

Developing E-learning: Tools for the Athletic Training Educator

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PowerPoint® is one of many authoring tools that is commonly used to create e-learning courses. PowerPoint® alone does not yield effective e-learning courses; however, assets such as images and audio are available to enhance its utility when engaging in e-learning course development. This column will outline tools that an athletic training educator can use to develop e-learning courses that go beyond the use of generic themes, bullet points, and clipart.

VISUAL AID RESOURCES

Clark and Mayer's¹ multimedia principle recommends that an e-learning course include both words and graphics. By incorporating words and graphics, learners are able to engage in active learning by forming mental representations of the words and pictures.

There are many sources available to help you create e-learning courses that go beyond PowerPoint® bullets and random clipart. The first place to seek out graphics is within your own organization. Your marketing department may have images that will work for your course. If your in-house search is unproductive, there are many online sources. Particularly, look for websites with "Creative Commons" licenses. These licenses allow a simple, standardized way for image owners to keep their copyright while allowing certain uses of their work — a "some rights reserved" approach to copyright.

To find images you can use Google or Yahoo to search for Creative Commons content or go to <http://wiki.creativecommons.org/image> for a list of hundreds of sites with images for download, including Flickr, OpenClipart.org, FreeFoto and Everystockphoto. Flickr <http://www.flickr.com> is one of the most popular photo sharing sites on the Internet. It is free, easy to search and use, and provides a huge selection of photos. The major downside of this site is its popularity. There is a good chance that the

image you choose may have been used by others and, thus, it may not provide a custom feel to your e-learning course.

OpenClipart.org <http://www.openclipart.org> is the clipart version of Flickr. Again, it is an immense database of images but these are clipart instead of photographs. The site provides well over 20,000 vector graphics that can be sized without getting a grainy resolution. EveryStockPhoto <http://www.everystockphoto.com> is another excellent source for graphics. The site is easy to search and the requirements for use are easy to understand. Freefoto <http://www.freefoto.com> claims to have the largest collection of free photos for non-commercial use. Although the site is not quite as user-friendly as some others due to the frequency of pop up ads, the search engine and the images are excellent.

These sites provide thousands of images to use for your e-learning courses. The only caveat is that you must adhere to any restrictions set by the image's creator. The sites provide instruction on how to properly use and credit each image.

AUDIO TOOLS

Incorporating audio into your e-learning course gives an element of interactivity that learners will find interesting. Consider how an audio element could enhance your content. What if you were able to embed audio of an athletic trainer evaluating a new client? Then your students could use this audio as an example to model. A novel sound may draw attention and pique a learner's interest in the content of the presentation. You might, for example, select a sound of a person breathing if you were presenting how to conduct lung auscultations.

You may even insert a recording of your own lecture so that learners who would like to review the lecture again have the audio corresponding with the lesson's visuals. Audio recordings may be

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added to slides to reach learners with special needs, like reading disabilities, or to reach learners who are strong auditory learners.

Audio editing tools become important when you want to create or modify an existing audio clip. For example, you may want to repurpose 30 minutes of a 3 hour conference call clip for a specific e-learning module or increase the volume of a clip that was originally recorded too low. There are many options, both paid and free, for audio editing; however, Audacity® is arguably the gold standard. Audacity® is a free audio recording and editing program that can be used in a variety of ways to enhance your e-learning course.

To use Audacity®, you will first need to download the free software from <http://Audacity.sourceforge.net>. We recommend downloading the LAME encoder from <http://lame.sourceforge.net> so that you can convert your Audacity® files into MP3s. MP3 format is important for file dissemination. Aside from the software, you will also need a microphone and headphones.

The software is very easy to use. Across the top of the screen you will see the general tools to operate the program. The tools on the upper left corner closely resemble the controls of a CD player - Pause, Play, Stop, Rewind, Fast-Forward, and Record. To record audio:

1. Click the red circle to record. As the audio is recording a visual of the sound waves will appear.
2. Click the yellow square to stop and green triangle to play back. If you do not like what you have recorded, click on the "x" to delete the track or use the scissors to clip a part away.
3. Save your file and then export it as a finalized audio file; the most popular file formats are WAV, MP3, and MP4.

Once the audio is recorded and edited to your satisfaction, then import the file into your PowerPoint® presentation. The extra step of recording in Audacity® will allow you to edit and even add effects to your audio, thus producing a slick, professional recording and presentation.

PowerPoint® offers the ability to record audio right within the program; however, the audio recorder does not have the capability to edit, leaving you to record and re-record until you get it right in one shot. Instead of re-recording in PowerPoint®, you could use Audacity® to edit the existing clip or to create the clip and import back into PowerPoint®.

POWERPOINT® TO FLASH® TOOLS

After adding images and audio to your PowerPoint® presentation, the file size will likely exceed 3 to 5 megabytes. As the file size grows larger dissemination becomes increasingly difficult becomes increasingly difficult to disseminate your presentation. Furthermore, you must consider the version of PowerPoint® you are using to create the presentation and the version that your students are using to view the presentation. Enhancements such as transitions, hyperlinks, and animations may not be compatible with all versions of PowerPoint®. To overcome these challenges consider converting your PowerPoint® Presentation to Adobe® Flash® format. Adobe® Flash® is installed on 99% of computers in mature markets.² With this level of ubiquity, issues of accessibility, file size, and compatibility are minimized.

There are many tools available to convert your PowerPoint® presentation to Adobe® Flash® format. Articulate Presenter, OpenOffice.org Impress, and Zamzar are 3 viable options.

Articulate Presenter

Articulate Presenter is arguably the leading PowerPoint® to Adobe® Flash® conversion tool. Presenter installs directly into the PowerPoint® navigation ribbon and it is user friendly and intuitive. Presenter comes with several publishing options. Depending on your audience, you can publish your presentation for dissemination on the web, learning management system, email or CD-ROM. Presenter retains most animations, sound files, and effects after converting to Adobe® Flash® format; however, hyperlinks are lost in the conversion. Overall, Presenter is an excellent tool for converting PowerPoint® presentations to Adobe® Flash®. When compared to other comparable tools, Articulate Presenter is a bit pricey at \$799. A 30-day trial version of Articulate Presenter can be downloaded at www.articulate.com.

OpenOffice.org Impress

Impress is one of 6 programs included in the OpenOffice.org suite of programs. OpenOffice.org suite includes programs for presentations, word processing, spreadsheets, graphics and databases. Impress is OpenOffice.org's presentation software. Converting your PowerPoint® to Flash® using Impress is simple:

1. Open your PowerPoint® presentation in Impress
2. Select File > Export > Adobe® Flash® (SWF)
3. Click OK.

The only caveat for Impress is transitions and animation effects are lost when converting to Adobe® Flash® format. If animations are essential for your presentation, avoid using Impress. Download OpenOffice.org's Impress at www.openoffice.org.

Zamzar

Zamzar is an online file conversion tool. Over 100 file types are supported in Zamzar. To convert your PowerPoint® presentation to Flash® direct your browser to www.zamzar.com and follow the four easy steps outlined on the site.

Step 1 – select the file to convert

Step 2 – choose the file format to convert to (SWF)

Step 3 – enter email address to where you want the file delivered

Step 4 – click the convert button

Overall Zamzar is an excellent multi-purpose file conversion tool. Unfortunately, all animations will be lost when converting your presentation to Flash® using Zamzar.

In summary, Articulate Presenter, OpenOffice.org Impress, and Zamzar are three excellent tools for converting your PowerPoint® to Adobe® Flash® format. Articulate Presenter it is the best choice for a long-term solution for rapid elearning development, though its cost may be a barrier for some educators. On the other hand, Impress and Zamzar are great tools to use for exploring the possibilities of Adobe® Flash® formatted presentations.

REFERENCES

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2. Flash® Player penetration. Available at: http://www.Adobe®.com/products/player_census/Flashplayer/ Accessed August 10, 2011.