

Developing Intelligent and Responsive Content

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Intelligent content automatically adapts to the users' needs and preferences. Responsive content automatically adapts to the size of the screen. This session discusses best practices and examples for creating, designing, and delivering intelligent and responsive content. We will explore real-world examples for hiding and adjusting content based on the screen size.

Intelligent Content (IC)

"Content that is structurally rich and semantically aware, and is therefore automatically discoverable, reusable, reconfigurable and adaptable."

- Ann Rockley, 2010

Solutions

Structurally rich and semantically aware

Semantic markup language: DITA, Docbook or HTML with content identifiers: style classes, IDs, or data attributes

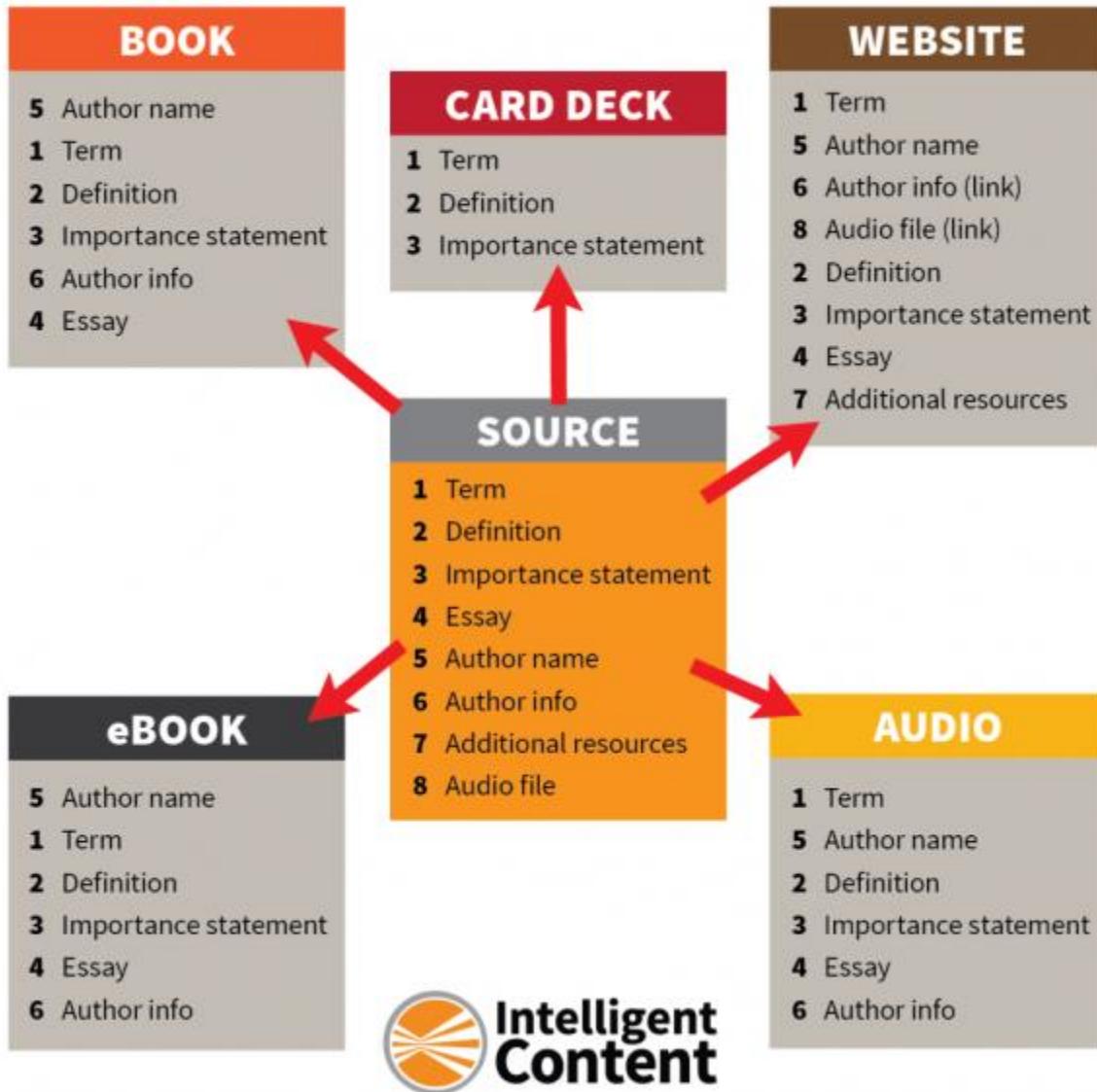
Automatically discoverable, reusable, reconfigurable and adaptable

Scripting: jQuery/JS

“Why?”

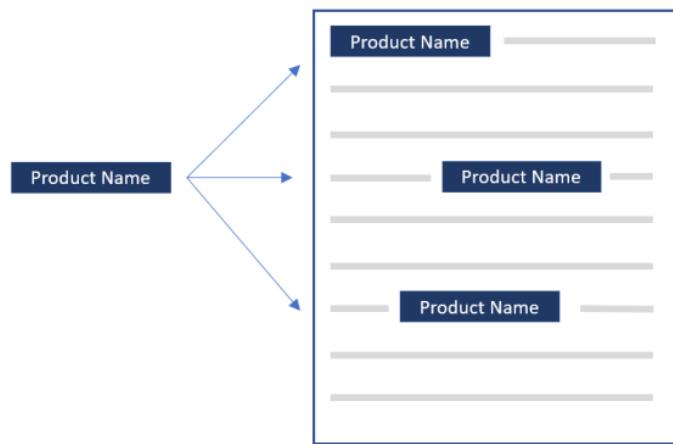
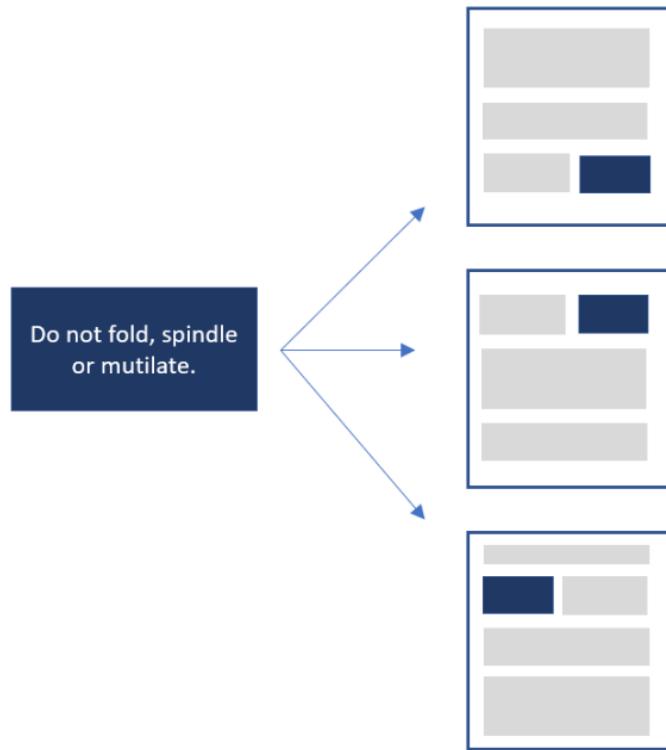
- Multi-channel publishing
- Content reuse
- User- and content-aware customization
- User- controlled customization
- Focused search

Multi-channel example



- Marcia Riefer Johnston
contentmarketinginstitute.com/author/marcia-johnston

Content reuse examples



User- and content-aware example

awarejs - github.com/xoxco/awarejs

User-controlled customization example

The screenshot shows the Unity Documentation website for Version 2022.3. The main content area is titled "Vector3" and describes it as a representation of 3D vectors and points. It includes a "Description" section, a "Static Properties" table, and a "Properties" table. The sidebar on the left contains a navigation tree with categories like "Components", "Scriptables", "Attributes", and "Assemblies". A search bar at the top right allows users to search the documentation.

Focused search example

The screenshot shows the Broadsign Control Automated DOOH CMS (v15.2) help and documentation interface. The top navigation bar includes links for "Getting Started", "Broadsign Control", "Add-ons & Integrations", "For Developers", and "Tutorials". The main content area features a large image of a man's face with a blue and red gradient effect. Below the image are two buttons: "RELEASE HIGHLIGHTS" and "RELEASE NOTES". A search bar is located at the top right. The bottom section contains several documentation links: "Quick Start", "Documentation Archives", "Content/Scheduling", "Network Operations", and "Broadsign Control API". A vertical sidebar on the right lists categories such as "All Files", "API", "Administrator", "Air", "Edge Server", "Installation", and "Player".

Focused search example

The screenshot shows a search interface with a sidebar containing filters for Source (Documentation, Knowledge Articles, Discussions, Blogs), Product Version (XS 1.4P, XP 4.5Z, ZA 3.4M), and Created Date (Past Week, Past Month, Past Year). The main area displays three search results:

- Steps to set authentication** (Documentation): You can configure additional authentication security setting in the Admin Portal.... <https://docs.zebrasecurity.com/content/authenticate>
- Setting up two-factor authentication** (Knowledge Articles): Enable automatic sign-on using operating system credentials or a Single Sign-On (SSO)... <https://support.zebrasecurity.com/authenticate+two+factor>
- How to configure authentication** (Community Discussions): Internally, configuring an authentication mechanism is done by setting an instance of ... <https://community.zebrasecurity.com/content/authenticate>

JSON & Schema

- Recommended by W3C and Google
- JavaScript markup in a <script> tag inside the page head or body
- Can be added dynamically

Example

The screenshot shows a Google search result for the query "How do you use the foot pedals in a Model T". The snippet provides information about the car's foot pedals: "And on the floor of the Model T are three pedals which stick out. This car has only two speeds forward. To get the low speed, you step on the left-hand pedal, push it all the way down, and the car moves forward in low gear. To get high speed, you release the hand brake, and the left pedal, then you're in high speed." Below the snippet is a link to the source: "https://www.ncpedia.org/media/video/how-drive-mo...". A "People also ask" box is highlighted with a green border, containing the following questions:

- Why did the Model T have 3 pedals?
- How do you shift gears in a Model T?
- Does the Model T have a gas pedal?
- How do you use car foot pedals?

Code

```
<script type="application/ld+json"> {
  "@context": "https://schema.org",
  "@type": "FAQPage",
  "mainEntity": [
    {
      "@type": "Question",
      "name": "How do you use the foot pedals in a Model T?",
      "acceptedAnswer": {
        "@type": "Answer",
        "text": "The first one toward the left operates the clutch. When pressed forward the clutch pedal engages the low speed. When half-way forward the clutch is in neutral (i.e., disconnected from the driving mechanism of the rear wheels), and the releasing of this pedal engages the high-speed clutch. The center pedal operates the reverse. The right-hand pedal operates the transmission brake."
      }
    }
  ]
}</script>
```

Testing and validating

Google tools: <https://developers.google.com/search/docs/appearance/structured-data>

Responsive Web Content (RWC)

Content that dynamically changes based on the screen size or device."

- Scott DeLoach, 2015

Solutions

- CSS media queries
- Content identifiers
 - Style classes/IDs
 - Data attributes
- Scripting: jQuery/JS

"Why?"

- Wrong terminology
- Writing style
- Different icons
- Different step content/order

Example

Use tabs in Chrome

You can keep multiple webpages open at the same time in Chrome by using tabs.

Open and close tabs

Open as many tabs as you want. Close out of them when you're finished.

- Windows, Mac, or Linux

Open a new tab

- Click the  icon next to the last tab, which opens the [New Tab page](#).
- To open a link in a new tab, press **Ctrl** (Windows and Linux) or **⌘** (Mac) on your keyboard when you click the link. Related tabs are grouped together.
- Want the same webpage opened in multiple tabs? Right-click the tab containing the webpage in question and select **Duplicate**.
- Try these keyboard shortcuts: **Ctrl+T** (Windows and Linux); **⌘-T** (Mac)

+ Android phone (4.4 or lower)

+ Android (5.0 and higher)

+ iPhone or iPad

Examples

Change content based on screen width

Code: style classes

```
<p class="PhoneOnly">This paragraph is "PhoneOnly."</p>
.DesktopOnly { display: none; }
.TabletOnly { display: none; }
.PhoneOnly { display: none; }

@media (min-width: 1280px) { .DesktopOnly { display: initial; } }
@media (min-width: 768px) and (max-width: 1279px) { .TabletOnly { display: initial; } }
@media (max-width: 767px) { .PhoneOnly { display: initial; } }
```

Code: data attributes

```
<p data-rwc="PhoneOnly">This paragraph is "PhoneOnly."</p>
```

```
[data-rwc*="DesktopOnly"] { display: none; }
[data-rwc*="TabletOnly"] { display: none; }
[data-rwc*="PhoneOnly"] { display: none; }

@media (min-width: 1280px) { [data-rwc*="DesktopOnly"] { display: initial; } }
@media (min-width: 768px) and (max-width: 1279px) { [data-rwc*="TabletOnly"] { display: initial; } }
```

```
@media (max-width: 767px) { [data-rwc*="PhoneOnly"] { display: initial; } }
```

Only display content when printing (specific content)

Code

```
<p class="printOnly">This paragraph is "printOnly."</p>
```

```
.printOnly  
{ display: none; }
```

```
@media print  
{  
    .printOnly { display: initial; }  
}
```

Only display content when printing (all)

Code

```
@media print {  
    body::before {  
        content: "Proprietary. Always refer to the online version for the most recent  
        information.";  
    }  
}
```

Highlight new content

Code

```
<div data-date="2022-10-25">  
    <h2>Note</h2>  
    <p>iOS 16 is not supported on iPhone SE (2016) and older phones.</p>  
</div>  
  
<style>  
    .dateNew { background-color: darkorchid; }  
</style>  
  
<script>  
$(document).ready(function() {  
    dateToday = new Date();  
    dateToday = new Date(). setDate(dateToday.getDate() - 30);  
    $('[data-date]').each(function() {  
        if (new Date($(this).attr('data-date')) > dateToday) {  
            $(this).addClass('dateNew');  
        }  
    });  
});  
</script>
```

Hide expired content

Code

```
<li data-date="2023-05-01">iPhone 8</li>

<style>
    .dateExpired { display: none; }
</style>

<script>
$(document).ready(function() {
    dateToday = new Date();
    dateToday = new Date(). setDate(dateToday.getDate() - 90);
    $('[data-date]').each(function() {
        if (new Date($(this).attr('data-date')) > dateToday) {
            $(this).addClass('dateNew');
        }
    });
});
</script>
```

Change content based on language

Code

```
*[lang="es-US"] { display: none; }

<div lang="es-US">
    <h2>ADVERTENCIA</h2>
    <p>Tanto el aparato como el filtro y los accesorios contienen imanes.</p>
</div>
```

Change content based on location

Code

```
<style>
div.atlanta { display: none; }
div.macon { display: none; }
</style>

<script>
if (navigator.geolocation) {
navigator.geolocation.getCurrentPosition(function(position) {
if (position.coords.latitude > 33 && position.coords.latitude < 34 &&
position.coords.longitude > 84 && position.coords.longitude < 85) {
$('div.atlanta').css('display','block');
} });
}
</script>
```

System identifies specific content

Code

```
<p class="expert">Expert-specific info...</p>

<script>
const params = new URLSearchParams(window.location.search);
const paramUserGroup = params.get('usergroup');
if (paramUserGroup == "expert") {
    $('.expert').css('display','initial');
}
</script>
```

Change content based on user selection

Code

```
<button onclick="salesTipsChk('yes')">Yes</button>
<button onclick="salesTipsChk('no')">No</button>

<div class="sales-tip">
    <p>Sales Tip: Bundling modules 1 and 2 can save the customer $100.</p>
</div>

function salesTipsChk(userPref) {
    if (userPref == "yes") { $('.sales-tip').css('display','initial'); }
    if (userPref == "no") { $('.sales-tip').css('display','none'); }
}
```

Save settings: sessionStorage and localStorage

Advantages

- 5MB
- client side

Differences

sessionStorage - reset/session
localStorage - "permament"/device

Code

```
<div class="sales-tip">
<p>Sales Tip: Bundling modules 1 and 2 can save the customer $100.</p>
</div>

$( document ).ready(function() {
    salesTipsChk();
});

function salesTips(pref) {
    if (pref == 'yes') { sessionStorage.setItem("SalesTips", "yes"); }
```

```

        if (pref == 'no') { sessionStorage.setItem("SalesTips", "no"); }
        salesTipsChk();
    }

function salesTipsChk() {
    userPref = sessionStorage.getItem("SalesTips");
    if (userPref == "yes") { $('.sales-tip').css('display','initial'); }
    if (userPref == "no") { $('.sales-tip').css('display','none'); }
}

function salesTipsClear() {
    sessionStorage.removeItem("SalesTips");
}

```

Learning more

Intelligent content

"What is intelligent content?"

www.rockley.com/articles/What%20is%20Intelligent%20Content.pdf

Intelligent Content: A Primer

<http://xmlpress.net/content-strategy/intelligent-content>

Responsive web content

"Responsive Content: Best Practices and Real-World Uses"

www.clickstart.net/presentations

"Responsive Content: A CSS-based Approach"

www.clickstart.net/presentations

About the presenter

Scott DeLoach is the CEO of ClickStart, an STC Fellow, and an ATD Certified Professional in Talent Development (CPTD). He has over 30 years of experience as a technical writer, instructional designer, trainer, and UX architect. At ClickStart, Scott provides content strategy development, design, consulting, and training services for P&P, knowledgebase, eLearning, and technical documentation projects developed using MadCap Flare.

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