



HTML5, WAI/ARIA e Acessibilidade

Acessibilidade Web - Evolução e Tendências
Rio de Janeiro - 15 de setembro de 2011
Reinaldo Ferraz – W3C.br

É um consórcio internacional, criado em 1994 por Tim Berners-Lee com

- organizações filiadas,
- uma equipe em tempo integral,
- participação do público

para colaborativamente desenvolver padrões universais para a Web.



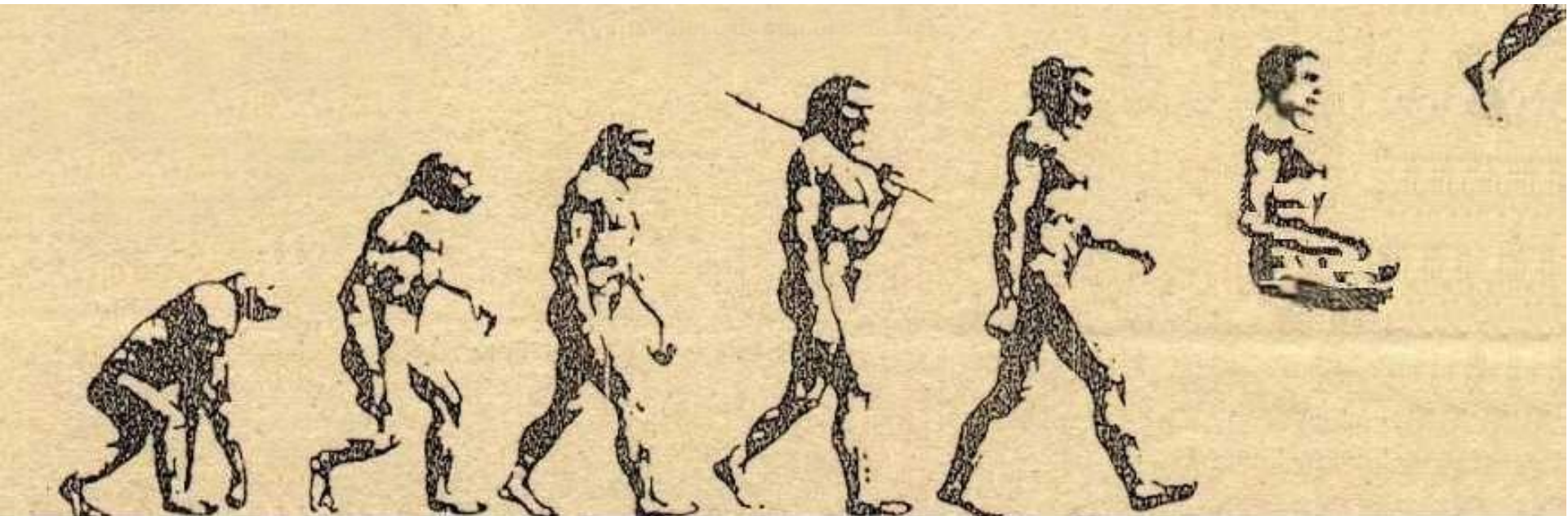
O escritório brasileiro começou suas atividades em outubro de 2007.

É uma iniciativa do **CGI.br**, que é o responsável por coordenar e integrar as iniciativas de serviços da Internet no País e do **NIC.br**, criado para implementar as decisões e os projetos do Comitê Gestor da Internet no Brasil.

cgi.br nic.br

cgi.br nic.br

HTML4 – XHTML – HTML5



HTML 5 [HyperText Markup Language]

- 1991 – html tag – Tim Berners Lee
- 1994 – HTML 2 - já incluía tag
- 1997 – HTML 3.2
- 1999 – HTML 4.01
- 2000 – XHTML 1.0
- 2001 – XHTML 1.1 – CSS
- 20... – Ian Hickson (Opera) propõe estender HTML:
Web Forms 2.0, Web Apps 1.0
- 2004 – Apple, Mozilla e Opera criam WHAT WG
(Web Hypertext Application Technology
Working Group)
- 2007 – W3C retorna HTML Working Group
- 2009 – W3C descontinua XHTML
- 2010-2011 – Apple, Google, Microsoft, Mozilla e Opera
implementam HTML5

proposed new tag: IMG

Marc Andreessen (marca@ncsa.uiuc.edu)

Thu, 25 Feb 93 21:09:02 -0800

- **Messages sorted by:** [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)
- **Next message:** [Tony Johnson: "Re: proposed new tag: IMG"](#)
- **Previous message:** [Bill Janssen: "Re: xmosaic experience"](#)
- **Next in thread:** [Tony Johnson: "Re: proposed new tag: IMG"](#)

I'd like to propose a new, optional HTML tag:

IMG

Required argument is SRC="url".

This names a bitmap or pixmap file for the browser to attempt to pull over the network and interpret as an image, to be embedded in the text at the point of the tag's occurrence.

An example is:

```
<IMG SRC="file://foobar.com/foo/bar/blargh.xbm">
```

(There is no closing tag, this is just a standalone tag.)

This tag can be embedded in an anchor like anything else; when that happens, it becomes an icon that's sensitive to activation just like a regular text anchor.

A suggestion for alt text.

Daniel N. Wood (dwood@cory.eecs.berkeley.edu)

Sat, 15 Apr 1995 18:10:36 +0500

- **Messages sorted by:** [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)
 - **Next message:** ADMINISTRATOR.ROUTER@occs host.nlm.nih.gov: "ERROR REPLY:"
 - **Previous message:** [Martian](#): "Re: Word wrapping"
-

I would like to suggestion an addition to the FIG tag. (And perhaps the IMG tag.)

It seems to me that there are two common scenarios for alt text.

1) The alt text is a perfect substitute for the image. For example:

Replace IBM's logo with the word IBM.

Alt text for some sort of fancy graphical title or headline.

A set of hyperlinks which duplicate the function of an image map.

2) The alt text describes the image. For example:

A photo of me.

An image map that is a `_real_` map.

Charts or figures.

Wouldn't it be valuable to distinguish between these two cases?

This would allow a more advanced 'delayed image loading' for people on slow links or strange hardware. I am sure there are other uses as well

[whatwg] Video (Was: How not to fix HTML)

Ian Hickson [ian at hixie.ch](mailto:ian@hixie.ch)

Mon Oct 30 14:49:52 PST 2006

- Previous message: [\[whatwg\] How not to fix HTML](#)
- Next message: [\[whatwg\] Video \(Was: How not to fix HTML\)](#)
- Messages sorted by: [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)

On Mon, 30 Oct 2006, Charles Iliya Krempeaux wrote:

>

> *Would you be open to hearing suggestions about how to add native video*
> *and video player support?*

Sure. FWIW, there's a lot of interest in browser vendors about introducing a <video> element or some such (or maybe making browsers natively support video in <object>, or both).

(What's most needed right now in this area is probably implementation experience.)

--

Ian Hickson

U+1047E

)\._,--.....,``. fL

<http://ln.hixie.ch/>

U+263A

/, _.. \ \ ;'._..

Things that are impossible just take longer.

`._-(,_'--(,_'--:;'

-
- Previous message: [\[whatwg\] How not to fix HTML](#)
 - Next message: [\[whatwg\] Video \(Was: How not to fix HTML\)](#)
 - Messages sorted by: [\[date \]](#) [\[thread \]](#) [\[subject \]](#) [\[author \]](#)

Boas novas!

Type	Image Name	Color	Image Name	Color	Image Name	Color
Dashboard vertical nav	but_arrow_cold.png	↑	but_arrow_hot.png	↑	but_arrow_down.png	↑
Calendar Edit (overhead view system)	but_add_cold.png	+	but_add_hot.png	+	but_add_down.png	+
Calendar View (past content)	but_view_cold.png	View	but_view_hot.png	View	but_view_down.png	View
Privileges & partner pages when section is closed	but_add_cold.png	+	but_add_hot.png	+	but_add_down.png	+
Privileges & partner pages when section is open	but_delete_cold.png	-	but_delete_hot.png	-	but_delete_down.png	-
Dashboard horizontal nav	but_arrow_right_cold.png	→	but_arrow_right_hot.png	→	but_arrow_right_down.png	→
Dashboard horizontal nav	but_arrow_left_cold.png	←	but_arrow_left_hot.png	←	but_arrow_left_down.png	←
Create/Edit Campaign graphs for setting site's directory page to 'public'	but_public_down.png	Public	but_public_hot.png	Public	but_public_cold.png	Public
or 'private'	but_private_cold.png	Private	but_private_hot.png	Private	but_private_down.png	Private
Upload photo	but_upload.gif	Upload Photo				
Save email	but_save_cold.png	Save	but_save_hot.png	Save	but_save_down.png	Save

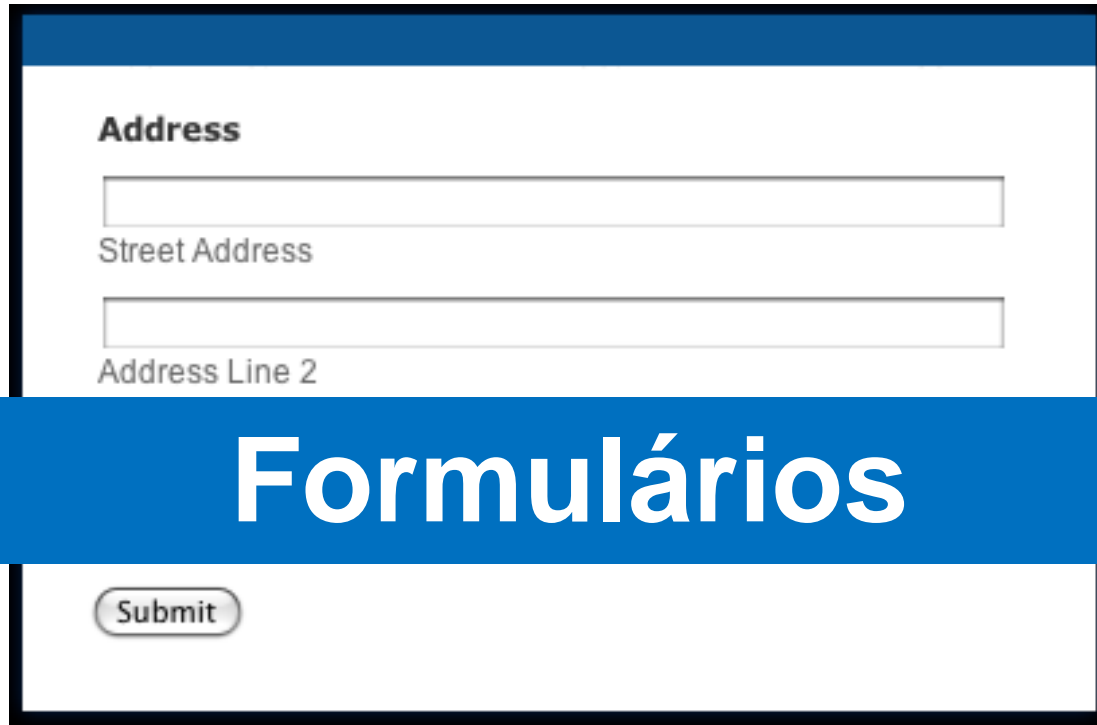
TABELAS

Upload Audio	but_upload_cold.png	Upload Audio	but_upload_hot.png	Upload Audio	but_upload_down.png	Upload Audio
Go	but_go_cold.png	Go	but_go_hot.png	Go	but_go_down.png	Go
Upload Intro	but_uploadintro_cold.png	Upload Intro	but_uploadintro_hot.png	Upload Intro	but_uploadintro_down.png	Upload Intro
Upload Content	but_uploadcontent_cold.png	Upload Content	but_uploadcontent_hot.png	Upload Content	but_uploadcontent_down.png	Upload Content
Text Audio By Phone	but_textaudio_cold.png	Text Audio by Phone	but_textaudio_hot.png	Text Audio by Phone	but_textaudio_down.png	Text Audio by Phone
Send Text Message	but_sendtxtmessage_cold.png	Send Text Message	but_sendtxtmessage_hot.png	Send Text Message	but_sendtxtmessage_down.png	Send Text Message
Play Audio	but_playAudio_cold.png	Play Audio	but_playAudio_hot.png	Play Audio	but_playAudio_down.png	Play Audio
Submit	but_submit_cold.png	Submit	but_submit_hot.png	Submit	but_submit_down.png	Submit
Save for Later	but_saveforlater_cold.png	Save for Later	but_saveforlater_hot.png	Save for Later	but_saveforlater_down.png	Save for Later
Delete Message	but_deletemessage_cold.png	Delete Message	but_deletemessage_hot.png	Delete Message	but_deletemessage_down.png	Delete Message
Export csv	but_exportcsv_cold.png	Export csv	but_exportcsv_hot.png	Export csv	but_exportcsv_down.png	Export csv
Get Alert	but_getAlert_cold.png	Get Alert	but_getAlert_hot.png	Get Alert	but_getAlert_down.png	Get Alert

“As **tabelas não devem ser utilizadas como auxiliares de layout**. Historicamente, alguns autores têm abusado das tabelas em HTML, como forma de controlar o seu layout de página. Esse uso não é recomendado, porque as ferramentas que tentam extrair os dados tabulares de tais documentos obtém resultados confusos. Em particular, os usuários de **ferramentas de acessibilidade**, como leitores de tela podem achar muito difícil de navegar em páginas com tabelas usadas para layout.”

<http://www.w3.org/TR/html5/tabular-data.html#the-table-element>

Recomendações que permanecem



The image shows a screenshot of a web form. At the top, there is a blue header bar. Below it, the word "Address" is displayed in bold. There are two input fields: the first is labeled "Street Address" and the second is labeled "Address Line 2". At the bottom of the form, there is a "Submit" button.

Address

Street Address

Address Line 2

Submit

Formulários

Em um campo de entrada de texto:

First name:

```
<label for="firstname">First name:</label>
```

```
<input type="text" name="firstname" id="firstname" />
```

Em um campo checkbox:

```
<input type="checkbox" id="markuplang" name="computerskills">
```

```
<label for="markuplang">HTML</label>
```

HTML

Keyword	State	Data type	Control type
hidden	Hidden	An arbitrary string	n/a
text	Text	Text with no line breaks	Text field
search	Search	Text with no line breaks	Search field
tel	Telephone	Text with no line breaks	A text field
url	URL	An absolute IRI	A text field
email	E-mail	An e-mail address or list of e-mail addresses	A text field
password	Password	Text with no line breaks (sensitive information)	Text field that obscures data entry
datetime	Date and Time	A date and time (year, month, day, hour, minute, second, fraction of a second) with the time zone set to UTC	A date and time control
date	Date	A date (year, month, day) with no time zone	A date control
month	Month	A date consisting of a year and a month with no time zone	A month control
week	Week	A date consisting of a week-year number and a week number with no time zone	A week control
time	Time	A time (hour, minute, seconds, fractional seconds) with no time zone	A time control
datetime-local	Local Date and Time	A date and time (year, month, day, hour, minute, second, fraction of a second) with no time zone	A date and time control
number	Number	A numerical value	A text field or spinner control
range	Range	A numerical value, with the extra semantic that the exact value is not important	A slider control or similar
color	Color	An sRGB color with 8-bit red, green, and blue components	A color well
checkbox	Checkbox	A set of zero or more values from a predefined list	A checkbox
radio	Radio Button	An enumerated value	A radio button
file	File Upload	Zero or more files each with a MIME type and optionally a file name	A label and a button
submit	Submit Button	An enumerated value, with the extra semantic that it must be the last value selected and initiates form submission	A button
image	Image Button	A coordinate, relative to a particular image's size, with the extra semantic that it must be the last value selected and initiates form submission	Either a clickable image, or a button
reset	Reset Button	n/a	A button
button	Button	n/a	A button

Novidades nos formulários

```
<form>
```

```
<label>
```

```
Nome <input type="text" name="nome" placeholder="digite seu nome" required />
```

```
</label>
```

```
<label>
```

```
E-mail <input type="email" name="email" placeholder="digite seu e-mail" required />
```

```
</label>
```

```
Website <input type="url" name="website" required />
```

```
</label>
```

```
<label>
```

```
Escolha a cor <input type="color" name="email" />
```

```
</label>
```

```
<label>
```

```
Data de destino <input type="datetime" name="email" />
```

```
</label>
```

```
<input type="submit">
```

```
</form>
```

Exemplos de formulários

Input types

<http://robertnyman.com/html5/forms/input-types.html>

Atributos

<http://robertnyman.com/html5/forms/attributes.html>

ARIA e HTML5

Ao infinito e além!



WAI-ARIA (Accessible Rich Internet Applications) define uma forma de tornar o conteúdo e aplicativos web mais acessíveis a pessoas com deficiências. Ele contribui especialmente com conteúdo dinâmico e interface de controles de usuário avançadas desenvolvidos com Ajax, HTML, JavaScript e tecnologias relacionadas.

<http://www.w3.org/WAI/intro/aria>

Implementação por leitores de tela:

Landmark roles são suportadas em

- **JAWS 10**
- **NVDA 2010.1+**
- **VoiceOver no iPhone IOS4.**

73 ROLES (Ou Papéis)

progressbar	alert
radiogroup	Alertdialog
scrollbar	button
slider	checkbox
spinbutton	dialog
status	menu
Tab	menubar
tabpanel	menuitem
textbox	option
tooltip	...

35 States and Properties (Estados e Propriedades)

aria-activedescendant

aria-atomic

aria-autocomplete

aria-busy (state)

aria-checked (state)

aria-controls

aria-describedby

aria-disabled (state)

aria-dropeffect

aria-expanded (state)

aria-flowto

aria-grabbed (state)

aria-haspopup

aria-hidden (state)

aria-invalid (state)

aria-label

aria-labelledby

aria-level

aria-live

aria-multiline

aria-multiselectable

aria-orientation

aria-owns

...

```
<a href="#"  
  id="handle_zoomSlider"  
  role="slider"  
  aria-orientation="vertical"  
  aria-valuemin="0"  
  aria-valuemax="17"  
  aria-valuetext="14"  
  aria-valuenow="14" >  
  <span>11</span>  
</a>
```



Exemplos:

<http://www.paciellogroup.com/blog/misc/ARIA/tristatecheck.html>

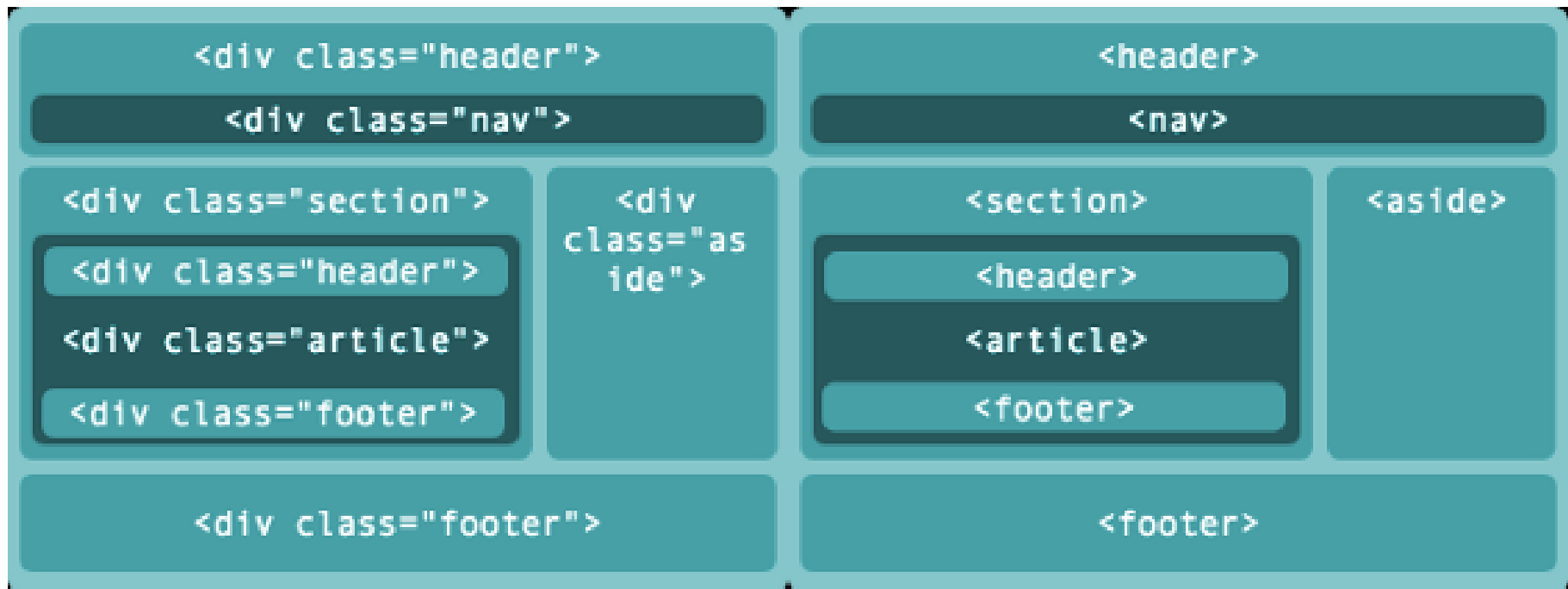
<http://www.paciellogroup.com/blog/misc/ARIA/togglebutton.html>

<http://www.paciellogroup.com/blog/misc/samples/aria/slider/>

Semântica

Os novos elementos

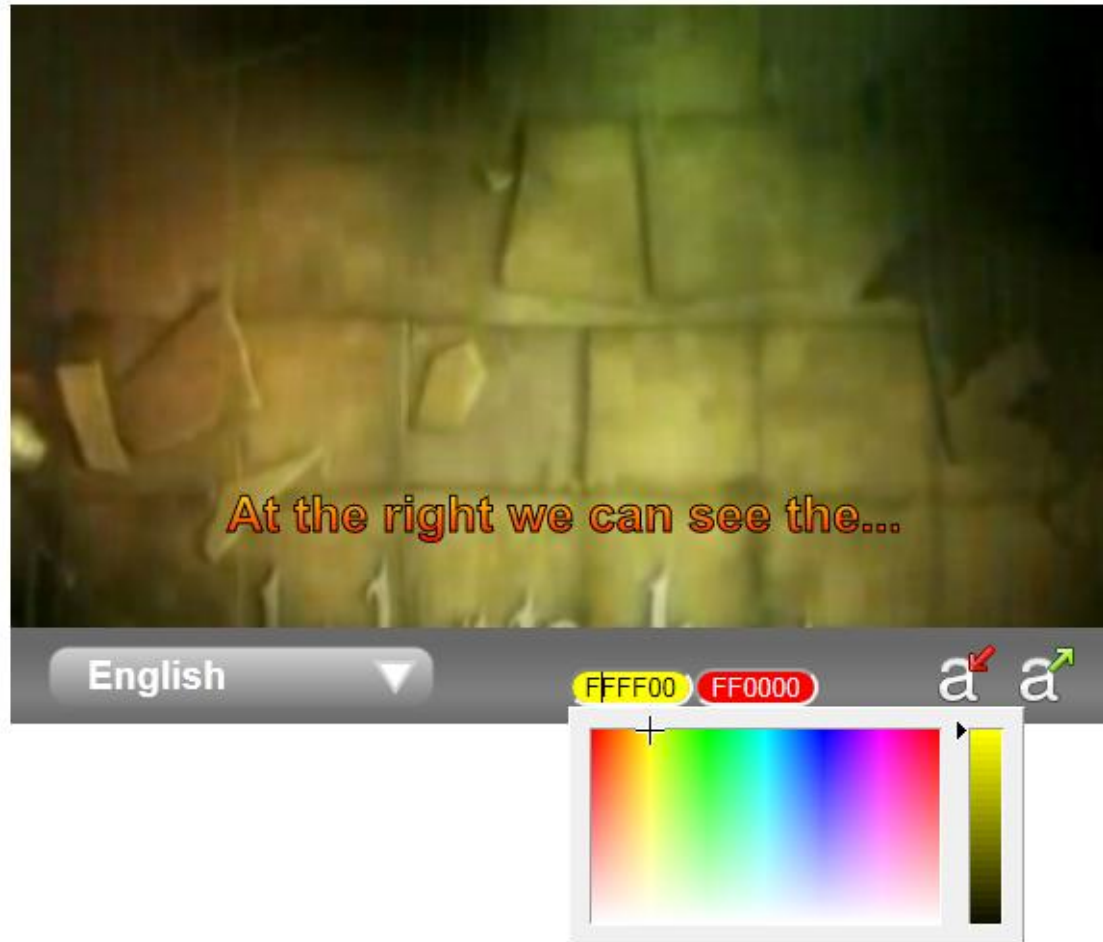




Video



Legendas em SVG





E o que ficou de fora do HTML5?

abbr, **align**, allowtransparency, archive,
background, bgcolor, **border**, cellpadding,
classid, clear, code, codetype, color,
compact, frameborder, **height**, hspace,
link, marginbottom, marginheight,
marginleft, **marginright**, margintop,
marginwidth, noshade, **nowrap**, profile,
rev, rules, scheme, scrolling, size, standby,
target, text, urn, **valign**, valuetype,
version, vlink, vspace, **width**

abbr, **align**, allowtransparency, archive,
background, border, cellpadding, cellspacing,
classid, color,
compact, height, hspace,
link, height,
margin, margintop,
marginwidth, wrap, profile,
rev, rules, size, standby,
target, text, align, valuetype,
version, vlink, vspace, **width**



CSS

Quem gera o código mais acessível?

HTML4

HTML5 + CSS3 + ARIA

HTML5

XHTML

XHTML + CSS2

ARIA

Você

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