

**Forum #3 Summary  
December 4-5, 2014  
Dallas Museum of Art**

“Charting the Digital Landscape of the Conservation Profession”

A project of the  
Foundation of the American Institute for Conservation of  
Historic and Artistic Works (FAIC)

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## **Invited Participants:**

**Max Anderson**, Director, Dallas Museum of Art

**Connie Bodner**, Supervisory Grants Management Specialist, Museum Services, IMLS

**Foekje Boersma**, Project Manager, Managing Collection Environments Initiative,  
GCI

**Fran Bass**, Associate Conservator for Objects, Dallas Museum of Art

**Tom Claesson**, Senior Digital & Preservation Services Consultant, Lyrasis

**Kirk Cordell**, Executive Director, NCPTT (NPS)

**Tiarna Doherty**, Chief Conservator, Lunder Center, American Art, Smithsonian  
Institution

**Deena Engel**, Professor, Department of Computer Science, NYU

**Martin Halbert**, Dean of Libraries, University of North Texas; President, Educopia  
Institute

**Laura Hartman**, Paintings Conservator, Dallas Museum of Art

**Arlen Heginbotham**, Associate Conservator, Decorative Arts Conservation, J. Paul  
Getty Museum

**Unmil Karadkar**, Assistant Professor, School of Information, University of Texas at  
Austin

**Dale Kronkright**, Head of Conservation, Georgia O’Keeffe Museum

**Mark Leonard**, Chief Conservator, Dallas Museum of Art

**Michele Marincola**, Professor of Conservation, Institute of Fine Arts, NYU

**Max Marmor**, President, Samuel H. Kress Foundation

**Richard McCoy**, Independent Art Conservator

**Rob Stein**, Deputy Director, Dallas Museum of Art

**Erin Stephenson**, Mellon Fellow in Paintings, The Menil Collection

**Courtney von Stein Murray**, Kress Fellow in Objects, Denver Art Museum

### *Advisory Group/Core Team*

**Ken Hamma**, Andrew W. Mellon Foundation Consultant

**Pam Hatchfield**, AIC and FAIC Board President; Head of Objects Conservation, MFA,  
Boston

**Bonnie Naugle**, Communications Director, AIC

**Eric Pourchot**, Institutional Advancement Director, FAIC

**Nancie Ravenel**, Objects Conservator, Shelburne Museum

**Koven Smith**, Director of Digital Adaptation, Blanton Museum of Art

**Eryl Wentworth**, Executive Director, AIC and FAIC

**Diane Zorich**, Project Director

## **PROJECT GOALS AND MEETING OVERVIEW:**

Diane Zorich, Project Director and facilitator for the meeting, welcomed attendees and gave an overview of the day's logistics. This meeting differed from previous meetings in that concerted efforts were made to invite emerging conservation professionals and those in allied professions, in addition to mid-career and senior conservation professionals. This mixed cohort presented a quandary in structuring the meeting: the project team wanted the input of those who are not conservators, but it would be hard to get that – would even be unfair – without giving these participants insights into some of the challenges the profession faces in the digital arena.

To that end, the meeting was structured to begin with a recap of the project's information-gathering activities thus far, and then proceed with an investigation of issues raised throughout the project via a series of case studies.

Diane began the project recap by outlining project goals:

- To map out the current digital landscape of the profession
- To identify what is missing that limits conservators in this landscape
- To reimagine the landscape in a way that allows the discipline to make significant advances within the profession and throughout a broader ecosystem of allied professions, research, public education, preservation, and more... of which it is a part
- To propose broad strategic roadmaps for structuring this landscape in a way that allows it to be reimaged.

She also gave a brief Powerpoint presentation that summarized the work accomplished to date and the efforts that remain. (See <http://www.conservation-us.org/digital-landscape> for details.)

## **CASE STUDIES:**

To focus the meeting and delve deeper into issues that have been raised throughout the project, discussions were organized around three case studies. These case studies were identified in early meetings and highlight areas where greater efficiencies or changes were warranted.

### ***Case Study #1: Conservation Online (CoOL)***

Introduction: One of the recurring issues that have arisen throughout the project explorations is the need for enhanced discoverability and access to information resources. When conservators were asked how this might be achieved, the response was often “something like CoOL, but better.”

To challenge this response, the group considered a series of questions developed to cull out *how* CoOL might be made better, and to uncover what is involved in making conservation resources more discoverable and accessible.

**CoOL: Where does it stand right now in the landscape for conservators?**

- CoOL is a resource many of us use every day. It's the place you go to first for quick answers. But its value may be diminishing, as mentioned by some of the younger conservators in the group who noted that if CoOL were to go away, they wouldn't miss it all that much. More and more of the information they need is not in CoOL, or can be gotten through other back channels to its resources. This is a core threat for CoOL – that it will become obsolete among the next generation of conservators unless it is improved soon.
- Latest analytics: in 2014, CoOL had 1 million page views, and 500,000 users.
- Job information is critical.
- CoOL is a portal, a live mailing list, and an archived mailing list.
- CoOL is more than just aggregation, is also preservation. It keeps the files and information for the long term and serves a preservation function. An aggregator would be dependent on other sources remaining active. CoOL is that source.
- The AIC Book and Paper Group Annual is one resource in CoOL that gets high usage. That shows that it is valuable to users.
- For CoOL to continue to be relevant, we need to put effort and time into CoOL now, but if it's not updated regularly, we'll still have the same problem in five or ten years.
- One of the benefits of CoOL is that it's been edited and curated and shepherded over time. That is a strength. This also makes resources like AATA so deep and rich: a network of abstractors; people can suggest articles; paid staff and volunteers. The major problem with info access on the web is you don't understand the channels on the web. Having human eyes on the site to structure new and existing data is rare and valuable. That may be the most valuable asset in maintaining and preserving CoOL.

**What options or improvements to CoOL might be considered?**

- CoOL needs to be able to accept and handle media-rich formats. The future is no longer solely text-based.
- So much information from the ConsDistList is archived, but search is not reliable. Listserv functionality and usage is decreasing. JSTOR and AATA art abstracts fill that role more so now, especially for literature searches.
- Does the field need a unique URL data/info aggregator? What do the other aggregators do that we need or that they don't do that we can do?
- Subject bibliographies posted on CoOL would be very valuable. Once posted, they could be updated by users.
- Should include gray literature?

- A “Google conservator” would allow results on video, audio recordings, video presentations, how-tos, about materials, etc. Should allow community to vet resources to help tailor searches.
- Why not start with Wikipedia? But, would need to pay people or get students or volunteer professionals to do this work.
- Wiki is great but it’s public. People are afraid to contribute because of the public nature and they are afraid to share. Also takes a lot of time for volunteers.
- Allow users to tag articles, and start tagging content. Will conservators actually do this and “own the risk” – there is a heritage of secrecy.
- Some of these resources are behind paywalls, so a lot of people won’t have access to them. Keep that in mind when discussing access. There’s a division, a line, between what you want to put in a public place like Google+ that will be supported by a broad industry standard. Can information be in a public tool (such as Google+) but be tagged in a non-public space? What will people do in public or non-public settings? You might want a tool that serves the industry or profession.
- Commercial platforms being used to convey or store conservation information might go away. Even Wikipedia is contingent on private funding. Ours is niche content, if we don’t care for it, no one else will. The PADI site in Australia was an important community resource and the University host downsized and it didn’t get saved. It’s still missed.
- Google Scholar is best – has abstracts to help identify information. Consider this in CoOL?
- Archives have tools for this type of search that could be used.
- There are metadata models in other fields (the TEI – the Text Encoding Initiative -- can code the condition of the manuscript or type of text, and EAD -- Encoded Archival Description) that are really good, well thought through paradigms that make the searchability work.
- CIDOC works for us, it’s a good metadata system.
- If we had some standard metadata and research terms and have the authors include metadata when they are uploaded, it would add functionality. The collection of metadata could be very similar to the information requested when you respond to a call for papers – a simple, fill-in-the-blanks form.
- Looking at astronomy, they’ve worked hard to standardize metadata and terms, but most work in colleges, and they don’t have folks in private practice (as conservation does). We need to get the private practice people involved.
- In addition to metadata, need to make sure there are eyes on the data. Preservapedia (<http://preservapedia.org/>) was designed with this in mind. The government houses it for long-term data preservation. You can unwind the comments and see how the articles have been changing over time, who changed what, and why.

### **What might build financial support and community participation?**

- Body of knowledge is a professional body of knowledge, not a public one. We don't have a way of funding public bodies of knowledge in the US. Anything can go under, even Wikipedia or a library.
- Clearly CoOL does a great service to the community. No one library can support this, but perhaps together they could.
- Perhaps find funding for a fellow for a year to build out the resources and organize the site? (e.g., CLIR Fellowships model)
- Should there be a consortium to support CoOL?
- What's the value-added for the community? Do you share with your clients, boss, registrar, or just colleagues? If the latter, just conservators will have to fund it.
- The AIC site should be for the greater community and outreach. Many conservators would prefer CoOL to remain just for conservators, to keep its value for the profession.
- FAIC is assuming responsibility for Connecting to Collections – C2C, with webinars and referrals etc. That will move FAIC into the space of the allied professional and non-technical side of conservation; it won't be the same kind of technical information that's now on CoOL. Potentially, could provide an alternate model for CoOL, or even be incorporated into CoOL.
- One of the greatest assets is the outreach component. Connecting to Collections is adding value. If we need to look for funding we should pitch it as a group to bring it all together. Get a grant for the computer software side and have some engineers review the indexing and code to make the search more valuable.
- Can we increase funding for FAIC and CoOL by encouraging its worldwide reach and incorporating more languages?

### ***Case Study #2: AIC's Guidelines for Practice - Commentary Guideline/Commentary 2 & 7 on Disclosure and Confidentiality***

#### **Introduction:**

Guidelines affect practice, and some of the AIC Guidelines were mentioned in past forums as possibly conflicting with current practice or failing to take current practice into account. This is not surprising given that the most recent revision date of any Guideline/Commentary is 2008.

The group was asked to review all the Guidelines, but devote particular attention to numbers 2 (Disclosure); 7 (Confidentiality), 24 (Documentation) and 28 (Preservation of Documentation), as these were considered to be in need of revision. In addition, Project Advisory Board member Ken Hamma developed a strawman rewrite of the Guideline on Disclosure, turning it from a document about restrictions to one about transparency. Participants were asked to review this document as well.

What follows are key points made in a discussion about the contents, relevance, and changes needed in field-wide guidelines for practice.

### **Barriers**

- Institutions fear making conservation archives public might open them to lawsuits because the value of objects might be affected; institutions might be held liable for decisions made during treatment.
- Individual conservators often fear that making details of treatments public might encourage misuse of methods by the public.
- Fear that conservators will be criticized on their work by colleagues.
- Fear that forgers will use “how we determine authenticity” to make better forgeries.
- There is a huge divide between institutional folks and private practice.
- Guidelines require name of conservator and date, so records can't be anonymous.

### **Counter arguments, models and ways forward**

- Many of the issues expressed above are turning out to be non-issues or can be addressed with creative work-arounds. For example:
  - The UK National Gallery has open records and allows complete access to treatment records. People do not now treat their own paintings as a result. Public institutions should make information public.
  - Doctors don't put out a step-by-step on how they do their operations. We can share but we don't have to put details out that would enhance risk.
  - There is so much more information now, that people are no longer disturbed by treatment, they digest it differently. The way people consume information is different now, more mature.
  - People who deal more broadly with cultural heritage (architecture, historic sites, homes, etc.) are sharing more information.
  - Historical building societies were worried that online records would keep people away, but actually it generated more interest and more visits. The idea that confidentiality is not the same as accessibility is key – can we safeguard certain items but make the rest public?
- The AIC meeting would be a great forum for this discussion
- With ConservationSpace, museums will need to make decisions about what parts will be released to the public. We need to work on this as a profession so people can prepare for this eventuality.
- Collecting institutions could work something out as a consortium.
- The discussion of levels of sharing is completely academic until we have a place to share this information. When you discuss sharing in the abstract, everyone goes to worst-case scenarios. With ConservationSpace, we go into deep detail about sharing, we see the benefit of levels of sharing, and see how it makes our work easier.

- We've already lost the battle, the information is already there. Google "how to clean a painting" and the information (though incomplete) is there on Wikihow. So, the issue is how we can provide better information.
- Transparency is different from confidentiality. There may be info you do want to share and can put out there while still keeping certain items under wraps. The conservator has the choice.
- It's different for other professions; architects would never say "I won't tell you what's in my mortar mix." Why do we think in paintings, objects, etc., conservation that we need to have utter secrecy? We need to get out of the guild tradition.

### **Incentives for sharing**

- Need to make a case for transparency – how will that advance the profession more quickly? How will it benefit individual conservators and institutions?
- Conservators have told administrators that we've gone through x amount of training and effort etc. to preserve these objects, but since we're not sharing it, there's no tangible evidence to show to back it up. We need to have quantitative data on rates of deterioration and how we've slowed it.
- Two different aspects of sharing. One is finding all the records on a particular painting; the other is finding the experiences of a person and gaining info about their conservation techniques.

### **Narrative and structured formats**

Diane commented that in past forums, it was noted that the typical narrative format of conservation documentation makes the information difficult to access. Should documentation be structured? (This is relevant to Guideline/Commentary 24 on Documentation.)

### ***Issues and current status***

- Goal is to create the documentation as you go instead of sitting down and writing the whole record about the past six months.
- Workflow for conservation documentation is generally written at the bench and then entered into some sort of system later.
- Some institutions' archival standard is that everything is on paper. Narrative formats are simple and cheap, but come at the cost of precision and accuracy. Two conservators at two different places shouldn't be seeing two different things. Images should be the same regardless of operating system.
- The users should be able to take the data out unmediated without having to ask a lot of questions of the authors.
- The AIC Guide to Documentation recommends using photographic standards and metadata fields so images on the web are findable using search terms.
- One participant was using web-based software like Basecamp and iAudit apps to keep track of installation art, etc. over time as another form of documentation.

## **Barriers**

- There's an activation threshold you have to get across to have enough people use standard metadata, since there are barriers to adoption. It sounds like more work, but once enough people adopt it, there's enough critical mass of data that it becomes useful. How would you get people to start using them?
- Conservation is still using digital data in an analog way; we still have to tag stuff and link stuff. We're doing it manually but in other fields like astronomy have incorporated these tasks into their digital workflows.
- Trying to describe the content of data is difficult. Trying to categorize email is impossible for one individual, let alone for a department or institution. As conservators, you're trying to model all of creative history, living and dead, artificial and natural (and future) materials, digital and tangible works. It's wrong to say there's one thing for the whole profession. Instead, what's the smaller discipline you could tackle, where it's more attainable to actually create metadata for a small field? Perhaps start with paintings, time-based media, or other small chunk where practitioners can agree.
- Digital backups are not foolproof – may have trouble accessing something digital that was written in 2006. Need access to digital files and DAMS. A lot of design for backup is in place, but the barrier is manpower.
- A lot of libraries and museums don't have money to digitize everything. Can you take your collection selection process and apply that to the digital? (Just as they don't accept all items, they would not digitize all items.)

## **Models**

- Possible model: ICOM-CC metadata mapping guide [CIDOC and LIDO systems], for a database that would make materials, artist, media, and structures, and problems visible in a standard mappable format and standard vocabulary that can be searched on something like GitHub. People can search uploaded metadata there and know that someone has that record – then they can ask that institution for access. The institution can choose what to redact and share. Spectra images analysis standards are being adopted. (N.B., GitHub is a collaboration and management tool for open source projects. See [github.com/](https://github.com/).) We're not storing the entire record, just the metadata so *something* is searchable.
- A group at Stanford is working on archiving email. They have good automation tools that look at specific fields, attachments, format of attachments, eliminates personal ID (like SSN, DOB, DL #), and builds searchable metadata structure index with threads linking the emails and creating word clouds, etc. Once you do the original mapping of what fields to look for, the process is close to being completely automated. This type of program could pull out relevant data from a narrative treatment report.
- One model for documentation: make all annotations about an object into a digital document that has an URI that lives in a DAMS. A standard unique

digital object can be connected to all the annotations related to a certain area or object.

- Another model: use IPython notebook to track metadata. These are used in the science world. (N.B. "The IPython Notebook is a web-based computational environment where you can combine code execution, text, mathematics, plots and rich media into a single document." - see <http://ipython.org/notebook.html>)
- ConservationSpace is potentially AN answer. Once it's introduced, it will be the only software specifically produced for conservators. By default it will provide a de facto standard. It may change things. Still working on how to make and share reports in ConservationSpace, especially for small steps taken over time (possibly in a Facebook format).
- DMA had a grant to digitize its paper documentation and it's all uploaded to TMS as pdfs and images. New information is added directly via iPad on the bench, giving access to everything.
- Archivists have already developed really good standards. We just have to follow that convention and adapt it.
- The archival community has also developed a level of training (with NEH funding) through SAA for archiving that is now the industry standard. Adopting something like that for this community would be great. The redundancy issue is important. This is also an issue for private practice who don't have capital or time to get a lot of training. Perhaps a centralized database?
- The models we should be looking at are the people at AATA and Getty Thesaurus Project. They are multilingual, they are teasing out the AATA index terms to tease out the standard vocabularies. Sometimes the way we use terms is not being defined in the same way. ICOM has a fabulous stone thesaurus that doesn't always match up with our usage.

### ***Implementation***

- A tiered approach may be useful: a minimum number of items we want to 1) require in order to be part of the community, 2) recommend, and then 3) bonus items. But may still be hard to gain adoption, especially if museum workflow requires paper documents for signatures.
- Training for time-based and digital media could work in tandem (digital storage and digital works).
- Need to look at conservation notes and ask what is going to be confusing, and what will be the most clear, and decide which to share. Precision in documentation is key; metadata can do this but editing needs to be a skill we're teaching and learning.

**Case Study 3: Nancie Ravenel – Presentation on “What I Do” – a conservator at a small(ish) museum**

Nancie spoke about how the data she works with is gathered and manipulated. She works at the Shelburne Museum in Vermont, which has 38 buildings that contain many types of objects. She works with fellows and interns, and documents her own work as well as that of contracted conservators, and the documentation comes back to her. Their one IT person is former librarian; there is no staff photographer; the conservator does documentation. Nancie is able to talk directly with Selago, the vendor of their collections management system (CMS) (MIMSY XG). Few conservators use this system.

To give an example of the complexity of her typical work day, Nancie provided a case study of a condition survey for a large collection of duck decoys. The survey data was conducted and entered into an Access database before the CMS was created. Condition information was not considered useful by other departments. Nancie spoke about the many steps that need to be taken to extract and rework data to get it to appear in various forms and reports. She outlined 16 steps she typically goes through to “massage” the data into a format she needs for various reports.

Radiographs of objects are created at a local hospital, stored on CD as proprietary medical data (“DICOM” – Digital Imaging and Communications in Medicine – a standard used for managing information in medical imaging), and are not accessible outside of that program – Photoshop conversion may strip metadata. Will future conservators want to keep or use these images that require several steps to open or utilize?

Nancie looks for information on treatment and history on CoOL, CAMEO, AATA, BCIN, etc. Google Scholar/Books/Image/Art Project. When learning new topics, she uses Zotero and Omeka to track research, also Scalar; paired with folks at a local digital liberal arts college program. Wikispace was great but their business model changed and it’s no longer available to her without charge. Free tools can change at any time and you need an exit strategy or funding set aside. Archive.org can provide access to old manuals on manufacture and care of objects.

Nancie discussed some issues she thinks about as she goes about her work. Where do her own test results go? (She recently had to conduct her own tests on cork adhesives and would like to share the results.) Her Pemulon site: does this need to be sustained online? Does it need to be online when it’s been published in other forms? And what happens to a rare archive when the institution no longer supports it? Middlebury College supports research materials on Mahri poetry. The text is on Wordpress, the audio is on Soundcloud, and the video is on Vimeo. It’s easily moved – but the original files must be kept as well.

In the questions and comments for Nancie, the following points were made:

- There are complications in setting simple systems for condition assessment and conservation treatment required. Registrars, curators, and conservators have different needs. Handlers need to be alerted about special needs or conditions (can use the “danger” field for that).
- Importance of objects should also be flagged in a system. Useful for disaster planning. Can also cross-index condition and importance for conservation planning.
- Historic property assessments have standards for significance and condition; this doesn't exist for conservation objects and cultural heritage. This would be great for the digital landscape: we need to have standards that we can all agree on. Like a 1 to 5 scale on what is most important.
- The Netherlands required museums to look at everything in their collections and rate as A, B, C – most important nationally - or D, E, F – more local importance. That led to moving of items (to collections where they had more importance) and also reduction of redundancy in collections.
- During World War II, there was a classification system done – Class 1 – 4 (Class 1 is of utmost importance, i.e. hide this during invasion at all costs). The Metropolitan Museum still uses this now for determining which pieces can be loaned.
- The MFA-Boston has been asked to do this (determine top 10 items in museum) for emergency use and to determine which should never be loaned, etc.
- In public art, we are determining which artworks we allow to die or which we decide to keep and maintain.
- There's also the Significance Project in Australia (<http://pandora.nla.gov.au/pan/112443/20101122-1236/significance.collectionscouncil.com.au/index.html>)– looks at the value of art in the community.
- Community-based art in the US doesn't hit a county survey that any state would do. They note the land but not the art on it, for example.
- Most people are not allowed to add programs to work computers, which can inhibit use of open-source software.
- The government tends to be obsessed with security but we need to push back hard to be able to be creative and use the latest tools. Open source focus is important.

## **PRESENTATIONS/SUMMARIES BY COLLEAGUES**

Diane noted that one of the oft repeated statements from the last Forum in Cambridge was “conservation’s issues are not unique.” There are other disciplines/fields out there with similar issues (in discoverability and access; preservation; collaboration and sharing) that can advise on this or have addressed

these issues – and we need to start reaching out to them for advice and insights. So several participants from communities recommended to us – information science, education, content services – were invited to this meeting and were asked to speak briefly and informally about any insights or observations they have drawn from the discussions, and opportunities and areas they might suggest the conservation community look to or participate in.

**Martin Halbert**, Dean of Libraries, University of North Texas and President, Educopia Institute:

Halbert summarized the prevailing themes he noted from Day 1.

- Overall: stewardship, transparency, support and risk, funding strategies, conservation communities.
- Values - why do we care about preserving the records and authenticity of the past? (Halbert noted that The Educopia Institute (<http://educopia.org/>) runs programs relevant to this discussion – it is a library publishing coalition, archivist group, archiving cooperative. His own work with the Texas Portal of History (<http://texashistory.unt.edu/>) is also relevant – it is trying to preserve digital newspapers.)
- The importance of memory in the public, and institutional stewardship of shared knowledge.
- A recurring topic has been authority, the credibility of conservation expertise. Included in this is social media approaches vs. curated expertise; transparency and accessibility; confidentiality vs. obligation by institutions to share information.
- “The music of social change” – libraries and museums are sharing curatorial information. There are synergies – museums, libraries, historic sites, archives, professional societies and educators need to share across boundaries.
- The cost of expertise maintenance and training – who will pay for this? How do you mobilize this effort most effectively? Who would have the authority to provide and transmit this training? Who will certify that it took place? Sustainability of community-based efforts needs addressing and exploration.
- Support: there are three types: subscription based models, member based, and sponsor based models; institutional and individually-based for all 3.
- Institutional memory and turnover – how do you keep the expertise and training in-house? This is part of stewardship of resources. (Educopia and its Executive Director, Katharine Skinner, have some resources on succession planning.)
- “Dodging the Memory Hole” - What happens to the archives when you go away? Institutions at risk are not thinking about succession planning, they are flailing and may lose everything by the end.

- Conservation skills and knowledge are a public good and should be discussed more broadly and valued more broadly. Share its findings in library and archive communities.

**Unmil Karadkar**, Assistant Professor, School of Information, University of Texas at Austin:

My sense is that you are not giving yourself enough credit for being tech savvy. But I'm hearing that you use Twitter, Google Books, and software I've never heard of... There is lots of sharing, and the desire to do more. Use this acronym - BEST: Belong, Experiment, Share, Tweak.

**Belong.** If you think you're tech-savvy, you are. Believe in what you do--own it. If it doesn't help you, don't use. If you're already using tech that meets your needs, you are there. The kids aren't any better than you. Use technology for a purpose.

**Experiment.** You gather a lot of data, now you just need to act on it. Do it. Fail. If you succeed the first time, you are aiming too low – fail spectacularly. Figure out what is outside of your comfort zone – if you're saying that will never work – that's the thing you want to try. Nancie's method of going out and finding answers is an example. Vocabularies and use of YouTube – a few should try this. You don't want everyone to go out and do this, just have a few people reaching out for these far-reaching ideas. Different sub-communities may be finding different uses.

**Share.** Don't reinvent. Use what's there. Let everyone know what you're doing. There are new ways of sharing. YouTube is a great way of sharing – how can we engage with groups like Maker Projects to connect with conservation. How can we connect with others to build resources from the ground up? What if you make conservation searches public?

**Tweak.** The sharing you're already doing can be tweaked slightly – keep the barrier to entry low. If you're already doing something, publicize it, let others join in. Allow more people to listen in and answer – Google+ and Skype etc. There's a lot of internal sharing, how can we move that to an external space? Deena and I bring in students – we don't teach conservation but we can bring students into this. Students worked with Google Books open API, the CIDOC schema – every time you open things up, you find new people you never would have found otherwise. There are hurdles but there are benefits to beginning these projects and allowing external folks to add value.

**Deena Engel**, Professor, Department of Computer Science, NYU:

There are two types of IT people to help support conservation. 1. You need to have the basics – the help desk, how to run the printer etc. 2. You need to know the Academic Computing Group – they think about the tech and software that’s available and what will support your work, not the IT of it. Academic Computing Groups would be of benefit to you as a model. Having people trained in IT would not need to be conservators or museum people; i.e., Omeka is not easy to install or support and can be discussed by IT groups in academics. Use these academic groups for your projects and in learning how to move forward.

Students with computer science majors (have double majors in art and art history) are seeking guidance on how we can join the two. They will become the conservators of software media – that will become another field within the conservation world. They will be coming out of computer science but will need a background in conservation training.

**Tom Clareson**, Senior Digital & Preservation Services Consultant, Lyrasis:

This meeting mirrors the discussion on digital resources that has been going on in the library and archive communities for 10-15 years. My message is not to reinvent; when you do R&D, rip off and duplicate! Steal. Think about what you have created digitally, what you want to, and decide what you want to digitally preserve. Funders like hearing about providing long-term access of objects/items. Create a policy about what you want to keep in the future. That’s an important step, even for those in private practice. A suggested tool: Digital Preservation Readiness Assessment (<https://www.nedcc.org/free-resources/digital-preservation>) to determine if your organization has the resources (human, financial, policy) to prepare for the future.

Other projects to consider: The Meta Archive project (<http://www.metaarchive.org/>)– groups help preserve others’ materials and share their resources. Look at PBScore metadata, Biodiversity Heritage Library (<http://www.gbif.org/page/7790>).

Small conservation operations with low or no capacity to create digital documents and assets are similar to small libraries a while ago. To address this, Lyrasis created, with funding from the Sloan Foundation, the Digitization Collaborative (<http://www.lyrasis.org/LYRASIS%20Digital/Pages/Digitization-Collaborative.aspx>) a place where small organizations have created millions of digital documents for low cost. Could a similar approach be used in conservation to digitize back files? For smaller labs, more awareness and training on digital needs is needed. The Society of American Archivists digital archivist specialist certificate (DAS) program can be brought in for conservators to share these ideas.

Libraries would be very interested in collaborating and sharing our mistakes and best practices – which are evolving!

***Michele Marincola***, Professor of Conservation, Institute of Fine Arts, NYU:

There are five North American conservation training programs: four in the US (Buffalo, UCLA/Getty, Winterthur, NYU,) and one in Canada (Queens U). The ANAGPIC (Association of North American Graduate Programs in the Conservation of Cultural Property) meeting is key for discussions in training programs.

NYU offers a four-year dual degree program in art history and conservation, embedded in the art history program. Its curriculum was overhauled in 2004 and is now based on the Commentaries and Guidelines of AIC. Students get training by a librarian on using online resources. Joint publishing is encouraged. They teach students Photoshop and InDesign to develop portfolios, documentation, other digital tech tools and offer a one semester course on time-based media. They also offer a course on site-based documentation – the first offering focused on NYC’s High Line. They tried using freeware, GoPro cameras, iPhones, kite photography, etc. for this project but the files were massive, and they couldn’t figure out how to store them. NYU folks interested in global technology agreed to host the data, which will be built upon in future courses. For her own course, students must keep a lab notebook (digital or analog) but are forced to draw in them to slow them down and actually see. Students also blog but the blogs die after a year or so, they run out of steam. Students are recording massive amounts of info but need to be concise in order to have usable conservation reports. Her advice: “Write so eight conservators can understand.”

Some of the things we will change: We don’t spend enough time with practicing conservators to make sure students are learning what they need to. We don’t teach specific digital workflows and that has to be changed. We need to implement more “flipped classrooms” – assigning video lectures or books and then discussing them in class.

***Responses to Individual Presentations:***

- Could there be an academic computing group (ACG) that worked for the community – nationwide? – to research and develop new open source software or database development?
- A lot of this stuff is already happening. First look at what’s out there. Need an IT working group to focus on using existing tools to benefit the conservation field.
- This is happening at Duke, where the IT got together with academic museums. We need a spin-off group, a development shop that is responsive

to our community. It needs to share info where an ad-hoc group would not. This could be a career path for people who want to serve this community, dissemination could be facilitated.

- Museum Computer Network recently met at DMA. They work in museums but few participants had been in a conservation lab before. We could tap into their digital knowledge and experience.
- This could tie together. Regional conservation labs offer services to a wide variety of places. We could use an expert in conservation documentation that would visit with each regional lab and train them and travel out to everyone. We wanted to trade expertise between museums (IMA Labs did regional conservation treatments, like a development shop); if institutions can provide documentation training for all regional museums that would disseminate info.
- There is a danger in tying contract work to an institution – can lead to lack of priority on internal work.
- Why isn't conservation part of the greater museum documentation? UT provides help regionally, why can't we copy that model? Museums have to step up and stop treating conservation as an outlier.
- Development of technology solutions could start in a computer science program and incubate there with a focus on conservation. Project for graduate students.

## **MOVING FORWARD – WHERE TO START?**

Diane led a discussion about how to get from where the field is to where it wants to be. What are some “low hanging fruit” projects? At the last forum, our discussion on this was from the “top down.” We need to consider objects from the “bottom up”. What ideas are worth pursuing?

### ***Advocacy***

- Need to be pushier. There is a lot of help within our institutions. Conservation is seen as expendable. But documentation issue can be part of collection management systems. Education information used to be apart from CMS: is now part of the core function of museums and you find it in the CMS's.
- Advocate public access, benefit from conservation records – this drove digitation of collections, conservation was left out.
- Tell and show people what we do. Show the level of expertise at work. The care of cemetery headstones videos on NCPTT site led to more work for conservators, not less. Not taking business away but building it through education.

### ***Training and Practice***

- Could offer some digital literacy sources. One model is the “23 Library” and “23 Archival” courses that were offered in the Netherlands. These are online courses that create small communities of people with different levels of computer abilities. You assign 23 tasks online, such as “post a picture to LinkedIn,” “create a blog,” “send a tweet,” etc. Could have “23 Conservation” – things to create and share online. Another model is Richard McCoy’s “Week 0” activities for his JHU Museum Studies course. FAIC could sponsor. ECPN could help create competencies and help mentor. Aim is to remove fear.
- AIC could create core competencies in use of digital resources
- AIC could encourage practice through Annual Meeting, asking presenters to market their presentation with digital tools, provide Twitter name on registration, for example.
- FAIC could offer a “ten minute tech” session (modeled on Getty cafeteria program), basic, friendly, low-key help, perhaps via YouTube?
- AIC/FAIC can help educate how digital resources can add value to their daily work.
- AIC/FAIC could develop lists of “top 5” videos, sources, etc. Offer recognition that can be added to resumes. “My top 5 things of the month,” “the year,” etc. Could ask the membership for nominations. Have community voting.
- AIC/FAIC could have awards for social media activity. Best YouTube videos, etc.
- Encourage conservators to send treatment reports to archives that keep the object.
- Encourage creation of bibliographies on topics and link to articles that are in CoOL. Perhaps incorporate Zotero or Mendeley tools within CoOL?

### ***Technology***

- Evolve ConsDistList into something more engaging. Model from Art Daily Newsletter – lots of information from it very quickly, using multimedia.
- Look at technology that actually improves workflow – precision and accuracy. Low barrier is the key. Perhaps first action should be for AIC to help to get bench conservators to dip a toe into the digital workspace. Going from digital materials (pictures, narrative, x-rays, etc.) to analog then back to digital doesn’t make sense.
- Create an API needed to integrate docs, drawings, pictures, spectra, etc. Relate items, be searchable, within your own institution.
- Create Amazon-like community tagging on CoOL to increase searchability of resources. (STEVE social tagging project for art collections). Even a tag that indicates “were results useful or not?” might be helpful.
- Get community to help index CoOL resources if there were a straightforward way to do so.
- Open CoOL to comments. Old information can be improved by allowing comments, even by original authors.

- CoOL as a digital library – could there be a pay wall? Subscriptions? Or as a membership benefit?
- Mobile technology for assessments, inventories needed. Could design in-house.

### ***Possible Partnerships***

- Could create a museum/academic collaboration. Creating metadata schema, text mining and analysis, turning narratives into schema. Could start with specific areas, such as paintings, silver, etc.
- Go to where the resources are. Conservation should be more active at MCN, for example.
- Need to connect with IT community, which has API developers, user groups, etc. Education and Information Systems are working together, moving fast, but IT people can't harvest conservation information, so it has fallen behind.
- More collaboration with museum collection information people and education people needed. Perhaps a small pilot program where conservators are working with collections info specialists and API/application developers to harvest conservation files to get them into exhibitions or other more high profile museum activities?
- More world-wide collaborations, such as Getty / Marie Svoboda's vase program. (But need to find a way to make projects like this sustainable.)
- Think about initial pilot programs with partners with outside people, such as the medical or astronomy communities, which are working in digitally native work environments.
- Flesh out idea of Academic Computing Group - Create a job description for IT person who could start this process within a conservation department. What would that person/role look like?
- Look at archivists' role. Archival practice could be applied to conservation documentation. Have a fledging meeting with them and AIC?
- AIC representative or observer at CALM – Committee on Archives, Libraries, and Museums look at issues that crosscut sectors.
- Partner with ConservationReel (<http://www.conservationreel.org/>), an aggregated site for conservation videos housed at the Balboa Park Online site, to host publicly facing materials (or perhaps host video competitions).

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