

Number 64:
Spring Term 2011

Information and Communications Technology

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EDITORIAL

This term sees a new editorial crew for the ICT Broadsheet. My thanks go to Adrian Taylor (Head of ICT at Hordle Walhampton) and Ed Jones (Head of ICT at Tockington Manor) who have both come up trumps for this edition.

I would like this broadsheet to not only be a forum for passing on information but also a melting pot for ideas and innovative thinking.

I am sure that you will find the following articles interesting, informative and thought invoking. Nationally, the spending on ICT is potentially less than in previous years. Is this the recession or are there other factors? Are schools ICT'd out with regard to equipment and software or have resources actually become more cost effective? Do schools invest in ICT for employment across the curriculum or are they focussing on specific areas and specific uses?

There is a lot of knowledge and experience out there, all contributions are always welcome, please send us **your** articles.

Readers should note that the views contained in this Broadsheet are not necessarily endorsed by the Society. Replies, reactions and reviews will be warmly welcomed. Material for Broadsheet No 56 Autumn Term 2008 should be sent to the editor at the address above, to arrive by 1st September 2008.

ICT Solutions To Save Your Prep School Money Part 1: Changing to a free MIS!

Prep schools, especially small ones, are always looking for ways to save money. Many schools of our type are on a tight budget and financial managers or bursars are quite open to suggestions for ways they can save money or eliminate excess costs.

As Head of ICT in a Prep school you may be in a position to find cheaper solutions or alternatives to current systems, software and hardware used in the school.

Having taken over the Head of ICT post in my current school in September, I decided to look into areas where the school could save money by implementing new software or technologies, which have only recently become available, but are cheaper than existing ones. My findings prompted me to write this series of articles.

The first area I looked at was that of our Management Information System (MIS). A MIS is traditionally installed on your own servers with initial upfront costs, followed by maintenance costs and, sometimes, upgrade costs on top. Having worked with the one installed at Tockington Manor for a year, I did not find it to be very user-friendly, it didn't do everything we wanted and it cost us a lot per year. This led me to look into cheaper alternatives.

Having waded through masses of information about Management Information Systems, only to find them all very similar, I looked into online solutions. There were plenty of these in the USA and the costs involved were a lot lower than a typical MIS, but I could not find any in the UK. Just when I thought all hope was lost I suddenly came across ScholarPack - a UK-based, free, online MIS solution.

After much consultation with our admin staff, our bursar (who was delighted with the cost!) and the makers of ScholarPack, we made the decision to try it out at Tockington Manor.

We are currently at the stage where we have sent all of the information that the ScholarPack team needs to set up our database. We aim to run the ScholarPack system and our current system simultaneously over the next term, in order for our admin staff to get used to it and in the summer term switch over to just using ScholarPack, after providing full training to academic staff.

You are probably wanting to know more about ScholarPack and what it involves, but rather than describing it myself I asked the ScholarPack team to send me some information for inclusion in this article. This is what they have to say about ScholarPack:

Join the free revolution! ScholarPack is the complete web based management information system for schools.

Our aim is simple - to provide outstanding MIS software and first class support to schools whilst reducing the cost to them dramatically. In fact, we believe the expense of such software should be moved away from schools to those that can afford, and want, to pay. Our radical business model means we offer ScholarPack - our comprehensive and feature rich MIS - to schools completely free of charge, relieving them of the burden of costly proprietary systems like SIMS and Serco. This includes set-up, hosting, training, ongoing support and updates. How do we do it? Small advertisements on our parents portal guarantee that ScholarPack remains free for everyone to use. This approach can dramatically reduce pressure on your budget, freeing up finance to spend on the more important aspects of education.

ScholarPack will replace existing systems with everything you need. This includes accounts, fees, billing, admissions, registration, assessment, reporting, behaviour and a host of other indispensable features for your school and your parents - who have their own real time access to their children's data via our parents portal. ScholarPack is everything you would expect in a modern MIS at a price you wouldn't, delivered using high grade encryption technology to give you total peace of mind about the security of your data.

Visit ScholarPack.com to see our live demo. Please feel free to contact us for more information, details also on our website.

Through discussion with the members of the admin staff at Tockington Manor, it became clear that the key benefits to *us* of implementing ScholarPack were:

- Being an online solution means its features are accessible to staff from any computer with internet access – no more licenses per PC, reports can be completed from home etc.
- The ScholarPack team can tailor it to meet our individual needs
- It provides all of the features we use in our current MIS
- It can give us a lot more than our current system can as the whole system is free – our current system charges extra for modules to give extra features
- A separate server at the school and maintenance involved is not required
- It provides a parents' portal for parents to view children's progress
- There are no costs involved which will mean we will save several thousand pounds each year by dropping our current MIS and its associated costs.

It is always a difficult decision for a school to change vital systems such as MIS, but if a system like ScholarPack can get everything right for your school and provide the facilities you need, it could save a great deal of money. My first thought when I read up on what ScholarPack was providing was "If they get it right in Prep schools, these guys could clean up!"

I will report back on how the implementation of ScholarPack has gone at Tockington Manor in the next issue.

Ed Jones
Head of ICT
Tockington Manor School.

Variety Is Where You'll Get Your Kicks.....

I believe in the sanctity of marriage. In fact it's one of my deepest held convictions and I have been lucky enough to have been rewarded with a beautiful wife, two wonderful children and a forgetful terrier called 'Chester' as a result. I therefore consider constancy to be one of my defining characteristics, so you can imagine my surprise when I realised I've become about as faithful as Jude Law on a stag night.

We got together at University when I needed some help on my final year project and, after a brief flirtation with one or two others, we settled down together. Some people ploughed a different furrow, preferring the clean cut design of Mac OS or the anarchic freedom of Unix but I, like so many of the people around me, chose Windows. We were happy together: we grew up together. By the turn of the century our relationship was even earning me a living, sharing the joys of our togetherness with others and helping them also find true happiness. The years of 95, 98, ME, 2000, and XP passed as a dream with our bond as exclusive and unshakeable as ever. Until that fateful day a couple of years ago...

It all seemed so innocent: the headmaster had bought himself an iPhone and decided to return his iPod Touch to the school, who passed it on to me. "That's nice", thought I, "This will hold a few more tunes than my mp3 player, and I can play a few games on it". Little did I know where it would lead. One has to understand, it wasn't that I wanted to replace Windows, but iOS was just so *different*. I could move around the school and pick up my email, check my calendar and even log into the network with a device in my pocket. It felt liberating. It felt dangerous. It felt (ahem) sexy. And it didn't stop there.

Having discovered the joys of a little diversity, I wanted more. I started looking around, checking out the others, Googling their names and checking out their profiles to see what they were up to. I wanted to get to know Linux a little better, I was desperate to see where iPad would take things. I even cast lustful eyes over Android's application deployment.

I had put all this down to a harmless flirtation - a sowing of the wild oats one might say- until last week when I was approached to see if I'd be interested in a staff laptop purchase scheme and I said what I thought I'd never say: "How about a MacBook for me to do my music on?" The scales fell from my eyes and I realised what I had become.

Windows will always have a place by my side, even if the day comes when we are ships that pass in the night as I head online, but I am no longer bound by the notion that we must spend all of our time together. Sure, if I'm typing a document or desperate to run a local application then Windows is there for me, but for getting out into the world there is iOS; or for the sheer choice of hardware device I can turn to Android; not to mention all of the others. For every use there is the ideal hardware, and for every piece of hardware an appropriate operating system.

So I guess my message is this: for all you fellow monogamists out there, go and find that perfect person and spend your life with them; but when it comes to computer platforms, variety is where you'll get your kicks.

David Horton
IAPS ICT Subject Leader
Hordle Walhampton School

Up In The Clouds....Again.

In these days of restricted budgets, I'm sure you've carefully considered where your IT spending is going and have carefully reviewed your ICT strategy.

We recently had a visit from a prep school that was looking to completely revamp their ICT provision, having been in the very fortunate position to have a good pot of money to spend. They came to us with the question "Should we go PC or Mac?", and we recommended that they go and visit a few schools that use one or the other to get a good idea, then come and talk to us - giving me chance to spend ten minutes putting my scattered ideas on our own ICT "strategy" into something more structured that might help provide an (note, not THE, but an) answer to their question.

Before I tell you what that answer is, let me put it in context. My background is as a UNIX specialist; I worked for Sun Microsystems (as was) for nearly 10 years, specializing in complex problem solving and crash dump analysis; basically looking at lines and lines of assembler and hex output trying to work out why a computer had crashed. I worked on Solaris and Linux, and was also a big Mac fan (being a UNIX core underneath). I came to start using Windows seriously only a little over 3 years ago. I still feel a little dirty every time I click on the Start menu. Most people who know me would have expected, therefore, my answer to this burning question of Mac or PC to be a resolute "Mac!". David Horton, our Head of Science, an IAPS ICT Subject Leader and long term contributor to Bill Gates' salary would be expected to answer with a resounding "PC". But both of us answered "who cares?". Why? Because your desktop is an irrelevance. The only thing you need to care about these days is the speed of your internet connection and whether you can get to a web browser.

Traditionally, prep schools have spent their money on staff, desktop computers, operating systems, anti-virus and desktop software licenses, and maybe the odd server or two. And, of course, the cost of printing never decreases.

Once you commit to a platform, e.g. Windows, you tend to invest in a lot of costly desktop software that probably doesn't run or doesn't have transferable licenses to the "other" desktop platform. When I was asked to consider, 3 years ago, replacing all our PCs with Macs, I reckoned we'd need to spend roughly half the cost of the hardware again on replacing software. Yes, I could have run Windows apps under VirtualBox/VMWare/Parallels, but there seemed little benefit in getting Mac hardware just to cripple it by running non-Mac apps, plus we'd still have all the same Windows licensing costs. If I were asked to consider switching to Macs again, the costings would be very different. Our staff still have Microsoft Office installed on their machines, but the students no longer have access to Microsoft Office - reducing our outlay from nearly 200 licenses to about 50. Instead they are mostly using Google Docs, with a "backup" of OpenOffice where preferred. The vast majority of the applications we use regularly are either web-based or multi-platform and free.

Cloud computing is not new to any reader of this broadsheet, I'm sure, but it has expanded hugely in recent years. Most of the applications that we have relied on historically have been replaced by cloud based services.

The Google Apps Marketplace offers many free or educationally priced services. We are using the Aviary suite for audio and image editing, evaluating Mindmeister for mindmapping, and experimenting with both Gliffy and Creately for creating diagrams, etc.

2Simple, who have been a staple of our PrePrep desktops for years, have launched their own online service; Purple Mash, where your children can access over 300 activities (or apptivities as they call them) many of which are online versions of the desktop applications.

Below is a list of the applications that form the core of my ICT curriculum - some of these I'm trialling or experimenting with at the moment, but most are in use, successfully, from year 3 upwards. All of them are free or freemium (free basic package with paid upgrade if desired).

Skill/Function	Product	Cloud/Desktop/
Word Processing	Google Docs	Cloud
Spreadsheets	Google Docs	Cloud
Touch Typing	BBC Dancemat	Cloud
Image Editing	Google Docs + Aviary	Cloud
Video Editing	JayCut	Cloud
Mind mapping	Xmind	Cross Platform
E-mail	Google Docs	Cloud
Programming	Scratch & Hackety-Hack	Cross Platform
Desktop Publishing	Scribus	Cross Platform
	Glogster	Cloud
3d Drawing	Google Sketchup	Cross Platform (not Linux)
Audio Editing/Podcasting	Google Docs + Aviary	Cloud
Learning Platform	Moodle (& some edmodo)	Self-hosted Cloud

If I'm honest, the one weak area is desktop publishing. Scribus is functional but significantly more complicated than Publisher or Pages on the Mac; it's more akin to InDesign or Quark in terms of interface and intuitiveness. Glogster is a great tool, but it's very limited in terms of the range of publications available; it's basically a poster creator, and best as an interactive poster, rather than printed media.

Other open source applications that we use include Spiceworks for our helpdesk, asset register, network monitoring and keeping track of printer supplies; this is a free download that installs quickly and easily on any Windows system, integrates with Active Directory and is able to regularly scan all the devices on your desktop. It will flag up when toner is running out on printers, disk space is running low on machines, virus software out of date, it will inventory both your hardware and software, and is generally just great for a free bit of software.

FOG (fogproject.org) is another invaluable tool for Windows administrators; it is similar to Ghost in that it does remote imaging of machines. I have images for the various types of machine we have, and can

deploy them remotely (provided the PC supports network booting) in around 10 minutes per machine. It requires a Linux server to run, but it is well worth the effort.

Where is my ramble about all this wonderful cloud or opensource or free software going?

Platform independence. Actually, more than that - platform "I don't give a monkeys". This bit of scribble has been worked on on my wife's Windows PC, my iPad and my Linux laptop so far. I've not carried it around on a memory stick; I've just logged into Google Docs and got on with it. I really don't care what device or operating system I have in front of me, as long as it has an internet connection.

And that is the key. That's my where money's going for the foreseeable future - a reliable internet connection. Fast would be nice too, but to be honest, our 8Mb connection is more than adequate for our cloud computing needs.

A reliable internet connection enables me to stop spending all that money on storage and backup. To stop spending all that money on Microsoft Office licenses. To stop worrying about student mailboxes. To stop worrying about whether I've made the right choice of operating system. To stop worrying about how I'm going to manage and budget for the previously inevitable Windows 7 upgrade for 200 machines - why? because I can either leave XP on our machines or install Linux; the operating system is now irrelevant. The speed of the desktop machine is, to a certain extent, also irrelevant, providing it boots up and loads a web browser in a tolerable timeframe. Pretty much everything you need to do can be done, and done well, in a browser. How many different devices can you think of that have got a web browser in them? How far away is the nearest one to you, right now?

I admit, I've become a platform Jezebel, but you know what? It feels great. I now have options. Choice. Freedom.

Adrian Taylor
Head of ICT
Hordle Walhampton School

Supplying Industry With Computer Engineers:

Where Do We Start?

Open up an Apple iPhone or iPad and you will find them full of British technology. The main processor is from ARM plc in Cambridge. The Bluetooth chip is from CSR plc, also in Cambridge. The graphics is from Imagination Technologies in Kings Langley. Even the communications circuitry from Broadcom Corporation in the US, was designed in the UK.

Embedded engineering, that is computers and software that are embedded within devices such as mobile phones, is a British success story going back decades. As Simon Knowles, founder and CTO of Icera put it at last year's Future World Symposium (www.nmi.org.uk/events/nmi-international-conference-2010), "we based our engineering team in Bristol, not because we come from the UK, but because they are the only engineers in the world that can design our type of chip".

Britain is not just good at this, it is the best in the world. If it can be done anywhere, it can be done here.

So why is this relevant to those teaching children up to the age of 13?

The current leaders of this British expertise, the CTOs of these world leading companies, grew up with the BBC Microcomputer. In the early 1980s, a brash young IT Minister, Kenneth Baker, a ground breaking TV series and a high performing and modestly priced personal computer made technology fashionable both politically and socially. In 1983 there were more computers in the UK than in the USA, and teenage programmers gained national celebrity (and substantial fortunes) for their skills.

That wave of enthusiasm didn't come from nowhere. The BBC microcomputer drew on the skills of one of the first Computer Laboratories in the world in Cambridge, and their ground breaking research over the

previous three decades. It led to a generation of children who chose to study computer science and electronic engineering at University, who became today's global industry leaders.

But recently we have run into a problem. We've stopped producing graduate engineers in electronics, software engineering and computer science. Companies like ST Microelectronics, with its huge UK research base, have been warning of the problem for some years. It seems all the more surprising, given that according to the government, software engineers can expect to make the most from gaining a degree of any subject—nearly a quarter of a million pounds over a career on average.

Up until now, it has been possible to replace lost team members with experts from overseas, who are only too happy to come to the UK to work and gain expertise. But the new government's decision to freeze immigration last year stopped that, and the problem was thrown into sharp relief. In the absence of any British candidates for jobs, major companies were forced to move their teams overseas to keep working, jobs that were then lost forever. The new regulations have somewhat eased that problem, but the underlying issue remains. There are not enough UK graduates to hire.

Talking to industry and universities, it becomes clear that the problem is not primarily in higher education. True there are problems with some newer universities turning out IT graduates with skills that are of no use to the engineering community. But the problem is the lack of supply into university courses in the first place—even Cambridge University Computer Laboratory has had to advertise to encourage applications.

The problem is in schools. All too often the pressure to deliver exam results means students are steered into soft "IT" courses, rather than the more rigorous "computer science" GCSE. In fact for university courses, GCSE or 'A' level computing is far from necessary, but where schools have good students with maths and science qualifications, they are then rarely inspired to consider engineering as a degree subject.

Underlying this is the lack of trained engineers teaching in schools. A recent survey suggested that of 18,000 schools nationally, there were only 1,800 teachers who considered themselves qualified to teach IT. I have to confess that I have never met a school teacher with a degree in computing or electrical engineering.

The result is poorly taught courses, which inspire no one. The problem is long before GCSE, which is why those teaching under-13's are so important. I see it personally—my son frequently comes back with homework of a screenshot of Microsoft Powerpoint or similar, asking him to label what the various buttons do. Yet this is a child who, like many of his friends has been writing programs in scratch (scratch.mit.edu) for several years. 30 years ago, his age student would have been writing programs in BBC Basic.

It doesn't have to be so. The solution may not lie within formal lessons, but in inspiring after school clubs. In many schools near Cambridge, ARM engineers give up part of an afternoon each week to take MBED systems (mbed.org) into schools, to allow children to learn hands-on about modern electronics. Ten minutes to show children how to plug in the device to program it (using a standard PC), and then they are left to learn from themselves what they can do with the various displays, sensors and actuators, programming in C++. ST Microelectronics have their own equivalent board. None of this is expensive kit—the ST board is around £10, while the MBED board is around £40. A more packaged (and expensive) alternative is the Lego Mindstorms (mindstorms.lego.com/en-us/Default.aspx) robotics technology. Something that all children take to very quickly.

These approaches show that it is possible to inspire young children to take an interest in engineering. It also shows that industry needs to help create the next generation. We cannot just blame teachers who do not have the skills necessary, but industry can provide a way to supplement those skills. ARM shows how it can be done, and being a large corporation does so in a very planned and organized way. But this approach will work just as well with an informal relationship with a local computer or engineering company.

As well as running my own embedded software company, I spend two days each month working as the embedded systems champion for the Electronics, Sensors and Photonics Knowledge Transfer Network (ESP KTN).

The KTNs are funded by central government through the Technology Strategy Board, and are charged with improving the flow of knowledge between the academic and industrial worlds. We do not have a direct responsibility for education, but we are charged with using our resources to boost the competitiveness of UK industry. So that is why I encourage industry to reach out to schools to help boost the future supply of engineers.

The ESP KTN is free to join (ktn.innovateuk.org/web/espktn) and currently has nearly 6,000 members. We run a range of events, including seminars, industry brokerage and training courses, as well as

running a website for the entire community. In the last few months we have worked with industry to put on a series of training courses on the MBED system, and in future plan to offer training courses on alternative systems, such as those from ST Microelectronics. They have a broad remit of helping train up current engineers to learn more about embedded systems. But they are also highly suited to IT leaders within the school system, who are encouraged to attend.

Our website also provides a way for schools to interact with industry. You will find this article is also posted there. I would encourage schools wanting contacts with industry to use the website to find them.

Industry have identified the problem, and also shown one way it can be solved. In an ideal world we would have a BBC Micro for the 21st century. But in the meantime, opening children's eyes to the potential, by using technology such as MBED, and drawing on the skills of local engineers provides a way to inspire a future generation of British technologists.

Jeremy Bennett, CEO, Embecosm

***Dr Jeremy Bennett** is Chief Executive of Embecosm Limited. Embecosm (www.embecosm.com) provides open source services, tools and models to facilitate embedded software development with complex systems-on-chip. He spends two days a month working as the Embedded Systems Champion for the Electronics, Sensors and Photonics KTN (ktn.innovateuk.org/web/espktn), which seeks to improve the flow of knowledge between academia and industry. Contact him at jeremy.bennett@embecosm.com.*

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WebTeachers: The Development Of A Resource Website

I started WebTeachers a couple of years back with the idea of producing my own educational resources, under a relevant name, rather than my own name.

At the time I was making a lot of science and ICT resources, mainly in the form of worksheets, practice exam papers and revision booklets etc. I decided that I needed a method of getting this information in the public eye, to make it available to more people.

Around the same time I was also working on a specific science project for 13+ Common Entrance students, that I called Science4CE. This was a website that linked to resources all over the net, relevant to the topics studied in Science at Common Entrance level. It was meant as a revision resource and the pupils I taught science to at Common entrance and scholarship levels certainly enjoyed using it and linking to the websites and resources that I had found.

I soon developed it further and made links from Science4CE to quizzes I had built on the Yacapaca website, in order for my pupils to test their knowledge online in a fun and stimulating way. I also created back links from the quizzes on Yacapaca to the Science4CE website so that other people who used my quizzes on Yacapaca could find Science4CE and use that too. The Science4CE website soon started receiving more hits and I had many comments sent to me from students who were enjoying using it and from teachers who were finding it beneficial to their teaching of Science in prep schools.

The success of Science4CE drove my enthusiasm forward and I was keen to create more educational websites for different subjects or in different areas. I dabbled in a couple of other website areas and also spent time creating some websites for small businesses, but the whole time I kept thinking that the WebTeachers site was sitting there dormant and not really doing anything. I certainly wanted to do something with it and put it to good use.

Due to my long term connection with prep schools, I decided in the end to make it a resource for prep school educators, by reviewing and linking to the best teaching resource websites available on the net, relevant to prep schools and prep school staff. So now WebTeachers is up and running with two main aims:

- 1) To look into and review any new online educational resources and websites that could work in prep schools.
- 2) To go back over old teacher resource sites to check they still exist and report if they have changed or advanced in any way.

There is such a huge selection of teaching resources and educational websites online now that there is always the need for a central hub, where teachers can go to find out what is available and relevant, without having to do the tedious searching themselves. Nowhere is this more true than in the prep school world, where some online resources just don't quite fit our type of schools. I'm hoping that WebTeachers will provide prep school teaching staff with a simple resource to find useful educational tools.

Recent searches have already provided some very useful tools which I use in school on a daily basis, so if you are on the lookout for online resources to aid your teaching, feel free to visit the WebTeachers site and please contact me if you know of a useful resource to which I could place a link on WebTeachers.

I am aiming to develop WebTeachers much further in the next few months.

You can visit the WebTeachers website at: www.webteachers.co.uk

Ed Jones
Head of ICT
Tockington Manor School.

Programming in Prep. Schools

I think there is a popular misconception that school IT is founded around Office products. Talking to many of our prep school colleagues, I hear of people teaching a much wider range of topics, such as safer social networking, stop frame animation, podcasting, blogging, wikis, and, of course, programming.

I thought, as a gentle counter to Jeremy Bennett's interesting article, I would share how we're approaching programming in years 5 & 6.

One of the questions I am most frequently asked by children who are interested in computers is "Sir, how do you learn how to hack?" By hack, of course, they mean get a computer to do something it shouldn't, like let them on a website that our filters have banned, or get into someone else's account, etc.

There is no easy to answer to that, as most computer minded folk will know. Learning to "hack" is a matter of having a great deal of interest, lots of time on a variety of computer systems, eschewing shoes in favour of sandals, growing a beard and giving up on having any friends IRL (in real life). Or so geek law says. What's the definition of an extrovert computer scientist? He stares at YOUR shoes when he's talking to you.

I introduce programming in year 5. Outdoors. We are fortunate to have a sunken terrace which contains a terrapin pond and a Rose garden which is laid out in a grid. We use these features to program a robot (a child) to follow a series of instructions to navigate around the rectangular pond without falling in, in the style of LOGO or turtle programming. We then do the same thing but using repeat and if statements. In the space of about 10 minutes we've covered algorithms, iterative programming, recursion and conditionals. We then move over to the rose beds and carry on, but this time working out how to follow

different patterns, such as figures of 8 (but with right angles), etc. This introduces the concept of a variable - direction; when the robots encounter an obstacle they can switch direction. Very quickly the children have grasped the concept of the fundamentals of algorithms and programming, but without knowing the terminology. We finish off the lesson by going back in the classroom and discussing what we've learnt and learning the correct terms for each thing. I'm sure this lesson would work equally well in a sportshall or on a netball court, or anywhere there is some kind of structure that can be navigated with simple instructions.

We then move on to Scratch (scratch.mit.edu), which is a programming language/environment designed for children. It's free to download and runs on Windows, Mac and Linux. Over the next few weeks we have two projects to complete in Scratch - a simple adventure style game, where characters can make choices to move the game on, and a Mario-style platform game where the player collects objects to move onto the next level. I won't bore you further with how they build up their games, but I'm happy to share ideas via email if anyone would like more information. The level of interest in Scratch is huge - many times I've had children coming to me, understandably a little upset, after they've been evicted from the ICT rooms for playing games at lunchtimes. Games that they've written themselves. There have been lunch time duels where children have challenged each other to complete the games they have written.

I'm just about to introduce Ruby programming to year 7 & 8 in an after school club, starting off with getting them to follow the rather simple, but elegant Hackety Hack tutorials (www.hacketyhack.com). This could be an unmitigated disaster, but I'm reasonably confident, given their previous success with Scratch, that they will quickly get to grips with writing simple programs in a "grown up" programming language. Other avenues I've been exploring have been Kodu (Microsoft - <http://research.microsoft.com/en-us/projects/kodu/>) and GreenFoot (Java based - <http://www.greenfoot.org/>).

It seems the BRIC economies (Brazil, Russia, India, China - see <http://www2.goldmansachs.com/ideas/brics/index.html>) are set to become world super powers. Most jobs in the computing world are "fungible"; doable by someone else somewhere else in the world. India, for example, is churning out huge numbers of young, ambitious, hard working, knowledgeable, intelligent people who know a lot about a lot of things. Including computing or "hacking", to borrow the term from my kids. If we don't turn teach our children computing skills (as opposed to ICT skills) early on, then there's not going to be any kind of computing related jobs left in this country.

I don't think teaching programming is beyond the realms of the prep school IT curriculum. I think the days of teaching children to fiddle around in Excel are behind us; if they want to do that later in life, then a quick Google search will find them a million and one tutorials to do just that. Let's teach them about computing.

For further ideas on teaching computing at school, see the Computing at School project - <http://www.computingatschool.org.uk/>.

Adrian Taylor
Head of ICT
Hordle Walhampton School

BETT 2011

Olympia London

We had a really good day out on Saturday 15th Jan. My partner, technician and I boarded our train from New Street to Euston with no real idea what we were going to see at BETT this year, but we each had our own shopping lists.

It was Aasimah's first trip to the show and she was interested in looking at solutions to ease the management of the network as well as new software titles and developments in network and systems in general. I was looking for data logging ideas, MIS, text messaging solutions, microscopes, flexible cameras, projection solutions and thin client solutions. Maria was keen to find useful Early years solutions

to top up our portfolio and potential technical aids for a couple of hearing impaired children that attend our school.

We arrived at Olympia with our printed bar codes and were presented with our badges, mine said Head of ICT, Aasimah's was Technician and I had booked Maria in as our ICT Development Officer- She actually works in our Early years department, but please don't tell anyone.

Bags were grabbed and off we set to trawl the exhibition along the grid lines, picking up info as we went. Aasimah's first freebie was a large helium filled bee (from Openhive) that she then dragged everywhere for the rest of the day. A free pen challenge was issued (Maria won that) and competition entry forms were filled as we moved chess like across the halls.

Our first hit from our tick list was Crick software. They really do have some gems of software, namely their 'Clicker' series- well worth a look at. The Sherston stand yielded a cool offer that we couldn't take advantage of, a whole bundle of titles thrown in with their Planet Sherston, a fantastic offer and again well worth looking at, but I think the offer was 'Show Only'.

A number of text messaging services were looked at and there were a great deal on offer; Call Parents, Teachers2parents and Schoolcomms just being a few that had good solutions. Most of the messaging systems tied in with MIS solutions such as SIMS but not those less well known.

Dataspire, Wisepay and Wauton Samuel all had interesting packages to handle fees and the many 'extras' we as Prep schools provide and it was interesting to see that many of the MIS solutions front ends had 'Fire Alarm' buttons that facilitated the spontaneous printing of registers for staff, children and visitors, one or two even provided a pda for such a service.

Busythings.co.uk have a wonderful portfolio of software, my favourite 'Beep' and its follow-ons are a real favourite of mine. The graphics and applications are no nonsense and do exactly what they say on the box.

Two kinds of flexicams caught our eyes, these useful tools are a 'must' for science labs to allow the children to all see all the little creepy crawlies, that need studying in the science curriculum, in fine detail and monster proportions. The products were HUE (www.hueanimation.com) and ken-a-vision (www.ken-a-vision) both offer similar products that connect via usb and not only perform well with enabling classes to see fine detail of small items, but can easily be used as visualisers and so bring documents and other media into use. Animation is of course an excellent use for these tools.

For those of you who are new to the ICT arena, TEEM have for a number of years produced excellent pocket books full of useful resources, this is now going online and there are three web addresses on their info to look at: www.teem.org.uk, www.sparrowhawkandherald.co.uk and www.school-leader.co.uk The rep on the stand informed me that the web version is due out soon, so keep these sites to hand.

There were loads and loads of really good ideas at the show this year, cpuholders4u will give you a wealth of options for tidying up ICT rooms and storage of workstations. All the major players were there and the show guide itself will prove to be a useful reference point for looking for supplies and solutions.

All in all a good day, my companions capped it off with a trawl through the Kensington High Street shops (especially the shoe shops) whilst I contented myself with people watching and wondering how much the apartments were to rent (£15,000 pw for a 7 bedroom)....Roll on the Education Show.

Patrick Florance
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And Finally...

Here's a small selection of links that have been fed to me via twitter.

All of these links are available from the SATIPS ICT Diigo Group:

<http://groups.diigo.com/group/satips-ict>

Do sign up and share your useful links.

Programming in Schools:

<https://sites.google.com/site/computingatschool/annotated-links-to-external-resources/programming-tools-for-schools?pli=1>

Shared document editing:

<http://primarypad.com/>

Kidblog - blogging for students and teachers:

<http://kidblog.org/>

ActivInspire Training Materials:

https://sites.fcps.org/trt/promethean_activinspire

Primary Games Arena:

<http://primarygamesarena.com/wide.php>

Make your own weather forecast:

<http://www.watbot.co.uk/ria/wxforecast/>

Make videos online:

<http://www.jaycut.com>

Stop Disasters - Planning/Problem Solving:

<http://stopdisastersgame.org/en/home.html>

Creative Writing:

<http://storybird.com>

Make your own start page/grid:

<http://www.3x3links.com>

Primary resources:

<http://www.ictopus.org.uk/>

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