

Pathways 11  
Adelaide 2012

# 21st Century learners with diverse needs – Making learning accessible with the iPad





# Greg O'Connor

Professional and Consultancy  
Services Manager (Teacher)



Certified Trainer



@gregoconnor  
@spectronics





# INCLUSIVE LEARNING TECHNOLOGIES CONFERENCE 2014

20-23 May 2014

Gold Coast | Queensland | Australia

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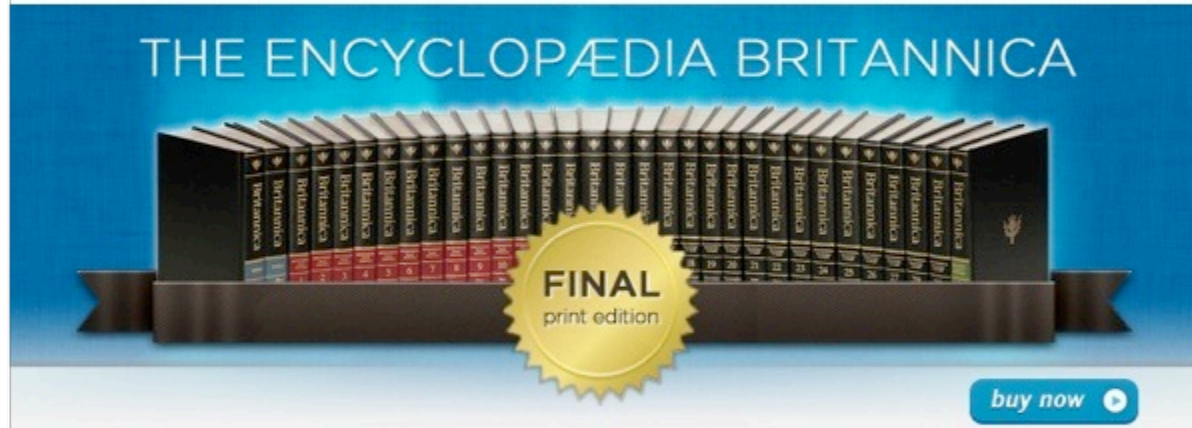


[www.spectronics.com.au/online](http://www.spectronics.com.au/online)

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**1768 to May 2012**





Tuesday, 11 December 12







Tuesday, 11 December 12

# Horizon Report 2012

**Time-to-Adoption Horizon: One Year or Less**

**Mobiles and Apps  
Tablet Computing**

Time-to-Adoption Horizon: Two to Three Years

Game-Based Learning  
Learning Analytics

Time-to-Adoption Horizon: Four to Five Years

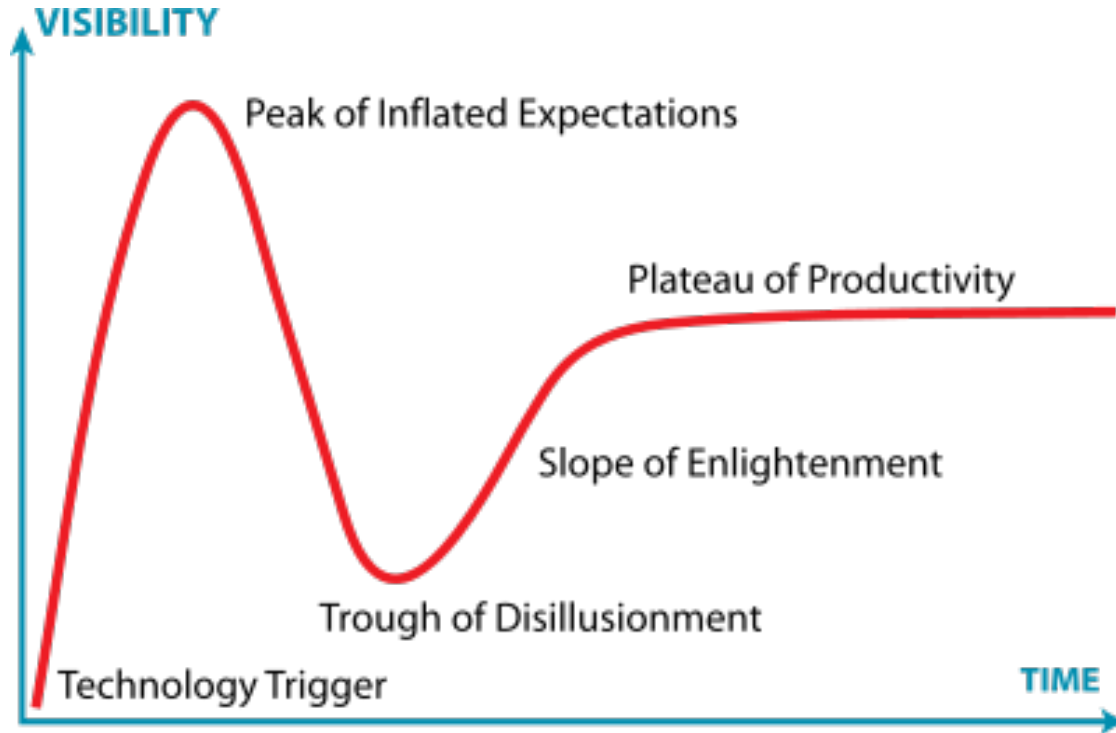
Gesture-Based Computing  
Internet of Things



<http://www.nmc.org/publications/horizon-report-2012-higher-ed-edition>

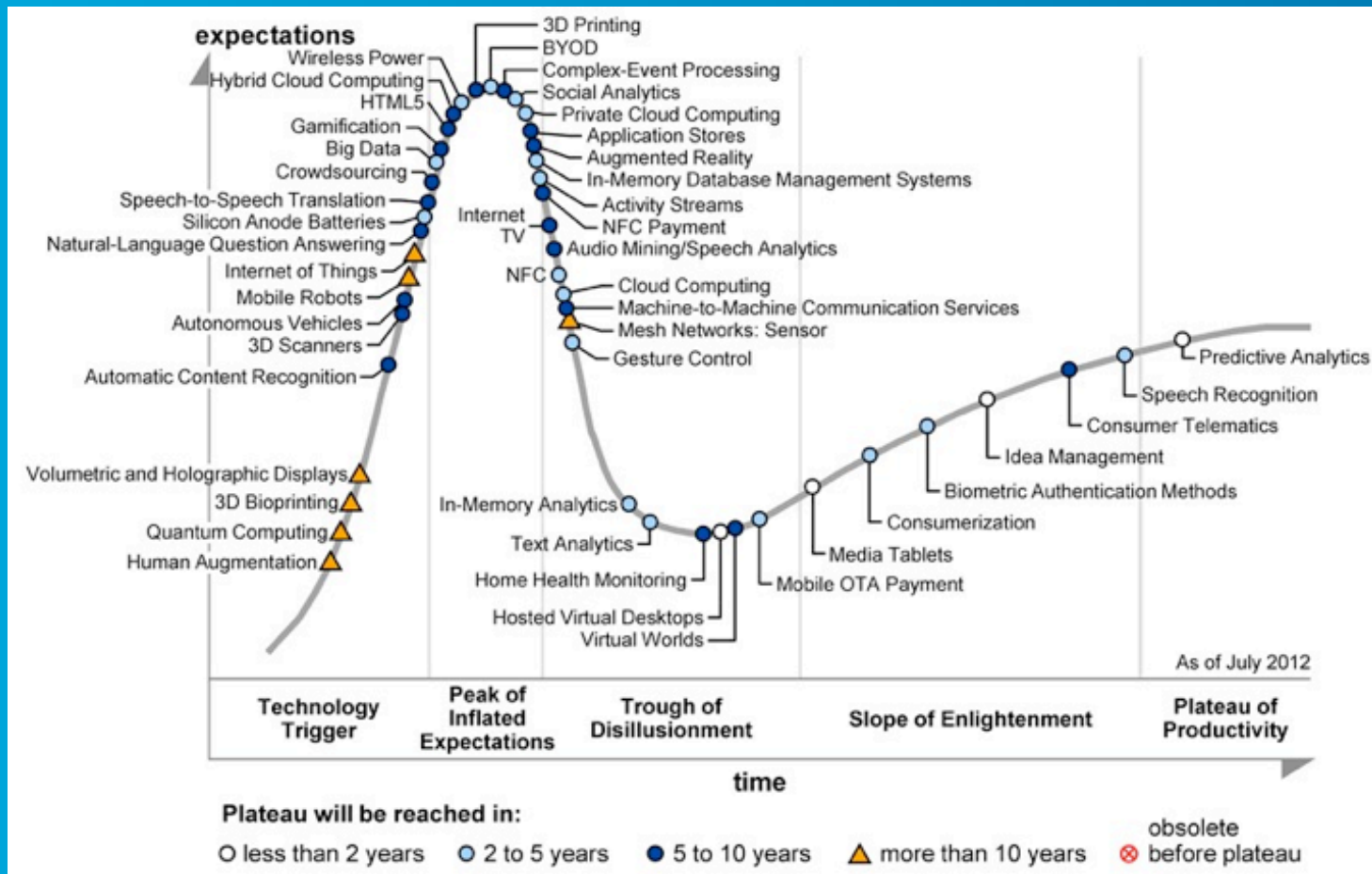


# Hype Cycle



[http://en.wikipedia.org/wiki/Hype\\_cycle](http://en.wikipedia.org/wiki/Hype_cycle)





<http://www.3ders.org/images/Gartner-2012-Hype-Cycle.jpg>



# Project Tomorrow



Students adopting & adapting



Owning a mobile device



Looking outside the classroom

<http://www.tomorrow.org/speakup/>







## Yesterday's literate student

## Today's literate student

## Tomorrow's literate student

Write a letter



Write a email



Work in a  
virtual  
community

Write a report



Produce a  
PowerPoint



Make a video

Write an essay



Write a blog  
post



Write a  
program /  
publish

Adapted from Marc Prensky <http://www.marcprensky.com>





EVA	Dichtung		13/4
	Recht	P. 28	Exhortation 11/4



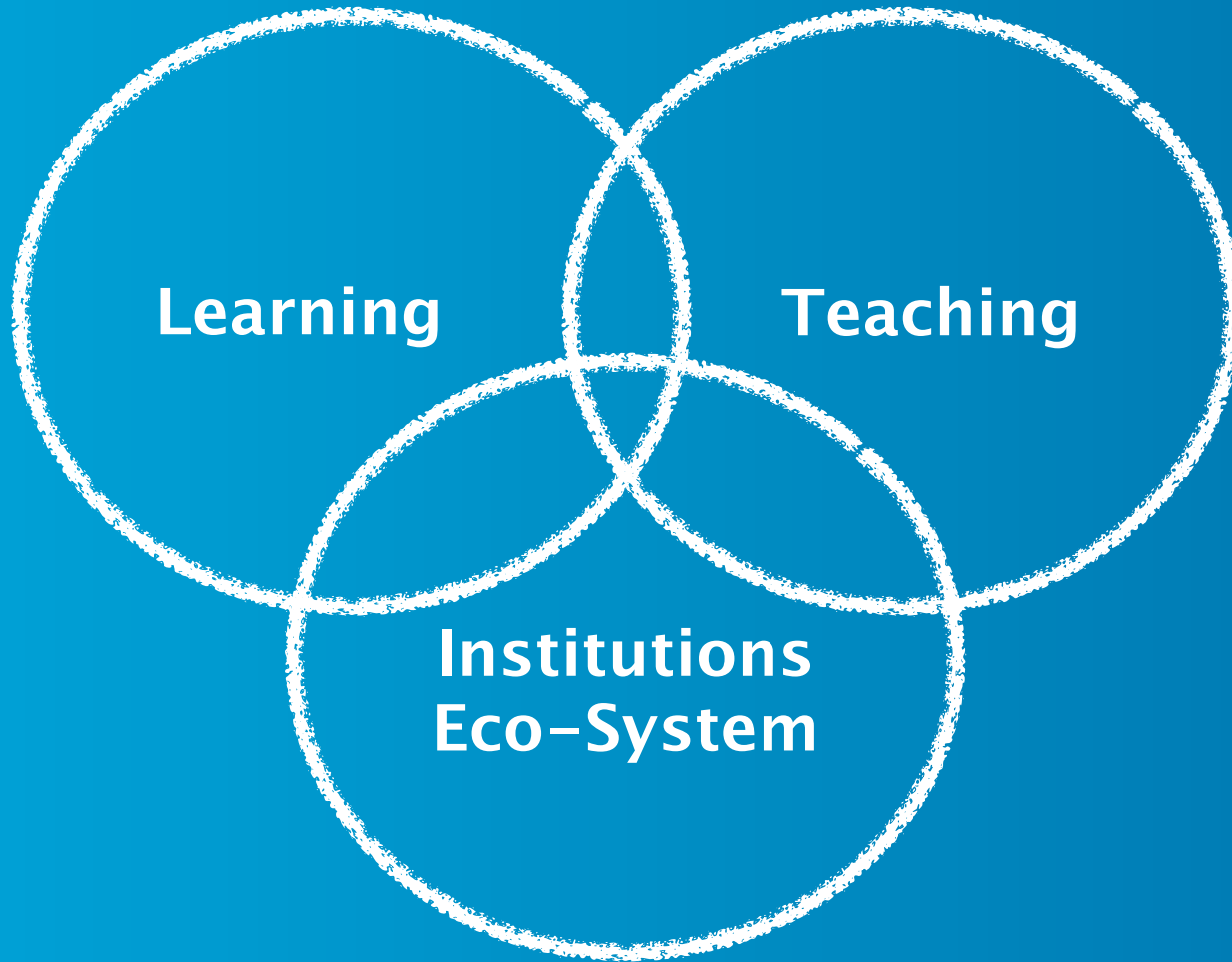


Tuesday, 11 December 12

...inhabiting a world with  
tools so well fitted to us  
that when they are with us  
they become transparent...

Marc Prensky 2012 Brain Gain: Technology and the Quest for Digital Wisdom





assistive technology

inclusive technology



# The transparency of mobile technology









It Can't Teach



# MOOCs

# Massive Open Online Courses



Safari File Edit View History Bookmarks Window Help

Coursera.org

https://www.coursera.org

Wed 3:36 PM Greg O'Connor

Wednesday, 28 November 2012

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- Andres Vega

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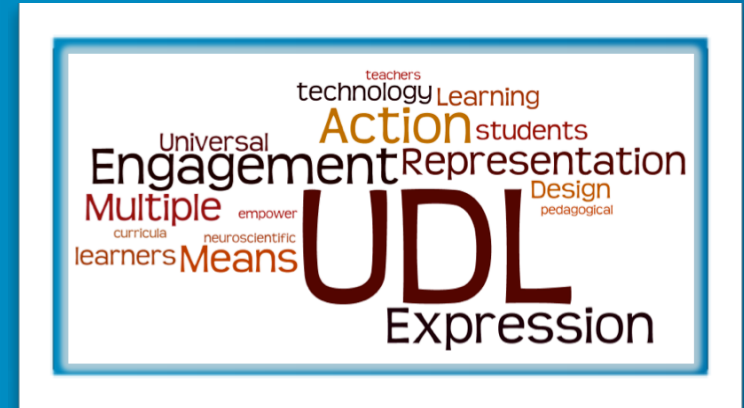
How do we ensure the  
transparency of the  
technology in our programs  
& a not one size fits all  
paradigm?



# Universal Design for Learning

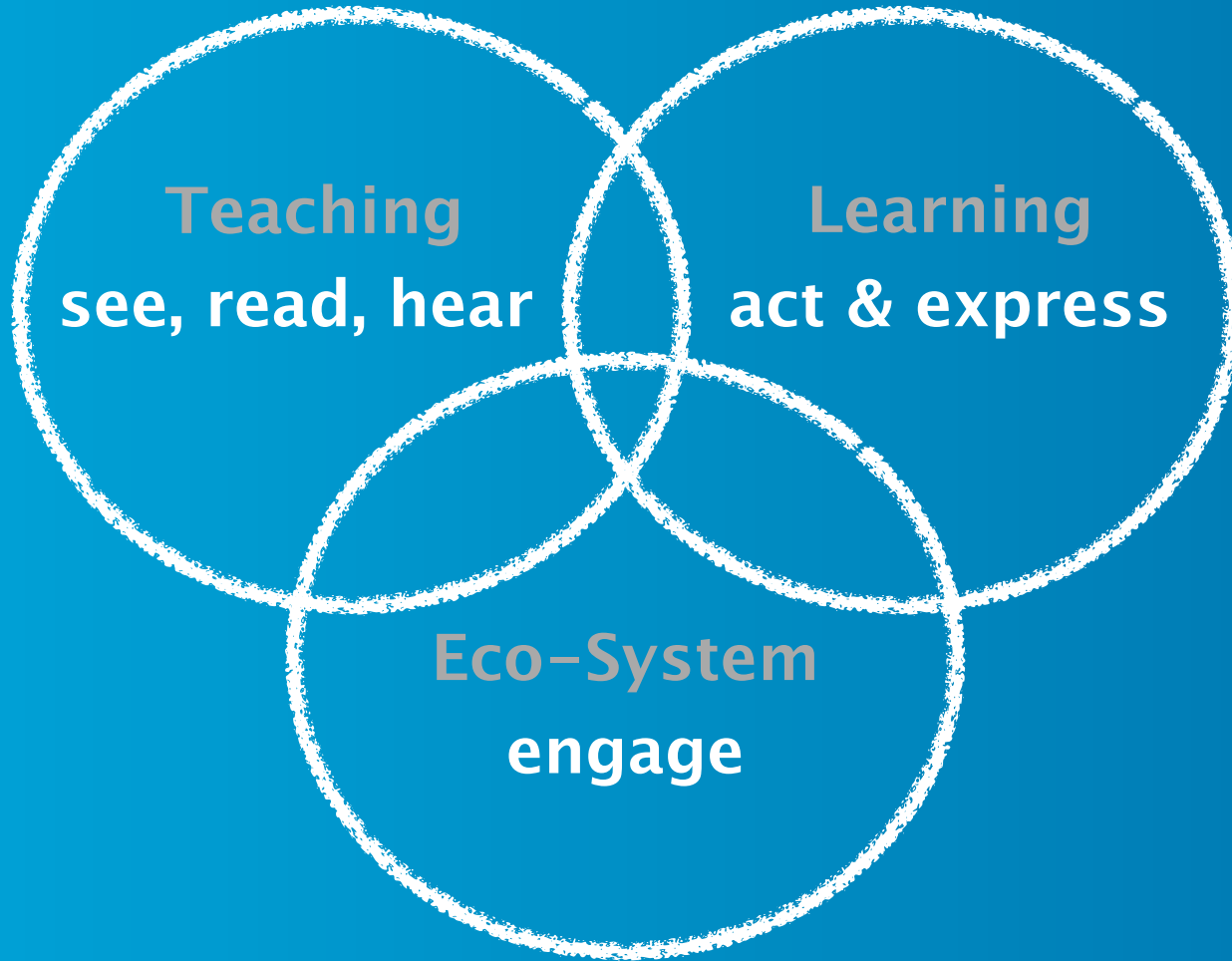
Multiple Means of

-  Representation
-  Action and Expression
-  Engagement



[www.cast.org](http://www.cast.org)







**apps for literacy support list:**  
**[www.spectronics.com.au/blog](http://www.spectronics.com.au/blog)**



# Universal Design for Learning




## Multiple Means of Representation

Student – How we gather facts and categorize what we see, hear, and read.

Teacher – Present information and content in different ways




$$\frac{dF(x)}{dx} = f(x)$$

*if  $y = F(x)$ , then*

$$y = F(x) + C$$

*then*

$$\int f(x) dx = F(x) + C$$



# Universal Design for Learning



## Multiple Means of Representation Apps:

vBookz PDF  
App Writer  
Prizmo  
Write & Say  
Khan Academy  
Explain Everything  
QRafter



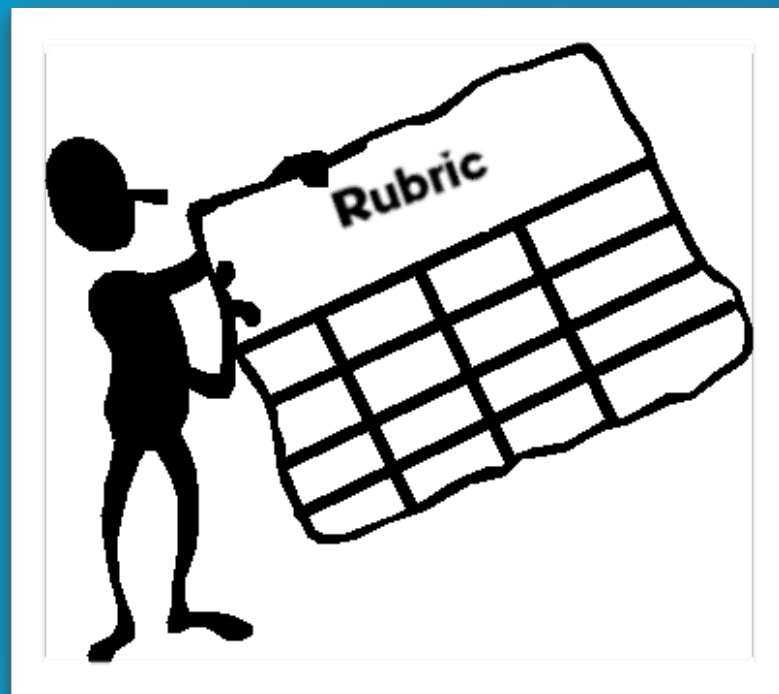
# Universal Design for Learning

## Multiple Means of Action and Expression

Student – Planning and performing tasks. How we organize and express our ideas.

Teacher – Differentiate the ways that students can express what they know





<b>APP Name</b>		<b>Curriculum focus</b>	
<b>Cost</b>		<b>Wifi capable</b>	

<b>DOMAIN</b>	<b>4</b>	<b>3</b>	
<b>Curriculum Connection</b>	Skill(s) reinforced are strongly connected to the targeted skill or concept	Skill(s) reinforced are related to the targeted skill or concept	Skill four or c
<b>Authenticity</b>	Targeted skills are practiced in an authentic format/ problem-based learning environment	Some aspects of the app are presented in an authentic learning environment	Skill gam
<b>Feedback</b>	Feedback is specific and results in improved student performance	Feedback is specific and results in improved student performance (may include tutorial aids)	Feed of st stud
<b>Differentiation</b>	App offers complete flexibility to alter settings to meet student needs	App offers more than one degree of flexibility to adjust settings to meet	App setti



# Universal Design for Learning



## Multiple Means of Action and Expression Apps:

WritePad  
TypO HD  
SoundNote  
Audiolio  
DropVox





# Universal Design for Learning



## Multiple Means of Engagement

Student – How we get engaged and stay motivated. How we are challenged, excited, or interested.

Teacher – Stimulate interest and motivation for learning



How do we ensure the  
technology is being used to  
enable, engage and  
empower all students ?



more than accessibility....  
our focus needs to be on  
meaningful engagement



# SAMR Model

4-level approach to selecting, using, and evaluating technology in education

(Ruben Puentedura)



**Redefinition**

**Technology allows for the creation of new tasks, previously inconceivable**

**Modification**

**Technology allows for significant task redesign**

**Augmentation**

**Technology acts as direct tool substitute, with functional improvement**

**Substitution**

**Technology acts as direct tool substitute, with no functional improvement**



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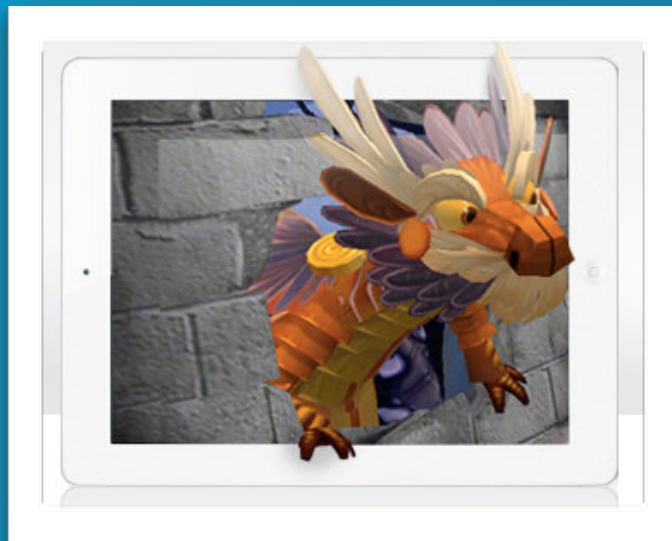




# implications



# possibilities



<http://www.spectronics.com.au/blog>

<http://twitter.com/gregococonnor>

<http://delicious.com/ocgreg>



Email: [grego@spectronics.com.au](mailto:grego@spectronics.com.au)

