



SOUTH AFRICAN CULTURAL OBSERVATORY

South Africa's Animation Industry: Ecosystem Analysis

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Rhodes University, University of Fort Hare and University of KwaZulu-Natal

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Report

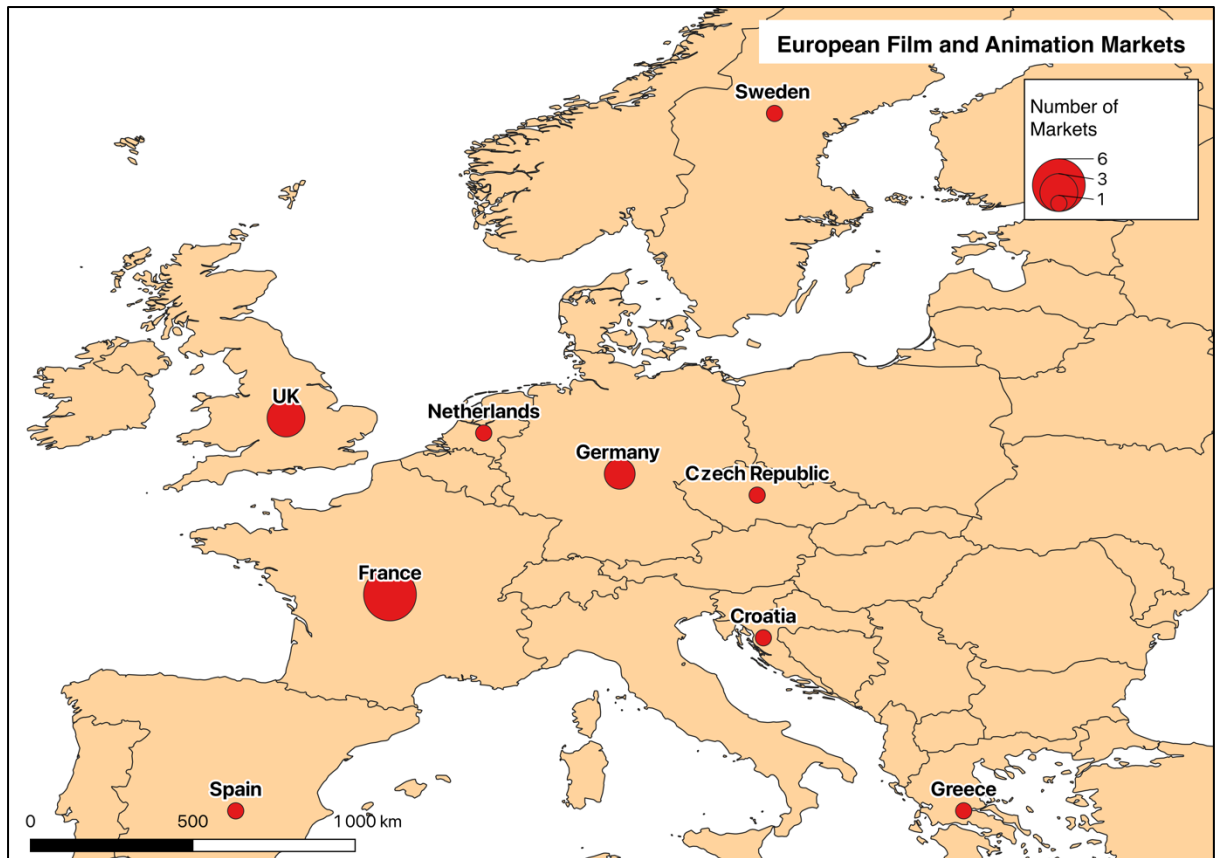
SA's Animation Industry: Ecosystem Analysis

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Summary of Main Findings

- It is said that the world is in a grip of an “animation boom” (Forrest, 2021). This is related to an increase in the consumption of digital content in the wake of lockdowns caused by the Corona pandemic (BDO 2021: 4). Netflix alone saw 16 million new signups for its service in the first three months of 2020.
- Currently the South African animation sector is not able to exploit this situation.
- South Africa’s animation sector is small and is struggling to break into longer-form original content creation. 69 animation studios were identified in South Africa, the majority of which were established after 2010. Only a small percentage of South African studios are producing animated films and series. These studios tend to be the larger ones with the highest profiles, evincing the industry to be one that conforms to the ‘winner takes all’ model. The production of animated films and series is dominated by three major players; Triggerfish, Mind’s Eye Creative and Sunrise Productions.
- 61% of companies claimed on their websites to be involved in the production of animated films and series, yet only 29% of studios have produced animated films or series in the last decade. Since 2010, 44 original animated products were released, 59% of these were series and 41% were films. Most of the animation products that are being made are aimed at TV or online streaming audiences.
- The majority of animation companies focus on client-based work for commercials and marketing purposes. Difficulties involved in securing funding or partnerships to realise original animated content has seen most studios offer a wide range of services to generate an income. 32% of the animation companies state that they offer ‘visualisation’ services, which often pertains to explainer videos and other educational filmic products. 16% of companies produce animation for or are involved in the gaming industry.
- An assessment of the state and depth of available public funding for the South African animation industry (both government and non-profit) revealed that there is limited funding available for the sector. This is severely constraining growth of its ecosystem. Local studios can’t compete with those in other countries that are subsidised by their governments. 58% of the funding made available to South Africa’s animation industry comes from private sector and self-funding by animation studios while the government and the public sector account for 28% of the total funding.
- As tax exemption policies only apply to investors involved in its production it excludes further investment in the marketing and distribution of animated films.
- Changes made by the DTI in 2018 to incentives aimed at the film industry at large have made eligibility criteria difficult to meet and are exclusionary on racial and citizenship grounds. Unpaid tax rebates by the DTI to companies that do qualify are sometimes not received or unexpectedly withdrawn.
- For South African animation studios, attending film and animation markets did not appear to be fundamental with regards to securing a funder or commission, but rather with regards to networking and building a status around a studio that regularly attended markets. The majority of markets and distributors for animation are based outside the African continent, largely in Europe and the US.
- While BBBEE ratings appear (for the film industry at large) to be at 51%, it appears from anecdotal observations that the animation industry remains dominated by white males in terms of ownership. Government policies aimed to address racial transformation of the industry have impeded its growth, of it and have further forced some market leaders to base some of their operations outside the country.
- The Copyright Amendment Bill (CAB) and the Performers’ Protection Amendment Bill (PPAB) are the two linked legislative bills negatively impacting the animation industry and hampering foreign investment or agreements to produce original content.
- Custom conditions tailored to the film and animation industry need to be made to the Basic Conditions Employment Act that take into account that working hours, conditions and other work-related conventions in this industry are particular to it.
- There is a shortage of highly experienced animators in South Africa – and elsewhere in the world. Some South African owned animation studios outsource production to studios in other parts of the world due to this shortage of talent, but it also proves to be cheaper.

- The recurring sentiment from more established professionals in the animation industry is that the graduates entering it are woefully unprepared. This is largely attributed to the fact that education and syllabus offered by Animation schools and departments is not in sync with the current working practices and technologies. Education professionals argue that poor visual and computer literacy at school level puts most of their students at a disadvantage and has shaped syllabus to compensate for this and limits the level they should be reaching after a three year course. Most institutions that offer Animation studies offer three-year degrees or diplomas in Animation. The average cost of an NQF 6 three-year qualification in Animation is R69 000 per year.
- The late approvals for SETA grants and limited eligibility are reversing gains this scheme made in bridging the seemingly widening gap between education institutions and the industry, which is making it difficult for graduates to gain employment and be assets to studios, rather than liabilities.
- The majority of animation companies and educational institutions offering a qualification and training in animation are located in Gauteng (38 companies and 11 education institutions) and the Western Cape (30 companies and 6 education institutions) where they have formed clusters.
- South Africa's public broadcaster (SABC) has not been actively commissioning animation products nor has it been on their list of priorities. Nor have private satellite television companies such as Multichoice, which already have agreements with other international distributors of animation such as the Cartoon Network.
- Disruptions to the value chain have been made by online streaming platforms as they are commissioning directly from animation studios, cutting out the middlemen that included distributors. There are financial benefits for all parties in doing so, however, this means that animation studios cannot appeal to a third-party to market their ideas or products. TikTok and YouTube have provided animators with new tools to market their ideas, brands, characters, build audiences and self-publish original content. However, revenue for doing so is not sufficient for these tools to disrupt the status quo.
- Most animation studios were not as badly impacted by Covid-19 as live-action film ones were, as they were able to continue working from home.
- Remote working combined with trends in short-term contracts may have increased the number of freelancers servicing studios. As they tend to be independent, it is impossible to quantify this group or where they might cluster.
- The decreasing value of the rand has made outsourcing animation production in South Africa attractive to foreign companies and partners. Conversely, being able to earn foreign currencies by working remotely for studios based outside South Africa is attractive to a pool of highly specialized freelance animators, contributing towards a shrinking group of suitably qualified animators to service local studios.

Introduction

South Africa's animation industry was only established in the early nineties and is in the nascence of its development. An analysis of it in relation to the sector in India, which is perceived to have commenced around the same time yet is seen as a 'production hub' for animation, demonstrates some of the shortcomings or lack of development that has taken place in South Africa. This report will reveal some of the gaps and policies that have constrained its development.

Despite this the quality and quantity of South African animated films and series has increased over the last decade. This has resulted in international attention leading to South African animation work in film and series done in partnership with larger international studios.

For instance, Triggerfish was highly praised for the quality of animation on 'Adventures in Zambezia' (2012) and 'Khumba' (2013), both of which were nominated for international awards, a first for the South African animation industry.

From the mid 2010s the industry experienced a growth spike – in terms of the number of studios opening - and has been steadily expanding, according to the analysis of the data collected for this report. This growth is largely tied to technological developments in animation (see chapter 5) that made the creation of animation products more accessible and cheaper to produce. The impact of globalisation, which allowed studios to sell their films and/or series to distributors and broadcasters elsewhere in the world, coupled with a rising interest in cultural products from the African continent and the demand for diversified content have been driving the expansion of the industry. The weakening of the South African currency is also cited by many (Vermeulen, Whitcher, 2021) as a contributing factor.

South Africa's animation sector is relatively small, however, it is the largest and most successful animation sector on the African continent with the most diverse output in terms of both style and medium. International clients have been attracted to South Africa due to the quality of work, animator's reputation for creativity and a strong work ethic and time zone advantages (Raugust, 2008).

It was estimated that annual turnover for the gaming and animation sectors in the 2017/18 financial year was R476 million (SACO, 2019).

In 2018, the South African gaming and animation sectors created 1225 direct jobs – 310 in gaming firms, 768 in animation and 125 in hybrid companies (SACO, 2019). This has increased from 225 game industry jobs in 2015 (IESA, 2016). Again, this is evidence of a fast-growing sector that can contribute to South Africa's GDP and job creation objectives.

The high cost of producing films and series is one of the main challenges, as generating these products is very time and labour intensive. This defining characteristic is largely responsible for the manner in which the animation ecosystem is structured and has constrained its development. As such the production of animated films or series relies on funding, government subsidies and commissioning bodies willing to invest in these famously 'high risk' products which rely on large audiences and reach in order to provide a return on investment.

The absence of commissioning of animation films or series for TV by the public broadcaster (SABC) and the private satellite television company, Multichoice, has considerably limited and constrained this industry but also audiences for animation.

As this report will establish, only a small group of the animation studios that exist in South Africa are involved in the production of animation films and series. Most studios appear to generate their income from producing clips, special effects or animated features for adverts and other online marketing campaigns and educational or explainer videos. As such the South African animation industry offers a wide variety of services to a number of different creative industries – not only the advertising and film – but architecture firms and businesses of other kinds that are opting to relay information through animated features.

This report will elaborate on the reasons why the majority of animation studios in South Africa aren't generating their income from films and series.

As with most creative industries the Covid-19 pandemic has had both a positive and negative impact on how it has developed. As a creative industry most closely aligned to digital developments and online

spheres, it has largely benefitted from the accelerated digitisation that has defined the remote consumption of arts and entertainment content. However, the pandemic also drew into sharp relief the barriers inhibiting growth of this industry.

There has been no in-depth research into South Africa's animation industry. Most often it has been bundled up into studies conducted into the film industry and while it is part of the film industry and indeed feeds off, particularly with regards to special effects carried out in post-production, it faces some of its own unique challenges that need to be identified and addressed separately.

Given the global animation industry is experiencing growth due to the expansion of online streaming platforms, which have increased the demand for animation content, an analysis of the status of this industry as gleaned via a proposal of the ecosystem governing the animation industry appears pertinent at this time.

Aim Objectives & Scope of the Report

As indicated above, the difficulties and high risks involved in developing and producing films and series has resulted in most animation studios in South Africa offering a wide variety of services to a number of different industries that make use of visual storytelling via animation.

As such this industry is interconnected to a number of other creative industries and ecosystems. Due to the fact that the income generated by producing films and series does not appear – based on our analysis of the films and series produced by South African animation studios over the last decade – to sustain the industry, the focus of this report is on the ecosystem pertaining to its production and dissemination.

This focus was also motivated by the time and resource limits informing this report, but also relates to the fact that public perceptions – at an international and local level – of the ‘health’ of this industry is measured against the films and series produced by South African studios and creative teams.

Superficial research into this industry found that the majority of animation studios expressly indicate on their websites that they are interested in producing film and series. This suggests that this remains an enduring aim for the majority and is borne out in our case study.

It should be noted too that the animation studios involved in producing films and series enjoy the highest profile, and are deemed to be the largest and most influential market leaders. This is not unexpected and further suggests that this is a core line of business. As a commissioned series naturally guarantees a sustained and reliable income for firms, this animation product is viewed as the most desirable in terms of financial stability, according to interviews (Forrest, Bloch, Cloete 2021) with directors of the leading companies.

The production of films and series as opposed to clips for advertising and marketing campaigns, or explainer videos, also tends to have a wider spin-off for other creatives – fashion designers, architects, musicians, voice-over artists, art directors and sound editors (Forrest, 2021), and thus more widely contributes towards sustaining other arts ecosystems.

The main objective of this study is to produce a visual map delineating the structure and relationships and value chains that characterise the South African animation sector.

As indicated, an emphasis has been placed on tracing what is most relevant to the production of films and series.

As this study is the first foray into charting this veritable territory – it is by no means a comprehensive deep dive into the production of films and series. It is best to think of this report as the first exploratory phase of a wider investigation into South Africa’s animation industry’s ecosystem.

This report, however, despite its brevity and other practical limitations, will present some of the main issues facing the industry and the changes that it has undergone, and is presently undergoing due to the impact of the Covid-19 pandemic, which has encouraged remote working and increased the demand for digital products and disrupted traditional value chains.

In this way it should serve the South African animation industry, government and other industries and partners with a vested interest in the animation sector, which as mentioned and will be demonstrated, links into other creative sectors and industries. As such the SA animation sector is part of a wider arts ecosystem.

As previous studies of cultural ecologies have shown, while it is possible to consider culture through an economic lens, analysing it and viewing it as an ecosystem allows for a more holistic view of a cultural system, showing how careers develop, ideas transfer, money flows, and product and content move, to and fro, around and between the funded, homemade and commercial subsectors. “Culture is an organism not a mechanism; it is much messier and more dynamic than linear models allow” (Arts and Humanities Research Council’s Cultural Value Project, 2015: 2).

The ecological approach adopted in this study has given researchers the latitude to explore not only how career trajectories and value chains in the animation industry are formed, but indeed to identify the conditions that have influenced how the animation ecosystem in South Africa is structured. This is explored in the chapter relating to the wider external influences – from social, political and technological - and more pertinent internal influences within the industry.

The central motive underpinning this study is to discover, therefore, what factors are inhibiting growth, but also providing opportunities that could be further exploited.

Naturally, as the tighter focus is on the value chain pertaining to films and series revenue streams – barriers to growth or opportunities are defined within this area of animation. Given the majority of studios in the country are not deriving the majority of their income in this way – despite their expressed interest in doing so, this report is designed to offer some insight into this conundrum.

Research Methodology

In a commitment to delivering on a comprehensive view of South Africa's animation industry, the research has examined the animation industry via a mix of quantitative and qualitative methods that were motivated by a clear focus on information that would shed light on its ecosystem and conditions informing it.

This included;

- 1) A review of existing literature and research on the animation industry.
- 2) Since the animation industry is closely linked to the gaming and film industries, recent literature on South Africa's gaming industry, including a previous SACO (2019) report and a National Video and Film Foundation Report (2020) amongst others on aligned industries – Advertising, Media, and government policies were consulted. (see Bibliography for full list).
- 3) Data collection involved the creation of five datasets through comprehensive online searches for South African animation companies (Appendix x), animated films and series produced since 2010, animation and film markets, animation and film distributors and educational institutions offering qualifications in animation.
- 4) Despite the short turnaround time of the report, an online survey was distributed to animation companies, follow-up telephone calls and emails were sent to confirm that they were operational and to follow up on the online survey. Unfortunately, very few companies completed the survey, and so no finite conclusions could be drawn from it. To compensate for this, all the companies' websites were closely examined so as to gain insight into how they presented themselves and the services they offered.
- 5) To collect qualitative information on the business environment and industry perceptions of the challenges and opportunities faced by the sector, 7 interviews were conducted with industry stakeholders and market leaders.
- 6) Recorded interviews and podcasts on YouTube proved a rich resource for information on local and international trends in the animation sector.
- 7) Festivals – one researcher attended the Cape Town International Animation Festival in that city in 2021 while another virtually attended the Fak'ugesi Festival in Joburg also in that year.
- 8) Case Studies – Three case studies were conducted that cover the main ecosystem segments. As such, interviews with the head of a medium to small studio, a freelancer and a senior staff member at an education institution dedicated to animation were all conducted. Professional trajectories, working practices and the challenges and opportunities faced by the sector were the focus.
- 9) Visualisation of the data - A set of geographic maps were produced using QGIS to visually represent the distribution and potential clustering of animation companies in relation to educational institutions offering qualifications in animation. Other significant findings from the dataset have been visualized in graphs. The global distribution of film and animation markets and distributors as flagged by animation companies involved in this research were also mapped.

Historical context

The origins of the sector can be traced back to the 1960s when the BBC outsourced traditional hand drawn animation work to South Africa (Rorke, 2021). When television was introduced in South Africa in the 1970s, demand from local South African companies for animation products and services increased (Rorke, 2021).

The sector gathered steam in the 1990s when a number of animation companies were founded, mainly in the Western Cape and Gauteng. Initially South Africa's animators mainly provided service work and produced animated commercials. Though this still represents the bulk of animated work in South Africa, there are some companies who are now producing their own original I.P and content and have transitioned from producing short animations for commercials to producing feature length animated films, series and music videos (Ntuli, n.d).

In the 2000s the sector expanded with several animation companies being founded. The industry association, Animation South Africa, representing the interests of animation professionals, was founded in 2006 and today is a key player in promoting the sector. The largest dedicated animation industry festival in Africa, the Cape Town International Animation Festival, was founded in 2010 and brings together South African and international animators, studios and production companies. South Africa has been the host destination for a number of significant film markets. The Durban Filmmart takes place annually in that city and two 'roving' African film markets – MIP Africa and Discop – have also been staged in this country. As an upcoming map plotting film markets will evince, South Africa is somewhat of a centre for the film and animation industries – as distributors and makers congregate, network and market their products in these events – on the African continent.

With the industry growing and animation becoming increasingly popular, courses and diplomas in animation began to be offered. The 1990s into the early 2000s saw the development of most of the educational institutions or degree/diploma courses being established. The Wits School of Arts went from offering just a BA in Digital Games Design, to an Honours, and now even offers an MA in Digital Animation.

The growth in the animation sector has in part been attributed to the 2008/2009 Global Financial Crisis. As the recession took its toll on production budgets, it became cheaper for South African companies to produce animated commercials, and by that stage, technology had also become more affordable which resulted in increased demand for animated commercials (Gauteng Film Commission, 2010). However, many animation companies closed down despite the increase in demand. Those that survived diversified their content offering, delivery mediums and expanded their client base. The 2010 FIFA World Cup, which was staged in the country in that year, also provided an opportunity for the sector through animated commercials.

Animation in South Africa recovered and expanded in the 2010s and began to shift from a service provider to producing unique content. For instance, Triggerfish, the largest and one of the oldest animation studios in the country produced two animated feature films, *Adventures in Zambesia* in 2012 and *Khumba* in 2013, which told African stories. Both productions are ranked amongst South Africa's top 5 grossing films. The quality of animation being produced has garnered international recognition with a number of South African animation productions international and co-productions being nominated for the Oscar, iEmmy, BAFTA, Annecy, Kidscreen and Annie Award. The quality of work has also resulted in international partnerships and productions being picked up by companies like Amazon, Netflix and Nickelodeon.

Despite this growth and some of the high-profile work by Triggerfish, the animation industry in South Africa is a relatively small one compared to the film industry. Based on a 2021 Film Industry Stakeholder Survey (NVFF, 2021) only 7% of its focus and output in 2020/2021 was on animation. However, it is possible that while the animation industry has been bundled up with the film one, particularly in terms of research, that not all animation studios were part of this survey. However, given the low figures in our study in terms of the production of animation film and series, it is possible that this figure provides somewhat of an accurate view of the animation industry in context of the wider film industry.

Process, Products and cost of animation

Types of Animation

Animation can be loosely defined as the “simulation of movement created by a series of pictures” (Maio, 2020). Over time, different methods and then technologies have facilitated this activity, naturally opening up new possibilities.

Traditional Animation

Commonly known as *cel animation*, it is one of the oldest forms of animation in film (Maio, 2020). In order to create the animated sequence, the animator must draw every frame. It's the same mechanism as a flipbook, just on a grander scale. Movies such as *Aladdin*, *The Lion King* and other earlier cartoons are the best examples of traditional animation. The animator would draw on a table that had a light inside of it, so the creator could see his or her previous animation.

2D animation

2D animators convey stories or messages by making their characters, objects and backgrounds move in a two-dimensional environment, it is the art of creating movement in a two-dimensional space (New York Film Academy, 2017). While this process is sometimes referred to as traditional animation, mainstream 2D production has evolved from hand drawn processes using pencil and paper to the implementation of digital techniques using computer software like Toon Boom Harmony or Adobe After Effects.

- **Stop Motion Animation**

In stop motion animation, objects are physically manipulated in tiny increments in individually photographed frames, such that they appear to move or shift independently when the sequence of frames is played back (Creative human, 2021).

- **Computer-Generated Imagery (CGI)**

Computer-generated imagery, or CGI for short, is what makes the world of movies today become so spectacular and grand. CGI is a way to bring computer-animated images to be morphed into or become a part of the physical world (Maio, 2020).

- **Augmented Reality Animation**

The world is changing, digital space is being integrated into our day to day world and this is why Augmented Reality Animation is becoming one of the most lucrative styles of animation.

- **2D Explainer Videos**

- **Whiteboard Explainer Videos (Animated Whiteboard Videos)**

Whiteboard Animation Videos are also a medium for awareness and are often used for two things; 1) Exhibit how a product was made 2) Raise awareness about a product and how to use it.

- **Product demos**

They are used to introduce a new product or platform to potential users to give them insights into the value it can add to their lives. Mostly used to exhibit the unique problem that the product can solve, these videos are an effective tool to get your clients interested in a new product that you're releasing. These include:

- Advertisements and Brand Videos
- Infotainment videos
- TV shows and films

3D animation

3D animation is the art of using motion to bring characters, vehicles, props, and more to life within TV shows, films, and games.

Uses (Percival, 2019)

- Game development
- TV shows

- Movies and Films

As the above glossary and brief definitions imply, the two main animation products currently produced are 3D and 2D. How the shift from 2D to 3D impacted on the development of animation will be addressed further in the report and the use of both in South Africa.

Process of generating animation products

The high cost of animation is tied to the lengthy and labour intensive process required to generate animation products; regardless of whether it be a 2D or 3D product. Below follows a list of the different stages of production and some of the processes involved for either and/or both types of animation formats.

Due to the high costs, some firms and even some animation industries become specialists in an area of preproduction, production or post-production. Some studios might outsource – or contract another studio which specialises in a particular area and excels in it or can execute it more cheaply (Brown, 2021). It has been observed that the production of animation is cheaper to commission in India and other parts of Asia (Brown, 2021). A studio, which has a strong creative team and has relationships with well-known authors or writers might choose to focus on 'preproduction' – the development of film and series products (Mogajane, 2021). They might opt to outsource the production once they have secured funding or a commission or decide to contract a production team to create the animated film or series, as the cost of sustaining a team of animators when there isn't a consistent stream of projects isn't cost effective (Brown, 2021).

Stages of 2D & 3D Production:

Preproduction

Brainstorming	Both 2D & 3D
Scripting	Both
Concept art	Both
Storyboarding	Both
Editing	Both
Visual development/BG layout	Both
Track reading	2D
Pre-visualization	3D

Production

Layout	Both
Background painting	2D
Animation (action, dial, cell)	2D
Tracing	2D
Tweening	2D
Ink & Paint (digital)	2D
Compositing	2D

3D Modeling	3D
Camera Angles	3D
Surfacing	3D
Texturing	3D
Lighting	3D
Rigging	3D
Character Animation	3D
Crowds	3D
Character effects	3D
Rendering	3D
Voice-over	Both
Music	Both

Post-Production

Compositing	3D
Sound editing	Both
Video editing	Both

*Please note: The above chart are some of the common activities involved in each phase of the production of an animated work. Naturally, depending on the story, demands of the client and technology employed, different tasks might be involved

Given the long list of activities involved in the production of animated films or series, and the fact that certain studios and countries might opt to focus on specialising on one of the phases, it is immediately clear that the animation sector is defined by many different groups of specialists. Naturally, this has implications for the education field – where a general education might not fully prepare graduates to enter the industry – but also the cost and structure of the ecosystem – with studios being reliant on other studios either in their country or elsewhere and the overall ‘health’ of the sector in a particular country which is lacking in specialists in a specific area. Many (Bloch, Cloete, Brown, 2021) complained that there was a dearth of animation specialists but also that most graduates struggled to adapt to working environments.

Cost of Animation

The cost of an animation product is determined not only by the type of story it is designed to tell and the techniques required in achieving this, but also through its length. These costs would therefore vary – as such, none of the studios advertise in prices, nor do they seem keen to offer a generic figure.

However, for the purpose of this report and towards demonstrating the high costs entailed, the Animation South Africa organisation were willing to share an estimate that a number of independent studios provided to the SABC. What follows is a range of prices for different formats that would be adjusted depending on the demands of the narrative, client etc:

1) Sand Animation

Rough ball park figure for sand animation would be R30 000 per minute (low end) and R50 000 (high end).

For stop-motion animation with objects it would be R20 000 (low end) and R35 000 per minute (high end).

* These are not commercial rates but an average for clients who commission multiple minutes of animation.

2) 3.D Feature Films

Low end feature made in SA at US\$10M = R1.4M per minute

High(ish) end feature made in SA at US\$25M = R4M per minute

3) 2.D series

As a basic ballpark for scripted entertainment/educational 2.D series: R120,000 – R300,000 per minute.

Source: Animation SA 2021

The figures listed above establish that 3D production is far more expensive than 2D. This may explain why the majority of films produced in South Africa – as analysed in our Content Dataset to be explored later – are 2D products.

Characteristics of other animation industries

In order to establish what aspects of the animation industry in South Africa are constrained by the structure of its ecosystem and the conditions that shape it, a brief analysis of animation industries in two other countries was undertaken.

As Japan has a worldwide reputation for being a leader in this field, with its distinctive 'anime', a look into some the reasons this may have manifested is assessed below. A number of industry leaders in South Africa referenced the animation industry in India – citing it as one worth comparing to that in this country, given they developed at a similar time. As such a cursory study of it is presented below.

Japan

Underscoring the notion that South Africa's animation industry is in its nascence is the fact that the history of Japanese animation can be traced to the first animated film in 1907, *Katsudō Shashin*. Up until 1917, animations developed from the U.S. and Europe were introduced to the Japanese population as cartoons. This inspired creativity of local Japanese creators such as Junichi Kouchi and Seitaro Kitayama, both of whom were considered to be the "fathers of anime" (Go! Go! Nihon, 2018).

Animators in Japan such as Kenzo Masaoka and Mitsuyo Seo ventured into bringing Japanese animation up to the same standard as the foreign work that was being imported. This was done through the introduction of cel animation, sound, and technology such as the multiplane camera. These innovations, however, proved difficult to support purely commercially. As such, pre-war animation largely depended on sponsorship as animators often concentrated on making PR films for companies, educational films for the government, and eventually propaganda works for the military. During this time, many animators were encouraged to produce animations that enforced the national affiliation and the spirit of the Japanese. Some movies were shown in newsreel theatres and helped boost the industry, as bigger companies formed through mergers and prompted major live-action studios such as Shochiku to begin producing animation. For the Japanese public, it wasn't until the release of *Hakujaden* (The Tale of the White Serpent) in October 1958 that Japan fully entered into the world of professional animation. The film was popular amongst audiences and was released in America in 1961 under the title *Panda and the Magic Serpent*.

Hakujaden (The Tale of the White Serpent) produced in 1958 by Toei Animation and Mushi Production was the first anime film to be made in colour. In the 1980s, Toei Animation offered its talent and started working with companies such as Marvel Productions, Sunbow Productions, Ruby Spears and Hanna Barbera, Murakami-Wolf-Swenson and DiC Entertainment. These collaborations led to the production of several animated cartoons for America. Other studios like TMS Entertainment, were also being used in the 1980s, which lead to Asian studios being used more often to animate foreign productions, but the companies involved still produced anime for their native Japan.

The Japanese film market experienced a market shrinkage during the 1970s which was due to competition from television. In the 1980s, anime started to go through a "visual quality renewal" which was largely because of new directors like Hayao Miyazaki, who founded Studio Ghibli in 1985. Anime began to deal with more complex and nuanced stories. For instance, the genre of Yaoi (boy's love) impacted cultural norms, taking root across East Asia, in countries such as Thailand, South Korea, and China which assimilated these Japanese pop culture exports.

By the year 1998, there were over one hundred anime shows that were aired on television in Japan, including a popular series based on the *Pokémon* video game franchise. Other 1990s anime series which gained international success include *Sailor Moon*, *Dragon Ball Z*, and *Digimon*. It is believed that these shows were so successful that they brought international recognition to the martial arts superhero genre, the magical girl genre, and the action-adventure genre, respectively. *Dragon Ball Z* and *Sailor Moon*, in particular, were dubbed into more than a dozen languages worldwide. Another large success was the anime *One Piece*, based on the best-selling manga of all time, which is still ongoing.

Government support of the Japanese industry

As suggested earlier, the animation industry enjoyed support from the Japanese government in its pre-war efforts, which may have worked at instrumentalising artistic expression to satisfy patriotic concerns; yet it contributed towards sustaining the industry at a time when technological developments were financially hard to support. Their support also manifested in a revision of its copyright law in 2012 to institute harsher penalties for people that illegally download copyrighted material. For making any illegal downloads, perpetrators face up to two years' imprisonment or alternatively pay a fine of ¥2 million (approximately R270 000 at the prevailing exchange rate) (He, 2014).

The business model of the Japanese anime industry

Development of anime projects is based on the spatial cohesion of the industry players in Tokyo. Such projects are a coordinated effort between relevant players who are incentivised to reside closely to each other, or to cluster, with the aim of carrying out these business projects more smoothly (Mihara, 2020). Such multi-party anime projects do not only involve anime production studios, but manga publishers are also included to provide the original work for anime. TV stations, music companies and advertising agencies are all relevant players that are brought in for a project.

This coordination has allowed the industry to better cope with risks and to take advantage of opportunities more easily (Mihara, 2020). Each player in a project makes an investment and incurs part of the project's cost, effectively allowing the industry players to share costs, while aiming to maximise the benefits that can come out of an anime project. The players also share the rights generated from a project. For example, a toy maker, as a player in the project, will have the right to make toys using the elements of the anime project in which they have invested in and are a part of. From the onset of a project, all members/players attend regular meetings, collectively plan and attend to various managerial issues involved in their anime project which remains in place until the project is complete (Mihara, 2020).

The economic success of the industry tied to other income streams

From an economic perspective, this industry presents a significant overall contribution to the country's economy. In 2015, revenues from the industry were ¥ 1,826billion (approximately US\$17.15billion) and the following year they reached ¥ 2.01 trillion (US\$17.7 billion), providing an indication on how influential the industry is (You, 2018).

The quality of the animation itself has been a key contributor to the success of the industry, both locally in Japan and on an international scale. *Naruto* alone, an anime television series, contributes more than 62,014,070,000 pageviews on a website called Youku.com in China (You, 2018). This statistic is excluding other great Japanese anime works such as *Pokémon*, *One Piece* and *Detective Conan* (You, 2018). By delivering advanced animation, the industry has gained attention from

investors from other countries such as China where web giants such as Tencent and Alibaba have built anime-streaming websites and created studios aimed at adapting anime and comics into movies and television series.

In Japan, the animation industry makes use of its own products as an advertising tool for various traditional and contemporary aspects of the Japanese culture. To demonstrate the industry benefits from its foreign influence, one can note the annual China International Cartoon and Animation Festival that is held in most mega cities such as Guangzhou and Shanghai. At this festival, millions of anime fans gather together and within a few days, these events make more than US\$290 million on fringe products relating to animation (You, 2018).

Japanese anime has a strong influence on the Japanese culture and in turn influences the daily lives of the Japanese. Animated and creative works are used in everyday life and can be found everywhere, from a public sign which warns of danger in small alleys, to a comic that reminds people to be polite and orderly while using public transportation. In essence, the Japanese do not just use anime as entertainment, they also use it as a tool that addresses everyday life issues. Anime is also used by the Japanese Government as a tool of communicating and promoting certain cultures and institutions (You, 2018).

The variety in animation demands continue to push the industry towards success. The industry continues to produce a high number of shows (series) for television. A high demand for animation works can also be found in the film industry, with animation movies such as the theatrical adaptation of *Demon Slayer*, released in 2020, becoming one of the most highly rated movies in the box office, in turn, becoming the highest grossing movie to date for Japan (Statistica, 2021). The growth of the industry is, however, unevenly distributed between the various segments. Merchandising has been identified as the most valuable business within the local Japanese anime market and the segment continues to generate a lot of revenue. While there is a decline in DVD and Blue-ray sales, the industry has experienced a boom in the international streaming business, with anime streaming on popular platforms such as Netflix, Disney Plus and Amazon Prime Video.

Challenges facing the Japanese animation industry

In the local market, TV anime series are losing money from their domestic broadcasts while low wages, especially for junior animators, are hindering animators from staying in the industry. The industry is facing pressure to invest in young animators to improve their working schedules and environments. According to research done by the Japan Animation Creators Association (JAniCa), the average hourly wage for an animator in 2017 was ¥770 (ZAR103), a rate much lower than that of a convenience store cashier who earned ¥920 (ZAR123) per hour, a job which does not require specialist skills and training (You, 2018).

In addition to poor payment rates, Japanese animators do not have good working conditions as they have very little time allocated for completion of their work. As a result, animators often work overtime and have long working days to meet deadlines. These intense work schedules have been known to cause 'hikikomori', also known as a 'social withdrawal syndrome' as animators do not have time to be socially active or build families. Due to exhaustion, animators often fall asleep at their desks and experience illness because of this exhaustion. The labour codes do not do much to protect these animators and as a result, suicides of animators are becoming a common occurrence (Margolis, 2019).

The Japanese anime industry has been criticised by some for unacceptable levels of sexual and violent scenes which may be harmful to young viewers (You, 2018). Japan does not have strict laws and regulations that limit or protect children under the age of 18 from watching anime with sexual content and strong violent connotations and so these criticisms are likely to persist.

Piracy of content is yet another challenge that the Japanese anime industry faces as increasing numbers of people are accessing pirated anime products online through illegitimate means. As such, since pirating websites are free of charge for their audiences, the industry is concerned about the associated loss of revenue. The players in the animation industry have raised these concerns and

want the pirated websites to be shut down, but most of these sites are disguised as legal websites, which makes them much more difficult to trace (You, 2018).

India

The Indian animation industry has been growing due the popularity of animation, its monetary value, increasing numbers of cinemas which in turn increase accessibility and its potential to spur development and generate income (Malik et al., 2017; Yoon, 2017; Das and Kini, 2018; Chopra and Trehan, 2019). The popularity of animation amongst Indian audiences, according to Das and Kini (2018), can be traced to the boom of children's television channels in the late 2000s. With regard to monetary value, the animation industry in India is said to have grown to 17 billion INR in 2017, a 13 per cent growth over the year 2016 (15 billion INR) (Das and Kini, 2018). Das and Kini (2018) assert that it was expected to grow at a compound annual growth rate of 11 per cent and reach 23.2 billion INR by the year 2020. India's cinema industry, on the other hand, with its 3D and 4D cinemas, is said to be in a growth phase, as can be demonstrated by the recent growth in the opening of multiplexes (Malik et al., 2017). The potential for the animation industry in India is thus understood to be enormous due to demands for its products by a large domestic market (Yoon, 2017).

Investment in technology

Local companies have made vital investments in theatres where high technology products can be enjoyed (Malik et al., 2017; Mitra, 2019). FunMax4D Family Entertainment, an entertainment company driven by young professionals, presented the first 4D animation theatre setup in Bangalore, with state of the art technology expected to be attractive to various age groups. This company have already established two 4D SFX theatres in Hyderabad and one each in New Delhi and Visakhapatnam, as well as two theatres in Saudi Arabia and one in Jordan (Malik et al., 2017). There are around 100 4D animation theatres around the world from different entertainment firms, and this company are responsible for bringing the concept to India, (Malik, et al., 2017). Aurna Technologies, another Indian company, is said to have developed a digital game, which went on to inspire what is argued to be India's first 3D animated movie, (Mitra, 2019). Customers have also played a role in keeping animation companies on their toes. According to Malik *et al.* (2017), consumers of Indian produced animation, specifically its 4D films, are tech savvy and thus seek out movies which have high quality graphics, animation and visual effects.

The learning approaches overseen by the National Program on Technology Enhanced Learning (NPTEL), a government-sponsored program for teaching and learning, utilise video lectures and, according to Baruah et al. (2020), make innovative use of multimedia tools which includes the use of technology and animation, which has been shown to enhance student performance and improve learning.

Media is also playing a role in the investments in technology that are being seen in India's animation industry. For instance, cartoon channels have adopted a localised approach by developing domestic animation content (Chopra and Trehan, 2019).

Animation hubs

India is becoming a global animation hub with American and European customers making good use of its local talent (Verma, 2018). To this end, India has set up animation hubs in Mumbai, Chennai, Bangalore, Hyderabad and Trivandrum (Corrigan, 2017). Graduates in arts and design, students in mass communication and software engineering receive on-the-job training and are able to set up and work on projects relating to cartoons and films, animated graphics, 3D movies and special effects in movies and TV series (Verma, 2018).

The industry is argued to have also suffered from a lack of skilled labour who possess a high level of creativity in CGI software (Yoon, 2017). Secondly, its platforms for exhibition and licensing of animated characters are not fully developed compared to Hollywood, thus making the local industry unable to

exploit the full value chain of animation production. As a result, Yoon (2017) argues that major studios in India generally produce more live-action films than animated films.

Outsourcing to India

Experience is just one of the factors that has contributed to the Indian animation industry's involvement with outsourcing (Singh, 2017). Its positioning in the value chain has contributed towards the country becoming a hub for animation production and co-production (Singh, 2017). Over the last decade, the Indian animation industry has moved up the value chain from a traditional outsourcing model to creating its own intellectual property and co-productions. To this end, some of the animation films made in India like *Chhaya* and *Fateline* received acclaim across the world in 2016 (Singh, 2017).

Long-standing offshore outsourcing practices have contributed to the Indian animation industry's capacity to attract outsourced work as they may have been doing outsourced work since the 1970s (Yoon, 2017). The production of animated films, Yoon (2017) maintains, is highly globalized and shows increasing interconnectedness within and between different regions and continents. Another contributing factor to the Indian animation industry's capacity to attract outsourced work relates to its ability to work with codified knowledge which is usually acquired through on-the-job training or local technical schools and can be transferred relatively easily through human trainers or training manuals using language and symbols (Yoon, 2017). Lastly, the Indian animation industry has benefited from the current trend in the field of outsourcing work to cheaper Asian countries from Europe and America.

Influences on the Animation industry's ecosystem

Before presenting the ecosystem pertaining to the animation sector in South Africa and delving into its characteristics and segments, it is vital to have an understanding of the wider external influences that shape it in both positive and negative ways. This provides some context with regards to understanding the status quo.

Economic and Social factors

A number of industry leaders and specialists (Vermeulen, Forrest, Mogajane and Brown, 2021) have observed that the animation industry in South Africa relies on a freelance workforce as it has proved a more economical business model due to gaps between long-term projects and a shortage in suitably specialist staff.

This situation coincides with broader trends in labour markets in South Africa, where year-on-year comparisons indicate that the number of employees with permanent employment contracts decreased by 138 000, while the number of employees with contracts of unspecified duration and contracts of limited duration increased by 593 000 and 285 000 respectively (Stats SA: 2021: 7).

This increase in short-term contracts may have been to the benefit of existing animation studios. However, as Stuart Forrest, CEO of Triggerfish noted (2021), many South African freelancers in this industry are now opting to accept freelance jobs that pay in foreign currencies that have become available rather than being paid in South African rands for similar work. In other words, the decreasing value of the rand, coupled with moves towards remote work, is inhibiting the number of animation specialists that are available to work with local studios. Given the shortage of specialists in this field, this could have a restraining impact on the production of animation films and series. However, it is also possible that this labour trend might lead to some specialists establishing their own studios and feeding their skills and knowledge to a new round of graduates and absorbing them into their businesses.

The impact of racial and wealth inequalities initially established during the apartheid era have naturally impacted on the animation industry in a number of ways. The latest statistics on the film industry (NVFF 2021: 13) with regards to Black Economic Empowerment Ratings are as follows; 51% indicated they were BBBEE Level 1, 24% were Level 2, while Level 3 and 4 comprised 8% and 11% of respondents respectively. BBBEE levels 5 to 8 accounted for 6% of respondents combined.

Although this study was not designed to explore racial transformation of the industry, cursory observations about the racial identity of studio owners seemed to demonstrate that they are largely owned by white South Africans. Further substantiating this view is the fact that Government policies were recently introduced to shift this status quo – addressed in more detail further in this report. Unfortunately, these policies appear to have had a negative impact (Cloete, Forrest 2021) and have caused some of the market leading studios (Trigger Fish and Sunrise) to establish offices in other countries. The cost of undertaking studies (see chapter on Education) in animation might also prove a barrier to transformation of the industry, though there are public funded colleges that offer tuition in animation at very low fees than at universities or private colleges, but the quality of the education might not be as good.

The high unemployment rate and a shrinking economy in South Africa also has a constraining impact on this industry. The official unemployment rate increased by 1,8 percentage points to 34,4% in Q2: 2021 (Stats SA, 2021: 13) and the economy is 1,4% smaller than it was before the Covid-19 crisis (Stats SA, 2021).

These economic conditions restrain the animation industry in two significant ways;

- They present a limit in potential audiences for animation films and series. As has become clear in the example of the animation industry in India – large audiences with access to

technology (from data, smart phones, tablets for online streaming and high-tech venues to consume digitised 3D or 4D products), are a fundamental ingredient in sustaining a buoyant animation sector. Due to the high cost of animation – large audiences are required to deliver on a return on investment.

- As films and series are costly and high-risk to produce, they require a number of funders – a shrinking economy does not create fertile conditions for these kinds of local funders.

However, as suggested in the introduction, the growth of the South African animation industry is tied to its depreciating currency, which makes this country a destination for foreign companies to outsource production to, whether that be to studios or freelancers.

Legislative and cultural policies

This research indicates that the South African animation industry is faced with legislative barriers and cultural policies that hinder, more than support the development and growth of the industry. One of the biggest obstacles for the growth of the South African animation industry are the policies around ownership of content. The broadcasters have a stranglehold on the sector as they demand ownership of content. As has been established earlier in the report, content creation with regards to animated products is capital intensive. Ideally, the industry should be able to rely heavily on broadcasters such as the SABC, M-Net and eTV to secure capital for production, as is the case with film production companies. Research into the content creation of animation over the last decade (see Content Creation on page X) revealed that most animation feature films and series created by South African-based studios are not commissioned by local broadcasters.

The government of South Africa introduced a new tax exemption in January 2021 for the filming industry. This new incentive, found in Section 120 of the Income Tax Act, benefits the industry by eliminating all income tax on profits made from films for a ten-year period from the time the film production is marketable. This tax exemption is applicable to local productions as well as co-productions with overseas companies of any National Film and Video Foundation (NFVF) approved feature films, documentaries and animations (MD Accountants and Auditors Inc, 2021).

While the tax exemption appears like a policy designed to support the animation industry, careful examination has shown that some specific conditions of the exemption do not necessarily benefit all role players in the industry. The exemption, for example, applies only to investors in a film during the production of it. This benefit does not extend to investors who buy film rights after production and when the film is ready to be marketed. This means it is only the original investors who benefit and that the preproduction phase, which requires capital too and is a high-risk activity, is not awarded or supported through this tax benefit.

According to the South African Cultural Observatory [SACO] (2021), rebates from the Department of Trade and Industry (DTI) are one of the ways in which the government of South Africa can show support to the animation industry. As of 2021, the South African Government, through the DTI, offers four incentives that are aimed at promoting the film production industry, namely:

- Foreign Film and Television Production and Post-Production Incentive
- SA Film & TV Production and Co-production
- South African film and television production incentive
- The South African Emerging Black Filmmakers Incentive. (The Department of Trade, Industry and Competition, 2021)

Since the introduction of such incentives in 2004, they have been instrumental in catalysing the growth in the film and animation industry. The film and animation industry contributed as much as R7.2 billion to the economy and sustained 31,444 jobs in 2019/2020 period (Desai, Suleman, 2018). While this is a significant contribution to the economy by the industry, the report noted that the growth has remained flat since some changes were made to the incentive policies. The DTI made changes to the above-mentioned incentives policies, and these changes came into effect on 1 September 2018 (Desai, Suleman, 2018).

“After years of that incentive being available to citizens and permanent residents, the DTI has suddenly, without warning, removed permanent residents from the equation. Under the previous guidelines, talent or production staff who are permanent residents were treated the same as citizens, and their earnings would allow producers to obtain the same rebate,” (Desai, Suleman, 2018)

The changes in the policies have resulted in a number of challenges for the industry such as funding constraints and tough eligibility criteria for rebates. The incentives that were established to encourage the growth of the film and animation industry, are, in reality, stifling it. The South African Emerging Filmmakers Incentive, for example, was established to promote transformation of the film industry and encourage participation of black filmmakers (DTIC, 2021). While the aim of this incentive was meant to benefit the industry, it still remains an underutilised incentive as the animation industry has not transformed much, leaving only a few black filmmakers able to benefit from it. According to the Daily Maverick (2021), the black economic empowerment and transformation within the film and animation industry is taking place, the pace is just slow, and this is not being taken into account by the DTI in the stipulated criteria for receiving rebates (Planting, 2021).

Administration related problems behind the incentives offered by the DTI are also stifling the growth of the film and animation industry in South Africa. While the rebate schemes are meant to attract filmmakers into creating content, filmmakers are finding themselves in desperate financial situations after the DTI has failed to pay out rebates. Yellowbone, a black-owned local film studio, is one of the many local production companies that have rebates owed to them by the DTI. They ended up taking the DTI to court after the millions of rands the production house was supposed to receive through the rebate scheme were unexpectedly withdrawn (Planting, 2021).

The NFVF, which is a government funded body, is one of the ways through which the government is supporting the animation industry. This foundation is tasked with the role of developing and transforming the sector. The legislative and policy mandate of the NFVF is to:

- promote and develop the film and video industry.
- provide and encourage the provision of opportunities for persons, especially from disadvantaged communities, to get involved in the film and video industry.
- encourage the development and distribution of local film and video products.
- support the nurturing and development of and access to the film and video industry; and
- address historical imbalances in the infrastructure and distribution of skills and resources in the film and video industry (NFVF, 2021)

To fulfil its mandate, the NFVF has created programmes, many of which have benefitted the animation industry. As part of its mandate, the NFVF assists in getting extra funding such as the Sector Education and Training Authority (SETA) funding. The SETA is a government body that was developed to offer discretionary grants to employers according to the mandate of The Skills Development Levies Act (No 9 of 1999) (SDLA) which came into effect from 1 April 2000 (Services Seta, 2021). While it is mandatory for the SETA to pay grants to companies that are eligible to receive funding, research indicates that the criteria for selection for funding means few companies actually receive the SETA funding.

According to The Media, Information and Communication Technologies Sector Education and Training Authority (2021), to qualify for the mandatory grants, companies must meet the following criteria:

- Be an up-to-day levy-payer that is registered in terms of the Skills Development Levies Act.
- Employ a skills development facilitator (SDF).
- The WSP and ATR are submitted by the required deadline.
- The WSP for the previous reporting period has been submitted and implemented

Considering that the film and creative industries are quite broad, the animation sector does not quite match with all the stipulated criteria in order to get the SETA grants. At the moment, the industry currently does not have regulated conditions of employment. However, this SETA grant used to be an important tool in creating a bridge for new graduates to enter the industry (Cloete, Forrest, 2021).

People that work in the animation industry are not deemed as employees, there is no regulation of the terms and conditions of employment, and this is hindering the industry from accessing certain benefits that are available for employers and employees in South Africa, according to Cloete (Animation SA Social Group: Facebook, 2021). For example, being deemed an employer in terms of the labour law

means that one can claim their expenses and retain contractual terms, a benefit that is not applicable for independent contractors.

While certain challenges will be addressed by the regulation of the industry, the current legislations will also hinder the industry from operating effectively. As the industry is broad, collective agreements by trade unions/bargaining councils might not work for everyone as everything in the industry is project dependent. Additionally, if people in the industry were deemed as employees instead of independent contractors in terms of tax law, this would mean that the employees will effectively have less contractual freedom, they would lose moral rights, lose exportation rights as well as lose the right of ownership over their images, says Cloete (Animation SA Social Group: Facebook, 2021).

Non-regulation of the industry's working conditions also means that there will be no limitations in terms of working hours per week. Without the restriction of 45 hours of work per week, animation studios can work outside of this scope, effectively reducing production costs, this allows SA animation films to compete competitively on the market. To fully support the industry, the government would need to amend certain portions of the Basic Conditions of Employment Act to have custom conditions for the film and animation industry (Cloete, Animation SA Social Group: Facebook, 2021).

The Copyright Amendment Bill (CAB) and the Performers' Protection Amendment Bill (PPAB) are the two linked legislative bills negatively impacting the animation industry at present. The CAB is being proposed as an amendment to the outdated Copyright Act of 1978. The PPAB is an amendment to the outdated Performers' Protection Act of 1967.

Clause 13 of the CAB seeks to insert sections 12a, b, c and d of the old Copyright Act 98 of 1978. These sections outline the exceptions from copyright protection. According to the CAB, Section 12a, for example, outlines what is regarded as fair use. The main concerns to these fair use provisions are that:

- the fair use provisions are too broad, and they would override exceptions;
- the provisions would not protect domestic authors and would undermine the copyright market;
- this bill would lead to substantial loss of income for authors, book publishers and the publishing industry generally, and
- the drafters of the Bill would have failed to take the "three-step test" in drafting the fair use provisions and other copyright exceptions in the Bill. (TheIPKat, 2019).

Such concerns have wide reaching effects to the animation industry. As with other creative industries they are reliant on copyright – particularly in terms of securing international funding. The detailed list of what does not infringe copyright of work is so extensive that it makes it impossible for anyone to actually completely own any copyright material.

The negative effects of such an amendment bill have been echoed by film producers in the animation film sector. The copyright amendment bill has deterred investment and commissioning opportunities for the local industry (Cloete, Forrest 2021). Big brands who were prepared to partner with local studios opted out of agreements as they could not trade in a climate of legal uncertainty. This bill is having unintended negative consequences for the industry and would need to be revised. In consultation with the creative industries, the President of South Africa has sent the bill back to parliament and therefore there is hope that the bill will be redrafted so that it can advance the interests of the creators in the animation industry as well as creators in other sectors, says Cloete (Animation SA Social Group: Facebook, 2021).

Similarly, the PPAB is creating challenges for the film and animation industry. The proposed PPAB substitutes section 3 of Act 11 of 1967, stipulates that granting performers the protection of their moral and economic rights in perpetuity.

"The rights granted to a performer in accordance with subsection (2) shall, after a performer's death, be maintained until the expiry of the economic rights granted in terms of this Act or other relevant provisions of the Copyright Act" (PPAB Section 2:3)

For industry players in the animation industry, this means that performers are granted the protection of their moral and economic rights in perpetuity. This amendment has the potential of deterring investors

in investing into the animation industry as the expectation would be that actors will receive a percentage of profits from a film in perpetuity, effectively reducing the profit margins investors can realise.

Impact of Covid-19

The local film industry appears to have taken a huge knock since the pandemic restricted movement and gatherings from March 2020. The contribution of the industry to the South African economy contracted substantially by 59% in 2020/21 compared to 2019/20 (NVFF, 2021: 2). The non-traditional business model of filmmakers and workers prevented several industry operators from accessing the Covid-19 related support provided because of the requirements such as Tax certificates, BEE compliance etc (NVFF 2021: 12). Overall, the qualifying criteria for the Covid-19 relief measures were not well suited to the peculiarities of the film industry (2021: 14).

With the cancellation of marketing platforms such as film festivals because of Covid-19 related restrictions, and not being able to attend in-person (some migrated to online platforms) markets where filmmakers and studios could market their products and network with distributors, securing funding for features was to some degree curtailed. However, the migration of these markets to online platforms allowed some studio heads to attend international events they might not have been able to afford to travel to and indeed some networking possibilities and virtual meetings took place that did lead to successful outcomes in terms of funding (Mogajane, 2021).

Overall, most animation studios were not as badly impacted as (live) film ones were. Most were able to continue working during the pandemic lockdowns, establishing home offices where they could work remotely – while this may have incurred slower production times and other difficulties – software programmes being installed on home computers and/or moving computer equipment to home settings. As animation films and series do not rely on live actors, studios could not only continue their work but were in higher demand, given that live-filming couldn't take place. "Animators don't want to go back to the studio. Their output is higher," observed Matthew Brown from Sunrise Studios.

Our case study of a freelancer suggests that freelancers may not have fared as well during the pandemic. When the Covid-19 pandemic struck, animation studios down scaled their work force which in-turn forced some freelancers to "take up jobs in coffee shops and freelancing at night to keep their animation passion alive", according to our interviewee.

As the pandemic progressed and numerous lockdowns locally and internationally kept consumers homebound, they increasingly turned to "digital content providers to meet their entertainment needs," (BDO 2021: 4). It has been reported that 51% of internet users worldwide are watching more shows on streaming services due to the coronavirus, according to data from Statista. Netflix alone saw 16 million new signups for its service in the first three months of 2020 (BDO 2021) .

This shift to consuming animation products through online streaming platforms, as it will be shown, has had a significant impact on the value chain relating to the animation ecosystem in South Africa, and elsewhere.

Technological developments

Naturally, the single most significant development for the animation sector occurred during the 1980s in the US, with the integration and use of computers into the making of films. This enabled them to be produced for considerably less money (Ness, 2015). Therefore, it is not surprising that in South Africa an animation industry was able to take shape from the 1990s when computer technologies were adopted and became accessible locally.

The next seismic technological development in the animation industry was the introduction of CGI, which allowed 2D characters to exist in a three dimensional space. Pixar made history employing this

technology with *Toy Story* in 1995. This film also established and paved the way for the use of 3D technology.

This technology, which allows animators to fully plot environments with a high degree of realism and create a more visually immersive experiences for viewers, has not rendered 2D technologies obsolete. It appears that both technologies remain relevant and are used together and separately depending on the nature of the story, the visual objectives and the available budget. 2D can sometimes be more expensive if each frame needs to be manually drawn (Mozolevskaya, 2020). 3D was originally aimed only at computer processing, it never existed in the form of pencil sketches, as in the case of 2D and therefore requires special programs and a lengthy rendering procedures.

Interestingly, the analysis of films and series produced by animation studios in South Africa over a ten year period revealed that the majority were made using 2D animation. As the above comparisons between 2D and 3D show, this doesn't necessarily imply that the local industry is not producing sophisticated works – but it may reflect use of less expensive technology – 3D software is more pricey. This may explain the education gap that was commonly identified by industry specialists – as the freelancer case study revealed that “not all colleges offer 2D training” – perhaps believing it to be ‘outdated’ or not as applicable in commercial settings – such as for advertising.

Software for 2D and 3D animation is updated continuously. This has, in some instances, constrained growth in South Africa in that studios are unable to keep up, particularly if they don't have the resources to do so, this then forces them to outsource production to those that do – which are often in Asia (Brown, 2021).

Other significant technological developments other than online streaming platforms that have impacted on the industry pertain to social media – specifically TikTok and Youtube, which have provided shortcuts for animation studios and independent creators to ‘self-publish’ and market themselves. This will be addressed alongside a map depicting how these new digital tools are disrupting the ecosystem and the value chain.

Other new technologies and digital spheres and assets are continuously being introduced, which are impacting on the animation field; such as real time animation, and Metahuman, a cloud-streamed app allowing developers to create a digital human complete with hair and clothing in a matter of minutes (Molina, 2021) – NFTs and the Metaverse will be addressed further on in the report.

Nevertheless, what is clear is that there is a constant stream of technological developments that are impacting on this industry that can, when accessed and embraced, make it more competitive and can catalyse growth. However, commissioning and funding would need to be in place for a studio to take advantage of them.

Public Funding

An assessment of the state and depth of available public funding for the South African animation industry (both government and non-profit) revealed that there is limited funding available for the sector. The key results of the assessment of availability of funding for the South African animation industry highlight the following sources:

- The National Arts Council avails a maximum of R500 000 per year for animation programmes.
- The National Film and Video Foundation (NFVF), which is a government-funded body, invests up to R1.8 million per year for feature films which would include live-action and this may be their emphasis.
- The Industrial Development Corporation, another government funded body, contributes funding for animation projects.
- The animation industry receives non-financial support from the Goethe Institute CAV Program – a foreign cultural institute, for the general development of the industry.
- William Morris Endeavor (WME), which is an entertainment and media agency, contributes to the animation industry by partnering with animation studios such as Triggerfish Animation Studios in the development of feature film projects.

- While WESGRO, a corporate that offers industry support to companies based in the Western Cape province, it does not provide funding for projects at the moment, there are projections that this may change in the future.
- The Gauteng Film Commission (GFC) provides limited funding annually to projects based in Gauteng province. The financial support provided is generally significantly less than the amounts that are requested in applications for funding.
- The Presidential Employment Stimulus Program (PESP), a government funded body that was set up to help the cultural and creative industries during the Covid-19 pandemic. This fund is managed by the NFVF and the NAC.
- The KZN Film Commission, an agency of the KZN Provincial Government, supports the province's animation industry with annual funding limited to R1.8 million per project.
- Institute Francais South Africa (IFAS), a foreign cultural institute, recently began investing in a talent incubation programme which is aimed at encouraging trade promotion between the South African and French animation industries.
- GIZ, a German development agency cooperating with South Africa, seems to offer non-financial support in the form of digital skills development and educational support.
- The SABC, the national broadcaster was funding animation projects from 2006 but since it has been crippled by financial woes and debt this has ground to a halt (See page X).

In addition to this, it was also noted in the assessment, that 58% of the funding made available to South Africa's animation industry comes from the private sector and self-funding by animation studios while the government and the public sector account for 28% of the total funding. The remainder, 14%, is a combination of other sources of income such as advertising agencies, crowd funding, commercial companies, brand funding and funding from friends and family (NFVF, 2021). Overall, the assessment shows that South Africa's animation industry is largely still constrained by the low levels of funding received.

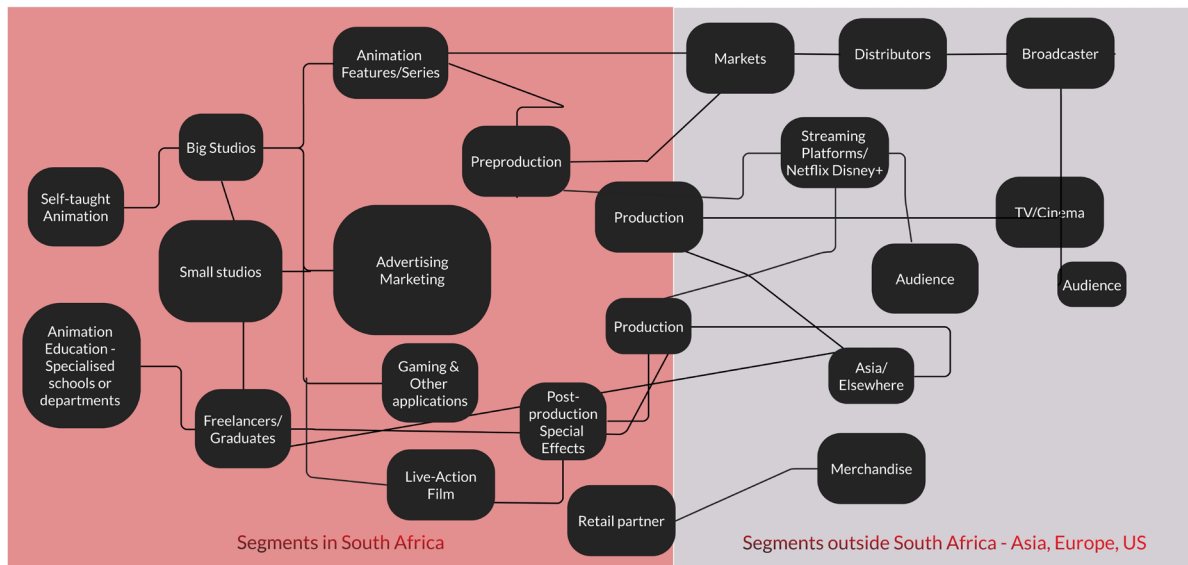
Globalisation

Traces of the impact and/or influence of globalisation on the Cultural and Creative Industries (CCIs) are well documented in the literature (South African Cultural Observatory, 2021a, p. 8). To this end, the understanding is that there is a need, in the South African context, for skills and training to be responsive to opportunities relating to globalisation (South African Cultural Observatory, 2021a, p. 8). Creative industries and cultural organisations seeking funding, income, commissioning or sales from outside South Africa's borders have had to establish different approaches to marketing and branding (South African Cultural Observatory, 2021b, p. 11). In this respect the animation industry's growth should naturally rely on expansion and recognition beyond its national borders, but can only achieve this through targeted campaigns and efforts to reach the various segments in the global animation ecosystem. As the map of the SA Animation ecosystem shows, the local ecosystem collapses into the global, presenting certain tensions in terms of who dominates the market and the kind of content that comes to 'define' it.

Globalisation offers developing countries opportunities to move up the value chain and to project to an international audience an image of South Africa that would encourage investment in other sectors of the economy (South African Cultural Observatory, 2021c, p. 12). In this way the larger creative industry ecosystems can benefit from high-profile animation works circulating in prominent global centres. The provision of 'novelty' goods proves to be one way of taking advantage of these such opportunities and the demand for these goods has increased, together with trade in cultural goods, following globalisation and the increase in movement by people from one country to the next.

South Africa's Animation industry's ecosystem

The South African animation ecosystem map



The above map charts the main segments and processes in the Animation industry ecosystem and value chain. These features have been collapsed into a single visual model.

We conducted research and interviews and gathered data that would shed light on the 'status-quo' of the main segments and/or processes to understand their relationships to each other and their importance, size and influence in the wider ecosystem.

As such we created datasets pertaining to;

- 1) Education Institutions
- 2) Animation Studios in South Africa
- 3) The production of Animated films and series from 2010 to the present
- 4) Markets
- 5) Distributors

The above mentioned data sets allowed us to chart the 'flow of production' and segments supporting this from the graduates becoming the workforce or owners of studios to the establishment of studios, the production of films, the networking and marketing of animation products at markets and distributors who sell them to broadcasters.

Through these datasets we drilled into different granular details and our findings are presented below, providing insight into the different characteristics of the South African animation ecosystem.

Education

The larger and more high-profile studios – Triggerfish, Mind's Eye Creative, Sunrise and Black Ginger – were all established by individuals who are self-taught, in other words, they did not receive a formal education in animation (Stuart, Cloete, Bloch, 2021). This was largely due to the fact that no bona fide education in this sphere was offered at the time that they entered the industry. Interestingly, however, the recurring sentiment from more established professionals is that the graduates entering it are woefully unprepared (Cloete, Bloch, Forrest, Rorke, 2021). This is largely attributed to the fact that education and syllabus offered by Animation schools and departments is not in sync with the demands in the current working environment. This may also relate to the fact that the animation arena is defined by specialised roles and the software and focus might differ from studio to studio. Many observed that specialist skills in animation are honed over time and learnt on the job.

Given, however, that such negative sentiments regarding the quality of education for animators emerged during interviews with industry leaders, it is clear that the education sector, which forms the foundation of the animation ecosystem, is largely underdeveloped and is not altogether servicing the industry's needs. Some suggested that this is due to lecturers not having ample or current experience in the industry. Educators suggest that the visual and computer literacy of students is so undeveloped that they spend the first couple of years teaching students the basics.

"After three years you get the students to a certain level, but compared to other countries it is not the same level," observed Traci Stucki (Faku'gesi, 2021), Animation Lecturer and Head of Department from the SAE Institute.

Internships at animation companies appear to be the most effective way of getting graduates up to speed with a studio and the working world. The SETA grants, which were offered to animation studios from 2000, as part of the mandate of The Skills Development Levies Act (No 9 of 1999), facilitated this and provided government support to studios and, of course, the graduates. Unfortunately, the payments and approvals from SETA are presently so delayed that studios can no longer afford to pursue them.

"You would sometimes only receive an approval (from SETA) six months into the internship. The risk is too high, as there is no guarantee they will approve your application, in which time you have invested the money into the training. We can't afford to do it anymore," said Forrest (2021) CEO Triggerfish.

The earliest establishment of an institution offering Animation studies in South Africa dates back to the early 1980s, with the establishment of the Green Side Design Centre in Joburg. Since then, several other institutions offering animation have opened up their doors, including international educational institutions such as the SAE Institution (founded in 1976, and opened up its first campus in South Africa in Cape Town in 2008). The 1990s into the early 2000s saw the development of most of the institutions, including the establishment and addition of Animation studies at already-existing public universities.

There are 17 institutions in total that offer an education in animation. Given the size of the industry, this appears sufficient, however, it is unknown how many of those graduates are absorbed into the industry or remain in it.

"We don't have enough animation projects to keep everyone going or to sustain them consistently. People often give up. It is challenging to consistently have work. Big companies upscale for projects and then downscale again," commented Stucki (2021).

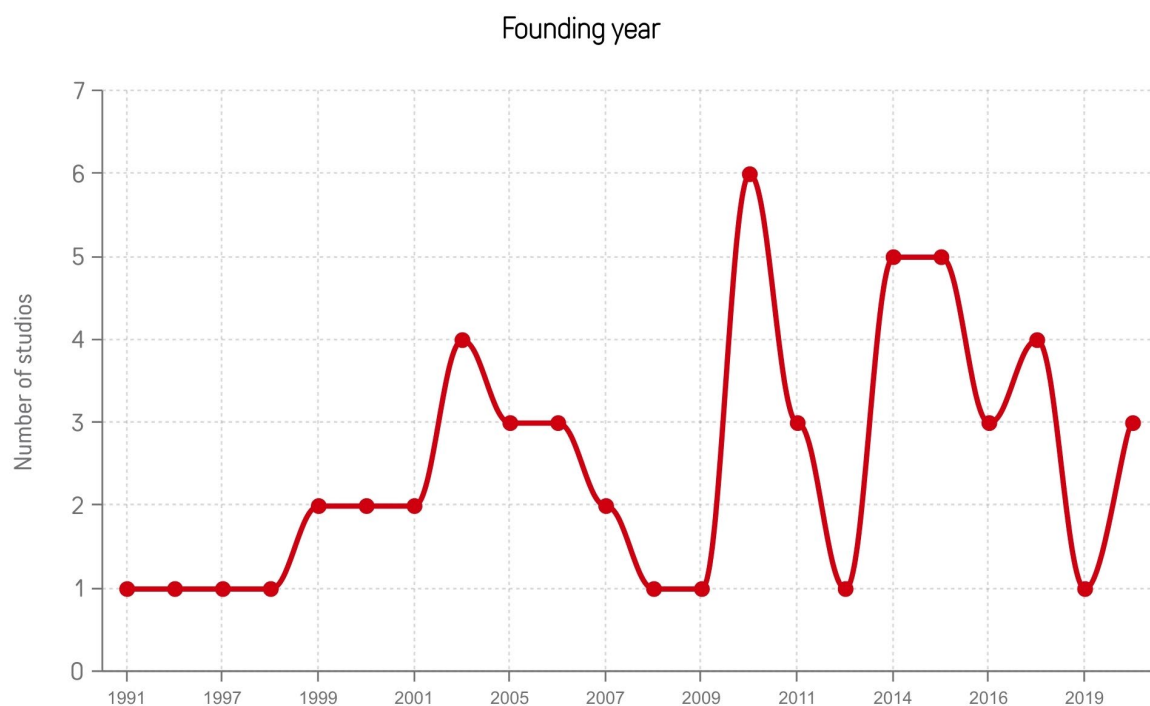
Most of these institutions are located in, and clustered around, Johannesburg and Cape Town (some have campuses in both cities). On average, most institutions that offer Animation studies offer three-year degrees or diplomas in Animation; this is at NQF level 6 (diploma) and NQF 7 (degree) on the National Qualifications Framework. Indeed, some institutions, in particular, universities, also offer postgraduate studies, meaning their post-degree offering in the field of animation ranges from a 4-year Honour's Degrees (NQF 8), all the way through to Master's and PhD level (NQF 9 and NQF 10 respectively). Some institutions also offer Higher Certificates, which take, on average, a year to complete, and are accredited at NQF 5.

The average cost of an NQF 6 three-year qualification in Animation is R69 000 per year. Surprisingly, the average cost of an NQF 5 Higher Certificate qualification is R78 650, which is significantly more than the cost of an NQF 6 qualification. NQF 7 qualifications will cost R78 400 per year, on average. This disparity may have to do with the institution attended; the private institutions tend to cost more than the government universities. Universities generally offer qualifications from NQF 6 upwards, and so this may explain why the cost of an NQF 5 is significantly higher than that of an NQF 6; it is simply not offered by public universities. The difference between an NQF 5 and an NQF 7 is minimal, since universities, on average, tend to bring the average cost down. Another interesting yet significant factor to the cost of education is the location; institutions in Durban tend to be cheaper than those in Johannesburg and Cape Town, whilst those in Cape Town also tend to cost more than those in

Johannesburg (disregarding those that have campuses in both cities, as the cost tend to be the same, on average).

Studios

Animation Studios in South Africa



*We were not able to establish the date that all studios were established.

Our research established that there are 69 animation studios in South Africa. As the graphic above suggests, the majority were established after 2010. The timeline of the development of studios coincides with the introduction of computer-driven animation from the 1990s.

Interviews, additional research and data collection pertaining to the profiles and services offered by studios in relation to a data set pertaining to content (see below) all substantiated that only a small percentage of studios are producing animated films and series. These studios tend to be the larger ones with the highest profiles, evincing the industry to be one that conforms to the 'winner takes all' model (Frank, Cook 1995). In our analysis of the film and series produced by animation studios, we found that this part of the industry is dominated by three major players; Triggerfish, Mind's Eye Creative and Sunrise.

However, as experts shared, in this industry where outsourcing production is common, the big studios feed chunks of work to smaller studios (Forrest, Vermeulen, 2021) both locally and internationally – as both of the big studios – Sunrise and Triggerfish outsource production to studios in Asia and other parts of the world. This is not only driven by cost and technological short-comings in this country, but is also attributed to a shortage of highly qualified and accomplished animators in South Africa. This gap cannot be quickly rectified by a generation of new graduates – expertise in this field is, like in

others, acquired over time and is often influenced and guided by other experts. As such there is an anxiety in the animation industry presently that the migration of highly qualified animators to other countries – motivated by unfavourable economic, social, political or government policies – might cause a “vacuum” of knowledge and expertise (Vermeulen, Bloch, Cloete 2021).

“If there is a big production underway with a studio, there are no animators available for your project,” Brown (2021).

As such, a pool of highly trained freelance animators work for different studios as do some smaller studios.

Suffice to say, the studios, big and small and freelancers do, to some degree, rely on each other and are interconnected. However, this does not pertain to the whole industry given that the majority are said to derive the bulk of their income from the advertising industry or marketing campaigns for businesses.

When we analysed every studio’s website, to track what services they offered and identified the focus of their business, we found that while 61% of companies claimed to be involved in the production of animated films and series, 65% indicated that they were focussed on generating work for adverts or showed their clients to be corporate or commercial enterprises.

“There are not enough film projects to sustain the current number of animators in the industry – feature films are few and we keep using the same artists. All the young kids think they are going to work on these films. They think they will be funnelling into this one field – but this is for the crème de la crème – is there going to be work for someone who is average?” asked Tumelo Selamolela (2021), director Digital Canvas Academy.

32% of the animation companies state they offer ‘visualisation’ services, which often pertains to explainer videos and other educational filmic products. 16% of companies produce animation for or are involved in the gaming industry.

Others offer a range of services that include green screen applications, music videos, special effects (would be aligned to the advertising and film industries), Virtual Reality, Augmented Reality, Mobile App Development and creating 4D Experiences. These applications of animation could feed into many different industries.

It is clear that generally, those larger firms that concentrate on the production of film and series do not undertake or offer such a broad range of other services. Certainly, the market leader, Triggerfish, do not accept any other work other than animation for film or series. Meanwhile, the majority of studios offer a wide selection of services on their websites, though in reality they might only concentrate on a few.

“It is very unlikely that you can be a specialist in so many areas. Mostly you will find that these small companies offer a range of services and then outsource the jobs to different specialists,” says Cloete (2021).

“Every animation studio dreams of producing their own material. I think what went wrong for a lot of our competitors is that they got drawn into the commercials industry. We weren’t good at commercials and we didn’t like to work against our values,” Stuart Forrest (2021) Triggerfish.

Geographic Ecosystem: Studios & Education segments

A set of geographic maps were created to visualise the location and dispersion of the animation sector in South Africa. As the chapter on the Indian and Japanese animation industries showed, the geographical clustering in this sphere is vital, particularly when studios and pools of freelancers and specialists need to come together to realise major feature films. Though Covid-19 has shown a shift towards more virtual networks and relationships evolving, the physical proximity of studios, big and small, and specialist freelancers makes for smoother working relationships. As the Japanese industry

shows too – this clustering – is also more effective if it is in closer proximity to other creative industries that feed into income streams but also market and sell products related to animation products.

Animation Clusters

As shown in figure 1, South Africa's animation sector is unevenly distributed across South Africa. The majority of animation companies and educational institutions offering a qualification and training in animation are located in Gauteng (38 companies and 11 education institutions) and the Western Cape (30 companies and 6 education institutions), represented by proportional circles where a larger circle represents a larger number of companies and education institutions. There are also a small number of animation companies (2) and education institutions (4) located in KwaZulu-Natal and one animation company with a studio in the Free State. It should be noted that these figures include animation companies and educational institutions with multiple locations. A possible explanation for this distribution is that the animation sector requires access to technology, high speed internet and skilled labour pools and so have located in the more socio-economically developed provinces. According to Drummond and Snowball (2019) there is a trend amongst CCI of co-locating in more socio-economically developed areas where they have access to better infrastructure and larger markets.

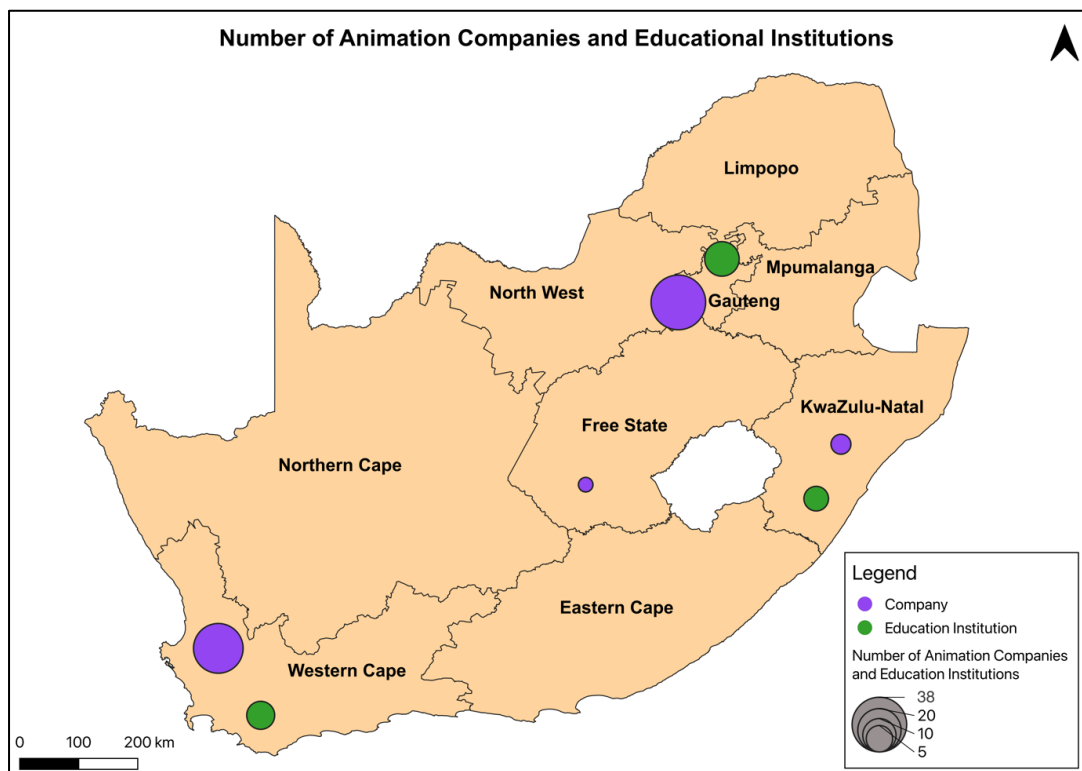


Figure 1 Distribution of animation companies and education institutions in South Africa

The co-locating or clustering of animation companies in Gauteng and the Western Cape is to be expected as the cultural and creative industries have a tendency to cluster together and develop around large cities and towns so that they can take advantage of hard and soft infrastructure in cities such as fast internet connections and skilled labour pools (Florida, 2002; Flew, 2010; Lazzeretti et al, 2010). CCI clusters also have a tendency to develop close to educational institutions as there are positive spin-offs associated with proximity for both the educational institutions and the CCI within the cluster (Gong and Hassink, 2017). These include access to state-of-the-art technology, knowledge spill-overs, training and networking opportunities, and access to a pool of talented workers (Waitt and Gibson, 2009; Gong and Hassink, 2017).

This phenomenon can be observed in Johannesburg where a cluster of animation companies and education institutions has formed around central Johannesburg. See figure 2 where animation

companies and education institutions have been mapped using their GPS co-ordinates. This clustering of animation companies around central Johannesburg in Randburg, Rosebank and Sandton matches the trend of CCIs in other sectors clustering in these suburbs (see Gregory and Rogerson, 2018). Based on the mapping exercise, it seems that a secondary cluster may also be forming in Pretoria around Menlyn and the University of Pretoria.

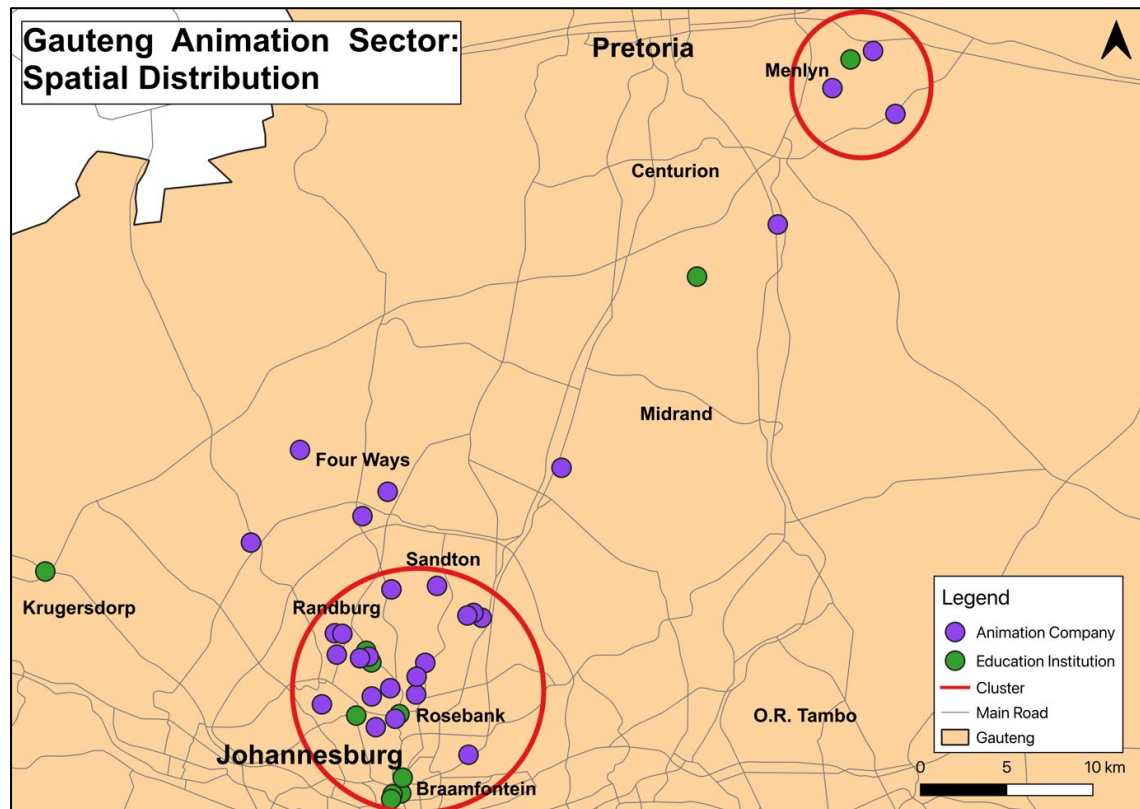


Figure 2 Animation sector clustering in Johannesburg

Within Cape Town, a cluster of animation companies and educational institutions have also formed around central Cape Town and close to the University of Cape Town (see figure 3). A secondary cluster also appears to be forming around the Lakeside and Muizenburg area where rental prices for studio space may be cheaper.

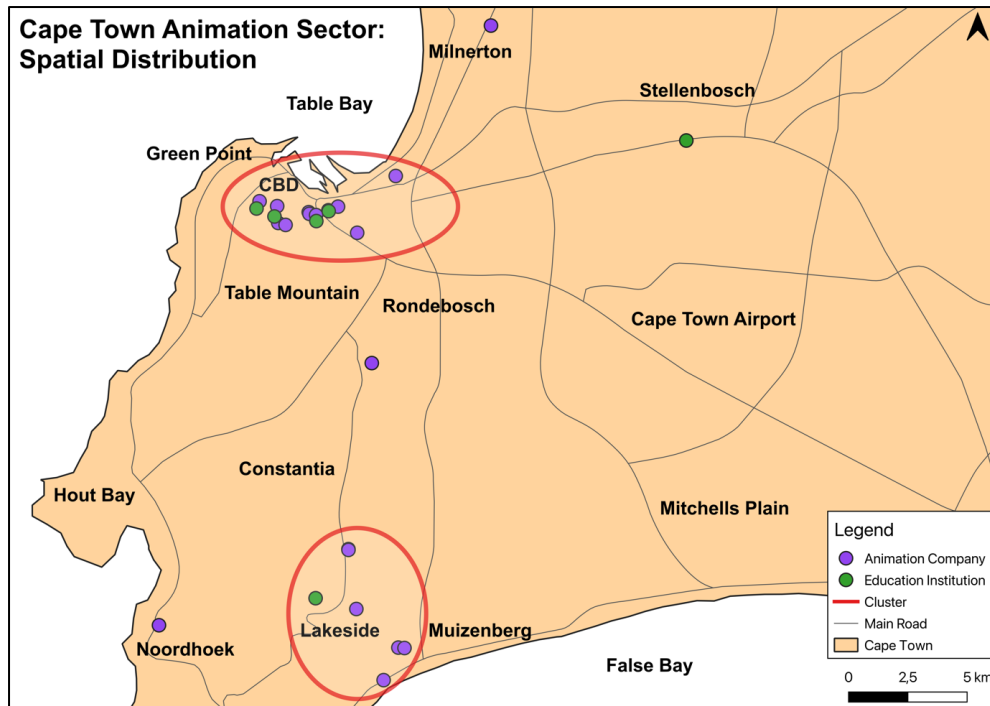


Figure 3 Animation sector clustering in Cape Town

During Covid-19, many animators were able to work from home relatively easily as they were able to take the necessary equipment home and just needed a good internet connection. During interviews for this research, it was revealed that many animators had not returned to their studio spaces. It is possible that in the wake of the pandemic, having large studio spaces in city centres will become less important and there may be a movement of animation companies into smaller spaces within city centres or a movement to suburban and industrial areas with cheaper rental prices over time so that the sector becomes more dispersed throughout the city.

Freelancers/Graduates

These two groups that make up this segment perhaps should not be combined given that the one set is likely to be highly experienced and specialised and the other completely inexperienced with generalist knowledge. What binds them in the context of this ecosystem map, is that they exist independently of studios – the graduates are more likely to be absorbed into full-time employment, but based on our case-study interview with someone from this group, they might also be aligned to different studios at different times.

As this group is independent – they are difficult to track, so their number and geographic location is unknown. It is likely they cluster around either Joburg or Cape Town.

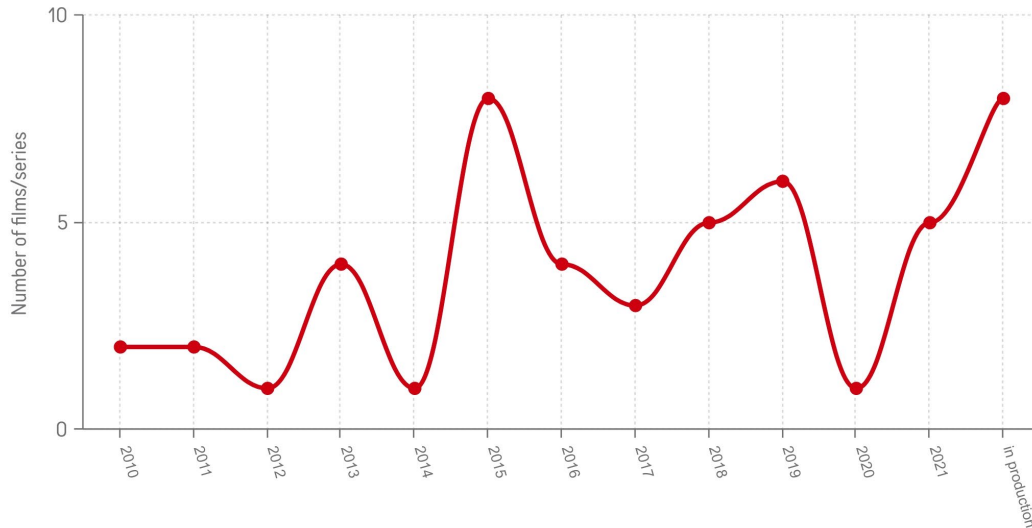
As will be demonstrated when we look at the disruption social media is having on the traditional ecosystem, this group are and can gain the attention of international online platforms and build up a following for their work through these digital channels.

Animation Films/Series: Content Analysis

We undertook a study of films and series produced by South African studios from 2010. It is possible that we were not able to capture every film or series, however, we attempted to create as accurate a dataset as possible. The findings from this dataset are presented below.

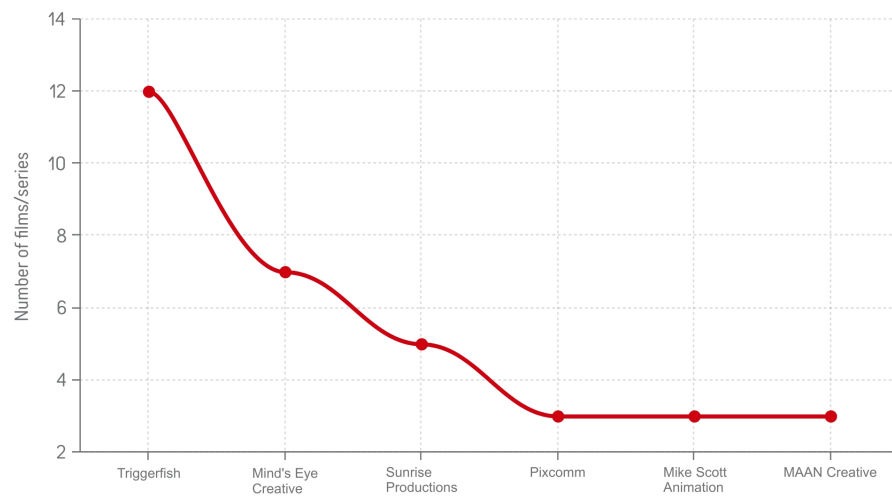
Animation Films & Series

From 2010



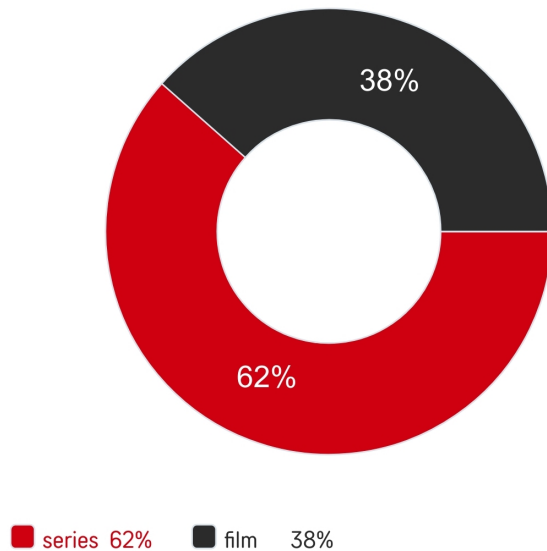
Animation Studios in South Africa

Film & Series Productions from 2010



Production of Films/Series

From 2010 (includes works in production)



In South Africa, the majority of animation companies focus on client-based work for commercials and marketing purposes. A relatively small number of the country's animation studios create their own original films and series or collaborate with international studios on these projects.

Over the last decade, 44 original animated products were released, 62% of these were series and 38% were films. As such, most of the animation products that are being made are aimed for TV or online streaming audiences. In terms of animation release dates in the study since 2010, there was a peak in 2015 when eight animated products were released (mostly series) and another peak in 2019 when six animated products were released.

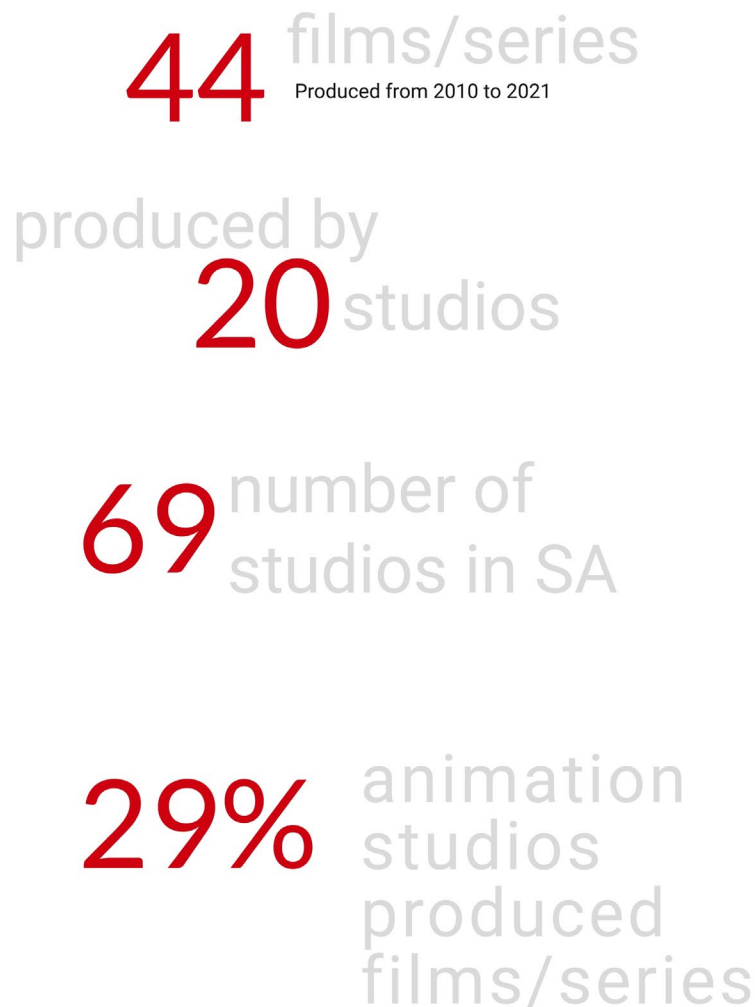
In 2021, five new animated products were released. This suggests that Covid-19 has not had a dramatic impact on the production of animation films and series, though it is likely that these were already in production prior to the outbreak of the pandemic. At least eight more animated products are currently in production. This suggests that the animation industry has managed to sustain activity despite the pandemic. This is probably due to the ease with which many studios were able to switch to working from home.

However, overall South Africa's animation sector is small and is still trying to break into longer-form original content creation. Only 44 animated films and series have been released to date, but there are 69 animation companies currently operating in South Africa (reference graph and appendix). Of these companies, only 20 studios¹ (29%) have produced original animated films or series and the market has been dominated by just three studios – Triggerfish, Mind's Eye Creative and Sunrise Productions. This indicates that the majority of animation companies in South Africa work in the service sector for advertising and corporate work and have yet to explore original longer-form content. Despite this, the sector does seem to be growing as there are at least eight animated films and series in pre-production or production with planned release dates of 2022/2023 that come from the three dominant studios as well as some smaller ones like MAAN Creative and Pixcomm. The smaller studios and freelancers are

¹ Some of these companies have shut down since producing the animated film or series

also experimenting with types of animation. For instance, Mike Scott Animation released the first full length 2D animated South African film, *Bru & Boegie: The Movie*, in 2019 on YouTube². Just recently, the first original hybrid comedy animation and live action series, *My Cartoon Friend*, created by Lwazi Msipha aired in July 2021 on Cartoon Network Africa³.

Significantly, the content produced by South African animation studios is largely commissioned by international broadcasters and online streaming platforms and is therefore aimed at audiences outside our borders. As shall be addressed later, this shapes the kind of content that is produced.



Advertising

As indicated, 65% of animation studios in South Africa are expressly involved in producing content for adverts. It appears, therefore, based on this statistic, interviews and observations made by industry experts that this is the dominant income stream for this industry.

² <https://www.mikescottanimation.com/bru-boegie-the-movie/>

³ <http://sacreativenetwork.co.za/2021/07/cartoon-network-africa-gets-weirdly-wonderful-with-launch-of-brand-new-local-show-my-cartoon-friend/>

Compared to the production of film and series, the production of animation for adverts is less steady – determined by shorter turnaround time as shorter animation works or special effects are the end product. Some of the larger advertising companies opt to employ animators or set up small inhouse animation studios to control production costs (Cloete, 2021). As such the advertising industry does not necessarily always towards keeping studios afloat between larger film projects.

Though some studios have reported (Bloch, 2021) a reduction in advertising work, largely based on international and local figures, this is a buoyant industry which offers many opportunities for animation studios.

Research below suggests that the advertising industry is growing. With more emphasis on animated or film content it seems likely that the animation industry will enjoy the benefits of this increase.

In 2021, WPP's Group M, the world's largest media investment company, forecasted that the global ad marketplace would grow by 12,3%. This advertising spend growth will be mainly attributed to five major regions that includes Latin America (+24.4%), followed by Asia Pacific (+14.1%). Globally, it is projected that the year on year digital media spend would increase by 14.1%.

For the year 2021, the share of digital media in global ad spend is forecast to be 60.9%. This translates into US\$6 out of every US\$10 in media spend will be in digital media. According to (Jacques, 2021) digital media is forecasted to represent 50% of all ad spend by 2024, a development particularly enhanced by the Covid pandemic.

The WARC trend report for the 2021/2022 found that global advertising spend is at 12.6% growth this year to reach US\$665bn. Further growth of 8.2% is forecast for 2022, by which time the global advertising market will be worth more than US\$700bn. In contrast, the last few months have seen advertising expenditure decline substantially (Taylor, 2021)

The second-quarter rise in global ad trade followed on from 12.5% growth in the first quarter; the global ad investment of US\$311.5bn was 17.8% higher during the first six months of the year than during the same period in 2020. Online spending, however, rose by 9.4% (US\$29.2bn) last year, buoyed by rising e-commerce (+27.4%), social media (+18.3%) and online video (+15.9%) investment. Africa ad spend is projected to rise by 9.7% this year, with further growth of 7.3% expected for 2022 (BizTrends, 2021).

South Africa Advertising Industry

The Audio-Visual and Interactive Media (AV&IM) sector includes film and television, animation and video games. As indicated above, internationally, there has been a rise in the demand for content, especially in the digital category. During this time, the 4IR and the resultant shift to digital and cloud-based technologies has also changed every aspect of production (SACO, 2021).

In South Africa, AV&IM made up 11% of the GDP contribution of the cultural and creative industries in 2018 and was the fastest-growing sector of the CCIs, at 5.2% per year between 2016 and 2018. AV&IM also has one of the highest multipliers (or linkage effects) in the creative industries. The direct contribution of the sector to GDP in 2018 was R8,530m but if you include indirect and induced impact, this amount increases to R32,4 billion (SACO, 2021) .

The Trend Score 2020 report also revealed that digital marketing saw the smallest drop in spend among all advertising mediums during the economic downtime brought about by the global lockdowns in 2020.

The drops in spend per medium during the year were as follows:

- **Digital: -2.4%**
- **TV: -16.4%**
- **Radio: -38.9%**
- **Out of home: -45.1%**

- **Press: -65.8%**
- **Movies/Cinema: -81.8%**

(BusinessTech, 2021).

The advertising market in South Africa in 2019 is estimated to be worth R30.4 billion, with TV and video advertising spending accounting for most of that amount. Furthermore, internet advertising in South Africa is envisioned to make up at least 25% of the total ad market in the country, this translates into a value of just over US\$580 million (R90-billion) by 2023. Whilst, at the same time mobile will represent 50 percent of internet advertising revenue (Guttmann, 2021).

Global advertising spend is expected to grow close to 13% in 2021. However, there is an expected bleak picture for the South African and African advertising industry with growth only expected to be at 9.7% for the year. The total advertising spend for South Africa was R41 billion which is based on rate card values (AC Nielsen and the Interactive Advertising Bureau, 2021). This represents a 7% decline on the previous year due to the pandemic and lockdown interruptions (Maggs, 2021).

Animation in the advertising industry (Global)

According to Wordstream, 59% of executives say they would rather watch a video than text, and 92% of users watching video on mobile will share it with others. In the year 2020 it was expected that over 80% of all content consumed will be video and moving images, which includes 2D and 3D animation, virtual reality, and augmented reality.

Advertising animation was shoved into the spotlight, and is expected to grow 4.7% globally over the next five years (TMO Contributor, 2020).

Gaming

The animation and gaming sectors in South Africa are closely linked with many firms working across both sectors. This is mainly due to the skills and tools needed to work in the sectors being similar. The sectors also share a number of challenges and opportunities.

In a SACO (2019) report entitled 'Unlocking the Growth Potential of the Online Gaming Industry in South Africa: Challenges and Opportunities', a total of 119 gaming, animation and hybrid gaming and animation companies were identified. 50% of the identified companies were involved in gaming: 27% (29 companies) were exclusively game producers, and 23% (25 companies) were hybrid. The other 50% (54 companies) were only involved in the animation sector, but possess the skills, expertise and capital equipment to make the transition into gaming in the future. The same is true for gaming companies wishing to transition into animation. Almost half (48%) of these companies were based in the Western Cape and Gauteng (44%) with smaller representations in KwaZulu-Natal (6%) and the Eastern Cape (2%).

Although the South African gaming and animation industries are relatively new (compared to countries like the USA, UK and Japan who have been involved in the gaming industry since the 1980s), the South African gaming industry has been growing quickly, both in terms of the number of companies and turnover. In terms of the number of companies, there were 54 active gaming studios identified by SACO in 2018. This is an increase from the 31 studios identified in 2016 by Interactive Entertainment South Africa (IESA, 2016). Most of the identified studios were also relatively new as 65% had been founded since 2008 (SACO, 2019). It was estimated that annual turnover for the gaming and animation sectors in the 2017/18 financial year was R476 million (SACO, 2019). Of this total, it was estimated that gaming companies (including hybrid companies) contributed R198 million with the remaining R278 million stemming from purely animation producing companies (SACO, 2019). With IESA (2016) estimating revenue in the gaming sector in the 2015 financial year at R100 million, even accounting for inflation and an over-estimate because not all the turnover of hybrid companies is the result of game development, the sector has experienced fast growth.

Some of the challenges identified in the SACO (2019) report for the gaming industry are also applicable to the animation industry and have been identified in interviews for this research. Other challenges included a lack of skills and experience, especially at the intermediate and senior levels; a lack of funding and a difficult regulatory/policy environment; monetization difficulties; gaining access to international markets; inconsistent demand; competition from large companies who offer cheaper rates; the long-time frames that it takes to build a reputation and become successful; the cost of data and connectivity issues may restrict the accessibility of gaming and animation and can also make production more costly; and lastly, the rapid pace of change in technology means that workers need to upskill frequently (SACO, 2019).

Markets & Distributors

In pursuit of securing funding or commissioning for films and series, animation studios, particularly those involved with preproduction – conceptualising a prospective work – there is the expectation that they would need to attend markets where distributors and broadcasters are also in attendance. For this reason we created datasets to discover where these markets were located and from what countries the distributors largely hailed from to gain a sense of how this might position the animation industry in South Africa in a wider global animation ecosystem.

Our datasets exploring these two segments of the ecosystem, which play a role in linking the local to the global, are not exhaustive as there are hundreds of markets and thousands of distributors. We concentrated on collecting information around markets that were pertinent to South African animation studios or were held locally, and we captured a list of distributors who attended them.

The results aligned with those of the data we collected on the content being produced – that the South African animation industry relies on global demand, which is located in Europe and the US.

Attending markets did not appear to be as fundamental with regards to securing a funder or commission as we expected. It was more important with regards to networking and building a status around a studio that regularly attended markets (Forrest, 2021). This, of course, could lead to building relationships that could lead to an animation film or series securing funding and/or distribution.

Making connections to companies that could be beneficial to achieving this required research and making frequent trips outside of markets to entertainment centres, such as Los Angeles (Forrest 2021), if Triggerfish's success is anything to go by.

Only a few markets are dedicated to animation and most distributors appear to sell a range of filmic products, though some might specialise in content for children, in which case there would be an emphasis on animation products. Distributors play a vital role in the value chain – as they are able to sell products to a number of different broadcasters or channels. However this would rely on the animation studio owning their content, which is not always possible if they have a presale agreement with a broadcaster or other partner.

This traditional value chain, however, has been disrupted by online streaming platforms, which commission and own the content. This will be addressed in a little more detail via a map plotting these digital 'disruptions'.

In total, 35 film and animation markets were flagged by South African animation studios. As shown in figures 4 and 5, the majority of these markets are located in Europe and North America, as represented by proportional circles where a larger circle indicates a larger number of markets. On the African continent, two permanent markets were identified, one in Nigeria and one in South Africa. The other two markets are roving markets as they are held in a different African city every year. Of these two roving markets, Discop Africa's 25th edition will be held in Kigali, Rwanda in 2022 and has been previously held in Senegal, Ghana, Kenya, Tanzania, Ivory Coast, and South Africa⁴. Based on the success of the MIP China and Cancun, an African MIP market will be introduced in 2022. MIP Africa

⁴ <https://www.discop.com/#service>

will be held for the very first time in the host city of Cape Town⁵. As such, these markets were mapped under South Africa for convenience.

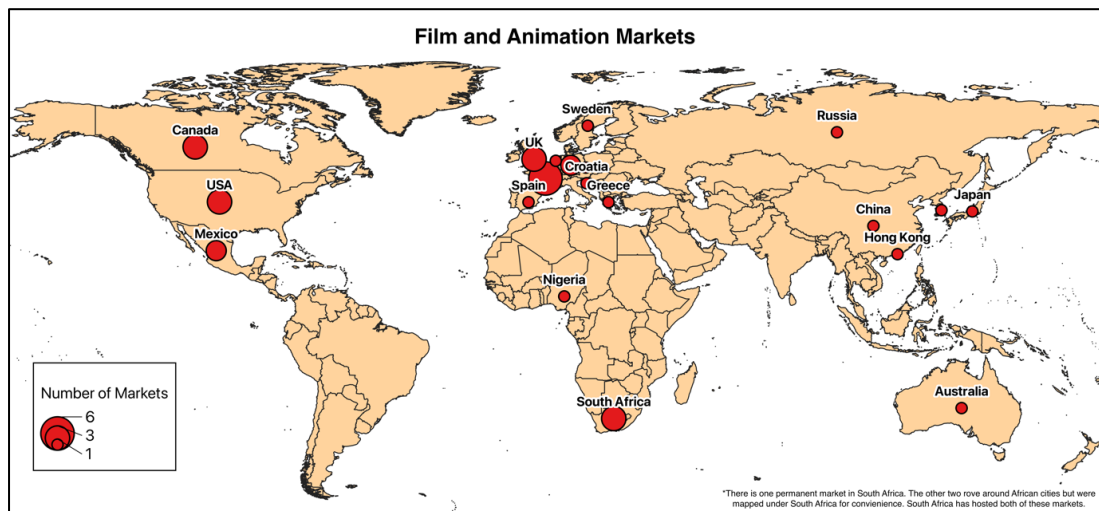


Figure 4 Global distribution of film and animation markets flagged by South African animation studios

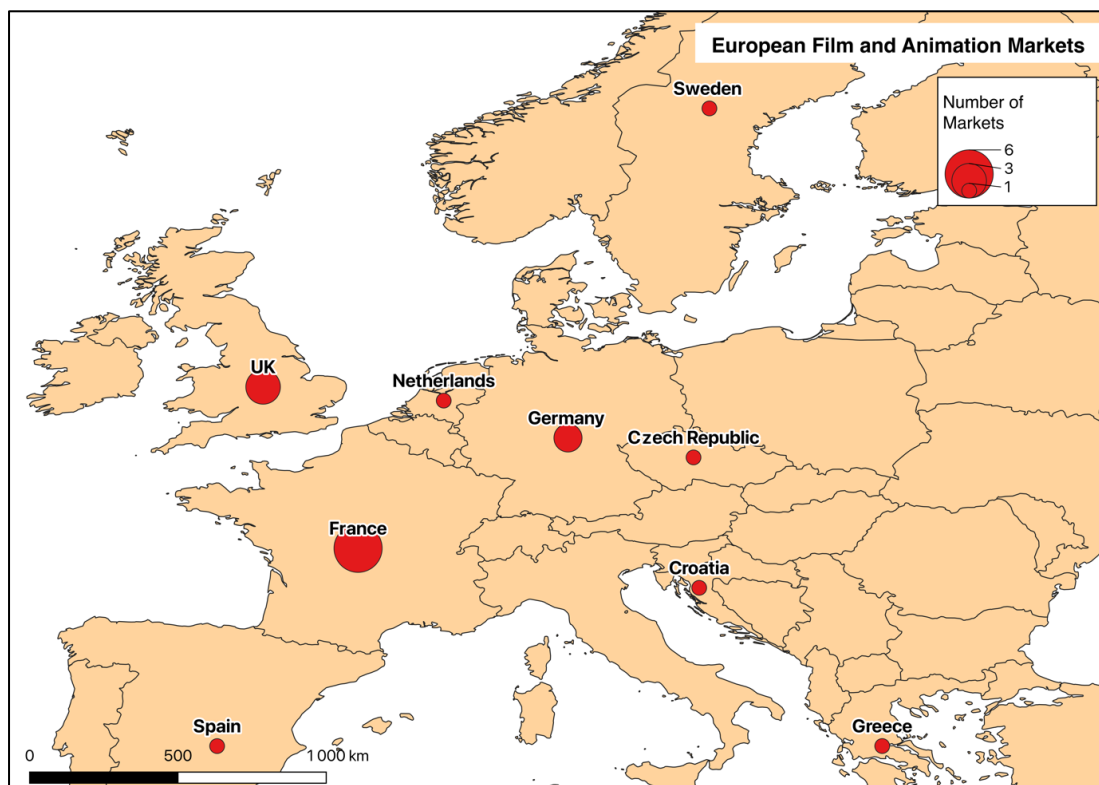


Figure 5 European film and animation markets flagged by South African animation studios

Similarly, the majority of film and animation distributors are located in Europe and North America (see figures 6 and 7). In total, 180 distributors were identified as being important to South African animation companies and as having attended the film and animation markets that South African companies were aware of.

⁵ <https://www.fameweekafrika.com/en-gb/mip-africa.html>

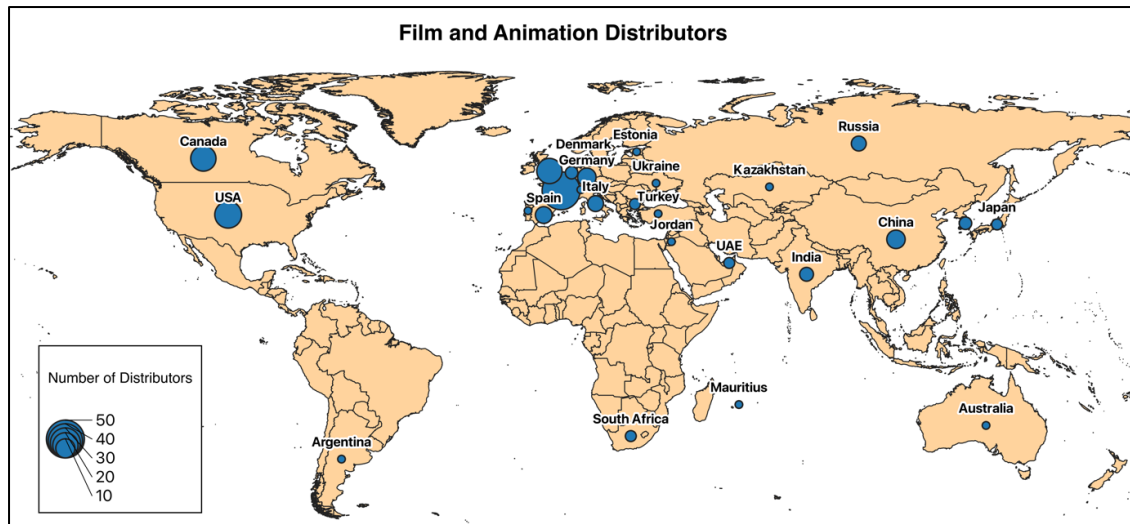


Figure 6 Global distribution of film and animation distributors flagged by South African animation studios

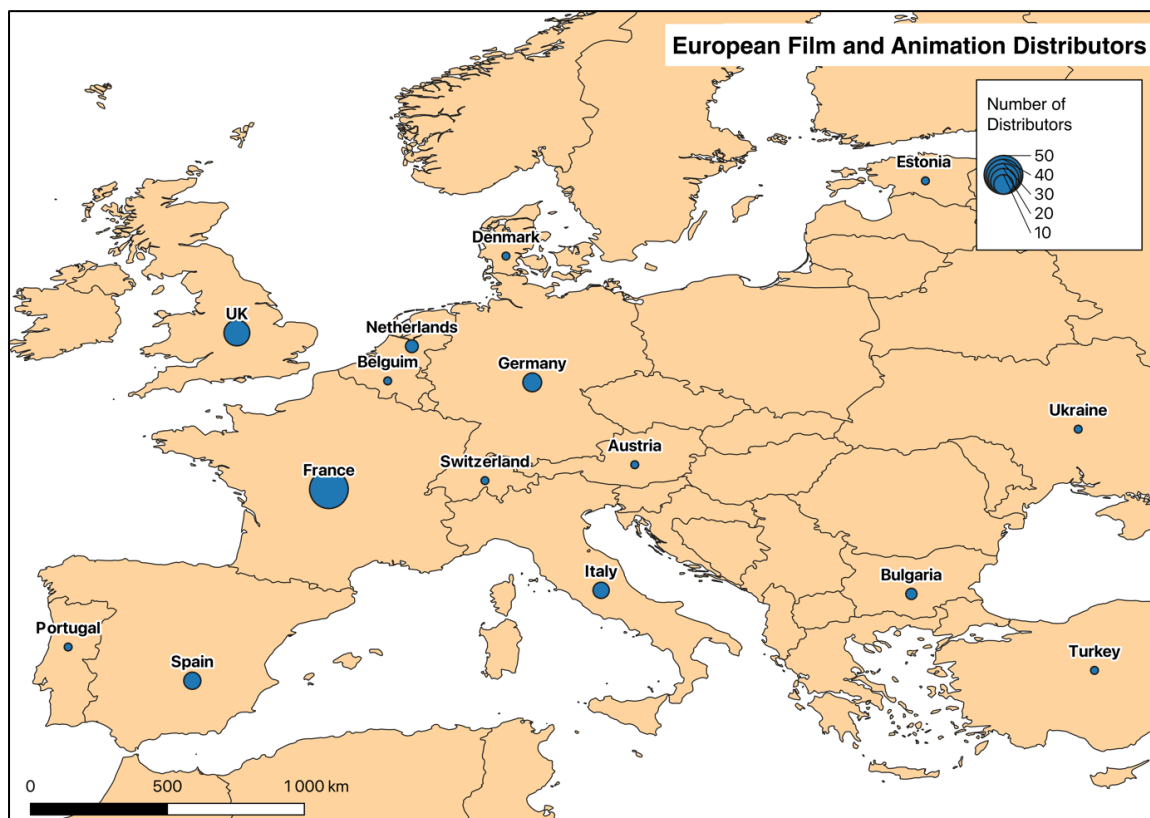


Figure 7 European film and animation distributors flagged by South African animation studios

During Covid-19, many of these markets have been held online. This has been beneficial for South African animation studios who were able to attend online versions of film and animation markets as they were more affordable and accessible. However, networking with distributors and other film and animation companies was more difficult as the online environment is more impersonal. The online migration prompted by Covid-19 and the likelihood of hybrid events continuing in the future may lessen the importance of geographic location of markets and distributors if it is possible to make connections and attend events online. The demographic breakdown of participants at film and animation markets may also change as online events are more accessible to companies and distributors in the global south.

Cinemas & Broadcasters

With most cinemas closed for long periods of time during Covid-19, audience development in terms of in-person viewing of animated products was curtailed – though it is widely acknowledged that cinema numbers have been declining for years. This has, of course, limited distribution of feature films in South Africa. This situation is further exacerbated by the financial difficulties experienced at the SABC (NVFF, 2021: 13). The public broadcaster cited a financial loss of R511 million in their 2020 Annual Report. Though a government bailout was received in that year, it went into settling debts. They have begun to commission some content again, however “the seven months delay in receiving the funding directly impacted on the timing of the turnaround after stalling the necessary investment in content (stet), “(SABC 2020).

However, with regards to the animation sector, it is not only the public broadcaster that has not been actively commissioning animation products but also other private satellite television companies such as Multichoice, the country's largest satellite television company, which already have agreements with other international distributors of animation such as Cartoon Network. It is thought that due to these agreements, Multichoice do not commission their own animation content which might compete with the content they are already able to offer (Forrest, 2021). Indeed some of the animation channels that have a relationship with Multichoice are independently pursuing South African animators or studios to create original content made by Africans – such as Cartoon Network, which have established an African off-shoot which is due to release *Garbage Boy Trash Can* (written and created by Ridwan Mashood) and is a product of the Cartoon Network Creative Lab initiative. This kind of scheme is aimed at not only diversifying the content that these channels offer, but also works at empowering a new generation of writers and creators who might go on to establish their own studios.

However, it is significant that local television broadcasters have not been very actively supporting the animation industry. Multichoice are apparently engaging with the industry to change this, according to Nick Cloete, director at Mind's Eye Creative studio and national chairperson of Animation SA. However, Stuart Forrest, from Triggerfish, the market leader, doubts that the audience numbers in South Africa for animation can support continued commissioning of animation by broadcasters.

Audiences

Unfortunately, it was beyond the scope of this report to look into and analyse potential audiences for animation in South Africa. Given that there is a perception that audiences are limited here, this would be a vital area to explore and could be gleaned from a variety of publicly available sources that offer insight into the numbers of people watching television or attending cinemas.

Currently, as the ecosystem map suggests, audiences for South African animation products are located outside the country. That there is a higher percentage of animation series being produced opposed to films coupled with the increased numbers of online streaming platforms indicates that audiences for locally produced animation will grow outside our borders.

This has implications for the content of animated products, which need to have broad appeal. Ensuring this has, for market leader studios, involved not only working with writers from elsewhere but also in terms of conforming to universal story formats. For instance, Triggerfish work with international script editors and consultants on a story while local writers and others based in different parts of Africa add the unique 'African' flavour to these universal stories.

“If the story doesn't work, the animation won't mean anything. We pay a lot of attention and time into getting the story right,” says Forrest (2021).

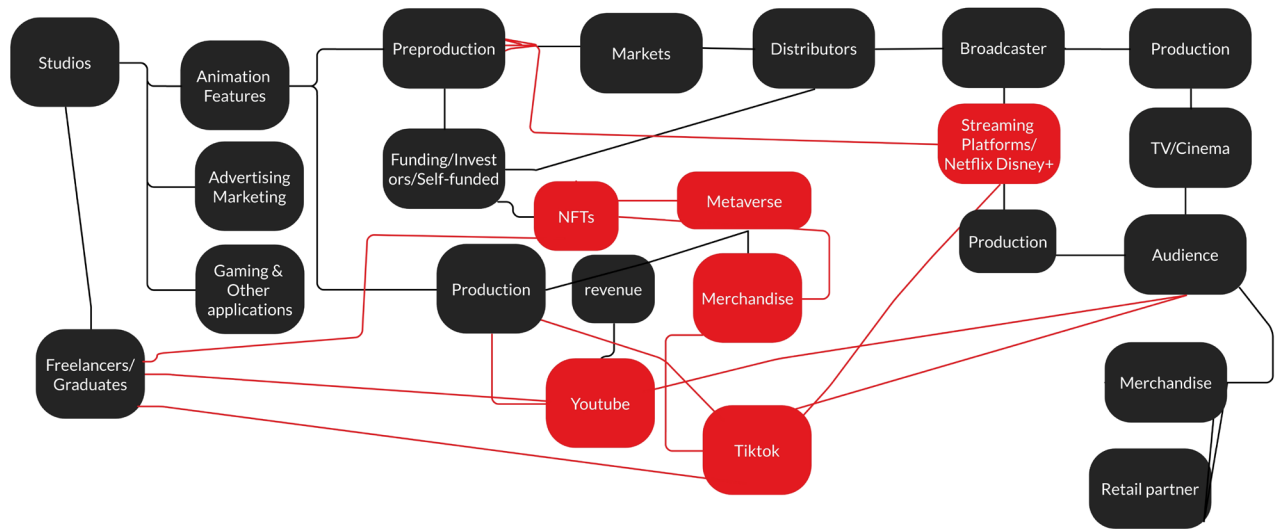
This sentiment was also frequently expressed during conversations at the Faku'gesi festival. As such, this segment of the ecosystem is clearly closely tied to the preproduction phase, where an awareness of the audience is vital.

Online steaming platforms are able to glean precise information around audience taste as they collect data pertaining to this. Interestingly, while it might be expected that this data would limit the type of content being made, the reverse seems to have occurred.

“With their algorithms they are able to find an audience for your film or series, so there seems to be more demand for niche content,” says Forrest (2021).

Digital disruptions

Technological disruptions to traditional ecosystem



Disruptions to the traditional ecosystem pertaining to the animation sector are highlighted in red in the map presented above.

As highlighted throughout this report, the main shift that has occurred is the development and growth of online streaming platforms which have increased in number and in terms of audience reach. This has naturally translated into a higher demand for animation products – “we are experiencing an animation boom” (Forrest, 2021) – and as mentioned, content that is more ‘universal’ in its appeal. This development has also placed the commissioning power into the hands of a few powerful – mostly US based companies – establishing an oligopoly global market. In this way much of the revenue and ownership of locally made animations will reside with foreign companies. Locally based streaming platforms such as Showmax are screening locally produced South African animation content, however, they do not appear – based on interviews and other research – to be commissioning local content.

Another impact of online streaming platforms is the fact that they are commissioning directly from animation studios, cutting out the traditional chain which involved middlemen that included distributors. There are financial benefits for all parties in doing so, however, this means that animation studios cannot appeal to a third-party to market their ideas or products.

This may be partly resolved via the role of social media tools – specifically TikTok and YouTube are playing in the ecosystem. The former, which is characterised by short video clips has allowed many animators and studios to build up followers in the millions, reaching the attention not only of consumers but commissioning entities.

“TikTok has provided them with opportunities that just can’t be found on other platforms. Plus, there’s the app’s demographic. Kids tend to be drawn to animations most importantly, TikTok videos are short — no longer than a minute — which is great when you have to animate every second of it.

Animators can create TikToks in a matter of days, letting them maintain a steady output," observes Jakes Kastrenakes (The Verge, 2020).

A South African graphic designer, Lwazi Msipha, built up a following for a character dubbed Nurse Thandi during the height of the pandemic. This led to him being offered an opportunity to work with Cartoon Network.

"After I uploaded it on TikTok it blew up. People were loving it. I uploaded the video and went to sleep. When I woke up, it was all over Twitter," he said. Msipha received an email from Cartoon Network asking him to make a show for them. The channel wanted more diverse content and needed something to motivate young viewers," (Ramelpe, 2021).

As TikTok users cannot derive income from advertising, there is a tendency among them to sell merchandise. This has proved a lucrative spin-off for TikTok influencers and could be leveraged by animators who wish to generate an income via this social media tool.

As YouTube videos need to be longer in length than a TikTok post, producing animation content for this platform is more time-consuming and costly, though if it is successful, animators or studios can generate advertising revenue. This entails financial risk, as the animator or studio would have to create the content first and hope it goes viral (Brown, 2021).

Sunrise Studios' *Jungle Beat* is an example of a successful series made for YouTube. Without dialogue it has wide appeal (some episode have had over 2 million views) that has attracted advertising, however, this has not been a profit spinner (Brown, 2021).

The other two new digital spheres that promise alternative income streams for independent animators or studios is linked to the rise in value of digital assets (NFTs – non-fungible tokens, which have value due to the unique block chain codes that substantiate ownership) that can be sold on a marketplace or within a metaverse. These areas of digital block-chain-driven commerce are interlinked and originate from the online gaming industry – where virtual realities are plotted and virtual goods are sold – and could perceivably become a source of revenue for animation studios.

Some of the most popular and highly-valued NFTs sold on the OpenSea market appear like cartoon characters – Bored Ape Yacht Club 7894 for example features an ape in human dress and recently sold for over US\$200 000. This kind of NFT coincides with character development in the field of animation. The OpenSea marketplace is one of the largest and their "trading volume, jumped from US\$1.1 million in transactions per month when it was struggling to get started, to an all-time high of US\$3.4 billion in August 2021," (Dailey, 2021).

Selling NFTs does not as yet appear to be a focus of many South African animation studios – or perhaps they are not broadcasting this as yet. However, our case study studio, MAAN Creative, noted that they have been selling NFTs as a means to generate income to self-fund their first animation short film. This model not only makes economic sense for studios but also helps them build a following for characters and market a film or series prior to securing funding or its release.

This largely seems to be the main benefit of social media and/or other digital developments at this point – enabling studios to create and publish content that they own and which can be sold, as well as to use this activity to market their products and build audiences for their work ahead of producing it. In this way the marketing of animation products takes place in the preproduction phase rather than after post-production as has been the traditional route (Rorke, 2021).

Case Studies

STUDIO: MAAN Creative

MAAN Creative is a boutique design, development and animation studio based in Johannesburg that specialises in 2D animation and stop motion. The studio is responsible for a number of animated products including corporate explainer videos, advertisements, title sequences (such as *Black Tax*) and educational content such as the 55-episode series *My Better World*. The studio has grown over time and is attempting to transition into making their own original content.

The Growth Path: Founding the Studio, Clients, Content and Staff

The studio was founded in 2014 by Michael Clark and Johan Scheepers. After having completed degrees in design from the University of Pretoria, the founders both worked in the industry for many years before founding the studio. Michael Clark worked as a motion graphics designer and gained experience in London before returning to South Africa and taking on freelance work. He then convinced his business partner, Johan Scheepers, to join him and they started MAAN Creative. At the start, the studio was very small – effectively just the founders doing freelance work together. The studio has been “growing very slowly but steadily since then” so that they now have nine permanent employees and take on additional staff on project-based contracts as needed (Clark, 2021).

Over time, the studio has grown and the type of work that they do has evolved:

“I would say it was small freelance jobs that gradually grew and grew, more and more international clients, and more and more bigger projects, and fewer corporate videos and that sort of thing. Then we started getting some bigger pipeline projects, like the My Better World project. It's steadily been growing, but at the same time that goes up and down. At one stage last year, we were up to 17 people and we're probably going down again now. So, it fluctuates all the time”
(Clark, 2021).

When it comes to clients, “it's probably about 99% word of mouth. And one thing leads to the next” (Clark, 2021). Though they have attended a number of markets and festivals, they have not directly derived work from them. Attending the festivals and markets and showcasing their work mainly helps to raise the profile of the studio amongst their peers so is a good networking opportunity. The studio has also experienced a shift from mainly local clients to an international client base. Some of the projects are African based productions, such as *My Better World*, but it is funded from the UK and the USA through NGOs operating on the African continent who wish to work with local providers and partners.

Most of the staff at the studio have studied animation and/or design and illustration at South African institutions, with some of them having also completed online short courses from international providers. Most of the staff joined MAAN Creative as graduates and have been “trained up quite extensively in the time they've been with [the studio]” (Clark, 2021). However, MAAN Creative does not expect new graduates to be able to enter the industry and hit the ground running. They see it as part of the industry's and their responsibility to take graduates through on the job training and get them up to speed – usually around a six month process.

Collaboration is a key part of the sector with international partnerships being identified as a good path to take for South African animation to grow. MAAN Creative has collaborated with local studios like Mind's Eye Creative on the character animations for *My Better World*.

"I think that in an industry like ours, we need to band together and present a united front on these bigger projects. But I think it probably doesn't happen as much as what it could" (Clark, 2021).

A Niche Area: Educational Content for African Audiences

MAAN Creative have carved out a niche for themselves in producing educational animated content for African audiences. This includes *Tamani: the bird who wished for teeth*, a three-episode mini-series about a bird who has to learn to properly care for his teeth, and *My Better World* which follows the adventures of six African teens as they navigate the complex challenges of school, family and friendship. *My Better World* is the studio's largest and most successful completed production to date (see figure 1). The life-skills education series was produced in collaboration with Fundi Films for Impact(Ed), an NGO based in the USA.



Figure 8 My Better World Statistics (MAAN Creative, 2021⁶)

Making the Transition to Producing Original Content

Sam the Hedgehog is a 12-minute short film written by Julia Smuts Louw that sheds a light on the experience of autism spectrum disorder children and their parents (MAAN Creative, 2021⁷). The short film is MAAN Creative's first foray into producing their own original IP (see figure 2).

"We're still making the transition, and I don't know if it'll ever be a complete transition. That's why it's taken us [so long], we're working on a 12-minute short film, and it's taken seven years so far. Because the only way to do it is just to do it"

⁶ <https://www.maan.co.za/portfolio-items/my-better-world/>

⁷ <https://samthehedgehog.com/>

really slowly, because we we're trying to pay the bills the whole time" (Clark, 2021).



Figure 9: Poster for Sam the Hedgehog

Making the transition into producing original content has a long-time frame, especially in South Africa where it is difficult to get series or films picked-up by local broadcasters or distributors and where there is a lack of funding. This usually means that creators need to self-fund the project and work on it on the side while they complete commercial work to make ends meet or are in-between projects. This has extended the time frame of production so that the film is currently 60% complete.

In order to make the film, MAAN Creative have used some new funding models. These include an Indiegogo crowdfunding campaign, meeting with corporates to try to get funding, asking for donations which included supplying tax certificates for donations and selling merchandise such as T-shirts and posters online and at various markets. Most recently they have launched the *Hedgie Fund*⁸. This is a trait-based collection of *Sam the Hedgehog* NFTs (see figure 3). With the project already being 60% complete, *Sam the Hedgehog* could become the first completed NFT-funded animated short film. Despite all of these new funding models, the majority of the film has been self-funded which is why it has been in production for seven years. The team are hoping to complete and release the film for free online in 2022.

⁸ <https://thehedgie.fund/>



Figure 10 The Hedgie Fund: an NFT collection based on Sam the Hedgehog to help fundraise for the film's production

Looking into the future, the team at MAAN Creative are hoping to continue to produce their own original content and to be less dependent on advertising and corporate videos to pay the bills. They are hoping that *Sam the Hedgehog* as an IP will lead to more things in the same universe, perhaps as a spin-off series for example. They also have an “ideas jar” that is full of other projects to develop and would like to collaborate with people who have a good story and need a production team to help get it off the ground (Clark, 2021).

Challenges and Opportunities for MAAN Creative and the South African Animation Industry

It is difficult to make original content in South Africa, as MAAN Creative have found in trying to produce *Sam the Hedgehog*. The lack of funding opportunities is a major obstacle and even when funding is available, it is difficult to access. In general, “the pot is very small” as there is not much public or private sector funding available to animated content producers. BEE considerations make the funding pool even smaller as the majority of companies in the animation sector are white owned.

This means that one of the few available options to South African animation companies is to sell content to overseas broadcasters and distributors like Netflix or Disney. However, to compete at this level, you have to be “right at the top” and compete with other international companies who are often much larger and experienced (Clark, 2021). Alternatively, it has to be done independently. But this option also has its set of production and funding challenges.

“In terms of original IP and story content, there’s very little that’s been done locally. That’s why the vast majority of the industry lives off the advertising world”
(Clark, 2021).

Another challenge relating to the production of local content, is a skills deficit. Talented animators have moved overseas, and it is difficult to find older animators with more experience for senior positions. This means that MAAN Creative have experienced a relatively high turnover rate of young animators. There is also a lack of competent and experienced writers who can tell local stories and develop scripts for animated content that will be competitive and desirable to a global market.

Loadshedding has also been a major problem as the studio has lost time and has had to purchase equipment to allow them to continue to work during power cuts, such as UPS systems, instead of spending the money on new animation equipment. The poor economic performance of South Africa

over the past few years has also impacted the industry. Though, MAAN Creative have been somewhat shielded from this by the high proportion of international work that they do (80%-90% of their business).

The impact of Covid-19 has had some positive and some negative effects. MAAN Creative was able to pivot to a work from home set-up relatively easily for all of their staff. Some animation studios did quite well because they could produce animated commercials from home in a safe environment that replaced live-action shoots which were not allowed during periods of strict lockdown regulations due to safety concerns. MAAN Creative have also been able to collaborate on *Sam the Hedgehog* with international animators online during this time, something that they would not otherwise have had access to. On the other hand, there has been less interaction in the industry due to the effects of Covid-19. Overall, Covid-19 has negatively affected the sector in terms of business and cash-flow. Many projects that had been lined up when COVID hit were either postponed or cancelled.

When it comes to getting work from international clients in the UK and USA, there are a number of factors that make South African animation studios an attractive option. The skills and talent of South African animators is of a high quality and there is a high work ethic which means that international clients can be sure of a good animated product being delivered timeously. South Africa is often cheaper than the local UK and USA based studios. However, when it comes to competing for international clients, South Africa's main advantage in comparison to competition from other countries that offer good quality and cheaper rates than the local options, is culture:

"I think we have a unique value proposition in the fact that we are quite close to them in terms of culture and language, we understand them, we're very similar... So we can't compete on price with the studios in the Far East, or India, or places like that. But, I think we're better in terms of being closer in culture and language and often I think our skills are better. So we fill that middle gap. It's quite a difficult middle gap to live in as well, because a lot of clients tend to either want it really cheap, or if it's going to be only a little bit cheaper then they might as well go with a local option. So, it's a challenging space to live in. But there's definitely work out there" (Michael Clark, 2021).

In order to grow the sector, it is suggested that South Africa competes with other countries with a strong animation service sector, such as Canada, India and countries in the Far East. The groundswell of service work will develop the industry, skills and infrastructure and lead to people and studios producing their own IP over time.

FREELANCER: DANI

Dani (preferred to remain anonymous) started out as a Web and Graphic Design student at a South African University in 2002 but completed her studies at The Animation School in Cape Town. She found that high schools do not seem to promote animation as a career path in the same way other career choices are promoted. It seems as if animation is not considered to be a stable career path to follow.

"After high school I had no idea of what I wanted to do"

As far as future job opportunities were concerned and whether she had the necessary skills after completing her education, she replied with a resounding *"no"* as the actual work and what she was taught was very different to *"what I expected"*. Today she considers herself to be a generalist and prefers 2D animation, but starting out at a studio and working on a project will be *"very specific, one type of animation with one specific software"* and it all depends on where you start to work.

Her fellow students/friends worked in towns and cities crafting out careers for themselves up until the Covid-19 pandemic struck which meant animation studios downscaled their workforce, forcing some of her friends to take up jobs in coffee shops and freelancing at night to keep their animation passion alive.

Career Trajectory

Dani did not start out with an internship although she strongly recommends it. She started her work career in a junior position at Clock Work Zoo. Four years after she started work at Clock Work Zoo she was promoted to a senior position within the company. Internship opportunities did become available, but they were mostly used for the drawing of backgrounds and working on the foundation of a project. She strongly recommends internships as not all colleges teach 2D rendering.

After Clock Work Zoo she moved onto Sea Monster, Bubblegum and then to freelancing which she prefers. She also did a stint lecturing at City Varsity presenting workshops, but found that the workshops took up most of her time leaving little to no time to do what she loves most, animation.

"If you take on a full-time job as a lecturer you would have to put your career on hold".

Stronger currencies/Better work opportunities overseas

She has also done freelancing work for overseas companies and freelanced for a South African company with an International client, the decisive factor here was the potential to earn a better salary, *"a company in the UK may offer you £80 which may be more than what a local company may offer."*

She mentions that working remotely and freelancing gives her the opportunity to work flexible hours, although loadshedding does become a big factor as meetings will need to be planned around the loadshedding schedule. Fortunately, with technology improving all the time, working remotely becomes easier as you can have "face-to-face meetings" via Zoom. There are also better opportunities for feedback and work can be shown via the Zoom meetings through Share my Screen.

"Working remotely is amazing, working from home changed my life, I hated the daily commute of nearly 4 hours to the office as it was my task to unlock and lock the office".

Gender parity

Starting out, she did not think her gender would play a role in her career, *"10 years in I realised how much my salary was affected because I was a woman"*. She was never given the same leadership roles or responsibility as her male counterparts, *"I was put in charge of interns because I'm more understanding and patient, there were less females than males when I started out"*. After leaving her studio career to pursue a career as a freelancer, only then did she realise how skilful she really was, although she does recommend that it is better to start out at a studio rather than going straight into freelancing. *"Do not quit 3 months into your job as you might not be hired again due to not having enough experience"*.

Career highlights

She has quite a diverse set of skills. Her specialities include 2D character design, rigging and animation in Toonboom Harmony Premium. 2D animation and motion graphics in After Effects and Adobe Flash, illustration, design and editing with Adobe Photoshop and audio editing in Audacity. Notable work she was involved in includes the Netflix animated series *Trailer Park Boys*, *Garbage Boy & Trash Can* and *Shaka Inkosi Yamakhosi* (award winner at the at the Genesis International film festival and the Paris Cinema Awards: Best Animation).

"You know the show Peppa Pig that your child loves so much? Yes, I did that, I did that, I worked on the show"

Perceptions of the industry

She mentions that there are many opportunities in the industry but getting your foot in the door can be difficult. *"I don't encourage everyone to go down this path as it can be challenging."*

The industry is in a dark place currently due to the Covid-19 pandemic, *“I didn’t have consistent work in the past 2 years compared to the 3 years prior to the pandemic where I had work very month”*. Out of necessity one may be forced to take on work that you may not like or enjoy that much. However, the industry does look as if it is on its way up according to Dani. Despite this, gender pay inequality still remains one of the big issues, although it is being addressed.

Future outlook

According to Dani, the prospect of moving to another country to pursue better opportunities is something she would consider due to the prospect of a better lifestyle and to further her education. *“When I graduated, my diploma was not accredited - the ink was not worth the paper it was written on”*. Some studios allocate a huge percentage of budgets to top level executives and producers and animators don’t really get recognition.”

There are technological changes coming to the industry. Drawing in a note pad or book is becoming redundant as many are gravitating towards the use of tablets and pens that are specifically designed to do drawings with 3D already available via VR goggles, *“Every 3 years I may need to change my tablet or computer due to the advancement in technology. When I got my computer 32GB of RAM I thought that would be more than enough, but I recently had to reset my computer with all other applications closed in order to run the one programme I needed to use”*.

Dani suggests that the industry needs to analyse the quality of education being offered to young people, particularly in terms of the curriculum and whether it is relevant. The introduction of standard industry salary scales should be set in order to combat unequal pay.

EDUCATION INSTITUTION: DIGITAL DEPARTMENT WITS UNIVERSITY

The Digital Arts Department at WITS University was founded in 2006. Within the digital arts, it started off initially as a Master’s only graduate programme, with the specialisation field being in animation, particularly, 3D animation.

It was only about four years later - in 2010, that an undergraduate programme was introduced. It was brought in as a four - year professional degree, at level 8 on the National Qualifications Framework (NQF 8); this is the equivalent of an honour’s degree. One of the aims of this four - year programme was to expand the offering of digital arts to make it more modular and cover several more aspects of digital arts beyond animation.

The focus of an undergraduate degree at WITS University

With the expanded offering, students are able to choose their majors, which are either game design or animation. Other available options include writing or interactive media. According to Whitcher (2021), this was to give and offer a more holistic digital arts degree.

The animation programme has since grown in leaps and bounds, and has gone from being offered only in a BA programme, to being offered in the engineering programme as well. Those in the engineering stream would tend to focus specifically on the programming elements of animation and game design as part of their qualitative qualification in electrical information engineering.

Initially, animation was taught from third year onwards, but it is now being offered from as early as second year. Since it is the case that all animation is fundamentally rooted in 2D (Whitcher, 2021), and a firm foundation and knowledge of 2D is essential in understanding 3D animation, and consequently being a better 3D animator (Whitcher, 2021), modules in 2D, prior to 3D, are compulsory. At fourth year level, the students are then able to choose their particular specialised field in animation, which they then use to create a production.

Although there is the option to hone in on one type of animation at fourth year level, the students are encouraged to experiment and to hybridise. After fourth year, many enter into the job market, and so it is important that they be well versed with practices of commercial animation – on entering the market, there is limited freedom. The clients or scriptwriters will tend to dictate what they want from you, which may affect the type/s of animation that one can use.

One of the most common arguments brought up in arts and cultural and creative industries (CCI) discourse is that of the preparation, or lack thereof, of artists and practitioners for the business environment. Whilst it is fully acknowledged that their training in their specific field does indeed prepare them for their work and trade, it is argued that there is inadequate training on the business side of things, if any at all. It is ultimately argued that the value chain is designed for failure.

As this is relevant to the animation industry, a large amount of time in fourth year is dedicated to teaching the students how to market and pitch their animation work, and some of the ad-hoc obligations, including financial, that are often neglected in a degree programme. Various stakeholders including professionals, freelance animators, past students, studio owners etc are invited on a weekly basis to come in and give lectures on their experiences and lessons, so that by the time the incumbent students graduate, they have an informed opinion of where they would like to work, and what they see their career being in the field.

Internship

After studying and qualifying, many of the students participate in internships. Whilst there is an employment rate of about 80% amongst WITS graduates (Whitcher, 2021), the limited places for internships in the industry make this a very challenging and competitive process, considering too that there are several other institutions that offer animation studies.

One such internship programme is run by the Tshimologong Animation Academy, which is owned and run by WITS. After undergoing a rigorous interview process, some students are selected into the internship programme. The programme is an important stepping stone in the careers of animators as it furthers their skills and makes them more marketable as professional animators. They tend to get hands on work experience where they learn to use industry software, perform studio work and see how the production environment works and gain a better understanding of it.

Whilst big animation companies such as Triggerfish have set the bar in terms of internships, there are some newer and smaller ones (for example, Chocolate Tribe) which have focused on animation production for live action movies.

Challenges and opportunities

The cost of higher education and studies is, in itself prohibitively expensive. Whilst the education institutions have made an attempt to subsidise these through bursaries, the demand far outstrips the available supply. The cost to attend a university is generally less than that of private colleges; in fact, the universities will tend to cost about half of what private animation colleges do (Whitcher, 2021). For example, the average tuition cost of a BA Digital Arts Degree is R49 000 a year at a public university, compared to R118 000 per year for a similar qualification at a private university.

Besides the cost of tertiary qualifications, another inhibiting factor is that of entry into the institution, particularly a university. Whilst private colleges may not necessarily have a strict entry criterion, save a portfolio, gaining admission to animation studies at a university will mean qualifying for entry into a university. This can prove very challenging as there is stiff competition amongst many candidates, all vying for limited spots.

The biggest financial challenge is that of cost of the hardware and software associated with the teaching and learning of animation. Incredibly powerful computers running complex software are needed to run animation programmes, and these do not come cheaply. Some of the software used in Animation studies include ToonBom and the Adobe suite, and these will cost no less than the equivalent of \$20 per month (E-commerce software, 2021) – about R310 at the prevailing exchange rate. Autodesk Maya – the most commonly used software for 3D animation costs \$215 per month – approximately R3330.

The WITS School of Arts has attempted to level the playing field for those students who would not be able to afford these fees by charging a standard yearly rate for custodianship and use of a university-issued laptop. This comes with use of the software as well. The software used on these laptops is free and open source, however, the graduates do not learn nor utilise most of the major software (mentioned above) that are used and recognised in the field.

Related to the exorbitant cost of hardware and software, is the concern of access, referred to as the Digital divide. Due to Covid-19, there has been an influx of remote working. So not only is a good computer a necessity, but there has to be a decent internet connection too. This means that it is not feasible to rely on cell phones and data; a very reliable fibre internet connection is needed. According to Stats SA (2021), 60.73% of the population have some sort of access to the internet. This already means that almost 40% of the population would not be able to pursue animation studies remotely. Another “access” issue that arose with Covid-19 and the shift to working from home was related to hardware – very expensive super computers are required to run animation software. In many education institutions, such computers are provided and loaned to students, even though in many instances, some of the students may be able to afford them. Moreover, given the statistics above, it is evident that there may be some students who are unable to afford these computers.

Whilst it is acknowledged that there are various means of studying and learning animation, without particularly needing to go to an education institution, the very structure of the employment law and regulation will require that those wanting to be employed in companies have some sort of qualification. Whitcher (2021) further states that it is normally the case that degreed students are preferable to diploma holders; which he refers to as a kind of “knowledge tax”.

Transformation

The education sector is rapidly transforming, both in its gender and racial dynamics. As of 2021, the WITS School of Digital Arts had, on average, 60% of its intake being black, with a further 60% also being female (Whitcher, 2021). This should on paper prove a challenge to the white male dominated animation industry.

Moreover, Whitcher (2021) also notes that whilst the student demographics may have shifted, much of the lecturing and academic staff still remain largely white and male. So whilst transformation is happening at a relatively fast rate amongst the student population, this is not necessarily the case with the academics.

Some of this is linked to the ‘brain drain’ that is thought to be affecting the entire country. Zooming in specifically on the animation sector, retaining qualified staff and paying competitive salaries is necessarily difficult. It is true that many academic staff also end up pursuing market-related work. This in itself proves somewhat advantageous as they are also then able to teach and lecture based on first-hand experience obtained in the industry and field.

Conclusions & Recommendations

Exploiting international opportunities

The growth of online streaming platforms and remote consumption of animation products around the world signals demand for original content. South Africa's top animation studios producing films and series claim to be "turning away work" (Forrest, 2021). This coupled with the fact that there is a shortage of animators not only in this country but elsewhere in the world (Forrest 2021) further establishes the fact that demand is outstripping supply. This should be an enviable situation for South African animation studios, however, they appear to be unable to exploit these conditions due to the following factors;

- 1) They are unable to compete in the global animation sector with companies that enjoy government subsidies or other favourable policies. Due to the high cost and risk involved in producing animation this has become a necessity, certainly South African studios can't compete against those based in countries where this is the pervasive practice. Those South African studios that are taking advantage of the current climate are those who have moved their office to other countries where this is common practice. It is likely more South African studios will migrate to greener pastures, further weakening the local ecosystem and undermining the confidence of foreign investors and partners.
- 2) Limits on ownership of content as set out via amendments to the Copyright Act which for all sense and purposes undermine the status of or invalidates an IP. This does not make South Africa an attractive destination to co-produce animated films or series (Cloete, 2021).
- 3) The administrative process involved with applying for and getting a government grant is time consuming and difficult. Local studios and international partners have become wary of applying for rebates and funding as there is a poor track record of administrative issues and delayed or non-payments. This is concerning as South Africa is losing out on international co-productions which could help to develop and grow the sector. A number of other countries also offer tax rebates on animated productions in an attempt to attract international clients. With a policy and funding environment that is hard to navigate, South Africa is losing out to other countries which are more competitive on this front.
- 4) Not enough studios have sufficient experience or expertise in generating original content for films or series.
- 5) There is a lack of skilled animators and studios to produce high quality content for film and series.
- 6) A focus on immediate income generating work – for the advertising industry or other marketing material for companies – has diverted time and resources which could be spent developing original content. There may be a lack of motivation to do so given the huge challenges faced in securing an international partnership/investment.
- 7) The leader in the market – Triggerfish – have achieved success due to partnerships developed in the preproduction phase that strengthen the visual and narrative quality of their content. On the face of it, this doesn't appear to be the route that other studios are adopting in developing original content, which has to inevitably appeal to an international audience.
- 8) There may not be enough co-operation or joint efforts by smaller studios to realise bigger projects.

Suggested interventions:

The DTI could take up to assist the animation industry are outlined as follows:

- Offer special deductions for film production related expenditure that film owners incur in order to stimulate private investment.
- Investment into the industry through the Arts and Culture venture Capital Fund
- Provision of 'soft loans' by the IDC at provincial levels. (SACO, 2021)
- The Export Marketing & Investment Assistance (EMIA) Scheme is a government legislative area that could be utilised to support the animation industry. This is a publicly funded company that focuses on developing and expanding export markets for goods and services from South

Africa. This scheme has potential of supporting the animation industry by helping animation studios in retaining their intellectual property as well as promotion of the export of South African animation films, however, focus of the scheme is currently more focused on the manufacturing industry (SME Toolkit South Africa, 2016).

- As so many government policies are hindering the industry's growth the Department of Sports, Arts and Culture should discuss table revisions to these policies that would be more favourable and lobby on behalf of this sector to effect changes.
- Barriers to the racial transformation of the ownership of studios should be addressed in conversation with the animation industry.

Local audiences, do they exist? How do we grow them?

As the map plotting the animation industry in South Africa suggests, the production of films and series is almost completely geared for international audiences. While this might be the case for other countries too, the 'absence' of interest in and commissioning for local audiences appears to be a weakness – particularly in light of the fact that stronger industries in Japan and India are nurtured and supported by local consumers, even though they export or are an 'outsourcing' production hub.

Do local audiences for animation content exist, and if so in what numbers? Is it possible to create content that has universal appeal but is also relevant to locals? Government support and commissioning of animation by the public and private broadcasters would motivate studios to focus in on or consider local audiences. The glaring absence of locally made animated series and films for TV in this country no doubt has constrained not only audience numbers for animation but prospective animators entering the industry.

Given the role animation plays in education – it is typically used as a tool to educate children – and its popular use for explainer videos there is potential for more original content to be commissioned that could advance education goals. As the overview of the Japanese animation industry showed, when animation is established as a tool for communication, it becomes more culturally embedded in a society, leading to more creative and artistic applications of it too, as well as building audiences who wish to participate in these animated worlds – via costume, festivals and acquiring other branded merchandise.

It is perhaps this lack of engagement with or focus on local audiences that hasn't seen much development of merchandise linked to films and series. When it has manifested, the studios tend to partner with retailers to disseminate the merchandise and outsource the production of it, as such it has probably not proven to be a lucrative income stream (Vermeulen 2021).

The animation sector needs to engage more with the public broadcaster and Multichoice and discover ways in which they can support the industry. Showmax, the only South African should be commissioning animated series and films.

Education and skills deficit

Animation curriculum at a number of institutions is out of sync with the industry has been the recurring sentiment among studio heads. Perhaps the most obvious gap appears to be due to an emphasis in 3D when most animated films and series are made in 2D. This may be an oversimplification of the issue. As the Wits Digital Arts School case study shows, there is a grounding in 2D before 3D technology is taught. These kinds of gaps and others need to be more thoroughly analysed and by an expert in the field who could make recommendations. At Wits, for example, the students are using opensource software which does not prepare them fully for a working environment. Undoubtedly, the curriculum needs to regularly updated, given that changes and updates to technology are constantly taking place. This should be undertaken by lecturers in conversation with leading studios.

Internships should become an obligatory part of an education in animation and might need to be introduced much earlier in a student's curriculum – in their second year - with two rounds of internships taking place during a student's career. This would naturally lead to forging closer relationships between studios and education institutions which seem to cluster in Joburg and Cape Town. Interns could also be placed with freelancers too, as many are said to be highly qualified and in demand.

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