

## IBC ACCELERATOR 2024

Digital Replicas and Talent ID:

Provenance, Verification and New Automated Workflows





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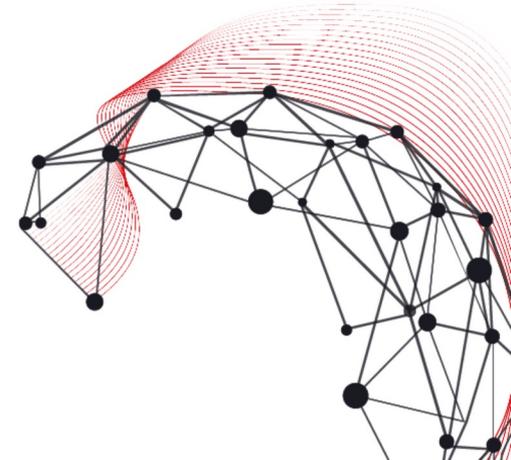
#ACCELERATORS2024

## ACCELERATOR PROJECT: DIGITAL REPLICAS AND TALENT ID

### Champions:



### Participants:

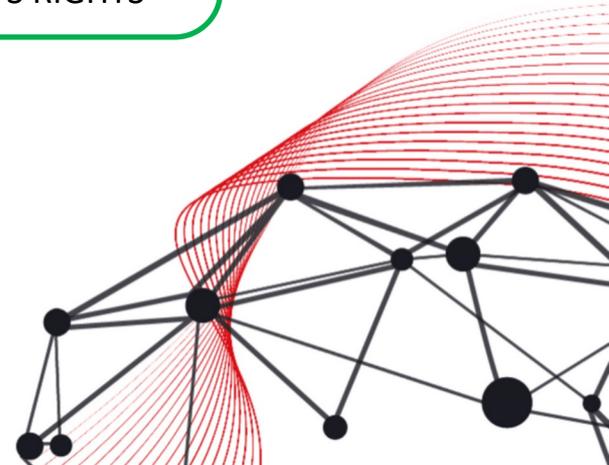


The "Digital Replicas & Talent ID" project addresses the challenges of ensuring ethical use and protection of actors' rights in the evolving landscape of digital humans.

ETHICAL USE



ACTOR'S RIGHTS





Digital replication technology is moving at such an accelerated rate that policies, standards, and guidelines are unable to be developed at the same speed. It is critical that creator IP is protected and that is why it makes sense for SMPTE to champion a project that seeks to build tools to support that effort.



“The whole media and entertainment industry needs to find a safe way of engaging with talent towards safeguarding the production and distribution of their Digital Replicas and assets. We need to look towards new workflows and define industry standards to ensure everyone is appropriately protected”



As the media and entertainment landscape evolves, it's crucial we establish clear and secure processes for the creation and use of actors' digital personas. Developing industry-wide standards will ensure that talent is empowered and protected, fostering trust and innovation in this new era of production and distribution.



The IBC R&D challenge is a fantastic opportunity to collaborate internationally with key leaders across the globe, on the emerging challenge of protecting talent and their digital replicas.



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# Talent NILV in Jeopardy (Name-Image-Likeness-Voice)

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Nefarious uses of AI

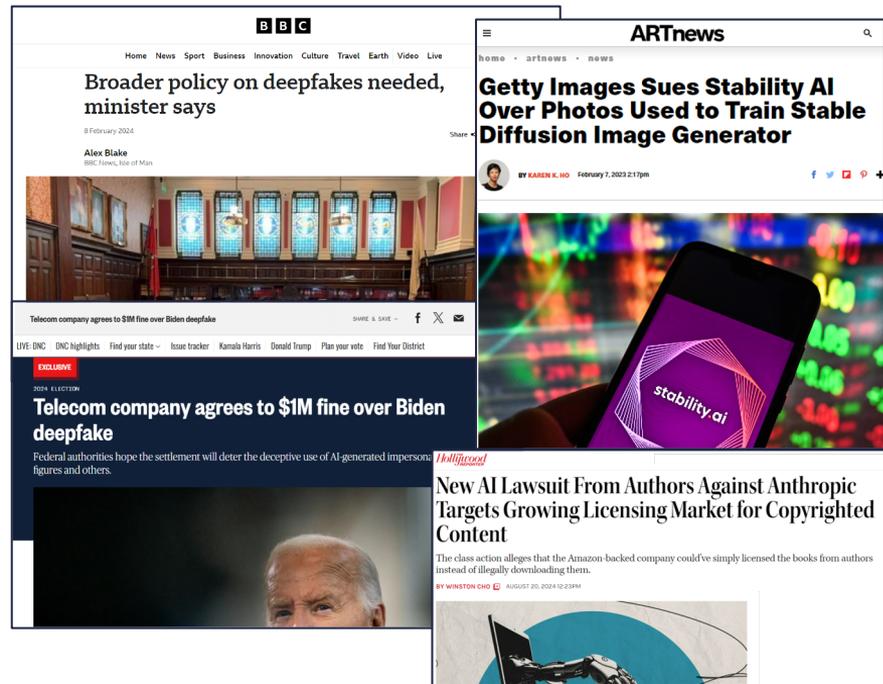
Deepfake harm to public & private individuals

Lack of source verification mechanisms

Insufficient metadata control practices

Limited detection capabilities

Limited adoption of standards & protocols





## **What our Proof of Concept Seeks to Demonstrate**

- What Talent can do to protect their NILV rights
- How the industry can fulfill its responsibility to safeguard Talent and their interests
- How technology and standards can be employed in this effort



## Introducing: Evan Shafran



Writer



DJ



Rapper



Comedian



Actor



SAG Member  
(Activist)



3D Scanned  
Replica

**Evan has been active in the industry for nearly 20 years**

- A versatile talent playing a variety of roles
- Including a SAG member hero in the recent strike
- And now, a 3D Digital Replica with new possibilities...





# Our Hero's Journey: Evan Shafran



Writer



DJ



Rapper



Comedian



Actor



SAG Member  
(Activist)



3D Scanned  
Replica

# The Future:

## The Good...



Best  
Actor Award



Film  
Producer



US  
Senator

## Now we will imagine Evan's future

- Very soon, our hero will encounter...
  - ❖ New and exciting opportunities!
  - ❖ But danger also lurks...
- Evan and his NILV need protection like never before!



Unauthorized  
Video Game  
Likeness



Fake  
Endorsement



Altered  
News Clip

## ...The Bad, and The Ugly

### Consent



Actors must give explicit permission for their name, image, likeness, voice (NILV), or any digital replication to be used.

### Credit



Proper acknowledgment must be given to actors for the use of their NILV and their digital replica(s).

### Compensation

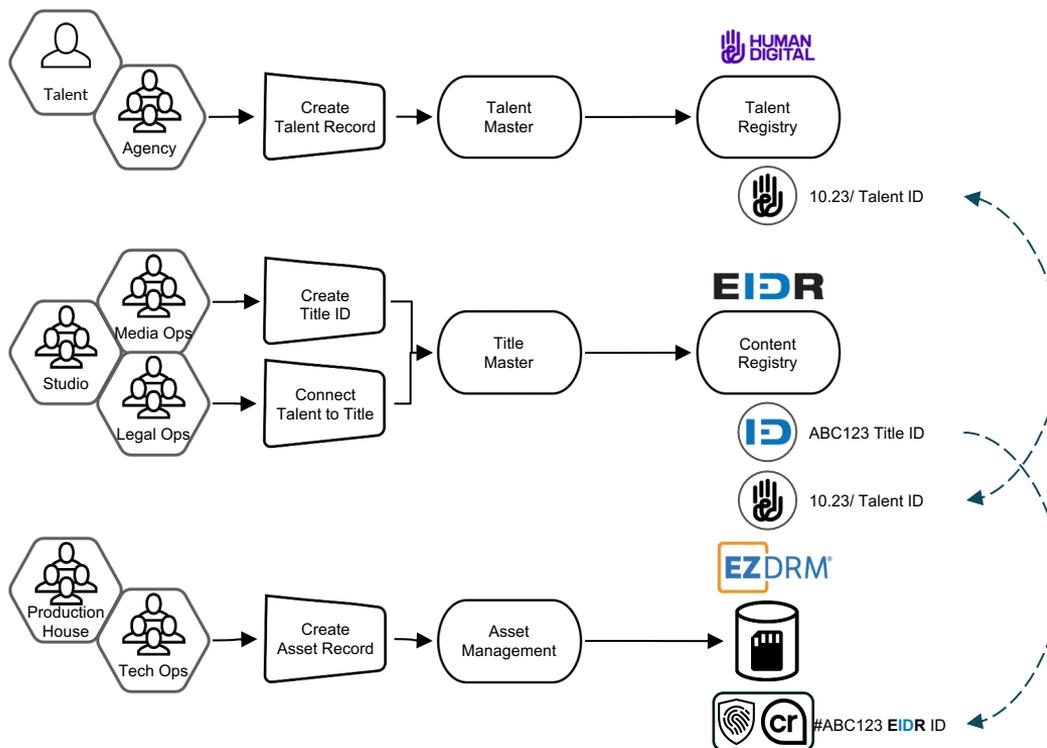


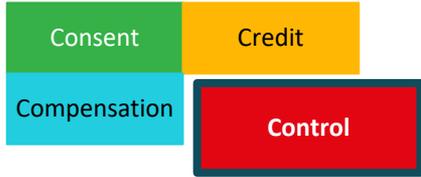
Actors should receive fair payment for the use of their digital likeness and any derived work.

### Control



Digital replica assets must be protected through forensic tools to curb deep fakes; misuse of intellectual property in AI training; and any other nefarious use of an actor's NILV in AI generated content.





**Content Element**

**Access Method**

Digital Content

Watermark (C2PA)

Content ID

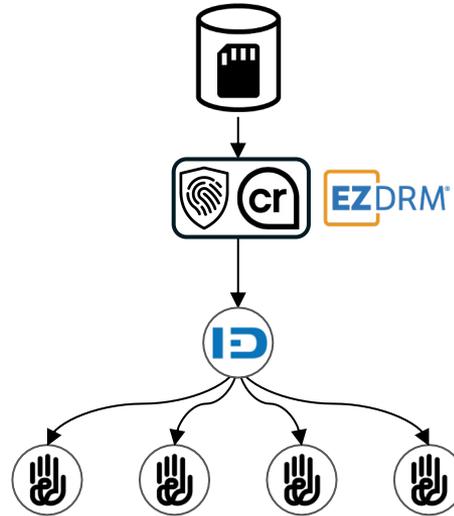
Talent ID

Video player

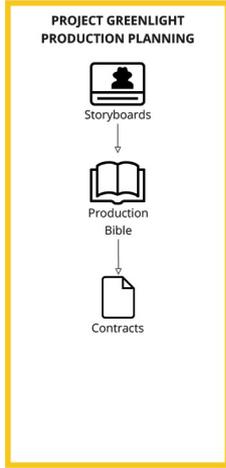
Embedded

Hashtag in watermark

Cross-referenced in content registry

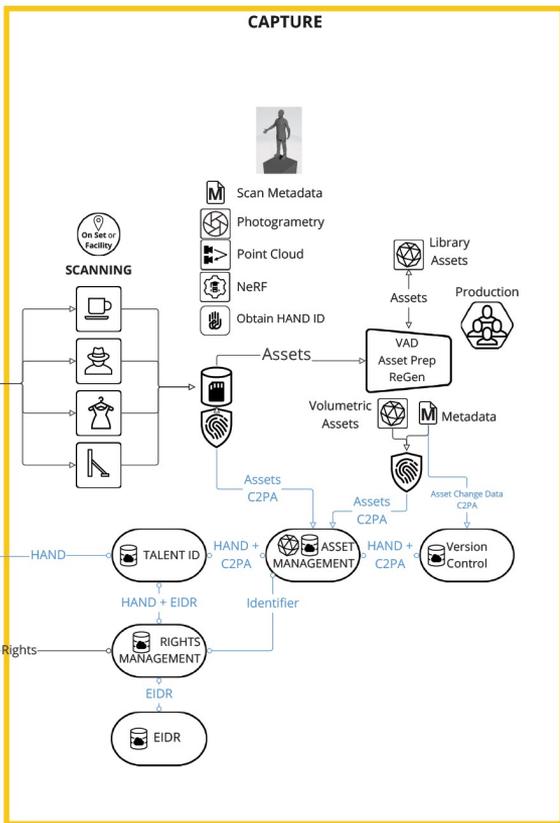
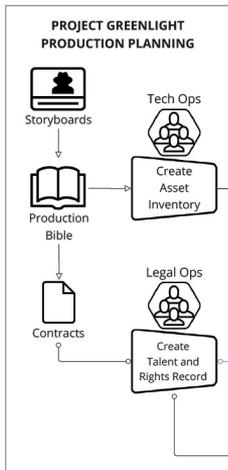


# Asset and Metadata Workflow

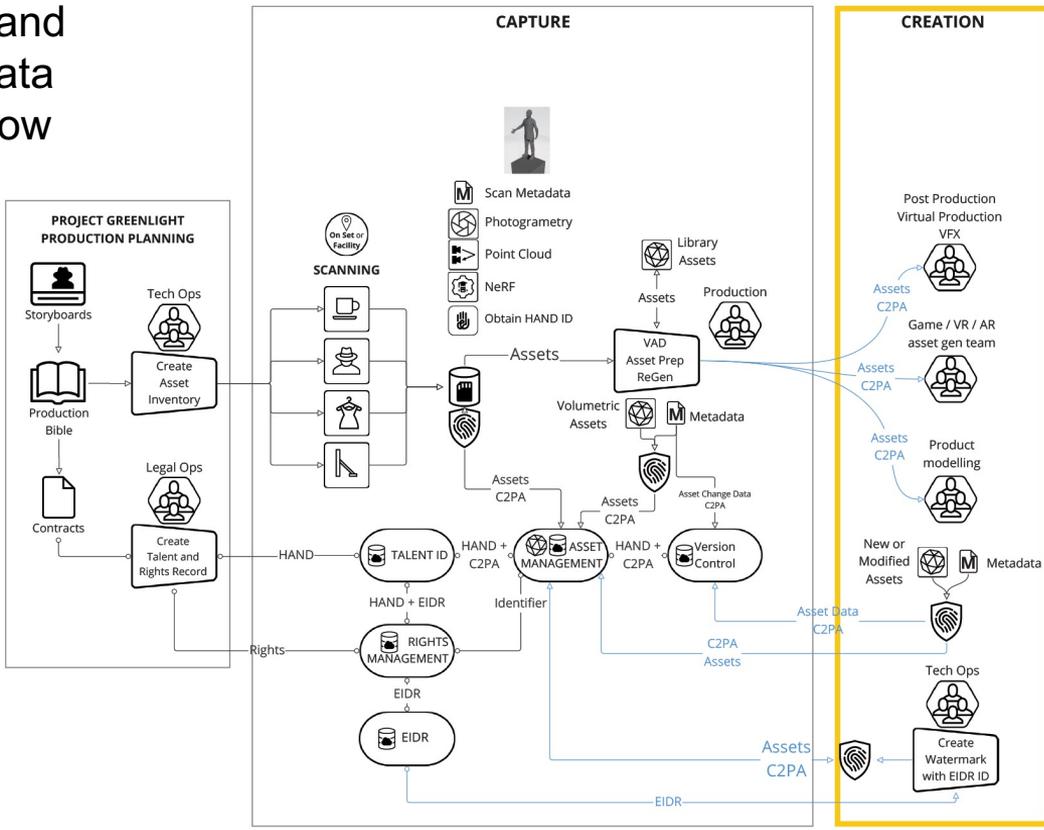




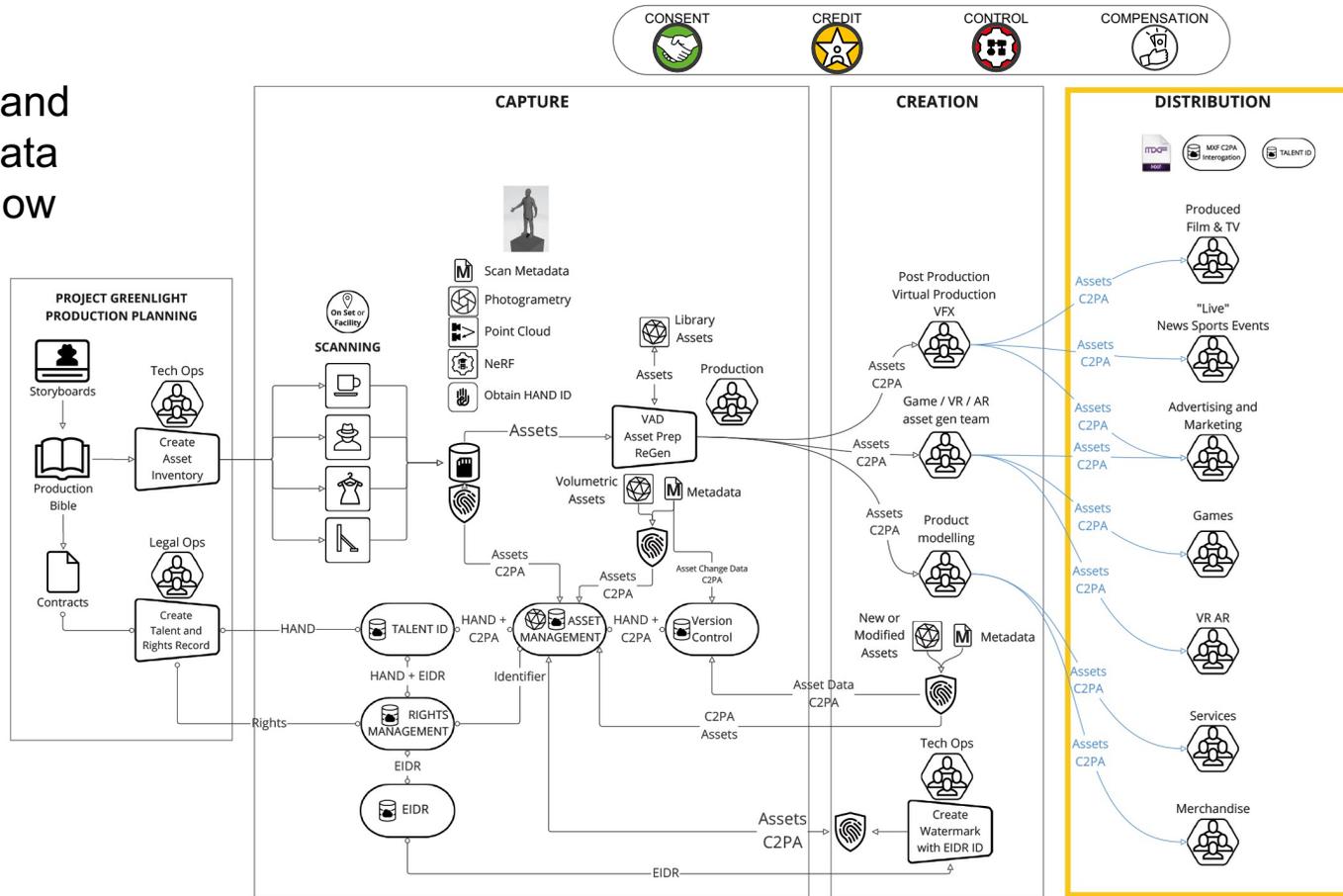
# Asset and Metadata Workflow



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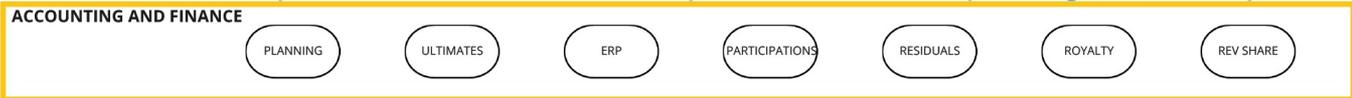
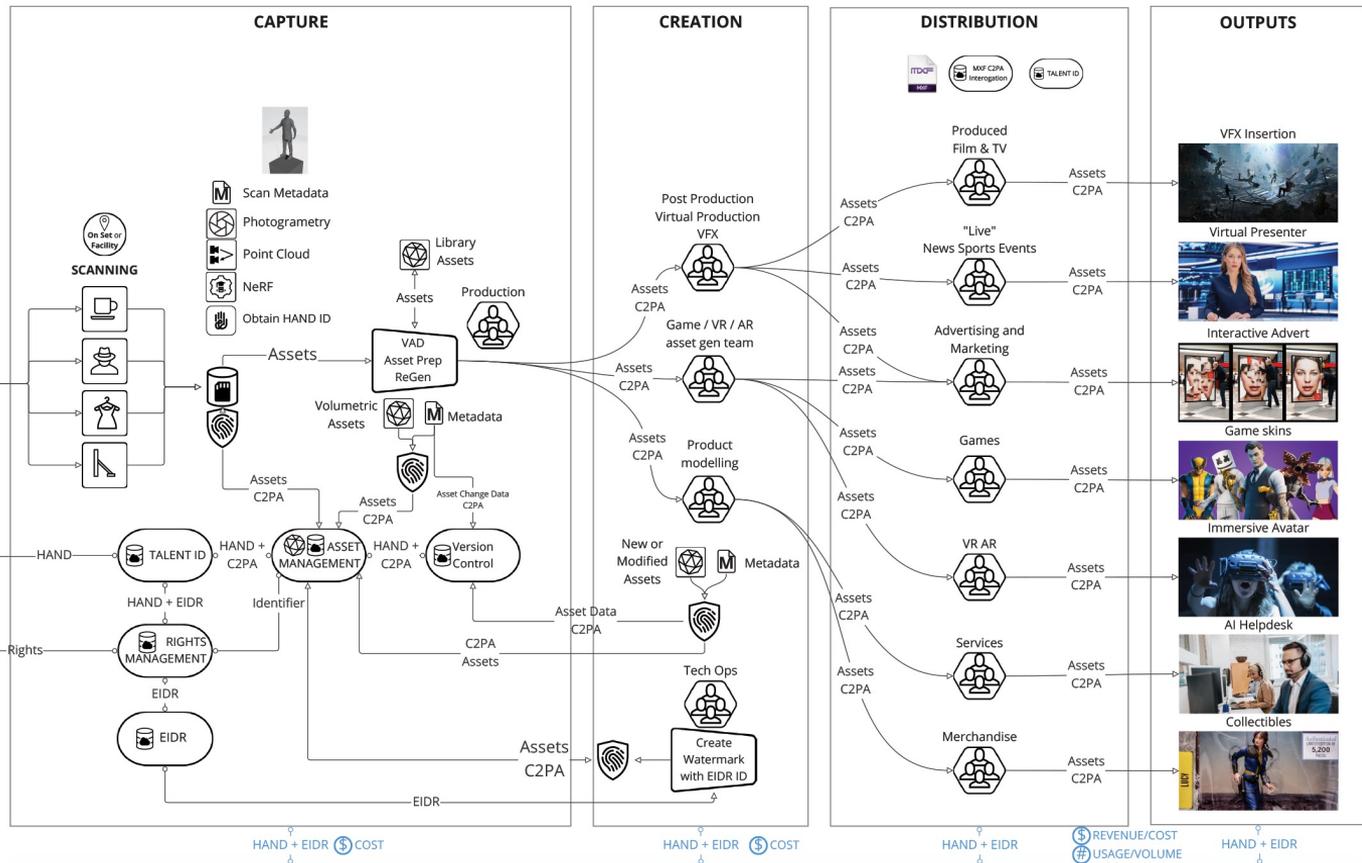
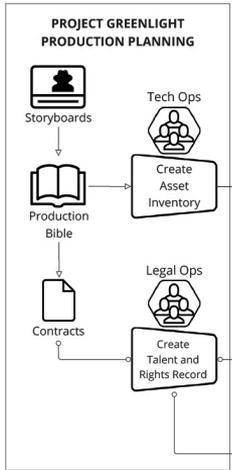


# Asset and Metadata Workflow

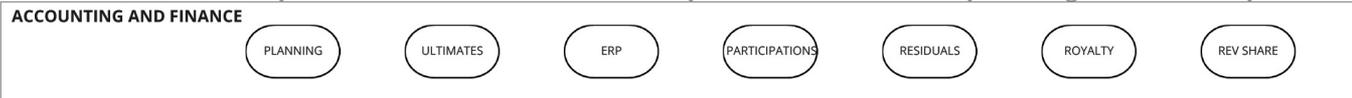
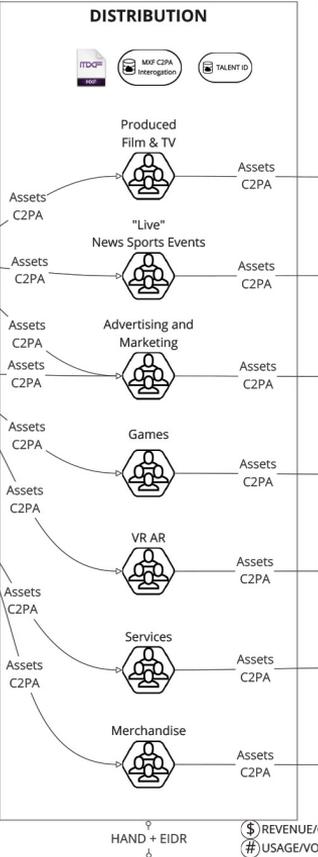
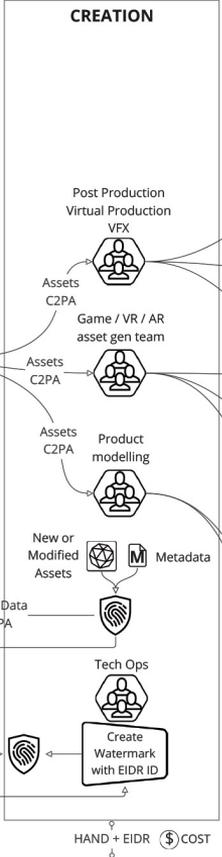
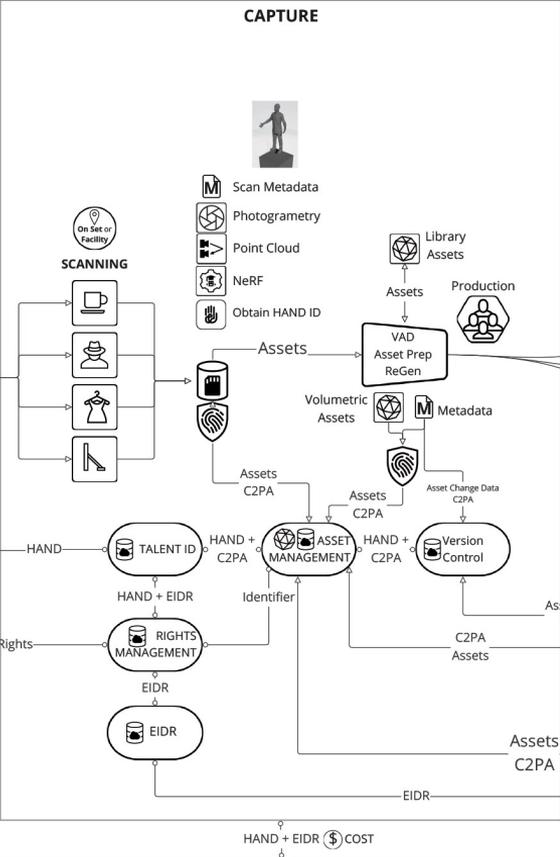
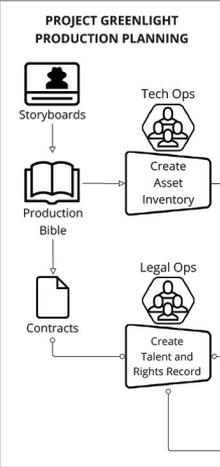




# Asset and Metadata Workflow



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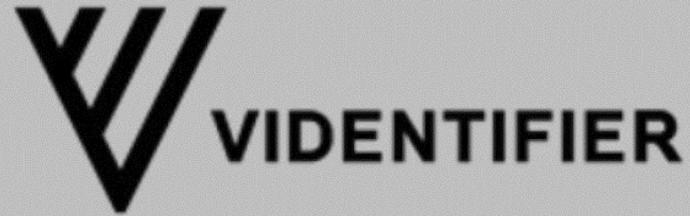




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Videntifier: Visual Detection and Search

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Visual Matching  
for Digital Assets

### Metadata

Universal standards for metadata

Registration in secure immutable ledgers with real time updates

Identify content (EIDR)

Identify actors (HAND)

### Provenance

Build on C2PA standards

Widespread adoption of tracking systems throughout the lifecycle

Embed provenance tracking artifacts into content

### Watermarking

Fingerprinting digital replicas

C2PA hash in secure immutable ledgers

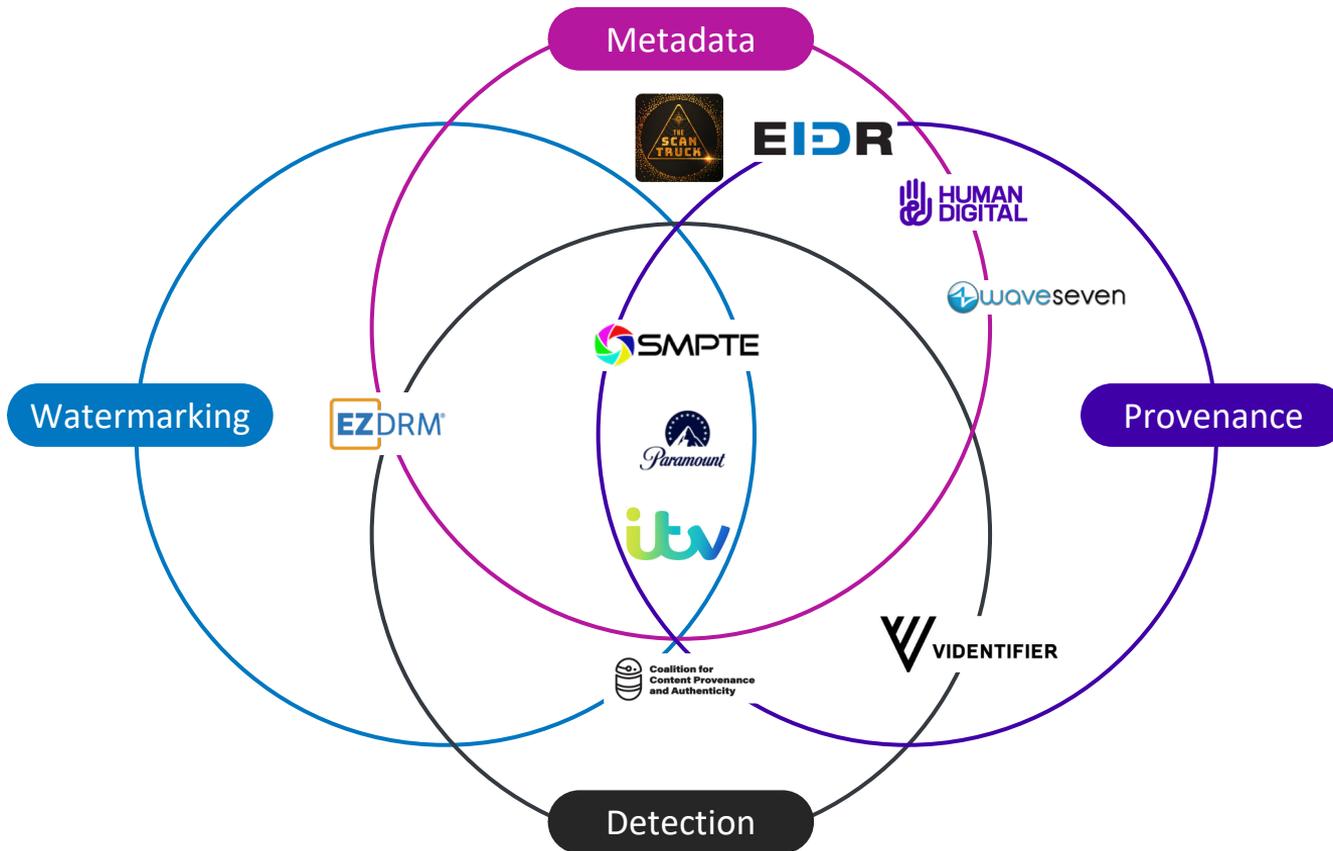
Tamper-proof metadata watermarking on all digital media

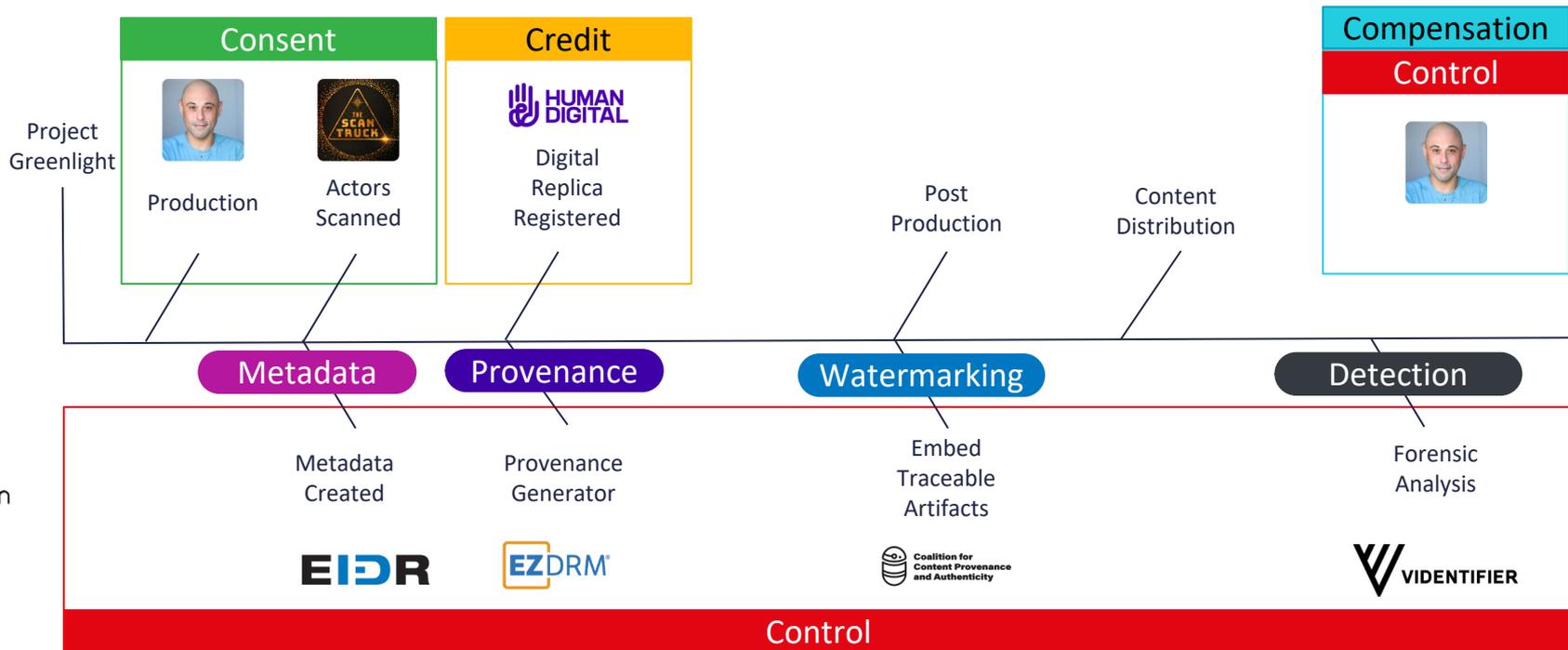
### Detection

Use fingerprints for real time detection for content manipulation

Transparent reporting from platforms on manipulated content detection

Simple to use - publicly accessible verification tools





### **Clear and Present Danger**

- No longer a future threat
- Social media is the most vulnerable
- Consumers not capable of discerning real from fake
- Risk touches more than actors

### **Evolving legal landscape**

- Global patchwork of regulations created
- Many proposals and bills but no results
- Reliance on ethical guidelines and persuasion

### **Enabling Change**

- Technology exists now - relatively straightforward
- No single solution – options exist
- Solution is complex - breaking into parts is helpful
- The challenge is mostly a human one
  - Gaining consensus on standards and registries
  - Adapting and applying supporting processes
  - Communicating and educating the change
  - Implementing accountability

**Economic**

- Ensure fair payment for the use of work or NILV.
- Include residual models for ongoing AI use.
- Compensate for NILV data used in AI training.

**Governance**

- Allow revocation of consent at any time.
- Provide tools to monitor and prevent misuse.
- Enable quick identification of unauthorized use.
- Acknowledge contributions in all AI-generated works.

**Social**

- Obtain explicit permission before using NILV.
- Maintain control over how digital assets are used.
- Credit creators for AI-augmented content.
- Protect creators' reputations with proper usage.

## European Union

- The Artificial Intelligence Act (AI Act)
- General Data Protection Regulation (GDPR)
- Ethics Guidelines for Trustworthy AI
- The Digital Services Act (DSA) and Digital Markets Act (DMA)
- The European Data Strategy

## China

- New Generation Artificial Intelligence Development Plan (AIDP)

## Canada

- The Artificial Intelligence and Data Act (AIDA)

## Japan

- Social Principles of Human-Centric AI
- AI Strategy 2021

## United States

- Draft Legislation on Digital Replicas (No Fakes Act)
- California Privacy Rights Act (CPRA)
- California's Consumer Privacy Act (CCPA)
- Federal Trade Commission (FTC) Rule on AI-Generated Content
- U.S. Copyright Office

## International

- Organisation for Economic Co-operation and Development (OECD)
- UNESCO (United Nations Educational, Scientific and Cultural Organization): Recommendation on the Ethics of Artificial Intelligence

### **Implement Content Verification Protocols**

- Adopt industry standards
- Enhance industry policy and guidelines
- Establish good metadata hygiene
- Establish content provenance tracking
- Utilize watermarking

### **Stay Informed**

- Educate your team & stakeholders
- Collaborate with peers & industry leaders
- Monitor the evolving legal landscape

**Advocate for**

- Greater public education
- Implementation of detection technology
- Adoption of standards
- Adoption of cleaner workflows
- Do the hard work of cleaning up old processes & data
- Apply ethical practices (The 4 Cs)
- Clearly define legal frameworks
- Enhance transparency & reporting



## Digital Replicas and Talent ID

### Digital Replicas & Talent ID: Provenance, Verification and New Automated Workflows

#### OVERVIEW

Executive Summary

The Challenge

A Digital Human is "Born"

Workflow

Asset & Metadata

Feature/Episodic Use Case

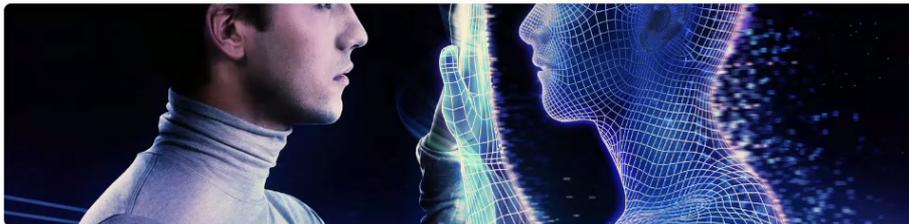
Usage Rights and  
Authentication Mapping

Legitimate Use Cases

Nefarious Use Cases

Deepfakes: By The Numbers

Legal & Ethical



## Digital Replicas & Talent ID: Provenance, Verification and New Automated Workflows

### The Challenge:

This Challenge addresses the evolving disruption within the Media & Entertainment industry in the authentication and management of talent in today's digital landscape. Specifically, it addresses issues tied to AI-generated content, virtual world representation, and talent provenance. By offering a distinct and standardized identification framework, this project aims to streamline the authentication process, ensuring reliable verification of real individuals, virtual avatars, and fictional entities. This exploration responds to the urgent need from the media and entertainment industry for an agile solution to automate provenance, thus verifying the authenticity of digital personas and protecting



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## Message to the Industry

**#ACCELERATORS2024**

Establish a framework for the ethical use of digital humans by identifying provenance, verification mechanisms, and workflows to protect actors' rights while supporting innovative applications in the evolving landscape of digital replicas and talent identification.



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POC Microsite:

#ACCELERATORS2024

DigitalReplicaProvenance.info





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Meet us at the Accelerator Zone POD!

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