RESEARCH OF ANIMATION, FILM AND GAMING INDUSTRY

1. Roles in the Animation Industry

Film and Video Editor
Film and video editors guide the pace and telling of a story. They select the best takes of scenes and splice them together to create the most entertaining finished piece. They use a variety of editing software to achieve the goals of the piece. Some of common types of software used in the film and video-editing industry include Avid Media Composer, Final Cut Pro, Adobe After Effects, and Adobe Premiere Pro.

Graphic Designer
Graphic designers design or create graphics to meet specific needs such as packaging, logos, displays, websites, publications, and more. Some graphic designers even design the overall look for film and television credits. They work with sound, colours, artwork, photography, software, and even animation to produce whatever the project calls for.

Background Painter
Background painters draw, paint or create backgrounds manually, by computer or both for animated and live action productions. With a strong sense of compositing, design, colour, and proportioning, these creative individual's design backgrounds for characters and objects to live in and move through in a natural manner. Some of the different types of software that may be used include Maya, Photoshop, and Illustrator.

Cartoonist
Cartoonists work for animation studios, film and video studios, cartoon networks, gaming companies, print publications, and publishing companies. In the animation industry, they render drawings of characters, environments, and objects for small and large-scale productions. Additional duties may include developing moods and color patterns, dramatizing action, and create and paint background scenes. Cartoonists may draw characters and scenes manually, on the computer or a combination of both.

Character Rigger

Character rigging is a very tedious process. It requires creativity, precision, and an eye for detail. As such, character riggers are responsible for using computer programs to form skeletons by creating a series of bones that deform and animate specific parts of the character. Character riggers may also help develop tools for animation production processes, collaborate with modellers and animators, and develop new techniques to solve character production challenges. Character riggers work in animation studios, for game design companies, web design firms, computer software companies, and more.

Effects Animator

Effects animators create effects based on concept art and design from art departments. They use 3D lighting and effects and compositing tools to achieve the desired look. In addition to VFX supervisors, effects animators work with technical directors, designers, and art directors to create realistic effects.

Storyboard Artist

Storyboard artists draw scenes by hand or computer. They might sketch in black and white or they may produce full colour storyboards manually or by computer. Also called "story boarders," storyboard artists work with producers, directors, and film crew from start to finish by sketching scenes during initial meetings, and editing or eliminating scenes as the project progresses. Storyboard artists may work in a film or other production studio, in an office setting, or even a home studio.

Texture Artist

Texture artists use a variety of software, platforms, and rendering environments to create textures for environments, characters, objects, and props for animated films, television shows, and video games. Some of the most common types of software, platforms, and rendering environments used in animation include Photoshop, 3D Paint, UV Layout/Editing, RenderMan, Mental Ray, Maya, Shaders, and Houdini. Texture artists also use digital matte painting techniques to create textures and they work with advanced surface types, subsurface scattering, and global illumination.

Lighting Technician

Lighting Technicians are also known as Lighting Operators or Lighting Electricians and are commonly referred to as "Sparks". Their responsibilities vary according to the size of the production and the number of Lighting Technicians on the team. They work to the

instructions of the Gaffer and the Best Boy, who co-ordinates their work. Their main role is to keep the equipment clean and in good working order.

Animation Director
Animation Directors are responsible for the quality of the animation, for keeping it on brief and for delivering consistent performances by assigning, or casting, the appropriate Animators. The role of Animation Director may only exist on larger projects and is often combined with the Director role on smaller productions.

Animator (2D) & Animator (3D)
Animators do everything relating to their scenes, including plotting the camera moves, editing the soundtrack (if required), charting information on dope sheets and producing a composited version of their work for comments from the Director or Animation Director.

CG Modeller
They work to established designs and need to produce an accurate translation of the design reference, staying on model (in style). They may do their own research or scan in a maquette or sculpture as reference.
The models they produce need to meet the creative requirements of the Production Designer and/or Art Director and/or client, but it is just as important that they should satisfy the technical needs of the CG department and be efficient, reliable, to scale and to be easy to rig and animate.

Compositor
Compositors are responsible for constructing the final image by combining layers of previously-created material. They work at the end of the production process. They receive material from various sources including rendered computer animation, special effects, graphics, 2D animation, live action and static background plates.

Digital Painter
Digital Painters add colour to the line images created by Animators. They may scan the drawings they receive from the animation department and, when required, clean up the line work on a computer before colouring. They use software such as Toon Boom, Toonz and Photoshop. They must follow the references they are given and be aware of continuity requirements.

Editing Assistant
Editing Assistants support the Editor(s) and editing department, and their workload varies according to the size and type of the production. They log the audio and visual material received in the cutting room, load it into the computer and keep on-going and detailed records, as instructed by the Editor or 1st Assistant Editor.

Head of Model Making
Heads of Model Making are responsible for the creative running and overall management of the model making department. They work closely with the Director and Production Designer to translate their vision into models or puppets that will work for the project.

Sound Engineer
The Sound Engineer creates the soundtrack for the film. This might include music, sound effects to support the action (such as gunshots or explosions), character voices and other expressions, spoken instructions, and ambient effects, such as crowd noise, vehicles or rain.

Source:

https://www.animationcareerreview.com/careers-animation/types-jobs

http://creativeskillset.org/creative_industries

(Part 2 Career Profile)	
Name	Filip Hodas
Job Title/Role:	3D/4D Artist
Description of their role:	Create and sell 3D/4D artwork
Business description:	Makes iconic characters into 3D junk rusty artwork
Website:	https://society6.com/filiphodas

2. Sectors in the Industry and How They Relate with One Another

Is there any crossover between the industries?

Yes there are some crossovers between the industries. For example, in game industry, developers would want to collaborate with the animation industry to have better understanding of the design and digital impact to the audience.

Do they use each other to get their product to market and if so how do they manage it?

They indeed use each other to improve the quality of their product and they managed to do this by selecting the proper or the right one to work with. In addition, they always talk about, plan and discuss the different parts that each side should, in this case the whole process is organized.

Investigate roles of relevant industry bodies and associations.

https://guides.library.yale.edu/c.php?g=295800&p=1975068

Animated film encyclopedia: a complete guide to American shorts, features and sequences 1900-1979. Graham Webb. Jefferson, N.C.; London: McFarland, c2000.
    SML Reference NC1766 U5 W43 2000

Animated movie guide. Jerry Beck. Chicago: Chicago Review Press, 2005.
    SML Reference NC1765 .B367X 2005

Anime encyclopaedia: a guide to Japanese animation since 1917. Jonathan Clements and Helen McCarthy. Berkeley, Calif.: Stone Bridge Press, 2006.
    SML Reference and Bass Stacks, NC1766.J3 C53X 2006

Animation 101
    News, history and "how-to's."

Animation, a reference guide. Thomas W. Hoffer. Westport, CT: Greenwood Press, 1981.
    Bass Stacks and Art Reference, TR897.5 H63 (LC)
    A guide to resources for the study of animation.

Encyclopedia of animated cartoons. Jeff Lenburg. New York: Facts on File, Inc., c1999.
  SML Reference NC1766 U5 L46X 1999 (LC)+

Origins of American Animation. Library of Congress.
  The development of early American animation is represented by this collection of 21 animated films and 2 fragments, which spans the years 1900 to 1921. The films include clay, puppet, and cut-out animation, as well as pen drawings. They point to a connection between newspaper comic strips and early animated films, as represented by Keeping Up With the Joneses, Krazy Kat, and The Katzenjammer Kids. As well as showing the development of animation, these films also reveal the social attitudes of early twentieth-century America.

Yale Anime Society
  Information about screenings and anime videos available at Yale, and more.

What organizations are responsible for the climate of the industry?

IGDA (International Game Developers Association) is one example of an organisation who's responsible for the climate of the industry.

about igda:
The International Game Developers Association (IGDA) is the largest non-profit membership organization in the world serving all individuals who create games.

Who are the big players and how much influence do they actually have?

Some of the big players are Blizzard Entertainment, Ubisoft, Gameloft, Nintendo, Electronic Arts (EA), Riot Games and Epic Games. These big gaming companies have a lot of impact in the gaming industry and business world. They produce top quality games/entertainment

3. Sources of Information on The Creative Arts Industry

(using a range of media)

Animation

Sketchfab
https://sketchfab.com
-empowering a new era of creativity
-allow users to publish, share and discover 3D animations online
-with over 1 million creators who have published over 1.5 million models
-world's largest platform for immerse and interactive 3D

Gaming

PC Gamer
https://www.pcgamer.com
-global authority
-covering PC gaming for over 20 years
-game reviews
-guides

Movies/Films/Videos

YouTube
https://www.youtube.com
-video sharing website
-range of free entertaining videos
-share and upload your creation
-rent or buy movies legally

TV

Stan
https://www.stan.com.au
-monthly pay
-offers selected movies and TV shows

4. New and Emerging Technologies Impacting Industry

VR, AR, AI are just few things that are interestingly changing the game of the tech world. These projects have a lot of impact to the industry nowadays. The world is slowly evolving into an age of high technology which people can't stop.

https://discover.getrevue.co/newsletters/ai-weekly

AI Weekly newsletter is a very extensive overview of the coolest new developments happening with AI and current news updates.

Animating 3D Characters for AR/VR

Software is one of the major factor to produce animated 3D characters.

➢ **Autodesk Maya (Free Trial)** - Industry Standard 3D Modeling Software

➢ **Fuse (Free for Adobe CC members)** - Quickly design custom 3D characters using sets of pre-made components.

➢ **Pixelogic Zbrush ($795)** - Industry standard 3D sculpting tool I use to create a high-poly base mesh for characters or complex objects.

➢ **FBX Review (Free)** - A lightweight standalone tool that lets you view your exported FBX files. If it shows up properly here, it will show up properly in your rendering platform.

➢ **Viro Media (Free)** - developer platform for building AR/VR applications. Great tool for visualizing assets in AR or VR and for iterative AR/VR design.

5. Work Opportunities, including Volunteer Roles and Internships

http://www.viskatoons.com/

Peter Viska (Creative Director)

Peter meets to distil your animation video requirements and ideas. He then oversees the design and animation processes from concept to delivery. Peter has been a major part of the Australian animation industry for 35 years where he has kept abreast of technology to be a content creator and producer for global television networks, international advertising agencies, online games and small businesses. Beginning his career as a cartoonist he progressed to illustrating the famous 'Far Out, Brussel Sprout', 'All Right, Vegemite' and 'Unreal, Banana Peel' series of books. Original content creation injected with smiles and irreverence continues to be the driving force in his new projects.

Mark Sheard (Animation Director)

Mark directs the team of storyboard artists, animators, editors and sound recordists to turn the script into a quality finished video. Mark has 18 plus years industry experience, having begun his professional career at the tender age of 17. Blending his traditional background in animation with modern tools, his Directing style is strong and fresh,with dedicated creative problem solving skills and a passion for creating unique character and style for each project he works on. He works hard to ensure even the most complex narrative is clear and direct, with dedication to strong design ensuring that your animation will stand out from the crowd.

Peter and Mark are one of the heads at "Viskatoons"

Some of the clients that they've worked for are:
Kraft, SBS, Cadbury's, Target, Telstra, Puma, Kmart and City of Melbourne.

From this example, some possible work opportunities are advertisement animation. To illustrate, a company would ask you to make an animation of the product to sell and show in different media platforms.

https://www.seek.com.au/animation-jobs

Few Animation related jobs

Casual Academy Teachers / Animation Instructor - 4hr shifts

Jumbla

Melbourne > CBD & Inner Suburbs

$30-$40 per hour

Advertising, Arts & Media

Loads of variety - teaching software fundamentals, design, animation skills

Lead classes in a unique, in-studio learning environment

Apply your knowledge of C4D, After Effects, design and the Adobe suite

Lecturer (Animation)

SAE Institute

Perth > CBD, Inner & Western Suburbs

Education & Training > Teaching - Tertiary

Global Creative Media Education Provider

Business unit of the Navitas Group (ASX200)

SAE Perth is seeking an experienced lecturer/industry professional in the area of Animation.

Department Coordinator - Graphic Design / Animation

SAE Institute

Perth > CBD, Inner & Western Suburbs

Education & Training > Teaching - Tertiary

Creative Media Education Industry

Global Organisation

 Perth City Location

 SAE Perth is seeking an experienced educational leader for the role of Department Coordinator for our Animation and Graphic Design department.

TAFE EXAMPLES

TAFE WA: North Metropolitan

Diploma of Screen and Media (Animation and Games Design)

http://www.northmetrotafe.wa.edu.au/courses/diploma-screen-and-media-animation-and-games-design

Link for the whole pdf doc.

http://www.northmetrotafe.wa.edu.au/generic_scripts/print-pdf_v2.php

About this course

Through this course you'll gain a range of skills in designing and producing digital art, animation and games and will be engaged in real life animation challenges.

Animation and Games Design are highly competitive industries and only the best get jobs. The skills and knowledge you'll gain from this Diploma will put you on the right track to gaining an exciting and satisfying career in animation. Job opportunities exist all over the world.

Your Diploma of Screen and Media (Animation and Games Design) prepares you for roles such as:

- Concept Artist
- 2D/3D Animator
- Visual Effects Artist
- Motion Graphics Artist in Film/TV/Advertising and Games Industries

Overview

Where: East Perth

Duration: One year full time.

How: Full-Time

Entrance Requirements

School Leaver

Completion of WACE General or ATAR

(Minimum C Grades) or equivalent

Non-School Leaver

Completion of WACE General or ATAR or equivalent (minimum C Grades)

AQF

Certificate III

TAFE WA: North Metropolitan

CUA41215 Certificate IV in Screen and Media (Animation & Visualization)

http://www.northmetrotafe.wa.edu.au/courses/certificate-iv-screen-and-media-animation-visualisation

Link for the whole pdf doc.

http://www.northmetrotafe.wa.edu.au/generic_scripts/print-pdf_v2.php

About this course

Learn intermediate animation skills. The Cert IV in Screen & Media (Animation & Visualisation) is our entry level course into your animation career. You"ll pursue intermediate skills in 2D and 3D animation, creative writing, digital design, storyboarding, 3D rigging, creative writing, sound and creative work practices.

Students graduating this course will be primed for action in the CUA51015 (AA95) Diploma in Screen & Media (Animation & Visualisation).

Overview

Where: Joondalup (Kendrew Crescent)

Duration: 6 months full-time

How: Full-time

When: Was available Semester 2, 2017

Available Semester 1, 2018

Entrance Requirements

School Leaver

C Grades in Year 11 WACE General English, and OLNA; or NAPLAN 9 Band 8

Non-School Leaver

C Grades in Year 11 English and Maths or equivalent

AQF

Certificate II or Certificate III

Job Opportunities

Careers in this field include 2D/3D Animator, Storyboard Artist, and Digital Designer.

UNIVERSITY EXAMPLE

Undergraduate

Animation and Game Design

Bachelor of Arts (Humanities) - BA (Curtin)

Guaranteed ATAR 70

This is the ATAR level at which an offer of admission is guaranteed, subject to any other non-ATAR criteria being met.

Location Bentley

Study method Part-time or full-time

Study mode On-campus

Intake February or July

Duration 3 years full-time

Study as a part of a double major:

- Screen Arts
- Photography and Illustration Design
- Visualization and Interactive Media

6. Industry Protocols and Laws of Creative Arts Industry

Copyright protection

Many designs for products will qualify as artistic works under the Copyright Act. Artistic works include paintings, drawings, sculptures and works of artistic craftsmanship and would include both design drawings and surface patterns such as designs for rugs or wallpaper. The following elements must be satisfied for a design for a product to be protected by copyright:

- It must fall within the definition of 'artistic work' (namely a painting a painting, drawing, sculpture or work of artistic craftsmanship);
- The artistic work must be in material form, not be merely an idea or theory; and
- The artistic work must be original. This means that the work must not be copied from another person and must originate from the person who claims copyright in the work.

Copyright arises once these elements are satisfied; there is no requirement for registration.

Copyright protection in an artistic work generally lasts for the author's lifetime plus 70 years.

Copyright is infringed if there is direct or indirect copying of a "substantial part" of the artistic work in which copyright subsists.

When someone uses your design without permission - IP infringement

IP infringement is when someone else uses your IP without your permission.

If you feel your IP rights have been infringed you can only take legal action once your registered design has been examined and issued a certificate of examination.

However, it's important to note that if your registered design is examined and found invalid, your design registration will be ceased or revoked and you will not be able to take any action.

If you suspect your IP rights are being infringed, or you have been accused of infringing another person's IP rights, you may want to engage an IP professional.