

Shambhala Accessibility and Disability

Web Site and Email Accessibility and Video Captioning

As of 2nd May 2010.

This is a work in progress, will continue to be updated and refined.

Latest versions of this document is at [Web Site and Email Accessibility and Video Captioning](http://www.shambhala.org/members/share/viewarticle.php?art_id=274) at http://www.shambhala.org/members/share/viewarticle.php?art_id=274

This is also viewable at [Shambhala Centre Resource](http://www.shambhala.org/members/cr/) at <http://www.shambhala.org/members/cr/>.

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Web Site Accessibility

Feedback from a sangha member who is blind –Ted Spearin

Everything has to be linear. Blind people like right angles. Then it is easy to scroll down or toggle across. Has experience a lot of difficulty filling in forms for Signing up for programs and making payment. Particularly finding locations on forms. Where is that little check box?

Web sites are getting more difficult as graphics are becoming increasingly popular.

I really don't have much to add to our telephone conversation about web access by blind persons. As I said I access the web with "Jaws for Windows". Searching is done by keyboard, not a mouse. Therefore the search is by line up or down keys, or by tab keys. So everything has to be readable by lining up or down or across. Graphics are nice to have but just get in the way for the blind.

I suggest that web page designers may want to try reading the pages using a computer loaded with "Jaws" and with a blindfold.

Five very general guidelines for Accessible email announcements

Text only is the most accessible and usable format for e-mail messages

Keep it simple is a good place to start. If you want it “pretty” keep that separate from content. The more 'arty' ones may prove difficult for people using Jaws or the like for reading their mail.” Avoid using graphics if possible.

Separate content from illustrations, content from presentation. As in no text inside pictures or part of graphics.

Insure that headings are in text, not graphics, or at least are also in text

Avoid the use of small font size

These are based on Stefan Carmien’s first draft of guidelines. For his more complete descriptions of these and the other points he mentions see the **Accessible email guidelines -Stefan Carmien** under that heading below. Also includes some additional things to consider.

Note. If you do include images in your email also include a description of it, or include an Alternative (Alt) text equivalent (nothing to do with the Alt key on your keyboard). Most programs have ways to include this. For example in MSWord Alt text is made by right clicking on the image, click on Format Picture. Then click on the Alt Text tab and then type in a description (or Web tab in MSWord 2003). As it says this lets “Web browsers display alternative text while pictures are loading or missing. Web search engines use alternative text to help find Web pages. Alternative text is also used to assist users with disabilities” (as when using a screen reader, for examples listed in Reader section below.). As Stefan points out there are plenty of resources on the web for this. Two examples, that include sample code, are [HTML Images and -The alt attribute](#) is used

to define an "alternate text" for an image at http://www.w3schools.com/html/html_images and [HTML Tip: Using ALT And TITLE Attributes](http://www.netmechanic.com/news/vol6/html_no1.htm) at http://www.netmechanic.com/news/vol6/html_no1.htm. It is generally recommended to include graphics only as attachments to emails.

15 Steps to Website Accessibility

The following *15 Steps to Website Accessibility* provide a framework to use when checking a website for Section 508 compliance. This is simply a more common language form of the standard 508 requirements. For a complete list of the 508 Standards, including the official text of the Web Requirements, please visit [Section 508.gov](http://www.section508.gov) at <http://www.section508.gov>.

15 Steps to Website Accessibility

1. Make sure all images, graphs, and other non-text items have a text equivalent.
2. Provide synchronized captions for all video, as well as captions or a transcript of audio content.
3. Do not use color as the only way to convey information.
4. You can use style sheets for layout, but the page must still make sense without them.
5. When using images as links, for example a drop down menu, make sure each link (as well as the overall image) has alt text describing the destination. Avoid using server-side image maps. If you do use server-side image maps, be sure to provide separate identical text links to access the same content.
6. Label column and row headers in a data table. Try to avoid using tables for layout purposes, but if you do then do not label headers.
7. Make sure all cells in the table are associated with the appropriate headers. When the table is set-up correctly, screen readers can navigate through data tables one cell at a time, and they will hear the column and row headers spoken to them.
8. Be sure to give each frame a title that identifies its purpose.
9. Avoid any graphics, animations, movies, or other objects which have strobing, flickering, or flashing effects.
10. Use a text-only alternative *only* as a last resort, and be sure to keep it up to date with other content.
11. When using scripts, make sure all text within the script is provided as text or alt text and that any interaction can be achieved with a keyboard.
12. Be sure to include a link to any applet or plug-in required to access content on the same page as the content. For example: Adobe Reader. The plug-in itself must meet more specific requirements, which can be found in the official requirement.
13. If a form can be filled out online by a user, all aspects of the form must be made accessible. This includes labels for each field, as well as ensuring the form can be filled out using a keyboard.

14. Include a way for the user to immediately skip to the main content of the page.
15. When a timed response is required, alert the user and give sufficient time for them to indicate that more time is needed.

From [508 Web Requirements -15 Steps to Web Accessibility](http://www.da.usda.gov/oo/target/subjects/508/reqs.html) at <http://www.da.usda.gov/oo/target/subjects/508/reqs.html>

For a more complete description and explanation of these steps see [Discover the 15 Steps to Web Accessibility](http://connectpro36216355.acrobat.com/p28393605/) a recorded Adobe Connect presentation at <http://connectpro36216355.acrobat.com/p28393605/>

WCAG 2 at a Glance

Perceivable

- Provide text alternatives for non-text content.
- Provide captions and alternatives for audio and video content.
- Make content adaptable; and make it available to assistive technologies.
- Use sufficient contrast to make things easy to see and hear.

Operable

- Make all functionality keyboard accessible.
- Give users enough time to read and use content.
- Do not use content that causes seizures.
- Help users navigate and find content.

Understandable

- Make text readable and understandable.
- Make content appear and operate in predictable ways.
- Help users avoid and correct mistakes.

Robust

- Maximize compatibility with current and future technologies.

From Web Accessibility QuickTips. [WCAG 2 at a Glance](http://www.w3.org/WAI/WCAG20/glance/) at <http://www.w3.org/WAI/WCAG20/glance/>. This page provides a summary of Web Content Accessibility Guidelines [WCAG 2.0](#); however, it is **paraphrased** and it is **not a definitive version**. Please see the following key resources for learning and using WCAG 2:

- [WCAG Overview](#)
- [How to Meet WCAG 2.0: A customizable quick reference](#) to WCAG 2.0 requirements (Success Criteria) and techniques

WCAG vs. Section 508

Section 508, of the Rehabilitation Act, Web Accessibility standards for US federal agencies is very similar to WCAG Priority 1, 2 and 3 checkpoints, although there are some differences. For more information see at [Side by Side WCAG vs. 508](http://jimthatcher.com/sidebyside.htm) at <http://jimthatcher.com/sidebyside.htm> as it says “some of the 508 standards relate to lower priority checkpoints from the Web Accessibility Initiative.

The Web Accessibility Initiative Guidelines (WCAG) (Web Content Accessibility Guidelines)

The Web Accessibility Initiative (WAI) was formed by the World Wide Web Consortium (W3C) in order to bring accessibility considerations into the technology development of the Web Consortium and to determine guidelines for accessible technology including web authoring and user agents (browsers). As Tim Berners-Lee, the inventor of the Web, and the Director of the W3C put it, "The power of the Web is in its universality. Access by everyone regardless of disability is an essential aspect."

Section 508 Web Accessibility

"Section 508" refers specifically to Section 508 of the Rehabilitation Act of 1973, as amended by the Workforce Investment Act of 1998. The law requires Federal agencies to purchase electronic and information technology that is accessible to employees with disabilities, and to the extent that those agencies provide information technology to the public, it too shall be accessible by persons with disabilities.

From [Side by Side WCAG vs. 508](http://jimthatcher.com/sidebyside.htm) at <http://jimthatcher.com/sidebyside.htm>

Web Resources

1. [Change Your Font or Text Size for Reading on the Web](http://uua.org/leaders/leaderslibrary/accessibility/disability101/visualimpairments/27152.shtml) at <http://uua.org/leaders/leaderslibrary/accessibility/disability101/visualimpairments/27152.shtml>
2. [Web Accessibility Initiative \(WAI\)](http://www.w3.org/WAI/) at <http://www.w3.org/WAI/> WAI develops...guidelines widely regarded as the international standard for Web accessibility
3. [Web Content Accessibility Guidelines 2.0 W3C](http://www.w3.org/TR/WCAG20/) at <http://www.w3.org/TR/WCAG20/>
There is also [Web Content Accessibility Guidelines \(WCAG\) Overview](http://www.w3.org/WAI/intro/wcag.php) at <http://www.w3.org/WAI/intro/wcag.php> "Web Content Accessibility Guidelines 1.0 was published in May 1999. WCAG 2.0 was published on 11 December 2008. WCAG 2.0 applies broadly to more advanced technologies; is easier to use and understand; and is more precisely testable with automated testing and human evaluation." [Techniques for WCAG 2.0](#) gives you specific details on how to develop accessible Web content, such as HTML code examples.
4. **Web Content Accessibility.** Trace Center. College of Engineering, University of Wisconsin-Madison. This site provides information on designing an accessible website and has a library on disability resources. Available at www.trace.wisc.edu. [Web Content Accessibility Guidelines 1.0](http://www.w3.org/TR/WCAG10/) are at <http://www.w3.org/TR/WCAG10/> [Checklist of Checkpoints for Web Content Accessibility Guidelines 1.0](http://www.w3.org/TR/WCAG10/full-checklist.html) at <http://www.w3.org/TR/WCAG10/full-checklist.html>
5. [Level A Conformance to Web Content Accessibility Guidelines 1.0](http://www.w3.org/WAI/WCAG1A-Conformance) at <http://www.w3.org/WAI/WCAG1A-Conformance>
6. [Web accessibility \(by IBM\)](http://www-03.ibm.com/able/guidelines/web/accessweb.html) at <http://www-03.ibm.com/able/guidelines/web/accessweb.html> This also has a link to [Understanding](#)

- [disability issues when designing Web sites](http://www-03.ibm.com/able/access_ibm/disability.html) “s” for those who are new to accessibility at http://www-03.ibm.com/able/access_ibm/disability.html
7. [HTML Writers Guild Web Accessibility Standards](http://www.hwg.org/opcenter/policy/access.html) at <http://www.hwg.org/opcenter/policy/access.html>
 8. [Features to enhance the site's accessibility](http://www.computing.dundee.ac.uk/accessibilitystatement.asp)
Accessibility Statement: School of Computing at University of Dundee
Useful – at <http://www.computing.dundee.ac.uk/accessibilitystatement.asp>
 9. [Accessibility Books](http://www.paciellogroup.com/resources/books.htm) at <http://www.paciellogroup.com/resources/books.htm> This site has been recommended for a wide range of books on different aspects of web accessibility for people with disabilities. [Just Ask: Integrating Accessibility Throughout Design](http://www.uiaccess.com/accessucd/) at <http://www.uiaccess.com/accessucd/> and also [Understanding Web Accessibility](http://uiaccess.com/understanding.html) at <http://uiaccess.com/understanding.html> have the entire content online.
 10. [Accessibility in Online Learning: Web Content Accessibility Process Manual](http://www.eplt.educ.ubc.ca/about/accessibility/accessibility/index.htm) “This Process Manual provides a guide that helps web developers, ...” This has the entire content online and includes downloadable PowerPoint presentations. at <http://www.eplt.educ.ubc.ca/about/accessibility/accessibility/index.htm>
 11. [WebAim](http://webaim.org/) Web accessibility training. Numerous very thorough related articles, including sample code, etc. as in Appropriate Use of Alternative Text. At <http://webaim.org/>
[WebAIM Section 508 Checklist](http://www.webaim.org/standards/508/checklist) at <http://www.webaim.org/standards/508/checklist>.
[Introduction to Web Accessibility](http://webaim.org/intro/#video) at <http://webaim.org/intro/#video> [Keeping Web Accessibility in Mind](http://webaim.org/media/common/video/asd.asx) Video at <http://webaim.org/media/common/video/asd.asx> and ASD Introduction to Web Accessibility Video Transcript. WebAIM [Web Captioning Overview](http://webaim.org/techniques/captions/) at <http://webaim.org/techniques/captions/>
 12. . [Web-based intranet and internet information and applications](http://www.section508.gov/index.cfm?FuseAction=content&ID=12#Web) Part of Section 508 Standards at <http://www.section508.gov/index.cfm?FuseAction=content&ID=12#Web>
 13. [Section 508: Uncle Sam's Guide To Web Accessibility](http://www.sitepoint.com/article/section-508-web-accessibility/) An article discussing Section 508. “Section 508 is an amendment to the US Government’s Rehabilitation Act, and is designed to standardize the accessibility of information technology.” At <http://www.sitepoint.com/article/section-508-web-accessibility/>
 14. At the **US disability.gov** site you can enter **Web Accessibility** in the search widow [US disability.gov search widow](http://www.disability.gov/search/list) at <http://www.disability.gov/search/list> for many resources, including the four below.
 15. [Common Myths about Web Accessibility](http://www.nws.noaa.gov/sec508/htm/myths.htm) A frank discussion of Section 508 (Rehabilitation Act Amendments of 1998) compliance from the National Weather Service. At <http://www.nws.noaa.gov/sec508/htm/myths.htm>

16. [Basic Rules for Web Site Accessibility](http://www.osec.doc.gov/webresources/Accessibility/Policy6_WebSiteRules.htm) Information provided for Web site managers as resource material to assist in meeting the U.S. Department of Commerce policy on Web site accessibility for persons with disabilities.
http://www.osec.doc.gov/webresources/Accessibility/Policy6_WebSiteRules.htm

Recorded Adobe Connect and Video presentations (captioned)

1. [USDA TARGET Center Discovery Series](http://www.da.usda.gov/oo/target/discovery/index.html) at <http://www.da.usda.gov/oo/target/discovery/index.html> Has a great deal of helpful information and also instructional videos like the three mentioned below this. [Discovery Series Archives](http://www.da.usda.gov/oo/target/discovery/archive.html) at <http://www.da.usda.gov/oo/target/discovery/archive.html>. They are currently having some problems accessing the PDF files which include transcripts of talks and their 15 Steps to Web Accessibility. They expect to have these viewable and downloadable soon.
2. [Discover the 15 Steps to Web Accessibility](http://connectpro36216355.acrobat.com/p28393605/). Adobe Connect presentation. Learn the basics of web accessibility and understand the different ways that users experience your website. The first five minutes is mostly introduction to their services. At <http://connectpro36216355.acrobat.com/p28393605/> and [Discovery Series Archives](http://www.da.usda.gov/oo/target/discovery/archive.html) at <http://www.da.usda.gov/oo/target/discovery/archive.html>. You can also download a PDF file of this from the File Share box at the bottom right of this presentation. The 15 Steps are listed above and are also available at [508 Web Requirements -15 Steps to Web Accessibility](http://www.da.usda.gov/oo/target/subjects/508/reqs.html) at <http://www.da.usda.gov/oo/target/subjects/508/reqs.html> This webcast is part of the [USDA TARGET Center Discovery Series](http://www.da.usda.gov/oo/target/discovery/index.html).
3. [Discover Universal Web Site Design: A Fresh Look at Section 508 Compliance](http://www.disability.gov/clickTrack/confirm/5443063?external=false&parentFolderId=7290&linkId=41533) at <http://www.disability.gov/clickTrack/confirm/5443063?external=false&parentFolderId=7290&linkId=41533> Watch a recording of the TARGET Discovery Series from February 25, 2009 and learn how to reframe your approach to [Section 508](http://www.disability.gov/clickTrack/confirm/5443063?external=false&parentFolderId=7290&linkId=41533) and Web accessibility by thinking in terms of universal design, rather than simply meeting a list of requirements. Experience Web sites from the perspective of all users; including those using assistive technologies. Also at [Discovery Series Archives](http://www.da.usda.gov/oo/target/discovery/archive.html) at <http://www.da.usda.gov/oo/target/discovery/archive.html>
4. [Discover How to Provide Accessible Online Presentations](http://www.disability.gov/clickTrack/confirm/5443097?external=false&parentFolderId=7288&linkId=37241). 53 min. A recorded Adobe Connect presentation. -Learn about the capabilities and limitations of web presentation software, especially as they apply to Section 508 and web accessibility. Find out what steps you can take to make your online presentations more universally available. At <http://www.disability.gov/clickTrack/confirm/5443097?external=false&parentFolderId=7288&linkId=37241> This presentation is part of the U.S. Department of Agriculture's TARGET Center Discovery Series. Also at their [Discovery Series Archives](http://www.da.usda.gov/oo/target/discovery/archive.html) at <http://www.da.usda.gov/oo/target/discovery/archive.html>.

5. [Discover How to Create Accessible PDFs](http://connectpro36216355.na3.adobe.com/p15093448/) Adobe Connect presentation. Learn how to prepare electronic files to more easily convert to accessible PDF, as well as the tools within Adobe Acrobat that help with accessibility. At <http://connectpro36216355.na3.adobe.com/p15093448/>
6. [Discover How To Prepare Word Files for Accessibility](http://connectpro36216355.na3.adobe.com/p82032091/) Adobe Connect presentation. Learn how to use features within Microsoft Word to easily create an accessible PDF document that meets Section 508 standards. At <http://connectpro36216355.na3.adobe.com/p82032091/>
7. [Discover How to Use Acrobat 9 Pro to Ensure Accessible PDFs](http://connectpro36216355.na3.adobe.com/p86993485/) Adobe Connect presentation. The most recent version of Adobe Acrobat Professional includes several new features which make creating accessible PDF documents easier than ever. Discover how to add tags, fix reading order, edit tables, check your work, and more. At <http://connectpro36216355.na3.adobe.com/p86993485/>
8. [Discover the Seven Steps to Accessible Email and Attachments](http://connectpro36216355.na3.adobe.com/p66044081/) Adobe Connect presentation. Learn how Section 508 requirements apply to email messages and included attachments. At <http://connectpro36216355.na3.adobe.com/p66044081/>. Includes some PDFs in the file share box at bottom right. This aimed at US federal agencies who need to meet the 508 requirements, however much of it is relevant to any email accessibility, particularly if it might potentially be sent to someone who needs it to be accessible. First 6 mins are an introduction these presentation and their services. However quite a lot is about making sure attachments are accessible (from 14mins to 38mins), much of this is now covered elsewhere. Including: Make attachments accessible (when possible). Add text equivalent to email body. Remove graphics from email body. Keep it simple. Clean up Forwards. Make it work in Plain Text.

Web Site Accessibility Evaluation Tools

[imergo® online -free website checker](http://www.imergo.com/) (the free version forces you to do this one page at a time) at <http://imergo.com/home>

[WAVE](http://wave.webaim.org/) is a free web accessibility evaluation tool provided by [WebAIM](http://www.webaim.org/). It is used to aid humans in the web accessibility evaluation process. Rather than providing a complex technical report, WAVE shows the original web page with embedded icons and indicators that reveal the accessibility of that page. At <http://wave.webaim.org/>

The [HiSoftware Cynthia Says](http://www.cynthiasays.com/) portal is a web content accessibility validation solution. It is designed to identify errors in your content related to Section 508 standards and/or the WCAG guidelines. This free tool meant for educational purposes, is an online test which only validates one page at a time. At <http://www.cynthiasays.com/>

[Deque](http://www.deque.com) at www.deque.com

[NetCentricCommonLook](http://www.net-centric.com) at www.net-centric.com

[WebKing](http://www.parasoft.com/webking) at www.parasoft.com/webking

WebAIM's [Accessibility Evaluation Tools](http://www.webaim.org/articles/tools/) at <http://www.webaim.org/articles/tools/> has a lot of information about evaluation tools and a **List of Accessibility Evaluation Tools.**

[Complete List of Web Accessibility Evaluation Tools](#) at

<http://www.w3.org/WAI/RC/tools/complete>

Many are free software and some check for both WCAG and Section 508

Also good to try a web page with a screen reader like the [NonVisual Desktop Access \(NVDA\)](#) a free and open source screen reader for the Microsoft Windows operating system. At <http://www.nvda-project.org/wiki/Download>. Mentioned in the Screen Reader section below. As mentioned in the “Feedback...” comments “I suggest that web page designers may want to try reading the pages using a computer loaded with "Jaws" and with a blindfold.”

Accessible email guidelines -Stefan Carmien

Five very general guidelines for Accessible email announcements

Text only is the most accessible and usable format for e-mail messages

Keep it simple is a good place to start. If you want it “pretty” keep that separate from content. The more 'arty' ones may prove difficult for people using Jaws or the like for reading their mail.” Avoid using graphics if possible.

Separate content from illustrations, content from presentation. As in no text inside pictures or part of graphics.

Insure that headings are in text, not graphics, or at least are also in text

Avoid the use of small font size

Accessible email guidelines -Stefan Carmien

Just refining this at the moment. The first rough draft is:

Posting Accessible Email a guide to Sangha Announcers

When you want to spread the word about an event that you are hosting there is a fine balance between brilliant presentation and widest readership. In the physical world that’s a no brainer. Make a poster – if it looks good to me it’ll probably look good to everyone else. But you are not printing a physical poster you are sending code to others machines that they will use to ‘print’ into a nice poster. So you have one problem – what **you** see may not be what others see. In the last 10 years the community of computer professionals have become increasingly aware of the fact it’s right to make content accessible to as many people as possible; exasperating that is the fact that that many of the newest technology actually makes content *more* inaccessible to people with different levels of visual and auditory ability. This can lead to cool looking postings but unintentionally excluding many of those who are already struggling with problems of full participation due to disabilities. Enough preaching. What follows is a set of tips and

guidelines to produce accessible email postings. Following this are a couple of particularly bad examples of postings (to the centres that sent these to sangha announce – please don't take offence, you have generously provided useful examples)

Making E-Mail Accessible Text-only versus HTML E-mail

Most e-mail programs provide users with the option to send messages in one of two different formats. The first, and most familiar, format is “text-only” or “plain text”. Text only is the most accessible and usable format for e-mail messages. The second format utilizes Hypertext Markup Language (HTML). HTML e-mail messages can be made accessible for people with disabilities; however, making HTML messages accessible tends to be more time-consuming than sending text-only messages. Also, some e-mail programs may not recognize HTML messages. This may cause some – with and without disabilities – to receive messages in HTML code, which is much less usable for everyone. Others may receive the HTML e-mail as an attachment, which they may or may not be able to open. Some people, including those who use handheld devices, may not be able to receive HTML messages at all. Others may have to wait longer to receive those messages through slow dial-up connections. E-mail is widely used by people with disabilities, in part because it is one of the few information technologies that incorporates universal design principles. Those who are deaf or hard of hearing routinely use e-mail to communicate more effectively. People who are blind or have low vision can easily read e-mail through screen readers or other assistive technologies. Sangha announce posters should be aware, however, that e-mail may pose barriers for some people with disabilities

Writing Accessible and Usable E-mail

There are several common-sense ways to make e-mail more accessible and usable for all. First, and most important – do not post an email with just a picture of a poster and nothing else (especially with a subject line with the event and no date or place – see example 1). Any image you post should be not just an attachment to the mail but in HTML format with an alt text that **completely** describes the event, date, and location.

Make subject lines clear. Make sure that subscribers to sangha announce know that the message relates to their area. Avoid blank subject lines or subject lines that could be confused with spam e-mail. Research indicates that shorter subject lines are better. Put the most important information first. The best way to make sure that the key parts of your message are read is to put that information first. Putting new or important information at the end of an e-mail may cause recipients to discard the message, especially if they have read the information previously. Make

messages short and to the point. The shorter and more direct a message is, the more effective it will be. Shorter messages are easier for most people, including people with learning disabilities, to read and understand. Trim out extraneous data in e-mails whenever possible.

Be careful when forwarding e-mail. Often, when you forward e-mail, the header of the previous e-mail carries over into your message. These headers may contain multiple e-mail addresses from other recipients, which may appear before the content of the message. This is especially annoying for students who use screen readers, because they cannot easily skim past the headers to get to the content. In general the best idea is to copy and paste the information you want to share into a new email.

Avoid using graphics if possible. When sending HTML e-mail, avoid graphics that are simply decorative in nature. On the other hand if you do use graphics that have important content, make sure that they are labelled (as alt text¹) for sangha who are blind or have low vision, or who can only read text-only e-mails.

If you are using HTML avoid the use of small font size, especially since many in the sangha are getting older with the accompany visual acuity loss. Also is you are designing HTML mail set your screen resolution to 800X600 to make it accessible to all viewers, as well as avoiding effects like flashing elements or a too bright contrasting background.

If you have a community member with visual disabilities, you might want to ask her to look at your postings before you send it out.

In Service,

Stefan Carmien

carmien@gmail.com

San Sebastian, Spain

May 16, 2009

If you don't know how to do this, the web has numerous tutorials in how to do it – google 'HTML alt text'.

Some additional things to consider. From various sources.

Note. If you do include images in your email also include a description of it, or include an Alternative (Alt) text equivalent (nothing to do with the Alt key on your keyboard). Most programs have ways to include this. For example in MSWord Alt text is made by right clicking on the image, click on Format Picture. Then click on the Alt Text tab and then type in a description (or Web tab in MSWord 2003). As it says this lets “Web browsers display alternative text while pictures are loading or missing. Web search engines use alternative text to help find Web pages. Alternative text is also used to assist users with disabilities” (as when using a screen reader, for examples see Screen Reader section below). As Stefan points out there are plenty of resources on the web for doing this. Two examples, that include sample code, are [HTML Images and -The alt attribute](http://www.w3schools.com/html/html_images) is used to define an "alternate text" for an image at http://www.w3schools.com/html/html_images and [HTML Tip: Using ALT And TITLE Attributes](http://www.netmechanic.com/news/vol6/html_no1.htm) at http://www.netmechanic.com/news/vol6/html_no1.htm. It is generally recommended to include graphics only as attachments to emails.

Plain Text Can the email be read by someone who can only **get Plain Text**? Nothing should be lost. You can check this by looking at it on a Blackberry or any other Plain Text program. See Stefan’s suggestions for more detail. Also can ever

Good to also have **your email address written** out included with your signature.

Label links. If including links make them make sense, use a name/description in the displayed link. You can do this by right clicking the link, click on Edit Hyperlink, type name/description in the box “Text to display”. But check to make sure the address still appears in Plain Text, so it is good to add a text version of the web address, which is also necessary if the document might be printed.

Clean up or delete all the **forwarded emails** underneath yours. These could be attached in a file call something like History of this email communication. Perhaps remove the carrots, as in >>>. See Stefan’s suggestions for more detail.

Don’t use color alone to convey information, as in pie chart or graphs. Always add text descriptions. In graphs lines can also be displayed in different styles, dots, dashes, etc.

Attachments. All important information should be included in the body of the email Include a description on any attachment into the body of the email, even if that is included in the image’s alt tags.

Backgrounds, as in colors or graphics, can often cause problems.

Break it up visually. Use line breaks. Use bullets/lists

There is also the USDA TARGET Discovery Series [Discover the Seven Steps to Accessible Email and Attachments](http://connectpro36216355.acrobat.com/p66044081/) at

<http://connectpro36216355.acrobat.com/p66044081/> An Adobe Connect presentation. Learn how Section 508 requirements apply to email messages and included attachments. Includes some PDFs in the file share box at bottom right. This aimed at US federal agencies who need to meet the 508 requirements, however much of it is relevant to any email accessibility, particularly if it might potentially be sent to someone who needs it to be accessible. First 6 mins are an introduction these presentation and their services. However quite a lot is about making sure attachments are accessible (from about 14mins to 38mins), much of this is now covered elsewhere

in the Discovery Series. Including: Make attachments accessible (when possible). Add text equivalent to email body. Remove graphics from email body. Keep it simple. Clean up Forwards. Make it work in Plain Text.

Text to Speech software

See also under the section **Screen Readers** below.

[SARA Scanning and Reading Appliance For Low Vision and Blind](http://www.freedomscientific.com/fs_products/scanners_SARA.asp) at http://www.freedomscientific.com/fs_products/scanners_SARA.asp
1 800 444 4443

"Freedom Scientific's SARA™ (Scanning and Reading Appliance) is an affordable and easy-to-use solution for those with low vision or who are blind or deaf-blind. The SARA enables the reading of a wide variety of printed material including books, documents, mail, newspapers, magazines, and so much more. Using Optical Character Recognition (OCR) technology, the SARA works like a computer scanner that recognizes text, translates it into speech, then reads the text aloud." Stand alone product with scanner, so does not require a computer. However the price shown at their web site, September 2008, is \$2,795.00.

[Kurzweil 1000 - Solutions for Blind Readers](http://www.kurzweilededu.com/kurz1000.aspx) (\$995 retail, June 2009)
<http://www.kurzweilededu.com/kurz1000.aspx>

Designed to also be used by blind or visually impaired and has a lot more features than most OCR softwares. Can be used with a scanner or digital text documents like those from bookshare.org (accessible books and periodicals). "Kurzweil 1000™ is award-winning software that makes printed or electronic text readily available to people who are blind or visually impaired. It combines accessibility, communication and productivity tools to ease and enhance their reading, writing and learning experience.

The software speaks text aloud in a variety of natural-sounding voices that can be modified to suit individual preferences."

Kurzweil 1000 - Features and Benefits

http://www.kurzweilededu.com/products_k1000_features.aspx

Choice of two OCR engines, ScanSoft® OCR and ABBYY™ FineReader, provide the most accurate available OCR, State-of-the-Art Speech Options, Appointment Calendar with Audible Reminders, etc.

[OpenBook Scanning and Reading Software](http://www.freedomscientific.com/products/fs/openbook-product-page.asp) (\$995) at <http://www.freedomscientific.com/products/fs/openbook-product-page.asp>

"OpenBook™ allows you to convert printed documents or graphic based text into an electronic text format using accurate optical character recognition and quality speech."

[Natural Reader](http://www.naturalreaders.com): at <http://www.naturalreaders.com>

This a free text-to-speech application

NaturalReader uses natural sounding voices and an easy to use interface to enable you to convert any written text into speech. Whether it's MS Word, a Webpage, PDF files, or

emails, NaturalReader can handle the text with a few clicks of the mouse.

What's more, with NaturalReader you can convert text directly to an MP3 or a WAV file.

The Free version allows you to experience listening to your emails, web pages, reports or any text on your PC.

The paid versions support Natural Voices, while the Free version only contains and supports Microsoft Voices.

[Free Natural Voice Text to Speech Reader](http://www.sofotex.com/Free-Natural-Voice-Text-to-Speech-Reader-download_L10611.html) at http://www.sofotex.com/Free-Natural-Voice-Text-to-Speech-Reader-download_L10611.html

Free Natural Voice Text to Speech Reader -Publisher's Description:

This is a free and fully functional text-to-speech software. You can have your computer read any part of the news, weather forecasts, charting messages, and e-mail. The application can also read Word documents, rich text files, and PDF files. The speaking speed and voice quality can be changed at your wish. You can also save the voice as a WAV file, so you can listen later or burn it onto a CD. You can also record your sound to compare Natural Voice and your voice.

New feature in this edition is: to read Internet news, you can just click an IE icon or menu, to hear other text, just click copy, computer will read selected text back to you; and one minor bug fixed. The main difference between the Standard version and the Enterprise version is that enterprise version supports and contains natural voice, but the standard version uses Microsoft Voices.

ReadPlease Products

ReadPlease offers a variety of text-to-speech products to a wide spectrum of users, ranging from business to personal use.

ReadPlease 2003 (Free Edition) offers full support for all Microsoft voices, reads text via Windows clipboard from any program, Adjustable voice speed (rate) and more...

[EasyTutor -Transforming the Written Word](#) (From Dolphin)

"It's like having a personal reading and writing tutor, EasyTutor is always switched on in our house." "EasyTutor is a truly revolutionary software solution for anyone with Dyslexia or who has difficulties reading, writing and spelling. By harnessing the power of the inbuilt speech output facility, computer users can write, read, view and check text alongside a human sounding voice." At <http://www.yourdolphin.com/productdetail.asp?id=13>

[Nuance – RealSpeak](#)

RealSpeak™ is software that converts text into remarkably high quality speech. Whether you want to speech-enable an in-car navigation system, provide a screen reader for the blind or partially sighted, or enhance your call center service, RealSpeak is the natural solution. Friendly, expressive, highly intelligible quality that speaks for itself. At <http://www.nuance.com/realspeak/>

[Amazon's Kindle](http://www.amazon.com/dp/B0015T963C/?tag=gocous-) (\$250) at <http://www.amazon.com/dp/B0015T963C/?tag=gocous->

20&hvadid=4139676977&ref=pd_sl_7p2cs87ag_b is a wireless, portable reading device with instant access to more than 450,000 books, blogs, newspapers and magazines. Over 1.8 million free, out-of-copyright, pre-1923 books are available to read on Kindle. (March 2010) We don't know of if any dharma books that are available, but if not it is just a matter of time. It will be interesting to see how this evolves. "Amazon is looking to expand the market for its eBooks. The company has introduced a Mac-compatible version of its digital book reading software. That means you'll now be able to buy eBooks from Amazon's Kindle online store, then read them on your Mac computer. The software will also let you sync apple devices with Blackberries and Windows PCs." There is an accessibility report on the first version of Kindle at [Amazon Kindle for people with disabilities](http://www.it-director.com/blogs/Abrahams_Accessibility/2007/12/Amazon_Kindle_for_people_with_disabilities.html) at http://www.it-director.com/blogs/Abrahams_Accessibility/2007/12/Amazon_Kindle_for_people_with_disabilities.html "Summary: Kindle seems to be a very interesting first generation product. There is no real indication that the needs of the disabled have been explicitly considered."

However the Kindle 2 (\$259.00) and Kindle DX (\$489.00) both now have a text-to-speech feature. Kindle has six adjustable font sizes.

I don't know if this is still true but in Feb 2009 I see that "Amazon relented to pressure from the Author's Guild and has agreed to allow authors and publishers to disable the text-to-speech feature for their e-books available for the Kindle 2."

Sony Reader Digital Book

(888) 315-SONY. None of the Sony Readers have text-to-speech functionality. Reader Pocket Edition (\$169.00) 5inch three adjustable font size, small medium large. Sony Reader Daily Edition – 7" PRS-900 a 7" screen, (\$399) does half five font size options. Small medium large, extra large, and extra extra large.

Barnes and Noble Nook Wireless eBook Reader (\$259.00 new) No text to speech. "Your nook makes reading comfortable by offering a choice of several fonts and five text sizes. Tap Font to change the text font and size." Small medium large and extra large (18-22pt)

[An Evaluation of Kindle II and Sony Reader Digital Book Players](http://www.afb.org/afbpress/pub.asp?DocID=aw110104) at <http://www.afb.org/afbpress/pub.asp?DocID=aw110104> From AFB ACCESSWORLD ® Technology and People Who Are Blind or Visually Impaired. Product Evaluation.

[Blio eReader software](http://www.blioreader.com) As of March 2010 this was not yet available. The new free e-reader software from K-NFB Reading Technology. You can read more about Blio at www.blioreader.com. "software is the new touchstone for the presentation of electronic books & magazines." [Kurzweil debuts Blio, a free eReader](http://www.kurzweil.com) read-aloud feature. The voice is synchronized with follow-along word highlighting, making it ideal for language learners, young children and the vision impaired. (877) 547-1500. From the USA or Canada: 1-800-547-6747. From all other countries: 303-651-2829.

[Free PDF Reader](https://nct.digitalriver.com/fulfill/0246.003) at <https://nct.digitalriver.com/fulfill/0246.003>. Nuance PDF Reader

enables you to do much more than just view PDF files. Free download. [Learn More](#).

[OmniPage OCR Software Solutions](#) OmniPage 17 at <http://www.nuance.com/imaging/products/omnipage.asp>

The most powerful document conversion software ever. “OmniPage is the fastest and most precise way to convert documents into editable digital content that looks and acts just like an original digital document complete with columns, colors, pictures and graphics. There is a version of OmniPage designed to handle every document conversion and OCR need from the home office to high volume business processes.” New for \$499.99, upgrade from OmniPage 16 \$199.99, sometimes upgrade on sale for \$99.99. 1 800 443 7077.

Screen Readers

[Screen reader description from Wikipedia](#) A screen reader is a software application that attempts to identify and interpret what is being displayed on the screen (or, more accurately, sent to standard output, whether a video monitor is present or not). This interpretation is then re-presented to the user with text-to-speech, sound icons, or a Braille output device. Screen readers are a form of assistive technology (AT) potentially useful to people who are blind, visually impaired, illiterate or learning disabled, often in combination with other AT, such as screen magnifiers. From Wikipedia, the free encyclopedia at http://en.wikipedia.org/wiki/Screen_reader.

[Survey of Preferences of Screen Readers Users](#) at <http://webaim.org/projects/screenreadersurvey/>

“In December 2008 through January 2009, WebAIM conducted a survey of preferences of screen reader users. We received 1121 valid responses to the screen reader survey.” “Of the 1121 respondents, 74% use JAWS, 23% use Window-Eyes, 8% use NVDA, and 6% use VoiceOver. While several other screen readers were reported, these were the most prominently reported. Individual versions of screen readers are not yet computed, but generally the majority of users are using the most up-to-date version of their screen reader.”

The two leading screen reading softwares for Windows operating systems are: [JAWS from Freedom Scientific](#), At <http://www.freedomscientific.com/products/fs/jaws-product-page.asp> (\$895 for standard, \$1095 for professional, June 2009) JAWS screen reader software. “Developed for computer users whose vision loss prevents them from seeing screen content, JAWS reads aloud what's on the PC screen.” “With a refreshable braille display, JAWS also provides braille output in addition to, or instead of, speech. An array of versatile features and customizable options lets you tailor JAWS for your individual needs and preferences.” One report shows that 74% of people who use screen readers use this one. http://www.freedomscientific.com/fs_products/software_jaws.asp.

Window-Eyes Screen Reading Software by GW Micro. (\$895, June 2009) “Window-

Eyes is nothing less than the most stable screen reader available on the market today. Featuring Windows 2000, Windows XP ..., Windows Server 2003, Windows Vista ... and Windows Server 2008 compatibility, Window-Eyes puts you in the hands of the most powerful screen reading software ever created.

Window-Eyes gives total control over what you hear and how you hear it. Plus, with its enhanced Braille support..."

Others screen reading software includes:

VoiceOver. **Apple Inc. Mac OS X** includes "**VoiceOver**, a feature-rich screen reader that is now included in Macs." So it is free with Macs. Some are saying that it is now comparable to Jaws (which is for Windows only).

"To make it easier for the blind and those with low-vision to use a computer, Apple has built a solution into every Mac. Called VoiceOver, it's reliable, simple to learn, and enjoyable to use." **VoiceOver in Depth** "Mac OS X v10.6 Snow Leopard includes VoiceOver 3. A thoroughly updated release of Apple's screen-access technology, VoiceOver 3 includes groundbreaking new features such as gesture support, braille display mirroring, web spots, and spoken hints. It also offers frequently requested features including autospeaking web pages, "read all," web page summary, web table support, user-created labels, customizable verbosity, and more Apple - Accessibility - VoiceOver - In Depth Mac OS X Snow Leopard includes VoiceOver 3: a thoroughly updated release of Apple's screen-access technology..."

System Access from Serotek (Standalone \$399.00 USD June 2009).

ZoomText Magnifier/Reader from Ai Squared (\$600-700, June 2009).

NonVisual Desktop Access (NVDA) is a **free and open source screen reader** for the Microsoft Windows operating system. It supports over 20 languages and can run on any computer entirely from a USB drive with no installation. At <http://www.nvda-project.org/wiki/Download>.

Hal from Dolphin – Screen reader with Speech and Braille support At www.yourdolphin.com/productdetail.asp?id=5 "Developed for blind computer users, Hal is a software screen reader that works by reading the screen interactively and communicating through a speech synthesiser or a refreshable Braille display." In US Online Price: \$795.00 – \$890.00. In UK £595.00 (£699.12 inc. VAT) You can download a FREE demo of Dolphin software and try it for yourself.

Windows 7 and perhaps **Vista**, has an option "**Use the computer without a display**", which seems to be a screen reader. It is described as "Windows has many features that enable you to use your computer without a display. For example, you can have screen text read aloud by using Narrator or you can have Windows describe screen activity to you. You can turn on or adjust settings for these features by clicking Use the computer without a display page in the Ease of Access Center." Click the Start button, click Control Panel, clicking Ease of Access, and then click Ease of Access Center. There is

information on this at [Use the computer without a display](http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-a-display-optimize-for-blindness) at <http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-a-display-optimize-for-blindness> There are many good accessibility tools available through the [Ease of Access Center](http://windows.microsoft.com/en-US/Windows7/Make-your-computer-easier-to-use) described at that link which is at <http://windows.microsoft.com/en-US/Windows7/Make-your-computer-easier-to-use>.

Speech Recognition

Convert spoken language into text

Speech recognition software, see below, is generally a good option here.

For transcribing and or captioning of live or recorder talks, speech recognition software might work. Depending on the accuracy this could also involve the use of what is called a “shadow speaker”, who listens to everything that is said in a talk or video, and repeats it in his/her own voice. This allows the speech recognition software to be tightly trained onto the shadow speaker’s voice patterns, enabling reasonably good accuracy. If this is not workable real time captioning generally requires a transcriptionist, the software, and a means to display the captioning. You will need to inquire locally to see what is available to you.

Sometimes having someone transcribing the talk on a notebook computer, sitting next to a deaf or hearing impaired person, has worked successfully. For several people this could also be done with a large monitor or TV screen, or with a projector.

Aren’t there any speech recognition systems to automatically transcribe my video?

This article discusses some of the issues and limitations of speech recognition software. This is included under General Topics on the web site [Closed Captioning FAQ](http://www.cpcweb.com/faq/) at <http://www.cpcweb.com/faq/> From CPC Computer Prompting & Captioning Co.

Currently (March 2010) speech recognition app is available for free for iPhone. iPod Touch and iPad. This is reported to be generally very accurate even without training. It might be possible to provide these to people at talks in certain cases. See Dragon Dictate below.

See also the sections below “Making Video Accessible. Captioning (subtitled and closed audio description)” and [Projectors for displaying a computer monitor onto a wall or large screen](#).

Speech Recognition Software

Windows Vista & Windows 7 have a built in speech recognition tool. With this you can write documents or control the computer with voice alone. Click the Start button, click Control Panel, clicking Ease of Access, and then click Ease of Access Center. There is information on this at [Use the computer without the mouse or keyboard](http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-the-mouse-or-keyboard) at [http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-the-mouse-or-](http://windows.microsoft.com/en-us/windows7/Use-the-computer-without-the-mouse-or-keyboard)

keyboard-alternative-input-devices There are many good accessibility tools available through the [Ease of Access Center](http://windows.microsoft.com/en-US/Windows7/Make-your-computer-easier-to-use) described at that link which is at <http://windows.microsoft.com/en-US/Windows7/Make-your-computer-easier-to-use>.

Apple Speech Recognition

“Speakable Items, built into Mac OS X and located in the Speech pane of System Preferences, lets you control the computer using your voice instead of the keyboard. And you don’t have to train your Mac to use it. You can use Speakable Items to navigate menus and enter keyboard shortcuts; speak checkbox names, radio button names, list items, and button names; and open, close, control, and switch among applications. If you want to perform speech dictation on your Mac, you can use an application from MacSpeech called [Dictate](#) (sold separately).” (\$199.00 as of 11th April 2010) At the bottom of [Physical and Motor Skills](#). See **MacSpeech Dictate** and **MacSpeech Scribe** below.

[Dragon Naturally Speaking](#) (\$149-\$199, in 2010) at <http://www.nuance.com/naturallyspeaking/products/editions/preferred.asp> or **[Dragon Dictation](#)**

In response to my question “Does that need a lot of "training" with each individuals voice before it is useable? I suspect the training part is not very practical when it comes to transcribing several different teachers' talks.” Sangha member Harald Dienes replied: I have not installed Dragon version 10 yet. “I have played around a little with older versions and my first impressions were decent even without training but to get to the tested accuracy of 95+% of Dragon 10 you need to train it to your voice. Nuance charges a license fee for each training file so this could add up. A possibility would be to listen to a talk that needs to be transcribed on the head phones, then dictate what you have heard to your recorder or a USB soundcard http://andreaelectronics.com/Buy/ProductDesc/USB-SA_array_bundle.htm and then use Dragon with your voice-trained file to turn it into text. For some more info check the last message in this thread (now at [NaturallySpeaking Speech Recognition](http://www.knowbrainer.com/PubForum/index.cfm?page=viewForumCategory&categoryId=2) at <http://www.knowbrainer.com/PubForum/index.cfm?page=viewForumCategory&categoryId=2>) ([KnowBrainer Speech Recognition Forums](#)). I will spend more time with it in the coming months and can let you know.

Dragon Dictation. Currently (5th April 2010) this is a free App for **iPhone**, **iPod Touch** and **iPad** “an easy-to-use voice recognition application powered by Dragon® NaturallySpeaking® that allows you to easily speak and instantly see your text or email messages. In fact, it’s up to five (5) times faster than typing on the keyboard.” Compatible with iPhone, iPod Touch and iPad. “dictate notes, e-mails or text messages, which are then instantly converted to text.” “download this before the free goes away” <http://www.dragonmobileapps.com> and **[Dragon Dictation for iPhone, iPod touch, and iPad on the iTunes](#)**

It is reported to be generally very accurate even without training. It might be possible to provide an iPhone, iPod Touch or iPad to people at talks and other Shambhala events in certain cases.

[MacSpeech Dictate](http://www.macspeech.com) (\$199.00) at <http://www.macspeech.com>. “Unparalleled Speech Recognition for Your Mac. Built upon the renowned Dragon Naturally Speaking engine and now a full-fledged member of the Nuance product family, MacSpeech Dictate provides an astounding accuracy rate of up to 99% and works seamlessly with the Mac applications you already own and use.” [MacSpeech Scribe](http://www.macspeech.com/pages.php?pID=181) at <http://www.macspeech.com/pages.php?pID=181> (\$149.00)

[IBM ViaVoice Pro](http://www.amazon.com/Voice-v-10-0-Pro-USB-Edition/dp/B0000A58IX) (Voice recognition product) (\$189.99) Like Dragon Naturally Speaking (which has now replaced it) this was by Nuance. It is no longer produced and they only offer tech support for this for Operating Systems up to Windows XP service pack 1. <http://www.amazon.com/Voice-v-10-0-Pro-USB-Edition/dp/B0000A58IX>

[e-Speaking Voice Recognition Software](http://www.e-speaking.com) at <http://www.e-speaking.com>. (Speech Recognition) **Free** to download. e-Speaking offers desktop command and control speech recognition software compatible with and complementary to Windows XP and Windows 2000.

[tazti Speech Recognition Software](http://download.cnet.com/tazti-Speech-Recognition-Software-for-Windows-XP/3000-7239_4-10702965.html) for Windows XP 1.1.2. **Free** software. at http://download.cnet.com/tazti-Speech-Recognition-Software-for-Windows-XP/3000-7239_4-10702965.html Does require quite a bit of time to train.

[Sphinx 3.5 speech recognition engine](http://sourceforge.net/projects/cmusphinx) at <http://sourceforge.net/projects/cmusphinx> **Free** Speech Recognition Software. However I have found this difficult to install and have not used it. The CMU Sphinx is a free speech recognition software program and is open source too. Sphinx is a speaker-independent large vocabulary continuous speech recognizer released under a BSD style license. It is also a collection of open source tools and resources that allows researchers and developers to build speech recognition systems. This downloads as a Gz compressed file (stands for GNU Zip). You will need a program to unzip it, like Winzip. You might need a program like [BitZipper 2010](http://www.bitzipper.com) at <http://www.bitzipper.com> or for Apple Mac [StuffIt](#). Descriptions and trial versions of both are at [How To: Open a Gz file](http://www.tech-pro.net/howto-open-gz-file.html) at <http://www.tech-pro.net/howto-open-gz-file.html>.

[AEGIS RapidText](http://www.aegisglobal.com) “offers voice-to-text solutions, particularly transcription, real-time and offline captioning, and translation and subtitling services, with focus on accuracy, quality and fast turnaround.” 1 800 332 0266
http://www.aegisglobal.com/section_level2.aspx?cont_id=c/8KEO4Xx2o=

Aren't there any speech recognition systems to automatically transcribe my video?
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Captioning (subtitled, closed, and closed audio description) Video Teachings

Captioning Software -Free and priced.

Note: Extensive guidelines for captioning with many examples are at [Captioning Key](http://www.dcmp.org/captioningkey/) (<http://www.dcmp.org/captioningkey/>), by DCMP working with National Association for the Deaf. This includes guidelines for types, styles, methods, presentation rate, number of lines, where to separate captions, etc. Links to the different sections are on the right side. "... closed captioning (CC) and subtitles for the deaf and hard of hearing (SDH)". This includes a PDF version [Guidelines and Preferred Techniques](http://www.dcmp.org/captioningkey/captioning-key.pdf) at <http://www.dcmp.org/captioningkey/captioning-key.pdf>.

At this point none of this software will automatically set the start and stop times for you. Except YouTube, although they limited videos to about ten minutes. See that below.

1. [dotSUB Any Video Any Language](http://www.dotsub.com/) The use of "dotSUB basic" is **free**. You make the captioning online at their web site. They say "Watch videos with subtitles in your language, upload your videos, create your own subtitles!" [dotSUB Tutorials](http://www.dotsub.com/help/caption/). Here's a link to a tutorial on the [dotSUB captioning tool](http://www.dotsub.com/help/caption/) <http://www.dotsub.com/help/caption/> "dotSUB is your gateway to finding 'Any Video in Any Language'. You can upload your video and help translate it into multiple languages." They also say "dotSUB is a browser based tool enabling subtitling of videos on the web into and from any language. There is nothing to buy and nothing to download." "You can also choose to have your video "public" meaning anyone who comes to dotSUB can view the video, or "private" meaning you can choose specific dotSUB users that will have access to your video. Once your video is uploaded you will find additional permission options under the blue "Video Properties" tab just to the right and below the player." A friend tells me "Caption files are exported in a specific format which can be used elsewhere, or sent to translators so they can create transcripts or other language versions (when not using the dotSub site directly). It would probably be best to work in the other direction: find people to transcribe the videos first, then give the transcript to the captioner to just copy and paste into dotSub!"

The fact that DotSUB makes the transcript available to viewers is a big plus. I doubt the other approaches can make that so easy. It also looks like it is fairly straight forward for someone to add translations in other languages.

- One of the drawbacks is that it seems you can not download a whole prepared transcript, with the individual captions separated out. You have to past in each caption individually and then set start and stop times. If not transcribing directly into dotSUB, and except in the case of very short videos, it might be simpler and quicker to make a caption file with software like Magpie. You could save it as a DFXP, SRT or SLT file, depending the software you use. Then import that to your dotSUB video. See **Download a caption transcript of a whole video** under the description of Magpie software.
- dotSUB accepts all digital file formats. Size limit is 700MB

- You can import existing caption files. They say “Standard srt and slt subtitles are supported” (these are the ones YouTube likes), although I imported a .DFXP file (made in Magpie) and it worked fine.
- You can Export Transcription from dotSUB, as a SRT, STL, TT, or ASS file, as you choose. Under Translate and Transcribe option.
- You can embed the player featuring your video onto a website or blog. You can also share videos on social networking sites including Facebook, Twitter and MySpace.
- You can also Import an existing translation SRT or STL caption file.
- When you choose to translate in dotSUB it shows all the captions in the original language. There is a box underneath each caption where you add the translation, so you do not have to reenter the time codes. But again each caption has to be entered individually. If not translated directly into dotSUB then, depending on the size, it might be easier to make a new caption file for the translation, in one of the software programs for that. See **Making a caption file of a translation** under the description of Magpie software.

There are free translation software/web sites like [Google Translate](http://translate.google.com) at <http://translate.google.com> and the [Microsoft® Translator](http://www.microsofttranslator.com) Bing at <http://www.microsofttranslator.com> and [Google Translator](http://google-translator.en.softonic.com) at <http://google-translator.en.softonic.com> These do a good job and might help for an initial translation, but generally not enough for a completed translation of dharma material.

2. **Magpie** (Media Access Generator), **free software** from **National Center for Accessible Media** at http://ncam.wgbh.org/invent_build/web_multimedia/tools-guidelines/magpie. Provides captioning services, but also free software download for doing captioning yourself. “**free software** for adding captions and video descriptions to QuickTime, Windows Media, Real and Flash multimedia(?). MAGpie can’t play FLVs. You can use the source for the FLV instead (if you have access to it), or you can convert the FLV to an MOV or AVI and use that as the source. MAGpie does work with Vista and should work fine with Windows 7. [Magpie free software download](http://ncam.wgbh.org/invent_build/web_multimedia/tools-guidelines/magpie2_help_contents) at http://ncam.wgbh.org/invent_build/web_multimedia/tools-guidelines/magpie2_help_contents. Described in the video Discover How to Caption YouTube Video (at 29.00mins) mentioned above. [MAGpie2 Help Contents](http://www.webaim.org/techniques/captions/magpie/version2). MAGpie 2.5.0 “Support for closed-captioned content playback is available on BlackBerry smartphones running BlackBerry Device Software version 5.0 and newer, including the BlackBerry Storm2™ smartphone, BlackBerry Bold 9700™ smartphone and BlackBerry Curve™ 8530 smartphone models.” WGBH (NCAM) 617 300-3400. Captioning services \$175 for 10 min, \$450 for 60mins same price with or without transcript. They say they are the best in the business. From WebAim is [Captioning with MAGpie 2.0](http://www.webaim.org/techniques/captions/magpie/version2) at <http://www.webaim.org/techniques/captions/magpie/version2>.

You can **export** a caption file in a choice of file formats: Plain text, QuickTime - SMIL, RealPlayer -SMIL, Windows Media Player -SAMI, Adobe Flash -W3C DFXP, and Blackberry(MP4 G3P) -PAC TTX. Or you could export in all of these formats

(one at a time). *(The Timed Text format currently a "Candidate Recommendation" of the [W3C](#) (called DFXP^[12]) is also proposed as an 'open' format for subtitle exchange.)*

Imported caption tracks have to be in one of the following formats: Plaintext entries separated by blank lines. RealPlayer format (RealText), QuickTime format (QtText), SAMI format (SAMI XML).

For **files not made in Magpie** I found a SRT file made in dotSUB could be converted into a SAMI file with [vSync Tools](http://vsync.tunezee.com/convertCaption.html) at <http://vsync.tunezee.com/convertCaption.html>. I hope there is an easier way to get the results than this, but in Show Results you can highlight the results, copy them, then paste them into an MSWord document, save it as a text file. Then change the txt extension to sami. I was able to import that into Magpie (with Import Track, under Tracks) successfully with captions and times codes (I had to reenter the first caption and its time code). Note sure if the other formats work that way. Having deleted any other tracks, you can then save it as a magpie file and exported it in all the usual Magpie formats.

Download a caption transcript of a whole video. In Magpie you can download a whole prepared transcript, You take a regular transcript and add a blank line between the parts you want to be a single caption. Then save it as a text (TXT) file. Once that is imported into Magpie you can fairly easily manually set the start times for each caption. This is a lot quicker than pasting in each caption individually.

How ToDo It

Using a caption transcript of a whole video.

First you upload QuickTime MOV video to Magpie. Using the various default settings is usually best.

Then download a whole prepared transcript, with the individual captions separated. This is a lot quicker than pasting in each caption individually. Click on **Captions then** click on **Insert captions from a file...**

You take a regular transcript and add a blank line between the parts you want to be a single caption. Then save it as a text (TXT) file.

Once that is imported into Magpie you can fairly easily manually set just the start times (F9) for each caption. You don't need to set a stop time, if you are OK with it stopping when the next caption starts. (F10) adds a stop time if you need that. Press (F6) to play or stop to the video, (F7) to rewind.

You the save it -Click on File then save as to save a Magpie file. See note on this below.

You the export the caption file in anyone of it ine any of the six formats.

If you find you need more details these are below.

Detail descriptions of making a closed caption files in Magpie, with pictures, etc., are at NCAM's [MAGpie2 Captioning](#) and WebAim's [Captioning with MAGpie 2.0](#).

Making a caption file of a translation. You don't have to add all the times codes again, if you use a new language caption transcript, providing the text is separated into captions at the same places as the original caption transcript.

Open the original Magpie file first.

Open Create New Track, under Tracks. Use a distinct name when you get that option. Download a translated caption transcript in the same way described above in **Using a caption transcript of a whole video** above.

You can then import the time codes, from the original track, with the Copy timecodes option under Tracks.

Before you save you need to delete the tab of the original track, that option is under Tracks.

Before you export first change the name of your original language caption file .dfxp file, otherwise it seems to overwrite that one.

If you find you need more details these are below. See also **Note on dotSUB** below.

For **files not made in Magpie** see that under **Imported caption tracks** above.

Note on saving in Magpie. This can be a problem and hopefully NCAM will soon fix it.

There seems to sometimes be a problem if you save the MAGPRE file more than once. It then won't open again in Magpie. The problem is it seems to add two or three lines of code. A property being specified, projectFile, that was confusing MAGpie. You need to delete this. Then saved the file. This new file should open in MAGpie. (This was explained to me by someone from NCAM.

=====

```
<Property name="projectFile"
    value="C:\Documents and Settings\your name \My Documents\directory\ sub
directory\ perhaps more sub directories\your file.magpie"/>
```

=====

In Notepad it may be towards the end of the first line, (or eleventh line if Word Wrap is enabled) but as seemingly one continuous line. Once you have deleted that part, to make sure you have the right spacing, it is best to copy another > < part and paste it between the two files either side of where the deleted portion was.

Flash issues

Information Resources for flash (FLV) and MAGpie:

[New Captioning in Flash Component](http://blogs.adobe.com/accessibility/2007/03/new_captioning_in_flash_compon.html) at

http://blogs.adobe.com/accessibility/2007/03/new_captioning_in_flash_compon.html

[Authoring Captions for Flash](http://ncam.wgbh.org/webaccess/ccforflash/authoringcaps.html) at

<http://ncam.wgbh.org/webaccess/ccforflash/authoringcaps.html>

[Flash Captioning](http://www.htctu.net/trainings/manuals/web/Web_Captioning.pdf) at

http://www.htctu.net/trainings/manuals/web/Web_Captioning.pdf

[Captioning with Media Access Generator \(MAGpie\)](http://www.weather.gov/cio/accessibility/documents/creating_captions.pdf) a PDF file at

http://www.weather.gov/cio/accessibility/documents/creating_captions.pdf "This article has been compiled from material in the MAGpie documentation and the

RealSystem Production guide”. Not clear if this is for Magpie 1 or 2. By [RealNetworks](#).

Magpie & YouTube

[MAGpie2 Captioning](#) at http://ncam.wgbh.org/invent_build/web_multimedia/tools-guidelines/magpie2-captioning says “If you are captioning a project for a **YouTube** video, export either DFXP, SAMI or RealPlayer (RealText) captions and then upload the file to YouTube. [Read the instructions for uploading captions to YouTube](#), bearing in mind that you do **not** need to change the file's extension to .SRT or .SUB, nor do you need to reformat the timecodes. Simply upload the file as is. Note that the YouTube conversion process may introduce unusual line breaks into the captions, so be sure to test and review the captions carefully before linking to the captioned YouTube video.” Some correspondence about this: “When using Magpie is there an easy way to convert an existing format (.smi or .dfxp.xml) to a .SUB or .SRT? (used by YouTube). Yes, [vSync Tools](#) at <http://vsync.tunezee.com/convertCaption.html> “You can convert caption file between any of the supported formats (SRT, TimedText, QText, RealText, SAMI etc.). Just upload the file, specify the output format, and we'll provide you with the caption file in a new format.”

3. ["CC for Flash"](#) and [ccPlayer](#). For those who are not handy with **Flash programming**, NCAM (*who create Magpie*) has created two **free** flexible players which ease the process of providing captioned Flash video and MP3 audio files: [ccPlayer](#), incorporating the CC for Flash component, allows you to embed a FLV player on your Web page; [ccMP3Player](#), which also incorporates the CC for Flash component, plays back MP3 files in a Web page with corresponding caption files. Both players are accessible to screen readers and can be operated solely from the keyboard. From [ActionScript 3 versions of CC for Flash and the ccPlayer are now available](#) at <http://ncam.wgbh.org/webaccess/ccforflash/> There is more information at ["CC for Flash"](#) and [ccPlayer](#), also described towards the end of [MAGpie2 Captioning](#). [CC for Flash](#) is described as:

“CC for Flash is an Adobe Flash authoring component which synchronizes DFXP (and QuickTime with some limitations) caption files to Flash video playback.”

“CCforFlash is a component that is added to your Flash project to display captions.

....”

“CCforFlash is used to display captions with Flash video and audio content.”

4. **YouTube**. You need a Google/YouTube account and upload the video in your My Videos page of your account (there is a ten minute size limit). There are various privacy options. You can add prepared caption file or a prepared transcript file. Both seem to work well. They do say that if you caption it in YouTube with a transcript file “If the video's in English, YouTube can use speech processing algorithms to determine when the words in a transcript should be displayed.” This seems to work pretty well, and it seems to be the **only software so far that adds the time codes for you**, although they limited videos to about ten minutes. Some sometimes you see longer videos that are divided into parts.

It seems you can only download the result as a SBV caption file. [dotSUB](#) and [MovCaptioner](#) for Mac seem to be able to work with SBV files, not sure about other software.

So far getting YouTube to make a Machine Transcription, which makes a SBV caption file, is not very accurate. I found it unusable as a caption file, but sometimes helpful as a rough initial transcript, but not always.

How to do it. In your Google/YouTube account, go to the My Videos page. Once you have uploaded a video in your MyVideos page. (The blue New tag of the right, towards the top of that page, has drop down Upload Video link.). Then click on the Captions tag for that video. There you can click the button Add New Captions or Transcript, select if you want to add a caption file of a transcript file, making sure to click on which type.. Use Browse to locate your file. Hit “Upload File” after that. YouTube will think for a while, then your video will have captions.

Sometimes, if you use a transcript file, you may find want to edit a few time settings or captions. It might be easiest to change the transcript captioning. Then you delete the Caption Track, and upload a new transcript. You can also do it by downloading the Available Caption Tracks, you get a SBV file. Change the sbv extension to txt (right click, then click rename). Open it in MSWord using defaults, edit it, save it as txt using default options. Then change the extension back to sbv. Then in Add a Caption Track select that sbv file. Make sure Caption file (includes time codes) is selected, Then “Upload File”.

[Automatic captions in YouTube](#) at

<http://googleblog.blogspot.com/2009/11/automatic-captions-in-youtube.html>

[Captioning YouTube Video and Providing Accessible Controls](#) at

<http://wac.osu.edu/examples/youtube-player-controls/>

With [CaptionTube](#) at <http://captiontube.appspot.com>, you can create captions for your YouTube videos online. But it does not let you import a transcript making it slow. It’s easy to use and it’s free. [Want to know how things work? Read the FAQ below or watch the video tutorials](#) at <http://captiontube.appspot.com/help>. One site reported “[YouTubeCC](#), and [CaptionTube](#) are online applications. Both use a model for timing in which you type each caption chunk in individually, similar to modes available in both [MovCaptioner](#) and [MAGpie](#). We find this method cumbersome, but it may work well for you.”

[Easy YouTube caption creator](#) “**Note:** this tool is no longer being developed as YouTube’s automatic captioning has somewhat overtaken this tool. If you already have a transcript and if the audio in your video file is clear enough, [YouTube can probably work out the timings automatically.](#)”

5. URUSoft’s [Subtitle Workshop](#) (free software) at <http://www.urusoft.net> “It can only handle text based subtitles and cannot ‘attach’ them to any video.” For making the subtitle files it can display the subtitles with the video, in some video formats (not Flash video [.flv]) or .mov formats). It can save the subtitle files in a number of formats. For more on that see: [Complete list of features](#) at

<http://www.urusoft.net/products.php?cat=sw>. It can be used to create captioning for YouTube. There is a URUWorks Forum [YouTube and Subtitle Workshop: questions, solutions and examples](http://www.urusoft.net/forum/viewtopic.php?id=5648) at <http://www.urusoft.net/forum/viewtopic.php?id=5648>

At <http://www.longtailvideo.com/support/tutorials/Making-Video-Accessible> they say (2009) “Both magPIE and Subtitle Workshop support the export of captions to [W3C's TimedText](#) (Flash), [SMIL/QTtext](#) (Quicktime) and [ASX/SAMI](#) (Windows Media). For Subtitle Workshop you need the [TimedText output script](#) (available from Naomi Spirit). Captionate, (intended for FLV video) can only export to W3C's TimedText, though it can also save captions as metadata.

Only magPIE has support for recording audio descriptions, but it's somewhat limited. You cannot record to MP3 and cannot merge recorded samples or integrate them with a video. For now, a full-fledged audio / video suite like Adobe's [Premiere](#) / [Audition](#) or Apple's [iMovie](#) / [GarageBand](#) is needed for creating closed audio descriptions.” (March 2010)

6. [World Caption](#) at <http://lss.wisc.edu/node/276> for Mac “ is a program for adding captions to a QuickTime compatible video, using a transcript of that video. While World Caption cannot be used to generate a transcript, it makes the process of synchronizing a transcript to video simple, and allows quick and easy generation of captions. World Caption Software was developed by Brian Deith, Learning Support Services, College of Letters and Science, University of Wisconsin-Madison.”
7. [MovCaptioner](#) (\$25) is made for Mac only “and is one of the best products for that platform, outputting caption files in many formats, including SubRip.” “Already have transcripts and just need to add them as captions to your movies? MovCaptioner will allow you to import the text as captions, making the job a snap! It will also import other caption formats such as SCC, STL, XML, QT Text, SRT, SUB, to convert to other supported formats. And now that YouTube offers auto-captioning, let them take a first cut at it, then import their machine-captioned SBV file that you can download from YouTube right into MovCaptioner, where you can fix the inaccuracies and export to different formats. MovCaptioner will read all timecode and text from the YouTube captions to make your job easier.”
8. [DivXLand Media Subtitler](#) at <http://www.divxland.org/subtitler.php>. If this link does not work try [DivXLand Media Subtitler 2.0.7 -softpedia](#) then the link [Softpedia Mirror \(US\)](#) [EXE]. **Freeware**. This is less well known than Magpie and I haven't heard much about it. It does not seem to work with FLV or MOV videos, although it does save caption files in many formats. Their web site says “is the best alternative to subtitle all types of movies really fast and easily. **Freeware and multilanguage**, creating and editing subtitles was never so fun and easy.” “allows you to create and edit external subtitle files for AVI, MPG, WMV and all type of videos fast and easily. The subtitle creation process consists in using a plain text file containing the dialog lines in sequential order and apply these lines as subtitles into the opened media file during the video playback using just a click. The program includes cutting-edge features to edit

and improve existing subtitle files as well. Now with support for more than 30 subtitle formats.

9. **Manitu Group's [Captionate](http://www.buraks.com/captionate/) (\$60)** Flash Video Captioning Solution (software) at <http://www.buraks.com/captionate/> [Tutorial](http://www.buraks.com/captionate/tutorial/) teaches you how to add captions to your Flash video files using Captionate or cue points, and how to display those captions in a Flash movie using the FLVPlayback component and the FLVPlayback component skins with captioning support. “Captionate can embed three types of data to FLV files: Markers, Captions and Cue Points. Also Captionate adds the MetaData (the onMetaData event) automatically to any file you save.” On their web site there is a “plug-in that lets you export captions in SRT (SubRip Subtitle) format. SRT2CAPXML is a command-line console application that can convert an SRT file to Captionate XML file, which can be imported by Captionate.”
10. **[InqScribe](http://www.inqscribe.com/)** at <http://www.inqscribe.com/> “Simple Software for Transcription and Subtitling.” (\$99, “Try InqScribe **free** for 30 days”) “**Unicode** compliant -- use in multiple languages. We have users around the world, including users in Egypt, Sweden, India, Saudi Arabia, Denmark, Australia, New Zealand, UK, and Central Asia.” “InqScribe supports most common **audio and video formats** (.mov, .avi, .mpg, .mp3, .wav, .wmv, .wmv),...”
11. **VideoToolShed's [SubBits](http://www.videotoolshed.com/?page=products&pID=12) subtitler** (€ 169) (software) at <http://www.videotoolshed.com/?page=products&pID=12> This site has a “Videotour” showing how to use the software.
12. **[CPC captioning and subtitling](http://www.cpcweb.com)** a <http://www.cpcweb.com>. Software and services from CPC Computer Prompting & Captioning Co. For advance users. **[CaptionMaker](#)** WebPlus software about \$4000 (there might be a possibility of a discount for a non-profit). This has the advantage of being usable with a wide variety of file formats and it can also make caption files in a wide variety of formats. They say it is also easier to use than the free software. You can [download a demo version](#) (25 captions limit per file). “...CPC developed the world’s first simultaneous closed captioning & teleprompting software, CPC has been the captioning software leader.” Described in the video Discover How to Caption YouTube Videos mentioned above. 1-800-977-6678. Has some useful information at [Closed Captioning FAQ](http://www.cpcweb.com/faq/) at <http://www.cpcweb.com/faq/>
13. Softel has program called [Swift](#). For very advance users. Subtitling and captioning encoder/transcoder. About \$6250 Tel 203 354 4602 http://www.softelgroup.com/product_info_1.aspx?id=0:53800&id=0:53783 Described in the video Discover How to Caption YouTube Videos mentioned above.
14. **[Camtasia Studio](http://www.snagit.com/learn/default.asp)** at <http://www.snagit.com/learn/default.asp> This is a recording software that has captioning options, but not a separate captioning software. “allows you to record anything that you can view on your computer screen; including software applications, web pages, PowerPoint presentations, and much more.” Captioning

options are described at [Captioning](http://www.snagit.com/learn/camtasia/6/edit/captions.asp)
<http://www.snagit.com/learn/camtasia/6/edit/captions.asp>

Making a Caption Transcript.

In many captioning software you can download a whole prepared transcript, with the individual captions separated out. At this point only YouTube will automatically set the start and stop times for you.

First get a transcript.

Then in a word processor program, take a regular transcript and add a blank line between the parts you want to be a single caption. As in:

So good day everyone.

Today I would like to talk about how to meditate and learning to meditate.

In particular just what the approach is and attitude is.

A lot of people meditate in different ways today,

Then save that caption transcript as a text (TXT) file, perhaps adding the word “caption” to the name.

There are guidelines for captioning at [Captioning Key](http://www.dcmp.org/captioningkey/) (<http://www.dcmp.org/captioningkey/>), by **DCMP** working with National Association for the Deaf. More on that site is under their listing below.

Software to Convert Video Files to Other Media Formats

For softwares to download see My Digital Life’s article and download links at [Convert Flash Video .flv Files to .mpg or .avi and Other Media Formats](http://www.mydigitallife.info/2006/03/19/convert-flash-video-flv-files-to-mpg-or-avi-and-other-media-formats/) at <http://www.mydigitallife.info/2006/03/19/convert-flash-video-flv-files-to-mpg-or-avi-and-other-media-formats/> list a number of video converter programs. Most seem to be free. Total Video Converter seems to work well, although is trialware then costs. There is also Emsisoft’s FLV Converter. See [FLV to MOV converter](http://www.flv-converter.com/flv-to-mov.htm) “- Feel free to convert FLV to MOV” at <http://www.flv-converter.com/flv-to-mov.htm>

[vSync Tools](http://vsync.tunezee.com/convertCaption.html) at <http://vsync.tunezee.com/convertCaption.html> To convert captioning files from one format to another. “You can convert caption file between any of the supported formats (SRT, TimedText, QText, RealText, SAMI etc.). Just upload the file, specify the output format, and we’ll provide you with the caption file in a new format.” When using Magpie is there an easy way to convert an existing format (.smi or .dfxp.xml) to a .SUB or .SRT. Yes at vSync Tools

Information and Videos on Transcription, Captioning and Subtitles

1. [Discover How to Caption YouTube Videos](#) from TARGET Center Discovery Series. An excellent overview of captioning and includes lots general information, not just for YouTube) A 56min video presentation using Adobe Connect. “Learn about the variety of programs and services that you can use to caption your YouTube videos. These include free online tools, software that you can purchase, and service providers that you can hire to do the job for you.” At <http://connectpro36216355.na3.acrobat.com/p67375890/> Also at the [Discovery Series Archives](#) at <http://www.da.usda.gov/oo/target/discovery/archive.html>. The web sites and programs described in this video are in the relevant parts of this section “Captioning (subtitled, closed, and closed audio description) Video Teachings”.
2. [Discover How to Provide Accessible Online Presentations](#), 53 min. A recorded Adobe Connect presentation. –“Learn about the capabilities and limitations of web presentation software, especially as they apply to Section 508 and web accessibility. Find out what steps you can take to make your online presentations more universally available.” At <http://www.disability.gov/clickTrack/confirm/5443097?external=false&parentFolderId=7288&linkId=37241> This presentation is part of the U.S. Department of Agriculture's TARGET Center Discovery Series. Also at the [Discovery Series Archives](#) at <http://www.da.usda.gov/oo/target/discovery/archive.html>.
3. [Captioning Key](#) DCMP works with National Association for the Deaf. At <http://www.dcmp.org/captioningkey/> Extensive guidelines for captioning with many examples. This includes guidelines for types, styles, methods, presentation rate, number of lines, where to separate captions, etc. Links to the different sections are on the right side. “.... closed captioning (CC) and subtitles for the deaf and hard of hearing (SDH)”. Described in the video Discover How to Caption YouTube Videos mentioned above. This includes a PDF version [Guidelines and Preferred Techniques](#) at <http://www.dcmp.org/captioningkey/captioning-key.pdf> Also has a [Words Per Minute calculator](#) at http://www.dcmp.org/captioningkey/presentation_rate.html
4. [CaptionTube](#) With CaptionTube you can create captions for your YouTube videos. It’s easy to use and it’s free. At <http://captiontube.appspot.com>. [Want to know how things work? Read the FAQ below or watch the video tutorials](#) at <http://captiontube.appspot.com/help>, YouTube’s [Help with captions : Getting Started](#) at <http://www.google.com/support/youtube/bin/answer.py?hl=en&answer=100076> and [Getting Started: Adding / Editing captions](#) at <http://www.google.com/support/youtube/bin/answer.py?hl=en&answer=100077>
5. [Search WebAIM.org for options](#) at <http://www.webaim.org/search/?q=Captions&scope=site&start=0> A lot of useful

informative links, including [WebAIM: Web Captioning Overview](http://www.webaim.org/techniques/captions/) at <http://www.webaim.org/techniques/captions/>

6. WebAim also has [Captioning with MAGpie 2.0](http://www.webaim.org/techniques/captions/magpie/version2) at <http://www.webaim.org/techniques/captions/magpie/version2>. Information Resources for flash (FLV) and MAGpie:
[New Captioning in Flash Component](http://blogs.adobe.com/accessibility/2007/03/new_captioning_in_flash_compon.html) at http://blogs.adobe.com/accessibility/2007/03/new_captioning_in_flash_compon.html
[Authoring Captions for Flash](http://ncam.wgbh.org/webaccess/ccforflash/authoringcaps.html) at <http://ncam.wgbh.org/webaccess/ccforflash/authoringcaps.html>
[Flash Captioning](http://www.htctu.net/trainings/manuals/web/Web_Captioning.pdf) at http://www.htctu.net/trainings/manuals/web/Web_Captioning.pdf
7. [Making Video Accessible](#) by LongTail. There are also some tools that can be used for making the captions - if you scroll through this page on [making vidoes accessible](http://www.jeroenwijering.com/?item=Making_Video_Accessible) (http://www.jeroenwijering.com/?item=Making_Video_Accessible) you can find them. At <http://www.longtailvideo.com/support/tutorials/Making-Video-Accessible>
“With online video’s increasing popularity comes an increased need to maximize content accessibility, whether for the handicapped or those who use exotic browsers / platforms. However, this doesn't mean you must offer twenty different versions of your media player. A clever combination of formats, the SWFObject javascript and the JW FLV Player can do the job quite nicely.”
“**JW FLV Player**. It's the only player available that can display **both closed captions and a closed audio description**. Since it is built in Adobe's Flash, >95% of your visitors will be able to watch it.”
“Besides the JW FLV Player, Windows Media and QuickTime both support closed captions, with SAMI format and QTtext / 3GPP Text support, respectively. However, neither of these players support a closed audio description.”
8. [Closed Captioning of Video Programming](#) Regulations from the US Federal Communications Commission regarding closed captioning of video programming. At http://www.fcc.gov/cgb/dro/captioning_regs.html
9. [Caption It Yourself](#) Basic Guidelines for Busy Teachers, Families, and Others Who Shoot Their Own Video. Lots of information and resources. At <http://www.dcmp.org/ciy/>
10. [Closed Captioning FAQ](#) at <http://www.cpcweb.com/faq/> Has useful information. From CPC Computer Prompting & Captioning Co. This includes *Aren't there any speech recognition systems to automatically transcribe my video?* That discusses some of the issues and limitations of speech recognition software. There is also a *glossary where I can learn what these closed captioning terms mean*. Glossary page: [CPC Glossary of Terms](http://www.cpcweb.com/glossary) at <http://www.cpcweb.com/glossary>
11. [Adobe Flash accessibility design guidelines](#) at

<http://www.adobe.com/accessibility/products/flash/captions.html>. “Adobe Flash CS4 Professional software provides a component that allows developers to easily add captions to either FLV or H.264 video in Flash. The FLVPlaybackCaptioning component enables captioning for the FLVPlayback component. The FLVPlaybackCaptioning component uses a World Wide Web Consortium (W3C) Timed Text XML file (DFXP) and adds those captions to the FLVPlayback component with which the FLVPlaybackCaptioning component is paired.” At <http://www.adobe.com/accessibility/products/flash/captions.html>

12. [WGBH Conducts Caption Accuracy Survey](http://hlaa-advocacy.blogspot.com/2010/04/wgbh-conducts-caption-accuracy-survey.html) April 5, 2010. At <http://hlaa-advocacy.blogspot.com/2010/04/wgbh-conducts-caption-accuracy-survey.html>

Transcribing, Captioning, and Subtitles Services

1. [Caption Colorado](http://www.captioncolorado.com) is the leading provider of realtime television captioning in the US. Also has [Internet \(Online & Offline\)](http://www.captioncolorado.com) services. At <http://www.captioncolorado.com>. “Caption Colorado also offers simultaneous interpreting from English to Spanish for SAP television broadcasting, Internet presentations, and other alternative language audio services. Through our Offline Division, Caption Colorado can also prepare foreign language translated materials into a fully edited and synchronized closed captioned video for delayed rebroadcast or for delayed presentation streaming on the Internet. Caption Colorado provides foreign language captioning for movies, pre-taped television shows, and other offline products with its premiere and value offline formats as well as all of our Internet streaming products.” Tel 800.775.7838 720.489.5662. For a quote on cost email johnirwin@captioncolorado.com. Described in the video Discover How to Caption YouTube Videos mentioned above.
2. [Caption Sync](http://www.automaticsync.com/caption/) from **Automatic Sync Technologies**. Will do the transcript and captioning for you. You can proof it before posting. At <http://www.automaticsync.com/caption/> They say “is your best choice for automating the workflow to generate video captions for broadcast and the Web. We make the process of complying with accessibility mandates simple by offering a Web-based captioning service that starts with generating high-quality transcripts, producing caption files to support 40+ formats (including: QuickTime, Windows Media, Real, Flash), and making the publishing process simpler. Funded in part by a Department of Education grant to explore ways to improve the efficiency, reduce the cost and deliver high-quality output, Automatic Sync has set a new standard for captioning efficiency and quality.” Described in the video Discover How to Caption YouTube Videos mentioned above. 877-278-7962. Including transcribing \$185/hour, 10mins \$30.80, 15min \$46.25. With transcript already provided it is \$89/per hour, 15min \$22.25. Need min \$75 first time, can be applied to future bills.
3. [IR Broadcast](http://www.broadcastcc.com) do real-time captioning, including realtime captioning for live broadcasts, but not online streaming. 877.261.7962, <http://www.broadcastcc.com>

4. [PeopleSupport Transcription and Captioning](#) 818 848 6500 & 949 399 9200, many captioning resources including real-time captioning and online streaming. At <http://www.productionhub.com>
5. [National Center for Accessible Media](#) at <http://ncam.wgbh.org>. Provides captioning services, but also free software (Magpie) download for doing captioning yourself. WGBH (NCAM) 617 300-3400. Captioning services \$175 for 10 min, \$450 for 60mins same price with or without transcript. They say they are the best in the business.
6. [CPC captioning and subtitling](#) Software and services. At <http://www.cpcweb.com>. For advance users. [CaptionMaker](#) WebPlus software about \$4000. "...CPC developed the world's first simultaneous closed captioning & teleprompting software, CPC has been the captioning software leader." Described in the video Discover How to Caption YouTube Videos mentioned above. 1-800-977-6678.

	Red (2 Days)	Orange (5 Days)	Yellow (10 Days)
object Type 1: eCaptioning using digital files for Standard/High Def NLE, DV, DVD*, Webcast, Podcast etc.			
Setup & Encoding(always included)	\$135	\$75	\$75
Captioning (provide transcript)	\$8/min	\$6/min	\$4/min
or Captioning & transcription	\$12/min	\$9/min	\$6/min

Additional flash authoring is \$200/60mins (putting the captioning file into the flash file).

7. [WGBH Media Access Group Caption Services](#) at <http://main.wgbh.org/wgbh/pages/mag/services/captioning/> Service not software. Includes doing captioning for Adobe Connected pre-recorded video and realtime captioning. Described in the video Discover How to Caption YouTube Videos mentioned above. "The Media Access Group can supply closed captions for pre-recorded video on the Web through most media platforms, including Quicktime Player, RealPlayer, Windows Media Player and Flash Player, and real-time captions for live Web events and Web conferencing, including Adobe Connect." About \$175 for a ten minute video. 617 300 3623 (Lindsey).
8. [Winged Words Transcription Services](#) "we provide a full array of transcription and captioning services. Please contact us at our toll free number or email with any questions about our transcription or captioning services." 877-846-0749 at <http://winged-words.net>
9. [Talking Type Captions](#) at <http://www.talkingtypetranscriptions.com>. Closed Captioning Services.
10. [CaptionMax](#) at <http://www.captionmax.com>. Closed Captioning Service and Subtitles.

11. [Omega Transcripts](http://www.omegatranscripts.com/home.html) at <http://www.omegatranscripts.com/home.html> Online Audio Transcription & Video Transcription Services.
12. [VITAC](http://www.vitac.com) <http://www.vitac.com>. Includes: subtitling, [English/45+ languages] and Multilanguage Subtitling. Offering captioning for Flash, WMV and YouTube, plus encoding for HDCam SR, HDCam, HDD5, DVCProHD, MPEG-2, and QuickTime.
13. [3Play Media](#) “a full service transcription and captioning provider. We are experts in creating high quality transcripts from audio files in far less time than other firms.”
14. [VideoJump](http://www.videojump.com) at <http://www.videojump.com>. DVD to DVD Caption \$5.15/video minute.
15. [AEGIS RapidText](#) “offers voice-to-text solutions, particularly transcription, real-time and offline captioning, and translation and subtitling services, with focus on accuracy, quality and fast turnaround.” 1 800 332 0266 At http://www.aegisglobal.com/section_level2.aspx?cont_id=c/8KEO4Xx2o= See also Speech Recognition Software above.

Projectors for displaying a computer monitor onto a wall or large screen

At http://www.shambhala.org/members/share/viewarticle.php?art_id=258

For viewing online classes and talks. Also for helping people who are deaf or hearing impaired with talks, classes, videos, online talks, etc., when these are being transcribed in real-time and or have captioning. In many cases a large monitor or TV attached to a computer might work. However for large groups a projector may be needed.

Emails About Sound Systems for Shambhala Centers

At http://www.shambhala.org/members/share/viewarticle.php?art_id=259

The document is the responses I received to an email to sangha-announce about recommendations for sound systems in Shambhala centers. I have put together something of a summary of what seemed like key points and then divided the emails into two sections, “The View and Many Specifics” and “Descriptions of specific equipment being used”.

The Shambhala [Accessibility and Disability](#) web page.

[Links to all Accessibility Best Practices postings.](#)