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GLOBAL MEDIA FOR BROADCAST,
FILM, POST & INFOTAINMENT
TECHNOLOGY & BUSINESS

JANUARY - FEBRUARY 2023

E-EDITION



RISE OF INDIA'S AVGC SECTOR

MAKING OF JAMES CAMERON'S AVATAR : THE WAY OF WATER

IN CONVERSATION :

GAURAV GANDHI,
VICE PRESIDENT, AMAZON PRIME

&

VINAYAK SRIVASTAV,
CO-FOUNDER & CEO, VIDEOVERSE



A.B.I.S[®]
ASIA'S BROADCASTING
& INFOTAINMENT SHOW
Industry Connect

01.02.2023 . HYDERABAD

Organised by

NÜRNBERG MESSE

01 February, 2023 | Emerald, Taj Krishna, Hyderabad

MAKING OF THE BLOCKBUSTER - 'RRR'

11:00 – 11:45 hrs



SRINIVAS MOHAN
Visual Effects Supervisor

GROWTH, TECHNOLOGY & NEW INITIATIVES IN REGIONAL BROADCASTING

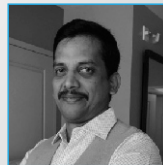
11:45 – 12:45 hrs



GANESH KAUSHIC
Transformation Advisor &
Director,
Media & Entertainment &
Digital Innovation,
India Blockchain Alliance
Moderator



BADARI PRASAD
Group CTO,
TV9 Group



**PRASANNA
KUNAPAREDDY**
Head Customer
Engagement at 'Real Image'
a Media Solutions Division of
Qube Cinema



RAJ KAPOOR
Founder & CEO,
India Blockchain Alliance

BI2023
BROADCAST INDIA SHOW • MUMBAI

SCAT2023
SCAT INDIA TRADESHOW • MUMBAI

CONTX2023
CONTENT INDIA SHOW • MUMBAI



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THE NEW HORIZON FOR AVGC SECTOR IN INDIA

14:00 – 15:00 hrs



MANOJ MADHAVAN

Editor,
Broadcast & Film Magazine

Moderator



**KIREET
KHURANA**

Filmmaker &
Director



MANOJ MISHRA

CEO,
Powerkids Entertainment



RAJAT OJHA

Founder & CEO,
Gamitronics



RAJIV CHILAKA

Founder &
Managing Director,
Green Gold Animation

METaverse : THE GAMECHANGER IN MEDIA, SPORTS & ENTERTAINMENT

15:00 – 16:00 hrs



GANESH KAUSHIC

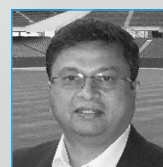
Transformation Advisor &
Director,
Media & Entertainment &
Digital Innovation,
India Blockchain Alliance

Moderator



RAJ KAPOOR

Founder & CEO,
India Blockchain Alliance



**RAMAKRISHNAN
SUBRAMANIAN**

Founder & CEO,
Sportsmechanics India
Private Limited

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BROADCAST INDIA SHOW • MUMBAI

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SCAT INDIA TRADESHOW • MUMBAI

CONTX2023

CONTENT INDIA SHOW • MUMBAI

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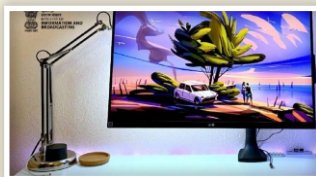
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VICE PRESIDENT, PRIME VIDEO, INDIA



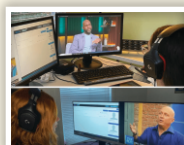
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VIDEO CALL CENTER



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MANOJ MADHAVAN
Editor

India's AVGC Sector is growing 16-17 percent annually.

The VFX, in-depth compositing of the live-action characters, colour grading made every frame in the film "Avatar: The Way of Water" a technological revelation.

A.B.I.S Industry Connect 2023 with its Hyderabad edition on February 1, 2023 at Taj Krishna is an attempt to tap new markets and has some interesting conference sessions tackling diverse topics. This will serve as an industry platform with engagement, networking and business development opportunities with new customers.

manoj.madhavan@nm-india.com

From the Editor's Desk

The taskforce on Animation, Visual Effects, and Gaming & Comics (AVGC) is bullish about India's future in the sector. Globally AVGC sector is a \$350 Billion industry and India contributes only 1 percent to the industry.

India's AVGC Sector is growing 16-17 percent annually. 20 lakh jobs can be generated in 8-10 years. People in tier 2 & 3 towns with a creative mind-set can be upskilled. Some of the industry leaders from the AVGC sector feel that the AVGC sector can touch US\$ 100 billion by 2030. This high optimism stems from the fact that the number of active smartphone users in 5G-ready India is projected to go up from 500 million at present to 900 million by 2025.

The critical factors that need to be addressed include the lack of talent and manpower. The Govt and the industry together must address this lacunae.

AVGC is defacto one of the largest vertical of films and TV shows in India and it's expected to grow further due to the surge in the web-based content generation.

Avatar: The Way Of Water is having a run of its own and crossed the milestone of \$1 billion and now aiming at the mark of \$2 billion. The technical brilliance of the film and the major technological breakthroughs have made "Avatar: The Way of Water" the leading visual effects spectacle. The VFX, in-depth compositing of the live-action characters, colour grading made every frame in the film a technological revelation. We focus on the colour grading of the film.

The Sports industry is seeing a unique run and all set to galvanise further with Viacom 18 having won the bid for the media rights for the upcoming Women's IPL for a whopping Rs 951 crore for five years. Viacom is hedging a lot of money on sporting rights and it will be interesting to see how it evolves with Jio Cinema reportedly streaming all IPL 2023 matches on its platform in 11 different regional languages for free. Viacom18 has the digital streaming rights of IPL from 2023-27 as it signed a 23,578 crore deal for the same.

A.B.I.S Industry Connect 2023 with its Hyderabad edition on February 1, 2023 at Taj Krishna is an attempt to tap new markets. This will serve as an industry platform with engagement, networking and business development opportunities with new customers. The event has some interesting conference sessions tackling diverse topics.

Manoj Madhavan - Editor

MINDSTEC BECOMES LATEST NEWTEK DISTRIBUTOR

**Mindstec Distribution will
strengthen NewTek's stronghold
in India**



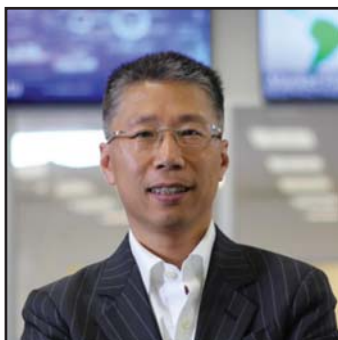
NewTek, the leader in IP-based video technology and part of the Vizrt Group, announces Mindstec Distribution as its newest distributor in APAC, with a specific focus on India. The demand for NewTek solutions has been growing in the ProAV markets. With content creation and consumption on a continuous rise, the need for quality products for video production across various industries is steadily increasing.



Mindstec's expertise in procurement and distribution of high-end audio-visual system solutions make them a perfect fit as a NewTek partner. With NewTek widens its ability to support customers in need of AV-over-IP workflows, and those looking for beyond broadcast grade production solutions.

Mindstec's highly trained technospecialists ensure its customers are always at the forefront of today's cutting-edge AV technology, which now includes NewTek's latest innovations like NewTek NDI® PTZ3 UHD camera, NDI® converter units, automated video capture solution CaptureCast, replay system 3Play, and other software-defined visual solutions to support the storytellers of tomorrow, today.

TVU NETWORKS REPORTS ON GLOBAL MEDIA AND ENTERTAINMENT INDUSTRY TRENDS FROM 2022



PAUL SHEN, CEO, TVU Networks

TVU Networks, the market technology leader in cloud and IP-based live video solutions, has announced its key findings and analysis of market trends from 2022. Based on an analysis of key measures and product usage from thousands of customers across business sectors, among the most prominent market trends seen were: the increased use of metadata-driven content throughout the media supply chain, the escalation of the FAST channel ecosystem, and the acceleration of 5G networks adoption for acquisition.

The value of video metadata and its ability to make it easier to find relevant clips gained momentum in 2022, as evidenced by the increased use of the AI- and cloud-based TVU Search. Content creators helped propel a more than 630% increase in hours of video ingest in 2022 versus 2021, including live feeds from the year's major news, entertainment and sporting events. With TVU Search, content creators can quickly find the clips they need for a story without having to scan through hours of video, resulting in significant time savings. TVU Search allows the user to quickly locate and clip live or historical content at any time from anywhere. It automatically adds metadata to the content at ingest, making identification of relevant content easier than ever before.

"Sports, entertainment, and news organizations throughout the world are discovering the power in delivering actionable data while on air," said Paul Shen, CEO, TVU Networks. "Besides being able to make it easier to find relevant video content, the added information within metadata boosts the ROI of content. The shift toward data-driven technology for large media organizations will only grow as a means to support the entire organization."

An area broadcasters look to gain ROI is the addition of FAST (Free Ad-supported Streaming TV) channels. According to a special report in Variety this year: "...the number of available FAST channels in the U.S. is over 1,400, with 22 major providers including Pluto TV, Tubi and Roku Channel." According to nScreenMedia and Verizon Media, FAST platforms sold \$2 billion in advertising in 2021, which will grow to more than \$4 billion in 2023.

This is reflected in usage numbers for TVU Channel, a cloud-based playout service. TVU Channel saw over 1000% increase, up 1217%, in on-air use this year over last. With an as-run log included in TVU Channel, it's ideal for FAST channel playout or for any content creator looking to start a fully ad insertable channel.

Another big driver for live video production and delivery this year was the availability and proven benefits of 5G networks. The numbers for TVU One 5G-enabled mobile transmitters bear that out. In January of 2022, 7% of the TVU One units shipped were 5G-equipped. In December of 2022, that percentage rose to 78%.

"The uptick in 5G implementation combined with the increase in remote production has created more opportunity for video producers around the world,"

CANAL+ ACQUIRES SKY DEUTSCHLAND



Canal + is planning to acquire Sky Deutschland and is in talks with other investors for the same.

Canal+, part of French media company Vivendi, could participate in a consortium which includes German telecommunications provider United Internet. Canal+ would contribute its pay-TV experience and content assets to the venture while United Internet would add broadband and mobile access.

In Austria, Canal+ collaborates with telco A1 Telekom Austria. A joint venture with United Internet as part of a Sky Deutschland acquisition would resemble this strategy in Germany. Canal+ is already present in the German market with its movies production business Studiocanal and with M7 Deutschland, a provider of TV channels and services to cable and IPTV network operators.

Comcast considers selling Sky Deutschland, suggesting that the German pay-tv business could be valued at around €1 billion.

said Shen. “5G infrastructure, expanded network capacity and flexible configurations continue to drive explosive growth in live, immersive, and interactive experiences.”

In terms of global deployment, hundreds of TVU One 5G mobile transmitters and RPS Link Encoders were commissioned for the tournament in Qatar. Brazil’s leading TV network, Globo, employed 17 TVU One’s for its live coverage. With the exclusive rights to broadcast the event in Brazil, Globo produced over 300 hours of transmission with TVU One 5G units.

IABM AND CARETTA RESEARCH ANNOUNCE INDUSTRY-LEADING RESEARCH AND DATA PARTNERSHIP, AND A \$65 BILLION VALUATION OF THE HARDWARE, SOFTWARE AND SERVICES DEFINED BY THE BaM CONTENT CHAIN®.



IABM, the international trade association for broadcast and media technology announced an industry-leading data partnership with Caretta Research, the sector’s largest and most experienced specialist market analysis and research company.

Caretta Research becomes the exclusive provider of broadcast and media technology market sizing data to IABM. Having worked with IABM in defining the BaM Content Chain® segmentation, Caretta already has a unique insight into the broadcast and media technology industry. This partnership is a natural extension of that collaboration, and working closely alongside our own Business Intelligence Unit will create a powerful market leading alliance.

For the first time, IABM members will gain access to headline BaM market sizing data without having to buy costly reports.

IABM members can also benefit from subscription access to Caretta Portal, providing extensive and accurate data to underpin product and go-to-market strategy, buyer and competitor analysis, account planning and market size and share forecasting.

At \$65 billion, the new headline market sizing value reflects the changing nature of the broadcast and media technology market, with the growth in areas such as streaming, FAST, ad tech, analytics and metadata, and the growing shift of revenues to recurring as-a-service models.

Caretta Research’s innovative approach to research techniques and data analysis means the industry data available to IABM members is accurate, relevant and updated quarterly.

SENNHEISER BRINGS OUTSTANDING AUDIO SYSTEM TO MORGAN’S NEW PLUS MODELS

Technology partnership between audio specialist and British sports car manufacturer delivers premium audio quality to Plus Four and Plus Six

British motor car manufacturer, Morgan Motor Company, has partnered with Sennheiser to develop a revolutionary audio system specially for its new

GOVT INCREASES BROADCAST SPENDS



The Ministry of Information and Broadcasting's expenditures for fiscal 2021-22 stands at Rs 3728.99 crore, as per a report released by the government.

For 2021-22 report, the total budget of the ministry for the year was Rs 4079.71 crore, comprising a revenue budget of Rs 4058.61 crore and capital of Rs 21.10 crore.

The report also states that the total actual expenditure for the previous four years (revenue and capital) stood as below:

Rs 3487.62 crore (2017-18)

Rs 4003.27 crore (2018-19)

Rs 4032.36 crore (2019-2020)

Rs 3380.44 crore (2020-21).

For 2021-22, the expenditure on broadcasting was Rs 2790.71 crore while on information it was Rs 593.54 crore and on films it was Rs 259.29 crore.

Meanwhile, the MIB released grants-in-aid amounting to Rs 2790.71 crore to Prasar Bharati in 2021-22. In the last three years, the ministry has released Rs 8823.60 crore to Prasar Bharati – Rs 3124.76 crore (2019-20); Rs 2908.13 crore (2020-21) and Rs 2790.71 crore (2021-22).



Plus Four and Plus Six models. Whilst Morgan sports cars have featured audio systems in the past, the audio experience of the Sennheiser offering far surpasses anything that has come before it. The Sennheiser sound system delivers an enveloping sound with a unique soundstage that takes audio fidelity to its highest level.

Sennheiser has more than 75 years of experience in audio and is a global leader in professional technology. This makes it a perfect match for the Morgan Motor Company, which has been manufacturing quintessentially British vehicles for more than 110 years, combining an exceptional mix of traditional craftsmanship and modern technology. The result blends a clear focus on design with technological excellence in a system that features Sennheiser's signature sound, aligning with the sports car manufacturer's unique blend of craft, adventure, and analogue driving experience.

Sennheiser's tuning creates the magical illusion of a sound stage in front of the passengers, providing a high-quality soundtrack to those unforgettable drives. Thanks to the AMBEO Contrabass algorithm, the audio system delivers a unique bass response optimized for definition, punch, and depth while keeping the system as efficient and compact as possible.

The system includes eight transducers: four conventional speakers in the door and rear panel, and four invisible speakers, of which three are behind the dashboard and one in the lower compartment panel for bass reproduction. The transducers are controlled by a new amplifier with a dedicated DSP, powered by Sennheiser's audio processing software.

The integration has been carried out in line with Morgan's key philosophy of appropriately introducing modern technology into its vehicles. The cabin design is unaltered, and the use of invisible speakers ensures that additional weight is kept to a minimum, a must for any sports car. Even under the demanding conditions of an open-top sports vehicle, this system maintains premium sound quality.

Visual cues arrive in the form of subtle Sennheiser branding, visible on the speaker grille situated on each door. The design of the speaker grilles takes inspiration from the iconic Morgan louvres that are stamped into each bonnet of Plus models. Each speaker grille is finished in polished satin, coordinating with other embellishers visible within the cockpit of the vehicle.

"This is an exciting collaboration between two historic firms that results in unique products of exceptional sound quality, design, and craftsmanship. We really enjoyed working on the project, and we look forward to further great ventures with the Morgan team!" concludes Dr. Andreas Sennheiser. ■



सूचना एवं
प्रसारण मंत्रालय
MINISTRY OF
INFORMATION AND
BROADCASTING

RISE OF THE AVGC SECTOR

India today contributes about \$2.5-3 billion out of the estimated \$260-275 billion global AVGC market. The AVGC sector in India has witnessed unprecedented growth rates in recent time and with many global players entering the Indian market. We look at how to AVGC sector is poised to take off in the next few years.

INTRODUCTION

India is one of the oldest civilizations in the world with a diverse and rich cultural heritage. The cultural fabric of India is an amalgamation of a variety of languages, religions, literature, art and dance forms, music, food, architecture, and customs that together define the rich heritage of the country. The conventions, practices, and beliefs that are followed today were developed thousands of years ago.

For a country as diverse as India, the plurality of its culture is an essential component of the nation's growth story. India occupies one of the top spots globally with regard to collections of music, dance, theatre, folk traditions, performing arts, rituals, paintings, and writings- also known as the 'Intangible Cultural Heritage' of humanity.

Indian paintings, like other forms of art, have a rich history. The exquisite murals of Ajanta and Ellora

Caves, Buddhist palm leaf manuscripts, miniature paintings, among others, stand as a testimony to the cultural history associated with Indian paintings.

Madhubani art, one of the earliest forms of Indian paintings, traditionally created by women of various communities in the Mithila Region of Indian subcontinent, has now become a globalised art form. Similarly, Warli painting, an integral part of rituals of the Warli tribe, is now internationally recognized and appreciated. Exposure to the global landscape and emergence of a new generation of Warli painters has led to incorporation of contemporary elements of urban culture into these paintings. In the same vein, the rich tradition associated with Thanjavur paintings has ensured that the art form continues to inspire artists all over the world.

Besides art forms, one of the significant ways in which culture and

creativity manifest themselves is literature. Literary tradition dominates a major part of Indian culture. The Vedas, the Ramayana, and the Mahabharata are some of the oldest works of literature in India. The Brahmanas and the Upanishads were among the prose commentaries added to the Vedas. Sanskrit literature creation reached its peak of development in the 1st to 7th centuries CE. The period also witnessed the emergence of sacred and philosophical writings, court poetry, plays and narrative folklores. One of the noteworthy collections of Indian traditional stories include the Panchatantra, a collection of traditional narratives, dated to about second century BC. India's rich literary tradition has therefore captured the imagination of the world and resulted in the country's possession of almost 5 million manuscripts, envisaged to be among the largest collections globally.

Taking Indian culture abroad

The diversity of India's culture and the global attention received by its art forms, ancient literature, and folklores, have played a crucial role in strengthening the country's soft power. India is considered a melting pot of religions, languages, and cultures. Therefore, various initiatives have been taken by the government to disseminate and promote Indian culture across the world.

These initiatives include signing of bilateral and multilateral agreements, implementation of Cultural Exchange Programmes, promotion of Indian culture through 'Festivals of India' in foreign countries, providing assistance to Indo-Foreign Friendship Cultural Societies for cultural activities, among others.

There is a need to further showcase India's rich culture and history and leverage the potential of Media and Entertainment ecosystem for the same purpose. The role of AVGC sector deserves a special mention in this context. The AVGC sector shall serve as a major growth driver for the M&E industry in India and for the realization of the same, the Government of India has designated audio-visual services as one of the 12 Champion Service Sectors. Further, the growth of India's AVGC sector will enable it to act a connecting bridge between the country's culture and its dissemination to a wider global audience.

In the above context, it is essential to note the various ways in which AVGC sector could play a role in showcasing India's culture and heritage on a national as well as global scale. Similarly, there is a need to explore other innovative ways through which the integration of AVGC with India's culture could be strengthened and made more robust. Indian epics such as the Ramayana and Mahabharata could be used as

inspiration to develop online and video games, which could eventually contribute to India's growth as an AVGC hub. Indian epics such as the Ramayana and Mahabharata could be used as inspiration to develop online and video games, which could eventually contribute to India's growth as an AVGC hub. Successful films may be transformed into strategy games through a dedicated mechanism of cooperation between the entertainment and gaming industry.

A similar approach could be adopted with respect to historical and folklore-based narratives, taking into consideration the cultural sensitiveness associated with the content and historical characters. The role played by Amar Chitra Katha in preserving Indian heritage and promoting iconic folktales through its comic books, could to in this regard. These initiatives, along with several others, would prove to be instrumental in ensuring that content pertaining to India's rich culture and heritage reaches a wider audience across geographies.

Challenges in the AVGC sector in India

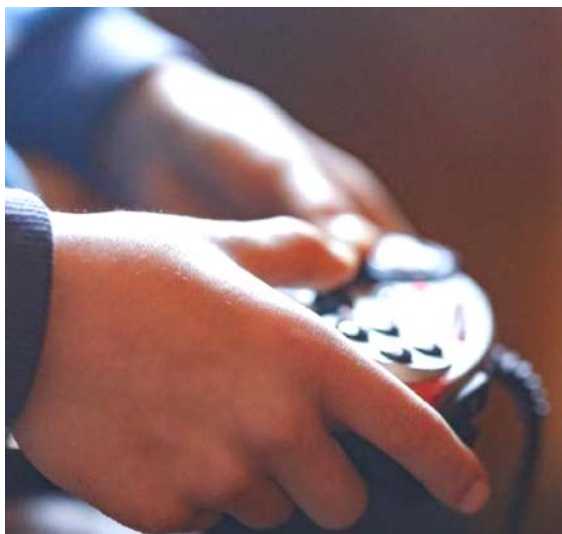
In light of the above, it is essential to note that although the potential and reach of AVGC sector in India is significant, the industry is still in its nascent stage and needs to overcome certain challenges. For instance, AVGC education is a building block of the sector. However, at present AVGC education in the country strongly needs standardization of content and delivery modes. For skilling and vocational training too, there is a need for dedicated vocational training modules for various other skills required by the sector. Further, to promote lifelong learning for AVGC professionals, adequate focus has to be given to the quality of skilling content. Apart from challenges on the



academic front, the sector also needs to overcome challenges with respect to regulatory framework, infrastructure, financing, skilling, R&D and Intellectual Property. Addressing these challenges would enable the sector to realize its true potential and play an enhanced role in dissemination of Indian content on a global platform.

Driving growth in the AVGC sector

With increasing digitization, India is on course to become a leader in technological innovation and development. With the advent of digital technologies in general and the AVGC sector in particular, & a rapidly growing market, India's is taking strides to become a global AVGC hub. In this context, it is important to look at international best practices and consider the innovative work being undertaken by certain countries for growth of AVGC sector.



The animation and gaming industries employ technology extensively, and these can further demonstrate India's well-established credentials in the offshoring of technology and services, in addition to being essential for the growth of India's domestic M&E sector. The rise of new international trends such as the metaverse is also envisaged to add to the existing demand from the M&E sector, creating challenges with respect to skill development that need to be urgently addressed. AVGC sector can play a significant role in building metaverse. As per certain projections, the establishment of AVGC task force will help India achieve its potential of 20 lakh jobs in the sector, which is considered critical for development of skills required for the growth of metaverse.

Besides the advantages from the perspective of newage technologies, growth of India's AVGC industry will not only enhance the export potential of the sector, but also facilitate the entry of foreign players in the country. Along with attractive financial incentives, a robust AVGC sector will attract relevant foreign companies and content creators to co-produce and relocate to India,

outsource work to Indian counterparts, and provide employment to Indian content developers.

Formation of AVGC Promotion Task Force

Strengthening of India's AVGC sector requires a set of focused interventions, beyond just policy making. To realize real growth opportunity for India in terms of industry potential and job opportunities, in the

Budget speech for the fiscal year 2022-2023, Hon'ble Finance Minister Smt. Nirmala Sitharaman announced the formation of an AVGC Promotion Task Force that would drive the institutional efforts to guide the policies of growth for this sector, establish standards for AVGC education in India, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC industry.

Moreover, the larger idea behind the formation of the task force was to unleash the scope and reach of AVGC sector for it to become a torch bearer of "Create in India" and "Brand India".

To ensure overall growth of AVGC in India, an integrated approach needs to be adopted to cater to the overall need of the sector. To this end, the task force has given various actionable recommendations

with respect to key enablers of the sector, such as market access and development, skilling and mentorships, education, increasing access to technology, creation of financial viability, promotion of high-quality content, and encouraging diversity, equity, and inclusion.

Implementation of these recommendations would further aid the growth of the M&E industry in general, and AVGC sector in particular, in the country.

OVERVIEW OF GLOBAL AVGC SECTOR

The Indian Media and Entertainment sector is expected to grow at 8.8% CAGR to reach USD 53.75 billion in 2026.

The government of India has designated audio-visual services as one of the 12 Champion Service Sectors and announced key policy measures aimed at nurturing sustained growth.

The global animation market size was estimated at USD 372.44 billion in 2021 and is predicted to reach over USD 587.1 billion by 2030, growing at a CAGR of 5.2% during the forecast period 2022 to 2030.





The movie RRR had over 2800 VFX shots. All the animal scenes were synchronized using radio-controlled cars, programed to operate at specific speed.

Global Visual Effects (VFX) market size was valued at USD 7.51 billion in 2021 and is projected to reach USD 11.26 billion by 2030, growing at a CAGR of 5.19% from 2022 to 2030. One of the main factors leading to the development of the VFX market worldwide is the introduction of augmented reality (AR).

The increasing demand for digital content has created a need for innovation in visual effects for new experiences like AR.

The global gaming market was valued at USD 173.7 billion in 2020 and it is expected to reach USD 314.4 billion by 2026, growing at a CAGR of 9.64% between 2021 and 2026. As per estimates for 2021, there are 2.7

billion gamers across the world with China, Japan, US, and UK combined representing 47% of all gamers globally and 64% of all direct consumer spend on gaming. Estimates show that the global gaming market would reach a value of USD 339.95 billion by 2027, registering a CAGR of 8.94% over 2022-2027. Asia-Pacific is anticipated to hold the largest market share in the gaming industry, with India, Japan, China, and South Korea showing high potential for market growth.

The global Comic Book market size is projected to reach US\$ 19.5 billion by 2028, from US\$ 11.8 billion in 2021, at a CAGR of 7.1% during 2022-2028.

Global Trends driving growth in AVGC Sector

Animation and VFX Sector

1. Growing OTT User base

- ❖ Over-the-Top user base is expected to grow at a CAGR of 7% between 2021 and 2024 with a penetration of 45.8% in internet users.
- ❖ Although growth has slowed, the scope for increased usership is still high, as less than 50% internet users worldwide are watching OTT.
- ❖ The new animation content is not just restricted to kids but is also finding its niche with adults; ~50% of Netflix's members around the world choose to watch animation content.

2. Wider Spectrum of Applications

- ❖ The World in general has a large tech savvy, young population that is also interested in gaming, leading to newer opportunities in game design, animation and VFX.
- ❖ Gaming is growing at a CAGR of 12%, with Gamers demanding high quality productions with engaging VFX and realistic animation.
- ❖ Global animation and VFX in advertisement is projected to grow at CAGR 10.9%
Advertisers are increasingly finding animated commercials more effective.
- ❖ Amongst others, EdTech, Architecture, and Med-tech are expected to increase at CAGR of 11.7% between 2020 and 2024.



Gaming Sector

1. Growth of Smartphone Users

- ❖ In 2021, the number of smartphone users in the world stood at 6.3 Bn and is expected to reach 7.5 Bn by 2026 (at a CAGR of 4% between 2021 and 2026).
- ❖ Proliferation of low-cost smartphones has been instrumental in broadening the user base in the country.
- ❖ Mobile gaming generated USD 73.42 billion in 2020. The segment is poised to experience a high growth rate with projections estimating a CAGR of 11.05% over the following 5-year period ending 2026.

2. Growing 5G Presence

- ❖ By 2023, approximately 42.5% of all smartphones will be 5G ready.
- ❖ By 2026, 5G mobile subscriptions worldwide are forecast to exceed 3.5 Bn, led by Asia-Pacific, North America, and Europe.
- ❖ 5G is expected to bring a telecom revolution, not just in the country but all over

3. Advent of New Technologies

- ❖ The Extended Reality (XR) segment is expected to grow by a CAGR of 25.9% between 2020 and 2024.
- ❖ Investment in AR and VR is increasing year on year, especially in gaming, creating the need for enhanced animation.
- ❖ Animation plays key role with the advent of AR/ VR technology.
- ❖ The Metaverse is approaching a turning point of rapid development which will increase the demand for 3D modelling and real-time rendering which are core technologies for perceptual interaction through XR devices.

- ❖ It is expected that ~50% of Indian animation and VFX studios will adapt to real-time technology (core technologies for perceptual interaction through XR devices, demand for 3D modelling, etc.) by 2025.



the world. For the gaming sector, this will result in super-fast downloads and uploads, glitchfree multiplayer video games, live streaming, and real-time gaming.

3. Increased R&D Investments

- ❖ Major technology and gaming companies are ramping up R&D spend to innovate, understand consumer behaviours, and build novel gaming experiences.
- ❖ EA Sports spends up to 25% of its total expenditure on R&D with the proportion of spend increasing every year.
- ❖ Similarly, Sony's R&D budget for its Gaming and Networks division accounts for 25-30% of its total R&D spend.

4. Growing PC and Console Gaming

- ❖ Several PC brands reported a three-time increase in the sale of gaming laptops in 2020. The sale of gaming laptops grew by 300,000 to 400,000 units in 2020 in India.
- ❖ Console games have been adapted and released on mobile devices, thus increasing the demand for mobile gaming. This has also increased the demand for PCs and consoles, as users look to upgrade their gaming experience.
- ❖ PlayStation 4 sales doubled in Q1 FY20 as compared to Q4 FY19, and there has been a 200% growth in peripheral sales as well.



Comics Sector

1. Adoption of Digital Technology

- ❖ The industry is increasingly releasing digital books and leveraging digital platforms to sell comic books across formats.
- ❖ The global digital publishing and content streaming market is expected to grow from USD 69.6 billion in 2019 to USD 112.0 billion in 2023 at a CAGR of 12.6 %.
- ❖ Physical book market, 31% of the overall comics market, contributed to 87% of comics sales revenue.
- ❖ The rising number of children possessing smartphones is likely to propel the

consumption of digital comics.

2. Rising Consumer Demand for Graphic Novels

- ❖ Rising consumer demand for graphic novels is expected to drive market growth.
- ❖ Overall, graphic novel sales in 2021 were up 65% from 2020.
- ❖ 21 million more graphic novels were sold in 2021 than 2020.

- ❖ The increase was due to strong sales of graphic novels online.

3. Surging Popularity of Comic Events

- ❖ Comic events, such as Comic-Con, have gained popularity across world.
- ❖ These conventions provide fans the opportunity to meet other people who share their interests, interact with favourite content creators, receive sneak peeks at upcoming content, and purchase merchandise,
- ❖ The 50th annual San Diego Comic-Con recorded over 1,35,000 attendees.



Overview of Indian AVGC Sector

The AVGC sector in India has witnessed unprecedented growth rates in recent times, with many global players entering the Indian talent pool to avail offshore delivery of services. Further, the Media and Entertainment (M&E) Industry is expected to grow at an 8.8% CAGR by 2026. As per the experts, within the M&E Industry, the AVGC sector can witness a growth of 14-16% in the next decade. India is emerging as a primary destination for high-end, skill-based activities in the AVGC sector.

The Animation, VFX, Gaming, Comics & XR (together termed the AVGC Sector), an important segment of the Media & Entertainment sector, has emerged as an important growth engine of the Indian economy. This trend has been further compounded by constant outsourcing of animation technology to India. The AVGC sector has the potential to produce powerful content and Intellectual Property.

Beyond the economic impact, the sector has the potential to make Indian culture accessible to the world, connect the Indian diaspora to India, generate direct and indirect employment and benefit the tourism and other allied industries.

Despite the significant potential impact that the sector can have, it remains in nascent stages in India. Thus, there exists a need for policy intervention to support various aspects of AVGC industry. The policy would work towards facilitating future-ready skilling enabled by the industry, making India a go-to hub in the AVGC space, raising India's soft power, promoting Make in India by the creation of original IP, and creating iconic global Indian character brands. Moreover, leveraging the existing policies / schemes in place and the startup ecosystem can assist in



unleashing the talent pool existing in this sector and promote career opportunities.

Animation Sector

The Indian animation sector is growing fast and with an increasing number of animated series and features being produced in India, it has also attracted global audiences. Many of India's works are getting distributed globally. The demand for animation expanded with the increase in children's broadcasting viewership, availability of lowcost internet access, and growing popularity of OTT platforms. According to a FICCI March 2022 report, the animation sector has grown by 24% in 2021 to reach USD 370 Million. Further,

- ❖ According to the FICCI March 2022 report, the animation sector has grown by 24% in 2021 to reach USD 370 Mn in India.
- ❖ Growth of children's channels'

viewership led to an increased demand for animated content.

- ❖ OTT platforms, too, continued to invest in Indian animated IP.
- ❖ Increased demand spurred investments into India.
- ❖ Converging production pipelines opened new avenues.

VFX Sector

The Indian VFX industry has been gradually making progress with adaptation of worldclass techniques and innovative technology. The content creators are experimenting their storytelling with high-quality VFX advancements.

The VFX industry grew 103% in 2021 to reach ~USD 474 Million. It is estimated that the industry would be worth almost USD 1.7 Billion by fiscal year 2024, indicating a significant growth potential. The Indian Animation and Visual Effects industry has the potential to command 20-25% of the

*VFX of 'Thor: The Dark World',
was partially done by a studio in Mumbai.*

Global market share by 2025, according to the latest media and entertainment industry Report. VFX & Animation can be the next IT-BPM boom for India and play a fundamental role in India becoming a USD 100 billion M&E industry by 2030.

It is expected that around 50% of Indian Animation and VFX studios will adapt to real-time technology or virtual production by 2025. For smaller studios, this could be a challenge because of the high capital investments involved in adopting these technologies, and their use will be limited to high funded projects only.

Gaming Sector

The online gaming segment grew by 28% in 2021 to reach USD 1.22 billion. This exceptional growth is fuelled by demographic factors, change in media consumption habits, as well as innovations by the industry during the past few years. Further, the COVID-19 pandemic has led to a long-lasting shift towards digital means of entertainment, which has resulted in exponential growth of the gaming industry during the pandemic.

India is expected to become one of the world's leading markets in the gaming industry. Growing steadily for the last five years, it is expected to reach 3 times in value and reach USD 3.9 billion by 2025.

The Hon'ble Prime Minister of India, speaking on the announcement of the AVGC Promotion Task Force in the Union Budget 2022-23, highlighted that India is one of the top 5 markets in the world for mobile gaming. The gaming industry is at the core of the AVGC sector, and drives growth across its entire ecosystem.

Comics Sector

With the Indian economy opening in 1991 and major changes in satellite television market, Indian comic readers were introduced to a plethora of international characters in mainstream media. The industry now has a host of new players which have tapped into the India artist pool to come up with the new generation of



The iconic dragons (Khaleesi's dragons) in Game of Thrones were animated in India.

Indian comics. The genres vary from superhero, mythology, folklore to many other social segments.

The comic book industry is a wellrecognized part of Indian popular culture, having produced many familiar cultural icons like, Suppandi, Chacha Chaudhary, Tenali Raman, Detective Moochhwala, Shikkari Shambhu, Mayavi, and Akbar-Birbal.

In 2021, the comics industry witnessed the acquisition of many comic book characters which will eventually be turned into animated series, films, or shorts.

Building Blocks of AVGC Sector

The ultimate realization of the AVGC sector's potential will be a function of taking fundamental measures in the areas of Education, Skilling, and Industry development, in a coordinated manner. AVGC education has picked up pace in the country with the sector seeing enhanced interest from students. However, at present AVGC education in the country lacks standardization.

Education

There is also no apex institute in India for the AVGC sector unlike other sectors such as engineering, design, management, packaging, etc. There is a need for an academic reference point in AVGC that will assist in baselining the curriculum, providing access to latest infrastructure and technology, functioning as a think-tank and providing overall guidance to the AVGC sector. The number of universities providing the courses have been increasing but there still are very few prominent colleges.

Most of the programmes offered by various AVGC institutes in India are purely academic in nature. There is need to develop curricula for AVGC that is not just academic oriented but also offers industry relevant programmes. This can be achieved through onboarding industry players as trainers, integrating components of AVGC with the National Education Policy, promoting research & development and creating a demand-supply channel where students pursuing courses in AVGC are absorbed by the industry for employment.

Currently, there are 1.85 lakh

States/ UTs	Animation	VFX	Gaming	Total
Assam	1	0	0	1
AP	0	0	1	1
Chhattisgarh	3	1	0	4
Delhi	1	2	4	7
Gujarat	5	3	8	16
Haryana	6	2	7	15
Jharkhand	0	0	2	2
Karnataka	5	3	12	20
Kerala	0	1	0	1
MP	4	1	1	6
Maharashtra	10	8	2	20
Odisha	2	0	0	2
Punjab	4	1	3	8
Rajasthan	5	2	0	7
Tamil Nadu	3	5	1	9
Telangana	0	1	0	1
Uttar Pradesh	3	3	4	10
Uttarakhand	2	3	2	7
West Bengal	1	0	1	2
Total	55	36	48	139

Figure 2: AVGC Educational Institutions in India - FICCI Estimates 2021

professionals employed in the AVGC sector, with another 30,000 who are indirectly employed. The sector needs to employ approximately another 20-lakh individuals by 2030 to sustain its growth. Therefore, there is a need for better trained and formally educated individuals in the AVGC sector to meet this employment demand.

Skilling and Mentorship

The AVGC sector has seen significant growth in the last few years fueled by the consumption of content. Global companies are also increasingly tapping into the Indian talent market and outsourcing their businesses to India. Advancement in the technology



and job roles have created a major skill gap as the skill sets required are evolving along with the technology. As the job roles evolve, already engaged resources need to be upskilled and new resources need to be trained. This increase in demand for the number of skilled workers has ensured that the skilling ecosystem has larger participation from all stakeholders, including decision making bodies, enablers, executive bodies, and various beneficiaries.

India is one of the youngest nations in the world with over 60% of the population in the working age group and about 46% of population below 25 years of age. This highlights the need to enhance the skills of the available workforce to improve their employability and contribution to the economic growth of the country. India's National Education Policy (NEP 2020) has reset the existing system and has outlined the new structure of schooling; autonomy to colleges and independent institutions based on their performance. This will help to bring creative education and performing arts to the mainstream, and significantly impact the quality of talent and workforce needed for the AVGC sector. It will also pave way for apprenticeship programs and other multimodal training programs.

The skilling ecosystem in India currently offers 3 categories of courses: certificate, diploma, and degree. These courses are offered through a limited number of NSQF aligned institutions or the in-house training facilities started by AVGC companies.

Currently there are a total of 762 institutions offering different level degrees in animation, 374 in VFX, and 108 in Gaming. Further, approximately 1,15,000 trainings are conducted annually in the sector with the estimated breakdown into government incentivised (10,000-

Employment Sub-Sector wise	2019	FY 2020E	FY 2021E	FY 2022E	FY 2023E	FY 2024E	FY 2025E
Television	5,80,000	5,27,510	5,41,858	5,78,813	6,30,906	6,94,565	7,64,646
Film	2,56,000	2,38,080	2,42,842	2,57,412	2,78,005	3,03,026	3,30,298
Events & Live Performances	1,76,998	1,32,749	1,39,386	1,56,112	1,84,213	2,10,003	2,39,403
Art and Culture	1,21,450	97,160	1,02,989	1,11,229	1,20,127	1,29,737	1,40,116
Print	88,408	82,060	83,579	85,935	90,181	92,796	96,461
Advertisement & OOH	48,817	41,983	45,761	51,253	58,940	66,013	73,935
Radio	44,848	43,188	44,203	46,568	50,154	53,339	56,726
Sound and Music	36,800	30,147	32,860	37,247	42,722	48,019	53,782
Theme Park	30,751	23,063	25,369	28,413	32,249	36,119	40,092
Digital & OTT	29,298	38,673	49,502	61,878	80,441	1,00,551	1,25,689
Total	15,11,610	13,81,080	14,64,394	16,19,671	18,14,704	20,31,274	22,90,686

Figure 4: Details of employment in M&E Sector- FICCI Estimates

15,000), vocational institutes (60,000-70,000), institutions of eminence (8,000-10,000) and higher education institutes (18,000-20,000).

The key bodies in the skilling ecosystem include the MSDE, MHRD, MORD, and other central ministries. The essential enablers include NSDC, SSD, DSCs, SSCs, NCVET, among others, implementing bodies include ITIs, polytechnics, JSS, training providers, captive training by employers, schools, colleges, and universities. This skilling framework

will benefit the youth, including people from marginalized societies, unemployed youth, low-income groups, school and college students with different educational backgrounds.

CHALLENGES TO AVGC SECTOR IN INDIA

The potential and reach of the AVGC sector in India is significant in terms of the employment opportunities it can create, coupled with industry development. The industry is in its nascent stage and is still overcoming certain challenges which may be broadly categorized as below:

Lack of authentic data for AVGC sector

Non availability of data such as employment, industry size, education intuitions, etc. for AVGC sector, makes decision making tougher for entities.

Skill Gap in Education and Employment sector

Creation of AVGC ecosystem within the country requires workforce with specialized skills for various roles such as animators, developers, designers, localization experts, product managers, etc. At present, the education system at school and university level does not have a dedicated curriculum focused on AVGC. With fast moving technologies expected to revolutionize the sector in the coming decades, it is expected that the demand for talent will only grow further in terms of both, the number of professionals required, and the specialization of skills. For skilling and vocational training too, there is a lack of dedicated vocational training modules for various other skills required by the sector.

Infrastructure Constraints

Quality of training infrastructure plays a vital role in the learning and development of a student. In the absence of adequate training infrastructure, there is deterioration in



the quality of training being delivered to students, thus impacting the quality of output and human resource for the AVGC industry.

Less focus on Research Development

There is also a need to develop research related narrative for the AVGC-XR sector, so that dedicated focus can be given to it.

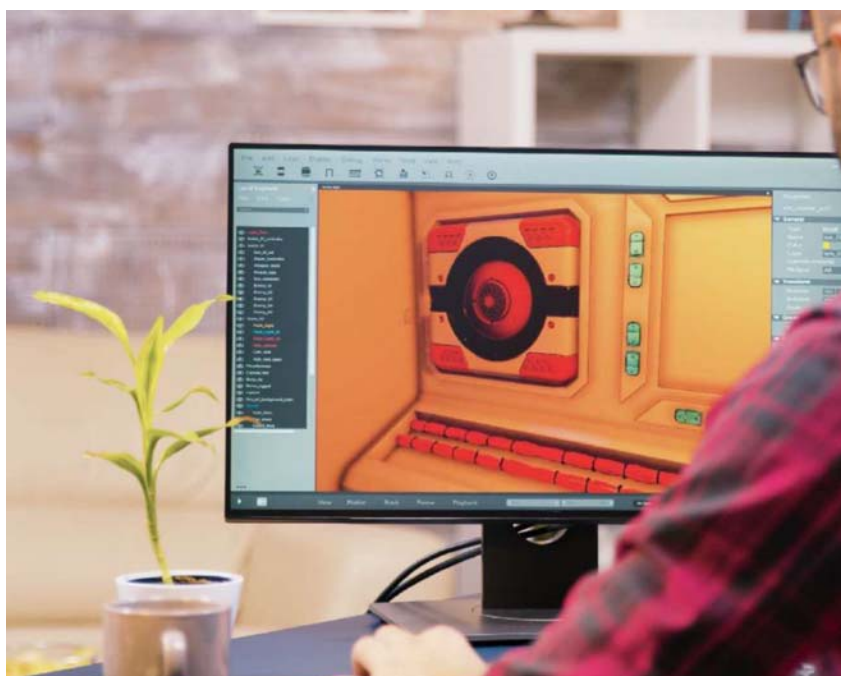
Absence of an AVGC academic reference point in India

There is no apex institute in India for the AVGC sector unlike other sectors such as engineering, design, management, packaging, etc. There is a need for an academic reference point in AVGC that shall help baseline the curriculum, provide access to latest infrastructure and technology, function as a think-tank and provide overall guidance to the AVGC industry. The number of universities providing courses have been increasing, but we have very few recognizable colleges like NID, IITs. Also, the intake for existing colleges is very low currently.



Need for Holistic Academic Curriculum

Most of the AVGC related programmes offered by various institutes in India are academic in nature. Thus, there is a need to develop a holistic curricula offering industry relevant programmes. This



can be achieved through onboarding of industry players as trainers, integrating components of AVGC with the National Education Policy, promoting research & development and creating a strong academia-industry partnership for employment.

Regulatory Framework

At present there is no national level policy level framework for AVGC-XR Sector. Further, there is no principle-based uniform national level institutional framework for the online skill gaming industry in India to govern, regulate & enforce the gaming ecosystem, thus resulting in states enacting prohibitory legislations, creating regulatory uncertainty and negative perception of the gaming sector. It may be noted that GoI has rightfully constituted an inter-ministerial Task Force to look at gaming sector holistically.

Uncertainty regarding the GST on skillbased games has also been highlighted by the industry as a financial challenge.

Need to explore the Startup Ecosystem of India

Promotion of innovative ideas and entrepreneurship in the AVGC sector in India will act as an enabler for the entire industry. The National Design Business Incubator of NID or Centre for Innovation, Incubation & Entrepreneurship (CIIE) of IIM A has provided the necessary impetus in the field of design and numerous functional areas respectively. Aspiring entrepreneurs not only create various job opportunities but also foster economic growth of the industry. New inventions and disruptive innovations will enable the Indian AVGC industry to grow at a faster pace, matching the international standards. Hence, there is a need to promote an ecosystem of start-ups in the AVGC sector through incubation facilities.

Availability of funds for dedicated use by the AVGC sector

At present there is no dedicated fund available for the AVGC sector which acts as an obstacle for the growth of the AVGC sector in India



Lack of globally-popular Indian IPs

AVGC sector in general has suffered a lack of original Indian intellectual property as most work in this sector is outsourced. Animation industry is dominated by services to other countries and thus it is important to incentivize local production with additional concessions to increase local IP.

CRITICAL SUCCESS FACTORS FOR AVGC SECTOR IN INDIA

Emerging key drivers of growth, leading to demand for high quality talent:

Majority of the incremental employment in the AVGC sector is expected to be in pre-production and marketing with highly skilled job roles such as storyboarding, content creation, design, planning and promotion that require NSQF (National

Skills Qualifications Framework) levels 4 and above with a graduate degree. Further, as per some estimates, in the next 10 years, the AVGC sector will require 24,000 professionals with a graduate degree or above and there will only be around 16,000 students graduating from recognized degree awarding institutes.

Dedicated investments in cutting edge technology is the need of hour:

The Indian animation and VFX segment has understood that export growth will be driven not by price arbitrage alone, but by accepting more complex projects and investing in cutting-edge animation and VFX technology. Taking these complex projects will also involve having access to latest digital post-production AVGC labs, postproduction technologies such as motion capture, 2D & 3D animation, and high-speed rendering along with state-of-the-art hardware and software.

Need for a nodal ministry to drive the Animation VFX Gaming & Comics (AVGC) sector

Ministry of Information & Broadcasting is more suited because it is the custodian of Audio/ Visual services in India and have taken several initiatives to promote the AVGC sector

Increase in captive centers across India, leading to access to top international filmmakers:

International studios are expressing interest in either opening their own studios in India or investing in existing Indian companies. This is not only bringing in investments, but also adding to the creative and technological talent pool in India. Having an arrangement like this will also give Indian market direct access to top international film makers, directors & production houses.

More impetus to be given to R&D

R&D plays a very important role in driving the entire AVGC sector. Therefore, focused interventions need to be undertaken for the sector.

Dynamic AVGC industry requires governance and management through an industry driven collaboration:

The dynamic nature of this industry, needs an industry think tank, to guide drafting the policies for the growth of this sector, actively collaborate with industry and international AVGC institutes, and enhance the global positioning of the Indian AVGC sector.

On similar lines as the IT revolution, the Indian AVGC industry, enabled with right interventions can be another growth story for India and contribute to providing high quality talent to the industry. ■

AVATAR: THE WAY OF WATER GRADED IN DAVINCI RESOLVE STUDIO



Colorist Tashi Trieu has worked with James Cameron's Lightstorm Entertainment for a number of years as a DI editor, including the remaster of "Terminator 2" as well as "Alita: Battle Angel." For "Avatar: The Way of Water," Trieu moved up to colorist, working closely with Director Cameron.

Broadcast and Film sat down with Trieu to discuss his work on "Avatar: The Way of Water" and his grading process in DaVinci Resolve Studio.

I assume you worked closely with Director James Cameron developing looks even prior to

production. Can you talk about that process?

I was loosely involved in pre production after we finished "Alita: Battle Angel" in early 2019. I looked at early stereo tests with Director of Photography Russell Carpenter. I was blown away by the level of precision and specificity of those tests. Polarized

reflections are a real challenge in stereo as they result in different brightness levels and textures between the eyes that can degrade the stereo effect. I remember them testing multiple swatches of black paint to find the one that retained the least amount of polarization. I had never been a part of such detailed camera tests before.

The look development was majorly done at WetaFX. Jim has a close relationship with them and as the principal visual effects vendor on the project, their artistry is thoroughly ingrained in everything from live action capture through fully CGI shots. Their approach left a lot of creative latitude for us in the DI and our show LUT is an elegantly simple S curve with a straightforward gamut mapping from SGamut3.Cine to P3D65. This left plenty of flexibility to push moments of the film more pastel or into an absolutely photorealistic rendition.

Naturally, a lot of this movie takes place underwater. One of our



INTERVIEW

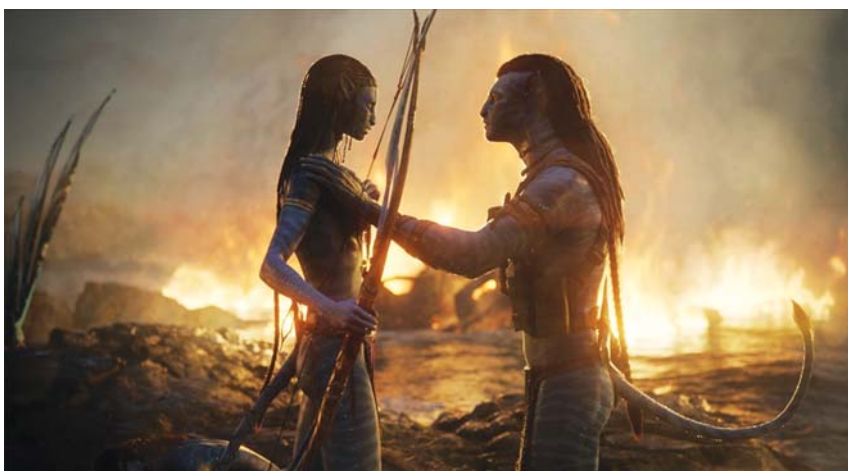
priorities was maintaining photorealism through huge volumes of water. That means grading volume density to convey a sense of scale. Closeups can be clear, contrasty, and vividly saturated, but as you increase distance from a subject, even in the clearest water, the spectrum fades away to blue. This was something we could dial in quickly and interactively in the DI. Anytime we needed to convey depth, we'd add more blue and subtract red and green.

What was it like working with Cameron during the mastering process?

I've never worked with a director who can so quickly and precisely communicate their creative intention. I was blown away by his attention to detail and ability to instinctually make very thoughtful and creative decisions – he would often voice his rationale for even simple grading and framing decisions. As groundbreaking as the film is, his priorities never stray from the characters, the story, and enhancing the audience's connection with them.

You grade with DaVinci Resolve Studio. Did your work remain confined to the Color page or did you use other pages such as Fusion or Edit?

I have a background as a DI editor, so I'm very hands on in the conform and editorial process. I spent



almost as much time on the Edit page as I did in Color. I didn't go into Fusion on this job, but that's mostly due to the improvements in the ResolveFX toolset. Almost everything I needed to do beyond the grade could be done with those tools right on the Color page. This was advantageous because those grades could be easily ColorTraced and propagated across multiple simultaneous grades for different aspect ratios and light levels.

Can you share with us a workflow you use and how it is affected by the stereoscopic work?

I'm a big fan of keeping things simple and automating what I can. I made heavy use of the Resolve Python API on this project. I wrote a system for indexing VFX deliveries once they arrived at the DI so that my DI Editor, Tim Willis from Park Road Post, and I

could very quickly load up the latest versions of shots. I could take an EDL of what I currently had in the cut and in seconds have an update layer of all the latest shots so we could make our final stereo reviews in scene context.

This film was doubly challenging, not only because of the stereo, but also because we're working in high frame rate (48fps). Even on a state of the art workstation with 4x A6000 GPUs, real time performance is difficult to guarantee. It's a really delicate balance between what's sustainable over the SAN's bandwidth and what's gentle enough for the system to decode quickly. Every shot was delivered as OpenEXR frames with as many as five or six layers of mattes for me to use in the grade. Ian Bidgood at Park Road had a really clever idea to have WetaFX write the RGB layer as uncompressed data, but ZIP compress

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the mattes within the same file. This meant we had rock solid playback performance, really fast rendering for deliverables, and the file sizes were barely more than if they didn't contain the mattes.

Were there challenges between the SDR and HDR grades?

We had the relatively unique luxury of working in Dolby Vision 3D from day one. Our hero grade was the Dolby 3D version at 14fL in extended dynamic range. This is a great way to work because you can see everything so well. This is critical in stereo reviews where you need to see if the compositing is working correctly or if there are tweaks to be made.

Once you grade for Dolby Vision, standard digital cinema 2D at 14fL is a relatively simple transformation, with some custom trims. You lose your deep blacks with a traditional DLP projector, but it's just as bright as Dolby 3D. One of the biggest challenges was creating the 3.5fL grade that, unfortunately, is the standard for most commercial 3D digital cinemas out there. It's an exacting process to create the illusion of contrast and saturation with so little light. We have to make certain decisions and allow background

highlights to roll off early in order to preserve contrast in high dynamic range scenes, like day exteriors. Night scenes are much more forgiving.

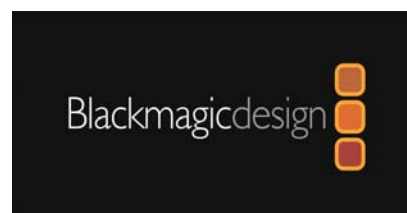
What's your "go to" tool in DaVinci Resolve Studio?

ColorTrace was critical for me on this film. Each reel of the film was contained in its own Resolve project, each containing ultimately 11 unique timelines for each of our various theatrical picture deliverables. Tim Willis, my DI editor, kept those in editorial parity across cut changes and VFX updates. When we'd lock a grade in one format, I'd ColorTrace those grades to other formats and trim those further. If we made changes to framing and composition in one, I could easily ripple those changes back through the other formats without overwriting the grading decisions. It's simple, but the amount of time saved and the elegance of that sort of workflow is what kept us from working too many late nights.

Was there a favorite scene from the movie that you loved grading or presented a unique challenge?

There's a "town hall" scene between the Sully family and the Metkayina clan that takes place during

a rainstorm. It's an absolutely gorgeous scene that evokes Rembrandt. The cold, overcast skies wrap around the characters and a subtle warm accent light gives the scene a really nice dynamic. It's insane how absolutely real everyone looks. You have to actively remind yourself, "everything in this shot is artist generated, none of this beyond the actors' performances is 'real' per se." It's truly a generational leap in visual effects artistry and technology. It's absolutely extraordinary.



About Blackmagic Design

Blackmagic Design creates the world's highest quality video editing products, digital film cameras, color correctors, video converters, video monitoring, routers, live production switchers, disk recorders, waveform monitors and real time film scanners for the feature film, post production and television broadcast industries. Blackmagic Design's DeckLink capture cards launched a revolution in quality and affordability in post production, while the company's Emmy™ award winning DaVinci color correction products have dominated the television and film industry since 1984. Blackmagic Design continues ground breaking innovations including 6G-SDI and 12G-SDI products and stereoscopic 3D and Ultra HD workflows. Founded by world leading post production editors and engineers, Blackmagic Design has offices in the USA, UK, Japan, Singapore and Australia. For more information, please go to www.blackmagicdesign.com ■

‘STREAMING IS AN ENABLER FOR ALL IN INDIA’S CREATIVE ECONOMY’

In Conversation with **GAURAV GANDHI,**
VICE PRESIDENT, PRIME VIDEO, INDIA

*Excerpts from a fireside chat with
GAURAV GANDHI,
Vice President, Prime Video, India
at the CII Big Picture Summit 2022*



Participating in the fireside chat on “**Streaming and its Impact on Media and Entertainment**” at the CII Big Picture Summit 2022, Gaurav Gandhi, Vice President, Prime Video, India said,

“Streaming is a core part of the industry and a big enabler for making more movies.”

Responding to a question from the conversation moderator, Mihir Shah, Vice President, Media Partners Asia on streaming offering a new outlet to producers during the pandemic, to release their movies and if the trend placed theatres and streaming on the opposite ends of the spectrum, Gaurav said, *“Theatre and streaming are symbiotic and not on the opposite ends. The theatre experience is unique and is here to stay. It's*



GAURAV GANDHI

an experience that customers enjoy together on a very large screen. And there's no reason for one experience to replace the other. It's all additive." He added, *"The film industry is about content creators who are making films, and wanting access to customers. We are all means to that end and providing that access. So, if you're able to give a much larger access to a customer base for a creator or talent, how does that become at odds with the objective of the filmmaker?"* Releasing movies direct to service (DTS) during the pandemic *"opened people's eyes about what the reach of streaming and impact of streaming could be, because we were releasing movies not just in one market but nationally and globally. This expanded the total addressable market rapidly and dramatically for creators and actors."* Talking about the various models of streaming films, he added, *"DTS is not the only model. A film can come straight to streaming, or we can license it. We could produce an original movie, like we produced Maja Ma, or we could co-produce films, like we did with Ram Setu. As an industry, all streamers are investing forward in content with producers, and enabling them to create more films, and give them access and reach. All of this fuels the creative economy further."*

Responding to a question on streaming benefitting talent in front of and behind the camera, Gaurav said that there are three distinct advantages that streaming has for talent. *"First is that, in the streaming world, we cast for characters, allowing for a very wide range of talent to become household*

names and stars, expanding the definition of what we call a star today," he said. Adding further, he reiterated, *"Because of the expansion of the total addressable market, for the first time, we are able to see the Indian film industry together, and not separately as Hindi, Tamil, Telugu, Malayalam, Kannada and so on. So, the market for a talent really is pan-India and global. Thirdly, the kind of stories being told, which couldn't have been told earlier, provides an even wider opportunity to everyone."*

Emphasizing the role streaming can play to take Indian content to the global market, Gaurav said, *"Releasing*



a movie simultaneously in 240+ countries and territories and getting global viewership is a massive opportunity. We don't box ourselves to say that a story is made for a particular audience only. A good example would be a series we released recently, Suzhal – The Vortex. Originally in Tamil, we took it global by releasing it in 30+ Indian and international languages. On an average, 20% of viewership for our Indian originals comes from outside of the country. 50% viewership of our Tamil, Telugu, Malayalam and Kannada cinema comes from outside the home states. This is a win-win for the entire industry and the customers.

I can actually say, three to five years out we will genuinely be talked about the same way we talk about Korea and Turkey and so on, with respect to global hits."

When asked about Prime Video's video entertainment marketplace and if the India market was ready for new models, Gaurav said, *"Whether the customers want to take a subscription service, or they want to add another channel (Prime Video Channels) or they want to watch a movie on rent (Movie Rentals), all of these are just expanding the pool of customers who can access premium content. While we are investing deeply on creating supply through licensing films, producing original movies, co-productions, at the other end, we are also enabling distribution. It's democratic for the creators and customers, liberating them from being stuck to a particular model."*

Talking about the role of streaming in the overall M&E landscape post the pandemic, and the growth opportunities going forward, he reiterated the strong tailwinds supporting the industry, such as ubiquitous devices, affordable data, great content, younger population adopting streaming. He also spoke about the three key changes brought forth by the pandemic, *"The first was temporary - people had more time on their hands. The second and third were permanent - streaming changed their viewing habits, and they had access to an expanded selection of content, across genres and formats leading to an expansion of the linguistic palette. These changes not only fueled the growth in streaming but also allied industries."* ■

VIDEOVERSE : BUILDING A NEW ECOSYSTEM OF SMART TOOLS FOR CONTENT CREATORS

VideoVerse is a video tech company that encapsulates an ecosystem of smart video editing tools using AI for all enterprise and individual content creators. Vinayak is the CEO and Co-founder of VideoVerse. Vinayak along with his partners Saket Dandotia, and Alok Patil identified a need for automation in the video content category, giving way to the inception of VideoVerse. In his current role, Vinayak spearheads the strategic goals of the company to create a profitable future roadmap. He has built the sales and marketing strategy from scratch and under his leadership, the company has witnessed a significant growth of over 200% year on year. Vinayak shares more in an exclusive interview with Broadcast and Film.

Q: *Tell me a little about yourself. What's the story behind you and Magnifi by VideoVerse?*

V: I launched VideoVerse in 2016 along with several co-founders. We saw an opportunity to disrupt the content industry. Having previously worked closely with the media in my role as a venture capitalist, I knew first-hand there was a major gap between consumers' seemingly endless demand for video content and the often time-consuming and inefficient process of creating that content.

I spearhead the company's strategic goals to create a profitable future roadmap. I've built the sales and marketing strategy from scratch and, under my leadership, the company has witnessed a significant growth of over 200% year on year.

Q: *When you look at the broadcast, film, sports and entertainment industries today, what do you feel are the key demands/needs from consumers? How can content creators/producers meet those needs?*

V: Personalised content that is relevant, accessible and, most importantly, available on the go is what consumers need most today. The changing consumption patterns need a quick



turnaround on how content is produced, edited and thereafter published with relevant CTA and platform optimisation.

The increased demand for video content has given birth to the use of disruptive technology tools to ensure quicker production, ease of use and lower costs, which ensure the end goal - greater viewer engagement - is met. AI-enabled tools not only bring a breath of fresh air but have also made the entire production process democratic without the need for specialised skills.

Q: *Short-form videos are increasingly the way people, particularly young people, consume content today - accounting for an estimated 40% of all videos on social media. How can the latest video editing technology help content creators thrive in this format?*

V: In the current era of exploding video content, understanding the user experience and being able to capitalize on that understanding will be key to creating new value. Using certain parameters, organizations can create short-form video content from any perspective and test which key moments garner maximum viewership. This analysis helps content owners evaluate and refine the messaging and storytelling to support new subscriber growth and retention.

For any sports or media platform, the ability to create a 360° fan engagement, using more tailored or theme-based content and channels, can be a key differentiator. AI-led personalisation works on all these factors and helps reduce the costs of customer acquisition, offering customised recommendations of relevant content and increasing average user content consumption, thereby increasing engagement and

LTV. The ability to personalise new and old content and share it across all platforms in real-time using AI generates a far higher ROI than doing it manually.

for the creators. In my experience, Artificial Intelligence has played a rather significant role in addressing these challenges.



Q: *We certainly see short-form videos trending among sports fans, particularly young fans who prefer to watch “bite-size” clips and highlight reels of games instead of watching the entire thing. Additionally, many fans want hyper-personalized content featuring their favourite teams or players and they want it instantly. How can AI help sports producers/marketers adapt to this?*

V: This evolving consumption pattern has opened new challenges on ways to produce engaging, relatable content that empowers the viewer, provides entertainment and supports up-skilling opportunities

Meta-Tag and get the best out of every content

AI and ML have revamped the media production and post-production workflow. Machine-powered content cataloging and metadata tagging enable the creation of automated work processes that reduce human error.

Capture the best of every angle

Face Recognition proves to be the bulwark of AI in media production - the cognition to identify faces added to the metadata enables the search featuring a person superlatively easier.

By leveraging AI, users can automate things like applying filters, adding transitions and re-sizing for social media, allowing broadcasting companies to create bite-sized videos in minutes rather than hours. Likewise, various AI-powered tools help users

automatically find suitable content to complement their videos – and, AI can organise massive amounts of footage much faster than a human while eliminating errors from the video editing process. In fact, one of our football broadcast clients noted a 75% reduction in editing time and substantial cost savings from automating their digital content production. Moreover, AI video editing platforms like Magnifi can independently create new versions of existing content or suggest changes to the user.

Q: *In the film industry, projects are often long-form but there are lots of regulations to adhere to. For example, countries often have different rules for what kind of content can be shown in films. How can AI-powered video editing technology help filmmakers and producers refine and amend their projects as needed without having to spend significant time to do so? Does this application have pre-defined rules engines as per the country? Does this have skin exposure detection, etc.?*

V: While video content is being democratised and used across geographies, content appropriateness is becoming a very important aspect in its distribution. Understanding the importance of this, AI-based engines

can ensure automatic video compliance with the click of a button. Proprietary technology like ours understands the context of the video and its content to identify any non-compliant objects in it, flagging them and taking the right action to mitigate them.

Our platform not only facilitates content moderation but also blurs inappropriate or sensitive content objects across live as well as recorded feed, making it a comprehensive risk mitigation tool. In addition to many other features, our AI engine revolutionises video content while protecting the content creators and distributors against risks.

Q: *The Indian M&E industry is estimated to be valued at \$27–29Bn in 2022. With the Industry witnessing strong growth tailwinds, it is poised to grow to \$55–65Bn by 2030 with a potential to reach \$65–70Bn, driven by growth in O.T.T. and gaming. Indian sports broadcasting revenue is expected to grow by 10% CAGR to reach US\$ 1.6 billion by FY26. How do you look at this development and how strongly does the Indian market factor into your growth strategy?*

V: Television remains the largest media platform in India, covering time spent as well as consumer reach. As

per KPMG Analysis 2022, the number of TV households in India is expected to reach 250 million by 2026, from 210 million in 2020.

Sports has the highest reach among all genres on TV. Advertisers' interest in sports broadcasts has grown strongly with increasing viewership and demographic reach offered by sports properties. For us, this is a very strong industry and we already have a large stake in it. India is a critical market for us and we will continue to focus on market-specific, innovative techniques for India that we can build on.

Q: *Looking to the future, where do you see the film, broadcast, sports and entertainment industries going? How will the relationship between content creators and consumers evolve and what role will video editing technology play?*

V: These industries will need to focus on hyper-personalised content for consumers who want very specific output on demand. This will, in turn, force content creators/producers/editors to rely on AI for speed, detail and efficiency.

As technology advances, creating content is easier than ever but AI-enabled tools in video editing are necessary to accommodate the variety of taste we see in our society - a trend which will shape the future. ■



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AWAKEN, ARISE AND GRAB THE UNIVERSE

A column on significant developments in the media world

By Ashok Mansukhani

Advocate Bombay High Court.

Specialist in Multi Media Law and Regulation/Corporate Law and Regulation and Taxation.



The CATV industry needs to awaken to the new reality and move on to providing a host of multimedia services based on high speed internet delivery platform.

A. MEDIA UNIVERSE

As the **Global Media Universe** enters a new year, it is helpful to plot the past year internationally and nationally to determine how this vibrant Industry will fare in **2023**.

KANTAR 2023 MEDIA TRENDS FORECAST

A recently released global media trends report by **Kantar Group**, a data analytics and brand consulting company based in the UK, makes for fascinating reading.

- ◆ 'Media and entertainment are now a **multi-trillion-dollar industry**, reaping the benefits of investment in internet connectivity, improved technology, and an insatiable desire for on-screen content.'
- ◆ 'Content-delivery strategies are also diversifying. **2022** witnessed broadcasters and native **video-on-demand (VOD)** platforms striking a new balance between VOD and - **linear, long-form and short-**

f o r m , Internet-delivered and broadcast – all helped, no doubt, by the growth in Smart TV ownership and Internet delivery of content.'

- ◆ 'Indeed, what was once just a 'TV market' has – thanks to **Internet delivery (IP), device and**

p l a t f o r m

proliferation, and new viewing forms- diversified into an intricate '**AV ecosystem**'.'

- ◆ 'The economic crisis (post the geopolitical tensions arising out of the **Russian** invasion of



Ukraine) is also helping set the conditions for **ad-funded business** models. Consumers are increasingly warming to the idea if it saves them money.'

- ◆ 'Broadcasters are adopting the aspects of VOD strategy that best fit their positioning whilst preserving their points of difference. VOD platforms are adopting traditional concepts like appointment TV and curated content discovery via linear channels.'
- ◆ 'During the pandemic, many homes explored the full functionality of connected screens. Consequently, we are reaching the tipping point in **Smart TV** penetration and usage, with consumers increasingly using their TV to stream content directly, connecting via apps and inbuilt IP services.'
- ◆ 'As video delivery moves towards an all-IP future, Smart TVs will play a critical role as the home's main entertainment gateway.'
- ◆ 'With **linear-broadcast** audiences migrating towards **on-demand** viewing in such numbers, **Connected TV** looks increasingly attractive, particularly because there's a sense of continuity – it's much the same as the status quo, yet enhanced.'

INDIAN MEDIA SCENARIO

The latest data released by **TRAI** is for **Q1 of 2022-23** and, unfortunately, completely ignores the **MSO/LMO Cable Data Base** in its **Executive Summary**.

Key indicators are:

- ◆ **Approximately 892 private satellite TV**



channels have been permitted by the **Ministry of Information and Broadcasting (MIB)** for uplinking only/downlinking only/both uplinking & downlinking.

- ◆ As per the reporting done by **Broadcasters** in pursuance of the **Tariff Order** dated **March 3 2017**, as amended, out of **879** permitted satellite TV channels are available for downlinking in India, there are **347** satellite pay TV channels as on **June 30 2022**. Out of **347** pay channels, **249** are **SD** satellite pay TV channels, and **98** are **HD** satellite pay TV channels.



- ◆ **Pay DTH** has attained a total active subscriber base of around **67.04 million** in **QE on June 30 2022**. This is in addition to the **DD. Free Dish** subscribers (**Doordarshan's** free **DTH** services).

INCREASING USE OF CONNECTED TV

- ◆ As per the latest report by **Media Smart**, **84%** of households in India have more than one person watching **Connected TV (CTV)** (**Smart TV**), and nine out of ten **CTV** viewers recall being exposed to ads.
- ◆ A recent report by **Group M/Kantar** reveals that currently, **20-22** million homes in India have internet-enabled connected televisions (CTVs). Brands will likely increase their **CTV** advertising spending from **\$86 million** in 2023 to **\$395 million** by 2027.

- ◆ **PWC** estimates that by **2025**, the number of connected smart televisions will reach **~40-50 million**.

- ◆ **30%** of the content viewed on these screens will be **gaming, social media, short video, and content items** produced exclusively for this audience by television, print and radio brands.

- ◆ A cable blog in **USA**, '**Tech Jury**', claimed that currently, **China** has **342 million** paying Cable TV subscribers and India has **112 million** Cable TV paying subscribers.

COMMENT

- ◆ *As TRAI does not release much data on the MSO/LMO market size, the estimate of **112 million** Cable TV customers by Tech Jury, at best, is a rough guesstimate.*
- ◆ *A recent article in the **Mint** was not very confident of the future sustained growth of Legacy TV distribution media.*
- ◆ *The TRAI data for the **June 22** quarter shows even a fall in DTH subscribers by nearly 2 million.*
- ◆ ***This writer estimates the Cable Subscriber base to be between 70-75 million subscribers.***
- ◆ *So, where have the customers gone? Cord-cutting due to increased watching of **OTT** and **Free Dish** is happening faster than the Industry wants to accept. This cord-cutting is happening despite normal working conditions being restored post-Lockdown when people are no longer home-bound.*
- ◆ *A **December 2022** report by **Ormax** claims a **20 per cent** increase in OTT viewing, with the user base for OTT in the country now pegged at **42.38 crores (423.8 million)**.*
- ◆ *The report states that paid OTT users in India are now at **11.9 crores**. Most of the increase is from **Tier 2** towns.*
- ◆ *Another elephant in the room is the immense growth of **Free Dish**, run by **Doordarshan**. This writer estimates its size at **45 to 50 million**, with great scope for urban India growth.*
- ◆ ***Free Dish** has 79 private TV channels, 37 **Doordarshan** Channels and 51 educational channels, making for a complete package even for urban and metro viewers.*
- ◆ *The **Broadcast Audience Research Council (BARC)** has not released viewership data since **2020**. While this may suit some Broadcasters, such a denial of vital data is not in the public or advertiser industry interest.*
- ◆ *As **Prasar Bharati** is also a member of **BARC**, this writer marvels at the silence of the **Ministry of Information and Broadcasting**.*
- ◆ *So, what does the future hold? Perhaps the answer lies in the **Kantar 2023** forecast, which speaks of new viewing forms that have diversified into an intricate '**AV ecosystem**'.*
- ◆ *This writer never tires of reminding the **Cable TV** distribution media that they need to awaken to the new reality and swiftly diversify from single video delivery service to providing a host of multi-media services based on a solid and stable high-speed internet delivery platform.*
- ◆ ***One point for the Cable Industry to keep in mind is that in 2022, the TV penetration level stands at approximately around 70%. Its penetration stands at 87% in urban and 61% in rural households. This should energise the industry to awaken, arise and grab the balance universe.***



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B. LIVE SPORTS -GAMECHANGER FOR 2023

- ◆ An earlier column had discussed key findings of the recent **CII-KPMG** report titled *Sports Broadcasting-A Match Made In Heaven*. Some key observations bear repetition and offer succour to both legacy TV and streaming networks in India-
- ◆ *The number of TV households in India is expected to reach approximately 250 million by 2026, up from 210 million in 2020.*

- ◆ *The growth trajectory in India is expected to continue with the increasing penetration of TV across NCCS AB demographics and the growing interest in sports.*
- ◆ *The reach of premium sporting properties is significantly higher than that of premium GEC properties. IPL 2022 had an overall reach of 400 million which is 80 per cent higher than the combined*

- ◆ *The same is likely to be driven by organic growth in the number of OTT viewers in India, as well as an increase in consumption of sports on OTT, fueled by the convenience of anywhere viewing.*
- ◆ Renowned Media Analyst **Mr Ashish Pherwani**, India leader for M/E for E/Y, has been quoted in *Rest of the World.org* as saying that "sports streaming is entirely a subscription play. A sports fan will pay to watch his favourite sport."

- ◆ The article further points out that regional streaming services in **Indonesia/Japan and India** have spent large sums to acquire streaming rights for international tournaments with mass appeal. These have had start-up problems like **Jio Cinema** faced in the recent **World Cup Football in Qatar**, but sports are here to stay.

- ◆ The article refers to **Viacom 18** getting the very costly **2023-2028 IPL** digital rights, which it will use to bundle along with data plans, according to **Mr Pherwani**.

- ◆ The TV broadcasters are well aware of the pull of sports, and **Disney Star** has managed to retain the **IPL TV** rights till **2028**. **Zee** has come back to sports coverage with exclusive media rights for **Emirates UAE T 20** League matches to be live telecast in Zee's linear channel in three languages and live streamed on Zee 5. Sony, too has obtained foreign TV cricket rights like English cricket till 2028, Lanka Premiere League and other countries.



- ◆ *During the first nine months of 2022, content related to Sports was consumed by approximately 722 million viewers.*
- ◆ *The Indian Premier League continues to be the biggest impact property on Indian Television, reaching 400 million and cutting across demographics.*
- ◆ *The successes of Indian athletes on prestigious international platforms also drive the growth of India as a sporting nation.*

reach of KBC, Bigg Boss, The Kapil Sharma Show, Khatron Ke Khiladi and Shark Tank.

- ◆ *The TV sports market was estimated at INR 7,050 crore in FY21, and the same is expected to reach INR 9,830 crore in FY 26, growing at a steady CAGR of 7 per cent.*
- ◆ *The digital revenue for sports is estimated to grow from INR 1,540 crore in FY21 to INR 4,360 crore in FY26, at a CAGR of 22 per cent.*

COMMENT

- ◆ Looking to the importance of sports in customer retention, while Broadcasters will continue to compete for future rights, the **Cable Industry** can also create sports packages like **"IPL Special Deal"** to maximise customer revenue and link up with specific **Broadcasters** with the rights for marketing initiatives.
- ◆ The **Cable Industry** can cover local cricket tournaments, which are immensely popular in cities like **Mumbai**, as a measure of earning local advertising and as a customer retention measure.
- ◆ The **Cable Industry** needs to watch out for so-called **John Doe** orders issued by **High Courts** on request from Broadcasters to protect their legitimate rights and ensure no piracy happens anywhere in the network, even at the sub-operator level.

C. NEW PLATFORM REGULATIONS

Utilising powers under **Rule 6(6)** of the **Cable Television Networks Rules, 1994**, the **Ministry of Information and Broadcasting** issued the guidelines in respect of 'Platform Services' provided by MSOs on **30.11.2022**.

The salient features are:

- ◆ The total number of permitted PS channels per operator is to be capped at 5% of the total channel carriage capacity.
- ◆ To cater to the local language and culture of the subscribers, this cap on PS channels shall be computed at the State/Union Territory level. Also, two PS channels shall be permitted at the level of each District to cater to the need for local content at the District level.
- ◆ The Content of the PS is to be exclusive to the platform and is not to be shared directly or indirectly with any other Distribution Platform Operator.
- ◆ However, sharing of live feeds from religious places like Temples, Gurdwaras etc., shall be permitted.
- ◆ Only entities registered as Companies are allowed to provide local news and **current affairs**. MSOs not registered as "company" and desirous of providing local news and current affairs are mandatorily required to apply within three months with the Ministry of Corporate Affairs for conversion into "company".
- ◆ All PS channels to carry a caption as '**Platform Services**' to distinguish them from the registered TV channels.
- ◆ MSOs offering PS to **retain the recording** of all PS channel programs for 90 days.
- ◆ **Any content-related complaint** shall be examined by the Authorised Officer prescribed under the **CTN Act, 1995**, and the **State/ District Monitoring Committee**.
- ◆ **Simple online registration process** for PS channels by MSOs at nominal fees of **Rs 1,000** per PS channel. The online registration portal for this purpose is under preparation and shall be notified shortly.
- ◆ MSOs have been granted **12 months** to comply with the guidelines issued on **November 30 2022**.

COMMENT

- ◆ These **new Rules** were widely expected, considering they were made applicable to DTH Networks in September 2022. A long 12-month period has been given to the Industry to conform to the new rules.
- ◆ The only surprising sub-rule is that platform channels offering news, and current affairs will be confined to companies registered under the Companies Act 2013.
- ◆ This directive will force all non-corporate MSOs to corporatize, which is not an unwelcome development. Only this writer feels that compliance hassles of corporatisation are quite onerous despite all efforts to achieve ease of business. The MIB could consider allowing Limited Liability Partnerships (LLP)s which have simpler corporate governance norms.
- ◆ The MSOs will have to set up internal content review panels in view of specific powers given by the new regulations to the Authorised Officer/ State/District Level Monitoring Committees.
- ◆ A regrettable feature is a ban on sharing platform content that seems unwarranted and goes beyond the rule-making powers of MIB in this writer's careful and considered view under the Cable Act. ■

NEXTOLOGIES ASSEMBLES A GLASS-TO-GLASS REMOTE WORKFLOW SOLUTION WITH ACQUISITION OF VIDEO CALL CENTER

Nextologies LIMITED, leader in custom end-to-end broadcast video and streaming solutions, specializing in full-time video delivery to cable and streaming platforms, announced that it is expanding its remote production division with the acquisition of the businesses of The Video Call Center, LLC (VCC). The acquisition was finalized on December 23, 2022, and the new division will retain the VCC brand and continue serving its entire client portfolio.

“When the pandemic forced many media companies into remote production, our partners called on us to create a solution as quickly as possible. Because at our core, Nextologies is a problem-solving company, that’s exactly what we did. We built a solution, called NexToMeet, and it was being used in major productions within 30 days,” says Sasha Zivanovic, CEO, Nextologies. “But what’s exciting about VCC is that they’ve been enabling remote video feeds and production way before Covid. We’re getting the chance to bring on this deep bench of experience in all aspects of remote production enablement and workflows and then inject it with a steroid shot of Nextologies engineering innovation.”



In 2020, faced with their partners’ urgent remote production needs, Nextologies developed NexToMeet, their browser- and mobile app-based remote production solution, an instant web/mobile to SDI video network that allowed them to

execute numerous events, including UFC, XFL, WWE, NBA SpaceX, Top Rank Boxing and American Idol.

“Our NexToMeet solution was our first step into the remote workflow and production arena, but now that we’ve all seen the huge potential, we

knew it was possible to do so much more. With the VCC acquisition, we are able to bring on a team that's deeply experienced in the entire remote interview process. And we're adding the VCC remote management plane, which has been vetted and refined over years of serving many happy high profile productions."

Former VCC CEO Larry Thaler, who will consult with Nextologies after the close, says, "I am incredibly proud of the VCC team, creating new categories in production services and SaaS, while servicing 70 major media companies and over 30,000 remotes. In order to grow, VCC needs to be part of a company with additional products and services, a larger, more global sales team, and greater engineering resources. Nextologies is exactly that kind of company."

"VCC and its extraordinary team have made great strides in creativity, customer service, and innovative products while amassing a global intellectual property portfolio," says Tom Wolzien, founder and chairman of VCC and parent Wolzien

LLC, "but the businesses of smaller companies need the global operational and financial resources to grow, and it is exactly those resources that a dynamic company like Nextologies will bring."

In fact, as Nextologies takes the helm of VCC, the transaction is



precisely the kind of growth the company's leadership was seeking. "We're growing quickly as a company, fueled by the engine of ingenuity at our core. VCC is just one opportunity where we can bring a developing company into our family and empower its growth with our innovative engineering and resources. We look forward to doing the same for other companies who are seeking a way to achieve their next level of development."

As part of the transaction, Nextologies is licensing the global

patent portfolio amassed by VCC and held by its affiliate Video River Group LLC.

ABOUT NEXTOLOGIES

Nextologies is a leading broadcast technology managed services provider, trusted by top broadcasters, enterprise corporations, and emerging companies to engineer, deliver, and monitor solutions that unlock their businesses' potential without requiring them to invest in new infrastructure.

Nextologies has the world's largest broadcast video delivery network specializing in award-winning, broadcast-grade video connectivity for broadcasters and content owners across the globe with instant access to over 55,000 linear TV channels downlinked from 85+ globally-placed satellites.

In addition, Nextologies is a leader in signal acquisition and delivery providing fiber, IP and custom end-to-end solutions for IPTV and OTT platforms and video-centric applications across all platforms. ■



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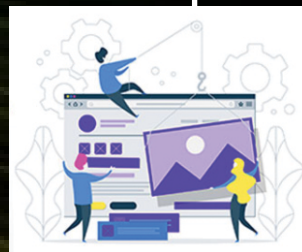
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- ❖ Broadcast & Film e-newsletter banner \$ 200 – 1 insertion

Web Requirements

- ◆ Home Page - width 300 pixels x depth 250 pixels
- ◆ News Page - width 160 pixels x depth 600 pixels



Bi-Monthly Digital Edition of Broadcast&Film Magazine

- ❖ Full page Color Ad – \$ 250 – 1 insertion (Size: W 200mm x H 265mm)



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