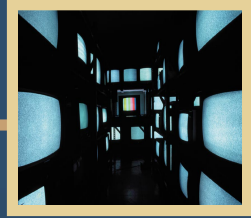


# Los Angeles GSAM

## Survey of Digital Asset Management

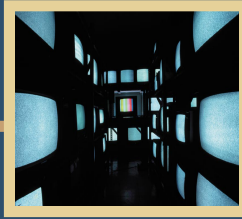
25 March 2004

Blake White, Digital Media Risk Management, National Leader  
Entertainment & Media Practice



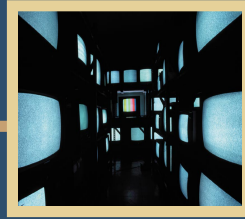
# Agenda

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- Introduction
- What we hear from the industry
- DAM – Evolving from other industries
- Entertainment industry DAM and MAM
- Key learnings and best practices

# What we are Hearing from the Industry



"We have approximately 2 million files stored digitally but our biggest challenge is finding them. We are trying to find the right search and retrieval that will work for us. In today's hectic world, everyone wants everything now." (Media company)

"Our content has doubled since last year; we receive 12,000 to 15,000 new items per month and I expect that growth rate to continue." (Broadcasting company)

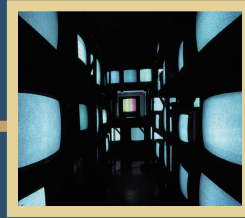
"We thought that we would be able to buy a soup-to-nuts solution for digital asset management, but we couldn't find one so we had to develop our own. We would have preferred to buy a solution." (Entertainment company)

"We are effectively converting older materials on demand, as they are needed. Most of the time is spent on new materials. Lots of the archives haven't been used in years so it's not worth converting them to digital." (Educational institution)

"Digitization? First we need to figure out what we have and what needs to be killed, and then we can get to the question of whether we even want to digitize it." (Consumer products company)

"Our biggest issues now are simply locating assets -- they are not easily retrievable, especially across locations. We have field offices around the world and we store and send everything on videotape." (Packaged-goods company)

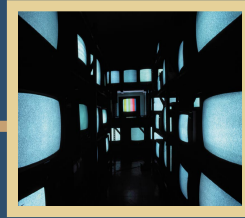
# Where Have We Heard This Before?



- 25 years ago – “Paperless Office”
  - Document management for insurance claims and medical records
  - Era of Oracle, IBM, and Xerox



# Where Have We Heard This Before?

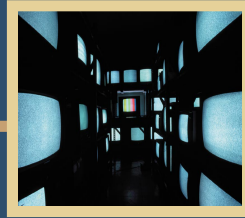


- 25 years ago – Paperless Office
  
- **20 years ago – Factory Automation**
  - CAD/CAM Repositories for discrete manufacturing
  - Standards driven by GM, Boeing, Dupont, P&G
    - MAP
    - JIT
  - Era of HP, DEC, IBM





# Where Have We Heard This Before?

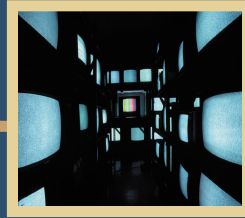


- 25 years ago – Paperless Office
- 20 years ago – Factory Automation
- **15 years ago – Software CASE Tools**
  - Software development team repositories
  - Collaborative development
  - Reusable code
  - Era of Sun, Sybase, Powerbuilder, etc.

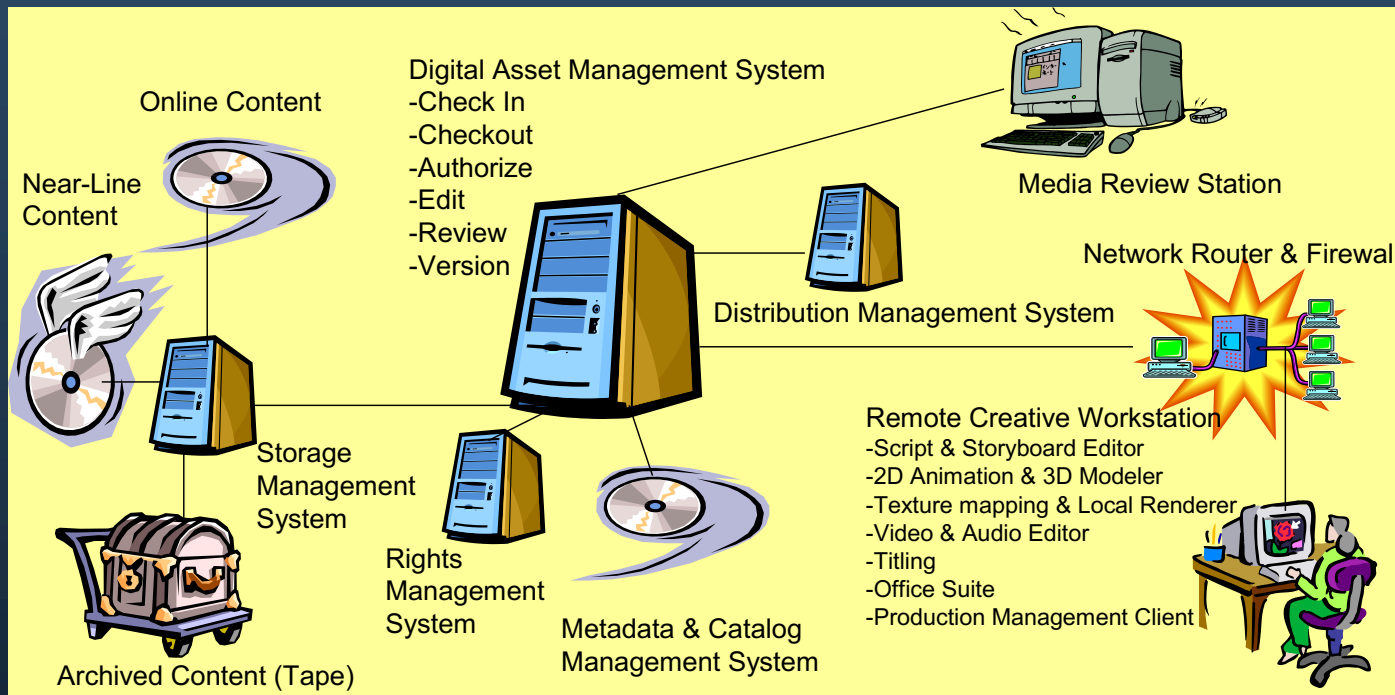


Source: PwC Entertainment & Media  
Corner, Hollywood Reporter

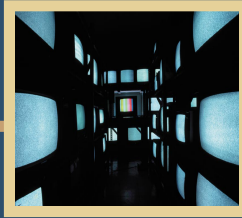
# Where Have We Heard This Before?



- 25 years ago – Paperless Office
- 20 years ago – Factory Automation
- 15 years ago – Software CASE Tools
- **10 years ago – Animation & Visual Effects**
  - DAM to support production at Dreamworks, Lucasfilm, etc.
  - Era of SGI, Cinebase, Bulldog, IBM DL



# Where Have We Heard This Before?

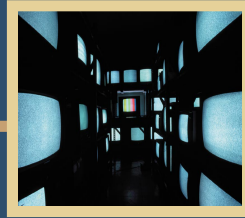


- 25 years ago – Paperless Office
- 20 years ago – Factory Automation
- 15 years ago – Software CASE Tools
- 10 years ago – Animation & Visual Effects
- **5 years ago – Broadcast Servers**
  - Digital video storage, management, and playout
  - MTV, CNN

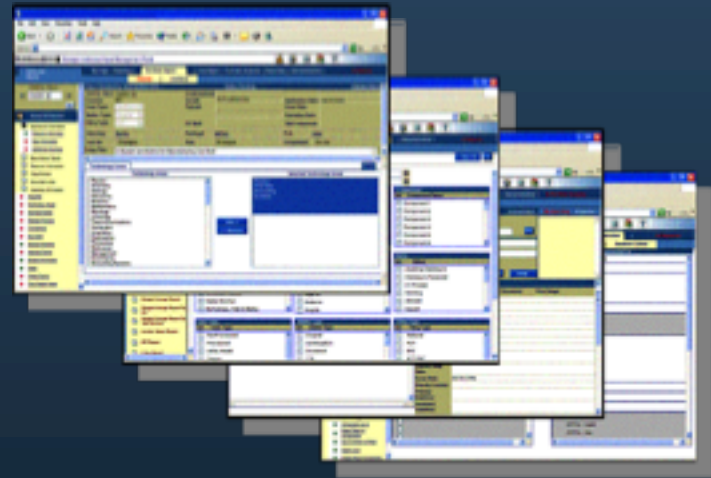




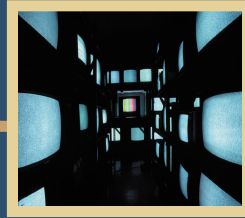
# Where Have We Heard This Before?



- 25 years ago – Paperless Office
- 20 years ago – Factory Automation
- 15 years ago – Software CASE Tools
- 10 years ago – Animation & Visual Effects
- 5 years ago – Broadcast Servers
- **3 years ago – Dot Com E-Commerce**
  - Content management for web portals



# Working Definitions

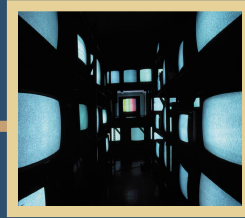


- Asset Management is the comprehensive set of management systems, supported by IT, that enables optimal use, exploitation and safeguard of digital assets within the organisation,
  - **Digital Asset Management (DAM)** -- generally supporting production works-in-process.
  - **Media Asset Management (MAM)** – generally supporting the distribution and use of media assets for marketing, promotion, advertising, and publicity purposes.
  - **Enterprise Content Management (ECM)** – generally supporting the access and retrieval of assets via web portals
- They require optimal linkage between the actual digital content (formats, productions, pictures, movies) and the associated metadata (rights, costs, versions, owners, territories).



Media Asset Value Chain

# DAM, MAM, ECM Suppliers



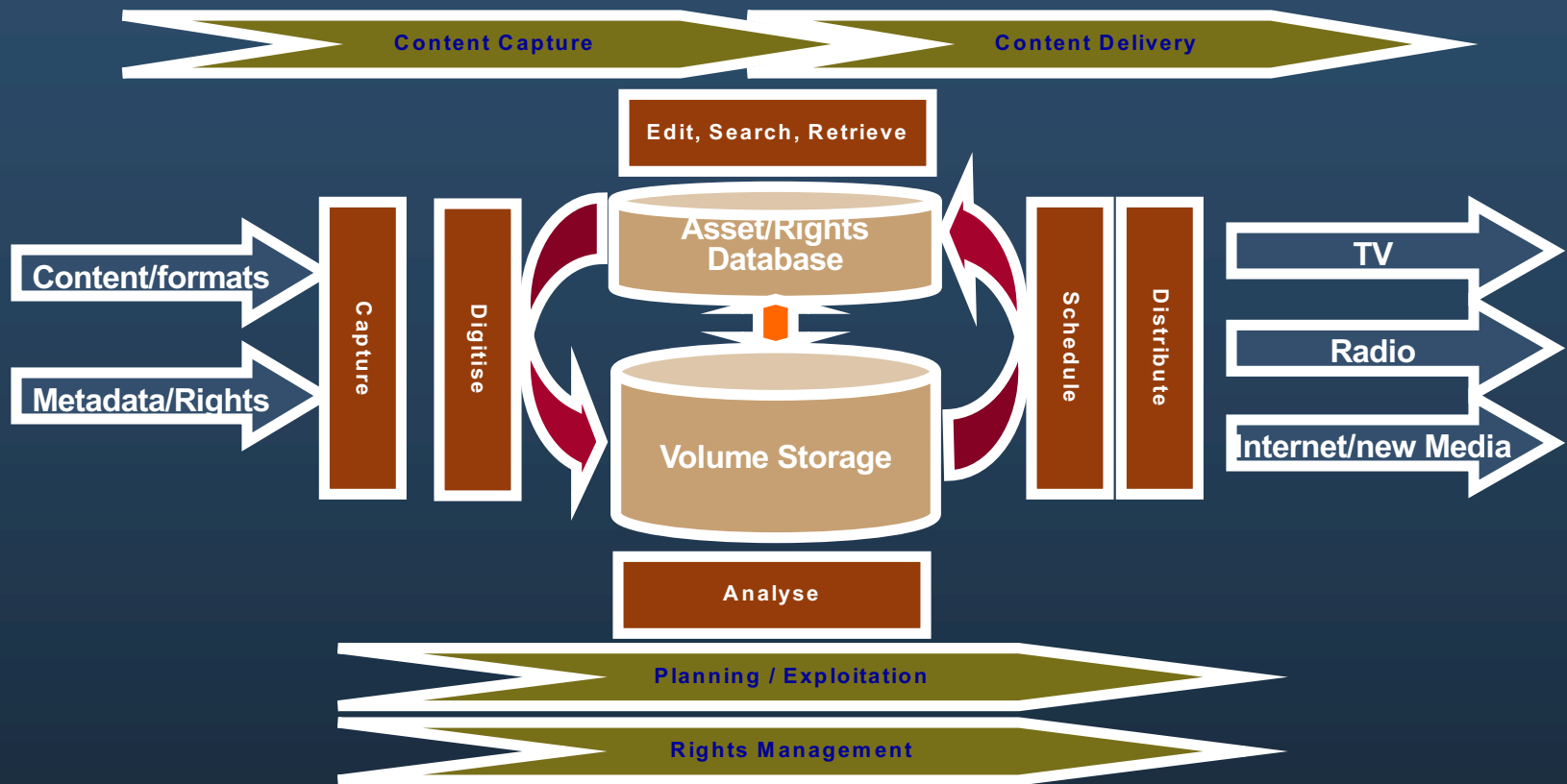
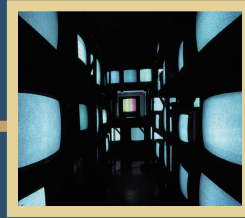
## Sample Vendors

- Artesia TEAMS
- Documentum (Bulldog) 4i ECM
- Emotion (Cinebase) Creative Partner
- IBM DB2 digital library (and Informix product lines)
- Microsoft Windows Media 9 + SQL Server
- North Plains Telescope
- NXN Alien Brain
- Oracle interMedia + 9i
- Real Networks Helix Producer
- Rumble Group (StudioCentral) RNI Studio Manager

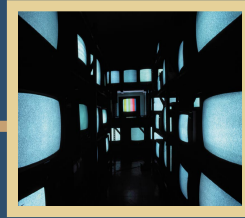


Image: Courtesy WAM!NET

# Over Aggressiveness?



# Benefit Areas of DAM



## ■ Process improvement:

- Enable process consistency
- Increase brand awareness
- Provide management information

## ■ Increase revenue and reduce costs:

- Parallel distribution in multiple channels (e.g. TV, EIM, ECE)
- Eliminate duplicate inventories and registrations of content/formats
- Reduce shipping and storage costs

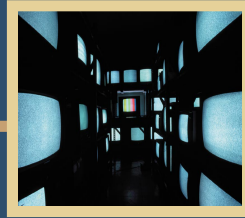
## ■ Expedite time to market:

- Automate access to content across regions and partners
- Facilitate re-use, adding value to previous work
- Reduce search and retrieval overhead





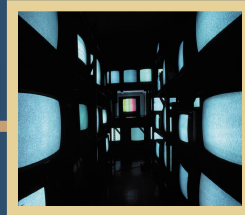
# Key Questions to be Structured with DAM



- What rights are owned and by whom?
- Which rights will have been licensed and at what price?
- Are there hidden jewels ?
- What can we sell and where?
- Which (digital) assets can be exploited better?
- How can rights be protected?
- How can we use DAM to streamline workflow?
- How can DAM reduce duplication of systems?
- How can DAM enable collaboration with multiple partners across a virtual studio?



# DAM in Entertainment Industry – Going Forward



## Key Trends to Watch

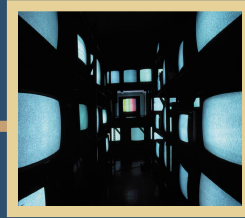
- Movement from APIs to web services to integrate the stovepipes
- Metadata standards – MPEG7 and XMF
- Content & metadata travel together and support multiplatform production environments – AAF
- Rights mgt standards – MPEG 21



Corporate Digital Media Strategies

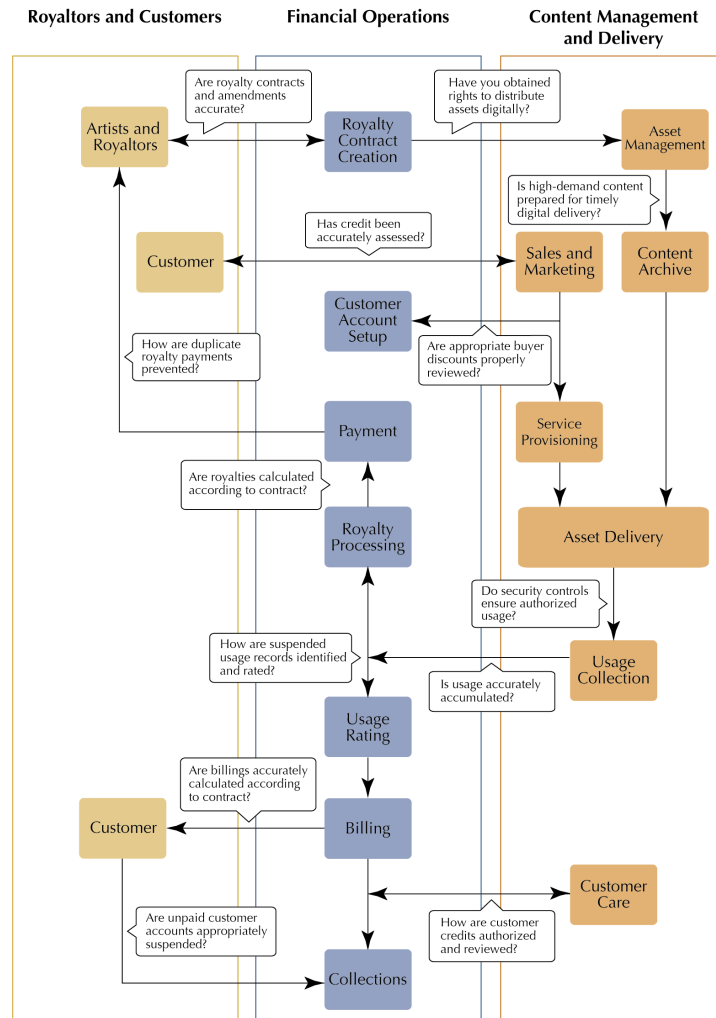
Can Leverage Legacy Systems without Requiring Massive Changes in the Underlying Applications

# Key Lessons Learned



## Digital Asset Providers

### Root Causes of Profitability Leakage

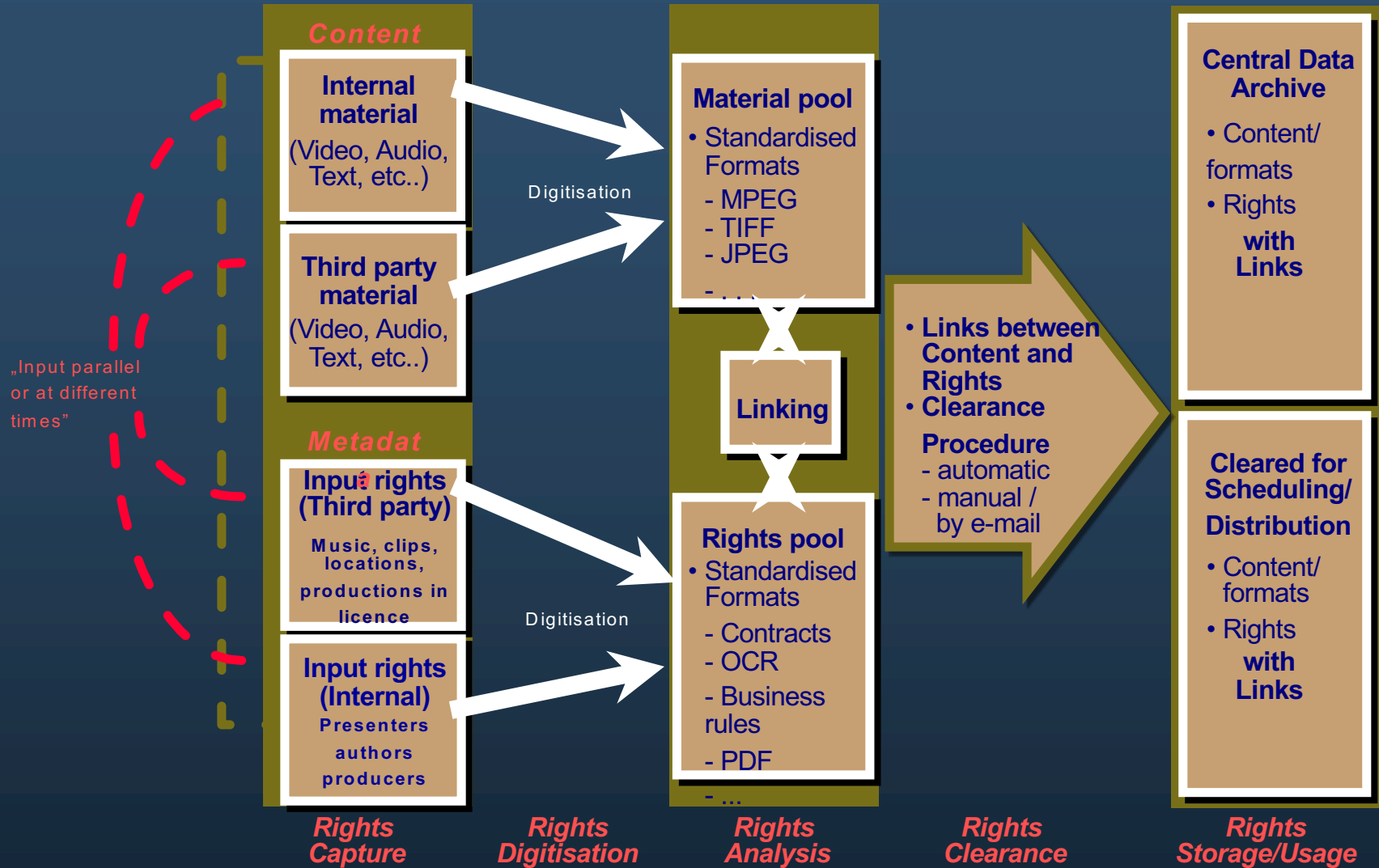
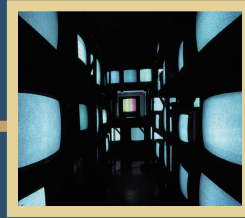


## Asset Management (MAM) Controls Audit

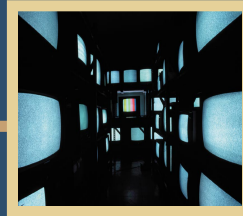
Gain an understanding and testing data integrity and security controls within the following areas:

- Tagging and Categorization Process of digital assets ingested into the MAM.
- Review Customer Access Rights
- Digital Asset Transactions within MAM
- Review and Assess Network Security
- Review Server Security

# Rights Management: A Core Function



# That's Entertainment: Internal Risks

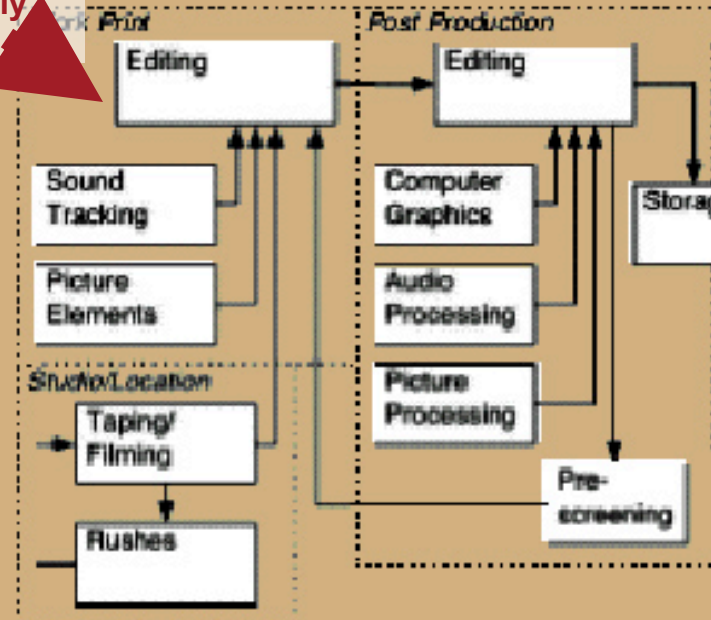


Unauthorized copying of a movie in the editing room or nearby in the supply chain.

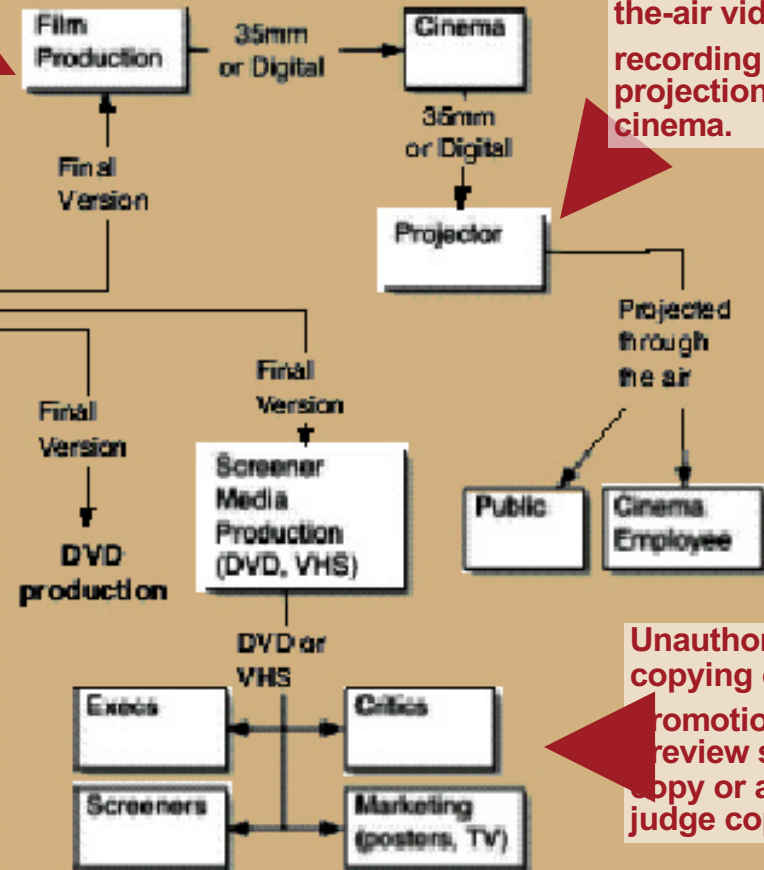
Unauthorized copying of a consumer medium such as DVD or VHS at the factory or any other point prior to sale.

Digital through-the-air video recording by a projectionist at a cinema.

Unauthorized copying of a promotional or review screening copy or awards judge copy.



## Distribution

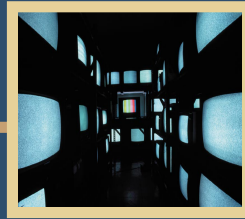


Source of Piracy = Red

Source: AT&T Research



# Humans, Still the Weakest Links in Security



Wall Street Journal  
March 3, 2003 --

Hollywood Gives  
Pirates a Hand

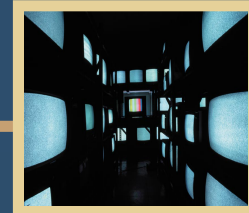
Nearly 80% of 300 copies of popular movies found by the AT&T Labs researchers on online file sharing networks "appeared to have been leaked by industry insiders," and nearly all showed up online before their official consumer DVD release date.

Los Angeles Times  
June 10, 2003 --

Universal Sees Red  
Over "Hulk" Bootleg

LATimes.com  
March 18, 2004 --

Fox Fires 2 After Finding Film  
Downloads on Server



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**213-217-3886**