CHALLENGES AND ISSUES OF EDUCATION IN THE FIELD OF ANIMATION AND VFX IN INDIA : A STUDY

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ABSTRACT *Animation and VFX is one of the booming and fast growing industries in India at present. Animation and VFX requires a specific skill set by an aspirant. These specific skills are not catered by the traditional education as they require additional learning and practicing. In fact Private educational institutes capitalized the opportunity and introduced various certificate and diploma courses in order to fill the skill set gap. After identifying and realizing the need of authenticated certification, leading Universities have taken adequate efforts to introduce degree courses with enhanced curriculum. As an appreciation of the efforts of the leading Universities, the researcher has tried his best to highlight the challenges arising out of this effort. Failure by leading Universities to recognize Animation and VFX as one of the streams of education and recognizing Animation and VFX as a single discipline has no doubt resulted in confusion and dilemma for the aspirants. Also challenges in recognition of Animation and VFX as a field of education as compared to traditional field are briefly explained in this research paper.*

Introduction

With Animation and VFX industry growing at an alarming rate of 16.4 percent, it becomes one of the attractive career options especially for the younger generation. According to a FICCI – KPMG 2017 report (FY 2016-2017), Animation and VFX industry grew at 16.4%, with majority of growth coming from VFX at a rate of 31%, and is expected to grow at a CAGR of 17.2 percent over 2017–21. Animation and VFX is a talent-driven media and entertainment industry. This sector requires skilled professionals in the film, animation, VFX and gaming sectors. Kids in the age group of 0 to 14 are the primary audience for animation. Moving alluring young audience 'Motu Patlu - King of Kings', 'Chhota Bheem: Himalayan Adventure' and 'Chaar Sahibzaade 2', etc., registered a great success.

Jaw dropping Visual Effects (VFX) in big-budget Bollywood films like 'Sultan', 'Dangal', 'Fan' and 'M.S.Dhoni: The Untold Story' grabbed considerable audience attraction. 'Bahubali - The Conclusion' proved to be a benchmark for the Indian VFX Industry. 'The Jungle Book' on the other hand raised the bar for the depiction of photorealistic animated animals.

With this success and scope of the Animation and VFX industry and requirement of skilled professionals, quality education is indeed the need of the hour. In order to fill this gap between the traditional education and skills required for the industry, a lot of private educational institutes have mushroomed now-a-days. These private institutes did fill the skill gap for a few years up till now, but their education and authenticity of certificates has always been a suspicious question. Some colleges and leading Universities have also tried to benefit from this boom. However, requirements of animation education are not fulfilled properly leading to necessary establishment of animation as a traditional means of education.

Objectives

1. To ascertain the skill set required for of Animation and VFX.
2. To study the efforts and challenges before leading Universities and other private educational institutes in the field of Animation and VFX.

Research Methodology

Nature of data collected by the researcher is secondary. Researcher has used internet and e-references to collect the data required for the research. Links to the source of data is mentioned in the Bibliography located at the end of this paper.

Animation and VFX as Skill Set

In general, Animation can be simply defined as a process of making the illusion of motion. This technique is used to bring characters to life. With the evolution of time and technology animation has also evolved. Animation started from traditional cell animation where every frame was hand drawn to depict motion, e.g., Mickey Mouse. With passage of time and advancement of technology, stop motion technique was introduced where photographing the subject frame by frame is done to create motion, e.g., Chicken Run. With enormous use of computers 2D animations (e.g., Paperman) and 3D animations (e.g., Minions) developed and gained popularity. The methods and techniques of animation depend on the specialization learnt through training and various courses. Animation and VFX is at times also known as Computer Generated Imagery (CGI). Computer Generated Imagery (CGI) is a part of day to day life and we see it in movies, cartoons, animated movies, designs, advertisements, TV shows, websites etc.

To thrive and succeed in the field of Animation and VFX, one must possess a specific set of skills and qualities which are not a part of traditional education. Some of the required skills are Good observational skills - to able to observe details at a glance, Creativity - ability to create original content, Drawing skills - for visually expressing ideas, Patience - to achieve the desired output, Storytelling Skills etc.

Efforts for Animation and VFX

Most of the requirements for Animation and VFX industry are not a part of traditional education system. Hence this led to the mushrooming of nontraditional private educational institutes which provide the specific skill set required for this industry and produce industry competent skilled manpower. As this education is not traditional, the man power is hence certified with a diploma or a certificate. Because of this, leading Universities efforts to recognize Animation and VFX, Bachelor's Degree is also being awarded of this field. As the need for skilled manpower increased with the passage of time Government also introduced skill based certificates and allied education in the field of Media and Entertainment Industry which include Animation and VFX.

Courses for animation are available mainly in three formats namely

- Certificate courses
- Diploma courses
- Bachelor's Degree courses

Let's understand these available formats

CERTIFICATE COURSES

- Certificate in VFX
- Certificate in 2D Animation
- Certificate in 3D Animation
- Certificate in Editing
- Certificate in Compositing
- Certificate in CG Arts
- Certificate in Game Design
- Certificate in Game Development
- Certificate in Web Technologies
- Certificate in Dynamics
- Certificate in Maya

DIPLOMA COURSES

- Diploma in 2D Animation
- Diploma in 3D Animation
- Diploma in Digital Animation
- Diploma in CG Animation
- Diploma in Animation and Filmmaking
- Diploma in VFX
- Post graduation Diploma in 3D Animation
- Diploma in Animation and VFX
- Diploma in Animation, Video Editing and Post Production works
- Advanced Diploma in 3D Animation

BACHELOR'S DEGREE COURSES
- BA in Animation and Multimedia
- B.Sc. in Animation and Multimedia
- Bachelor of Visual Arts (Animation)
- Bachelor of Fine Arts in Animation, Graphics and Web Design.
- Bachelor of Fine Arts in Animation
- BA in Animation and CG Arts
- BA in Animation and Graphic Design
- BA in Digital Filmmaking and Animation
- B.Sc. in Animation and VFX
- B.Sc. in Animation and Gaming
- B.Des. in Animation Film Design

The list of certificates, diplomas and degree courses is quiet endless. The main cause of this variation and difference is that every individual, company, institute and University is free to recognize Animation and VFX in the discipline of their choice as this is a nontraditional course and there are no proper guidelines from the UGC or any other educational body say AICTE, DTE, etc.

Education nomenclature for Animation
Education in Animation and VFX requires specific skill set as we have already discussed. To achieve the skill set required for Animation and VFX, a specific flow and education pattern is required. Breaking the study of Animation and redefining the same is done by various institutes and leading Universities. However, the basic nomenclature has remained the same throughout, to attain the specific skill set requirements of the Animation and VFX industry. Basic nomenclature as understood by the researcher can be defined as under.

- Introduction to Computers and Internet
- Technical and Creative Writing
- Drawing and Sketching
- Story Boarding
- Experimental Animation
- Traditional/Classical Animation (Cel Animation)
- Color Theory - Additive and Subtractive
- Computer Graphics
- Design Principles
- Print Media
- Web Development
- Computer based 2D Animation
- Video-Production
- Visual Communication
- Editing - Audio and Video
- Effects
- 3D Animation
- Animation Principles
- CG Film making
- Game Design
- Game Development

It is not necessary to follow the sequential order mentioned above. Leading Universities and institutions have modified and edited the order to suit their needs. However the basic content at the core has remained the same.

Issues and Challenges
Introduction of different formats in animation led to confusion and issues related to recognition and authentication of certificates, diplomas and bachelor's degree.
In India, Degrees are considered more valuable and authentic than mere certificates and diplomas. Traditional education system is controlled by UGC giving authority to Universities to introduce a required

field of education in the desired discipline. This authority from UCG to Universities proved to be a boon for Animation and VFX, as leading Universities provided a solution to the authentication of the certificates, diplomas and bachelor's degree. However, at the same time this created new issues as different leading Universities recognized animation in different disciplines.

Maintaining the nomenclature for Animation and VFX, leading Universities defined Animation and VFX in different disciplines. Some leading Universities recognized Animation as a field of science, providing a degree of B.Sc. in Animation and Multimedia, B.Sc. in Animation and VFX, B.Sc. in Animation and Gaming; where as some leading Universities recognized Animation as a field of Fine Arts providing a degree of Bachelor of Visual Arts (Animation) and Bachelor of Fine Arts in Animation, Graphics and Web Design; few leading Universities recognized Animation as a field of Arts providing a degree of BA in Animation and Multimedia, BA in Animation and CG Arts, BA in Animation and Graphic Design, BA in Digital Filmmaking and Animation; some premier institutes recognized Animation as a field of design and provide a   B.Des. in Animation.

Thus there is a clear failure in recognizing Animation as one field and difference in recognizing Animation by various institutes' results in confusion for a candidate to pursue the career. With negligible to minimum options for masters and specific requirements for admission in a masters degree, the students are not able to pursue it further. Having the knowledge of animation and an authentic bachelor's degree doesn't guarantee admission in masters as bachelors and masters are not in the same recognized discipline. There is also a lack of awareness and no proper guidance is provided for students while choosing bachelor's, about whether there is masters available in that particular discipline or not. Every institute and college put their focus on jobs and earnings and lure students to take admissions. This business oriented approach towards education in Animation and VFX has resulted in unskilled manpower and unemployed youth in the field of Animation and VFX. Vacancy to man power availability ratio has increased. This means that there are more jobs than skilled manpower, but at the same time there is more unemployability due to lack of necessary skills and qualities.

This difference in recognizing Animation as one field and rules and regulation set by UGC for training and teaching has resulted in deficit of qualified teachers and trainers to provide quality education with required skill set for the industry. Unavailability of required skill set exams in NET and SET has resulted in lack of qualified academicians in the field of Animation and VFX.

Findings

Researcher feels that Animation and VFX as an industry has tremendous scope of employment, considering the reports of FICCI – KPMG 2017.

1. An average of 16.4% growth of the industry and 31 % growth of the VFX industry. This growth shows the scope of employment for the youth.
2. Specific skill set requirement in the field of Animation and VFX.
3. Non availability of desired skill set in traditional field of education.
4. Availability of courses for animation in three formats namely Certificate courses, Diploma courses and Bachelor's Degree courses.
5. Availability of many courses leads to confusion among students as to which field to choose.
6. Recognition of Animation in different disciplines by various leading Universities in India.
7. Limited scope to pursue Masters in Animation.

However, researcher has observed that there are various courses for animation and in different formats which create confusion among students who are planning to pursue this particular field for further studies. As a career option this tailor made education system from institutes proves to be the best as a short term certificate course is helpful in getting a high paying job in the glamour's industry.

Conclusion

Researcher experienced that Animation and VFX is a skill based industry and requires specific skill set. Traditional education system lacks to provide all the skill set required for Animation and VFX. Basic skills and qualities required to pursue Animation and VFX are-

- Good observational skills
- Creativity
- Drawing / sketching skills
- Patience and Concentration
- Communication skills
- Storytelling Skills

- Eye for detail
- Computer and Software skills
- Teamwork skills
- Ability to explore and relearn

Researcher felt that private educational institutes capitalized the skill set gap and introduced various courses pertaining to Animation and VFX in order to gain monetary benefits. However, leading Universities and other premier institutes have also shown efforts to fill the required skill set gap and recognized Animation and VFX as a field of education in various disciplines.

Not recognizing Animation as one discipline of education by leading Universities leads to confusion and challenges for pursuing Animation and VFX education. Researcher felt that not recognizing the diploma and certificates of private educational institutes by Leading Universities is another major drawback for the students planning to pursue Animation and VFX as a career. Also difference in recognizing Animation as one field and rules and regulation set by UGC for training and teaching has resulted in deficit of qualified teachers and trainer to provide quality education with required skill set for the industry. Absence of Animation and VFX in skill set exams like NET and SET has resulted in lack of qualified academicians in the field of Animation and VFX for Colleges and Leading Universities.

Suggestions for further research
Researcher felt that more and more research needs to be made to understand as to why there is a difference in recognizing Animation and VFX as one field of education by various leading Universities. Researcher suggests following topics for further research

1. Challenges in recognition of Certificates and Diplomas from Private Institutes in the field of Animation and VFX by Leading Universities.
2. Challenges in recognition of Animation as one discipline by Leading Universities.
3. Deficit of learned and experienced academicians in nontraditional field of education -Animation.

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