Supporting Multiple Mobile Devices with a Unified Content Strategy

Leaders in digital publishing strategy

#tcworld12
“Mobile screens are so small, you don’t need a strategy.”
Mobile

• 38 percent of US cell phone users, an estimated 89 million people, accessed the Internet from their phones.
• More than 47 million US mobile users accessed the Internet daily.

It’s the web Jim...

...but not as we know it.

- In sub-Saharan Africa very few have ‘big screens’
- Half web access is via a mobile device.
- We’re just catching up...
Mobile

- Combined shipments of smartphones and tablets exceeded that of PCs in 2011.
- 60 percent of time spent on smartphones comprises new activities.
- Global mobile data traffic is expected to grow to 26 times its current volume over the next five years.
- There are 5.3 billion mobile subscribers worldwide (77 percent of the world population) with growth led by China and India.

What is mobile design all about?
Displaying content on a small screen
Right?
Wrong!
Resizing visuals is not the solution to platform proliferation.
The new PCs
The new PCs
Ask Microsoft…

• Stock tumbled due to lack of sales in the PC market
• “Looking forward to the Surface”
In the (not quite so) olden days

- Tried to move print online
- Didn’t work
- *Page* size was different
- Resolution was different
- Navigation was different
- Understanding of depth and breadth was different
- Searching was different
- Everything was different!
- Had to rethink content for online
Mobile

• Why would we think that we can simply scale to fit mobile?
• *Page* size is different
• Resolution is different
• Navigation is different
• Understanding of depth and breadth is different
• Searching is different
• Time on task is different
• Everything is different!
• Have to rethink content for mobile
No one reads...

- They just scan the screen.
- If you thought reading on this was hard...
No one reads...

• They just scan the screen.
• If you thought reading on this was hard...

• Consider reading on this >
Mobile issues

• Companies are not designing mobile web content
• Companies design website and mobile app, twice the work or more!
• Mobile apps are time consuming and expensive
• Automated web to mobile are not usable
• People spend much less time on a task on mobile than on website
eBooks

- **Page** size is different
- Resolution is different
- Navigation is different
- Understanding of depth and breadth is different
- Interactivity is different

- Have to rethink content for eBooks or any mobile content
eBook issues

• Authoring tools are designed to optimize print publication, not eBook
• eBooks are generated from print books instead of format free content resulting in problems in the eBook (sidebars, tables, order of information)
• Producing eBooks for multiple devices by hand is a nightmare!
Handcrafting is unsustainable

• Devices are proliferating
• Device wars means that new devices are released every 9-12 months
• Functionality varies across device
• What works on one, may not work on another
• Constant churn to identify new functionality and design content to take advantage of the functionality
• Can’t keep up
# First challenge - fragmentation

- 3997 distinct devices with different resolutions and different OS versions
- (GT-I19100 is the Samsung Galaxy SII)

![Device model diagram](http://opensignalmaps.com/reports/fragmentation.php)
Maybe not *that* fragmented

- Samsung has 40% of the market
Or maybe it is…

Wikipedia – eReader comparison chart

<table>
<thead>
<tr>
<th>Maker</th>
<th>Model</th>
<th>Intro year</th>
<th>End year</th>
<th>Screen size (pixels)</th>
<th>Screen type</th>
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</table>

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rockley@rockley.com
Know your...

• Users
• Information they are interested in
• Where they are
• What they need
• How they get it

• This will begin to sound familiar
Unified Content Strategy

• Define a content experience for your customer that enables them to obtain your content and achieve their goals anywhere, anytime and on any device
Unified Content Strategy

• Adaptive/responsive content model strategy
• Reuse strategy
• Workflow
• Taxonomy
• Governance
Unified Content Strategy

- Adaptive/responsive content model strategy
- Reuse strategy
- Workflow
- Taxonomy
- Governance
Content strategy applies to

• Multiple areas within the organization
  • Marketing
  • Product usage
  • Training
  • Support
• Multiple deliverables
  • Print
  • Web
  • Smartphone apps
  • eReader
  • Tablet apps

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UCS supports adaptive content

• Adaptive content
• Adaptive content automatically adjusts to different environments and device capabilities to deliver the best possible customer experience
• Adaptive content can be displayed in any desired order, made to respond to specific customer interactions, changed based on location, and integrated with content from other sources.
• Adaptive content is limited only by your design decisions, the functionality of the device being used, and the intelligence of your content.
How can you achieve it?

- Know your customer
- Know your content
- Define how you will get them together
Know your customer

• What are they looking for?
• What device will they be using?
• What are the capabilities of that device?
  • Size
  • Visibility in sunlight
  • Battery life
  • Internet connection
    • WiFi
    • Cellular
    • Edge
    • 3G
    • LTE

Familiar yet?
Supporting adaptive content

• Provide the ability to automatically map content from one format to another
  • Structure
  • Modularity
  • Reuse
  • Format free content
• What are the business rules for creating and publishing content?
What is structure?

- Structure is the hierarchical order in which content occurs in an information product.
- An information product can be a web page, a book, an eBook, a brochure, a training course, and so on.
- Information products have recognizable structures that are repeated each time the information product is created.
- Information products consist of components (topics) that also have structure within them.
Why structure?

• Structured content is content in which the look and feel of the content (format) is not embedded in the content.
• Can output the content to multiple channels, adapting it to best meet the needs of the channel, or we can automatically mix and match content to provide what the customer wants when they want it and the way they want it.
• Transform (reconfigure) content from one structure to another, but only if we know what the structure is in the first place.
• Filter and layer content when we know its structure.
## Structure and modularity

<table>
<thead>
<tr>
<th>Product overview</th>
<th>Elevator Pitch</th>
<th>Brochure</th>
<th>Sales Training</th>
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<td>Overview</td>
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<td>Takeaway</td>
<td>Market Opportunity</td>
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# Reuse

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**Value proposition**

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<th>The Value</th>
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<tr>
<td>Competitive Differentiators</td>
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<td>Cost of Offering</td>
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</table>

Detailed structure
Can filter content
Content Modeling

• Determine current structure of content
• Develop proposed content structure
• Develop information product models and topic models
• Identify structured writing guidelines
Separate content from delivery

• Don’t think web page, print page, or mobile screen (but plan for them)

• Think semantic (named) structured content that can be interpreted differently depending upon the device. For example:
  • A visual sidebar on a web page can be represented as simple linked text
  • If an eReader can’t support a table, the table content can be displayed as image of the table
  • If a video is unsupported it can be displayed as a simple image representing the video
Separate content from delivery

• Structured content can be displayed in different places depending on the device
• This is done automatically via stylesheets and frameworks
Format free content: XML

• XML lets you separate content from layout and visual design
• Like HTML, but focuses on structure, not appearance
• Can use one of many underlying structural schemas
  • DITA
  • DocBook
  • Industry specific
  • Custom

Concerned about XML? Don’t be, even Word uses a form of XML ‘under the hood’.

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Reuse strategy

- How content will be reused
- Types of reuse
- The level of granularity
- The reuse governance strategy
Taxonomy and metadata

• Initial controlled vocabulary
• Reuse classification hierarchy
• Content flows and relationships
• Metadata tagging strategy
Workflow

• Roles
• Tasks
• Interactions
• Dependencies
• Wait states
• Approvals
• Exceptions
• Tracking metadata
Business rules

• Business rules are the rules that your content follows to adapt to different devices and different customer requirements.
• Business rules allow the system to automatically pick and choose content and adjust the presentation of that content to meet specific requirements.
• If this then that
Business rules

• Two levels

1. How you will deliver your content (up front decisions)
2. The rules that your content follows to adapt to different devices and different customer requirements.
   • Business rules allow the system to automatically pick and choose content and adjust the presentation of that content to meet specific requirements.
   • If *this* then *that*
Business rules depend on

• Content structure
• Metadata
Work backwards

- Know your customer
- Know their device constraints
- Map requirements to content requirements
Know your customer

• Who are the primary customers?
• Who are the secondary or associated customers?
• What the typical customer profile?
• Where do your customers come from (region/country, referring site, search engine)?
• What platform are they using: Mac, PC, smartphone (OS)?
• What connectivity do they have?
• Why are they reading your content?
• Browsing/visiting or searching for information?

Sick of this yet?
Know your device constraints

- Even though you should write content separate from its eventual output, you must understand the constraints of the device on which your content will be displayed.
- Design your models to adapt to those constraints.
Tables

• Tables are always an issue on mobile. Some options include:
  • Tables where screen real estate permits
  • Image of the table
  • Modularized table
  • Fixed first column, scrolling remainder
  • Cascading list
  • Drill down

• Tables are inherently structured, you just need to map your table structure to desired output

• *Tables were designed for paper – is there a better way online?*
How will you deal with images?

• If you’re displaying colour images on older eReaders?
• Ishihara test for colour blindness

Colour
Same image

• Really, they’re the same image
• Determine primary content to display
• What can be layered/scrolled?
• How does the content need to be structured to facilitate filtering/layering/scrolling?
• What content should be filtered and in what situation?
• What is the best level of content that can be displayed on the widest range of devices?
• What alternate content should be presented?
• How must your content be structured to support this functionality?
• Can you structure your content for unexpected situations?
Changing processes

• No more tweaking and tuning the content to get that perfect fit.
• Know what content is required, by whom, when, in what circumstance, and in conjunction with what other content or interactivity.
• Create structured content separate from format.
• Use templates, styles, and structured writing guidelines.
• Create content first, not mobile first or eBook first but always with an awareness of where and how content can be consumed.
Summary

• Develop a unified content strategy
• Adaptive content automatically adjusts to different environments and device capabilities to deliver the best possible customer experience, filtering and layering content for greater or lesser depth of detail.
• Handcrafting content and creating multiple manual renditions of content is unsustainable.
• Develop structured, modular, reusable format free content that can be automatically adapted for multiple devices.
• Work backwards from your customer requirements and device constraints to design your adaptive content.
• Change your processes to support intelligent content.
Questions?

Amazon, B&N, PeachPit

textbooks

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Intelligentcontentconference.com