

Managing internet access without limiting learning opportunities

Damian Perry

Sometimes I think that teachers and technology just don't mix. Let me tell you a tale of unmitigated tragedy. Think Sisyphus and the stone and the mountain.

Every now and then (not that often) I like to get organised. So last night, I spent a couple of hours carefully planning out a whiz-bang lesson for my IT kids. I found half-a-dozen sites with pictures that they could use for a Photoshop task. I put together a quick collection of videos to demonstrate the concept. I created a few fake entries on a few different blog sites to show them the foolishness of believing what you read online. I emailed through the lesson plan to school. And then I went to bed, happy in the knowledge that the boys would be completely engaged for a double period.

This morning, when I got into school, I found that the lesson plan had been rejected by the school email filter because of some off-colour language in the document (It was relevant,

I swear). No problems, I could wing it off the top of my head. Each of the videos was on a site that was blocked by the Catholic Education Office for 'profanity/swearing' (no wonder, if my lesson plan didn't even get through). The blogs were blocked because they were 'blogging sites' (duh). And the photo sites apparently also catered to 'terrorism/violence' and 'nudity'.

I sound like an incredibly irresponsible teacher, but the images and videos were legitimate, age-appropriate and student-friendly. Sometimes the school internet filters just have it in for me. What this taught me is that I should never do planning at home.

Or maybe I'm missing the point.

School administration has a tricky role to play in the filtering of internet. On the one hand, they should enable teachers to provide a wide variety of content to allow students to learn how to safely navigate the World Wide Web before they're let loose in it after school. On the other, no one wants to be on the front cover of the

Herald-Sun after a child links to pornography during an English lesson.

Filtering is a necessary evil, and it is accomplished with varying degrees of control and subtlety by a wide variety of service providers. I want to give some recommendations for schools looking at locking the school Internet down and take a look at a couple of the major players in net safety.

Our school

The St James College internet is managed by the Catholic Education Office using a product called ZScaler, which is highly effective, if a little extreme at times. Apart from this (slightly exaggerated) example, I rarely have an issue teaching the content I need to. The boys aren't accessing inappropriate sites and if I catch them on one that has slipped through the cracks, I can submit a report to the CEO and the site will be blocked within 24 hours. Similarly, if there



is a site that I need for a particular class, I can have it unblocked with ease. It really needs to be monitored and administered by the school's IT support crew but it's an effective and relatively unobtrusive system.

However, teaching IT across all year levels at the school, I have regular conversations with the more tech-savvy students, who all assure me that they can get access to anything that they want to look at using proxy sites, private networks and – strangely – Google Translate. There is no perfect school management system. Schools just need a system that demonstrates that they have made an effort, and then they need to work hard to educate students (and staff) on responsible use of the internet and computer system.

By the way, over 12 years and across four schools, teachers have been the cause of *every virus invasion of the computer network*. Just saying.

Other options

Network management systems are a great groundwork, but schools need to implement strategies to get their students ready for the real world when they leave school. More importantly, we need them equipped with tools to deal with the cyber world outside of school. There are a number of steps to take on top of blocking gerbilllove.com.

Choose software and social networking platforms that are already moderated

Video conferencing is no longer the future. It's the present (the future is now holograms). Finding safe ways for students to make use of this powerful tool must be a priority. We use Skype and Facetime to contact schools in Indonesia so that their teachers can teach our students in their native tongue. Also, students from Indonesian schools can chat with our students, improving both groups' language skills. But finding a trustworthy contact can be tricky.

Skype for Education lists organisations that have been vetted for use in schools. They can put teachers in contact with professionals and experts in various fields, through a searchable database. They've even had students talking to astronauts on the space station!

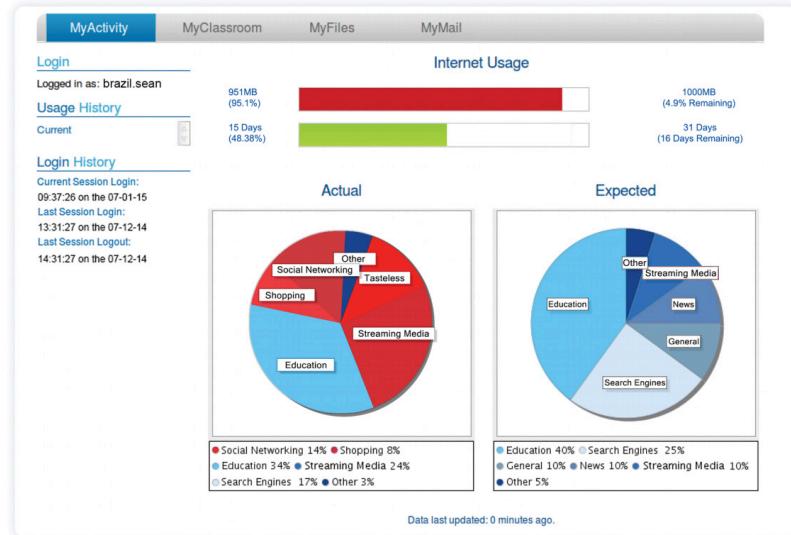
Using Facebook and Twitter in the classroom might sound daunting, and it's definitely a task for the more confident cyber-citizen. Moderated alternatives such as Edmodo are a good starting point. My writing class are all connected through Edmodo. We submit writing tasks to the group, review each other's work and make comments on interesting posts. The boys need to be schooled on how to respond appropriately to criticism. They have to understand their rights and responsibilities. But if a mistake is made, it's one I can easily rectify without it being spread across Facebook as a meme.

Management systems

I know that just hoping that students aren't going to get onto something completely inappropriate

MyActivity Web App and Reports

"Sean, a Year 8 student, is checking his Internet activity and can easily see that he is not meeting school expectations."



Blue Reef

at school is a pipe dream. Our duty of care (that concept that we should provide care equal to or better than that their parents would provide in the same position – and don't get me started on that!) means that we need to take whatever measures we can to remove the threat of wild internet incursion into our school. Here are a few possibilities.

Blue Reef

Blue Reef provides a solution called Sonar. They work on a platform of teaching students acceptable online behaviour, through reports and comparisons of data use and sites visited. Nathan Schram at Blue Reef was clear on the mission of the company – to improve student internet behaviour through education rather than censorship or punishment.

Sonar has a number of features that make it ideal for schools. Once installed, it runs in the background, so that even the least tech-savvy teacher won't be required to learn anything new. However, if you're feeling edgy, you could try some of the customisation and reporting options:

- Teachers have a bypass code to get access to sites that are otherwise blocked. Of course, there are certain sites that would still be blocked. A teacher couldn't teach a Sex Ed class by unblocking a porn site. But an art teacher, wanting to explore certain forms of expression, could unblock deviantart.com for example, which has some inappropriate material, but is mostly an invaluable gallery of modern expression.
- The service is BYOD friendly and policies can be extended so that the devices are still monitored from home.
- Teachers, coordinators and students can all access student usage data. Using simple

graphs and charts, teachers can see which sites a student is accessing and how much time they spend doing various activities. Students can compare their usage to an average model and make goals based on this data.

- Students and teachers can access their work folders from home via a web portal.

Talking to Ian Steel at Mazenod College, the reports on Blue Reef were all positive. The school has been working with Blue Reef for over a decade and find the service department helpful and efficient and the product itself to be perfect for their needs.

Mazenod has a 1:1 program, but is somewhat unique in that they keep the devices at school, rather than having student-owned devices coming to and from home. The school was involved in the initial trials of vetting students' home internet usage but don't use that service any longer.

The ability for teachers at Mazenod to comment and monitor student internet access is used mainly by the Year Level coordinators. There is a dedicated program for new students to access their personal use reports and identify patterns. Having the Year 7 students understand their own Internet usage would be incredibly useful.

Lightspeed Systems

Lightspeed is another internet management solution designed specifically for schools. The focus is on speed and scalability. They want schools to have safe and secure access to the internet without overblocking. Lightspeed is an international business, but with plenty of experience in Australian schools.

For those who want more control over what their students are doing and how they are using their devices, Lightspeed has a number of very powerful tools in the toolkit:

Worth a Google

Moderated social media platforms

Skype for Education
Edmodo

Network management systems

Blue Reef
Lightspeed
Netbox Blue
Net Nanny
Zscaler
Barracuda
Cisco
ContentKeeper

Education on cyber safety

ThinkUKnow
CyberSmart

Restrictions for students on devices

Apple – Setting restrictions on your child's iPad
Android – Restricted profiles on Android tablets
Windows – Setting parental controls on a Surface tablet

- Classroom Orchestrator allows a classroom teacher to see a snapshot of each student's screen so they can instantly see students who are off-task or falling behind (or racing ahead). This is currently only for Windows devices but I'm sure it will be ported across in the near future. Teachers can even record a student's screen through this feature.
- Administrators have the ability to turn off certain functionality, such as access to Facetime or using the camera. Policies can be set for different groups as set up by the IT support staff. Remote administration of devices allows for bulk purchasing of apps and installation at the click of a button.
- Web filtering is also customisable by group, so that teachers can have added access to sites that students can't access. Older year levels could also have added privileges.

At St James College, we made a conscious decision not to centrally manage the students' iPads. In our quest to move towards being a transformative school in ICT, we believe that students need to be able to manage their own devices and that centrally managing these devices just takes the power and also the responsibility away from the student.

Conversely, it adds significantly to our start-of-the-year workload as we try to figure out who has an Apple ID and who already spent their iTunes cards on Angry Birds and Smurfberrries. But we're in this for the long haul. We are also in the minority. Most schools see centralised management of devices as being a beautiful thing.

Netbox Blue

On the other end of the spectrum are the companies whose goal is to limit student and staff interactions with the internet. I understand that there is a need to limit some elements of the internet experience, but I felt a chill reading that Netbox Blue focused on managing 'uncontrolled internet access'.

I feel my objective demeanour slipping. In fairness to Netbox Blue, the schools that work with them are satisfied. They provide a thorough service, excellent support and a number of personalisation services for the schools that use them. The offerings are very similar to Lightspeed and Blue Reef, so my only real issue is the focus placed on the importance of monitoring the students rather than teaching them.

Schools that use Netbox Blue include Penola Catholic College, and Kew and Mount Waverley Secondary Colleges – all schools with a good reputation and technology program.

Selling points:

- Quick and reliable connection to the Internet. The filtering process

often slows down the access of information, but this doesn't seem to be a problem with Netbox Blue.

- Schools are impressed that this is an all-in-one solution, meaning that IT support staff don't have to deal with a number of different companies to solve problems, or have one company blaming another for technology not working.
- The system gives feedback to teachers and welfare staff, highlighting possible bullying issues and even self-esteem problems so that these can be followed up at school.
- The SafeChat program monitors student access to popular social media sites and internet searches and reports back to the administration. It can prevent students from posting inappropriate things to the internet and stop them from accessing apps like SnapChat. It stops students from posting or receiving offensive language.

And I'm back to being worried again. One: the way students interact with each other almost certainly involves some offensive or inappropriate language, and I'm not sure this is something we should deny them in their own time. Two: Netbox's advertising material states that blocking social media isn't an option because students can get around it and then goes on to state that their solution allows schools to prevent students from using social media at certain times and in certain ways.

And the rest

I quickly browsed through a few other Internet management systems to see if I could find others that had the obvious knowhow. First one that came to mind was NetNanny, which was running around when I started teaching over a decade ago. It still exists but is designed more for home use, although there is also a business arm. Of course, at the bottom of the corporate site is a banner reading 'Do your staff waste time at work?' which didn't instil me with confidence. Even at home, it's probably better to rely on supervision and conversation than Big Brother.

ContentKeeper does a lot of work for a number of industries. They state that they support BYOD and that they can get inside the secure internet stream to decrypt and check on SSL information being sent to and from devices. They also manage social media access.

Cisco is a well-known brand that has dealt with networks for as long as I've worked in IT. The company offers plenty of solutions for different sized businesses, but there was no link to education management on their page, which would indicate that they aren't specialists in this area.

Barracuda does deal with education as well as other industries and looks to be a solid team, with virus protection and internet filtering. Teachers have the ability to access sites that students can't and safety policies can be extended to the students' homes as well as school.

To finish

I can't go into depth on all of these and still keep you interested. I'm pretty sure you tuned out half a page ago in any case. Hopefully some of this information is useful to you. Consider me one of the many people you ask when you try to decide who to go with as you implement a new system. As well as me, you will talk to the IT managers and principals at half-a-dozen schools similar in size and technological knowhow to your school. You'll send a techie and an IT teacher to visit these schools and check it all out first hand. And then you'll make an informed decision.

But if you get nothing else from this article, try to remember that a student who is wrapped in virtual bubble wrap during his P-12 years is a student who will be completely unprepared for the real cyber world outside of school. Education is the key, not censorship.

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