
<td></td>
<td>User Input</td>
<td>Image Size</td>
<td>Frames</td>
<td></td>
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<td></td>
<td>HTTP Level</td>
<td>Charset</td>
<td>Image Map and Resizing</td>
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<td></td>
<td>Character Encoding</td>
<td>Viewport Meta</td>
<td>External Resources</td>
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</tbody>
</table>

- Googlebot Access
- Page displaying on Mobile Device
- Page secure with HTTPS
- Accessibility
- Page load speed
- Robots.txt
Dynamic Testing

**Federal CrowdSource Mobile Testing Program**

[https://digital.gov/services/mobile-application-testing-program/](https://digital.gov/services/mobile-application-testing-program/)

- Developed to Help Agencies Meet the Digital Government Strategy (DGS) Goals
- For Federal Agencies by Federal Employees
- Facilitate Test-Cycles
- Two Pronged Approach
  - Automated Mobile Friendliness Testing Tools
  - Hands On Testing “In the Wild”

For more information about the testing program, email us at...

DigitalGov@gsa.gov
Align Solutions

- Find Solutions
  - Use test tool reports

- Prioritize Challenges
  - Balance the impact of the change with the design requirements
Perform Enhancements

• Enhance the Code
  ○ Test tool results reports
  ○ U.S. Web Design System
• Redeploy the app
Test Again

- Retest
  - Dynamic Testing
  - Static Testing
- Compare test tool results reports
- Further enhance the application
Questions?