THE
M.E.T.
MEDIA. ENTERTAINMENT. TECHNOLOGY.
EFFECT℠

NABSHOW
etc℠

vNAB
MON, MAR 20 + TUE, MAR 21
2017

ABOUT ETC

The Entertainment Technology Center @ the University of Southern California (ETC) is a think tank and research center that brings together senior executives, innovators, thought leaders and catalysts from the entertainment, consumer electronics, technology and services industries along with the academic resources of the University of Southern California to explore and to act upon topics and issues related to the creation, distribution and consumption of entertainment content. As an organization within the USC School of Cinematic Arts, ETC helps drives collaborative projects among its member companies and engages with next generation consumers to understand the impact of emerging technology on all aspects of the entertainment industry, especially technology development and implementation, the creative process, business models, and future trends.

For membership information, contact Edie Meadows at emeadows@etcenter.org

PLATINUM

GOLD

SILVER

NEXT GENERATION MEDIA TECHNOLOGY

AI, VR, AR and
Cloud Innovations

Produced in partnership with the Entertainment Technology Center at the University of Southern California (ETC@USC), this program spotlights cutting edge technology that is reshaping the creation, distribution and consumption of entertainment content.

Join thought leaders and catalysts from the entertainment, consumer electronics, technology, and service industries for an insider's look into the emerging technologies disrupting everything from the creative process to business models and consumer behavior.

This year's program focuses on the emergence of artificial intelligence, innovations in cloud technology and cyber security, and the continued rapid development of augmented and virtual reality in entertainment media.

CONFERENCE AT A GLANCE

DAY 1 — MONDAY, MARCH 20

Time	Session
08:45 - 09:15	Registration
09:15 - 09:30	Conference Welcome
09:30 - 10:00	Securing Content in the Cloud
10:00 - 10:30	Blockchain & The Hollywood Supply Chain
10:30 - 11:00	Hacking IoT: The New Threat For Content Assets
11:00 - 11:30	When Brands Come Alive...
11:30 - 12:00	Building Highly Scalable Immersive Media Solutions on AWS
12:00 - 13:00	**LUNCH**
13:00 - 13:30	The Future of Visual Effects in the Cloud
13:30 - 14:00	Visual Effects in the Cloud: Power and Control
14:00 - 14:30	Supercharge performance using GPUs in the cloud
14:30 - 15:00	Cloud Transition Patterns for Media Enterprises
15:00 - 15:30	Hybrid Redefined And The Future Of Digital Assets
15:30 - 16:00	The Distributive Aspect Of Cloud On The Digital World
16:00 - 16:30	IP for Sports Broadcast
16:30 - 17:00	Cloud Apps for Media Processing: IMF Packaging-on-Demand
17:00 - 17:30	End to End Media Workflow in the Cloud
17:30 - 18:00	The Truth: Massive Scale Deployments in the Cloud
18:00 - 18:30	Multi-Cloud Content Workflows- Leveraging The Unique Characteristic Of Cloud
18:30 - 19:00	Hollywood at Netflix Scale
19:00 - 19:30	Avalanche - Global File Management with C4
19:30 - 21:00	**COCKTAIL RECEPTION**

CONFERENCE AT A GLANCE

DAY 2 ▶ TUESDAY, MARCH 21

08:45 - 09:15	Doors Open
09:15 - 09:30	Looking Beyond The Script – The Practical Use Of Computational Linguistics For Story Adaptation And Project Development
09:30 - 10:00	Intelligence Content Discovery through Machine Learning
10:00 - 10:30	AI
10:30 - 11:00	Video Metadata Platforms: How To Futureproof Automation
11:00 - 11:30	Improve Efficiency by Double Digits – Leveraging Artificial Intelligence and Machine Learning
11:30 - 12:00	How Broadcasters Can Get In The Vr Game With Sports
12:00 - 13:00	**LUNCH**
13:00 - 13:30	Technical Introduction 360 / VR / AR / MR
13:30 - 14:00	The Future VR And Panoramic Cinema Experiences - Panel Moderated By Phil
14:00 - 14:30	VR For Everyone: Daydream and Google Play Apps
14:30 - 15:00	Frictionless Adoption: Removing Barriers to Creating, Distributing and Experiencing Immersive Experiences
15:00 - 15:30	Beyond Gaming: Incredible, Useful & Interesting Ways VR is Used Today
15:30 - 16:00	Creating a Diverse and Inclusive VR/AR Industry: A Cornerstone for the Future of Storytelling
16:00 - 16:30	Finding the Superhero Within: Social Change in VR
17:15 - 18:00	Sidestepping the Uncanny Valley: Physical Asset Capture in Wonder Buffalo VR
18:00 - 18:45	Volumetric Capture Panel
19:30 - 21:00	**COCKTAIL RECEPTION**

MON.

8:45 - 9:15

REGISTRATION

9:15 - 9:30

CONFERENCE WELCOME

TALKS

9:30 - 10:00

ADRIAN GRAHAM
Google

SECURING CONTENT IN THE CLOUD

The last 3 years have seen a major shift in how Hollywood film studios view public cloud usage. WIth an increased awareness and generally acceptance of the security and scalability these clouds offers to the VFX and animation vendors creating pre-release content, the focus has now shifted to ensuring best practices implementation.

10:00 - 10:30

STEVE WONG
HPE

BLOCKCHAIN & THE HOLLYWOOD SUPPLY CHAIN

The global system behind a viewer's transaction of watching a movie or TV show impacts viewers and show creators every day. What if all stakeholders had the same facts – Writers, Producers, Directors, Unions, Studios, Networks, Distributors, Theaters, Broadcasters, Cable Providers, Satellite providers, OTT providers and viewers? Blockchains offer precisely this opportunity. In this article we are going to explore new methods for enabling accountability in pre-production, production, post production, distribution, consumption and reporting with a secure chain of custody and metadata to be accessed, including key social attributes such as viewing method, display usage, rights compliance, and digital rights management.

10:30 - 11:00

TED HARRINGTON
ISE

HACKING IOT: THE NEW THREAT FOR CONTENT ASSETS

Connected devices play an important role in creating and consuming both theatrical and broadcast content, ranging from smart TVs, to connected cameras, to wireless routers, and more. However, these same devices also introduce new security risk, and new attack surfaces against which malicious adversaries can launch their campaigns. Presented by the elite security research group behind esteemed hacking concepts such as IoT Village, this session examines data-based industry trends, the ways in which connected devices are compromised, and what to do about it.

11:00 - 11:30

TALI KRAKOWSKY
Prophet
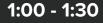
WHEN BRANDS COME ALIVE…

Incredible (and tiny) innovations in technology have inspired brands to invent new modes of engagement. Some of those customer experiences have, in turn, recoded our behavior and expectations. Today, brands have an opportunity and an obligation to be behave as living entities – conscious, intelligent, empathetic, hyper-personalized. The implications are immense and thrilling.

11:30 - 12:00

KONSTANTIN WILMS
AWS

CHAD SCHMUTZER
AWS

BUILDING HIGHLY SCALABLE IMMERSIVE MEDIA SOLUTIONS ON AWS

Immersive media content such as 360 degree video places a unique set of demands on cloud-based infrastructure from a complete end to end solution point of view. A key goal for any solution of this nature is to keep costs low while not impacting availability, scale and compute performance. In this talk we will look at how to solve ingest, processing, storage and delivery of live and on-demand content for immersive media delivery, and present a reference design for 360 degree streaming using best-practice architectural patterns.

LUNCH

1:00 - 1:30

TODD PRIVES
Google

THE FUTURE OF VISUAL EFFECTS IN THE CLOUD

The Cloud has provided a fundamental shift in the way studios are able to approach large scale rendering workloads. We'll examine the history of feature film workloads on cloud and how visual experiences such as VR are impacting the delivery pipeline and workflows.

1:30 - 2:00

KEVIN BAILE
Atomic Fiction

VISUAL EFFECTS IN THE CLOUD: POWER AND CONTROL

Visual Effects Supervisor Kevin Baillie had a hunch to bet on cloud computing 6 years ago. That bet birthed award winning visual effects studio Atomic Fiction and software company Conductor Technologies. Baillie will share visuals from blockbusters such as Deadpool and Star Trek Beyond to illustrate the cloud's immense power, and share cautionary tales of the importance of control in the face of such massive resources.

2:00 - 2:30

JOHN BARRUS
Google

SUPERCHARGE PERFORMANCE USING GPUs IN THE CLOUD

GPUs have thousands of compute cores and when coupled with lightning fast memory access they accelerate machine learning, gaming, database queries, video rendering and transcoding, computational finance, molecular dynamics and many other applications. With GPUs in the cloud, you can scale your calculation-heavy application without constructing your own data center. We'll give an overview of what we're offering in Google Cloud and talk about how to put GPUs to work. We will also showcase a number of commercial applications which require GPUs.

2:30 - 3:00

SHAILENDRA MATHUR
Avid

CLOUD TRANSITION PATTERNS FOR MEDIA ENTERPRISES

On one hand media enterprises using workflows involving thick apps and traditional server based workflows have business opportunities of lifting and shifting from on-prem infrastructure to off-prem cloud or centralized data centers. On the other hand, cloud native micro-services architectures and web apps provide options to implement new services and apps rapidly and dynamically. This talk provides insights into the different hosting patterns observed from these media enterprises, and discusses a common framework provided by Avid's Media Central Platform to realize the business opportunities under the different hosting models.

3:00 - 3:30

JOAN WRABETZ
Western Digital

HYBRID REDEFINED AND THE FUTURE OF DIGITAL ASSETS

Learn how HGST accelerates, simplifies and preserves digital assets in hybrid workflows. HGST's scale-out object store provides a high performance and cost efficient data lake that prevents cloud lock-in for hybrid media workflows; from post-production to content distribution.

3:30 - 4:00

JASON SHERWOOD
Equinix

THE DISTRIBUTIVE ASPECT OF CLOUD ON THE DIGITAL WORLD

The shift to digital is requiring all types of companies to implement new commerce and collaboration models to engage customers, partners and employees, and support new connectivity and data models for analytics, IoT, and other digital services. To sustainably survive digital disruption, traditional organizations in media and entertainment are transforming their business architectures and IT delivery architectures together. Jason will highlight some specific customer case studies in media and entertainment and talk about how preparing for this shift is of paramount importance to the industry.

4:00 - 4:30

MICHAEL HARABIN
Pac-12 Enterprises

IP FOR SPORTS BROADCAST

Using IP technologies to replace traditional video transmission for remote event production has opened up a world of possibilities for increased production values and richer content exchange. This tech can bring improvements to productions, large and small.

4:30 - 5:00

ERIC CARSON
Dalet

CLOUD APPS FOR MEDIA PROCESSING: IMF PACKAGING–ON–DEMAND

This talk will address how IMF can benefit a facility where versions matter. It will briefly consider how IMF works and then look at use cases of where automation can be used to ensure optimal handling of titles both at the point of creation and also over time as versions are created, managed and distributed. Developed as an effort to reduce complexity and costs for multi-version content publishing for production, post-production and program preparation workflows, the Dalet xN IMF Maker service will be presented as an example.

5:00 - 5:30

JEFF KEMBER
Google

END TO END MEDIA WORKFLOW IN THE CLOUD

How would traditional workflows of Production, Post Production and Content Distribution change with the scale and economics of cloud ? We'll discuss the current of state of art with examples and demos.

5:30 - 6:00

BRIAN CAMPANOTTI
Oracle

THE TRUTH: MASSIVE SCALE DEPLOYMENTS IN THE CLOUD

Although cloud is becoming the norm for most IT-infrastructure refreshes, the scale, growth and specificity of rich media content (HD, HDR, 4k, 8k) driving our industry seemingly prevent the wide-scale abandonment of long-term, on-prem "heavy metal" asset handling, processing and storage deployments.

6:00 - 6:30

JAY MIGLIACCIO
Aspera

MULTI-CLOUD CONTENT WORKFLOWS: LEVERAGING THE UNIQUE CHARACTERISTIC OF CLOUD

"Multi-cloud content workflows- leveraging the unique characteristics of each cloud infrastructure provider with high-speed content transfer and workflow automation across multiple cloud vendors."

KEYNOTES

6:30 - 7:00

CASEY WILMS
Netflix

HOLLYWOOD AT NETFLIX SCALE

Netflix will release 1000 hours of Original programming in 2017. Learn how Netflix is building the infrastructure to manage assets at the world's largest studio.

7:00 - 7:30

JOSHUA KOLDEN
Avalanche

AVALANCHE – GLOBAL FILE MANAGEMENT WITH C4

Avalanche.io is releasing a powerful new file navigator based on the open source C4 framework. C4 dramatically reduces the cost and complexity of remote file management, and Avalanche makes it drag and drop. This talk will go behind the scenes to show how C4 is used to solve the most fundamental challenges of production in the cloud.

7:30 - 9:00   COCKTAIL RECEPTION

TUE.

8:45 - 9:15

DOORS OPEN

9:15 - 9:30

ANTON ANDREACCHIO
Double Bishop / Jumpgate

LOOKING BEYOND THE SCRIPT – THE PRACTICAL USE OF COMPUTATIONAL LINGUISTICS FOR STORY ADAPTATION AND PROJECT DEVELOPMENT

A short case study on the use of natural language processing techniques to support the screenplay adaptation of a popular young-adult novel series. Rather than trying to 'crack the code', Double Bishop supports development strategies by revealing hidden insights and bridging interpretive feedback with objective analysis and recommendations.

TALKS

9:30 - 10:00

RAM RAMANATHAN
Google

INTELLIGENCE CONTENT DISCOVERY THROUGH MACHINE LEARNING

Machine Learning has enabled Google to change the experience within products like Photos and You-Tube. ML has allowed us to understand the content of images and videos, so that we can recommend and search for your favorite clip or photo. With Cloud Machine Learning, we are now bringing that technology closer to you. With the new Video Intelligence and Vision products, you can now find entities and faces within your video content.

AI

10:00 - 10:30

TBA

10:30 - 11:00

ANTHONY ACCARDO
Disney

VIDEO METADATA PLATFORMS: HOW TO FUTUREPROOF AUTOMATION

With all the vendors, promises and demos around automated metadata and machine learning, it can be overwhelming to plan a path forward. In this talk we'll cover a modular and futureproof descriptive metadata architecture and explain how we're implementing machine learning and automation to avoid vendor lock-in.

11:00 - 11:30

JOHN MOTZ
GrayMeta

IMPROVE EFFICIENCY BY DOUBLE DIGITS — LEVERAGING ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING
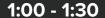
How will artificial intelligence and machine learning help drive efficiency throughout the M&E Industry? In this talk, John Motz will explore the future of machine learning and how it is enabling companies to automate manual workflows to become more efficient and more productive.

11:30 - 12:00

SASWAT PANDA
LiveLike

MICHAEL DAVIES
Fox Sports

HOW BROADCASTERS CAN GET IN THE VR GAME WITH SPORTS

With new distribution deals from the NFL on Twitter to ESPN on Sling how we watch TV is now driven by the consumer demand to do more while we watch tune in to watch our favorite team. Enter virtual reality. VR is the first truly transformative technology for sports broadcasting in years – to date, the biggest improvements we've seen have been HD (just better picture) and "the yellow line." With VR, we can actually take you to the game, like you're sitting courtside or on the 50year line, while still being able to check their Twitter, trash talk and follow their team in realtime.

LUNCH

1:00 - 1:30

LUCAS WILSON
SuperSphereVR

TECHNICAL INTRODUCTION 360 / VR / AR / MR

All The "R"s. The technical basics, the differences, and real-world examples of 360 video, VR, AR, and MR. The emotional connection they each make, and where they shine in creative, B2B, and B2C presentations.

1:30 - 2:00

TED SCHILOWITZ

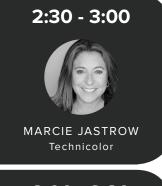**ERIC HANSON**

RICHARD W. TAYLOR II
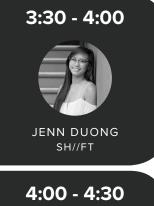
GREG CIACCIO

THE FUTURE VR AND PANORAMIC CINEMA EXPERIENCES. – PANEL MODERATED BY PHIL LELYVELD

Multiplexes and arcades are once again faced with the challenge of drawing an audience as home entertainment improves and an explosion of entertainment and social engagement options vie for their time. This series of talks will explore ideas multiplexes and arcades are considering; from offering wider and bigger screen experiences to rethinking the spaces as multi-sensory group immersive experiences.

2:00 - 2:30

SERGE KASSARDJIAN
Google Play

VR FOR EVERYONE: DAYDREAM AND GOOGLE PLAY APPS

Google Play has become a critical platform for app developers to reach a wide and diverse audience. As VR is a nascent technology, both platform and developers have an opportunity to create a marketplace that offers a similarly broad and diverse catalog. In this talk, Serge Kassardjian shares how Google Play is adapting its store management approach to programming the launch portfolio of apps for Daydream – with the goal of moving VR from a novelty to a mainstream movement.

2:30 - 3:00

MARCIE JASTROW
Technicolor

FRICTIONLESS ADOPTION: REMOVING BARRIERS TO CREATING, DISTRIBUTING AND EXPERIENCING IMMERSIVE EXPERIENCES

Marcie Jastrow, SVP of Immersive Media, Technicolor and Head of the Technicolor Experience, discusses the current state of immersive experiences and how we are working toward a 'frictionless' adoption by consumers. By exploring the methodology of how consumers embraced past technologies, Marcie explores what needs to happen in order for immersive media to be accepted into mainstream culture. What is that breakthrough piece of content that will bring people into the headset, and how do we keep them engaged? Marcie explains how, through education, the Technicolor Experience Center is working toward a seamless ecosystem to drive the adoption of this emerging medium.

3:00 - 3:30

LAURA W. ARGILLA
Adobe

BEYOND GAMING: INCREDIBLE, USEFUL & INTERESTING WAYS VR IS USED TODAY

When you think of VR you likely picture a gamer wearing a VR headset, immersed in an animated battle against dark and evil forces. But VR goes so far beyond gaming - cutting across music, non-profits, sports, filmmaking and commercials to name just a few. In this session, you'll hear from experts who have focused their life's work on creating immersive experiences thanks to VR.

3:30 - 4:00

JENN DUONG
SH//FT

CREATING A DIVERSE AND INCLUSIVE VR/AR INDUSTRY: A CORNERSTONE FOR THE FUTURE OF STORYTELLING

Diversity has long been an important yet misunderstood topic, and this appears to be especially true in the emerging industry of VR/AR. This session will explore VR as a storytelling medium, the impact of diverse voices on culture, and current initiatives in the VR/AR industry to create an inclusive industry. The talk will also cover best practices for fighting our own biases in the workplace.

4:00 - 4:30

NED ATKINS
UploadVR

FINDING THE SUPERHERO WITHIN: SOCIAL CHANGE IN VR

Explore how VR experiences can be an effective tool in understanding social issues with the creators of Wonder Buffalo.

KEYNOTES

5:15 - 6:00

BRIAN FAGER
ETC

SIDESTEPPING THE UNCANNY VALLEY: PHYSICAL ASSET CAPTURE IN WONDER BUFFALO VR

Let's talk the Holy Grail of this emergent storytelling medium: photoreal fidelity in a real-time rendered experience. Light fields hold immense promise to break down these barriers in time, but what can be done today? The Entertainment Technology Center @ USC teamed up with major studio and technology partners to explore the cutting edge of physical asset capture in an interactive VR experience, exploring the very real computing and workflow challenges along the way. Learn best practices and pitfalls uncovered in the creation of Wonder Buffalo VR, a real-time rendered Unity experience that made waves at Sundance and SXSW 2017 through its integration of photogrammetry, volumetric video and interactive CG elements.

6:00 - 6:45

STEVE SULLIVEN

VOLUMETRIC CAPTURE PANEL

6:45 - 7:30

COCKTAIL RECEPTION