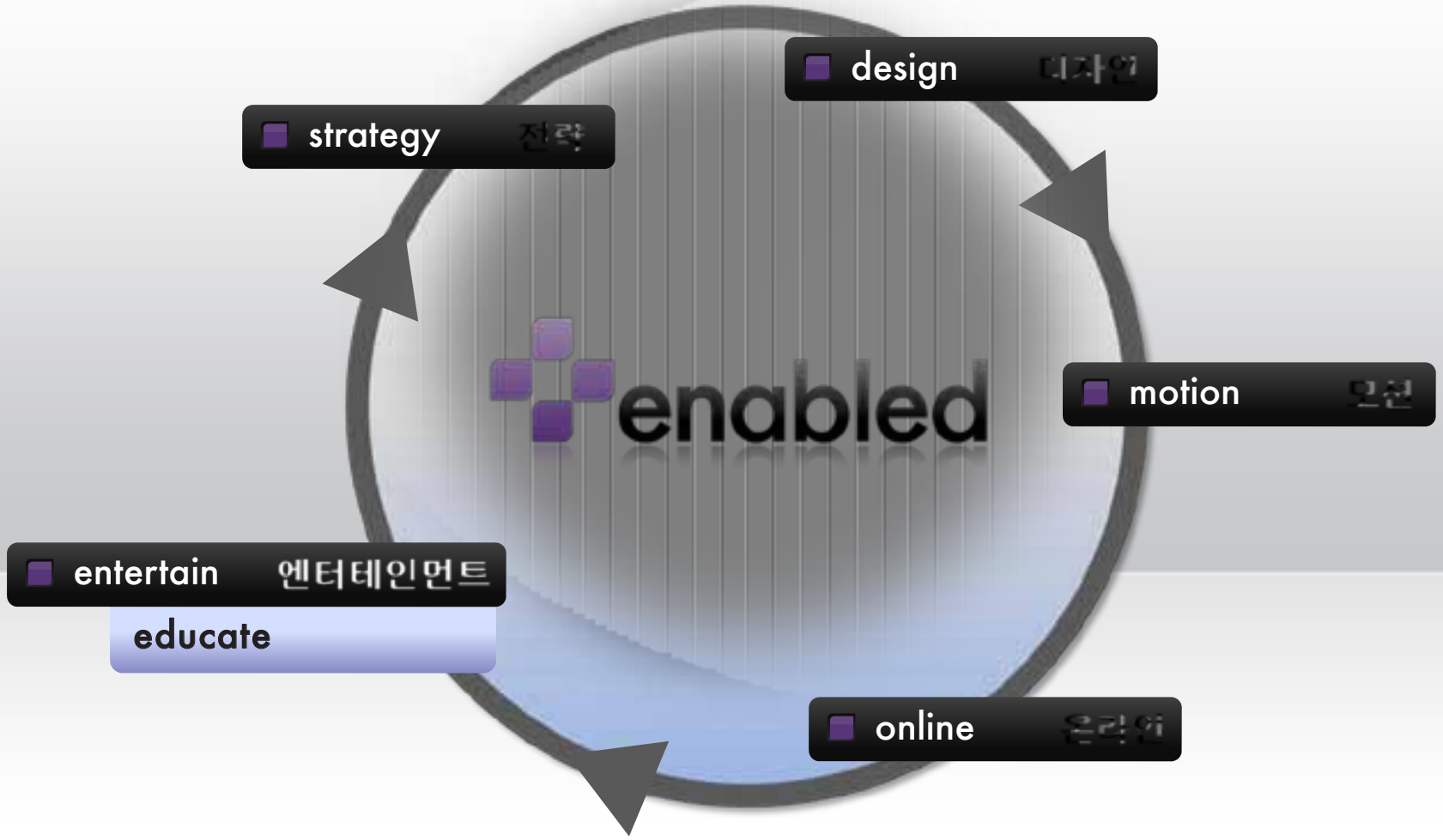
SOME Innovative Applications of Broadband

strategy design motion online

Broadband creates many opportunities for content developers. I'm here to talk about the innovative prospects that fall between online television and full-scale games.

enabled's capabilities flowchart



To put this in perspective, I'm the Director of a digital production company called Enabled. Our services span across:

- developing communication and distribution strategies,
- designing brands, interfaces and artwork
- motion creation, including video and animation
- utilising online possibilities, like websites, interactives and social media
- and delivering entertainment, with iphone apps, interactive games, and so on.

Recently we are also using these disciplines for education.

corporate digital

Examples of Client Work

I'm going to use some of our own clients as examples of how normal corporate businesses can benefit from Broadband.

State Theatre Company

www.statetheatrecompany.com.au

State Theatre Company is South Australia's flagship professional theatre company. Its website makes use of expansive high resolution images for a beautiful user interface and, in the future, it will also feature rehearsal video clips. This website can be difficult or slow for some of today's slower connections to access.

At the moment companies have to decide - do they compromise the user's experience or accessibility?

Children's Drama School

Another example is this children's drama school website, which uses simple Flash based animation to enhance its appeal. Imagine how much further this could be taken with broadband.

Zobel Finance - zobel.com.au

2008 BEST IN FINANCE & BANKING

This financial services company offer loans, insurance, conveyancing and other related services. Their website won an award for it's effectiveness and is very interactive, including calculators, quirky applications and even a game. It also offers a series of innovative, informative videos, complete with animation, to convey the more complex information. People don't like reading pages of content, but they are happy to watch a video, as long as their web connection allows it. However, we had to compromise the videos' potential quality and size to make them viewable by a wider audience.

Duncan Basheer Hannon

This law firm also utilises video - to engage, inform and reassure their visitors - removing many of the fears and questions of their potential clients. Their target demographic are much more likely to watch a video than read lengthy text. Yet again, the video quality had to be compromised.

So you can see how most corporate businesses are able to benefit from broadband. It greatly expands the possibilities of creating rich and practical user experiences.

enabled & education

Improving Science and Literacy

Another area that can greatly benefit from innovative use of broadband is education.

Students are different...

...but a lot of educational material is not!

2009-Horizon-Report – pg7

Today, despite all of the new technology, a lot of education is being taught the same way to our kids as they were to our parents. Voices in pedagogy are crying out for this to change.

That Science Gang

Curriculum based Science Shows in Schools
'That Science Gang' sees 300 schools

That Science Gang are a team of professional science communicators, some coming from a background of television. Their fun and interactive school shows are very popular in South Australia and Tasmania, performing to over 300 schools in a 2 year period, with a high repeat rate. But until now, their expansion plans are limited because they are only 3.

Current best methods:

Science Exhibition Centre or TV Show

With physical limitations as they are (they can only be in, and travel to so many schools a year), That Science Gang's only choices of reaching a wider audience are settling in a location like the Science Exhibition Centre and making people come to them, or producing a TV show.

Unfortunately, both of these options fall short. Staying in one location only shifts the limitation onto the schools, while Television allows viewers only to observe rather than interact.

Engaging in science not just observing.

A Premier's Science and Research Council's
Working Party on Science and Mathematics in South Australian Schools

Interaction has been proven to be very important in science education. So what else can they do? Well, they've got their fingers crossed that cloning will be perfected soon, but in the meantime...

That Science Gang – Touch Screens

That Science Gang are taking their shows to touch screens, particularly interactive whiteboards which are quite prominent in schools today. This allows them to be visually engaging as well as interactive by getting viewers' input through the screen.

So where does broadband come in come into this third, interactive option?

Online Distribution / Subscription

Instead of distributing this education program by the more traditional Television or DVD, it will be distributed on a subscription basis online. This means not only is it easier for it to go global, but it will allow live streaming, data capture across schools for further educational purposes, current and relevant content, as well as allowing it to grow and improve over time.

It's much harder to go back and expand or improve an already produced TV show.

Pocket God

An example of improving and growing over time, enabled by online distribution, is this iPhone application called Pocket God. When it was first released, all users could do to 'play god' was squish the tiny people on the island. It rapidly became very popular. Now it has evolved so that you can flick the people into the water, feed them to the sharks, and make a volcano erupt on them. Users were instantly notified of the updates and could download them quickly and easily, making the game even more popular.

Is it expensive?

Comparatively not!

A great thing about this is that it is comparatively very affordable. While with a TV show you need a whole season's worth of material, and a huge upfront budget, this approach allows you to start out small. Then as your popularity (and revenue) increases, you can extend and adapt it.

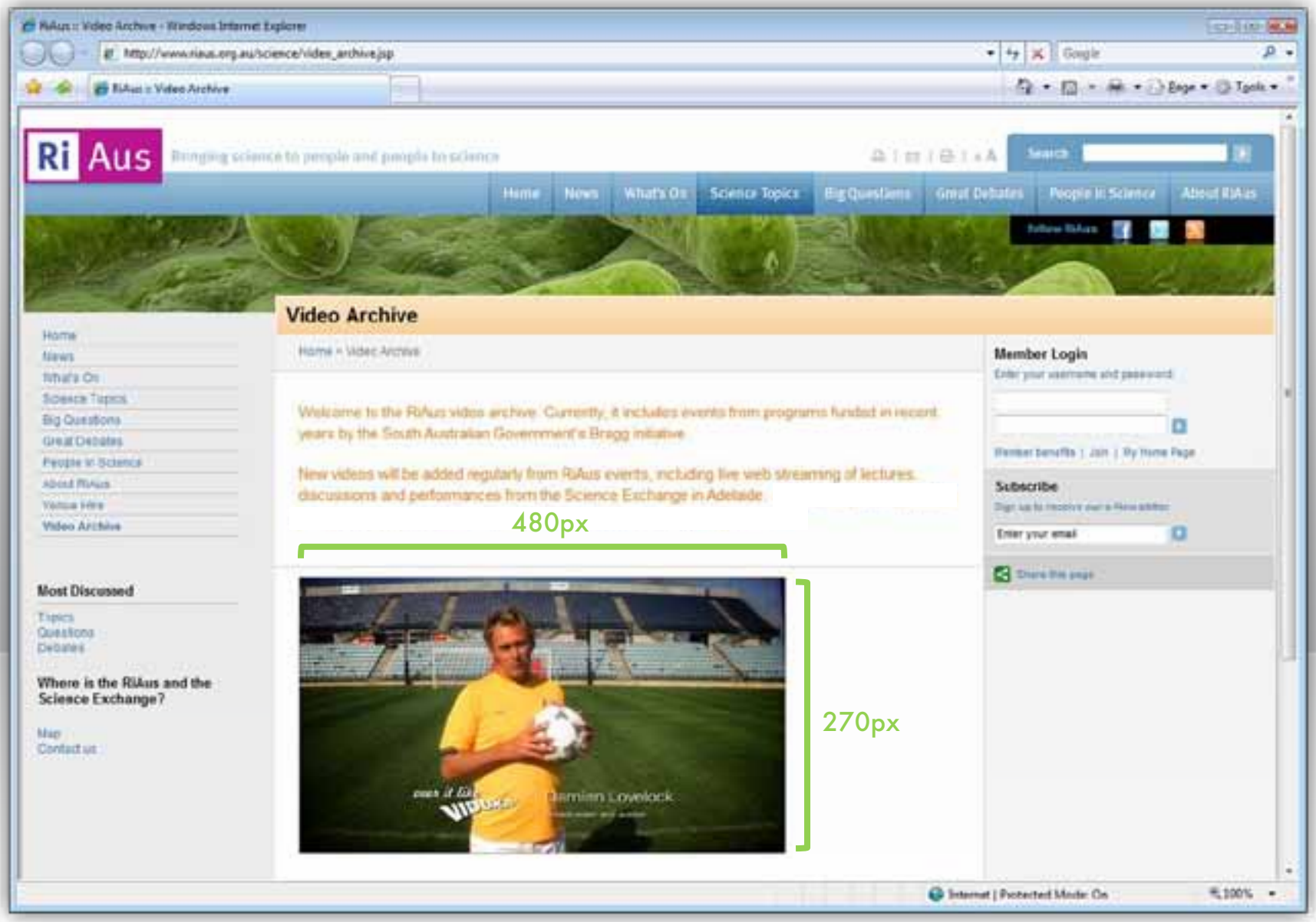
That Science Gang – At The RIAus

Just as broadband creates opportunities, lack of broadband is limiting them. An interesting example of this is the RiAus. Here they have a high definition, 5 camera stage setup as an amazing resource, yet to put it online, they have to decrease the quality so much that the potential goes unrealised. With the introduction of Broadband, imagine how easy it would be for them to produce regular quality recordings of live performances, or even stream live to the internet.

Current State of Play

Here's a not-for-profit organisation with its own YouTube channel that provides web based services for education. It's trying to provide valuable educational resources for schools, yet says that not many educators or students can't even access the resources from their schools because many websites, like YouTube, are blocked. This is partly due to content safety concerns, but also because of the high cost of access. Without broadband, schools need to strictly limit bandwidth to stay within budget, and so students and educators miss out on valuable content.

RIAus - HD



RiAus knows this, which is why their video archive is at the low resolution of 480x270 pixels, even though they have high definition equipment. They also avoid YouTube to stop their content being blocked. However this means they miss out on YouTube's networking benefits.

South Australian Schools

speeds of 512k - per meg rate costly

So what internet connections do schools have?

Though it's very hard to find research on this, one of our techonolgy partners who sells interactive whiteboards to schools says that many of them are still limited to speeds of 512kb. Many are paying per MB of data, so it is very expensive.

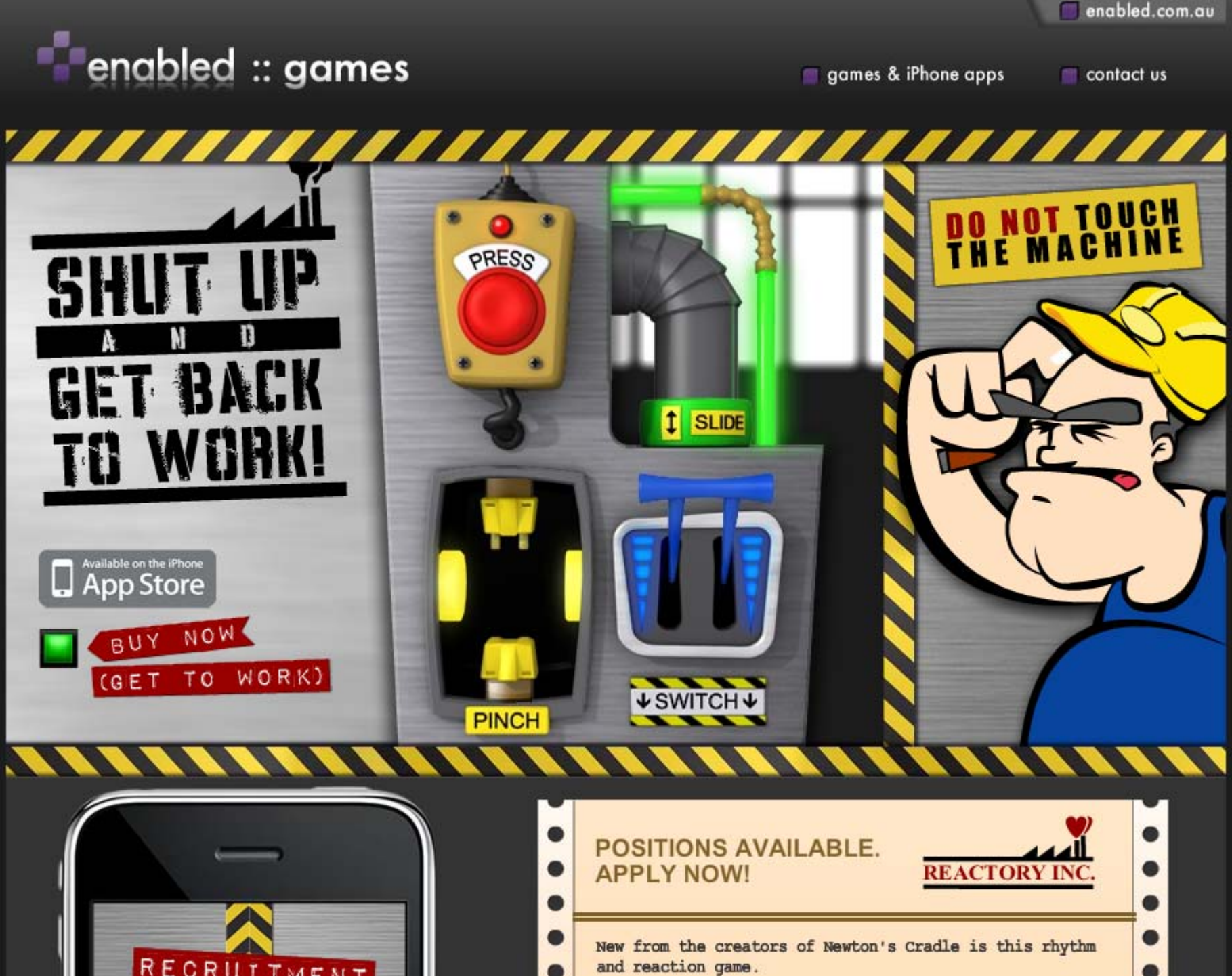
The Fairies

Another example of the limitations caused by lack of broadband, is found in this iPhone application we created for the popular Australian children's TV program The Fairies. We had to keep the video reasonably low resolution so people could download it. Yet the main complaint we've received is that it's too large to download while out on the road. This is because carriers limit non WiFi-connected downloads to 10MB. The Fairies iPhone app is around 60MB.

You can read more about the Fairies app here.

enabled::games

Enabled are constantly having to compromise game quality to make allowances for these types of limitations.



Meet Frank the Foreman - your boss in this iPhone game, Shutup and Get Back to Work. We wanted to make him 3D, but it would have just been far too big without broadband.

enabled::games

Shutup and Get Back to Work is a rhythm reaction game where you have to press, slide, pinch or switch the appropriate controls on this machine, according to Frank's instructions. You can see the disparity between the 3D machine and 2D Frank.

To find out more about Shutup and Get Back to Work, click here.

enabled case study

Rock Chick & Science Geek

The last case study we'll focus on is taking a live concert experience and converting it into an iPhone app.

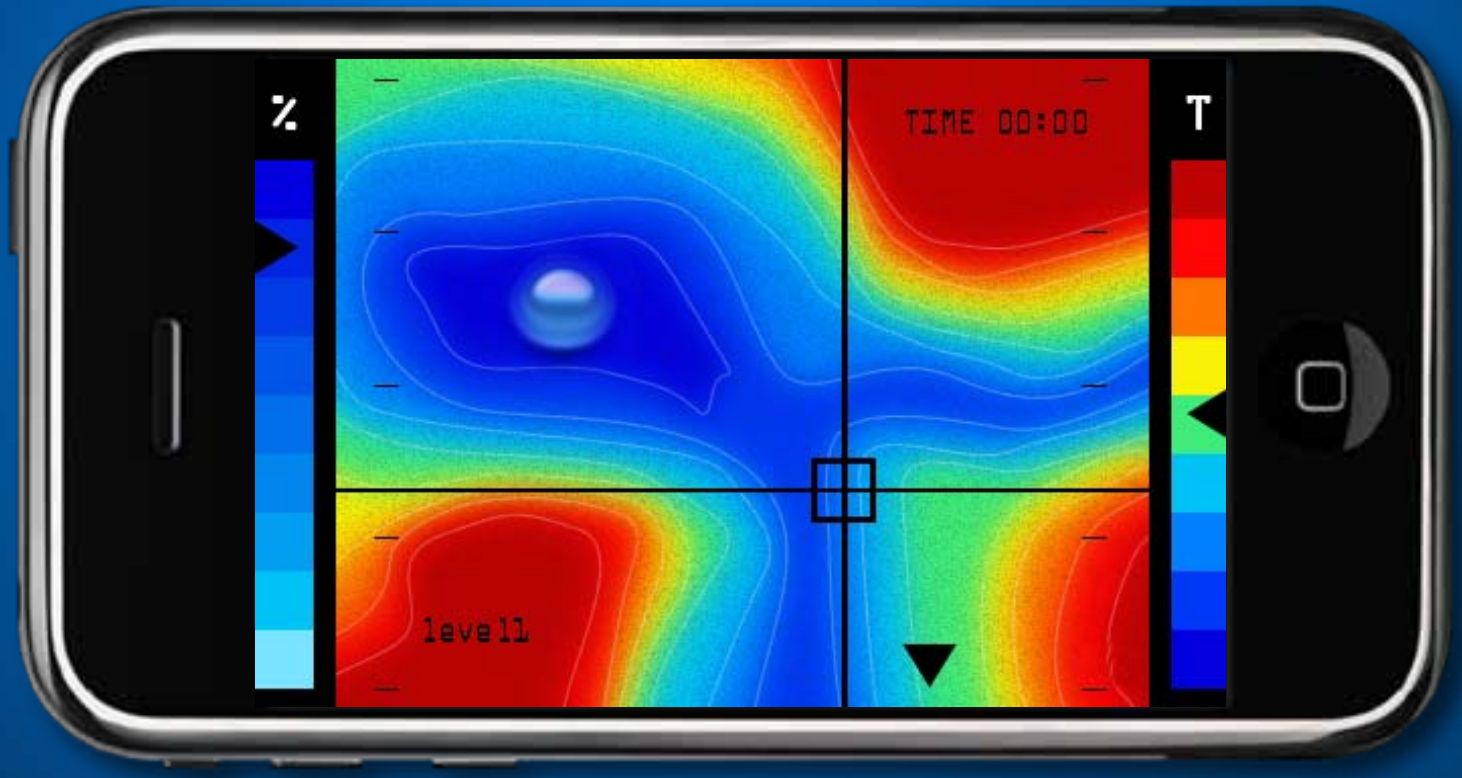
Rock Chick and Science Geek combine cool rock music with fascinating science to entertain and 'accidentally educate' kids. Their critically acclaimed live concerts have received rave reviews and are frequently sold out. Again, being South Australia based, the possibility of expanding their audience has been strictly limited until now.

From Stage to Small Screen

They decided to go with distribution through an iPhone app. The challenge was capturing the fun and excitement of explosions, giant bubbles and ice cream on the small screen of an iPhone. We settled on a series of iPhone apps, with each episode boasting high quality video, an interactive game, and experiments to try at home.

You can find out more about the Rock Chick Science Geek app here.

RC&SG – Science Rocks the iPhone



This is the 1st episode's interactive component - the ball you see is a drop of liquid nitrogen, which starts to boil at minus 196°C. Staying carefully on the coldest areas, players navigate the path by tipping & tilting their iPhone to reach the goal point before it has boiled away to nothing.

With a game and high quality video in a single app, you can imagine the impossibility of keeping it under the 10MB limit - to make it downloadable without being connected to WiFi.

Without Broadband, software development for current and future touch devices is restricted.

www.enabled.com.au

It is clear that Broadband won't just effect the Television and Game industries.

Broadband will enlarge the accepted boundaries for all businesses, including education, creating new standards in quality, delivery, and distribution.