

# DEN 2006 Rotterdam



## W3: ICT From the Perspective of Creative Workflows

Howard Goldstein  
Center for Digital Imaging, Inc.  
New York, USA  
<http://www.cdiny.com>  
howie@cdiny.com



# Marshall McLuhan

- Argued that all institutions are transformed as a consequence of the introduction of new media.
- "Any technology tends to create a new human environment... Technological environments are not merely passive containers of people but are active processes that reshape people and other technologies alike." (1962)
- The danger of approaching the past through a rear view mirror is that you limit the possibilities of the new medium by applying to it the limitations of an earlier medium.





# Digital Images In Museums

- Museums and their collections can achieve a second, virtual, life
- Image repositories are dynamic
- There is no activity in the museum that images do not touch; this is increased with digital technology
- Images are the handmaidens of the museum- they reflect the actual art object for the majority that do not or can not come to the museum
- More assets are available due to digital technology





# The Numbers

- In the first 100 years of photography at the Metropolitan Museum of Art in New York, approximately 1/10th of the collection had an image available
- In the last 10 years alone the photo studio doubled that amount
- With full digital capabilities the collection as a whole could be imaged in the next 25 years





# How Are Images Used In A Museum

- Education
- Legal documentation
- Conservation
- Publications, internal and external
- Kiosks
- Registration
- Web site
- Advertising & marketing
- On demand printing
- Exhibition display
- Slide library
- Shared libraries (ArtSTOR)
- Development
- Retail

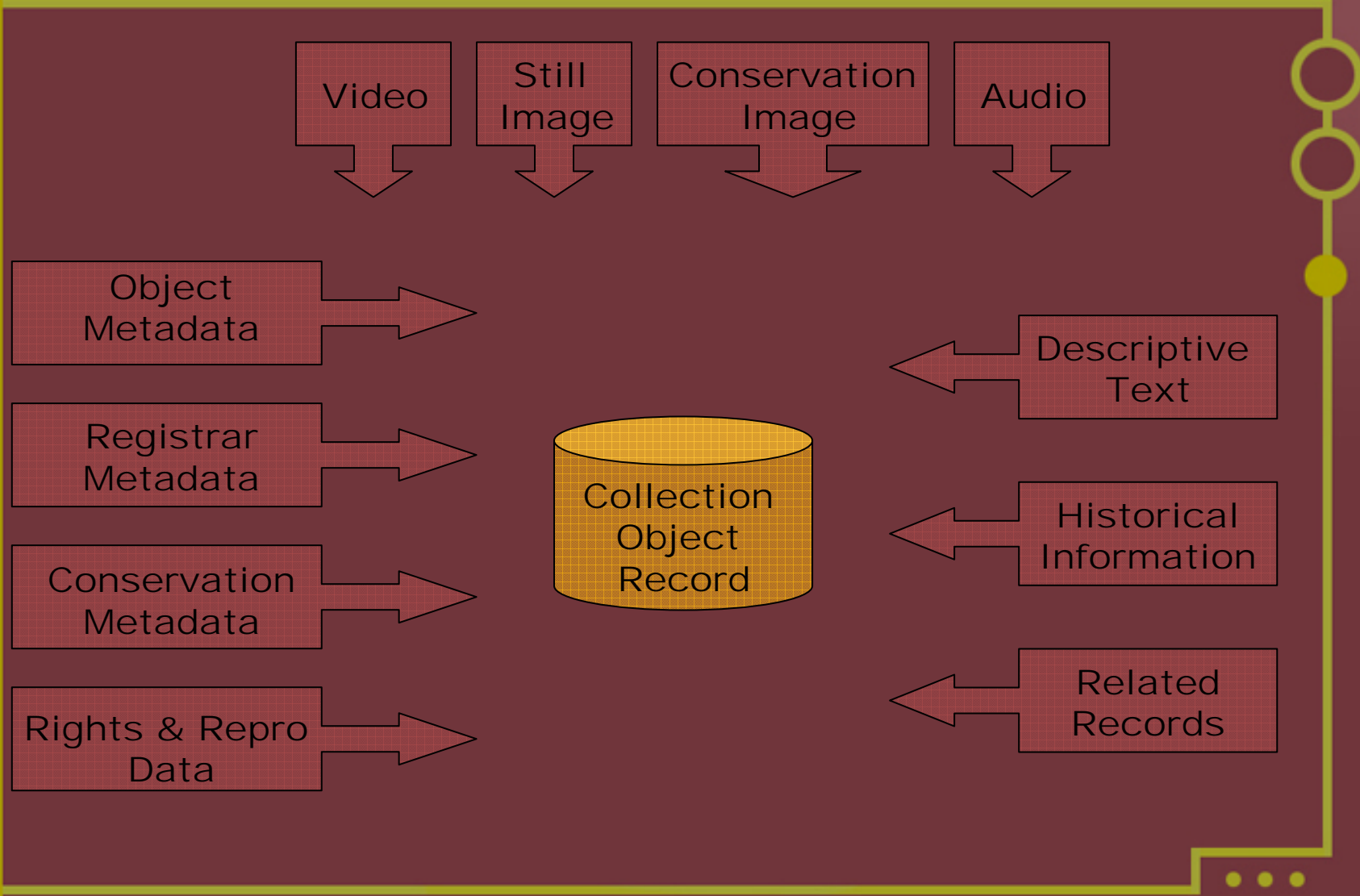




# Centralization

- We are moving from an Information and Communication Technology (ICT) environment to a Universal Convergence Technology (UCT) environment (Kim Veltman, Maastricht McLuhan Institute, 2005)
- Ability to see images and content in relation to each other
- Asset record could now include more than just an image and general metadata
- Cross media- new avenues of scholarship and creativity





# Convergence Of Metadata

- Information comes from different sources, but is managed by ICT
- Hopefully much of this is managed by a digital asset management system (DAM)
- Consider standard protocols like XML that may link with other business applications
- Content is king, but metadata rules!



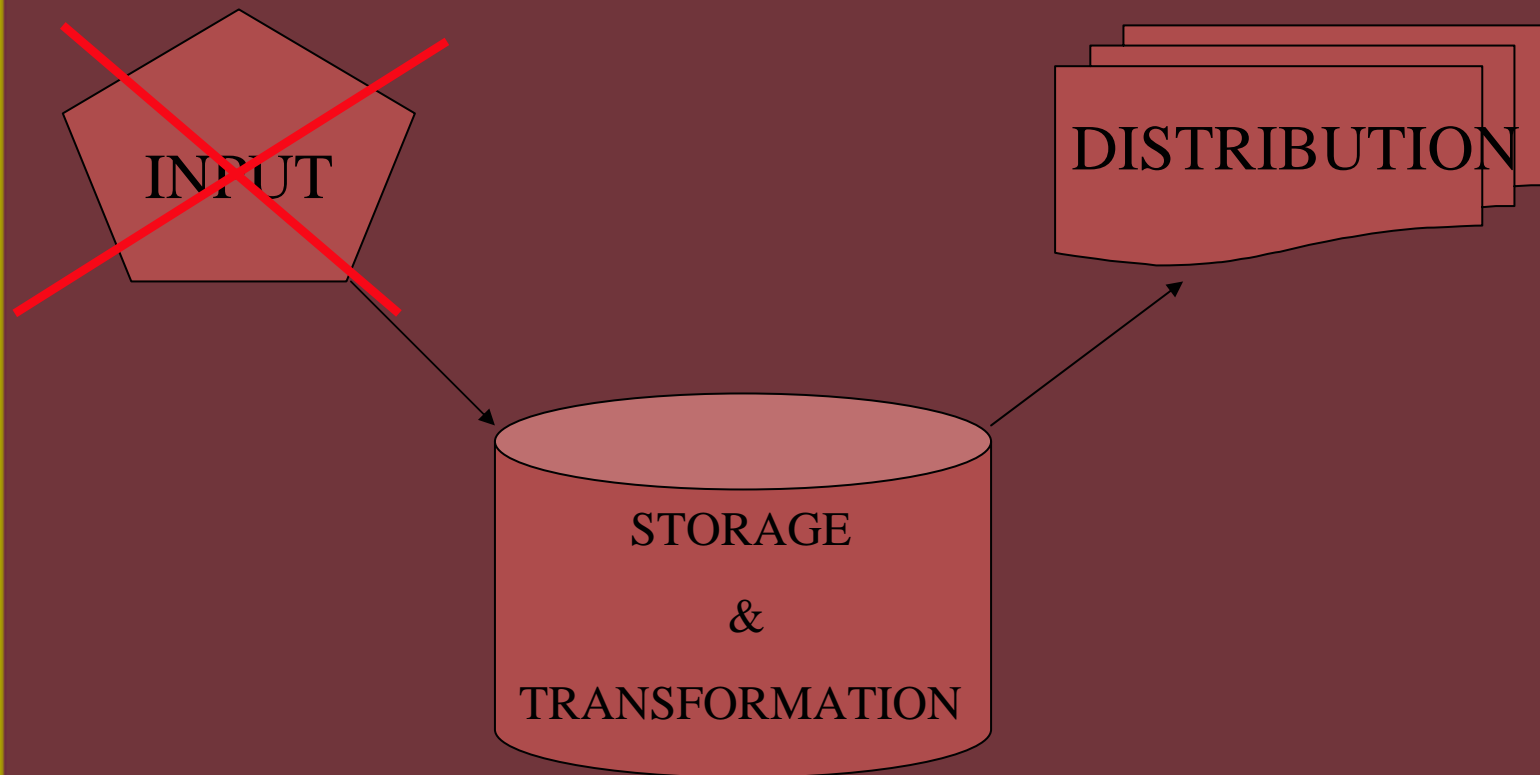
# Workflow According To Wikipedia

At its simplest, the movement of images and/or tasks through a work process. More specifically, workflow is the operational aspect of a work procedure: how tasks are structured, who performs them, what their relative order is, how they are synchronized, how information flows to support the tasks and how tasks are being tracked. As the dimension of time is considered in workflow, workflow considers "throughput" as a distinct measure. Support for workflow is an integral part of imaging software.





# Workflow Simplified





# A Closer Partnership

- **ICT generally is not involved in capture**
- **ICT will be asked to help in the guardianship of the content, whose structure is decided upon by others**
- **ICT must help the content creators move their product, while keeping an eye on the effect on other business processes and possible linking opportunities**





# Digital Imaging And Mac Support

- Most high end digital imaging software is Apple Mac OS X based
- These may be the only Macs in the organization
- Macs are very easy to integrate into mixed environments today





# Network And Bandwidth

- High resolution files can be large, sometimes starting at several hundred megabytes
- Consider a subnet for some of the imaging workflow, with dedicated switches
- Map out bandwidth and network flow for derivatives, which may or may not be smaller in file size





# Storage

- **Information Lifecycle Management and tiered data-** not all data may need the fastest access
- **Scalable architecture**
- **Migration of technologies-** “danger of permanent storage”





# Digital Asset Management

- **Keep the RFP manageable**
- **Include staff from various departments that will ultimately use the solution in the decision process**
- **Plan for a phased integration**
- **Reality Check- no product will address all your requirements without customization (gap analysis)**





# Collaboration And Planning

- **The missing link to optimize the workflow**
- **Break down the barriers between departments; eliminate the “silos”**
- **Most projects cut across departments; it is important to acknowledge this!**






# User Access And Security

- Who has access to what and at what level of quality
- Digital Rights Management (DRM)
- Simplified, specialized views, and information for specific user groups





# The World Wide Web And Public Access

- Traditional museum metrics revolve around visitors to the physical space- how do we account for virtual visitors, and their impact on the success of the institution?
  - Extensions of physical exhibits can enhance the visitor experience
  - More access for researchers, scholars and the public who cannot physically visit
  - Internationalization
  - E-commerce
- 



## Customization And Social Networking

- **My Met Gallery- Metropolitan Museum of Art, New York, personal online gallery**
- **STEVE Project- The Art Museum Social Tagging Project**
- **The value of museums to society is their ability to confer a seal of authenticity on the objects in their collections- how might the role of the curator change?**





# Considerations

- Do we need outside help? Can we look in the mirror and see beyond our own reflection?
- What is the business impact on the institution?
- Is there budget- it can be hard to see the bottom line of imaging projects, especially in the near-term





# Thirty Thousand Foot View

- What is the long range goal? Imagine the big picture
- How do we create achievable, realistic, useful, successful, sustainable phases to reach the long term goal?
- “Sometimes you have to go a long distance out of your way to come back a short distance correctly.” Edward Albee





# How Do We Do Things Now?

- Chart out the workflow
  - What is the life of an existing image file that needs to be re-used?
  - What is the process of requesting new digital photography?
- Who are the stakeholders? What does the organization chart look like?
- What are the current obstacles?
- What works well? Could it be improved?
- What does not work at all?





# Where Do We Want To Go?

- What new capabilities do we want to add?
- What are the priorities?
- How can we create successes that will naturally spawn new projects?
- Is there new staff that we need to bring in?
- Will current staff be re-deployed in new roles?
- How about new hardware and software?
- What current application systems do we need to plug into?





# Putting It All Together

- The sooner a DAM system is in place, the better the overall workflow will become, but only if your house is in order
- Metadata strategy is very important for DAM integration
- Don't overlook staff training
- Re-evaluate after 6 months
- Document procedures
- Create successes that justify cost and effort and will lead to larger integrations





# Keep In Mind

- **Technologies change; plan for migration**
- **Demand for digital capabilities will grow exponentially- be prepared!**
- **Technology solutions are never final or ultimate**
- **Standards evolve**





# The Work Continues...

- Constantly look at processes that can be automated and the technologies to do so
- How can we utilize technology to eliminate repetitive tasks, and be more efficient and productive without sacrificing quality
- How do we update technologies without breaking working processes
- How do new technologies impact staff and other business processes



# Rijksmuseum Case Study

- The need for standards for digital assets of all types, both for archiving and use.
- Overhaul of the photography studio to ensure consistency, quality and efficiency.
- Integration of a color-managed workflow throughout the institution, especially for individuals who work with digital assets for distribution.
- Integration of a digital asset management system to organize, centralize, allow access, distribution, and workflow of assets.
- Collaboration and planning throughout the institution on projects, which cross departments, to better utilize and create a workflow for use of digital assets.
- Integration of an order system for digital assets at different levels and for different uses that takes advantage of the other workflows to be integrated (asset management, color management).
- Analysis of the legacy digital files to determine the percentage of files that can be utilized going forward, either as is, or with adjustments.