# QR codes in teaching and learning...
# a bridge between reality and virtuality

**Chris Smith, a digital nomad evangelist, has been working mainly with international school teachers in S.E. Asia for more than 25 years. He's well known by many teachers worldwide for the 'Shambles' website, www.shambles.net, which he founded in 2002 and now manages. Chris Smith has presented two series of hands-on Web 2.0 workshops in Australia in 2010 and 2011. Syba Signs is delighted to announce Chris will be returning to Australia in for a one day seminar and a half day Web 2.0 Bootcamp session in May 2012.**

QR codes (quick response codes) are similar to bar codes. Bar codes use only one dimension (vertical stripes on one horizontal axis) whereas QR codes have a two-dimensional matrix (both vertical and horizontal axes) with equal length. They can be scanned and decoded to reveal several forms of digital data - the main interest for use is with students probably being text and urls/web addresses.

Invented in Japan in 1994 by a subsidiary of Toyota in order to keep track of car number plate production, they are faster to scan than old traditional bar codes, they can hold more information and have a higher success rate when scanned even if damaged. An aspect of importance for schools is they are free to use - no licence is needed.

One reason they have now surfaced as a tool is the growth of mobile devices students own; smart phones and tablets/iPads all with a plethora of free apps that will scan and decode. To be able to read QR codes you need to download one of these apps onto your mobile device. I suggest using 'Scanner' - my favourite, but there are many more options.

**How might they be used in schools?**

On printed materials that are sent to parents which, when scanned, sends the parent to a specific place on the school website. I love the school that also 'thought big' with this giant one in the open.



One of my early experiences is of a biology lab where the life-s skeleton was covered in small paper QR codes which, when scanned with iphones or iPads, took you to websites with more information about the particular bones.
Some being text and picture websites, others that were webpages with video or audio files.

**What else?**
- take a class to an online poll
- link to instructions for operating A-V equip
- send students to an online quiz
- link to the schools VLE
- add to downloaded resources taking students to the cited so
- on sheet music take students to an audio performance [done by students]
- codes on language worksheets take students to a audio version [listening skills]
- post in science labs to videos of experiments missed or dangerous
- and so much more.

Library staff have particularly warmed to these new options, QR codes may be printed out and attached to books which, when scanned, take you to the author's website or perhaps more importantly to a website where students themselves have been writing book reports about that very book. I really like the PowerPoint **http://slidesha.re/nhnzjW** and even without the original audio you'll come away with lots of ideas including cup cakes with QR codes.

As with the use of all technology there is a health warning to all us educators to keep the workloads manageable and effective. The most effective learning is when students produce and use materials themselves … let them design and produce the scavenger hunt; but you know this already.

**How do you make your own QR codes so that when they are scanned they effortlessly take the reader off to, for example, the school website?**

I'm going to suggest using Google, they do everything else so you'll not be surprised that they have a facility to generate QR codes. In practice what Google first does is to change your school url to a shortened one and then auto generates the little square code. One of the advantages of using this option is that Google also collects statistics whenever anyone scans the code you generated so you know how many times it has been accessed. To create a QR code with Google go to the URL shortener **www.goo.gl**

To lead you through this process I've made a video so you can learn in your own time, which lives at **http://youtu.be/iRrhbsZ9BS8**. If you've already downloaded a QR reader onto your own mobile device, firstly congratulations, because you should now be taken to the correct place on the web if you scan this code.

**Extend learning opportunities with QR Codes**

To continue your own learning journey with QR codes citing many examples of how they may be used in your classroom, library or school consider visiting **http://www.shambles.net/pages/learning/ict/qrcode/** or, you've guessed already, scan this code with your iDevice to be sent on your journey without having to touch a keyboard.

… if you would like to contact me then scan one of my namecards.



**Chris is coming to Australia in March 2012 to present a series of one day seminars and bootcamp / master class sessions.**