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Report by

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To study sustainable animation industries overseas

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Leo Baker

1st March 2012  
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I would like to thank The Churchill Fellows' Association of Victoria for sponsoring this fellowship. I would also like to thank Adam Elliot and Shaun Tan for the supporting references they provided to assist my application.

The purpose of my Fellowship was to research the animation industry abroad, with the intention of learning ways of re-invigorating the Australian animation industry to a more sustainable level.

## Executive summary

This report looks analytically at the animation industry abroad. There is much to learn from the proven successes and attributes of the overseas industries so the potential of this entertainment medium may be better realised here in Australia. The research has sought comparable production, company and education models that are most applicable for developing in Australia, and relevant to its population and capabilities.

The report researches the following:

- Ways that the businesses overseas maintain a continual, healthy production turnover, for the different avenues of the industry. There are many ways in which these projects are developed and funded, and ways in which the consumers demand feeds the process.
- The relevance of having animation enterprises of all sizes that fit into the industry cycle, and the support mechanisms needed for their function.
- The importance of moving attributes of service work for overseas production, towards the manufacture of original creative content, and the advantages and necessity of moving in this direction.
- The benefits of international co-productions as a transitional step to content creation with shared overheads, and ways in which overseas companies are achieving this, both the companies associated with big film studios as well as independent operators. This move is a long-term plan to stimulate change within our industry so that Australia shifts its interest from predominantly imported content to locally produced material that has its own international export potential.
- The importance of marketing and distribution of work, and the integral necessity of tax rebates for production in Australia.
- Educational approaches examining effective methods that benefit graduating students.
- The current innovations relevant to the medium, and the consumer experience with the entertainment medium. It is important that Australia is up to date with this knowledge for the industry to prosper going forward.

## The research intent

I have endeavoured to research the animation industry as comprehensively as possible in the 10 weeks I was travelling abroad. I travelled to Tokyo, Hong Kong, Los Angeles, San Francisco, Portland (Oregon), Vancouver, Toronto, New York, London, Bristol, Paris, Berlin and Stuttgart. I visited production companies of all sizes from independent individuals and small collectives to the huge, corporate-owned studios. I also looked at some key educational institutions, examining their methods of teaching as well as how students are fostered into an active industry.

This has been quite an ambitious undertaking, and to fully encapsulate all that could potentially have been explored on this fellowship journey, I would have needed to travel for the best part of a year at least! I think it's important to note that if I could have done so, I would have loved to have extended my research to include Eastern Europe, Brazil, Argentina and more of Asia, especially India and Korea.

I have also followed up with further contacts since my return and have endeavoured to conduct necessary interviews of relevance here in Australia.

## Animation defined

Animation is a process where characters, and / or environments are created from an original concept and the performance of movement is crafted by an artist (the animator) who brings the imagery to life by adjusting the movement over a succession of continually viewed frames that give the illusion of movement.

Animation is the cousin to film, with a similar approach to scheduling, pre and post production as standard 'live action' film production. At the end of the day, animation is just another medium for visual story telling. Australian animation production exists through several key avenues, which I will define for the purposes of this report.

The common mediums of animation in Australia, which I will refer to in my report, are:

- **'Classical' or '2D' animation** is traditionally created with pencil and paper drawings, but is now more commonly created by techniques of computer illustration tools such as electronic drawing tablets. This newer computer method is now referred to as a 'paperless' production pipeline.

In the past this method was finalised by manually painting each frame onto clear plastic cells, and then photographing them. Companies that still use pencil and paper now scan the images into a computer and complete the colouring and shading process with digital paint programs.

- **'Stop Motion' animation** is as old and as classical as '2D' animation. It is the process of capturing images in a linear frame-by-frame sequence. This is usually done by a digital camera capturing handcrafted imagery, which could consist of modelled puppets, paper cutouts, sand, plasticine or clay.

- **'CG (Computer Generated)' or '3D' animation.** This is the more modern technique for producing virtual 3-dimensional characters, props and sets by computer programming, and rendering out 2-dimension images with simulated, computer-generated lighting.

Please note that these definitions sound specific and categorised. There are variations on these mediums that vary, blend and merge. That's where innovation comes in.

I will also note at this stage that much of the visual effects industry<sup>1</sup> incorporates CG animation, with the exact same application and pipeline process as the "animation entertainment" specific industry. Almost all Australian CG animators have a background in visual effects in film. I think it is significant to include the visual effects industry in this report as a sister industry to the animation industry, particularly as it employs most of Australia's CG animators.

Animation in Australia has been produced for TV commercials, TV series, short films and feature films for theatrical cinema release. The only difference between Australia and the rest of the world is that the volume of work produced is far lower (even relative to our population size), and ongoing continuity animation business is difficult to maintain here. This report will outline theories of why I think this is so, and will look at what other leading examples abroad we could learn from.

One of the key factors that is misunderstood about animation is its potential. Animation may have larger upfront costs of production, but it is essential to recognise that it has greater bankable potential for ongoing revenue, with cross-platform development, branding and merchandising. There are certain costs that are significantly lower (than live action filmmaking), such as the relative ease of production with stereoscopic<sup>2</sup> format, and lower costs with royalties owed to voice talent. Animation is a truly international product, with greater application and benefits for international co-production.

## Sustainability defined

It is also important to define precisely what I mean by the industry achieving greater 'sustainability'. The key component to a healthy industry is that it must work in a cycle. Leading role model countries that I visited have consumer demand for the production, allowing for continuity production and uptake of graduating students and the next generation of talent that feeds into the cycle.

For me a sustainable animation industry is one where the sufficient demand for animated content is continually apparent, allowing for continuity of work for animation businesses. This would range from small studios, individuals or collectives who would more likely produce short form work, to medium or even larger studios that would produce feature length material.

Ongoing employment is of course a primary factor, but I am also going one step further to include a balanced work lifestyle in my definition of sustainability. People need to be paid appropriately for what they do, and the work hours need to be reasonable. This is something that I believe has a tendency to become out of balance in Australia. The exploitation of artists and technicians that I have personally experienced does not fit any reasonable person's idea of sustainability at all.

## History of appreciation

I think it is interesting to note that there has only been one or two generation cycles that have watched animation in Australia. For instance, my parents' generation only viewed the limited amount of imported animated material such as Walt Disney films like Snow White or Fantasia, and TV programming such as Warner Brothers Looney Tunes.

This has contributed to a prevailing presumption that 'cartoons' are just for children. This impression has no doubt contributed to certain production hindrances and probably tainted the demand for animated content in Australia. This however is changing rapidly with the influence of popular international animated content coming to Australia. The consumer interest is apparent, Australia just needs to build its own industry rather than import the material.

I was amazed at what I found in other countries in contrast to Australia. Animated material is recognised by multiple generations, for children, family and adult specific audiences. The most notable countries to mention here would be the U.S, Japan, Canada and France. The longer history of exposure to animation has sculpted the interest in the content and the industries that are alive there today.

### U.S.A

Walt Disney and his brother, Roy Disney, pioneered animation to mainstream attention in the US in the early 1920's. This has now escalated into the massive industry that is in the US today. Other animation studios of all sizes have spawned since, particularly with the advent of computer generated animation. One of the biggest turning points for consumer demand in the U.S was again with Disney when the Disney TV channel began broadcasting in 1983, piping animated classics into the households of millions. This mechanism was a key contributor to keeping the popular animation brands alive and exploring new material. Disney's broadcasting now makes up for 45% of its revenue. Since then, other channels have spawned like Cartoon Network and Nickelodeon that have massive subscription of viewers consuming animated content. Even though these channels screen almost full time, popular animated content, the Fox Network holds the most popular animated shows with their more mature and family-focused 'prime time' sitcom animated shows, such as The Simpsons and Family Guy. This is big business.

### Canada

The US's nearest neighbour Canada, has had a similar experience, obviously influenced by the U.S, but also by France. Animation has existed healthily in Canada for over 75 years now with the National Film Board producing short animated films with 100% government money since 1942. Since then Canada has become one of the worlds greatest producers of animation with the worlds second oldest animation film festival in Ottawa.

### Japan

Post World War II, Japan saw the spawning of the Japanese comic illustration boom, known as 'manga'. Manga comics were created as an expressive substitute for film during these poorer economic times. Manga was publisher-endorsed with no limits. Manga was created for, and read by, people of all ages. When I visited Japan I saw a 70-year-old man reading a particular Manga comic next to a 5-year-old girl reading her equivalent. The most successful manga is adapted into Japanese animation known as anime. Japanese anime is a massive industry, particularly within Japan. At its peak in 2006, there were 100 animated shows broadcast on Japanese television per week - about 15 per day.

### France

France has a long-standing history of pride in the French produced arts. Similar to Japan, France has a big cultural following of illustrated literature and comics. France was one of the first countries to import Japanese anime to their television programming in 1975, to greatly influence the local industry. Since then France has established many of the world's top animation schools to feed its many boutique animation studios.

By contrast to this, animation in Australia seems somewhat misunderstood, and the potential is not realised.

## Looking at Australia

Australia has had small but significant international success with some of its animated productions. My project-based supporting referee/sponsor for this fellowship was animation writer, director and producer Adam Elliot who won an Oscar for his short animated film 'Harvey Krumpet', as well as many other international accolades for his stop-motion animated film 'Mary and Max'. My other professional supporting referee was writer and illustrator Shaun Tan with whom I worked on the CG short film 'The Lost Thing'. 'The Lost Thing' had much success in 2011 at many international film and animation festivals, also winning an Oscar for Best Animated Short Film in 2011.

In 1976 another Australian, newspaper cartoonist Bruce Petty, won an Oscar for his short 2D animated film 'Leisure'.

As glamorous as it may be to bask in the Oscar glory of the successes of these films, it is important to acknowledge that these successes were due to steadfast perseverance and in reality were mere spikes of success against much adversity, and often financial hardship for the creators. These two examples do also show that there is creative and technical talent in Australia. But maintaining work in Australia to support an ongoing industry of artists and technicians is a different story, as actual animation production is project-based which is sporadic, often with very stretched funding. A lack of confidence in the Australian product goes hand in hand with this lack of continuity.

After travelling through Europe in particular I could see that younger countries like Australia have a different attitude to the arts. Without an expansive cultural history as Europe, Australia has perhaps less pride in artistic skill bases. In economic terms, animation and arts are 'secondary industries'. The Australian economy is very focussed on 'primary industries', like mining and agriculture. The irony here is that it is the primary industries that have kept the Australian dollar strong, which has inadvertently made business more challenging for the secondary industries such as animation, trading internationally.

Traditionally, Australia is a sport-focussed nation and has contributed a lot of money into sport over funding for the arts.

There are many countries whose economies are now dependent on their secondary industries. Some regions in Germany are now starting to treat the animation industry with a similar importance as other secondary industry like their extremely successful automobile and engineering industries. Brazil, like Australia, is a country focussed on primary industry, but now the animation production in Sao Paulo is growing into an internationally recognised production hub and making a positive contribution to the national economy.

Australia is geographically removed from the production hubs and big financing engines in other parts of the world. With distance and time differences, it is more challenging for remote Australian business to 'keep up appearances' with business affiliates on the other side of the world. This is another reason why Australia needs to look more towards producing our own animated content and foster the next generation of directors to build our own legacy.

Australian animation director Adam Elliot has endeavoured to break new boundaries in Australia with approaching feature film animation with a primary focus for adults. Adam has endured the difficult process of locally financing his films, despite their popularity and acclaim here and overseas. The crew on 'Mary and Max' were paid modest wages, due to the tight budget of \$8 million. When the film production was finished, so too was the artists' employment. Most of them had to look for alternative work, or venture overseas. Despite offers to work in Hollywood, Adam wished to pursue his own material and felt a sense of responsibility and loyalty to continue in Australia and support the local artists, sculptors and animators.

In between project development, Adam subsidises his income as a public speaker, talking about being a filmmaker. The irony here is that Adam gets paid more to talk about films than he does to make films.

For CG animators in Australia who need the continuity of income, they tend to be reliant on the few medium to larger visual effects houses such as Animal Logic, Rising Sun Pictures, Iloura or Fuel. There is also an irony in that, in the event of these companies getting larger projects, they then must hire overseas artists because there isn't a pool of freelance talent available like there is in countries with a larger industry.

In 2002 Animal Logic was the first company in Australia to produce a feature length digital animation with the Oscar winning film 'Happy Feet'. This new feature animation angle of Animal Logic was promising for Australian artists. In 2008, the director of Happy Feet, George Miller set up DR D studios, an animation and visual effects facility in Sydney similar to Animal Logic. DR D studios first animated feature production was 'Happy Feet Two'. While I was away on my fellowship travels 'Happy Feet Two' was released with an unfortunately underwhelming 45% of the attendance figures of its predecessor. Shortly after this, 600 employees of DR D animation studios were fired, as there was no other animated film at DR D to roll onto. Business is business, but this is not sustainability.

There is also an unfortunate cycle that is apparent in Australia, in that because it is hard to maintain work in the field of animation, it has often been looked upon as a hobby that people dabble with, because most people can't earn a living from pursuing that line of work. Work of this nature is not taken as seriously as it is in other parts of the world.

This is particularly concerning when there is an aspiring young generation who are optimistically trying to venture forth into an industry where employment is very sparse. There are now 5 recognised universities where students can earn their Bachelor of Animation degrees in Australia. The major concern is where these aspiring animators go for work when they graduate?

Due to poor continuity of industry, Australian talent leaves and establishes elsewhere. This is less of an issue in other countries of less geographical isolation because the talent can and does return, contributing back to the local knowledge base.

## Looking overseas

When I planned this trip I needed to visit parts of the world with a prolific animation culture. Japan was first to spring to mind, and I knew there would be much to learn from the history of the animation industry there.

I was truly fascinated by my visit to Japan. Japan has such a strong sense of its own cultural and historic identity. The history of manga adaptation and its popularity has led to enormous business demand for the animation studios. Interestingly, most of the facilities I visited were traditional 2D animation studios that still use paper and pencil for their animation pipeline. The rigorous training of fine artistry and apprenticeship style careers of the animators maintains the pride and devotion to these traditional methods. In Japan there is definitely a cultural underpinning to the business model by honouring the master craftsmen.

As I interviewed many producers and creative personnel of the Japanese studios, I learnt that almost all of this material is crafted specifically for Japanese audiences. The domestic consumer interest is so very high that production has always been focussed on their domestic market. The culture and folk tales and particularly the isolated language is obviously a significant contributing factor to this, but interestingly the content and output is seldom considered for

markets beyond Japan. Sales of the animated material abroad are seen more as a bonus. Korea tends to purchase a lot of the material, and select popular works are purchased by other countries including France in particular, U.S.A and Australia.

This inward focus of Japan has certainly lead to a solid cyclical domestic industry with hundreds of aspiring students feeding into the animation studios. However, there is some potential concern for its sustainability. I think the Japanese producers need to be more mindful of international markets to expand their horizons and help future-proof their business with exposure to larger markets, particularly as Japan has an ageing population. The cost of living is high and many younger people are choosing careers over families.

My other concern for Japan is that animators are very poorly paid. Junior artists must work for many years to reach a senior well-paid level. The good thing is that the apprenticeship structure does honour devoted artists and I'm told that promotion is inevitable for the artists that continue in the business.

The U.S also has an inward looking approach to the sensibility of production. This is because the population of 307 million people on the home turf maintains massive demand and business that need only to be primarily, domestically focussed. American studios and entrepreneurs do sell their material to many other countries beyond the U.S, but, like Japan, the material is often tailored for the local cultural sensibility.

At a glance, I thought I could draw comparisons between Australian and Canada. Canada is a commonwealth country with a somewhat comparable population (of 34 million) to Australia (22 million). Like the VFX industry in Australia, historically there was a dependency on incoming international ("service") work. The term "service work" is the facilitating of outsourced work for another production, which may be overseas.

Canada has very generous tax incentives and rebates to lure the international work, that are similar to what we currently have in place in Australia.

The Canadian tax incentives have also attracted much international business in the form of co-productions, which is one of the most effective methods of sharing costs and multiplying distribution potential. Canada really seems to be leading the way with animation co-productions with countries in all corners of the globe, with 150 different film and television co-production treaties. I think it has the best balance of inward and outward focus. The connectivity of this system allows for building the international business, but it simultaneously fosters local business.

The trouble with an industry reliant on sourcing external work is that the business is also at the mercy of international exchange rates. It is interesting to note that the Canadian government is very responsive to maintaining the attractiveness of these incentives by adjusting them relative to the primary currency of external trade, the US dollar.

Canada's other clear advantage is that its major production cities, Vancouver and Toronto are on the same corresponding time zones as East and West coast of the U.S. This does give a huge advantage for business hours, but also business executives can fly to these cities for a meeting and return home in the same day.

The size of the Canadian animation industry is quite amazing. Canada is the largest (in volume) producer of animation in the world. Although the U.S does provide for a lot of the consumer demand of the Canadian industry, there are now approximately 10 Canadian network channels that purchase Canadian animated content, in particular the networks YTV and Teletoon, Canada's first dedicated animation channel. The Ottawa film festival publishes a Canadian animation directory of many hundreds of contacts for the many boutique studios as well as multitude of other producers and distributors.

Like Canada, France and Germany now have generous incentives to attract work, particularly international co-productions. Balancing this inward vs. outward focus through production for a domestic as well as international sale is a sustainable balance, and an ideal platform for growth.

## Animation production

The real key to generating revenue with any production in the film industry is by owning the intellectual property that is created. The biggest progressive step that any animation industry can make is to move from doing 'work for hire' (service work) to the development of proprietary content.

The neighbouring cities of Los Angeles and Burbank California are the centre for intellectual property creation and ownership. Hollywood is where most of the world's largest film studios are based, who own the rights to the material they produce. Dreamworks Animation and Disney are continually sourcing new material for upcoming films. If the material is not conceptualised in house then the material is often optioned by the company and may later be purchased outright. They do not work on material without the vested financial interest that comes with the ownership of the property.

Due to the history of film success and associated wealth, Los Angeles and Burbank are cities of resources, with top writers, scripts and upfront development money. Animators are generally good storytellers and well-written projects make it to prime time television and feature films.

The long established free-to-air TV in Australia is of a general high standard with a mixture of local and imported TV programs. Statistically, most Australians are happy with just the free-to-air channels instead of paying for subscription television. Only 30% of Australian households have subscription television<sup>3</sup>, and the overall consumption of any TV is declining with growing interest in Internet (e.g. YouTube, iTunes), games and mobile device entertainment. The animation programming that is on free-to-air TV has limited allocated time due to programming being shared with all other content on the channel.

In the U.S, the situation is quite the opposite, where most households would have (hundreds of channels of) subscription television with devoted animation programming, and also other 'on demand' subscription services such as Netflix and Hulu.

The irony with the TV programming in Australia is that the TV channels actually share the Australian animated TV shows between them<sup>4</sup>, in order to fulfil their quotas of Australian content. So basically there is not enough original Australian content available for shows to have exclusivity to one channel. I sincerely doubt this is the case in any of the countries that I visited.

Due to my experience with service type work in Australia, I was perhaps a little naive about one of the more common economic applications of modern international production. This is the concept of farming out the actual animation work, or 'heavy lifting' of a production. The definition of 'front end' and 'back end' of a production became clear to me when I visited animation studios and asked where the animators were, to be informed that they were in places like Korea, India or China. The reality is that with animation production, there are many hours of labour involved to produce the work, so a lot of the time the work goes to where the labour is cheaper. Productions are then divided into two sections referred to as 'front' and 'back' end. The front end being of primary importance, where script writing, storyboarding and conceptual artwork is developed to create the guidelines for another production house to facilitate. The American pipelines are now mostly completely paperless and the information can be across the

other side of the world in moments. So many of the American studios I visited were just the front end part of the process, where the development would begin 'in house' and then be produced elsewhere.

This system is most prevalent with TV series animation, where the episodes and work load turnover is high. It also has led to a division in the talent pool, where there are now animators separate from illustrative designers, where that role was previously more combined. It does raise questions about whether the farmed out back-end work is being produced to the right standard of quality. The US prime time shows, such as those shown on the Fox Network like Family Guy, The Simpsons, American Dad and Bob's Burgers, are all animated to a very high standard in Korea. I am told that the Koreans have great pride in the industrial approach to this service work. Korea is now doing such a good job with this work that their industry has grown, with their prices. Many productions now are looking further afield to countries that are cheaper. Nowadays only the top budgeted shows make it to Korea, such as the Fox Network shows, which range from \$500,000 - \$600,000 USD per episode. I'm told the Simpsons, at it's peak had a budget near \$1 million USD per episode. Most US animated TV shows have more modest budgets around \$200,000 USD / episode, so the cost saving of cheaper labour has become integral to their process.

For live action content, historically the production value of television has always been less than that of feature film. In the U.S in recent years there has been greater investment in bigger budget TV series that have attracted bigger stars and now the calibre of some of these productions is easily matching that of feature film. Many of these live action shows are not owned by the US TV Networks. I think it is interesting, by comparison that most of the top animation series shown on Television are owned by the animation networks that screen them, and they benefit greatly from the financial return.

There are several common angles with animation for television.

#### The action model - children's animation.

The action-based animation tends to be focussed more towards boys. These types of shows are often based around a consumer model of merchandising, and may be financed entirely by toy manufacturers such as Mattel or Hasbro. Interestingly, the revenue return on the TV series sales can even make a loss, because they are offset by the profits of merchandise sales.

Studies have been undertaken finding that as girls mature earlier than boys; they tend to 'grow out of' children's animation, becoming more interested in live action material from an earlier age. The Walt Disney Company launched a separate TV channel called 'Disney XD' which is tailored more for boys. Disney XD airs a mixture of action and drama animation, as well as some live action shows. This also keeps the original Disney channel with content catering for both boys and girls.

#### The comedy Model for children and beyond.

The other main model for children's animation is the comedy model. The comedy model is more successful simply because humour provides for a wider audience age range, appreciated by boys and girls, and also adults. One of the greatest success stories of the children's comedy model is the show 'SpongeBob SquarePants' on Nickelodeon. It has 50/50 viewing appeal from girls and boys, as well as a solid following by adults. One of the catalysts for SpongeBob's rise to popularity was when celebrities were seen wearing SpongeBob T-shirts. To give an indication of the success, according to Wikipedia, in 2002, SpongeBob SquarePants dolls sold at a rate of 75,000 per week.

### The family focussed comedy model.

Moving on from children to the even more financially successful, comedy based family-focus model. 'The Simpsons', which began as a children's show focussed on the "cowabunga dude" rascal character, Bart Simpson, became more focussed around the Homer character and associated family dynamics. Again this expands the audience and then better fills the highly sought after prime time television slot. This proven model has been replicated by successors such as Family Guy, American Dad and other family based animated sitcoms. These shows have very talented writers behind them, but as teams of people create all the visuals, the shows tend to be storyboard rather than script driven. Australia imports nearly all of these prime time animated shows, and has none of its own.

### Adult specific model.

In the US, the rising popularity of further adult focussed animation has allowed for a whole new wave of programming. Channels like Cartoon Network which is for children, now share their channel space with the very popular 'Adult Swim' network of an evening. Adult Swim is known for pushing risqué, unorthodox and bizarre boundaries with the shows presented. Cartoon Network and Adult Swim are available in Australia and New Zealand to cable TV subscribers.

Adult Swim has created its own niche demand for adult animation. Companies like Titmouse in L.A and New York rose to much success with its shows like 'Metalocalypse' and 'SuperJail', which have a huge ongoing following through the Adult Swim network.

The Fox Network has just announced it is partnering with Adult Swim to launch a late night 90 minute animation block on Saturday night, going "head to head" with NBC's Saturday Night Live. Launching in 2013, this block will allow for animated shorts and series, and reaffirm Fox's already sizable commitment to animated comedy. Progressively, this venture will simultaneously be launched online, with the intent of bridging the gap from alternative digital media to the mainstream.<sup>5</sup>

London, UK is the centre for visual effects in film. The series of Harry Potter films lifted the London scene to its heyday. The writer and creator of Harry Potter, J.K Rowling explicitly specified that the production of these films must be based in the UK. This was obviously for the English sensibility of the stories but also particularly to generate and keep the business for the UK. JK Rowling, who was turned down by many publishers before finally landing her extremely successful published series, was recently awarded the Michael Balcon Award for Outstanding British Contribution to Cinema, along with the other collaborators on the film series. Her perseverance paid off for her and an entire industry, more than any other example I can think of.

I interviewed Emma Norton, who was the visual effects producer on Harry Potter 3 to 7. Emma explained that the main bolstering strength of these films was the fact that the contributing VFX vendors knew that there would be another Harry Potter film backing up their current workload, so there was a continuity of tremendous, hi end work and a fantastic basis for an industry to grow. The practicality of having the business locally pushed smaller studios to rise up and expand their skill base and pipelines to meet the challenges of these films. There was in fact so much VFX work required for these films, that it was more than the local industry could manage. Much of the work had to be outsourced beyond the UK. Australia was the first country considered on the list, primarily because of the attraction of the tax breaks offered. Emma said that the quality of the Australian work matched the calibre that was expected for the film, and the UK facilities, but she stressed that if the tax incentives weren't there in Australia, the outsourced work would never have arrived.

Canada is hot on the heels to rival the UK with the production might of multiple hi end studios set up around the generous tax incentives. Vancouver now has many of the LA and

London based companies migrating the main workhorse studios there, including Industrial Light and Magic, Digital Domain, Moving Picture Company and Pixar. The incentives are so integral to business productivity that before committing to the move, Pixar, aligned with these other companies and negotiated with the British Columbian Government to guarantee no expiry on the tax incentives. Although the BC government is conservative, it is very entrepreneurial and recognise the business potential with the agreement.

I am very pleased to say that stop motion animation is alive and well. At the time of my travels there were four big feature films (that I knew of) currently in production. Perhaps this is due to the trends of animation viewer interest. The animated feature film market has been primarily concentrated with CG films over the last ten years. Despite the box office successes and increasing technical innovation of the CG films, there is a large audience that appreciates the tangible, auteur quality of stop motion.

Disney is behind two big films, Tim Burtons 'Frankenweenie', which is an expansion of his 1984 short film and another (undisclosed titled) film co directed by Henry Sellick and Eric Leighton. Henry Sellick and Eric Leighton are long standing pioneers of stop motion animation, and both worked on many big hit stop motion films including 'The Nightmare before Christmas'. Their new film is at a new studio called Cinderbiter being set up in the San Francisco mission district.

Just North of San Francisco in Portland, Laika is producing their second film 'ParaNorman', which is being released through Focus Features.

Tim Burton's 'Frankenweenie' project is being created at 3 Mills Studios in London, accessing the pool of stop motion talent there. 3 Mills Studios was the location for the filming of many successful productions including 'The Corpse Bride' and 'Fantastic Mr Fox' both lead by producer Allison Abbate. The UK has one of the strongest stop motion communities, with companies like Aardman in Bristol and Mackinnon and Saunders in Manchester. Aardman has just finished producing their stop motion film 'Pirates', and Mackinnon and Saunders provided all of the puppet fabrication for the 'Frankenweenie' production, as well as many of the prior films at 3 Mills. I spoke with Ian Mackinnon and Peter Saunders who told about recent stop motion films to have been created in London, which has provided much business for them. They are now expanding their line of work into doing more of their own animated production with some short projects and a TV series planned.

It is important to recognise that stop motion films employ not only animators, but also many other craftsmen and tactile artisans. People like set builders, sculptors, and painters, as well as puppet fabricators, and further art and lighting departments are required. Glass for the sets of Aardman's stop motion films is hand blown by an artisan in the nearby city of Bath.

## Big Studios

Bigger studios have the ability to make "brand breaking" films. These are films that break new ground with previously unfamiliar ideas. The larger studios have the ability to do this as they have financial access to a marketing and distribution machine that registers the content in the consumers' attention.

As Australia doesn't have enough examples of animated feature films from which to cite figures and comparisons, I will refer to the figures for live action films here; It is undeniable that it is because of these big studios that America has average feature film budgets of around \$50 million compared to Australia's average of around \$5 million -which is less than the sum that Americans spend on marketing alone.

Dreamworks Animation aims to hit the largest target audience possible with the family movie model. Chris Kuser, senior development executive at Dreamworks Animation explained that they aim to make films "that dad wants to see", creating an affordable family experience, cheaper than say, going to the baseball.

Dreamworks has a well established CG pipeline over its two Californian studio locations. Chris claims that their CG production for film is 20% more cost effective than a comparable 2D pipeline. Interestingly, this is contrary to the opinion of the Japanese, or the U.S TV series model, presumably as the pipelines are not geared for CG.

Dreamworks now has a solid production philosophy that CG is "the new standard". Chris Kuser said, like the advent of sound in film, then colour TV, CG animation is akin to these progression innovations of entertainment. Now Dreamworks' animated films are all output for stereoscopic theatres. Dreamworks is adamant about providing the latest technology and they believe this is with CG films. They don't want audiences to feel they are having an old-fashioned movie experience. Dreamworks Animation produces an ambitious 2-3 animated films per year, more than any other CG feature animation producer. Dreamworks Animation is the second highest grossing (film) franchise brand of all time, its 23 films having grossed a total of US\$3,750.7 million.

Walt Disney Studios sadly phased out their legacy of traditional 2D animated films in 2005, with the closure of their 2D animation studios. One of the last to close was in Sydney, and 250 people lost their jobs, as Disney refocused its attention towards computer-generated animation. This was during a time when Disney had a 5 picture deal funding and distributing the highly successful CG films made by Pixar. In 2006, Disney bought Pixar for a reported US\$7.4 billion.

Pixar, now owned by Disney and also answerable to many shareholders, takes a more measured approach of quality over quantity with their animated films. Pixar prioritises an emotive viewer experience through well crafted stories in their films. Employing over 1,000 people, Pixar develops and uses its own exclusive proprietary software to make its films. Pixar releases one film per year, and its 12 films have grossed a total of US\$3,031.3 million, putting it at the third highest grossing film franchise brand of all time.<sup>6</sup>

Sony Pictures Animation, is one of the companies owned by the Sony Pictures Entertainment group, similar to how Dreamworks Animation is part of the parent corporation Dreamworks. This puts SPA in direct access to the production, marketing and distribution of the rest of the Sony machine. Sony has multiple distribution streams including Columbia TriStar Motion Picture Group, Screen Gems and Sony Picture Classics. Sony Pictures Animation is a company of about 100 people focussing on story development, as well as production, marketing and publicity. SPA does both full CG and hybrid animation / live action movies. SPA then utilises Sony Imageworks in the same studio location, for their CG back end production for both types of projects. SPA has a few smaller projects in the development pipeline which would most likely be outsourced to other animation studios for their CG pipeline. SPA produces roughly one animated and one hybrid animation / live action film per year. SPA's interest in shorts is limited to franchise extension on their existing properties as opposed to original, stand-alone content.

Toei Animation, which was established in 1956, is one of Japans oldest and largest animation companies. Many of Japans greats like Hayao Miyazaki and Isao Takahata came up through Toei Animation. Interestingly, the producers from Disney visited Toei in the 1960's and shared their animation production pipeline, which is still in place at Toei today.

To date, Toei Animation has produced 200 theatrical features and 190 TV programs totalling 10,432<sup>7</sup> episodes. Their longest running TV series was an adaptation of the manga 'One Piece'. By 2011, 260 million volumes of the One Piece manga comic were sold. The animated adaptation produced by Toei ran for 10 years with over 500 episodes. One Piece was originally

targeted at 10 -12 year old boys but is now appreciated by men and women alike. Toei has also produced the popular manga adaptation of 'Dragon Ball', which had two extensive TV series and 17 animated feature films.

Studio Ghibli in Tokyo has a similar approach to animated filmmaking as Pixar does, with their shared philosophy of quality over quantity. Co-founder and director Hayao Miyazaki believes that spreading the energy appropriately across each film, is what is needed to maintain the desired quality of their traditionally animated films. Studio Ghibli generally works on one film at a time, producing one film every two years with a primary focus for the Japanese market. Studio Ghibli now has an international distribution deal with Disney, which is quite unique as they still maintain total creative control of their material.

Studio Ghibli in Japan is incorporated but is not a publicly listed company and is therefore not answerable to share holders who could be primarily concerned with financial returns.

By contrast, Toei Animation, Dreamworks, Sony and Disney are publicly listed companies -production machines that are responsible to shareholders.

## Under the wing of the larger studios

There are a couple of medium to large sized animation studios overseas which can be compared to Animal Logic in Sydney – the one example we now have of a studio producing feature length animation.

Blue Sky Studios in Connecticut started as a high-end VFX house working on commercials. They have a background of technical know-how and were the pioneers of 'radiosity'<sup>8</sup> rendering. The short film 'Bunny' that was developed in-house generated the interest of 20th Century Fox, who bought Blue Sky as their CG animation studio in 1997. Blue Sky films are developed in house and their focus for success lies with the story and the planning of projects (approximately four years in advance) for continual project turnover. Their recent animated feature film hit 'Rio' was green lit by Fox executives before the script had even been written. Blue Sky produces one CG animated film per year.

Illumination Macguff in Paris has similar origins to Blue Sky and Animal Logic, starting with hi -end VFX for film, commercials, then progressing to feature animation. Macguff's pipeline and R&D was in place, so they were capable for the production scale of an animated film. The big success for Macguff was proving they could manage this task by producing the film 'Despicable Me' in 2010, which was a great box office success, a major milestone for the French animation industry, and a big motivator for other companies in Europe.

Illumination Macguff now has a contract with Universal to do 7 films in 5 years. 'Despicable Me' was co-directed by Frenchman Pierre Coffin, who is slated to direct the next films with one of the seven films being a concept of his own.

The VFX and animation studio Rainmaker in Vancouver, has also indirectly benefited from the success of 'Despicable Me'. They are in production on their first animated feature film called 'Escape from Planet Earth' with the director Cal Bruner on board, known for his story board work on 'Despicable Me'. 'Escape from Planet Earth' is backed by the Weinstein Company who has the vested interest in Cal Bruner and Rainmaker. This credibility of past work is the key to their business relationship.

Aardman Animations in Bristol is the only company in the UK to have maintained making animated feature films. Aardman is famous for the stop motion 'Wallace and Gromit' films with their uniquely English sensibility, written and directed by Nick Park.

In 1997 Aardman Animations established a working relationship with Dreamworks to co-

produce five films. Like any good partnership there were good days and bad days creatively, primarily surrounding the English/American sensibility. The DreamWorks business model evolved during the course of the relationship and with Aardman films not quite hitting the Global box office returns required for this new model an amicable separation ensued. Aardman will always be indebted to DreamWorks for giving them the opportunity of showcasing their movies on the global stage.

Since 2007 Aardman has been working with their new production partners in Sony Pictures, a relationship that is going very well creatively. This new partnership is a time based arrangement rather than relating to a number of movie productions. Aardman has finished its first CG movie with Sony Pictures in 'Arthur Christmas' and continues to develop multiple pictures across both CG and Stop Frame platforms. The relationship with Sony provides such integral support for financing, distribution and marketing that would have been such a greater task for Aardman to provide on its own.

Larger studios are not set up overnight. They reach their size from ongoing successful production, accumulated wealth and often the backing of huge corporate mergers and public share market listings. For a smaller company to reach the scale of these giants today is a near impossible task, as the existing big studios provide firm competition with their long established power and financial might. Large studios of this size are not a reality for comparison with Australia. I think for Australia the smaller to medium sized lean and efficient models are more applicable.

## Medium Studios

The company DHX Media is a merger of the companies De-code and Halifax in Toronto, who then purchased Studio B Productions in Vancouver. This has allowed the owners to float their company, and then invest 20 million in development, distribution and marketing. DHX now does their own distribution. DHX focuses on children's television programming mainly, with a growing library of titles aired across Northern America and internationally.

## Smaller and medium sized studios moving to original content

Many smaller and medium studios are now in development on their own animated feature property, particularly in Canada, France and Germany. This is very progressive for business and an area where Australia really needs to catch up.

Many of the production studios in Canada are advancing more into original I.P production, and they can bolster that progress with the steady service work. Mike Valiquette who runs the website [www. canadiananimationresources.ca](http://www.canadiananimationresources.ca) summarised why it is a necessary progression for Canada to move into this realm: "Canada provides industry service, but if you were to compare the service nature of the Canadian animation industry to its car industry, you can't name a Canadian car."

Canadian broadcast legislation is quite restrictive in that broadcasters cannot own material. This is a huge advantage and encouragement for smaller producers and gives them a realistic edge to profit from the property ownership. Atomic Animation in Vancouver is developing their own TV shows and is using the business support mechanisms in Canada to make 3D animated TV series cost effective.

Japanese animation has found much success with their 2D traditional pipelines and the medium's established fan base. Interestingly the attempts with CG animation have been seen as

failures because of production costs vs. different approach to marketing and distribution. Japan has a large reliance on TV distribution. The company Production I.G had some success with the CG film "Oblivion Island" in 2009. The company Digital Frontier was semi-successful with the film 'Appleseed' in 2004. Their sequel film 'Xmachina' in 2007 was less successful.

Interestingly, CG animation was pioneered in Japan simultaneously to the US, but the technological breakthroughs and box office successes came first to America. Polygon Pictures has been established since 1983, making the CG company older than Pixar. The company was founded by Toshifumi Kawahara, known as "the godfather of CG in Japan", who had a background in design rather than computer science. Polygon Pictures rode the wave of early software development but eventually switched to commercial software as production worthy programs like Softimage and Maya penetrated the market. Polygon has persevered with CG work, and has grown beyond being a small company only in the last few years. Polygon now works on a lot of outsourced hi-end CG TV series, and is focussed primarily on the international market similar to the VFX houses of Australia. CEO Shuzo Shiota says he aspires to the Animal Logic business model where a medium sized company can facilitate a CG animated film. Shuzo said they are gearing up for a small feature soon.

## Medium sized companies producing outside the big studios

Method Animation in France is making a computer animated TV series from the picture book story of "The Little Prince". The production is 100% French funded through the French CNC<sup>9</sup> funding system, and by accessing the French tax credits. The project is not attached to any major studio, which means freedom of creativity says producer Cédric Pilot. Method is apparently outsourcing the project to the production might of 500 animators at the company Dataquest in India. Cedric Pilot said that this was the best production engine to outsource 3D animation work to.

Method Animation had previously made the film 'Renaissance', a heavily stylised film utilising motion capture technology for much of the animation. Renaissance was a co-production the U.K and Luxembourg, but primarily made in France. The completed film was later sold to Miramax.

The 3D animation company TeamTO in France are looking to produce their own feature film called 'Gus', planned for 2012. TeamTO has a similar history of production to Macguff in that they have a solid pipeline and 15 years of experience and R'N'D. Company founder and CEO Guillaume Hellouin expressed that raising the 50 million Euro to produce an animated feature is difficult. He strongly intends to own the material and produce it without any outsourcing, 100% made in France. Guillaume has the opinion that outsourcing to places of cheaper labour like India is false economy because they lack pipeline and experience. In regards to the huge teams they have in India, vs. the efficiency he aspires to, Guillaume said; "having 9 women won't give you a baby in one month." TeamTO has offices in two regions of France that utilise regional tax breaks and incentives and accesses the best graduating animation talent. TeamTO has 100 full time employees.

Yann De Preval and Max Loubaresse are graduates from the much acclaimed French animation school Supinfocom. Yann was one of the key creators of the student film 'Meet Buck' as was Max on the film 'Salesman Pete', which are both a delightful fusion between traditional slapstick cartoon style, and modern 3D animation techniques. Yann and Max are creating a new animated TV series produced by the French company Ankama. Similar to Guillaume's opinions of outsourced work, they are adamant about 100% French produced work.

The common traits of successful small companies these days are that they are adaptive and flexible. Smaller companies can support collectives of creatives and directors, and they have the ability to expand up and down using hired freelance talent. Some smaller companies also choose to operate in a modular sense, in conjunction with other companies as a support mechanism. This can work well as there are multiple nets catching the work and if the workload is bigger than they can manage, it can be shared between companies. Companies can then stay afloat in between projects with lower overheads of just core staff.

The company Titmouse Inc. has risen to much success in a short period of time, and I think it is quite the success model for this time. The founder Chris Prynosi worked as a freelance animator in 2000 and began developing television and film projects targeting the developing market of adult focussed shows. The niche area returned successfully, and at the time I met with Chris his company had about 250 employees, across two offices, working on seven TV series as well as commercials and video game trailers. Of the seven shows in production five were adult shows, and 2 for children (one comedy, one action). This is all made possible by the access to the demand of US television. Chris has diversified his business approach and seems to have found the right combination of balance between locally produced and outsourced work, for the efficient turnaround of shows. He has made the local 2D animation production more cost effective by utilising re-usable character assets, rather than the laborious process of drawing each frame. Titmouse outsources back end work to Korea, Ireland and Nepal.

The company Mark 13 in Stuttgart felt the economic downturn of 2009, with a 70% drop in work. They turned their focus to connecting with other producers to collaborate on a feature project. They are now working on a feature adaptation of a popular German picture storybook called 'Night Rusty'. Managing director Dominique Schuchmann said that working with a known concept is a safer route for feature adaptation and proving that they can do it. The picture storybook lends itself to the family film model, and this 'known content' also helps the process of pre-sales for TV and distribution deals. The project has federal, regional and private investment. Mark 13 plans to follow the model of a 'split studio plan' (like Macguff and Animal Logic) where they can still produce commercials, live action and VFX in one department and animation-for-film studio in the other, whilst sharing resources.

Dominique Schuchmann said that there are maybe 5 - 7 companies in Germany are capable of making an animated feature, and believes there may be 20 in France.

The Paris office of Passion Picture has a good working relationship with VFX house Macguff. Passion Pictures works as a local front end production office and the teams of artists and technicians at Macguff carry out the back end of the production. 30% of Macguff's commercials come from Passion Pictures. This is a great example of how technical, service based companies can have a partner-like relationship with another company for ongoing business.

## Director vs. Brand

Passion Pictures in London has a versatile talent base and is a director focussed company. Passion Pictures also represent other smaller companies, individuals and collectives. In doing this they are essentially expanding their talent base. This means that when pitching for productions they will put forward and endorse the directors they feel are the best match for the job. The 'voice' of each director emerges through their work and tailored show reels land the right jobs with the right people. Passion is focussed on being a specialist shop rather than a one-stop supermarket. With an eye to the next generation, upcoming in house directors are mentored through existing active directors.

Studio AKA in London is a smaller company with a reputation for hi-end animation work across commercials, broadcast idents and short films. Studio AKA go in the opposite direction to their respected peers such as Nexus or Passion Pictures by being a 'brand first' model. They prefer to present their smaller roster of directors via a general studio reel first, so responses to projects are not narrowly bound to one person or their existing resume. The collective, collaborative approach to pitching is a good way to survive as a small studio, and allows directors to move beyond the creative pigeon holes clients will often place them in according to work they have previously made. In this way director reels grow stronger by being more diverse and allowing directors some degree of control in how their own work develops. The directors are always credited and promoted from the point of winning a pitch - but prior to that the studio prefers to present a branded studio front. This 'blind pitching' is also a way to mentor junior directors through the choppy waters of agency & client expectation – they can build up experience and often leap ahead by being chosen from a wider array to take a project forward. This method is ideal for a smaller group of directors who nonetheless can create a wider repertoire of work and maintain a steady studio workflow as well.

Both of these production models have their merit. I would say Australia seems to have more of a company brand first model than director first model. This is an interesting fact, as I think Australia needs to better foster the next generation of directors.

Studio AKA naturally like to take on the best creative jobs that they can, but sometimes the most appealing projects don't always have the best budgets. In this case they often take on a project on creative merit alone but try to offset the budgetary issues by using it as an R&D platform to push new techniques – or as a showcase for a particular director or approach. The process allows also for some of the more experimental techniques and ideas. Though not always something they can do, when its possible the ability to do this works well for them, progressing their own agenda to remain a creatively innovative company - a risky move at times, but one which sometimes pays dividends by landing them the bigger paying jobs.

Studio AKA is also inspired to produce original IP in the UK like Aardman, and although still 'young' in this respect they have amassed a formidable slate of projects covering both broadcast TV and animated feature film projects.

It is worth noting that a lot of the top commercial production companies in London, Los Angeles and New York do a considerable amount of work with music video. Although many budgets are not favourable, music video is an ideal platform for experimental work and promoting new, motivated directors. Many agencies follow the music video work of directors as they not only show the ideas of their innovative minds, but also have the “cool factor” that agencies are searching for to translate to advertising. Many of the most sought after directors such as Michel Gondry cut their teeth with hi-concept music video.

## Smaller collectives

Screen Novelties is a small collective of film directors in Los Angeles, who specialise in stop motion animation. It was formed in 2003 by Mark Caballero, Seamus Walsh, and Chris Finnegan. The founders had previously worked on the TV show 'Celebrity Death Match' for MTV, which was perhaps an early beginning for popular adult animation. Screen Novelties was under way after a successful Nike commercial and working with animation great, Ray Harryhausen on his project 'The Story of The Tortoise and The Hare'. Screen Novelties was integral in the launch of both 'Robot Chicken' and 'Moral Orel' for Adult Swim. When I visited Screen Novelties they were developing a stop motion TV special of 'SpongeBob SquarePants'.

Polynoid is a group of six graduates from the German Film Akademie. Their graduating short film 'Loom' earned them international acclaim for VFX artistry and technical ability. Now based in Berlin, they work together often sharing the directorial input under the brand of Polynoid, and now have international representation with Passion Pictures in the UK and Blacklist in New York. Short films are key for their exposure.

Talking Animals is another Berlin based animation collective of film school graduates from Haff Potsdam in Babelsberg. They all work on their individual projects but can still use the collective name as a brand to assist with funding and a versatile entity with multiple directors.

It is interesting to recognise how short films are utilised consistently as a medium for showcasing artists' work. Nearly all of the successful smaller studios and collectives have received much attention through their short films. I think short films are an investment, but the importance can be overlooked. The direct financial return of short films is generally poor, but the long term benefit of generating attention and future work is not to be underestimated. This is why larger studios like Sony and Dreamworks tend not to bother with short films.

## Independent animators

I would say the primary motivator for the independent animator is the passion for creative work, though the road for the independent animator can be a tough one. Many great artists begin here, and the devoted who persevere do shine through and do go on to great things. Most companies begin with the drive of the independent animator.

In Tokyo, the prolific Tomoyasu Murata runs his own independent animation house called Tomoyasu Murata Company. Driven by artistic aspirations of nostalgia and a social conscience, Murata produces more art focussed pieces, closer in essence to the European auteur filmmaking. Using his skills in painting and sculpture, and inspired by the stop motion work from the Czech Republic, Murata has made several renowned short films, installations and music videos. Although producing one TV series with the NHK<sup>10</sup> TV channel, he treats his animation as more of an art form for exhibition through museums or artistic installations, rather than for commercial gain. The exhibitions and DVD sales generate money for his ongoing work. He prefers to work with small teams of trusted artists and aspiring students.

Now with his philosophy of his animation having social purpose, Murata is inspired to create an animated piece about loss and remembrance with the recent catastrophe at the Fukushima nuclear power facility. He aims to fund this through the ministry of culture and through subsidies available to university professors like himself.

The world's most successful fully independent animator would have to be the fiercely autonomous and creative Bill Plympton in New York City. Bill Plympton is the only person to have completed animating a feature film, drawing every frame by himself. The film, 'The Tune' was released in 1992.

Bill progressed to animation from cartoon illustration and created many of his own short films, which generated some commercial and music video work. To date, Bill has created 38 animated short films and 6 feature films, entirely of his own creation. In the mid eighties Bill was inspired by other independent film making peers like Spike Lee and Kevin Smith, who were making films outside the Hollywood sphere. Bill's devotion to his own ideas and business is so strong that he supposedly turned down a 7-figure exclusive offer from The Walt Disney Company to animate the film 'Aladdin' because the contract stated that any ideas he developed while under contract with Disney would become Disney's intellectual property.

Bill Plympton still is a solo animator on further feature productions. Short films are also essential for getting his work out there at shorter intervals than features. Bill has a small team

that help with the scanning and digital assembly of his hand drawn material. He distributes the films himself, usually through the film festival circuit and smaller releases through independent cinemas. Bill uses the profits from one film to roll into financing the next, with low production overheads. He produces 1 feature film every three years.

Mauchi Baiocchi is the creator of 'Cicada Princess', and independent project being put together near San Francisco. Mauchi has a background as a technical animator in visual effects. Despite his technical background he has a very creative streak, and wanted to break away from working at larger studios to create a more auteur piece incorporating the talents of his peers. The 'Cicada Princess' concept is an adaptation of a poem written by Mauchi into a short film, and it will be released together with a picture storybook. Technically the film is created with puppetry, which is slightly aside from animation, but the film was created with talents of the established stop motion and visual effects community in San Francisco. The film is an art piece with no commercial motivation. Mauchi has told me that any financial return that will go towards fuelling a new project of the same nature. This film is actually an excellent example that there is a solid audience for appreciating auteur independent films. Mauchi reached out to the online community through the crowd funding system of the website [www.kickstarter.com](http://www.kickstarter.com). This website is designed for supporting independent projects, by using the expanses of social media to generate attention and contribution toward projects that people believe in. Within 48 hours of his project featuring online on [www.kickstarter.com](http://www.kickstarter.com) the project had generated over US\$40,000 from contributors, and by the end of the allotted pitch period it had raised over US\$74,000 from 1097 contributors. This positivity also caught the attention of Stephen Fry, who has now come on board to narrate the project. 'Cicada Princess' is intended for release in May 2012 at The San Francisco International Film Festival.

Moritz Mayerhofer is a graduate from the Film Akademie in Ludwigsberg, Germany and is already becoming a prolific animation director. His graduating film 'Urs' won many awards and made Moritz eligible for the FFA 'reference credits', allowing him the possibility to apply and access funding for future projects. He has completed a second short film since and now is busy planning a feature film adaptation of a picture storybook. Moritz's devotion, persistence and planning will no doubt expand his work out into the next level of animation production.

## The business end of things

In the mid 1980's to early 1990's, big studios in the US didn't own animated shows as they do now, so independent studios maintained ownership, which allowed for syndication through multiple avenues. Hanna Barbera has retained the rights of older famous works. This has sustained them during down times because of the sale of cartoon reruns.

Disney, Nickelodeon and Cartoon Network then created their own studio model, 'one stop shop' to make and broadcast. Companies like Film Roman who produced big hit TV series had capped success because of the ownership of the shows by Fox.

The US has 4 animation focussed major networks with many other channels that purchase content. Similarly Canada has 2 animation networks with another 7 or 8 channels that purchase content.

Larger American networks can pay US\$10,000 a pop for pitches and pilots, and in doing so, mine for gold.

In France, Pay TV Canal Plus was established in 1984. Canal Plus fosters strong local production, with development money for writing. Canal Plus has quotas of French content to meet. Canal Plus also is very proactive with international co-productions, keeping the balance between local and international business.

In France the average budgets for live action film are €7-10 million. Julien Meesters<sup>11</sup> from Mikrosimage says that a minimum of €18 million is required to make something decent for an animated or VFX intensive film. He says that the production exists in France, but they are still struggling to reach the right scale of money compared to the US. Julien Meesters said, "We need a French Peter Jackson" and said the closest match that France had to date was Luc Besson, director of 'The Fifth Element'.

The Asian markets are still only one third of the US markets, but the consumer potential of the population in China is really the next frontier to conquer. I did wonder whether the 'Kung Fu Panda' films produced by Dreamworks Animation had any specific intent to break into that market.

## The 'mini - major' model

Bigger film studios collectively now do 12-15 (of any medium -including live action) films per year, instead of the 40-50 they did in their heyday. The newer approach of the "mini -major" is the most sought after success model today. This is where films are produced for more modest, cost effective budgets and then earn success comparable to the big budget numbers. Studios don't spend 200-300 million dollars on films as regularly as they have in the past, because they can't wear the cost of failure. The visual effects fantasy film 'Pan's Labyrinth' is a trophy showcase piece for low budget production with high return. The 'foreign language film' (Spanish) was made for US\$19 million and grossed over US\$83 million worldwide, elevating writer / director/ producer Guillermo Del Toro to the status of a film making magician in Hollywood.

The independent film 'Monsters' was written, shot, and directed by the talented Gareth Edwards, who also created the VFX and animation in the film. The film had an extremely lean budget of US\$500,000, adopting a more guerrilla angle to the production, shooting with 'prosumer' DSLR cameras. Gareth's construction of this fictional piece, and clever production planning, lead to theatrical distribution by Magnet releasing in the US and Vertigo Films in the UK, grossing US\$4.2 million.

Filmmaker Peter Jackson saw the value and potential in Neill Blomkamp's short film 'Alive in Joburg' and then supported him by producing the feature adaptation, 'District 9'. The VFX and character animation intensive film was made for a modest \$30 million and returned \$211 million. This top down support from Peter Jackson spawned the successful productivity. This shows both the value in short films and investing in emerging talent.

Other animated films have yielded good results, 'Persepolis' (a graphic novel adaptation) costing US\$7.3 million and grossing US\$22.7 million and 'Despicable Me' costing US\$69 million and grossing over US\$543 million. Note both these productions were collaborations between the US and France.

The Weinstein Company distributed the low budget, independent animated film 'Hoodwinked'. The film was produced for US\$15 million during the boom period of blockbuster CG animated films. The film had 20 animators, and was the first independently produced 3D animated feature in the Philippines. Despite the critic review averaging at 47%<sup>12</sup>, the film still grossed over US\$110 million.

All of these examples of favourable financial return are clear evidence of the might of marketing and distribution. This concept of the "mini major" is an example that I think is applicable to Australia. Bear in mind though, that most of these films, considered low budget productions, have a commencing budget that is far higher than films made in Australia.

'Persepolis,' a 2D / 3D computer animated fusion was considered to have a shoestring budget, but was distributed by Sony Picture Classics. The Australian film 'Mary and Max' had a comparable budget, which was stretched for stop motion. Despite excellent critical review<sup>13</sup>, to date 'Mary and Max' has not made money beyond its cost. It is fair to say that the lack of funding for marketing and distribution, and subsequently limited international release, has led to this film not reaching any profit. Despite this, Adam Elliot perseveres in Australia believing in the potential opportunities of animated films, and in his own words still recognises that; "Animation is the most bank-able form of film making".

## Distribution continued

Distribution is Hollywood's backbone and the key to growth. I have discussed how the medium sized companies have benefited from financial attachment to the distribution machines of the bigger studios. The primary distribution of a film cannot happen as an afterthought, it is integral to the film making process and the allocation of the budget.

### Online

There are alternative methods of distribution through the interconnected online world, such as the rising might of entertainment companies like iTunes, Netflix or Hulu. For existing films, these 'on demand', online distribution systems are a profitable auxiliary bonus, but for many films it will be the future in distribution. Netflix and Hulu are only available in certain countries so far but have had such a massive impact in the U.S and Canada penetrating into millions of households. The immediate "not having to leave the couch" convenience has seen many of the DVD rental stores in the Canada close, but the revenue return to the filmmakers has been significantly greater.

Netflix and Hulu have not yet made it to Australia or Japan. Many of the animation studios I visited in Japan were heavily reliant upon DVD sales, which since 2006 have declined rapidly due to piracy. This is crippling for some companies, but larger companies like Toei Animation have mechanisms like large merchandising lines to offset this loss. Chief Producer Hiromi Seki said Toei Animation would be willing to embrace the advent of online on-demand distribution in Japan.

The online on-demand enterprises really are the future for more safeguarded distribution. The system distributes material to a greater audience with lower cost and less chance of piracy. This then raises the bigger question, namely, will these online methods of distribution one day eclipse the mainstream distribution to cinema, or at least lessen it?

Although interested in the concept of online distribution, Studio Ghibli will wait for this to prove itself. Studio Ghibli DVD sales are apparently holding up well, most likely due to the DVD packages appealing to the collector.

Interestingly, Studio Ghibli seeks to uphold the value of their films with selective methods of distribution. By declining permission for on-demand and satellite distribution they avoid the concern of over saturating their audiences with Ghibli films.

iTunes has also become a commonly accessed, centralised hub for movie distribution, most definitely replacing DVD sales. In the US, iTunes hosts all kinds of media content including TV series, feature film and short film. The American iTunes has been used for showcasing the Oscar nominated short films from all over the world, including animation. The Australian iTunes is similar to the US, however I am flabbergasted that iTunes Australia does not provide for short films and I cannot see any logical reason why not. The Oscar winning

animated short film 'The Lost Thing' is an Australian production, yet it is not available for download through the Australian iTunes, but are on the American, Canadian and English sites, which are inaccessible to Australians. Does iTunes think that short film is of no interest to Australians or that the financial return does not warrant their making it available for download? It is all just electronic data on a web page transmitted over the Internet; there is no financial overhead difference to iTunes if they make it available in Australia. It is embarrassing how many times I have been asked if 'The Lost Thing' is available for download on iTunes here in Australia.

Another powerful contributor for marketing and distribution is through website blogs and other social media. Many marketers now seek to effectively create content with appeal and set off self-germinating or 'viral' interest online. Popular blog sites and avenues of social media like Facebook and Twitter are now used to pass on the information to literally thousands or millions of people in seconds. The new appeal with this technology is with the users essentially becoming their own broadcast curators, that others can follow. YouTube and Vimeo are free online video sites where trailers or short films can be shown, and embedded into websites. There is no real direct financial return from this (yet), but the viewing of teaser / trailers through these viral mechanisms, can get a big buzz of interest before a film's release, and subsequent theatre attendance.

Short films are an effective tool for work showcasing and brand building, but financial return is difficult. Studio 4C in Japan produce very high end work and have successfully bundled short films together in DVD packages. This was the case for their work on the 'Animatrix', a collection of nine short films from different companies bundled together for DVD distribution. This bundling method has also been utilised by independent filmmakers Bill Plympton, and Tomoyasu Murata.

The National Film Board of Canada supports high quality, innovative projects that focus on Canadian stories and values. The NFB is the largest producer and distributor of indigenous Canadian film and interactive media. A key part of the NFB's 70 year legacy is the collection of 13,000 films, which includes an extensive range of 5-12 minute short films. The NFB is the copyright holder and principal distributor of its productions. In the case of co-productions the NFB is co-owner of a work's copyright and distributes in select markets and territories, which are mutually agreed upon with production partners. The NFB co-productions are projects that resonate with the values and objectives of their productions and are pertinent and important to Canadian audiences.

The National Film Board of Canada produces and distributes collections and compilations of its animated films commercially in the home consumer and television markets and to the institutional and educational markets. With the transition away from DVD use, the NFB is putting emphasis on producing and distributing via the internet, connected TV, mobile and other digital platforms. The NFB has an award winning online screening room featuring more than 2000 films, and customers are now able to purchase and download digital versions of films to play on a broad variety of devices, including video-capable smartphones and tablets. A growing collection of interactive works now form an important part of the collection. These works bring Canadian stories and experiences to new and existing audiences through the innovative and integrated use of traditional filmmaking techniques and interactive online media. Please visit the NFB website at [www.nfb.ca](http://www.nfb.ca) to see examples of their film and interactive works.

**What if the Australian government invested in film bodies that pair distribution importance with funding, like the NFB does in Canada?**

## Potential realised later

There are several, very well made films that did not receive adequate attention for their release, but their own merit has stood up over time. Warner Bros did not get behind the film 'The Iron Giant' with sufficient marketing. The film with a budget of US\$70 million was deemed a failure after its domestic US only release making US\$23 million. Director Brad Bird said "There was just one problem: No one saw it. In a mis-marketing campaign of epic proportions at the hands of Warner Brothers, they simply didn't realize what they had on their hands."<sup>14</sup> The brilliance of the film was only later realised, with universal critical acclaim and a rating of 97%<sup>15</sup>. Warner brother revamped the marketing for the video release and the film gathered somewhat of a cult following through the new distribution and network TV featuring. Animated films have since been treated very seriously in the US, being further marketed and endorsed. I believe Adam Elliot's film 'Mary and Max' has suffered the same fate as The Iron Giant.

## The Cost of living

One of the more daunting tasks for smaller, start up animation companies in Australia is the cost of doing so. The cost of living and especially real estate in the bigger capital cities of Australia is near prohibitive for many smaller businesses trying to establish themselves.

I did hear opinions from people when in Vancouver, that it too has become a very expensive city to live in, in terms of real estate prices. In recent years there have been surveys and polls conducted comparing the cities of the world. Vancouver has consistently rated first in this ranking, and now Melbourne, Australia sits at first place<sup>16</sup>. I do wonder whether this has contributed to the popularity and subsequent inflation of real estate costs. It is also interesting that these migration-generating reviews do not take into account the cost of living. For a country the size of Europe or the USA, with a population of only 22.3 million people, it is quite staggering that our city real estate prices are now matching Tokyo or New York City.

I mentioned earlier that Japanese animators are quite poorly paid. I think there needs to be systems in place in Japan and Australia that keep the rising costs of living in check with the artists' wages.

Something that was very inspiring to see was the amount of flourishing independent businesses that I saw when in Berlin. By comparison to Melbourne or Sydney the cost of living in Berlin is far more accessible to establishing businesses. Anywhere in the world, project based businesses like animation companies have patches of downtime that they need to survive through. Having lower base overheads (of rent and utilities) for these company's means that surviving these leaner periods is far less daunting. The smaller emerging animation companies in central Berlin like Polynoid have quite affordable overheads. Talking Animals' rent is subsidised by the district council, with the interests of encouraging local art culture. 10-16 artists share a 200 square metre studio and their rent costs of €650 / month, which works out around €50 per artists, per month.

Animation director Moritz Mayerhofer also told me that the regional Baden-Württemberg council in Germany have sponsorships and rent subsidises for emerging small business in Ludwigsberg and Stuttgart, encouraging graduating students to stay and establish their businesses in that district. I am told that start up companies can commence in government owned buildings with very low, or even no rent. This has really helped place the Stuttgart area on the map in the international animation scene.

If such a system were in place in Australia perhaps people like Adam Elliot would have been able to maintain his own studio as a hub for the stop motion community.

Overhead costs are a major consideration for studios of all sizes. It is interesting to note many of the more established companies of today commenced in further out cheaper areas to save money. In the 1930's Disney set up studios in Burbank, California was a far cheaper alternative to Los Angeles at the time. Similar to this Laika has set up in Hillsborough in outer Portland, Blue Sky in Connecticut, Tippet in Oakland, Pixar in Emeryville. These moves have transformed these locations, spawning other businesses and infrastructure, but the initial decision was based around cost saving.

## More on International co-productions

'Animation is an international product to be made and sold' - Cedric Pilot from Method Animation talking the advantages of co-production with animation.

Co-productions are highly effective at sharing skills and resources rather than one entity supporting a production. They also allow for sales of the content in the multiple countries involved, accessing a bigger audience and bigger return. There are many prolific companies who have the opinion that co-productions are essential these days, and that it is almost impossible to solo produce.

MikrosImage in France has co-production deals with Montreal, Luxembourg, Belgium (Brussels and Liege).

Frenchman Savin Yeatman Eiffel, appealing to the French and Japanese similar style and interest, sought co-production work with Japan for successful TV Series 'Oban Star Racers' which screened in 90 countries. If you were wondering, Savin is indeed a descendant of Gustave Eiffel who designed the famous Eiffel Tower in Paris.

## International relations

Toei Animation is mindful of its international presence with offices in Tokyo, Los Angeles, Paris, Hong Kong, Shanghai and Manilla. Toei representatives consistently attend events like MIPCOM in Cannes to activate sales and continue their international presence.

German established company, Pixomondo has 12 offices worldwide, allowing for distribution of financially viable work. There are five offices in Germany taking advantage of regional rebates, one in Toronto and Baton Rouge, Louisiana for similar rebates and one in Shanghai, no doubt for the lower cost of labour. They also have offices in London, L.A and Burbank to strategically catch the service work and distribute to these cost effective areas. Pixomondo work on an average of 5-8 German films and TV series each year. The domestic work (with its incentives) helps maintains steady business and support the local industry. This 'constellation' model really is one of the most competitive angles for service work, and companies like Pixomondo will be providing very firm competition for Australian VFX companies. These days the competitiveness of back end production has only around 5% margins to work with, so companies structured like Pixomondo becomes more essential to be profitable.

For TV production, digital 3D animation is more expensive than digital 2D animation and generally acquired by networks rather than produced by them. Companies in India and China, which have traditionally not been technically up to speed with knowledge of high end CG pipelines, are now starting to receive outsourced 3D animation work, and will undoubtedly become significant competition with cost and quality in years to come as technology and their experience grows.

Pioneering VFX facility Tippet Studio feels the pinch of competition from Canada, Australia, UK and India. This represents the woes of reliance on service work, and not having ready access to tax breaks.

## Funding systems and tax incentives

Outside of the Hollywood studio system, animated productions tend to be allocated the same funding as live action productions, yet they generally require more initial funding. Germany and France feel this problem, like Australia does, but Germany and France have a more convenient access to co-production money, multiple funding sources and regional incentives to make up the difference.

Tax credits and rebates attract production in terms of service focus work, but also direct and co production financing. Incentives do assist the cyclical nature of an industry.

France has a 20% tax rebate on film production. The CNC in France is integral to funding local features and shorts. As well as the federal funding systems, there are regional areas that have their own incentives for attracting the production, such as the City of Angouleme, which has become a hub for animation.

French broadcasters have quotas to fill with French content and also interestingly, have an obligation to invest in cinema production. This then results in French funded films made in France with French talent and subsidy bonuses if the content has a French cultural theme / setting. The French place importance on maintaining cultural identity.

Germany has 7 or 8 film funding boards. The FFA (Federal Film Board) has funding in the form of a non-repayable grant based on an eligibility point / reputation credit system. There are also other bodies like the BKM supporting cultural artistic pursuits - somewhat like the FFA system but not credit related. The MBB has a system where if your project earns money you pay the money back, if you don't there's no debt. The MBB like to support new businesses, and animation businesses - because they stay in one place as compared to live action projects where the jobs move around and the production companies dissolve.

Californian state based tax incentives diminished since the economic downturn of 2010. Californian businesses feel the pinch with State Tax, Federal Tax and City Tax. There is now a large migration of businesses moving to Vancouver.

Canada has very generous tax credit rebates that vary in each province. British Columbian (Vancouver area) rebates<sup>17</sup> begin at 33% for foreign production but are eligible for accumulative attributes including the Digital Animation and Visual Effects component<sup>18</sup> which adds an additional 17.5%. These rebates have no spending limit, but the corporations applying must have a permanent establishment in BC. Rebates are slightly higher again for domestic production.

The Canadian support mechanisms go even further. Canadian Media Fund (CMF) combined with tax credit rebate can total 60% financing, and allows for easier pre-sale beyond Canada to Asia or Australia. Also there is the concept of a 'Super Canadian Show', which is in house 100% Canadian production. Canadian networks get behind financing these shows because they can claim 150% of this Canadian expenditure. Looking at these examples you can see how Canada supports and values its local animation industry.

I am told there are also attractive tax incentives in other areas such as Ireland and Luxembourg.

Australia has a 40% tax rebate for qualifying expenditure on Australian production, and a 30% rebate for imported production. This rebate is integral to foreign spending in the Australian film industry, but the fluctuating concern is that this percentage is not as attractive when the Australian dollar is strong.

The established might and reputation of companies like Weta Digital in New Zealand attract the biggest VFX and animated films in the world. New Zealand has a tax break of only 15%, but it is still an integral part of luring the work. Film Wellington manager Delia Shanly said "If we didn't have a 15 per cent tax break we wouldn't even begin a conversation with these (overseas) film makers"<sup>19</sup>. The first 'Avatar' film received a total of \$52.9 million NZD tax break from the Large Budget Screen Production Grant based on qualifying spending of \$362.8 million NZD<sup>20</sup>. The film employed 1500 people in Wellington and injected \$100 million NZD into the Wellington economy. Avatar was the highest grossing film of all time, making \$2.8 billion USD, and now the next 2 sequels are scheduled to be made at Weta in Wellington.

One interesting anomaly is the company Laika in Portland, Oregon, which is able to fund its own productions. This is no doubt due to the fact that the company is owned by Nike co-founder and Chairman Philip H. Knight, and his son Travis Knight is the CEO. The company has two divisions, 'Laika Entertainment' for feature films (specialising in stop motion animation) and 'Laika House' for commercial work such as advertisements and music videos. Laika is currently working on their second stop motion feature film 'ParaNorman' due for release in 2012, distributed through Focus films.

## Other supporting programs

There was one interesting aside I felt compelled to look into when in Stuttgart. The Akademie Schloss Solitude is a beautiful old castle behind Stuttgart where full service fellowships are offered. Successful fellows receive studio space, residency and an allowance to develop their proposed projects. Furthermore the fellowships are open for anyone around the world, not just to Germans. Academy director Jean-Baptiste Joly said that this internationality diversifies the creative projects, and importantly brings more attention to Stuttgart. I was very interested to learn that €1.6 million (80%) of the Akademie's budget comes from Badenwurttemberg lottery profits.

UK lottery partnered with the BBC for one off funding of The Tate Movie Project. Project explained further in innovation section below.

**What if Australia funded emerging animation or film projects by profits from the lottery or immense profits of gambling or Pokies. Let the controversy commence!**

## Education

On my travels I looked at some of the educational systems of Japan, the US, Canada, France and Germany.

The key positive element to all of the education facilities that I visited, was learning about how the students were benefiting from the courses they were undertaking. Schools ranged from simply preparing the students for vocational roles in an active industry to assisting them develop showcase work for generating their own business. The educational programs know how best to integrate students in countries that have a more active industry, which supports my argument that a healthy industry is a cycle of contribution.

Japan has schools that teach the newer technologies of CG animation, but most of the schools are solely based around traditional 2D animation, with rigorous technique development.

Tokyo Animation College is in touch with the requirements of the Japanese animation world. Recognising that manga is the proving medium for the local industry the college is structured with a focus on the comic art form and the fundamentals of fine art. The breakdown of the student population is 25% in the manga department and 25% in the animation department. I was fascinated to learn that the remaining 50% of the school's students were in the area of highest demand – voice/over training. Voice/over jobs for animation, as well as radio and other medium is a big career in Japan. Top voice/over artists can accumulate celebrity-like status and a following. The animation industry has been a major contributor to this phenomenon.

Tokyo Animation College has a recruitment department to help bridge the gap between student graduation and employment. As many of the animation studios place high importance on the fine artistry of its animators, employment for graduating students can involve tests and qualifying exercises. The recruitment department sources the criteria for employment tests and job placements, which feeds back into the course curriculum structure.

Tomo Sugiyama started the school Digital Hollywood in Tokyo shortly after the launch of the Sony PlayStation in 1994, recognising that the games industry had a demand for CG artists. To date of the 50,000 graduates of Digital Hollywood, 70% have moved on to the games industry and the remainder to VFX and CG animation production, with less than 3% working on CG movies in Japan.

Digital Hollywood has a technical school for 1-2 year specific technical training, and a university with authorised general courses on computer graphics, incorporating film, TV, games and web design. The university has a 4th honours year, where students can specialise in digital content, and a 5th and 6th year where they can specialise as content producers. Digital Hollywood also has a professional recruiting department in touch with production companies that assist with matching students to jobs.

The schools in Canada seem to have a great balance between traditional fundamentals and CG technologies, exposing students to a range of applicable animation avenue. The Vancouver Film School (VFS) has a renowned animation department vying for international competitiveness, structuring around a changing industry and encouraging students to stay in Vancouver.

For Canadian students the burden of fees is broken down somewhat at Sheridan College out of Toronto. The Ontario government partially subsidised Canadian student fees through grants of approximately \$4,000CAD per student. Ancillary and regulated tuition and software package fees keep the remaining student costs to around \$7,000CAD per year. 50% of Canadian students receive the OSAP (Ontario Student Assistance Program) to offset the tuition. Similar to Australian HECS system, the OSAP is a loan that has to be repaid, but while in school, students do not have to pay any interest on the loan. Sheridan College is a public school, established in 1968 and takes in 125 student places each year.

Sheridan College focuses on the fundamentals of art based 2D animation, with high-end character and style development. The focus is to build the skills and portfolio of the graduates, and many of the graduates move to high level positions. From the early 1970's the animation program at Sheridan grew in parallel with the affiliation of Nelvana Animation, the now long established studio in Toronto. Sheridan College has also been very innovative with a computer animation program since 1983. The students must be self-motivated to seek employment opportunities but there is co-op office to help with job applications and information.

California Institute of the Arts (or Cal Arts), out of Los Angeles is a school founded by Walt Disney in the 1960's with the specific intention of nurturing creativity through the cross

pollination of unconstrained creative minds. CalArts offers degree programs in music, art, dance, film and video, animation, theatre, puppetry, and writing.<sup>21</sup> Cal Arts is a private school, which costs students around US\$36,000 a year to attend.

Despite the cost, what is inspirational about Cal Arts is the philosophy that the students are an investment for tomorrow's generation. There are 7 or 8 full time faculty teachers, and around 38 industry professional who take specific classes. Students are free to develop their own style and voice with their individual projects. Retaining the copyright ownership, students can use these projects to launch their intellectual property and careers.

Cal Arts offers two different courses in Animation. There are 160 students in the Character Animation course, with classes focussing on traditional 2D animation as well as digital 2D and 3D animation. This course has an additional focus on storytelling with classes on writing and storyboarding. Some of the animation greats like John Lasseter, Brad Bird and Tim Burton emerged from this course. I believe this visual narrative emphasis gives students such an advantage going forward.

The other course is Experimental animation, with around 80 students. The experimental course explores other animation applications beyond the narrative, including mixed media, as well as classes in stop motion. People like Henry Sellick and Stephen Hillenburg emerged from this course.

Students have state of the art resources and also access to the different faculties to collaborate on their projects.

Cal Arts recognises the importance of generating awareness of the students' work. An annual 'job fair' / portfolio day invites around 25 studios come to view the showcased works of students, putting their work on the employer's radar. Graduating films are voted on and the top 20 films are screened at Hollywood's famous Kodak Theatre, to an audience of industry representatives.

High level students at Cal Arts and Sheridan College are head hunted by big companies. I got the impression that there is a relationship between students and these industry professionals teaching there, that goes beyond just the student benefit - it's also where the industry professionals are getting return inspiration and keeping tabs on the best emerging students.

Cal Arts and Sheridan College are considered as key industry feeders for graduates to be employed by companies like Disney and Pixar. Sheridan particularly, as the school nurtures the expressive character animation similar to the familiar Disney style.

The importance of short films is proved so well by film and animation schools. Students graduating from France, Germany and Canada use their refined graduating films as showcase examples of their work. Short films give an insight into how artists communicate stories, ideas and styles and can propel students into highly regarded jobs straight away. Short films are an investment in director development and bigger projects in the future.

In Paris 550 applicants each year vie for one of the 25 positions at Gobelins L'École de L'Image (or Gobelins' School of the Image) for the three year animation program. Established in 1975, Gobelins was for a long time the only animation school in France. Now it is still one of the most highly regarded. The Chamber of Commerce and Industry of Paris fund Gobelins, it provides training in various formats at a variety of different costs. The Cinéma Department of Animation takes on highly motivated students with strong portfolios, drawing skills and spatial capacity.

Gobelins has a three year programme of extensive exercises in the fundamentals of traditional 2D animation. 3D animation is considered a medium and not a style and the curriculum and integration of the medium is explored later in the three year student programme.

Paris is dynamic for accessing talented artists and teachers. 90% of teachers at Gobelins are professionals actively working in the industry. Students do two internships -one in France

and many students do a second in a foreign country. There is a great interest in Japan, particularly as 2D animation is very popular with the artistically trained students. Graduating students are eligible for overseas work straight away. One graduating film from Gobelins 'Octapodi' did the festival circuit and ended up with the exposure of an Academy Award nomination. This illustrates the calibre of these sought after graduating students. Director Pierre Coffin, from Macguff graduated from Gobelins.

Gobelins also has programs and partnerships with Filmakademie and FMX in Stuttgart, and exchange program with CalArts. Each year Gobelins students make short themed films for the opening of The Annecy International Animation Festival.

Supinfocom (école SUPérieure d'INFOrmatique de COMmunication, roughly translated to University of Communication Science) was established in two regions of France, accessing the regional benefits and with the intent of lifting employment in the animation field. The school encourages student specialisation, following their interests, which results in better placement beyond graduation. Students study to become directors, and graduate with director worthy work.

In 2007 the American Magazine '3D World' ranked the school #1 in the world, based on criteria such as the distribution of student films and prizes in festivals worldwide.

The Supinfocom curriculum includes two years of preparatory courses (design and applied art, perspective, film analysis, video, colour, 2D animation, art history, sculpture, communication, English) and three years of specialisation in computer graphics (3D software, screenplay, storyboards, animation, compositing, 3D production, sound, editing). The final year of study is devoted to the team-based production of a short film in CG.<sup>22</sup>

The team-based collaboration builds solidarity and these groups go on to further expand their repertoire and style, like Yann De Preval and Max Loubaresse. The students' work is so refined and so well regarded that the graduates are taken on under the umbrella of supporting companies to develop their own material.

It is very interesting to note that Supinfocom opened a third school campus in Pune, India, no doubt to the overwhelming demand from the growing CG industries in India.

Established in 2000 LISAA (Le Institut Supérieur des Arts Appliqués - College of Applied Arts) is a private school teaching 2D and 3D animation and game development. LISAA was the first school to teach video game creation in France.

LISAA is a design based school where creativity is developed, and students are guided to express ideas. The programs are still designed mindfully with a vocational angle. Students undertake quite a rigorous first year building a foundation of skills with drawing, composition and colour, and software familiarisation. LISAA uses 'TV Paint', French 2D digital animation software. LISAA helps students pursue either narrative storytelling or interactive storytelling. The teaching structure mimics the professional world with all students pitching ideas to the peers of their classes. Ideas are voted on and then concentrated, small projects are worked on in groups. Ideas are pushed beyond the first pass with this collaboration. LISAA aspires to output strong designers, artists and animators who land jobs all over the world. Some students choose to advance on to Gobelins.

For me, the European school models have the best approach and structure. Although each of the schools have many merits in different areas, the school I was most impressed with was Germany's national film school; Filmakademie Baden-Württemberg in Ludwigsburg. For me, the Filmakademie (Film Academy) has the most innovative and adaptive structure with its institute for animation and visual effects, that was the most in touch with the worldwide industry.

The Filmakademie is a public school, and the students' fees are covered. The film school has 500 students in total, with 100 in the Animation Institute. Of this 100, 10-15 are taken in for

animation, 5-6 for interactive media and 4-5 for technical direction per year.

The Filmakademie only admits students who have at least one year of practical experience in the film business and two years for its producers program. In the first year of tuition, students explore fundamentals of all-round film making, before embarking on animation or visual effects studies. This way students understand the basis of film editing, camera framing, writing etc., which all apply to animation and visual effects.

I was so impressed by the resources available to the students of the Filmakademie. These included full sound stages with up to date lighting and camera equipment, green screens and sound mixing facilities. Students all work in teams and collaborate with the knowledge and resources of other departments in the film school.

The Animation Institute focuses on animation, VFX, interactive and trans-media. Concepts of art, story, character, design, pre-vis and layout are taught. Students may pursue any particular focus of animation they wish. The Academy also has studio space and resources for stop motion work.

Interestingly the animation institute structures itself like a VFX facility with its projects. People who study for 2.5 years can become animation producers. Producer students then must manage the students and resources on their projects.

All teaching is done by industry professionals and guest lecturers. The Academy has only a small number of full time staff who are more technically oriented for student support. The institute is always on the cutting edge of new mediums and technology, with the teaching of trans-media; across smart phones, TV, games console and the Internet. This is an essential area for Australia to keep up with. The school also immediately accesses any specific software that students may require.

The technical director (TD) program of the Animation Institute takes in computer science students and fills the gaps with knowledge of the film industry and specifics of CG. Trained TD's are highly sought after and they all get immediate employment.

Students take one year's leave for employment placement, which is generally at top facilities. For example Jan Bitzer (from Polynoid) received a placement at New York's premier commercial house 'Psyop'. Students can do external work while at the Academy but must charge same industry rates, so as not to cannibalise the local industry.

Most students start with developing short films, and can take their graduating diploma film to develop brands and companies. People like Mortiz Mayerhofer and the people of Polynoid and Studio Soy all did this to establish themselves. Furthermore these graduate enterprises were all set up in Ludwigsburg, due to the subsidies and incentives available. These companies also employ a lot of graduates from the Filmakademie, adding to a cycle. Students go straight into business, promote and stay in the local industry.

The opportunities that the Filmakademie provides are so great that I was amazed to hear that there are three feature films being made within the academy this year (2011). With the financial advantage of equipment and resources, there is the ability of pooling student talents from the acting schools, and VFX department etc. Some productions access government funding or even funding from TV stations to use for external costs such as marketing and distribution.

The Filmakademie will produce 35mm prints of student work, but that must be paid back. There are staff to help with distributing student work to festivals, once the project producers have the film underway in the festival circuit. Many of the Filmakademie short films have received awards through international festival accolades, and students receive 100% of any award money from festivals. If a project is sold to a broadcaster, then contracts are negotiated with student and the Filmakademie for a 50/50 split of revenue return. In my opinion, the fact the institute is operating at this level is testament to how successful the model is.

Damian Gascoigne, animation director and senior lecturer at Kingston University (UK) for 14 years, believes that coveting and building profiles of 5-10 schools (relative to population and demand), is the key rather than having many courses with an 'animation component' that are less focussed. Citing France as an example compared to the UK, France has 4 or 5 main schools of specialised training and the UK has around 93 different schools. Damian believes BA students need to focus their skills and class choices instead of the 'pick and mix' of BA subjects which often happens. The trouble with animators is they often wear many hats but people are generally better skilled in 2 or 3 areas. The UK has 241 undergraduate programs that incorporate animation and 59 full BA animation programs, yet in Damian's opinion only 4 or 5 of those are outputting high level students.

Despite the cost benefits, the danger with publicly run schools is that they can become out of touch, old fashioned or too broad. French and German Schools emphasise the importance of skills and motivation, pitching and team based collaboration. Students continually working alone and not in teams are not prepared for the industry. There are some similarities here to Australia, where there is still a great emphasis on acquiring the bachelor degree. Public schools have less incentive to re-evaluate the curriculum / program relevance (including software and current techniques) in relation to the industry and what employing companies expect.

Another way to examine the leading European schools is by recognising that places such as Les Gobelins and Supinfocom are private schools they are not subject to the systems and frameworks of University based courses, which means three important things.

1. They can write and run a very industry focussed curriculum, which doesn't have to worry about academic requirements.
2. The courses have competitive entrance standards and attract students who are willing to apply two or three years in a row to get a position. But entrance is not the only requirement, attendance and input is like the practise of industry employment. The schools can actually dump students who are not delivering as they see fit; this is actually quite difficult to do in University based courses.
3. The more specialised nature allows the private institutions to charge what they require, and therefore staff the courses at a really high level.

Damian Gascoigne has just started up the first Bachelor of Design Animation course in Sydney at UTS. This represents a chance to start afresh with knowledge, and the right approach, as there are so few University based full Animation BA or BDes courses in Australia.

Animation Mentor is an online animation institution based out of San Francisco, with specific training in advanced 3D animation performance. One of the defining aspects of Animation Mentor is that the tuition is conducted entirely by active industry professionals, who mentor online group classes in all time zones. There is a genuine passion to empower students from all over the world, with the company motto of "Making students dreams come true is our dream". Admissions Advisor, Victoria Tripp showed me a map of the world covered with pins showing the locations of their students. She was proud to say that they have had students from nearly every country, and spoke jokingly about cracking some champagne when they land a student in Antarctica. The inclusion of all students is important and students are now monitored with additional support systems like esteem coaching. Animation Mentor operates 24 hours a day, seven days a week. The tuition for the 18-month program is approximately US\$19,000 and graduates receive a Diploma of Advanced Studies in Character Animation, but more importantly a vocational show reel.

I interviewed Sydney based animator Phil Willis about his experience and reasons for choosing animation mentor for his animation studies. Phil said the specific disciplinary training in 3D animation was instrumental in building his show reel to an employable level. Phil said it

was inspirational and motivating having the direct access to the tuition of high calibre artists, who actually have impressive IMDB profiles. He said it was also such a convenient advantage to be able to have this access from his home city. For Phil, who already had an engineering degree, as well as completing a TAFE course in the 3D software Maya, having a solid show reel was more essential for acquiring an animation job than a BA degree.

This example completely highlights the importance of having the contributions from industry professionals, and the importance of students developing showcase work.

This cloud-based model of teaching also exists with smaller studio and individual's connectivity. The system definitely has its merits and weaknesses. The modular system is a great way of spreading the workload and sharing resources, but requires disciplined experience and focus. New York animator Dave Levy has found the system to be an excellent way of connecting him with trusted freelance artists on shared projects, but Tracie Horie from San Francisco suffered difficulties with maintaining project focus and continuity with inexperienced international modules in different time zones. Filmakademie Director Thomas Haegle wants to establish online mentoring like Animation Mentor with the Filmakademie, but is very aware that one of its weaknesses is that it moves away from collaborative learning.

Australian artists tend to have a broader skill base, but this can become unquantifiable or un-placeable for agencies. I think in Australia we need to have film and animation curricula that foster good writing and visual storytelling. Schools that place importance on specialisation rather than a bachelor degree will better cater for this. The regular inclusion of industry professionals contributing to teaching and mentoring is also essential.

The trouble is, the film and animation industries can have a tendency to not welcome beginners. This tends to occur where there is limited work demand so the uptake of students is low. This gets back to the idea that education must work with the industry as a cycle, beginning with a healthy continuity of work.

## Innovation

Historically, Disney has been the most innovative company with animation. Disney was one of the first to incorporate computer-generated elements into their films. You can see how the relationship with and subsequent ownership of Pixar came about.

1991 -CG backgrounds in 'Beauty and the Beast'.

1992 -CG effects in 'Aladdin.'

1994 -CG background characters 'The Lion King'.

1995 -Full CG film ('Toy Story') by Pixar.

Canada has R&D incentives for development at VFX and animation companies. It is very interesting to recognise that nearly all of the top software for animation has come from Canada including Maya, Softimage, Houdini, Mudbox and Toon Boom. These programs were all initially developed in Toronto and Montreal for purposes of entertainment rather than the military, which has some requirements for similar software.

Toon Boom Harmony was developed for stream lining the production process with 2D animation. With the intention of being less labour intensive and animator friendly, it was developed especially for TV animation. Many of the clients for this product are the back end production studios of Asia such as Rough Draft in Korea. Toon Boom has worked closely with these companies to make this product the new standard for an efficient paperless pipeline.

In France, the 'research tax credit' (crédit impôt recherche – CIR) encourages investment in technological advancement through R&D, benefiting a significant part of animated feature

films expenditure. The CIR covers 40% of R&D expenditure in the first year. Universal is utilising this break with Macguff Illumination and the 7 picture film deal they have.

In the stop motion world, the software Dragonframe is rapidly becoming the new standard. Dragon frame is a very cost effective software package to control almost all elements in stop motion, integrating with DSLR cameras, as well as motion control data. The Dragonframe developers have worked closely with animators at Laika and the Frankenweenie production.

There is an Australian made stop motion software package called Stop Mo Pro, which is used at Aardman Animations.

Another evolving standard in stop motion is the use of computer aided 'rapid prototyping', which is physical 3D printing. Laika, Aardman and Cinderbiter are utilising this (very expensive) technology for the printing of character's face replacement shapes. This allows for precise modelling and continuity across multiple puppet models. Laika has taken this one step further by actually animating faces with 3D computer animation. When approved, the shot specific 3D / CG animation (with the accurate transitioning expressions) is printed out into physical models for each frame for the stop motion animator to use when performing the overall shot. Interestingly the Frankenweenie production is using just a collection of select hand-made expressive phoneme shapes for each character. I believe this is to "stay true" to the fundamentals of stop motion, embracing the little imperfections that come with the hand-made art form.

Similar to stop motion the independent 'Cicada Princess' project is most innovative, utilising animation and VFX skill to craft a film of puppetry. The resulting look, is similar to stop motion, but through quite a different innovative process.

I have always found the blending of animation techniques interesting. Although Japanese animation is predominantly 2D, there are several innovative animation studios that are mixing techniques with the inclusion of 3D in their predominantly 2D films. Studio 4c successfully did this with the manga adaptation 'Tekkonkinkreet'. The company Madhouse also did this with the film 'Paprika'. Madhouse's approach was interesting with the 3D inclusion being considered part of the compositing process.

Another huge frontier for the animation content development is with the new approaches of cross platform media. Cross-media or trans-media is where consumers can follow the story or concepts planned across different applications and platforms of interaction. The mixture of interactive games and narratives allow for concepts of "augmented reality", through phones, portable tablet pads, and the Internet.

In Japan, one of the next market targets is to develop more content for smart phones. As Japan has so many commuters on public transport, all with the latest smart phones, people are finding they have more time to interact with content in transit than, say, watch TV when they get home. Already there are games, as well as semi-animated, interactive comic book applications. This is an area that Toei Animation is pursuing in earnest.

Continuing with Japan and the hi-tech, I learnt about a new celebrity taking the consumer market by storm. Hatsune Miku is a singing synthesiser application with a virtual persona of a female performer. This creation performs user-programmed songs using software called Vocaloid. Users have fallen in love with this idealised Japanese character and it has become a highly successful marketing exercise with an overwhelming popularity in Japan. The blue haired Hatsune Miku character has been used in TV commercials, promotional events and even had her own concert where her 3D animated persona was projected before thousands of adoring fans. The president of Digital Hollywood in Tokyo, Tomo Sugiyama, commented that Lady Gaga's hair went blue shortly after the success of Hatsune Miku.

The Japanese film 'Paprika' also featured music with this Vocaloid synthesised vocals.

In the UK in 2011, fostering the creativity of children, a truck travelled around the UK gathering the concepts for "The Tate (Gallery) Movie Project". 34,000 children had the opportunity to contribute to 'The Itch of the Golden Nit'. Supported by the BBC, the project was made by and for children, facilitated through Aardman Animation.

## Animation culture and creativity

Walking through the corridors of animation department at Walt Disney Studios, which no longer has any animators, I noticed the photos on the walls showing the teams of inkers on the traditional cell animated Disney films of the past. The inkers were all highly skilled women, who added much paint detail to the cells. It is unfortunate to say that the only job available to women at Disney was in the laborious paint and ink department, and this was likely because the wages were lower for women.

The Japanese share the philosophy that 2D animation is artistry and creativity can be lost with the technical restrictions of CG animation. I know that CG animation is a very male dominated industry. I think the tangible 2D artistry appeals more to women, and I was intrigued to notice that the traditional Japanese studios had around 60-70% female artists.

The day that I visited Studio Ghibli in Japan I was fascinated to see that the artist's were predominantly women. Interestingly, when reading about Hayao Miyazaki I noticed that reflecting his feminism, the protagonists of his films are often strong, independent girls or young women. Miyazaki also places great importance on children in his work, and it is important to have them nearby and nurtured. It was fantastic to see that Miyazaki had built a children's nursery a couple of streets away from the animation studio, so employees with children have that support mechanism.

Other large companies like ILM in San Francisco have also set up child day care facilities.

The inner child is very much encouraged at Pixar Animation Studios, and this part of the secret to the success of their films. The main studio in Emeryville even has a cereal room so artist can eat cereal at any time of the day. The artists manage their own time and deliveries, and are treated as the company's greatest asset. The artists have the support of a full time nurse, doctor as well as therapists and ergonomic advisors.

## The dark world of stop motion

When looking at the stop motion films currently and previously made, I've noticed there is a common trait of dark concepts through the works such as in 'Coraline,' 'The Corpse Bride,' and 'Mary and Max.'

Director Eric Leighton says that darker ideas can be explored and embraced with the stop motion medium. Eric strives for an 'in camera' result honouring the beauty of imperfections in this art form.

Tim Burton's films have always been labelled as dark, but upon closer inspection the darkness is actually more of a stylistic veneer around emotive, heart felt stories like 'Edward Scissorhands'. Producer of Frankenweenie, Allison Abbate said that this 'heart' was the core of the appeal of Tim Burton's films.

The auteur, European style art films are a hard sell in the US. Tim Burton seems to be successfully bridging the gap with his material, utilising the UK production stop motion legacy and European talents.

Tim Burton's 'The Nightmare Before Christmas' was developed with The Walt Disney Company. The film was initially released through Touchstone pictures, as the film was deemed too dark for children by Disney. The highly rated film has generated one of the biggest cult followings by adults and children alike and was later re-released under the Disney brand.

I feel that dark concepts are quite common in Australian film, but as filmmakers, it is something about which we should be mindfully careful with. There is a significant part of the population that will steer well clear of a film if it is too dark, or even dark at all. They simply do not care for that sensibility. Considering that the #1 moviegoer demographic in Australia is "middle aged" women, my money would not be on ideas that are too dark. Dark ideas do lean more closely to European artistic films rather than the more accessible mainstream, business focused American market. There are of course many shades in between these two styles, and plenty that can achieve a popular balance.

The stop motion animation of Aardman, although aimed primarily at children, seems to avoid the dark ideas and also maintain universal appeal. Their stop motion films have brought them much acclaim, and the interest of collaborative support of Dreamworks and now Sony.

## Artist protection

In Australia it is not uncommon to hear of VFX artists working for over 70, 80 or even 90 hours a week. For certain companies that don't honour overtime pay, this is basically exploitation. Although these work hours may not be all the time, they consistently happen on regular projects, and working those hours does not fit into any idea of sustainability, let alone work place health and safety guidelines.

The first time I went to Paris I was inspired by the French way of a balanced lifestyle. At the time, I had just escaped working 80 hour weeks in Australia, and to learn that it is mandatory law that employees in France work a maximum of 35 hours a week was like a revelation for me. In February of 2000, the minister for social affairs, Martine Aubry initiated the 35 hour working week with the intention of spreading labour / employment and enhancing the quality of life. The French see importance of personal and social time with families. Although economically criticised, this 35 hour week is an effective measure, which has ultimately allowed for a sustainable industry in France. This idea is very interesting to compare to Japan, where the cost of living vs. wages has caused couples to put their careers before raising families, resulting in an ageing population, which is surely not sustainable.

I am told that most companies in France stick to these sustainable work hours. Macguff in Paris work a 39 hour week but it is generally accepted that in the last few weeks of a production the hours may go up to near 50 hours a week, with paid overtime. In my experience, this is normally the base hours of Australian companies without overtime.

The nature of the film industry is that production is project based. The French government acknowledges that they needed to support freelance film industry professionals in between the employment of active projects. The French initiative "Intermittent du spectacle", which translates to "performing intermittently" is a financial support mechanism for this case. The status of intermittent workers with multiple employers was created in 1936 to take into account technicians and managers in the film industry that were previously considered craftsmen. The status was afterwards modified to include artists and technicians in performing arts. The calculation of the Intermittent du Spectacle was originally based on blanket 80% of usual salary, but understandably there were inconsistencies and abuse. It is now further regulated, and still calculated on an artist's usual salary, but the maximum amount is now

capped. Although quite costly, France hasn't abolished the system because the value is significant to supporting the arts in France.

In Germany there is cheaper health insurance for artists. It must be proven that you are an artist, but it is another support mechanism during downtime periods of lower income.

Freelance animator Traci Horie says that in the US there are dilemmas for freelance artists in regards to health insurance. The freelancer can pay Health Insurance, but it is an expense that is covered by an employer when the freelancer is under contract. The health system in the US is not set up for people who work in a freelance capacity and it is difficult for them to maintain stability. A lot of studios now only hire on a contract basis to scale up and down with each production, which is harder for the security of artists.

## The significance of festivals and other events

SIGGRAPH (short for Special Interest Group on GRAPHics and Interactive Techniques) is the name of the annual conference on computer graphics. This is a huge conference and festival that convenes in Northern America every year, with contributing chapters from all over the world, including Australia. Siggraph 2011 was held in Vancouver and generated more revenue than any other Siggraph event. This goes to show the growing might and interest in the Vancouver industry.

Ottawa, only 200 km from animation hub of Montreal holds the world second largest animation festival, second to the Annecy International Animation Festival in France. France and Canada are two of the strongest nations when it comes to animation, with these festivals bringing attention to the artists, the industry and the region. This does contribute to the cycle of interest and attention to the animation medium.

Thomas Haegle is the Director of the Animation Institute at the Filmakademie in Germany. Thomas has been involved with computer animation since 1985, and organises the 'FMX' conference on Animation, Effects, Games and Trans-media. The event is like a smaller Siggraph held locally in Stuttgart. The festival gets 3500 attendees from over 49 countries, bringing a lot of attention to the local industry. Great opportunity for students of the Film Akademie to meet industry people and have exposure to breakthrough methods and techniques. The Stuttgart International Animation Festival is held in conjunction with the FMX, contributing to sustaining interest in the animation talents in the region.

## Conclusions and recommendations for Australia.

The absolute first step for Australia is to realise the potential of the many avenues of the animation industry, artistically, culturally and financially.

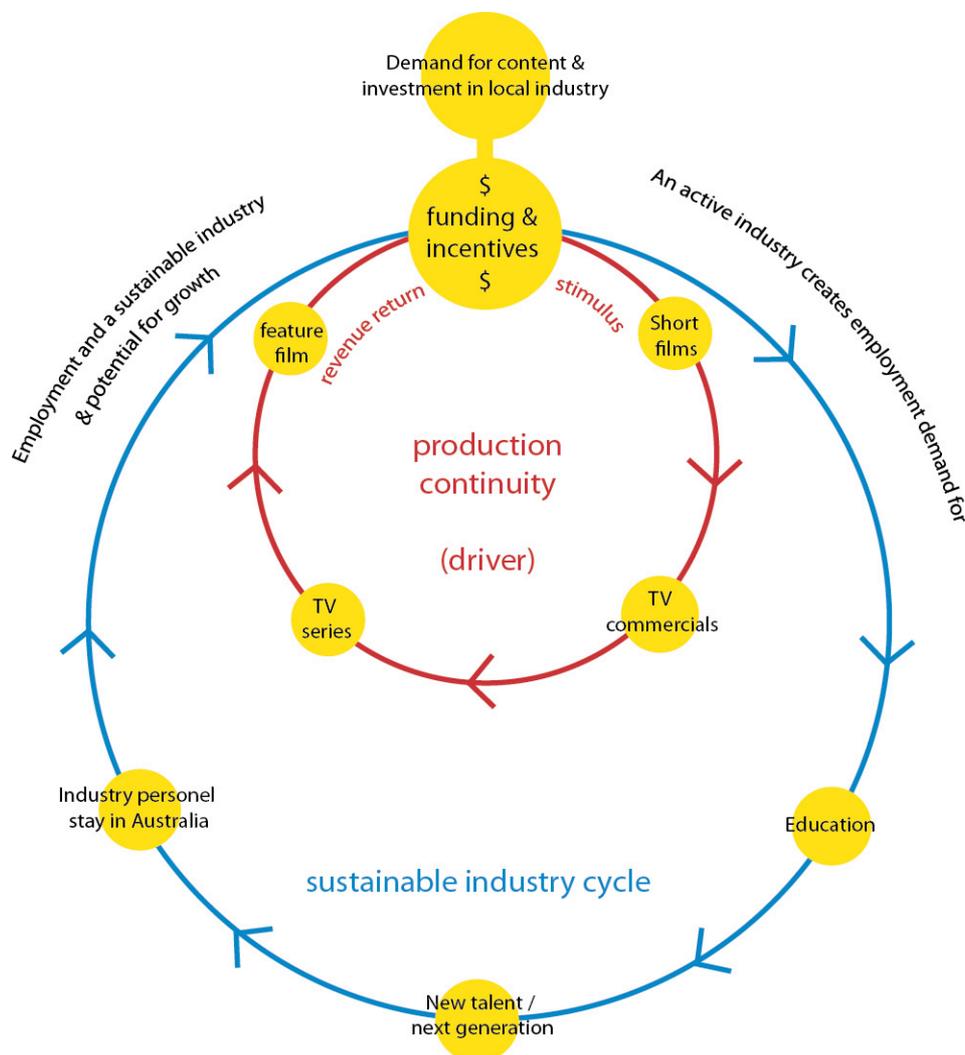
Having this understanding of value will make the process of stimulating business a lot easier through productions for local broadcasters and funding bodies. It is obviously essential to have projects underway, but the next key is to have an ongoing flow of projects. Tarzan needs to leap from one vine to another, or he plummets to his end! This is best achieved with a realistic balance in production and ownership of original content vs. co-production and service work from abroad.

The consumer demand in Australia is partly limited by the fact we do not have a large population. The population of the US and Japan lends towards an inward looking industry of production for that local demand. Australian industries have typically been more outward oriented, which is good in many regards, but ultimately limiting. I believe Australia need to have

a balance of an inward and outward focus, local industry and consumer focus, as well as externally sourced and exported work.

It is essential that Australia further develop the creation of our own content and intellectual property. If product is made for the local industry it can build consumer interest, add to the sustainability cycle, and be a viable export. The importance of valuing secondary industries diversifies exports and will make all the difference to strengthening the animation and film industry in general.

There are many benefits to creating content, but the integral reason is really because I fear Australia will struggle to be competitive with a reliance on service work going forward from now. There are so many other countries now that have an edge with lower costs, and rising capabilities. The massive economies of Asia will provide financial competition that we won't consider matching as a developed nation. This is why we need to develop our own original content for local consumption and subsequent export bonus.



This diagram shows a simplified idea for a sustainable industry cycle, based around the (more ideal) scenario of production of original content. The inner red circle represents ongoing production, lead by the demand up top and then fed by the stimulus of funding and incentives. The industry is like a fire. Once it is burning it can fuel itself more with profits returning back into developing new material. If this inner red cycle of production-continuity is flowing, then the

outer blue cycle is healthy, with the inclusion of local talent and uptake of Australian graduates, and there is a sustainable industry. The cycle will be nurtured greatly by a focus on producing original material for local consumption, which can gather international attention beyond that. This can all be bolstered by incoming service or co-production work, but isn't dependant on it.

Unfortunately in Australia both of these circles are incomplete. Yes it does begin with sufficient funding but that is not all. Australia needs a focus on building a home industry as the key to the future. Australia needs productions hubs where a succession of projects can dovetail. Companies need to be supported to have development departments, to prepare new projects so they are idling at the starting line when a previous one is completed. Blue Sky Studios now has projects in development 4 years in advance, so they can conveniently roll from one to the next without a mass exodus (or "brain drain") of talent once a show completes.

Whether production is original local material or imported service work it is critical that the tax rebates for production in Australia remain in place. Work simply won't come here, and the costs of launching new productions will be further out of reach. Places such as Canada now have such growing, supported industries in close proximity to the US, that we will need our tax rebates at the very minimum to attract any outsourced work. And, like Canada the tax rebates must fluctuate relative to the value of the US dollar (which is the primary negotiating currency). This will keep Australia competitive in the international animation marketplace.

Australia needs to be mindful of new emerging technologies. We need to recognise that in the coming years the systems of viewing entertainment, such as television are going to be completely redefined. More and more people are turning to the Internet for viewing on demand content, also with portable devices like smart-phones, iPads etc. Users are becoming their own broadcast curators, with methods of selective subscriptions and playlists of online media.

This is an unavoidable change so we should embrace the opportunity to meet this with leading edge content. When an industry has a poor turnover, the relevance of these topics may not be as well understood by government or funding bodies. This gets back to the importance of having a healthy cycle to support the relevance.

Keeping abreast with technology through education must be included with advancements. The reception of graduating students is important. Through education, internships, mentoring and the sponsorship of small projects, Australia needs to foster next generation of creators. The continuity of work will allow for the uptake of graduating students.

The future of the Australian industry depends on the next generation of writers, producers and directors. This was an opinion shared by Marc Eyers from Turner Broadcasting in Hong Kong and Warren Franklin (Executive Producer and CEO) at Rainmaker Studios in Vancouver.

Following on from this I could emphasise the importance of developing Australian stories. Other parts of the world that are prolific with animation are places that are huge consumers of their own cultural stories in their native language, e.g. Japan, France, Germany, US, and now Korea.

In my findings, the most successful animation businesses have a balance of the creative minds (creative artists) as well as the business minded (producers, and even accountants and lawyers). All business-minded businesses, or all creative-minded businesses, yield lesser results. Companies that have the effective management of creative people are the companies that are most successful and have the best credibility. From here the top down passion of these leaders spawns successful shows. The inception of work must come from passion and creativity before business.

Australian production needs money to produce, but money to market is also paramount. Australia could have sponsored representative ambassadors at festivals, conventions and expos like MIPCOM. This would help reduce the perception of geographical distance, and keep up our appearances.

For an industry cycle it is important to have businesses of all sizes (including the smaller), for work distribution and potential for growth.

In the UK, Sir George Cox published The Cox Review in December 2005. The Cox Review recognised that small and medium enterprises (SME) account for 50% of the UK GDP and looked at the value and supporting these (SME) in the creative industry. The review also brought awareness to the threat of emerging 'labour intensive' economies like India and China and their skill base and educational systems. The obstacles discussed in The Cox Review closely match many discussed in this fellowship paper. The Cox Review is a model resource, and I would encourage policy makers to reference the findings and merits.

I think there should be systems in place to help small businesses establish themselves. These could definitely include subsidies for the costs of studio space rental.

Animation businesses use a lot of Internet bandwidth, as they send masses of data across the world. The advent of the National Broadband Network will aid this, but the costs are significant. I think subsidies or rebates for Internet usage could be a good support for individuals and small businesses.

Dave Levy, previous head of ASIFA<sup>25</sup> approached the New York Mayor's office with some suggestions for aiding animation businesses in New York. He had requests for access to city buildings with subsidised rent. He also had ideas for promoting the local business with creating an animation services directory like there are directories for other areas in film, TV and theatre. Dave had another idea for bringing attention to work with the city getting behind a promotional scheme for material "made in NYC". I think Australia could adopt all of these support systems.

I believe a lot of these suggestions mentioned here are realistically achievable for Australia. There is no single convenient solution to implement change, but the contribution and adjustment of multiple factors within reach. Though if these steps are taken to support the industry, a new era of animation production can be kick started. The industry could eventually mature closer to self-sufficiency attracting other opportunities of business, financing and exports. An industry at this level would be less reliant upon government funding for its survival, have opportunities for the next generation and uphold a focus on the talents of Australia's artists.

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## Glossary of terms

<b>2D</b>	2 dimensional animation.
<b>3D</b>	3 dimensional animation (computer based).
<b>CG</b>	Computer generated.
<b>VFX</b>	Visual effects.
<b>R&amp;D</b>	Research and development.
<b>Live action</b>	Filmmaking by the photography of real people and environments.
<b>IP</b>	Intellectual property
<b>On demand</b>	Means of viewing content upon request via online connectivity, rather than at allocated time slots.
<b>IMDB</b>	International Movie Data Base (website) <a href="http://www.imdb.com">http://www.imdb.com</a>
<b>Prime time</b>	The block of broadcast programming during the middle of the evening for television programming. The time that catches a greater number of viewers.
<b>Sit-com</b>	Situation comedy program.
<b>Front end</b>	The part of production involving creative concept, story and visual development, as well as the business of distribution, marketing and often ownership.
<b>Back end</b>	The part of production that is creating the bulk of the finished work content. Animators bringing the concept to life as final imagery.
<b>Heavy lifting</b>	Expression for the labour involved with back end production.
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<b>SPA</b>	Sony Pictures Animation
<b>CNC</b>	Le Centre national du cinéma et de l'image animée or (The National Center of Cinematography and the moving image) is a French agency of the Ministry of Culture, responsible for the production and promotion of cinematic and audiovisual arts in France, is a publicly owned establishment, with legal and financial autonomy.
<b>FFA</b>	Filmförderungsanstalt (German Federal Film Board).
<b>BKM</b>	Federal Government Culture and Media Commission of Germany.
<b>MBB</b>	Media board of Berlin and Brandenburg, Germany.
<b>NFB</b>	National Film Board of Canada.

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## Endnotes

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- <sup>1</sup> (Commonly shortened to Visual F/X or VFX) are the various processes by which imagery is created and/or manipulated outside the context of a live action shoot. Visual effects involve the integration of live-action footage and generated imagery to create environments which look realistic, but would be dangerous, costly, or simply impossible to capture on film. Visual effects using computer generated imagery (CGI) have become increasingly common in big-budget films, and have also recently become accessible to the amateur filmmaker with the introduction of affordable animation and compositing software.
- <sup>2</sup> (Also called stereoscopic or 3-D imaging) refers to a technique for creating or enhancing the illusion of depth in an image by presenting two offset images separately to the left and right eye of the viewer. These two-dimensional images are then combined in the brain to give the perception of 3-D depth.
- <sup>3</sup> According to estimated figures by IBISWorld.com.au
- <sup>4</sup> In particular with children's programming.
- <sup>5</sup> Information taken from The Hollywood Reporter article, "Fox Partnering With Adult Swim Alums to Launch Late-Night Animation Block" 8<sup>th</sup> January 2012. <http://www.hollywoodreporter.com/news/fox-partnering-adult-swim-alums-279492>
- <sup>6</sup> According to website [www.boxofficemojo.com](http://www.boxofficemojo.com) at 15th February 2012.
- <sup>7</sup> As of March 2010
- <sup>8</sup> Radiosity is a global illumination algorithm used in 3D computer graphics rendering.
- <sup>9</sup> CNC - Le Centre national du cinéma et de l'image animée or (the National Center of Cinematography and the moving image). See glossary for further details.
- <sup>10</sup> NHK (Nippon Hōsō Kyōkai; official English name: Japan Broadcasting Corporation) is Japan's national public broadcasting organisation.
- <sup>11</sup> Director of the Academy Award winning animated short film "Logorama".
- <sup>12</sup> On [www.rottentomatoes.com](http://www.rottentomatoes.com)
- <sup>13</sup> Sitting at 94% on [www.rottentomatoes.com](http://www.rottentomatoes.com)
- <sup>14</sup> Taken from online interview with Brad Bird on [ign.com](http://ign.com), November 5th, 2004.
- <sup>15</sup> On [www.rottentomatoes.com](http://www.rottentomatoes.com)
- <sup>16</sup> According to The Economist's World's Most Liveable Cities 2011.
- <sup>17</sup> Detailed information at <http://www.bcfilmcommission.com>
- <sup>18</sup> Added in 2002.
- <sup>19</sup> Taken from online article: <http://www.stuff.co.nz/business/industries/6439885/Banking-on-return-of-blue-magic>
- <sup>20</sup> According to the New Zealand Film Commission figures.
- <sup>21</sup> Taken from [www.wikipedia.com](http://www.wikipedia.com) -Cal Arts
- <sup>22</sup> Taken from [www.wikipedia.com](http://www.wikipedia.com) -Supinfo.com
- <sup>23</sup> ASIFA (Association Internationale du Film d'Animation / International Animated Film Association