



# #08 Designing multimedia materials: for research communication or teaching

Research communication and teaching materials can be enhanced through the use of digital media: images, video, audio, animations, and apps. This briefing is designed to make using media in your materials easier by listing some of the tools and online resources that are available. Most of the tools in this list are free and – given some familiarity with using digital media as a consumer – easy to use. We can only cover a small number of tools available for working with media as there is a vast variety and new ones are emerging all the time. If you don't find a tool here that suits your specific needs, ask a colleague or do some research online. What you want very likely does exist.

We've broken down our list of tools available into two broad categories:

1. Working with media (image manipulation, film and audio editing, building presentations and e-resources)
2. Finding media (finding images, audio and video, for use in whole form, or freely available for editing).

## Working with media

Here, you will find a range of tools available for working with media of all types. This includes image editing, animation, screen capture, building online resources, presentations and working with audio and video.

### Working with images

<b>Microsoft Paint</b>	Comes standard with Microsoft Packages, simple to use, doesn't take up disk space, shouldn't give errors or slow down your computer like some more advanced tools.
<a href="#">iPiccy</a>	For basic image adjusting. If you do not have image software, this is a good tool for changing contrasts, brightness, colours, etc.. Allows you to edit an image online, no software download or registration required.
<a href="#">SplashUp</a>	Free online tool, allows you to edit images and perform advanced functions through the web browser.
<a href="#">Web Resizer</a>	Good for resizing images.
<a href="#">PhotoFiltre</a>	Free downloadable tool, similar to PhotoShop but not as advanced.
<a href="#">Pixlr</a>	Free, entirely online picture and photo editing, restricted palettes and fonts but worth exploring as a basic starting place.

### Animation

<a href="#">Brushes</a>	If you have an iPad this is a simple, straightforward tool <a href="#">YouTube guide to using this and other visual recording methods for the iPad</a>
<b>PowerPoint</b>	See the useful article in the Articulate Rapid E-Learning Blog <a href="#">PowerPoint Animations Made Easy</a>
<a href="#">DoInk</a>	Allows you to reuse images and animate them.
<a href="#">TouFee</a>	Not free – free trial available. Easy flash animations via drag-and-drop.
<b>Microsoft Paint</b>	YouTube video on <a href="#">making animations with Microsoft Paint and MovieMaker</a> .

## Editing film

There is other free film editing software available, however these two are often considered the best free tools. If you are serious about film editing, you may decide to invest in Final Cut Pro or Adobe Premier, and this should be done with some additional research.

<b>Windows Movie maker</b>	Comes standard with Microsoft packages, it's simple and easy to work with for film or for narrating a series of images, but does not do more advanced editing.
<b>iMovie</b>	As above, but allows for somewhat more advanced editing; comes standard with Mac.

## Recording/editing audio

<a href="#">Audacity</a>	Great free audio tool. If you are not trying to make professional music/audio, Audacity will do everything that you need.
<b>GarageBand</b>	Comes as standard with a Mac, can be used to record audio (requires setting up a new project and adding a 'voice only' track) though provides many features you will probably not need.

## Giving presentations

At some point in your research career you can be sure you will be asked to give a presentation. If you are teaching, you will probably use presentation materials to accompany lectures and quite possibly in other teaching contexts. How to get beyond the PowerPoint bulleted list?

<a href="#">Prezi</a>	Available entirely online or through a free download, Prezi allows you to make presentations in a non-linear format (unlike PowerPoint). Items (text, images, video) are placed on a 'canvas' and the presentation mode allows you to pan and zoom.
<a href="#">Animoto for Education</a>	Allows you to make video presentations using images, text, audio, and Animoto theme graphics.
<b>Windows Movie Maker/iMovie</b>	Should come standard, it's simple and easy to work with for film or for narrating a series of images.
<b>PowerPoint</b>	Widely derided for its use of bullet points and corporate styling, PowerPoint is in fact a surprisingly flexible tool allowing for a range of drawing and animation options and embedding of different media. Explore!
<a href="#">VoiceThread</a>	Allows you to upload several types of documents into one presentation, allows comments in several forms.
<a href="#">Little Bird Tales</a>	Guides the creation of online 'tales' to which voice, text, images can be added.

## Creating multimedia and interactive resources

<a href="#">Xerte Open Source Learning</a>	Free tool, designed for making interactive learning materials, from the University of Nottingham
<a href="#">Live Binders</a>	Free tool that lets you pull together related documents, graphics and information into one place
<a href="#">VoiceThread</a>	Allows you to upload several types of documents into one presentation, and allows audio (or other) commentary alongside. You can see some interesting examples of how Voice Threads are being used in the <a href="#">Voice Thread 4 Education Wiki</a>
<a href="#">Articulate</a>	If you have a budget, you may want to explore Articulate Studio and Articulate Storyline, as they allow you to build fairly sophisticated online resources. Both offer a 30 day free trial.
<a href="#">MERLOT content builder</a>	Basic web-based content builder associated with the (US-based) Merlot repository of shareable learning materials for higher education.
<a href="#">Hot potatoes</a>	Freeware specifically designed for teachers to create a range of interactive exercises for the web.
<a href="#">iTunesU course builder</a>	This is a proprietary Apple platform. Staff at universities with an iTunesU account can use the course builder to create and upload multimedia content e.g. podcasts.
<a href="#">Dreamweaver</a>	Proprietary, professional software suite for creating multimedia resources from scratch or from pre-designed elements
<a href="#">eXe</a>	Open source software developed in New Zealand specifically for academics: somewhat specialised and only really for self-starters

## Screen capture

Screen capture tools allow you to capture what happens on your screen and provide a voice over narration. This is very useful for many educational purposes e.g. showing students how to perform a certain function using specific software.

<a href="#">Screenr</a>	Very easy to use, with nothing to install, no downloads.
<a href="#">Jing</a>	Requires a free download, and then lives on your desktop.
<a href="#">Camtasia</a>	Screen recording with video and audio editing, allows the creation of interactive videos and more sophisticated end products

## Creating e-books

There are several options for creating e-books from simple text converters to advanced design systems, even incorporating interactivity. Some options include:

<a href="#">LuLu</a>	An e-book creator, Lulu's ease of use and good looking results are making it popular with teachers
<a href="#">ISSUU</a>	Online service with the emphasis on visual styles, allows choice of look to create magazine-style content for viewing online or on an iPad. Free version includes ads.
<a href="#">Adobe InDesign</a> (also <a href="#">Dreamweaver</a> )	Paid-for system but like other Adobe products comes as industry standard with the back-up of an expert online community.

## Hosting and sharing media files

All of the following are free but require an account to be opened: some have premium versions offering additional functionality at a cost. If you are producing presentations you are proud of, make sure you share them and that they can easily be identified with you.

<a href="#">DropBox</a>	Allows you to host online large data files, and share them with others. Unlike YouTube or Flickr, this is not also a public viewing platform.
<a href="#">Youtube</a>	Playlists and tagging are helpful for organizing film content.
<a href="#">Flickr</a>	For image sharing. You can create or join groups, host projects, add locations of images, and share all this publicly with others.
<a href="#">Vimeo</a>	Similar to YouTube but more widely used by serious film makers and makers of more serious video content, such as researchers and educators.
<a href="#">Scribd</a>	Online library for sharing e-books, articles, presentations, guides. Syncs with facebook. Allows you to share and view recommendations and see what others are reading, as well as uploading your own documents.
<a href="#">Slideshare</a>	Widely used by academics to showcase and share presentations, but can also be used to showcase files of all kinds.
<a href="#">Google Drive</a>	Formerly called Google Doc, this is a suite of cloud-based tools, produced by cut-down, online versions of popular authoring applications such as Word, PowerPoint and Excel. Documents can be private or shared.

## Finding Media

Here, you will find tools and resources which provide access to media you can use for research or teaching purposes, including media files you can edit and repurpose.

## Copyright and licencing

Some images, videos and audio files are freely available for reuse, but this does not apply to everything you can access online. If you want to reuse a media file you must look for a [Creative Commons licence](#). A by-nc-sa or licence allows you to repurpose (that is re-edit, or embed into new content) the original file, providing this is not for commercial gain. A by-sa licence allows general repurposing. However, you should always acknowledge the original user and include a similar CC licence with your own repurposed content. If content does not have an open licence you can usually link to it in its original location, or ask the originator for permission to use (for small scale use this is often given).

Licensing information is usually available alongside uploaded content, and you can search for openly licenced materials specifically (e.g. using an [Advanced Image Search](#) in Google or clicking 'more info' alongside files you find on other sites). Some good sources of openly licenced materials are referenced below.

### Finding images, audio and video for re-use

<a href="#">Flickr</a> - images	Photograph, music and video sharing sites, much of the content contributed by amateur users who <b>may</b> be happy to see it re-used.
<a href="#">YouTube</a> - video	
<a href="#">Vimeo</a> - video	Content may be licenced under creative commons (see above), <b>no licence does NOT mean that it is okay to use</b> . If in doubt contact the copyright holder or seek professional advice (see below).
<a href="#">Jamendo</a> - music	
<a href="#">Wikimedia Commons</a> - media	
<a href="#">iStock</a>	
	An affordable 'pay as you go' service for content.

### Finding educational resources for use and re-use

In addition to the regular, non-academic resources listed above, there are many sources of explicitly educational materials including videos, podcast lectures, learning resources, and complete learning modules or packages. There are also some more general collections that are specially available for educational use.

<a href="#">iTunesU</a>	Also available through the Apple iTunes platform directly, a service for universities and college to host educational materials free to end-users. Widely used by global leading institutions as well as local colleges, many institutions have their own channel.
<a href="#">YouTubeEdu</a>	Educational channel within YouTube that hosts videos with educational aims (note that this is mainly for schools or leisure learning)
<a href="#">TeacherTube</a>	Similar to YouTubeEdu
<a href="#">KhanAcademy</a>	Online academy offering 'instructional videos' in a wide range of topics with online tests. Generally US high school level courses, not repurposable.
<a href="#">JISC Collections</a>	Wide range of archives, collections, databases and repositories of material available under licence to UK HE, including images, newspapers, film, e-books, map data, sound recordings. Generally reusable, may not be repurposable.
<a href="#">JORUM</a>	National repository of open educational resources shared by teachers and educational designers in the UK HE and FE communities. Reusable and repurposable.
<a href="#">TED talks</a>	Inspirational and expert speakers talking about what they know. Not repurposable.
<a href="#">British Pathe</a>	Register as an educational user to download and reuse clips from this vast film and news archive for free.

### Additional information

This briefing paper is not a substitute for taking advice from a professional. Many universities have media services that can support you in finding and working with digital media for your research, teaching or studies.

As a researcher you should be aware of your responsibilities with respect to, amongst other things, IPR, research ethics, information security, data protection and mobile computing. If you need advice please see the Plymouth University [Research Degrees Handbook](#) and ask your research supervisor for guidance.

Plymouth University students can obtain guidance on Copyright issues from [Graham Titley](#) and for advice on media packages please contact [TEL@plymouth.ac.uk](mailto:TEL@plymouth.ac.uk)