



The logo features the words "Games Academy" in a pink, stylized font at the top, with "GAM310" in large, metallic, 3D-style letters below it. The word "PREPARING FOR THE FUTURE" is written in a blue, glowing font at the bottom. The background is a dark purple gradient with a grid pattern and small white stars.

Games Academy

GAM310

PREPARING FOR THE FUTURE

Lecture 4: Imagining the Future by Engaging with
the Past

GAM310: Preparing for the future
BA(Hons) Game Development

The past is a
foreign country;
they do things
differently there.

-L.P. Hartley

- Premise
 - The videogames industry (and technology-centric industries in general) are very forward looking
 - What mistakes could companies be making?
 - Have they been made before?
 - What opportunities could they be missing out on?

- Today
 - Analyse several current issues in games
 - What can history tell us about them
 - How does this tie into your assignment

- Analyse several current issues in games

- Analyse several current issues in games
 - VR

- Analyse several current issues in games
 - VR
 - We are currently in the ‘rebirth’ of VR
 - Sony & Microsoft have launched VR for games and beyond
 - Range of h/w companies making VR systems
 - Expensive acquisitions (Oculus by Facebook - \$2BN)
 - Support for VR in middleware (UE4, Unity etc)
 - Game developers making VR games
 - Sounds like a rich ecosystem for success ...

- Analyse several current issues in games
 - VR
 - Sounds like a rich ecosystem for success, is it?
 - Oculus management team moved on from FB
 - Sony closing Manchester VR studio
 - What is the VR killer app?



- Analyse several current issues in games
 - VR
 - Sounds like a rich ecosystem for success, is it?
 - Will this be the killer app?



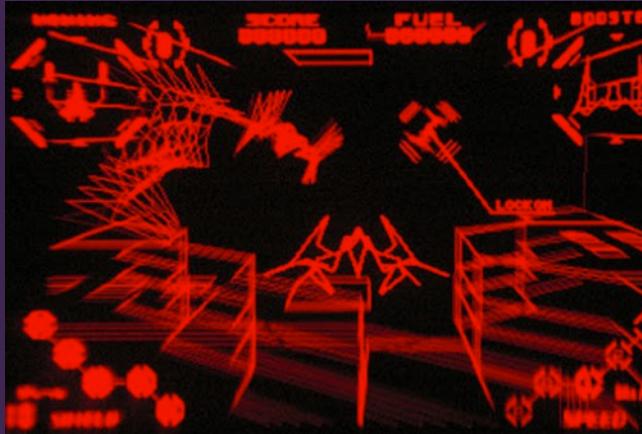
- Analyse several current issues in games

- VR

- What can history tell us about VR 1.0 (1970-90)
 - A period of massive growth in h/w performance
 - » VR was technically possible
 - Large companies (Nintendo, Sega) developed systems
 - Arcade systems (Virtuality)
 - Generally regarded as a failure



- Analyse several current issues in games
 - VR
 - What can history tell us about VR 1.0 (1970-90)
 - At the time:
 - » Price
 - » Discomfort
 - » Games not worth playing



Dactyl Nightmare SP

- Analyse several current issues in games
 - VR
 - What can history tell us about VR 1.0 (1970-90)
 - What do we reflect on VR1.0s failure
 - » Hardware wasn't good enough
 - » Headsets were bulky
 - VR2.0
 - » Much better technology
 - » Less headset bulk
 - » Better gfx

- Analyse several current issues in games
 - VR
 - What can history tell us about VR 1.0 (1970-90)
 - What do we reflect on VR1.0s failure
 - » Hardware wasn't good enough
 - » Headsets were bulky
 - VR2.0
 - » Much better technology
 - » Less headset bulk
 - » Better gfx
 - » Still no killer app ...
 - » Is hubris at play?

- Analyse several current issues in games
 - VR
 - Two questions:
 - Are killer apps key to h/w (platform) success?
 - Can h/w companies make killer apps?

- Analyse several current issues in games
 - VR
 - Are killer apps key to h/w (platform) success?
 - Sega Saturn launched with Virtua Fighter
 - PS1 launched with Ridge Racer, Wipeout & Destruction Derby
 - N64 launched with Super Mario 64 & Pilot WIngs
 - GameCube launched with Luigi's Mansion, Super Monkey Ball & Wave Race
 - Dreamcast: Sonic Adventure, Virtua Fighter 3, Soulcalibur
 - PS2 ?
 - Xbox: Halo, DoA3, Tony Hawk's, Project Gotham

- Analyse several current issues in games
 - VR
 - Are killer apps key to h/w (platform) success?
 - PS4
 - » Angry Birds Star Wars, Assassin's Creed IV: Black Flag, Battlefield 4, Blacklight: Retribution (Beta), Call of Duty: Ghosts, Contrast ,DC Universe Online, DiveKick, FIFA 14, Flower, Injustice: Gods Among Us Ultimate Edition, Just Dance 2014, Killzone Shadow Fall, Knack ,LEGO: Marvel Super Heroes, Madden NFL, NBA 2K14, NBA Live, Need for Speed: Rivals, PlayRoom, Resogun, Skylanders Swap Force, Sound Shapes, Super Motherload, Trine 2: The Complete Story,Warframe

- Analyse several current issues in games
 - VR
 - Are killer apps key to h/w (platform) success?
 - Xbone
 - » Assassin's Creed IV: Black Flag, Battlefield 4, Call of Duty: Ghosts, Crimson Dragon, Dead Rising 3, FIFA 14, Fighter Within, Forza Motorsport 5, Just Dance 2014, Killer Instinct, Lego Marvel Super Heroes, LocoCycle, Madden NFL 25, NBA 2K14, NBA Live 14, Need for Speed: Rivals, Peggle 2, Powerstar Golf, Ryse: Son of Rome, Skylanders: Swap Force, Watch Dogs, Zoo Tycoon, Zumba Fitness: World Party
 - » (spot the similarities)

- Analyse several current issues in games
 - VR
 - Are killer apps key to h/w (platform) success?
 - Having a good launch roster wont make your h/w a success
 - Not having a good launch roster (or a stream of quality games) will make it fail
 - » Dreamcast – EA wouldn't support it
 - » Gamecube – so little content that large box shifters cleared it from inventory
 - » PSP / PS Vita – never seemed to have anything that would make you buy it
 - I only got mine for the developer studio

- Analyse several current issues in games
 - VR
 - Can h/w companies make killer apps?
 - Should h/w companies buy or build their apps?
 - » Sony
 - Generally, all their ‘good’ games have come from:
 - 3rd parties
 - Digital Polophony
 - 1st parties that were 3rd parties
 - Media Molecule, Guerilla, Insomniac, Naughty Dog
 - Sony London
 - Have made very impressive casual games (singstar, eyeToy, eyePet)
 - Are these killer apps for a new platform?

- Analyse several current issues in games
 - VR
 - Can h/w companies make killer apps?
 - Generally, the culture of h/w companies does not lend itself to s/w development
 - » Google Android
 - Google writes O/S
 - Vendors build hardware
 - (generally) vendor extended O/S are a bit lacklustre
 - » Microsoft
 - (Generally) doesn't build h/w
 - Acquired Nokia, results weren't good
 - » Apple
 - An exception to this rule? Pioneered AppStore for phones

- Analyse several current issues in games
 - VR
 - What does history tell us?
 - To make products and services that work, there has to be a customer need, even if customers are not aware of this.
 - » See this with all architectural and radical innovation as they are about creating new markets
 - Record player -> I wasn't aware I needed to listen to music I like
 - Cassette recorder -> I wasn't aware I needed to record music I like
 - Walkman -> I wasn't aware I needed to listen to music on my own
 - iPod -> I wasn't aware I needed all my music in my pocket
 - Spotify -> I wasn't aware I needed to be able to stream all the music ever (that we have licenced)

- Analyse several current issues in games
 - VR
 - What does history tell us?
 - To make products and services that work, there has to be a customer need, even if customers are not aware of this.
 - The prospect of buying h/w with nothing (or rubbish games) to play on it, isn't exactly appealing
 - » Sony, MS & Nintendo understand this with their console launch game rosters

- Analyse several current issues in games
 - VR
 - So why is VR different
 - Companies general reluctant to develop ‘open’ apps for other systems (VR or otherwise)
 - » Look at the walled gardens with mobile phone contracts
 - » PSVR is a walled garden
 - Buying in expertise
 - » Where is the expertise?
 - Building expertise is likely to be cheaper / less risky
 - » Organisational culture may not lead to desirable results
 - Do we even know what successful VR is?

- Analyse several current issues in games
 - VR
 - Conclusion
 - VR is very different to what has come before
 - » Developers likely to struggle until the ‘rules’ of development become more apparent
 - » Are there historical precedents for this?

- Analyse several current issues in games
 - VR
 - Revolutionary times



- Analyse several current issues in games
 - Maturing markets, products and models

- Analyse several current issues in games
 - Maturing markets, products and models
 - The 21st century has seen games becoming huge global brands
 - Mario – 1BN
 - Call of Duty -300M
 - GTA – 300M
 - FIFA – 250M
 - The Sims -200M
 - Minecraft – 176M
 - Assassin’s Creed - 140M
 - Lego – 100M
 - Halo – 70M
 - Monster Hunter – 60M
 - Counter-Strike – 50M

- Analyse several current issues in games
 - Maturing markets, products and models
 - The 21st century has seen games becoming huge global brands
 - Anecdotally, the games industry is ‘risk adverse’
 - » Unwilling to commit large amounts of resources to novel projects
 - Lots of failures out there:
 - Lawbreakers
 - Spore
 - ‘Pareto analysis’ – 20% of a publisher’s game roster will make 80% of the profit

- Analyse several current issues in games
 - Maturing markets, products and models
 - The 21st century has seen games becoming huge global brands
 - Anecdotally, the games industry is ‘risk adverse’
 - » Unwilling to commit large amounts of resources to novel projects
 - » This isn’t universal, but
 - Publishers probably happier to develop GTA6 rather than Dreams

- Analyse several current issues in games
 - Maturing markets, products and models
 - The 21st century has seen games becoming huge global brands
 - See this in other entertainment industries
 - » Movies
 - Reliance on ‘Harry Potter’, ‘super hero’ & ‘Star Wars’ brands & franchises
 - Sequelitis
 - Novel IP often difficult to deliver vs. ‘art-house’
 - A lot of interest in remaking existing IP for C21st audience
 - Repurposed Existing IP often struggles (Cats)

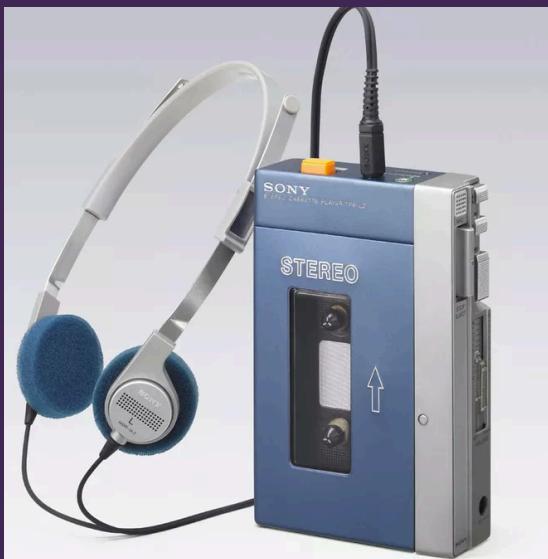
- Analyse several current issues in games
 - Maturing markets, products and models
 - The 21st century has seen games becoming huge global brands
 - See this in other entertainment industries
 - » Music
 - Reliance on stadium friendly touring megastars
 - Difficulties for grass-roots bands & venues
 - Search for me-too music
 - Manufactured and packaged music
 - Sell out of underground music genres

- Analyse several current issues in games
 - Maturing markets, products and models
 - The 21st century has seen games becoming huge global brands
 - See this in other entertainment industries
 - » Football / Sport
 - Reliance on global brands (Euro Premier teams)
 - Cricket personalities playing franchised 20-20

- Analyse several current issues in games
 - Maturing markets, products and models
 - What can history tell us about this strategy?
 - ‘Innovator’s dilemma’ – Christensen
 - Ground-breaking research into technology driven innovation from 1970s
 - » Disruptive technologies allow start-ups to displace incumbent (market leaders)
 - » Start-ups then become incumbent
 - » Incumbents can’t change strategy as quickly as start-ups
 - » A dog eat dog model

- Analyse several current issues in games
 - Maturing markets, products and models
 - What can history tell us about this strategy?
 - ‘Innovator’s dilemma’ – Christensen
 - This is about more than just hard drives ;)
 - » Market leaders have trouble changing direction quickly due to inertia (aka super tanker analogy)
 - » Start-ups don’t, cost of risk is relatively low (pivot / sharp bend)
 - Can experiment
 - » Successfully disrupting can destroy the existing market & incumbents

- Analyse several current issues in games
 - Maturing markets, products and models
 - What can history tell us about this strategy?
- Examples:
 - Sony Walkman
 - Created the personal stereo market in 1979
 - Walkman entered the dictionary
 - Responsible for increases in walking as exercise
 - Apple iPod
 - Created in 2001, ‘all your music in your pocket’
 - Destroyed the Walkman as a device and cassette tape as a medium

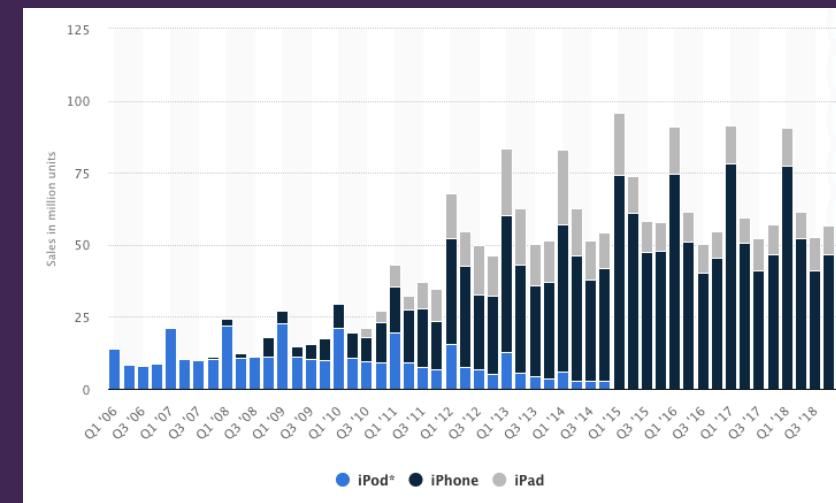


- Analyse several current issues in games
 - Maturing markets, products and models

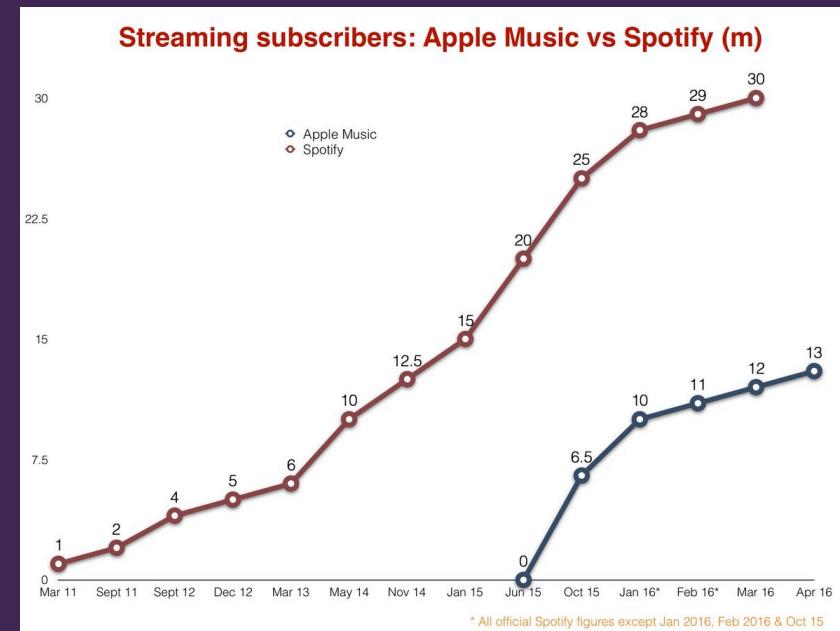
- What can history tell us about this strategy?

- Examples:

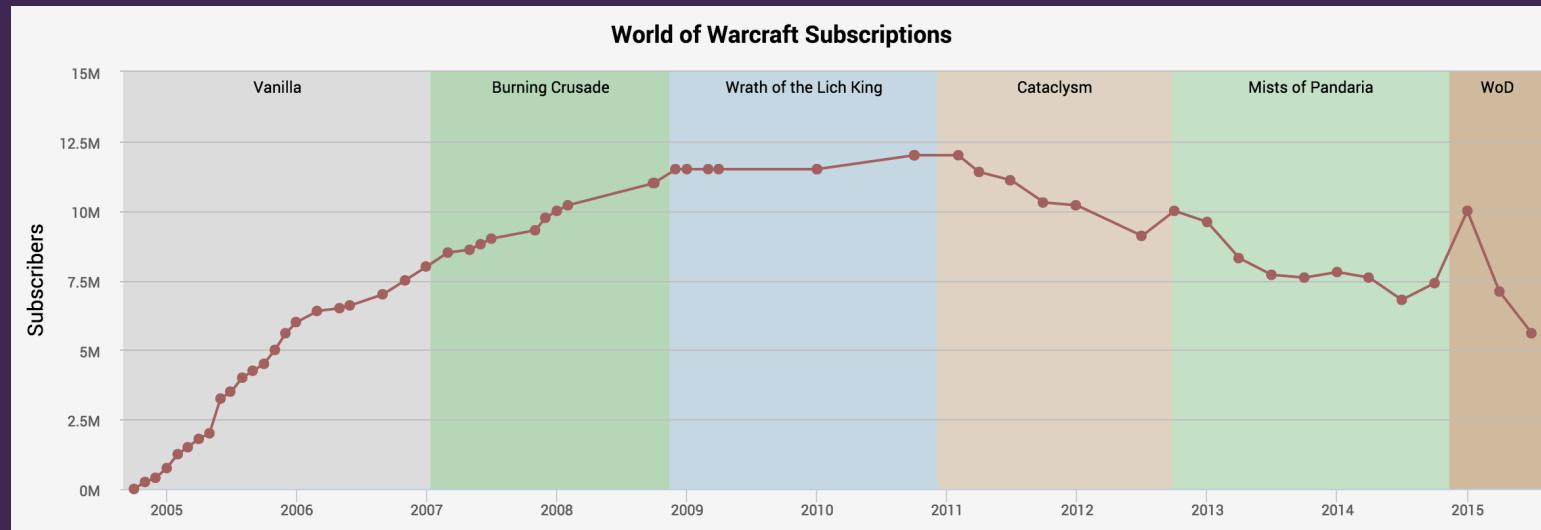
- Apple iPhone & Android Phones
 - Launched from 2007 onwards
 - Largely destroyed the iPod market
 - Good for Apple, iPhone & iPad sales dwarfed iPod



- Analyse several current issues in games
 - Maturing markets, products and models
 - What can history tell us about this strategy?
 - Examples:
 - Music streaming: Spotify et al
 - Launched from 2011 onwards
 - Reducing need to ‘own’ music



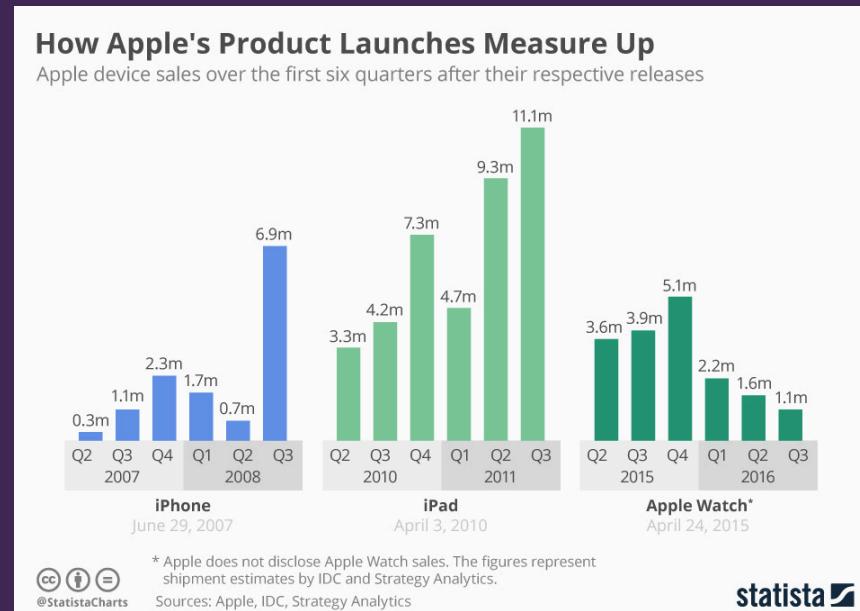
- Analyse several current issues in games
 - Maturing markets, products and models
 - Warcraft
 - Unbeatable from 2007-2015
 - » Survived many attempts to take userbase (SW MMO)
 - Now, under ‘attack’ from newer game services
 - » Fortnite, Rust, PUBG etc



[Notice how much more difficult it is to get game industry data]

- Analyse several current issues in games
 - Maturing markets, products and models
 - Conclusions
 - Nothing lasts for forever
 - » So, make hay while the sun shines
 - GTA5 online play (maybe cheaper to support than developing GTA6)
 - How can companies innovate while they are successful
 - » Christensen suggests this is v. difficult (for firms that have grown quickly from start-ups)
 - » Need to be prepared to kill your golden goose
 - Apple ipod -> iphone -> ipad
 - Hello games Joe Danger -> NMS

- Analyse several current issues in games
 - Maturing markets, products and models
 - Conclusions
 - Failure is always an option
 - » AppleTV, Google Glass
 - Limited success is always an option too
 - » Apple Watch



- Analyse several current issues in games
 - Maturing markets, products and models
 - Conclusions
 - Does an organisation have deep enough pockets to run with its limited successes or kill its failures
 - » Apple -> keeps AppleTV going, pushing Watch
 - » Hello Games -> Massive early revenues from NMS allowed the company to re-tool the game to fit expectations
 - » Many companies just don't have the resources or attitude to risk to do this
 - Publishers often shutter and move on

- Analyse several current issues in games
 - Maturing markets, products and models
 - Conclusions
 - The vast bulk of novel development will be occurring in secret
 - » Games industry is notorious for keeping quiet
 - ‘Killer apps’ may not even be in development, or known by publishers
 - » A lot of games will get pitched rather than developed in-house
 - Christensen’s start-up culture of move fast, take risks & break things

- How does this tie into your assignment

- How does this tie into your assignment
 - Let's go back to the rubric

(1 st) 85-100%	(1 st) 70-84%	(2:1) 60-69%	(2:2) 50-59%	(3 rd) 40-49%	Fail 30-39%	Fail 0-29%
OUTSTANDING	EXCELLENT	VERY GOOD	COMPETENT	ADEQUATE	MARGINAL FAIL	FAIL
Achieved the required learning outcomes	Achieved the required learning outcomes	Achieved the required learning outcomes	Achieved the required learning outcomes	Achieved the required learning outcomes with a minimally adequate response.	The student has Failed to achieve the required learning outcomes.	The student has Failed to achieve the required learning outcomes.
RESEARCH: The student demonstrates outstanding research and information skills.	RESEARCH: The student demonstrates excellent research and information skills.	RESEARCH: The student demonstrates very good research and information skills.	RESEARCH: The student demonstrates competent research and information skills.	RESEARCH: The student demonstrates adequate research and information skills.	RESEARCH: The student demonstrates some research and information skills.	RESEARCH: The student demonstrates little or no research and information skills.
ANALYSIS: The student demonstrates an outstanding ability to critically engage with and analyse information and formulate reasoned arguments.	ANALYSIS: The student demonstrates an excellent ability to critically engage with and analyse information and formulate reasoned arguments.	ANALYSIS: The student demonstrates a very good ability to critically engage with and analyse information and formulate reasoned arguments.	ANALYSIS: The student demonstrates a competent ability to critically engage with and analyse information and formulate reasoned arguments.	ANALYSIS: The student demonstrates a adequate ability to critically engage with and analyse information and formulate reasoned arguments.	ANALYSIS: The student demonstrates some ability to critically engage with and analyse information and formulate reasoned arguments.	ANALYSIS: The student demonstrates little or no ability to critically engage with and analyse information and formulate reasoned arguments.

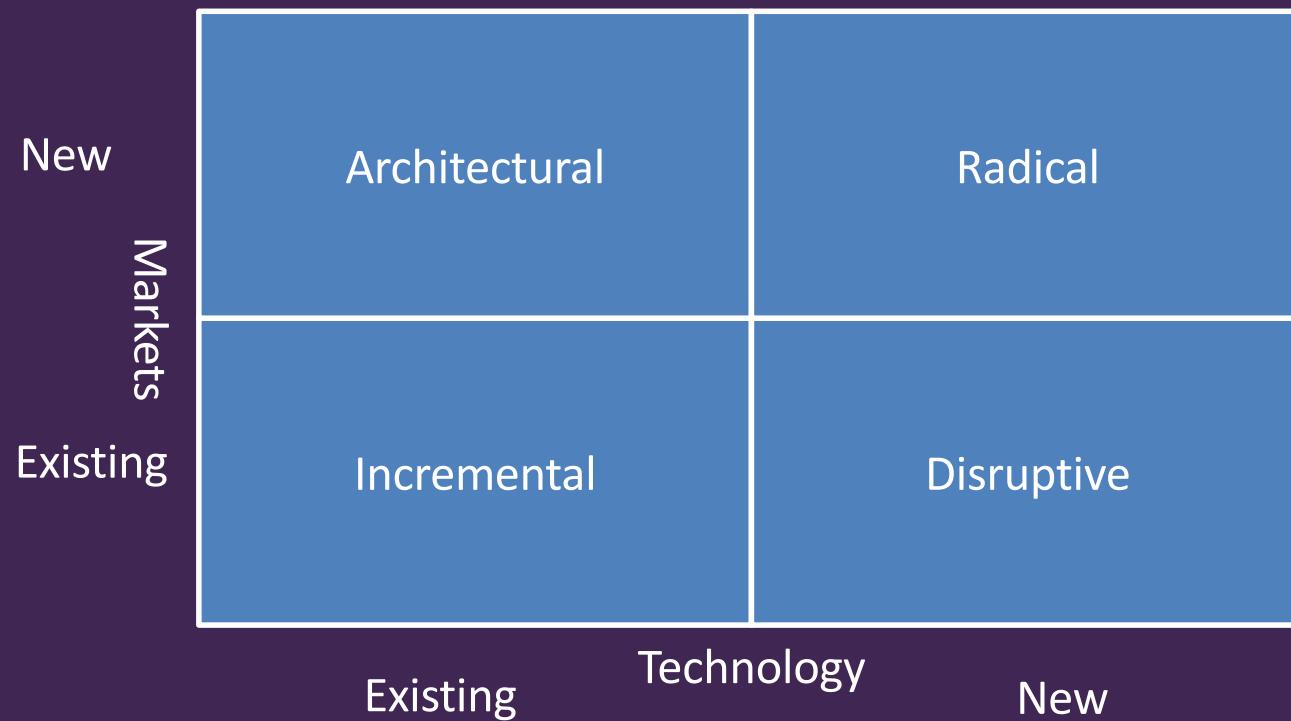
- How does this tie into your assignment
 - Let's go back to learning space

ID	NAME	DESCRIPTION	ASSESSMENT CRITERIA CATEGORY
3	Contextualise	Synthesise knowledge of specialism with development practice.	INDUSTRY
4	Advocate	Assess the legal, social, ethical, and professional issues in research and developmental contexts in correspondence with the relevant law, codes of conduct, and theory.	COMMUNICATION
5	Research	Develop an argument on a topic using appropriate research methods, primary and secondary sources, and academic conventions.	RESEARCH

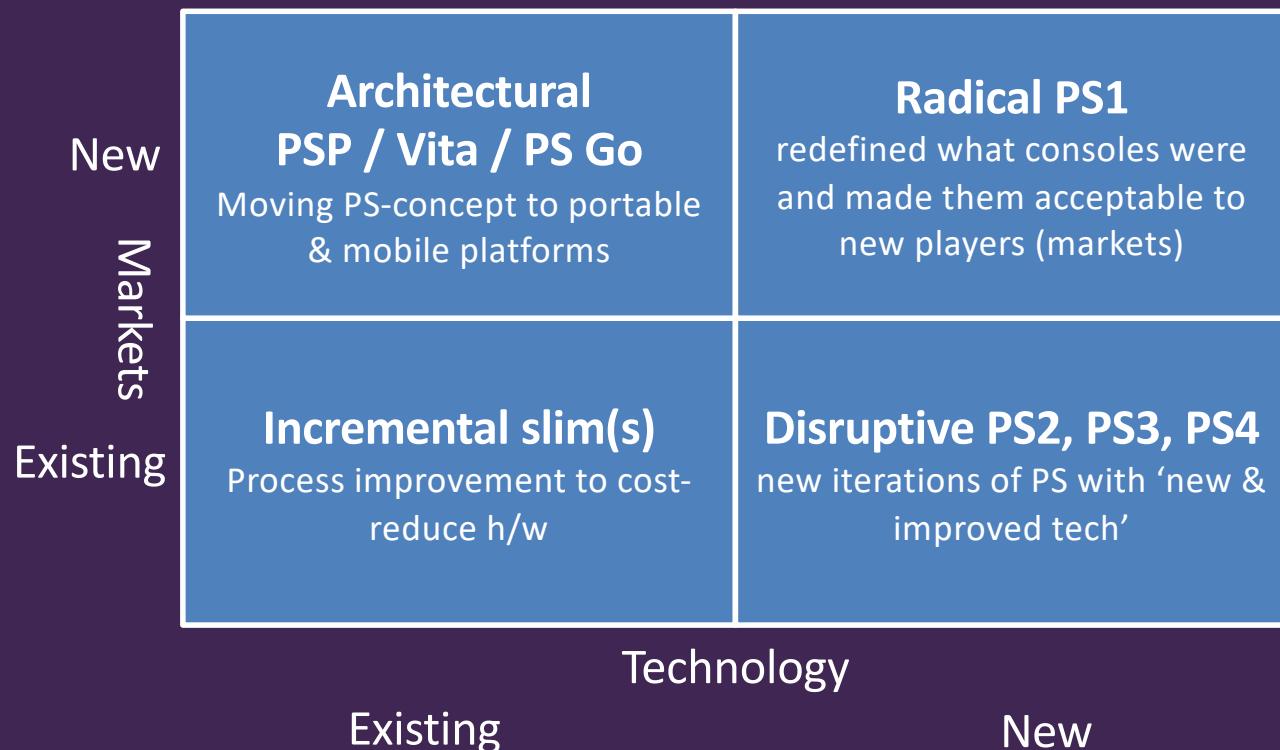
- How does this tie into your assignment
 - Analyse
 - Need to have a ‘so what’ moment in your writing
 - Otherwise it’s just description / narrative
 - E.g.
 - » Reliance on ‘Harry Potter’, ‘super hero’ & ‘Star Wars’ brands & franchises
 - » Novel IP often difficult to deliver vs. ‘art-house’
 - » Existing IP often struggles (Cats)
 - » (Analysis bit) This means that ...

- How does this tie into your assignment
 - Structuring research
 - [This is dedicated to everyone that used a reflective framework for GAM320]
 - Analytical frameworks can be very useful for organising your thoughts and developing / seeing arguments
 - Particularly from multiple perspectives (stakeholders)

- How does this tie into your assignment
 - Structuring research
 - An Innovation framework



- How does this tie into your assignment
 - Structuring research
 - An Innovation framework (Sony)



- How does this tie into your assignment
 - Structuring research / Advocate
 - Drivers of change (STEP, PEST, PESTLE, STEEPL)

Driver	Definition
Societal	What does society (or a group / market) 'want' (Ford's 'faster horses') or 'need'
Technological	What technology is available to create novel (innovative) products and services
Economic	What are the financial constraints or enablers
Political	What is the political (small-p) power / relationships of stakeholders
Legal	What are the legal constraints or enablers
Environmental	What are the environmental constraints or enablers (this may lag legal)

- Conclusions

- Conclusions
 - There's generally nothing new under the sun
 - Most of what people & organisations are doing has been done in some shape, manner or form before
 - History can help us to see what the outcomes and issues are likely to be
 - We can learn from that (and make new mistakes)
 - We can ignore that and make the same mistakes (and make new mistakes)
 - Beware of:
 - Historical bias (survivor / success & simplicity biases)
 - Present bias (hubris)
 - Future bias (outcome)

- Conclusions
 - Models & frameworks will help you with your research
 - Structure your research activities
 - Write your reports

- Conclusions
 - Good luck with your assignments!

- Do you have any questions for me?