Epub3 and HTML5 Explained*

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*in 20 minutes or less
History of Technology

8,000 BC – 5 minutes ago
How did they make that?
Step 1
Step 2
Step 3

List of FTP Sites

- Apple Computer Inc.
- Book Stacks Unlimited
- Electronic Frontier Foundation
- IBM
- IUBio Archive for Biology
- Microsoft
- Ohio State University
- Sega
- SunSite
- UUNet Technologies

[Select] [Cancel]
"An ebook is a frozen website packaged in a container."

-- Mary Siderwicz, W3C
Brief Contents

1. Title Page
2. Original Transcriber’s Notes
3. Etymology
4. Extracts (Supplied by a Sub-Sub-Librarian)
5. Begin Reading Moby-Dick
6. Show detailed contents
MIME = Multipurpose Internet Mail Extension
<?xml version="1.0" encoding="UTF-8"?>
<container xmlns="urn:oasis:names:tc:opendocument:xmlns:container"
    version="1.0">
  <rootfiles>
    <rootfile full-path="OPS/package.opf" media-type="application/oebps-package+xml"/>
  </rootfiles>
</container>
OPF = Open Packaging Format
<?xml version="1.0" encoding="UTF-8"?>
<!--I'm assuming prefixes for marc, onix, and xsd are predefined-->
<meta xmlns="http://purl.org/dc/elements/1.1/">
<dc:title id="t">Moby-Dick</dc:title>
<meta refines="#title" property="title-type">main</meta>
<dc:creator id="creator">Herman Melville</dc:creator>
<meta refines="#creator" property="file-as">MELVILLE, HERMAN</meta>
<meta refines="#creator" property="role" scheme="marc:relators">aut</meta>
<dc:identifier id="pub-id">urn:isbn:9780316000000</dc:identifier>
<meta refines="#pub-id" property="identifier-type" scheme="onix:codeList5">15</meta>
<dc:language>en-US</dc:language>
<meta property="dcterms:modified">2012-01-13T01:13:00Z</meta>
<dc:publisher>Harper & Brothers, Publishers</dc:publisher>
<dc:contributor id="contrib1">Dave Cramer</dc:contributor>
OPS = Open Publication Structure
CHAPTER 1. LOOMINGS.

Call me Ishmael. Some years ago—never mind how long precisely—having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself involuntarily pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand of me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people’s hats off—then, I account it high time to get to sea as soon as I can. This is my substitute for pistol and ball. With a philosophical flourish Cato throws himself upon his sword; I quietly take to the ship. There is nothing surprising in this. If they but knew it, almost all men in their degree, some time or other, cherish very nearly the same feelings towards the ocean with me.

There now is your insular city of the Manhattoes, belted round by wharves as Indian isles by coral reefs—commerce surrounds it with her surf. Right and left, the streets take you waterward. Its extreme downtown is the battery, where that noble mole is washed by waves, and cooled by breezes, which a few hours previous were out of sight of land. Look at the crowds of water-gazers there.

Circumambulate the city of a dreamy Sabbath afternoon. Go from Corlears Hook to Coenties Slip, and from thence, by Whitehall, northward. What do you see?—Posted like silent sentinels all around the town, stand thousands upon thousands of mortal men fixed in ocean reveries. Some leaning against the spiles; some seated upon the pier-heads; some looking over the bulwarks of ships from China; some high aloft in the rigging, as if striving to get a still better seaward peep. But these are all landsmen; of week days pent up in lath and plaster—tied to counters, nailed to benches, clinched to desks. How then is this? Are the green fields gone? What earth beneath?
  <head>
    <title>Moby-Dick</title>
    <link rel="stylesheet" href="css/stylesheets.css" type="text/css"/>
    <meta charset="utf-8"/>
  </head>
  <body>
    <section class="body-rw Chapter-rw" epub:type="bodymatter chapter">
      <h1 id="c01h01">Chapter 1. Loomings.</h1>
      <p><span id="c01w00001">Call</span> <span id="c01w00002">me</span> <span id="c01w00003">Ishmael.</span></p>
      <span id="c01s0002">Some years ago—never mind how long precisely—having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world.</span>
      <span id="c01s0003">It is a way I have of driving off the spleen and regulating the circulation.</span>
      <span id="c01s0004">Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself involuntarily pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand of me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people’s hats off—then, I account it high time to get to sea as soon as I can.</span>
      <span id="c01s0005">This is my substitute for pistol and ball.</span>
      <span id="c01s0006">With a philosophical flourish Cato throws himself upon his sword:</span>
    </section>
</body>
</html>
Chapter 1. Loomings.

Call Ishmael.

Some years ago—money in my purse, and nothing part sail about a little and see the wat

It is a way I have circulation.

Whenever I find is a damp, drizzly November in my soul before coffin warehouses, and bring especially whenever my hypos get st
  <body>
    <seq id="id1" epub:textref="chapter_001.xhtml" epub:type="bodymatter chapter">
      <text src="chapter_001.xhtml#c01h01"/>
      <audio src="audio/moby dick_001_002 melville.mp4" clipBegin="0:00:24.500" clipEnd="0:00:29.268"/>
    </par>
    <par id="word1">
      <text src="chapter_001.xhtml#c01w00001"/>
      <audio src="audio/moby dick_001_002 melville.mp4" clipBegin="0:00:29.268" clipEnd="0:00:29.441"/>
    </par>
    <par id="word2">
      <text src="chapter_001.xhtml#c01w00002"/>
      <audio src="audio/moby dick_001_002 melville.mp4" clipBegin="0:00:29.441" clipEnd="0:00:29.640"/>
    </par>
  </body>
</smil>
<audio src="audio/mobydick_001_002_melville.mp4" clipBegin="0:00:24.500" clipEnd="0:00:29.268" />

<audio src="audio/mobydick_001_002_melville.mp4" clipBegin="0:00:29.268" clipEnd="0:00:29.441" />
“So he was like ‘Call me Ishmael’ and I was like...”
“Call...me...Ishmael”
"Damn thee thou curse'd whale, from the depths of hell I stab at thee!"
What else can EPUB3 have besides audio?
EPUB 3

• Support for complex content
  (math, high-design textbooks)

• Enriched content
  (audio and video)

• Global language support

• Accessibility
<table>
<thead>
<tr>
<th>Feature</th>
<th>EPUB2</th>
<th>EPUB3</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML 5 &lt;nav&gt;</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>CSS3 support *</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Multiple style sheets</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>OTF &amp; WOFF</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>SVG support</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Metadata</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>epub: type</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>epub: trigger</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>&lt;bindings&gt;</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>XHTML 5 support</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>MathML</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Scripting</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Audio &amp; Video</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Aural renditions &amp; Media Overlays</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
HTML5 New Media Elements

<table>
<thead>
<tr>
<th>Tag</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;audio&gt;</code></td>
<td>Defines sound content</td>
</tr>
<tr>
<td><code>&lt;video&gt;</code></td>
<td>Defines a video or movie</td>
</tr>
<tr>
<td><code>&lt;source&gt;</code></td>
<td>Defines multiple media resources for <code>&lt;video&gt;</code> and <code>&lt;audio&gt;</code></td>
</tr>
<tr>
<td><code>&lt;embed&gt;</code></td>
<td>Defines a container for an external application or interactive content (a plug-in)</td>
</tr>
<tr>
<td><code>&lt;track&gt;</code></td>
<td>Defines text tracks for <code>&lt;video&gt;</code> and <code>&lt;audio&gt;</code></td>
</tr>
</tbody>
</table>
Is this HTML5? Yes!

<smil>
  xmlns="http://www.w3.org/ns/SMIL"
  version="3.0">
  <body>
    <seq id="id1" epub:textref="chapter_001.xhtml" epub:type="bodymatter chapter">
      <par id="heading1">
        <text src="chapter_001.xhtml#c01h01"/>
        <audio src="audio/mobydick_001_002_melville.mp4" clipBegin="0:00:24.500"
               clipEnd="0:00:29.268"/>
      </par>
      <par id="word1">
        <text src="chapter_001.xhtml#c01w00001"/>
        <audio src="audio/mobydick_001_002_melville.mp4" clipBegin="0:00:29.268"
               clipEnd="0:00:29.441"/>
      </par>
      <par id="word2">
        <text src="chapter_001.xhtml#c01w00002"/>
        <audio src="audio/mobydick_001_002_melville.mp4" clipBegin="0:00:29.441"
               clipEnd="0:00:29.640"/>
      </par>
    </seq>
  </body>
</smil>
But is it XHTML 5?
<table>
<thead>
<tr>
<th>Item</th>
<th>Metaphor</th>
</tr>
</thead>
<tbody>
<tr>
<td>XML</td>
<td>Regular Coffee</td>
</tr>
<tr>
<td>HTML</td>
<td>Decaf Coffee</td>
</tr>
<tr>
<td>Item</td>
<td>Metaphor</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>XML</td>
<td>Regular Coffee</td>
</tr>
<tr>
<td>HTML</td>
<td>Decaf Coffee</td>
</tr>
<tr>
<td>XHTML</td>
<td>Decaf with shot of Espresso</td>
</tr>
</tbody>
</table>
So is it **XHTML 5**? Yes again!
“Strictly speaking HTML5 refers to the W3C specification. But many in the industry have extended its meaning to include a related set of web technologies that collectively make the Internet more application-like.”

– Armando Roggio, April 2011
“Flash is no longer necessary to watch video or consume any kind of web content...New open standards created in the mobile era, such as HTML5, will win.”

– Steve Jobs, April 2010
HTML5
What does the future hold?
Audio

...  
<audio controls>
  <source src="horse.ogg" type="audio/ogg">
  <source src="horse.mp3" type="audio/mpeg">
</audio>
Your browser does not support the audio element.
</audio>
...
Video

...<video poster="movie.jpg" controls>
  <source src="movie.webm" type='video/webm; codecs="vp8.0, vorbis"'/>
  <source src="movie.ogg" type='video/ogg; codecs="theora, vorbis"'/>
  <source src="movie.mp4" type='video/mp4; codecs="avc1.4D401E, mp4a.40.2"'/>
  <p>This is fallback content</p>
</video>...
Smelleo

...<smelleo="lilacs.olf" controls>
    <source src="lilacs.olf" type='smelleo/olf; codecs="vp8.0, vorbis"'/>
    <source src="lilacs.olfg" type='smelleo/olfg; codecs="theora, vorbis"'/>
    <source src="lilacs.sml" type='smelleo/sml; codecs="avc1.4D401E, mp4a.40.2"'/>
<p>This is fallback content</p>
</smelleo>
...
HTML 99

...<happy>me</happy>...

Thank you!

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