#GippslandDigital

TUTOR EDITION
Exploring New Realities

Your Name

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Your Business / Organisation

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Contents

Your Presenter - Tim Gentle

Founder of Think.Digital, Digital Crusader, Educator & Entrepreneur. An advocate for regional, rural and remote Australia.

Over 20 years of experience in Marketing and the Digital world. Tim's energy, enthusiasm and industry knowledge has been shared in well over 1500 workshops both internationally and across Australia. Tim has also architected over 1000 websites for an array of customers.

Think Digitals #ThinkDigitalCoach is a hi-tech 14-metre classroom on wheels, that travels throughout Australia providing digital education, experiences, and education.

Tim's vision is to help bridge the digital divide between the city and country.

Learn more about Tim and the #ThinkDigitalCoach
www.timgentle.com | www.think.digital | www.thinkdigitalcoach.com.au
www.thinkdigitalcampus.com.au | www.farmvr.com.au

Being a Digital Champion

Congratulations!! You are the one who is going to digitally empower people to engage and participate in the digital age.

Primarily you will be upskilling business people or people looking to use these skills in an organisation or for their vocation, however, digital engagement also means using any digital tool to help learn, communicate, shop and/or to make life easier or better.

Some of us grew up with digital technology and some didn't! In studies it was revealed that a millennial would rather lose their hearing than their mobile device. Another study showed that more millennials own a mobile device than a toothbrush. Your classroom could have a very diverse range of competencies and experiences and you will want to try to cater to them all.

Your main role as a "Digital Champion" is to build the digital skills and confidence of your participants.

It is not excepted that you have a deep understanding of all the topics, but a well-rounded overview of digital world certainly helps..

The enthusiasm you put into delivering this content will directly impact how well it is received.

Thank you for taking on the rewarding challenge of empowering others.

Tim Gentle
Digital Crusader & Founder of Think Digital

Course Overview

Who is this Course for?

- Small Business Owners
- Startups
- Community Groups
- Managers
- People looking to improve their digital skills & confidence
- Looking to grow their digital confidence

Workshop Objectives

- Understand how immersive technology could be applied to your industry
- Enjoy some immersive technology experiences
- Learn how to create your own 360-degree photo
- Create an action list on steps you can take to improve your digital marketing
- Network with other Participants

Topics we'll cover in the course

- Immersive Technology Overview
- 360-degree photos
- 360-degree video
- Virtual Reality (VR)
- Augmented Reality (AR)
- Action List
- Further Learning

Course Overview

Learning Outcome
That participants understand that they will build their digital skills and confidence allowing them to consider integrating immersive technologies into their business/organisation.

Suggested Time
10 mins

Teaching Points
- Make people feel like they are in the right room, surrounded by the same like minded people
- This course has an overall look immersive technologies, like Virtual Reality, Augmented Reality
- They will not only get to experience these immersive technologies, but also learn how to create their own immersive technologies.
- No PowerPoint, more hands-on examples and discussion
- A lot of the Immersive experiences are either Free or low cost.

Suggested Activity
- Brief intro from the PAX

I'm always doing that which I don't know how to do in order to know how to do it.

-- Pablo Picasso

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Immersive Technology (XR)

Immersive Content, such as 360 photos, 360 video, Virtual Reality, Mixed Reality and Augmented Reality are the latest way to engage with our audiences. Industry is now referring to Augmented Reality (AR) and Virtual Reality (VR) as VX.

Immersive Content surrounds the viewer which can increase engagement and consumption of what we are communicating to our audience.

Immersive technology is here now, with Virtual Reality headsets being a red hot consumer item in technology retail stores in 2017.

However, it is important to note that 360 photos and 360 video can also be consumed on a mobile device or computer without the need for a VR Headset.

Immersive Technology

Learning Outcome

That participants understand what immersive technologies are how they are here now and being consumed.

Suggested Time

5 mins

Teaching Points

- Immersive Content, consists of
    - 360 photos
    - 360 video
    - Virtual Reality
    - Augmented Reality
- Immersive Content surrounds the viewer = increased engagement
- No longer fantasy, it is here now a red hot consumer item
- Of course, not everyone has a VR headset, so it is important to note that 360 photos and 360 video can also be consumed on a mobile device or computer without the need for a VR Headset.
    - Rotate a mobile device in your hands around you
    - Mention how we already view 360 content in Facebook

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Immersive Technology Applications Examples

Marketing/Sales
- A Virtual Reality Experience of a Farming Operation to educate Asian markets how we farm here in Australia.

Production
- Staff Training Orientation, a 360 Virtual Tour of a mining site

Education
- A Virtual Reality Tour of the Human Brain

Entertainment
- An Augmented Reality Disney Experience of a character singing a song
- A VR Experience that takes you on the set of a movie
- A VR Roller Coaster Ride

Benefits of Immersive Technology

- Engaging "The consumer is fully engaged in the content"
- Help market your business and increase sale outcomes
- Open up to wider audience
- Be seen as innovative and progressive
- Assist with internal and external communications

ACTIVITY: What is an example of immersive technology that you can think might work for your industry?

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Immersive Technology Applications

Learning Outcome
Understand how Immersive Technology can be applied to a wide variety of industries, not just "entertainment or marketing"

Suggested Time
10-15 mins

Teaching Points
- **Marketing/Sales** eg. A Virtual Reality Experience of a Farming Operation to educate Asian markets how we farm here in Australia.
- **Production** eg. Staff Training Orientation, a 360 Virtual Tour of a mining site
- **Education** eg. A Virtual Reality Tour of the Human Brain
- **Entertainment** eg. An Augmented Reality Disney Experience of a character singing a song, A VR Experience that takes you on the set of a movie,A VR Roller Coaster Ride

Benefits of Immersive Technology
- Increased Engagement in the content, because the consumer is fully immersed
- Help "communicate" your story, across borders
- Open up to wider audience "virtual field trips"
- Be seen as innovative and progressive "Lead the way"
- Assist with internal and external communications "great for training"

Group Activity
- Get PAX to provide examples of how immersive technology could be applied in their industry. Encourage them to think both internally (their staff) and externally (their customers)

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360-degree Photography

A 360-degree photo immerses the viewer in the complete environment. It can viewed on viewed on desktop, mobile or ideally in a VR Headset. The 360-degree photo is often referred to as a "photosphere" or "360-degree panorama"

Photosphere Example - John Deer Header

The photo above is a 360-degree photo, here are some facts.
- Shot on a 360-camera (Samsung Gear 360 Camera)
- 7MB in size and 5472 px × 2736 px (pixels) in dimension

Viewing a 360-degree Photo

Unlike a traditional photo, a 360-degree photo needs to be viewed using an specific application that can handle the 360-degree photo format
1. Install a desktop application
    - eg. GoPro VR Player www.kolor.com/gopro-vr-player/download/

- eg. Ricoh Theta www.theta360.com/uk/about/application/pc.html
2. Use a 360-photo hosting service - view of a desktop, mobile or VR headset
   - eg. www.roundme.com. www.kuula.co
3. On a mobile device using a 360-photo App or natively - Google StreetView

360 Photography

Learning Outcome
Understanding of 360 photography and how to view a 360 photo

Suggested Time
10 mins

Teaching Points
- A photosphere is the RAW 360 photo
- Viewing a 360 photo if different to viewing a traditional photo,
   - You can install a 360 viewing app on your computer
   - Upload it to a 360 hosting website
   - Or view it using an app installed on your mobile device.

Demonstration
- Demonstrate viewing a 360 photo on your desktop (suggest to use "GoPro VR Player", drag the 360 photo into the app and rotate the photo with the software.
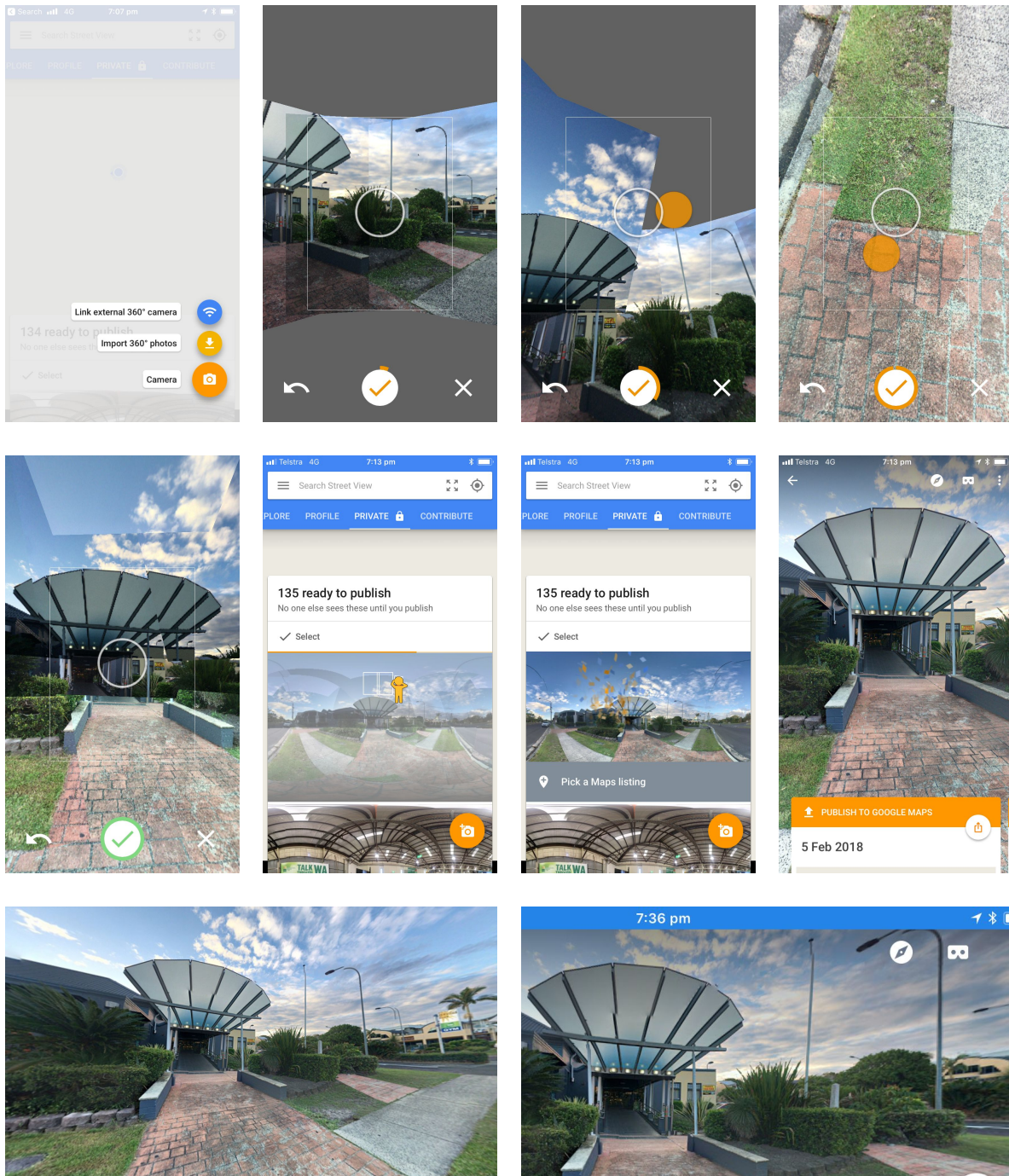- A RAW 360 photo if you need one - www.bit.ly/example-360-photo

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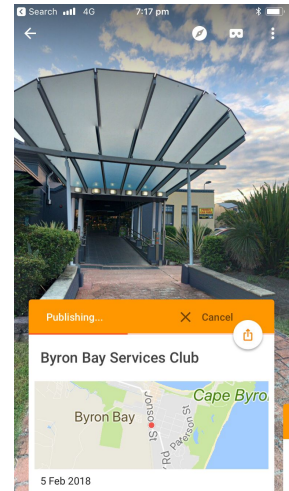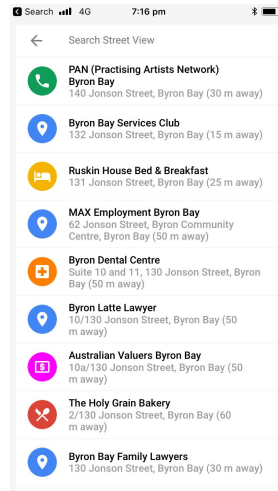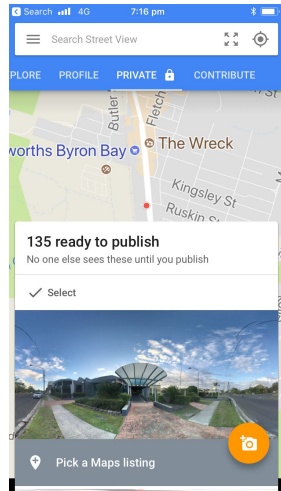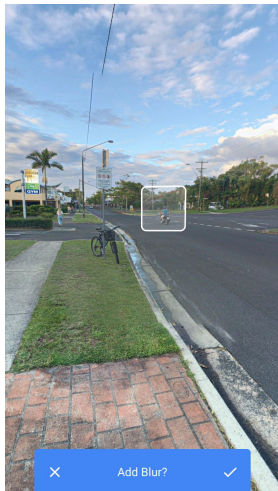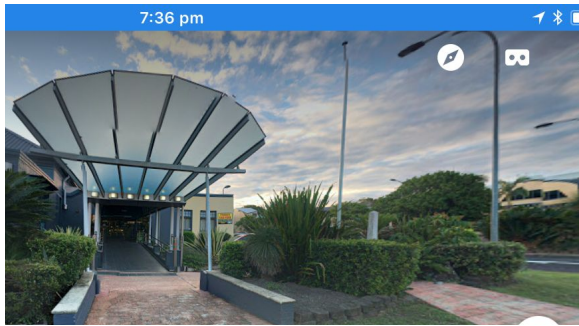_____

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Creating Your own 360-Photo

It's time now to create your very own 360-degree photo.

1. Download and install the Google StreetView App from the App Store or Google PLAY on your mobile device
2. Listen to your instructor for step by step instructions

ACTIVITY: Take your own 360 photo using StreetView or view existing 360 photos from everywhere around the world.

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Notes

- If using an Apple Phone, in Settings, turn the "Save to Camera Roll" on, so you can use the photo on social media, or other 360 hosting sites
- You can always delete a photo you've added to Google Maps using the StreetView App. Access this via the 3 dots in the top right corner.
- You can import a 360 photo into Google StreetView, that you have taken using a 360 camera.

Creating your own 360 Photo

Learning Outcome
Create their own 360 photography using their own mobile device.

Suggested Time
20 mins

Teaching Points
- Download and install Google StreetView App on their mobile device
- Follow your instructions on how to take their own 360 photo

Activity - Create your own 360 photo
Mirror your device using an app like "Reflector 2" www.airsquirrels.com/reflector/

Instructions - Use the screen shots on the PAX workbook to guide you

1. Start Google Streetview (something a few screens to get through on first use)
2. Choose "Camera"
3. Line the orange dot up to the white circle, let the camera take the photo
4. Spin all the way around continuing to line up the orange dot, then go up a layer and repeat, continue taking all the photos until the tick at the bottom turns green
5. Push the green tick and the app starts stitching the photos
6. Once completed a small like explosion animation appears
7. Click on the image to view, suggest to view in landscape and use your finger to rotate image
8. Click on the compass and rotate the phone using the gyroscope
9. Click the cardboard logo and view using a VR headset
10. Can blur specifics part of the photo by holding your finger on it (eg. over face)
11. Click the arrow to go pack to "pick up map listing"
12. Choose a map listing that matches the photo (if there is one, if not www.google.com.a/maps or www.google.com.au/mybusiness to add it.
13. Publish the photo to Google Maps
14. BONUS - View the photo by searching for the listing on www.google.com/maps
    a. Byron Bay Services Club - https://goo.gl/maps/s3AQ677WGmQ2

360 Virtual Tour Demonstration

- Visit the Moxey Farm 360 Virtual Tour - http://bit.ly/moxey-farm
- Note the use of "portals" and "information - hotspots"
- View on desktop and on a mobile using the roundme App

Activity - What application can you think of for a 360 Virtual Tour? Write it here.

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360 Photography Equipment

360 Cameras

- Gear 360 - www.samsung.com/global/galaxy/gear-360/
- Ricoh ThetaS - www.theta360.com/en/
- Nikon Key Mission

  www.nikon.com.au/en_AU/product/action-cameras/keymission-360
- Mi Sphere - www.mi.com/us/mj-panorama-camera/

Other Useful Equipment

- Tripod
- Selfie Stick

VR Headsets

- Google Cardboard
- Buy Headsets : www.amazingvr.com.au, JB HiFI, Australia Post
  - Recommended "Storm III"

Notes

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360 Virtual Tour Demonstration

Learning Outcome

(1) A further extension of just having the 360 photo by itself, is too consider creating an interactive Virtual Tour that people can engage in.

(2) 360 equipment to consider buying,

Suggested Time

10-15 mins

Teaching Points

- Demonstrate http://bit.ly/moxey-farm, show the portals and "i" information. The same Virtual Tour can also be viewed in VR. (Information hotspots don't work in VR)

- You could mention www.kuula.co which is designed solely for VR, interactive hotspots in VR. This would be worth exploring in your own time too.

- Discuss the various 360 photography equipment you can buy
    - Samsung Gear 360 - $250
    - Tripod - $80 (avoid one with a handle as the camera captures this)
    - VR Headset $40 www.amazingvr.com.au (Storm III)
    - Full set-up for under $400 (will also video, as discussed in the next lesson)

360-degree video

360 degree video immerses the viewer in the content, rather than just watching it in 2D. It can be said that you are "in the movie" rather than "just watching it". 360 video can be viewed on desktop, mobile or a VR Headset

**360 Video Example - Dolphin Encounter 360** http://bit.ly/dolphin-360
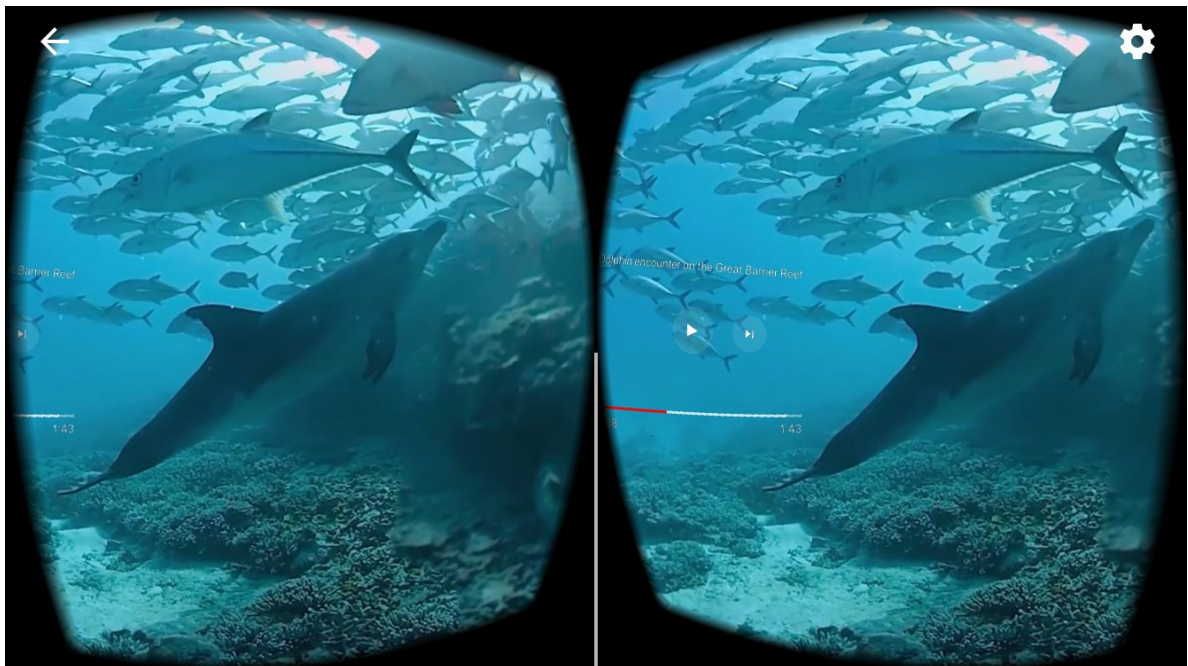

Tips and Tricks
- Use "360" or "VR" when searching for 360 videos on Youtube
- Use the controller in the left hand corner or click on the video to rotate video orientation
- Use the Youtube App for the VR full experience

Watching the 360 Video in VR

- Download and install the Youtube App on your mobile device
- Search "Dolphin Encounter 360"
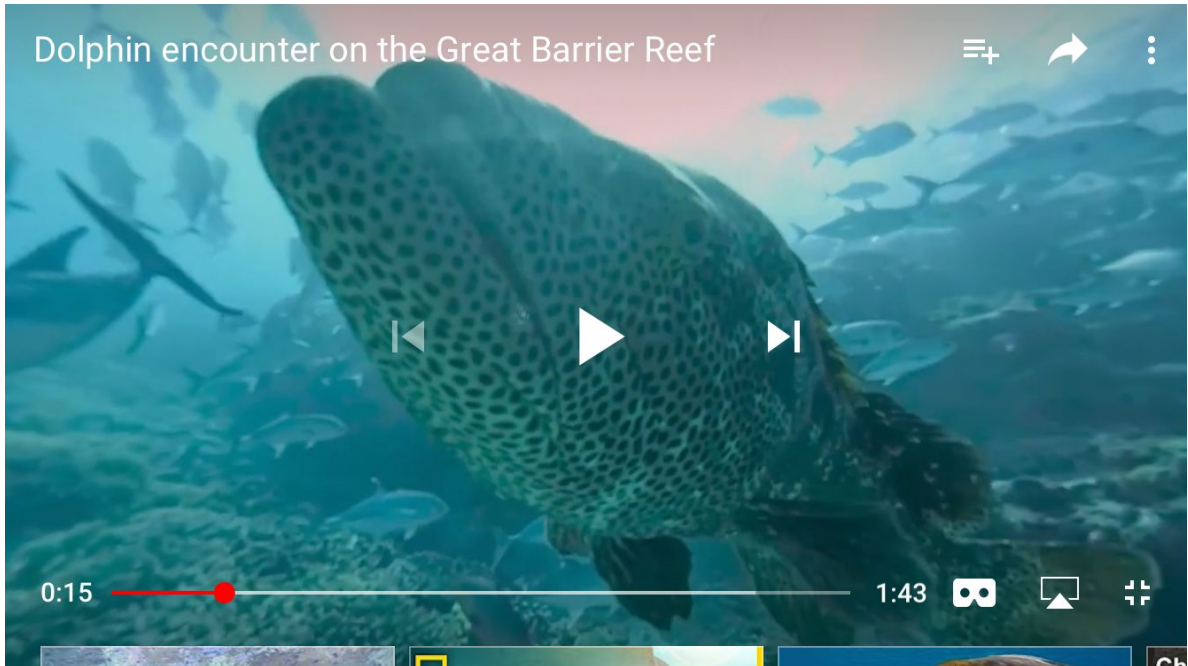
Click on the to activate "VR mode"

Place your mobile phone in a VR Headset for the complete VR Experience

360 Video

Learning Outcome

360 video has movement and sound. It can enhance the experience even more.

Suggested Time

15 mins

Teaching Points

- Talk about the difference between 360 photos and 360 video
- Showcase the Dolphin 360 encounter video on Youtube
    - On your Desktop, using your browser
    - Move the vision
    - Find the "big grouper (fish)" who nearly swallows the camera
    - Show the diver using a selfie stick
    - Here is an example of an underwater 360 camera
        - www.nikon.com.au/en_AU/product/action-cameras/keymission-360
        - www.360rize.com

Suggested Activities

- If time permits, get PAX to download the Youtube App on their mobile devices, search Dolphin Encounter 360. Watch the experience using "single VR mode" and "cardboard mode" using a VR Headset
- Mirror your device using an app like "Reflector 2" www.airsquirrels.com/reflector/

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Producing 360 Video - Tips & Tricks

- Look and talk to the camera as though they are there, and only them
- Move around, gesture towards objects and the camera
- Avoid the stitch line on the 360 video camera
- Avoid extreme variation of light
- Use a lapel microphone to capture the audio

360 Video Editing Software
- MAC - FinalCut Pro X
- PC (Windows) - Premiere Pro
- Mobile Phone
    - VeeR Editor (Android & iOS)

ACTIVITY: What aspect of your business/organisation do you think 360 video could be used for? Hint - Not just marketing, consider internal communications.

Producing 360 Video

Learning Outcome

Producing 360 video content is very different to producing normal video.

Suggested Time

10 mins

Teaching Points

- Tricks of the Trade (Tim makes a living from producing 360 content)
  - Look and talk to the camera as though they are there, and only them
  - Move around, gesture towards objects and the camera
  - Avoid the stitch line on the 360 video camera
  - Avoid extreme variation of light
  - Use a lapel microphone to capture the audio
- 360 Video Editing Software
  - Talk about the video editing process, it is a little more complicated than traditional video editing, but with a little practice, everything is possible.
  - You need to add 360-degree METADATA

Suggested Activities

- None.

Virtual Reality

Virtual Reality is a "computer generated environment, that is interactive, exciting and immersive". It is consumed using a VR headset and can also incorporate other inputs like handheld units.

Virtual Reality Platforms

Google Cardboard, Daydream, Playstation VR, GearVR, Oculus Rift, HTC Vive

Pictured above is the HTC Vive - Note the Sensor in the corner on the tripod and the handheld units. This creates an "virtual area" that the user can walk around in and interact with the VR experience.

Virtual Reality

Learning Outcome

The main difference between what we have seen so far and Virtual Reality is that we can interact with the VR experience, rather than "passively watching it".

Suggested Time

5 mins

Teaching Points

- Virtual Reality is a "computer generated environment, that is interactive, exciting and immersive". It is consumed using a VR headset and can also incorporate other inputs like handheld units.
- Virtual Reality Platforms
    - Google Cardboard
    - Daydream
    - Playstation VR
    - GearVR - (Samsung & Oculus teamed up)
    - Oculus Rift (handheld units)
    - HTC Vive (pictured)

Suggested Demo

- Show the PAX how a physical environment can become a VR space (4m X 4m), Show where the sensors would be in each corner and walk around in the space. Show them how you it creates a "virtual space" that the computer recognises and knows you are in that space" etc
- Potentially use this video to help https://www.youtube.com/watch?v=bEdTbJ1yq80 from about the 2:15 min mark...
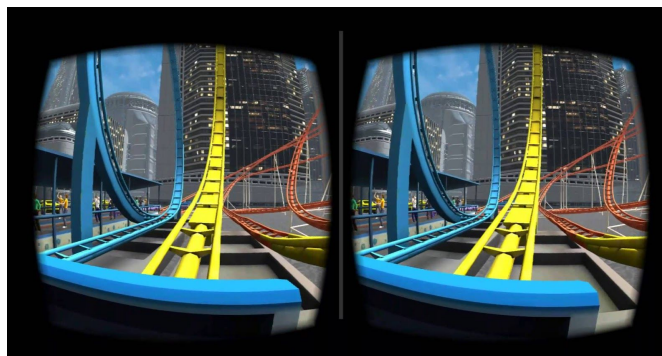
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Virtual Reality Apps

It is possible to engage in VR using your mobile device and a VR Headset. Here are a few VR Apps to experiment with.
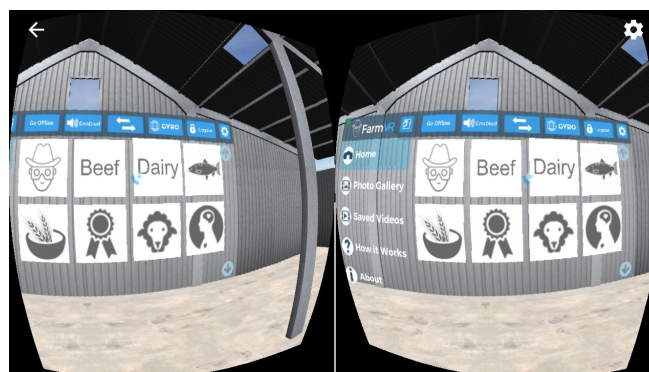
Google Cardboard App - A great demo App for VR Experiences

VR Roller Coaster - Entertaining VR Experience, not for the faint hearted

FarmVR - Learn where your food comes from (www.farmvr.com.au)

Virtual Reality Apps

Learning Outcome

Showcase a few VR Apps.

Suggested Time

10 mins

Teaching Points

- Showcase a few VR Apps as provided
    - Google Cardboard
        - Show the Urban Explorer and Arctic Adventure
    - VR Roller Coaster
        - Search VR Roller coaster in the App store or Google Play
    - FarmVR (Think Digital's VR App)
        - www.farmvr.com.au

Suggested Demo

- Get a PAX to use your device in a VR Headset
- BONUS - Mirror your device onto your laptop, which then displays on the projector
- Mirror your device using an app like "Reflector 2" www.airsquirrels.com/reflector/

Augmented Reality (AR)

Augmented Reality superimposes a computer-generated image on a user's view of the real world, thus bringing it to life. Augmented Reality objects can be viewed via a mobile device, or using AR Glasses, referred to as wearables

Facts & Figures
- Our world will be immersed digital objects
- We will wear glasses / contact lenses (wearables)
- There will be Humangrams, holograms around us
- AR can be integrated with almost anything to add value
- Trackers, beacons or GPS coordinates are used to "place AR objects in our world"

Augmented Reality

Learning Outcome

Showcase what Augmented Reality is and how it varies from Virtual Reality

Suggested Time

5-10 mins

Teaching Points

- Augmented Reality "superimposes a computer-generated image on a user's view of the real world, thus bringing it to life."
- Augmented Reality objects can be viewed via a mobile device, or using AR Glasses, referred to as wearables
- Facts & Figures
    - Our world will be immersed digital objects
    - We will wear glasses / contact lenses (wearables)
    - There will be Humangrams, holograms around us
    - AR can be integrated with almost anything to add value
    - Trackers, beacons or GPS coordinates are used to "place AR objects in our world"

Suggested Demo

- Highlight how we can see each other "human interaction returns"
- Highlight how the girl can see the vase, interact with the "digital content"
    - She can even the go onto print the vase "modern day pottery"

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AR Apps

There are lots of AR Apps that are hitting the market, search on "AR" when in your App Store, eg. Body AR

A couple of Apps to download to familiarise yourself with AR are;
- QuiverVision - Colouring AR App www.quivervision.com.au
- Baja California - Engineering AR App

AR Wearables (Glasses)

Introducing DAQRI Smart Glasses

6,265 views

👍 24 👎 2 ➔ SHARE ≡+ •••

DAQRI
Published on Oct 23. 2017

SUBSCRIBE 2.2K

Watch www.bit.ly/daqri-smart-glasses

Other wearables
- Microsoft HoloLens - www.youtu.be/7Xv8A9vqeBw
- Meta2 -www.metavision.com/

Augmented Reality Apps

Learning Outcome

Demo Augmented Reality so the PAX can experience Augmented Reality.

Suggested Time

10 mins

Teaching Points

- Augmented Reality "superimposes a computer-generated image on a user's view of the real world, thus bringing it to life."
- Augmented Reality objects can be viewed via a mobile device, or using AR Glasses, referred to as wearables
- Facts & Figures
    - Our world will be immersed digital objects
    - We will wear glasses / contact lenses (wearables)
    - There will be Humangrams, holograms around us
    - AR can be integrated with almost anything to add value
    - Trackers, beacons or GPS coordinates are used to "place AR objects in our world"

Suggested Demo

- QuiverVision - Colouring AR App - www.quivervision.com.au (download an example colouring page)
- Baja California - Engineering AR App
- Mirror your device using an app like "Reflector 2" www.airsquirrels.com/reflector/
- Watch the Daqri Video (if time)
    - www.bit.ly/daqri-smart-glasses

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Create your own AR

It is possible to create your own Augmented Reality. There are several Apps to choose from
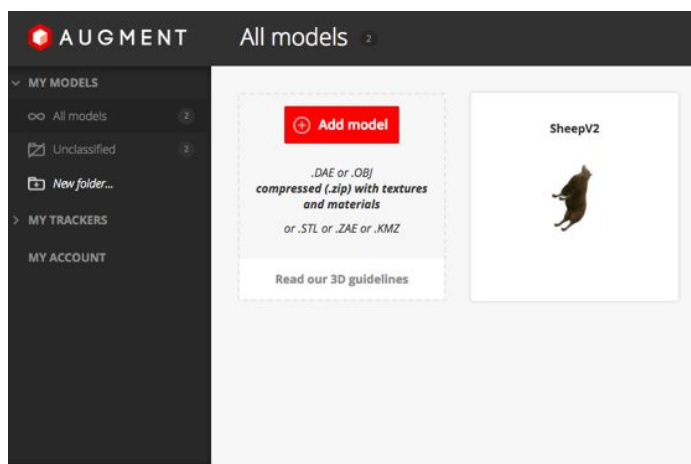
- Augment
- Aurasma
- Zappar

ACTIVITY: Download and install "Augment" App on your mobile device. (1) Search on "Sheep" (by timgentle) (2) create a tracker and have the sheep appear

DIY Augmented Reality

Learning Outcome

Showcase an DIY AR App (Augment) to showcase that the PAX can consider experimenting with creating AR themselves

Suggested Time

10 mins

Teaching Points

- AR can be created using some clever DIY AR Apps
- Augment is one of those

Suggested Demo

- Demonstrate the "Augment" App. Search on Sheep. Create a Tracker, rotate the 3D object so it sits on the Tracker.

Actions

Write down some actions you would like to take to integrate "Immersive Technology" into your business or organisation.

Tactic / Activity	By When

What we covered in this course

Immersive Technology Overview

The way we look at the world is changing, we will soon be surrounded by content, rather than looking at it in 2D. Eg. A TV

360-degree photos

A 360-degree photo immerses the viewer in the complete environment. It can viewed on viewed on desktop, mobile or ideally in a VR Headset. The 360-degree photo is often referred to as a "photosphere" or "360-degree panorama"

360-degree video

360 degree video immerses the viewer in the content, rather than just watching it in 2D. It can be said that you are "in the movie" rather than "just watching it". 360 video can be viewed on desktop, mobile or a VR Headset

Virtual Reality

Virtual Reality is a "computer generated environment, that is interactive, exciting and immersive". It is consumed using a VR headset and can also incorporate other inputs like handheld units.

Augmented Reality

Augmented Reality superimposes a computer-generated image on a user's view of the real world, thus bringing it to life. Augmented Reality objects can be viewed via a mobile device, or using AR Glasses, referred to as wearables

Action List

Further Learning

Recommend Further Learning

Mixed Reality Links

- **Augmented World Expo -** www.augmentedworldexpo.com
- **AR Dirt -** www.ardirt.com
- **AR News** - www.arnews.tv
- **Augmented Reality Bulletin** - https://paper.li/AR_bulletin/1375037195#/
- **Augmented Reality Smart Glasses Guide** -
  www.arglassesbuyersguide.com
- **Augmented.org** -www.augmented.org/blog/
- **Holo Herald** - www.theholoherald.com
- **Next Reality AR news** - www.augmented.reality.news/\
- **Wareable** -www.wareable.com
- **Interactive 360 Video Content**
    - **Viar** - www.viar360.com
    - **Ominivirt** - www.omnivirt.com/vr-player/
    - **Wondavr** -www.wondavr.com
    - **Sprawly** - www.sprawly.co/

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We'd love your feedback please like/review us

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