

## Moodling while Mobile: an interview with Leo Gaggl

Interviewer: Jo Murray

**Jo:** *Welcome to the Knowledge Tree Everyone. Today we are speaking with Leo Gaggl, Director of Bright Cookie Online Education Solutions based in South Australia. Bright Cookie provides professional Moodle hosting services to numerous government and private organisations around Australia with dedicated Moodle servers based in Melbourne. So, welcome Leo.*

*Tell us a bit about Bright Cookie and how you got into hosting open source Learning Management Systems (LMS) in the first place?*

**Leo:** Right, it was a long process –I mean I have been working with education in one sense or another ever since I started in IT in Australia. More initially on web-based applications but it was really a combination with Richard. Richard was lecturing at TAFE and starting to look into Learning Management Systems (LMS) and was working with WebCT at that stage. So I had some exposure to WebCT from some other projects and then we ah...if you ask me now, who and how we found Moodle I actually couldn't tell you off the top of my head. We were looking at it for a specific project and it did its job extremely well and we have...since then, we have never looked back really in that sense.

**Jo:** *Sounds pretty lucky, so that's Richard Wallace that you are talking about isn't it?*

**Leo:** Yes, yes.

**Jo:** *OK, so you are doing some research at the moment I understand? Can you tell us a bit about that?*

**Leo:** Research yes, it terms of integrating Flash more tightly with Moodle. Flash games in particular... into Moodle including assessment and tracking and all the other Moodle facilities, but using Flash as the interface, which was actually developed by a US company– yeah a more games-based interface –a richer interface that you can actually do currently with Moodle, so that's one of the research projects we are doing. The other two are more in the mobile handset for m-learning basically.

**Jo:** *So, before we get on to that, Leo what implications does this Flash interface or gaming interface have for open source and broader learning management system usage over and above Moodle?*

**Leo:** The e-gaming or Flash games in education are a bit of a rage at the moment, Richard has recently attended a conference in that regard. We're working with a couple of partner companies, but none of the companies that we are aware of have actually successfully integrated it with a learning management system. So, while you have got a nice interface –a 'Flashy' games-based interface, you can't use any of the assessment functionalities or tracking functionalities that you normally would get within an LMS. So, the reason why we are choosing Moodle initially –and Moodle is not going to be the only one we are going to integrate these games into...but for us ...because it's open source...it makes things a lot easier in terms of the integration process and obviously we have in terms of hosting and terms of existing installation a user base there that we want to serve first. So that's the reason for integrating it very tightly into Moodle. We also will have a SCORM-based interface for other learning management systems that do support the SCORM standard –but that is going to be the second stage. Just to give you an idea of the timeline, I'm planning to have the first game ready to be shown by the end of September – I'm actually flying over to Europe to a conference at that stage, so I actually want to have one all ready to show there.

**Jo:** *So, how can we find out more about your research?*

**Leo:** We will be definitely communicating that from our web site. Probably, we are anticipating a release of the games generator, with the integration obviously, towards the end of this year towards the end of December.

**Jo:** *Oh great! We'll make sure the link through to your website is on The Knowledge Tree so that people can follow that up.*

**Leo:** The games that we have in there at the moment are already in existence and have been used extensively in the US –some of them here. But as I said the integration into a LMS hasn't been done. An extension to that –and that leads us probably to the mobile side of things again, will be a mobile version of those games. Obviously that can't be, for user interface reasons, as tightly integrated into the Moodle interface as the others, but it will give students the ability to take a learning object or a game as such, onto their mobile phone or PDA. I probably tend to go more towards a mobile phone –I'm not a particular friend of PDAs in education because these things are just too expensive. I mean I'm a PDA user myself, but I realise that it's not exactly a device that the average student will be able to afford or usually use.

**Jo:** *But they would have a mobile phone you reckon?*

**Leo:** That's correct. Yes and a lot of the mobile phones these days, not just the smart phones, are able to support Flash – in one sense or another.

**Jo:** *Right. OK. So getting onto the Mobile Learning Project that you're also involved in working on. Tell us exactly what that's about.*

**Leo:** It's actually two. One is a mobile version of those games which means that you can load Flash (basically) a movie onto a mobile phone. One test version that we've got at the moment is for Sydney Olympic Park where they are going to test that for students. They go out to monitor pond temperatures, what type of insects they find. You don't want to use these interfaces on a mobile phone for large volume data entry...or you can't use it for large volume data entry ...it's just too clumsy.

**Jo:** *Yes*

**Leo:** But games are usually reaction based – you know there's a tick-box and according to this, you do something else or you click on something and you choose a path through some game or assessment Flash-based assessment tool. So, it's really more a click interface and low-volume data entry, so it's quite easy to enter temperatures or the number of a certain insect that you've seen on your trip or things like that. Once you're ready to save the input, the input would then be saved back into the data base –and in that case it's a Moodle data base.

**Jo:** *So, how does that happen – that happens wirelessly does it?*

**Leo:** Wireless..the phones that support Flash are all GPRS compliant – you probably can't get a phone these days that is not GPRS compliant.

**Jo:** *Yeah, so how does that enable you to save it into Moodle? Is that what you are saying?*

**Leo:** If the phone has GPRS on it and the user has set it up correctly, you basically are able to connect to the Internet.

**Jo:** *Oh, I see what you mean –OK yep.*

**Leo:** So, Flash will just use a http reference or web service on the Moodle web server to save the data back.

**Jo:** *OK.*

**Leo:** So I mean we have two Flash movies that are doing that at the moment.

**Jo:** *So what do you think the implications are for educational providers in that then?*

**Leo:** **Yeah I mean** I never saw mobile learning to sort of replace existing learning structures – and bear in mind, this is not an educational speaking –I’m a technical propeller head that’s worked a lot in education. I’m probably not the best person to ask educational questions. My view on this is that it is never going to replace existing e-learning technologies but I think it can provide some very good additions to existing Toolboxes, content, wherever you want to have students roaming around being mobile, out and about –which is usually is not tasks where they do a lot of writing or content entry anyway, I think that it could be quite a valuable addition to the...to the learning process.

**Jo:** *So field work and that sort of thing?*

**Leo:** Field work, low-volume data entry, anything that’s location-based –it’s getting a bit of a trickier area there (location-based) at the moment (it) is reasonably expensive because you still need GPRS or GPS navigation devices which are not really on the low price spectrum and not currently in high volume phones, although that will be changing very soon.

**Jo:** *Ok. So that’s two of your projects –and was there something else you were talking about –a different sort of mobile learning project?*

**Leo:** Year, the one we had a discussion about last time we met in Melbourne I think, that’s the 2D Label project. Which is at the moment I’ve got it on ice –just not enough time in a day to work on all of those and really in the end, being a small organisation, we have to sort of work where we find the projects, and in that area we haven’t found anybody to.....willing to sponsor something like that.

**Jo:** *So tell us a bit about the idea behind it.*

**Leo:** The idea behind it –it’s really At the moment, RFID seems to be the rage in Australia in terms of location-based services yeah... in the m-learning sector when you look at the EdNA forums and things like that. I’ve been working with RFI –research in that area for quite a while –over four years now and by background –I’m actually an agricultural engineer and that technology is actually quite old hat. Livestock identification systems have been using RFID for I don’t know, quite a while –probably fifteen/twenty years.

**Jo:** *So what is 2D then?*

**Leo:** The problem with RFID is you need very sophisticated equipment which is not currently available on mobile phones. And even with PDAs, it’s a reasonably expensive add-on. So you need reader technology that is a. expensive, b. clumsy and c. it’s an add-on so you won’t have it integrated in an existing device. The 2D technology is pretty similar, instead of having to read a tag, that in the case of a RFID tag, you’re reading wirelessly, you’d be reading it via the phone camera.

**Jo:** *Oh I see yeah...*

**Leo:** So, any camera phone, or most camera phones –let's put it that way, will be able to use it. You basically take a photo that's two-dimensional (I can send you a photo of one of these 2D labels) and these labels can be printed with a normal laser printer or ink jet printer and laminated and stuck somewhere. So for a few cents, you can actually produce these labels yourself. So, a) the labels are a lot more... a lot less expensive than the RFID labels and b) the reader technology is readily available in the form of a camera phone.

**Jo:** *So in an educational context, how would that work?*

**Leo:** In an educational context...for example in a...we've been looking at it as an idea in a workshop scenario, where there is... engineering at TAFE for example, they've got a lot of ...a number of machines and workshops. At the moment, people would have to find out what that machine is and then read the instructions. What you could do with a technology like that is that a student uses one of those phones, takes a photo of the 2D label on the device and the device retrieves the information as part of a learning object. So it would tell you safety concerns – Step one, you have to do this with this machine, Step two, is that...

**Jo:** *OK, I get the picture.*

**Leo:** that's one example.... a second example is a... God what are they called ....an arboretum ..the tree....where you can fix these labels on a tree, then people can roam around in the garden/forest (whatever it is) , botanical garden, take a photo of that 2D label and it will retrieve (the information) –actually I have that working already with some Eucalyptus variety as an example.

**Jo:** *Sounds fantastic!*

**Leo:** So that's sort of the educational impact of that technology and I'm quite surprised that it hasn't been taken up quicker than that.

**Jo:** *Oh well, let's hope that someone listens to this interview and comes and phones you straight away Leo! That would be good wouldn't it?(laughs)*

**Leo:** Yeah that 'd be good....I certainly wouldn't say no to that. We spend a lot of time on these things and you can see the advantages, but as I said, as a small organisation –you have to be realistic and put your priorities sort of where the projects are...and unfortunately in that regards we haven't really found any body yet.

**Jo:** *OK, well nevertheless, we'll keep an eye out for updates on your conference presentation from your Bright Cookie website and thanks very much for speaking with The Knowledge Tree.*

**Leo:** That's alright. No worries.

## Useful Links

Bright Cookie <http://www.brightcookie.com>

Benefits of 2D labels <http://www.cellular-news.com/story/18974.php>

RFID tags

<http://www.flexilis.com/epassport.html>

<http://www.rfidwasher.com/>