Footy Hero writes Children’s Book

Phil Wait. From Ham Radio to MakerSpace

Monkey’s Undies in Lockhart
At the start of a new school year, we are thinking, planning and getting new displays going in our libraries. Perhaps your library or school is compromised with new building projects.

Exciting... but too early to write conclusively about our new projects; so our feature article is a ‘think tank’ edition of collected plans from three Teacher Librarians and their guests.


We have invited Cathie Howe to give an expert overlay from inside the Macquarie ICT Innovations Centre (MacICT), and Phil Wait, President of the WIA, and keen advocate for the MakerSpace movement for an ‘outside’ view.

After attending recent SLANSW Maker workshops, and continuing our conversations, three Teacher Librarians share their thinking plans here for 2014.

Different schools, different student groups and different ideas, with a school library in common. Watch their spaces as the year unfolds.

Other articles in this edition encourage us to look at more start of the year planning.

Lyn Hay challenges our plans for professional learning opportunities in 2014.

The new Syba Academy has designed personalised, relevant and challenging programs in line with current thinking on PD.

We invited Carmen Eastman and Angus Cook from OCLC/WorldShare to illustrate one way to streamline our library services.

It suggests a plan for a future library where flipping the library to join our classroom colleagues becomes more possible, with new methods of arranging digital resources and enables an easier curation of our library resources.

How could a flipped library be different to a flipped classroom/blended learning environment? What’s missing? What’s needed? What advantages do we have?

We welcome a fun author duo in Dave Hartley and Scott Prince as they launch the first in their new book series, “Deadly D and Justice Jones”, and there’s a competition offer to win a copy of the book and a signed jersey for your school.

The Deputy Principal and the Footy player promoting reading for young readers.

But there is more! Introducing Lockhart Central School library as our regional featured school, following a visit to the school by the Media team. Big thanks to Ruth Ernest, Principal for allowing us to share your day.

The events and reports from around the state and Sydney itself... and a reflection from the past to remind us we are indeed 50 this year!

Thank you for the offers to write for future editions of the magazine. We always welcome your ideas for articles, areas of interest, suggestions and good ideas!

Deadline date for written submissions is Friday, 23 May.

Are you a Regional school with something to share with us? We would love to spend a day in your library! Please contact the Media Team here:

info@slansw.asn.au

Hope there’s something here to get your creative juices going for 2014.

Happy reading!

Debbie Hunter
Students around the globe are participating, playing and performing in online communities and digital environments. They are interacting meaningfully with digital tools, expanding their thinking, contributing to a collective intelligence and navigating across multiple media platforms (Jenkins 2006).

As teachers, it is no longer enough for us just to cover the content students need to learn for today, we need to be teaching the skills they will need for the future. Therefore, learning needs to be meaningful.

That is, it should be active, authentic, intentional, cooperative and constructive (Jonassen et al 2008).

At the heart of this learning is ‘learning how to learn’ that is, how to become a proficient and independent lifelong learner.

Research indicates students learn more deeply and perform better on complex tasks if they have the opportunity to engage in more ‘authentic’ learning solving real world problems (Barron & Darling-Hammond 2008).

At Macquarie ICT Innovations Centre (MacICT), we purposely design workshops for K – 12 teachers and students based on inquiry learning.

Far from being “unstructured”, effective implementation of inquiry learning provides proper scaffolding, assessment, and redirection as projects unfold.

Participants may find themselves undertaking a range of activities from co-constructing knowledge in a cloud based document, creating digital elements for a range of purposes using different technologies, to designing and prototyping solutions to open ended engineering or design challenges.

Some of the instructional approaches to inquiry learning that MacICT may use in their workshops are project based learning, problem based learning and learning by design.

The current Maker Education movement is a wonderful example of learning that is meaningful. This provides an opportunity for students to engage in active learning involving technological skills that may incorporate computer science, engineering, electronics and robotics.

As students learn how to invent, design and create new technologies as they take part in projects that require sustained engagement and collaboration, they will learn more deeply.

In a MakerSpace, expertise is distributed and, on occasions, the lines between teachers and learners may become blurred.

Cathie Howe

MacICT is collaboration between the NSW Department of Education and Communities and Macquarie University. It provides a range of services to teachers and students across NSW involving 21st century learning that focusses on Curriculum, pedagogy and the innovative integration of technology into teaching and learning. Another major focus of MacICT is the research it conducts into realising the potential of existing and emerging ICT to transform teaching and learning.

http://macict.edu.au/
On 25 and 26 November 2013, Dr Sukovic, Isabel Holborow and I went to the Creativity and Academic Excellence Conference at Knox Grammar School, the host school of the event.

We listened to the first keynote speaker, Prof Yong Zhao who provided some of his views on the travelling of human society and education through time.

Prof Zhao mentioned an interesting point about students finding jobs today; that in order to keep unemployment down and creativity up in our world we need to have job creators, not job finders. By the time we students graduate there will be many new jobs available that we can’t even imagine now.

For our first lecture Bel and I chose a student workshop about the use of film in class. There we met Jack Applebee, a Knox student who ran us through his German class and the benefits of being presented with a project to create a German film. They ended up getting into the finals of a teen German film festival.

Afterwards we had our own presentation to do. Armed with our poster, we participated in the lecture by our very own Dr Sukovic. She spoke about the use of serious play and how incorporating play into our work is very important for people to be productive.

Isabel and I were given a task where we had to imagine a magazine that we were the editors of, similar to Wordly, our school literary magazine. We came up with an idea of a virtual editor cylinder, where we could move things on a screen with our hands. It’s a kinaesthetic approach to organising the magazine of our dreams.

We called the cylinder LINDA (Learning Interactive Network Digitally Available). The talk ended with an unexpected amount of enthusiasm and we met a lot of interesting people after our presentation. That was definitely one of the highlights.

After lunch we went to our final talk, which was about parabolas in science, maths and art.

The teacher holding the talk was Melissa Silk, who was very lovely and engaging. Participating students could turn their name into a parabola pattern. They could then use the template to create prints onto fabric and paper.

In the afternoon Bel and I participated in a Q&A in front of the entire collective of people that came for the conference. It was about what creativity actually is. Besides us on the panel there was Prof Yong Zhao, a boy in year 8 at Knox and the principal of Knox Grammar. There were many good points made about how creativity is unlimited and can be utilised by everyone. It was another highlight as it was a completely new and exciting experience.

The next day we listened to two other lectures by American keynote speakers, Alan November and Dr Lance Ford. They talked about making learning easier by incorporating computer technology into education. Alan November talked about websites like Club Academia where students create video lessons for other students.

He also mentioned how creativity is linked to forming questions and by asking interesting questions you are, in fact, making yourself more creative. Dr Lance Ford extended this by including the use of video communication across the world to broaden education horizons.

Afterwards we got involved in two more workshops. The first was an anime one where Kelly Chung talked about how you can incorporate anime into lessons and into HSC. Finally, Bel and I accidentally stumbled upon a strictly teacher workshop for English planning and though it was fun, we did feel like we were ruining some exclusive teacher code, with words like pedagogical and backwards design for lesson plans.

It was a wonderful time with so much to learn and see including a virtual storybook app on the iPad which really needs to be seen to be believed.

We had a lot of fun meeting incredible people and experiencing a snapshot of a teacher conference.

Maisie Watkins (Y9)
St. Vincent’s College, Potts Point
From Ham Radio...

Phil Wait established the VitalCall Medical Alarm business until its sale in 1999. He currently owns a medical alarm manufacturing business FirstCall Medical Alarms. Phil is President of The Wireless Institute of Australia and Chair of the Personal Emergency Response Services Association (PERSA), and advocates for Australia’s 16,000 Radio Amateurs. Despite his early aversion to sport, Phil has competed in many races on his yacht “Flying Turtle.”

Growing up in suburban Sydney in the 1950s and 60s with an engineering father, and a deep dislike for any type of organised sport, it wasn’t long before I turned my attention to pulling apart just about anything I could find. The local council tip was always fertile ground for old radios, and only an hour’s scooter ride away.

Progressing through the normal interests for kids of the day; various volatile chemicals and explosives (legally obtainable by youngsters at that time), I then started to build things. Fairly simple stuff at first, like a remote microphone to secretly listen into my parent’s conversations, and then to more complex contraptions like radio transmitters built from junk parts. Tracking my signals on the AM broadcast band around the neighbourhood was always fascinating, but it’s probably just as well for my parents that I never thought of connecting the secret microphone and the transmitter together.

Amateur radio was the natural place for kids like us, and the school I attended in the city had already established a radio club, (part of what was then called the Youth Radio Scheme, and organised by a notable radio amateur, Rex Black), with a dedicated area partitioned off in one of the science labs. That little area became fertile ground for a free-wheeling and unregulated bunch of experimenters, more of a social club for tech-heads to bounce ideas around.

Just around the corner from the school was Oxford Street, Sydney, now known for its cosmopolitan life style and rainbow culture, but in those days Oxford Street was the poor end of town and Army Disposal central, with three or four Disposal Stores selling surplus WW2 radio and radar equipment.

Some mates and I found ourselves working on Saturday mornings in the Waltham Trading army surplus store, and being paid, not in cash, but in whatever we could carry.

The local bus drivers grew quite used to having a row of seats taken up with large dusty boxes with a dazzling array of dials and knobs, but they were used to strange things on busses then. In those days school kids took their .303 Army Cadet rifles home from school ready to go on cadet camps, but we needed to show that the bolt was safely secreted in our school bag and not in the rifle.

Don’t be bored, make something

Gavin Hart on the Ham Radio in the late 1960s...
Obtaining an amateur radio licence required a considerable amount of study, (it’s much simpler now), and it took a careful eye on proceedings during HSC economics to ensure I wasn’t sprung studying the wrong text, but such a small detail of a federal licence, with a $5,000 fine for not having one, didn’t stop us building bigger and better radio transmitters from whatever parts we could scrounge.

It sounds a long way removed from our regulated life now, but mine was a common story of the time: people with an interest in electronics often became radio amateurs, and amateur radio had a strong national organisation which supported experimentation and home construction. Many of those geek kids would later have life-long careers in electronics and communications, as I have done.

In fact, scratch the surface of any electronics or communications organisation and you are sure to find a good number of people who started out in amateur radio, but in about the early 1980s everything seemed to change. With the introduction of personal computers, technically inclined kids became much more likely to spend their spare time on keyboards rather than actually building anything. Our schools became bound-up in process and rigid curriculums, and life became full. There was simply no time and no venue for geeks to just hang out together – and now we wonder why we have a critical shortage of engineers and technicians.

Just recently, in a kind of “back-to-the-future” way, and spurned by a new wave of low-cost computers, like the Raspberry Pi and Beaglebone, low-cost robotics components and 3-D printers, there is a new generation of experimenters and home-constructors emerging. Loosely called the “Makers”, these people would have entered amateur radio in days past, and some still do in order to communicate over long ranges with the contraptions they build, but now they have vastly expanded range of options and technologies to choose from. Today’s “Makers” might be geeks now but, just like the radio amateurs before them, they will be the ones that build our technology based industries of the future.

The United States Obama administration recognises this, and recently hosted a White House Science Fair, where according to a White House press release, “a young boy named Joey wowed the President by using homemade cannon to send a marshmallow flying across the State Dining Room. Joey then handed the President a business card reading, “Don’t be bored, make something”. The saying became a rallying cry for the President’s efforts to grow a generation of students who are “makers of things, not just consumers of things.”

The first-ever White House Maker Fair will be hosted later this year in order to help more students and entrepreneurs get involved in making things.

It would be good to see the same strong lead taken in Australia.
We need to stop thinking of the library as a place to ‘get stuff’ – and start thinking of it as a place to ‘make stuff.’” (Valenza, 2013)

I am relatively new to the Maker-Space movement.

After attending a few sessions of hands on activity with a Raspberry Pi, and reading from the experts about Maker Space concepts: Sylvia Martinez and Joyce Valenza to name a few, I now follow the blogs of my colleagues who are also making sense of how to fit this movement into a library environment. It is starting to make sense. I have a plan, at least, for 2014.

1. Find out what’s already available to students in your school. Target the ‘gap’ to create a MakerSpace opportunity in your library.

I find the new curriculum has placed a variety of digital media projects in a safe and supervised environment. It is starting to make sense. I have a plan, at least, for 2014.

2. Base decisions about the projects on what you already know about good library practice. A focus on developing the literacy skills required to create them. This applies also to digital literacy. They will be better able to develop an eye for bias, persuasion and relevance if they know about what’s involved in the process.

Student media creation needs to be a routine, integrated part of the curriculum. Students must be taught not only to read electronic media, but to create it. Respectfully and ethically.

In the school maker space environment, the community needs to be a coming together of academic standards, interests and sharing culture.

3. Widen your conversation beyond the classroom and teachers you know. Learn what questions you need to ask. Join a Hacker group! Share what you learn with others. I have planned to offer to the students some immersion and positive collaboration, and additional ongoing activities.

4. Roll up your sleeves and prepare to get hands dirty! Introducing The Lunchbox Club.

... a lunchtime weekly club to explore a variety of digital media projects in a safe and supervised environment.

Without a specific space for the club room, we will create ‘kits’ of activities for new projects, new experts to meet.

Free Webinars are easy to access via Brain Pop, Atomic Learning, ASLA...

We collaborate, talk to many teachers and students about learning and literacy - that includes digital and visual literacy. Perfect for a Maker Space experience.

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They are largely subject based: Robotics, Computer (programming) club, and The Shed for younger boys to name a few. How can the library get involved? Find your niche.

Libraries are cross curricular places. We collaborate, talk to many teachers and students about learning and literacy - that includes digital and visual literacy. Perfect for a Maker Space experience.

‘gap’ to create a MakerSpace opportunity in your library.

Where?
The Lunchbox Club Room
at your library

Lunchbox Club Room

What’s in your Lunchbox today?

Build it!
Explore it!
Learn about it!

Use it!
Create it!
Design it!

Find it!
Photograph it!
Film it!

Start the Term 1

Debbie Hunter

Here are my suggested activities for our Lunchbox Club

Find articles about MakerSpaces in Libraries here
For me this is just adding a new label to different events I had already been hosting as a part of my library program.

I am uniquely positioned to organise a MakerSpace in my library as I have a passion for technology and a love of creating.

I started my campaign for a Maker Space in the first week of this term. I created an interactive display.

Students and teachers over the past four weeks have been learning how to turn on a little light using a Raspberry Pi. This activity is a crowd pleaser and sparks interest in how the Raspberry Pi works.

Two teachers have committed to helping me with a Maker Club and 20 students have put their names on a list the students are in year 10-12.

Once these students have the skills needed to run the club on their own I see my role to change to facilitator and we will advertise for more students.

The club will start in Week 6 as I need to purchase Raspberry Pis. The rest of this term I will spend teaching the student basic programming concepts.

Term 2 we are going to incorporate an existing project into the Maker Space Club. This program is focused on building relations with the local primary schools. The students use lego robotics. We will develop this program to have a second stage of student in the school. We will advertise for more students as our Year 12s will be on HSC exams.

During this term I will be a facilitator and hope to bring in experts to teach the student skills that myself and the other tow teacher don’t have.

Michelle Jensen

MakerSpaces has been an ongoing theme in my professional development in the last year. The first taster was at the IASL Conference in Bali where I was introduced to the idea of Makerspaces in libraries.

I knew about the Makerspace movement but hadn’t really thought about it in the school library context. If you want to know more about the movement there is a general introduction at http://makerspace.com/.

The idea is to allow opportunities for students to “create” outside the bounds of the regular classroom pressures to deliver. In some ways it harks back to the notion of apprenticeship and experts teaching the inexpert. For me it is an opportunity for our students to relax and create in their lunchtime.

The other workshop that I attended was about MakerSpaces but also about coding and using the MakerSpaces idea to develop coding skills using tools like Raspberry Pis.

What I gained from this and the project that I hope to carry out can be found on my blog at http://librarian-sarego.blogspot.com.au/2013/12/makerspaces-coding-raspberry-pi-and.html

It was clear that the conductors of this hands-on workshop believed, as others do, that students having no concept of coding, and the behind the scenes workings of technology, will not be able to fully participate in future societies.

Already IT companies find it difficult to source staff with the right background and dispositions.

So to this end, here at Kambala we will be having MakerSpaces at lunchtime. Since we don’t have a space that we can dedicate to MakerSpace we will be having a “MakerSpace on wheels”.

Trolley laden with craft bits and bobs, Raspberry Pis and other tech bits to cobble together. We will also have a staff member that is Raspberry Pi proficient on hand to help with questions and to run mini masterclasses.

Stacey Taylor