

January, 2022

Global Animation, VFX & Video Games

Strategies, Trends & Opportunities (2022-26)

(Includes Covid-19 impact & projections)

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Executive Summary

Global consumers are displaying a growing appetite for engaging, high-definition visual experiences. Moviegoers are demanding high quality productions with engaging visual effects and realistic animation and studios are including more animation and VFX shots into films. Consumers are consuming more immersive content across channels such as ultra-high-definition TVs, tablets and smartphones to head mounted devices. Animation, VFX and games content is being consumed not only on Netflix, Amazon, Hulu and Twitch, but also on YouTube, Twitter and Facebook. With the growing internet penetration and access to multimedia devices, customers are spending more time on streaming digital content. Streaming video is the fastest growing distribution channel for animation and is witnessing double digit growth and the same is expected to continue. This growth is attributed to the exponential growth in the number of online video viewers throughout the world.

The demand for animation, VFX and video gaming has expanded with the increase in targeted broadcasting hours by cable and satellite TV, availability of low cost internet access, penetration of mobile devices along with the growing popularity of streaming video. In addition, the demand for Animation and VFX content to power immersive experiences such as Augmented Reality and Virtual Reality is growing exponentially. The rapid advancement of technology has made animation, VFX & games available to the masses, and this industry has become one of the fastest growing segments in the global media and entertainment market. We are increasingly seeing more of animation, VFX and games production taking place in a globally distributed mode. Production work is becoming global with countries as well as regions offering tax incentives, subsidies, financial support, regional low labor costs etc. and companies are cutting costs by setting up facilities in such regions. Cloud computing is playing a key role in character rendering and modeling processes as cloud based rendering of animation films is more effective and efficient as it reduces the time and cost compared to traditional rendering.

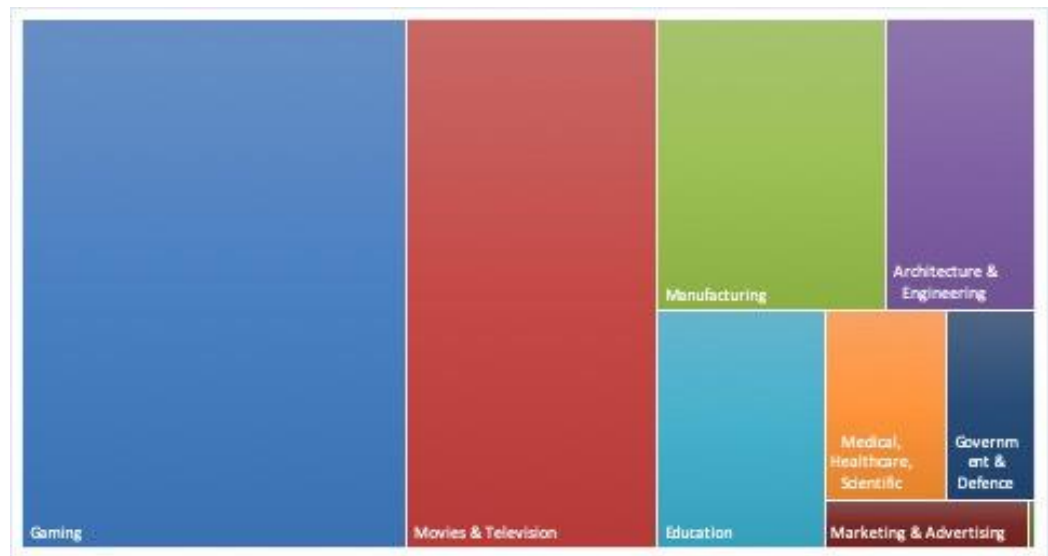
Cloud Gaming services which are growing at an exponential pace would need the right pricing model to both drive adoption and generate sufficient returns for platforms and publishers. The availability of low cost micro-payment systems is allowing users to pay for access or download small quantities of digital content and is the key for online games market to grow. Artificial Intelligence and Machine Learning based techniques are being used for in-game analytics, customer acquisition, retention, cross sell, churn, classify player behavior etc.

MARKET SIZE

- The market size of Global Animation, VFX & Video Games industry was US\$ XX billion in 2021
 - Most of the segments in the animation industry are growing at the rate of XX% YoY
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- The market size of the Global Video Gaming industry was US\$ XX billion in 2021
- The production cost per animation movie ranges anywhere between US\$ XX to YY million
- The spend on special effects as a percent of production cost is about XX%

SEGMENT-WISE MARKET SIZE OF ANIMATION, VFX & VIDEO GAMES



EMERGING TRENDS IN ANIMATION, VFX & VIDEO GAMES INDUSTRY

- The combination of live action and animation will alter the form, as well as the content, of film animation.
 - Animation is no longer a profession limited to animators with increasing participation from computer professionals, programmers, technicians etc.
 - The evolution of visual effects (VFX), augmented reality (AR) and virtual reality (VR) technologies is dramatically changing both the creation and consumption of films, videos, games, and more.
 - Augmented Reality and Virtual Reality adoption will drive the demand for animation content.
 - Production work is moving around the world – tax incentives, regional low labor costs and subsidies put pressure on existing companies to reduce costs and set up facilities in tax advantaged or low cost regions.
 - Media consumption habits are changing rapidly, windows for film releases are narrowing, and follow-on markets are shifting from television, cable, DVD and rentals to streaming and digital downloads.
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- The international film market in several emerging markets is growing quickly and creating new opportunities. Regulations in several countries limit imported animation content without a certain amount of local participation and studios are collaborating with local partners to produce content.
- Although 2D animation will survive, it will be largely in the form of hybrid 2D/3D animation. As well as reducing costs, using CGI for backgrounds allows for a more dynamic camera. The training offered to animators are biased in favor of CGI and so artists with traditional 2D skills are becoming harder to find.
- The changing viewing habits favour short productions as a form of entertainment. The viewing habits generally favor short-form content that can be turned out quickly and cheaply.
- Merchandise is already a major form of revenue generation for animated films and in future it could form a much larger share of revenues.
- Artificial Intelligence, machine learning & deep learning are being leveraged to drive hyper-personalisation for video games.
- Artificial Intelligence and Machine Learning based techniques are being used for in-game analytics, customer acquisition, retention, cross sell, churn, classify player behavior etc.
- Micro-segmentation of fans is emerging as eSports leagues and tournament are consolidating various genres, platforms and viewing experiences by careful customer segmentation, targeting and positioning.
- In video games, predictive analytics can be used to forecast when a player will stop playing, if a player will convert from a non-paying to a paying user, what types of items players will purchase, classify player behavior, etc.
- Cloud Gaming services which are growing at an exponential pace would need the right pricing model to both drive adoption and generate sufficient returns for platforms and publishers.
- The availability of low cost micro-payment systems is allowing users to pay for access or download small quantities of digital content and is the key for online games market to grow.

Animation, VFX & Video Games Industry Research

Digital Vector is the world's most authoritative source for Animation, VFX & Video Games Industry research. The industry research, in publication since the year 2003 is the primary source of reference for leading global business executives, government leaders, product managers, researchers, analysts, academia and consultants. The report is the result of hundreds of man years of effort involving leading industry analysts with expertise across various aspects of the Animation, VFX & Games industry value chain. Digital Vector is the source for objective and actionable research to more than **700 plus global Fortune 1000 organizations** in more than **40 countries** across various value chain and industry functions.

Our research provides insights, information, advice and tools to achieve key priorities and enable the next wave of industry growth by enabling the key decision makers to take the right decisions. The research covers Animation, VFX and Video Games market across **60 plus countries, 6,000 plus** Animation, VFX and Games studios and services companies as well as **200 plus** animation and games software product companies. It is based on rigorous research methodology, which includes extensive Primary Research supported by in-depth Secondary Research using advanced quantitative and qualitative analysis.

Inputs and insights from our extensive network of Animation, VFX and Video Games industry service provider and consumer stakeholders gives clients a holistic picture of supply and demand they can only get from Digital Vector. Our research offers insights, expert analysis and forecasts about the Animation, VFX & Games industry including value chain analysis, market sizing and forecasting, industry challenges, opportunities, strengths, business models, content demand market size, commercial models, cost structure analysis, talent supply and cost analysis, industry trend, segmentation, government policy analysis, competitive benchmarking, animation software product market analysis, industry eco-system analysis, company profiles, supplier analysis, distributor analysis and product launch strategies.

Clients use Digital Vector's industry research to find answers to questions such as:

- What are the emerging market opportunities, market growth factors, annual growth numbers, market size, growth forecasts, content volumes, demand and supply volumes?
 - Understand the fast-emerging market opportunities and segments and differentiate between them based on size and annual growth.
 - What are the geography specific industry challenges, characteristics, opportunities and strengths?
 - What are the risks of entering a new market and how to manage them? How is the market expected to evolve and what could be the future options?
 - Industry demography of key geographies and their animation landscape
 - Early identification of changing market conditions and their impact on key industry factors
 - Benchmark key government policy frameworks across various global markets and make the right partnership choices to make best use of support, subsidies and incentives.
 - What strategies to adopt for multi-country content collaborations?
 - Create, formulate and validate business plans towards making a product/service launch or make a buy decision?
 - What are the key attributes of specific geographical markets and how are they expected to evolve?
 - Key metrics to measure the differentiators of the industry to succeed at local, regional and global scale
 - What technology and business model disruptions will impact the Animation, VFX and video games industry in the next 2-5 years? What kind of impact will they have?
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Research Methodology

Our methodologies and analysis techniques process large volumes of structured and unstructured data into actionable insights and recommendations which empower our clients to take effective business decisions. Our global network of industry experts have deep expertise across various aspects of the Animation, VFX and Video Games industry value chain such as production, pre and post production, technology, machine learning, outsourcing, software products, financial modelling, content marketing, sales, merchandising, content supply chain, distribution channels, risk analysis, studio management, human resource, finance, legal and policy.

PRIMARY AND SECONDARY DATA

Primary data about the animation, VFX and video games industry are collected from animation and game studio managers, software product managers, directors, technology vendors, animators, game designers and developers, end users, academics, government officials, festival organisers, eSports organisers etc. Data is collected through periodic surveys and in-depth interviews (in-person, telephonic, email, video as well as chat based), with government officials, academics, and animation companies' managers. These are structured, unstructured and focused interviews conducted in formal, informal as well as open ended settings. Other sources of data and information include focus group discussions, trade visits, webinars, product demonstrations, as well as direct observation.

Secondary market research data sources include books and journals, annual reports, investment analyst reports, government policy notes, labour statistics, newspaper articles, census and statistical data, databases, trade, marketing and promotional literature, articles, surveys and other publications. The secondary market data is aided by Digital Vector's sophisticated market analysis tools, real-time data collection and aggregation software, proprietary databases and framework.

MACHINE LEARNING BASED ANALYSIS

Digital Vector employs a wide range of research methods and employs multi-method analysis including quantitative, qualitative as well as network analysis. Our proprietary methodologies and analysis frameworks are powered by machine learning, natural language processing, quantitative modelling, trend analysis etc. Pattern recognition is adopted to analyse data from multiple sources to identify emerging patterns within markets, change parameters and simulate scenarios.

Our five-year market forecasts are aimed to provide decision makers with a detailed understanding of the Animation, VFX and Video Games industry. The forecasts are based on machine learning models built on input parameters specific to the characteristics of a particular market or a segment. The industry model parameters and assumptions are powered by several data sources from primary and secondary research, our proprietary databases as well as real-time data from several industry and government sources.
