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Medical Education @ Cardiff

Create a free online educational resource

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As you may be aware, a great deal of educational material is freely available on the Internet. As with choosing a single course textbook, or any other learning resource, it can be difficult to find an exact match for your requirements.

Ideally you would want to include material from a selection of sources, but the spectre of writing your own textbook stops you in your tracks because the topic is too narrow or the time too short to justify that level of effort. Alternatively you might consider developing a Web-based resource, this can be as 'low or high tech' as you can cope with, e.g. just a few lines of text, or something much more ambitious. The medium has huge potential for adaptation according to your own requirements and your developing skills and ideas.

You may have provided materials online for learners through an institutional online platform (e.g. Blackboard, Moodle, etc.). However, these prevent sharing with someone who is not signed up for the particular module. For example, you may wish to share the information with colleagues, patients or carers but copyright or the need for a login bars access. Even the prospect of having yet another password to manage can be off-putting for your potential audience. Using very simple online tools you can bring together the best evidence-based sources for students, colleagues, patients, or anyone who needs to know, and that could include an international audience. This kind of activity is known as 'digital curation', it is the online equivalent of designing an exhibition or showcase of artwork, as you might find in a gallery or museum.

According to Sandars and Schroter (2007), there is high familiarity and interest in using these kinds of online tools for medical education, although they argue that training is required before practitioners will begin to take advantage of them. However, many have already found that a sound rationale is motivation enough to start exploring online tools that, in any case, require only very basic technical skills, skills which you already possess. Among a host of competing options available to us, we will go on to briefly consider how you can readily:

- ▶ Share an annotated collection of links to notable online resources
- ▶ Create an informational site featuring your own words and a collection of links.

Share a collection of links

Instead of 're-inventing the wheel', there may already be a perfectly acceptable resource for your purpose. In fact, there may be a selection of these which would be useful for anyone hoping to understanding the topic in question. To point your audience to these with minimal fuss, collect them together as a group of links using a free online tool such as 'Delicious'.

'Delicious' allows you to store links for future reference, but also to organise them under the same name or 'keyword'. This is called 'tagging'. Consistently using the same tag for each related resource will automatically create a list of important resources with its own unique Web address, an address that will not change even if you add more resources to it in future using the same keyword. You can then share the unique Web address of this list with others. Web addresses are often rather long and must be exactly correct or they will not locate the desired information. To reduce the risk of this problem occurring, while it is a step on in terms of complexity, another online service called 'Bitly' is worth mentioning. 'Bitly' does the same as 'Delicious', i.e. collecting resources into 'bundles', but also allows you to dramatically shorten and even customise a Web address. Thus <http://bitly.com/bundles/amoebaswarm/1> becomes bit.ly/NetworkedLearning - Beware of capital letters though as Web addresses are case sensitive after the first forward slash! Bitly also automatically generates a QR code Fig. 1 for your bundle of links. Show this code to smart-phone users and they can scan and follow the link without risking any typing errors. Both 'Delicious' and 'Bitly' allow you to annotate the links you store, so you can inform your audience of the relevance of each one. 'Delicious' and 'Bitly' entitle the link automatically but you should consider editing this, often obscure string of words before saving it: 'JSTOR: An Error Occurred Setting Your User Cookie' will not mean much to anyone! If you need more flexibility than a mere list of annotated links, you could choose to create a simple informational Web site.



Creating an informational Web site

Blogs (short for 'Web log') are simply informational sites which organise content chronologically with the newest items read first; entries can be collected by 'tagging' (see above). With most Blogging platforms you can organise your material into pages where content stays put, rather than being replaced by newer entries. One of the simplest platforms is 'Blogger.com' which is maintained by Google. You may already have a Google email address so using Blogger would cut down the number of extra passwords to remember! Arguably, the best alternative to Blogger is 'Wordpress.com' which is also completely free although slightly more complex. However, with greater complexity comes greater flexibility and technical potential, but either platform will allow you to publish without displaying unwanted advertising. The first step is to get an account with your chosen platform provider then you are literally a few clicks away from creating a Blog and being able to publish text or hyperlinks to important resources. If you intend to upload documents to the Blog, it is better to provide PDF versions as this protects your formatting. MS Office has featured the ability to 'Save As' PDF for a number of years, or use www.pdfforge.org to create PDF files from any application.

Perhaps you want to include more than mere 'knowledge transmission' for your learner and another key feature of Blogs is their 'social' aspect. This means, for example, that your site can accept messages from its readers; enabling learners to check for understanding, provide feedback or even start conversations among themselves. As the site owner you will be managing the activity and so can choose how to respond. New Blogs come with commenting already enabled so you need to determine whether or not you want to invite comment before you begin. If you allow comments, check that they can only be left by those people who have signed-in beforehand otherwise your site will be a target for large numbers of automated unsolicited 'spam' messages. Blogs also include various methods of alerting or subscription that are well worth exploring as they can save you and your readers from constantly having to check for changes to the site.

FOAM≠froth

It may be that someone has already set up exactly the kind of resource you had in mind and it is well worth spending some time searching for FOAM (Free Open Access Medication). FOAM is an active and recent movement around which open medical education resources can coalesce. For example, a group of Australian general practitioners have set up <http://foam4gp.com> using exactly the kind of simple Blogging platform mentioned already. There are also a host of more sophisticated resources, such as Dr James P Howard's online database of published research <http://cardiologytrials.org/> Setting up this kind of site represents a significant step up in complexity over starting a Blog, but adding to and managing the information is very straightforward thereafter. There is a debate to be had about whether online resources like this are contributing to a global downgrade in the modern practitioner's working knowledge and it is certainly worthwhile thinking about the intentions behind any online resource, your own included, but it is hard to anticipate all the possible unintended outcomes.

Minimising the risks of publishing in this way.

So, what are some of the risks?

Risk of losing everything to the hackers. You will need a strategy for keeping a copy of your work in a way that can be quickly used to restore service in the unlikely event of everything being erased. For example, the most popular Blogging platforms (e.g. 'Wordpress', 'Blogger' and 'Typepad') have options for downloading a copy of your Blog that can be used to switch between platforms. You should try this out for yourself at least once.

Risk of being sued. While nothing is guaranteed to secure complete protection from litigation, a disclaimer can at least give the impression that you would not go down without a fight. For suggested text to use, learn from those who have gone before, such as Steve Carrol of 'embasic.org'

Risk of plagiarism. Everything is subject to copyright, including online content. In recent years, the open publishing movement known as 'Creative Commons' has led to the development of new copyright licencing practices. It is possible to publish content and make clear your wishes in this regard by assigning limited rights to your readers (Fig. 2)



Further Information and Reference

Tyler Moore's youtube video 'How to make a Wordpress Website' http://youtu.be/8Jv47_VIBOQ

JISC Digital Media's Website provides a wealth of well-organised well-informed advice on how to find, create and manage digital media.

Sanders J and Schroter S (2007) *Web 2.0 technologies for undergraduate and postgraduate medical education: an online survey.* Postgraduate Medical Journal. 83 (986), 759-762.

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