

Interview with Kara van Malssen

Adjunct Professor - New York University
September 2011 - Present

Senior Consultant - AudioVisual Preservation Solutions
April 2011 – Present

Instructor for SOIMA: Safeguarding Sound and Image Collections - ICCROM
August 2007 – Present

Manager, Digital Archive Research - Broadway Video Digital Media
June 2010 – April 2011

Senior Research Fellow + Metadata Specialist, Preserving Digital Public Television
New York University
February 2007 – June 2010

Audiovisual Archivist – US Tennis Association
August 2006 – February 2007

Interviewers: Crystal Sanchez and James Smith

Describe your experience working in the field of time-based art and its preservation.

Going back to my undergraduate degree, I studied film and media studies as well as 20th century art history. It was an interdisciplinary major—which was great, because I was able to combine video production, film theory and history, and contemporary art history into one program. I later did a Masters in moving image archiving, and preservation at NYU (the Moving Image Archiving and Preservation Program, or MIAP), where I now teach Digital Preservation. My intention when I applied to the MIAP program was to work on the preservation of time-based media art [TBMA]. It was my early entry into the field; [preserving TBMA] was actually what I wanted to do.

We had internships right from the very first semester of the program. My first internship was with Electronic Arts Intermix, so I was working with TBMA right away. Over the course of the program I learned about many different fields in which media conservation is a concern, so the program exposed me to issues beyond just TBMA. But I think TBMA was always an important part of the curriculum, particularly working with professors Howard

Smithsonian Institution Time-Based and Digital Art Working Group: Interview Project

Besser and Mona Jimenez. They would often focus on the needs of art, as challenging cases, as opposed to other media and content. So that was my program and training.

I am currently a consultant with AudioVisual Preservation Solutions, and we work with a wide variety of organizations, a number of which have TBMA collections. For example, I have been working with MoMA for three or four years now, helping staff to develop their Digital Repository for Museum's collections. That project initially came out of the Matters in Media Art working group with SF MoMA and the Tate. MoMA has been pursuing that repository, architecting it and moving it forward for the last few years.

We are also currently working on a project with Cornell University's Rose Goldsen Archive of New Media Art. They have primarily CD-ROM, DVD-ROM, and Internet art, and they have received an NEH grant to work on practices for the preservation of interactive content on optical disc. That project is just ramping up now.

We are also working with Eyebeam Art and Technology Center. We helped recover its collection after Hurricane Sandy and we are continuing to engage with staff on developing their archive and preservation practices.

I have been involved with lots of institutions that collect and preserve TBMA and I think that I have a useful background to be able to approach [issues that face TBMA preservation].

You mentioned that you attended NYU with the intention of studying TBMA preservation specifically. We have heard that there few programs offering conservation training that specifically address TBMA. Have you found that to be true? Did you find that you were designing your own education so that you could gain the skills needed for TBMA preservation?

I think that you do design your own path, a little bit. You can apply for certain internships that are orientated to an area of focus that you are interested in. So as I mentioned, I worked at Electronic Arts Intermix, which is a video art distributor. I worked at Anthology Film Archives, because I was interested independent, *avant-garde*, and experimental film. There are professors in that program that are attuned to the specific needs of TBMA. Howard Besser and Mona Jimenez, the Director and the Associate Director, have both been involved with TBMA in various ways over the years. They were good mentors in that area.

The TBMA Working Group is interested in looking at the training opportunities for people that care for TBMA. What training opportunities do you see a need for?

I have a lot of thoughts on that. Now that I am a teacher in the NYU Moving Image Archiving and Preservation Program, and my class is digital preservation, my perspective is different

from what it was when I graduated from the program in 2006. The world was a somewhat different place with regards to time-based media preservation in general, not just specific to art works. The recommended practices and guidelines, as well as the kind of technologies that are in use, are now quite different than what they were at that time. The most relevant aspects to my training were the fundamental principles and practices of the archival field and moving image preservation. The technical aspects of my experience have mostly come on the job, as well as [from] professional development and ongoing education.

As the field changes, as the technologies that creators use change, and as the technologies that we need to use to preserve things change, we have to continue our training. The programs that are out there give people the fundamentals in the field that they can then take with them as things continue to evolve over time. That is what I am most grateful for; I think my program did give me the foundation that I needed, and I'll always use that part of my training and education. Having said that, it did have a slant towards the technical aspects of audio visual material; because of that, I think it is easier [for me] to learn and adapt to changes in the field as it relates to audio visual materials.

Do you feel that the digital preservation training that you received was sufficient for dealing with artwork? If not, what supplemental training do you think is needed?

Digital preservation alone is not going to give you all the tools you need for artworks, but it does give you the baseline of what is required for the preservation of content that is in a digital form. There are shared practices across many types collecting or creating intuitions, from archives to libraries, from health care to space science. The bricks on which the preservation efforts are built are all the same. There are practices that apply generally; digital content is digital content. When you get into time-based moving image material, then you have something more specialized, and on top of that you have time-based materials that are artworks, which are even more specialized.

Being able to approach and understand the particulars of your field and of the kinds of content you're dealing with is really important. This doesn't mean that you can ignore everything else, or [that you should] think that you have something so different from everything else. I think that is dangerous. It is a flaw in the way that people have sometimes been approaching this kind of question, because the timelines are so short. We don't have time to figure it all out again from a conservation perspective. The practices that are available from other fields and are shared amongst different fields are there, and they should be applied.

How do you see the distinction among "standards," "guidelines," and "best practices" in time-based art? When is it appropriate to apply one or the other?

Standards with a capital “S” are the domain of organizations like SMPTE, ISO, IEEE, W3C—they are very formal standards bodies. They are more concerned with market factors and questions about the underlying technical infrastructure of things. These standards touch on different aspects of time-based media artworks. For example NTSC is a broadcast standard, and you have some artworks that employ NTSC. DV is standardized by SMPTE, and artworks are sometimes encoded in that format.

Those standards don’t really tell you how to preserve the works. That is where the division comes in between what is *formally* a standard and what is a guideline or a best practice. We have things that are de facto standards—like metadata standards, which are not standards in the formal sense. Even METS is not a standard in the sense of a standards body; it points more to a recommended practice or guideline, but it is a de facto standard. We have to think about the way that we use the word “standard” and what we mean by it.

I hesitate to use the phrase “best practices.” I was at a meeting where someone said, “Why are we worrying about best practices when we don’t even have practices?” I think he had a point. In the field of digital preservation and audio visual conservation for time-based media, we are struggling to figure out practices, so we haven’t got to this question, “What are the best practices?” quite yet. We have recommended practices, and those are very important to the preservation of TBMA. There are specifics and particularities about artworks that are different, say, from broadcast materials, and you will want best practices or practices and guidelines that are more applicable to those types of works. There is a strong [art/conservation] community that has a shared understanding of those practices; so people aren’t going rogue. The development of shared practices is at the foundation of these fields of preservation and conservation; it is fundamental to those communities. So, what do we mean in terms of “standards,” “guidelines,” and “best practices”? — we need to think about it.

Could you talk about your experience working at MoMA to care for its digital collections? What standards did you use and/or how did you tailor the TDR to deal specifically with art works?

At MoMA, this was an important question from the beginning. We knew there were standards, guidelines, and recommended practices out there that would be applicable to the works, and we had to think about how they would apply to MoMA’s collections. Having worked with so many different types of institutions that have different missions and goals, and having applied the same standards over and over again in different contexts, it becomes clear that those standards and practices are not meant to be all things to all fields. The Open Archival Information System [OAIS] reference model, for example, which

basically defines the functional entities of a digital preservation depository, is very vague. It uses vague terms, like “designated communities,” for which you have to fill in the blanks about how you will make it accessible. Just like any other field, applying that [vague] standard to time-based media or digital art is something that you have to do.

So, we looked at how things like the OAIS model, the PREMIS Preservation Metadata Standard, and Trustworthy Repositories Audit and Certification (TRAC) could be applied at MoMA. What would it look like to have a OAIS-compliant repository at the Museum for digital artworks? It was really interesting. We recognized that there are some foundational practices that are within those guidelines and standards that certainly apply. For example, the way that you store things—you must have actual backups, not just replication and mirroring, that are stored offsite. You must do integrity and fixity checks to ensure that the content has not become corrupt. If you transfer content from one storage environment to another, you check to make sure that nothing was lost in translation. You must have some baseline preservation metadata that will help you understand the work’s structure and components. Those kinds of things are not unique to TBMA or digital art.

Of course, the devil is in the details. We had to ask, “What is different? What is unique about TBMA? How do we characterize these really complex digital artworks that are custom code developed by artists and have so many different components and pieces?” [These components and pieces] have dependencies on one another, so we ask, “How do you express them in a way that is going to be understandable to future generations, so that they can re-render this work in a new environment?” Metadata aspects and accessibility are the aspects that are particular to artwork.

Emulation and migration are really questions of how to provide access to the work. If you need to provide access within a gallery context, as opposed to a reading room, then you have somewhat different requirements and you have to figure out what those are. That is where there is work to be done. How do we express the relationships, the dependencies, and the characteristics of these kinds of works in a model that is very flexible, that can be scaled, and that can accommodate many different kinds of work? (As we know, variability is in the nature of these works.) The artworks are not consistent, so we do not need standards that are consistent. We need standards that are flexible enough to accommodate the needs of TBMA.

Do you think there is an opportunity to create guidelines for TBMA at large? Or do you think the issues that you are tackling at MoMA are specific to the MoMA? Could you talk about the general areas of documentation that are necessary for curators and conservators to think about?

Smithsonian Institution Time-Based and Digital Art Working Group: Interview Project

Let me give you a couple examples where there is space for practices to be established that may be more applicable to TBMA generally. The Cornell project that I am involved in is focused in that middle area, where we are dealing with a class of content. Once we get past the idea that it's all digital and begin to examine what is unique about these works, we can start to break it into classes. At Cornell, we are looking at classes of CD-ROM-based artworks. So we already have the classification—they are CD-ROM—but within that, we have sub-classes. When we break the collection into these classes, we can approach the CD-ROM collection consistently and develop guidelines that will be useful for other institutions that have interactive CD-ROM artworks.

This is applying methods that come from digital forensic fields—for example, processes for disc imaging, identifying the file system; extracting structural information about the files on the work; and what [are] the baseline, core components of a package of information that you will need to re-render the work in the future. So [the goal is] taking the content off the discs, which are vulnerable and obsolete, to store it in an environment that is more stable. Just knowing how to do that is very useful for people. How do you figure out the structural information and map of that disc? How do you characterize the files of that disc? [The answers to those questions] will be very useful and can be shared by [people who care for] interactive CD-ROM content in general.

The additional questions we are going to be asking are [about] the pieces of documentation that need to go into a package with this work that will allow it to be rendered in the future. That is where a lot more analysis comes in; but in the end, we are going to have documentation recommendations and guidelines that are general and can be adapted to the context of specific institutions or collection, and that describe what information needs to be captured and how to capture it.

This gets to the question of what curators and conservators need to document in order for these works to be rendered in the future when they are not around. That is where there is more work to be done. We know that we need to document and understand the type of file systems that the work uses, particularly with software-based works. We need to know the original environment and operating system that it was created on and the software that is required to render it. Software-based work is a little bit more complicated, but even for [other kinds of] TBMA, those kinds of questions remain. Being able to extract characteristics of the files that describe in detail the color space, the codecs used, the bit depth, the frame rate, the aspect ratio—those things are really important. That is at the file level. But you also need to know the artist's intention. Is this only supposed to be displayed in a room that is painted blue? Well, that is obviously really important.

I think that level of documentation—the artists’ intentions—is well understood by the community. What we need is to be able to describe the components of the work at a technical level—a very fine and granular level, so that we can make important decisions later on with regards to conservation actions. There is a parallel with more traditional art conservation where the conservator is a material scientist who understands the materiality of the media [she is] working with. Conservators wouldn’t decide to do something with a painting if they didn’t understand the pigments and the fiber of the canvas and all those things. It is the same thing with TBMA; you need to understand the video and audio signals and how they behave and what the impact will be if you transcode this work to make it available in new, future environment or even to create access copies. Are you unintentionally manipulating or altering the artist’s intention because you do not understand significant properties of the work? That fine level of detail is critical, and that is the kind of documentation that is still needed to be addressed in this field.

Do you think that is because many of the people in charge of caring for these works don’t have that kind of technical knowledge and training? And if so, what is the solution?

I don’t want to be controversial ... but yes, they often don’t have that kind of training. In the conservation programs, it is like I said before: you get the foundation and the core principles of your profession, but you don’t get that technical training specific to complex media works, because there is just too much to cover in a traditional conservation program. Ongoing, continuing education on your own is sometimes the best way to learn.

You don’t necessarily need specialized training. It is useful to learn the technologies that the artists are using in the same way that the artists are learning how to use them. They didn’t take a “computer programming for artists” class or a “video production for artists” class; they just learn computer programming or video production. [It’s about] learning video production, or about the things that broadcast engineers, computer programmers, and computer scientists know. Those types of knowledge sets and skills are really important if we want to understand the ecosystem and environment in which these works were created and need to be *re-created* down the road. So if you like taking classes, take a computer programming class—it can be very eye-opening.

People need to be encouraged to think outside the [traditional] training curriculum that is being offered and go where everybody else is going. A lot of this stuff is general enough that people trained with a conservation or curatorial eye will be able to understand it and apply it to the context they need with regards to the conservation of these works.

It is interesting that your definition of classifying comes from an archival background, and that is helping you to think about ways some of the technical issues for these artworks can be

standardized enough that you don't have to look at each individual work, at least until you get to the really specific details. Classifying the CD-ROM-based works is a great example.

The point is to get it to a point where you can start to ask the harder questions that are specific to that work. If we first do the simple things, so to speak, then we can go deeper to look at what is particular. But if we think every work is so unique that we can't do anything about it, we'll spend too much time [puzzling over each case]; and by that time, the work will be lost. We have to start somewhere.

We're interested in the resources that you use that help you to care for TBMA or to design with repositories. What are the resources that you turn to?

That is hard. There are so many things. Stack Exchange is a great resource—it is a techie online question-and-answer forum for computer programming-type questions. Attending conferences and events that are *not* focused on TBMA, or even audio-visual perseveration, [can also be valuable]—going to events where a mix of people from various domains are asking the same questions, but looking at them from different angles. You can learn really interesting things from one another. For example, you can look at video game preservation from the perspective of a museum, an archive, or the company that created them; they all have different approaches, needs, and goals. You can really learn from one another about what works and what does not. [I recommend] going to cross-disciplinary conferences, reading journals [from different disciplines], and joining the listservs of different organizations and professional associations that are all dealing with the same sort of questions, but are coming at them from different angles.

The regard to this need for interdisciplinary skills dealing with TBMA preservation, there has been discussion about the concept of "digital curators," as they are sometimes called—specialists who are trained to combine the curatorial, conservation, and technical (IT, AV, archival) perspectives side. To what extent do you think we need to have curators that understand the technical side of the art, as opposed to curators who are just able to work with the technical people? In other words—can we bring in technical interdisciplinary expertise not through additional training of the curators per se, but through interdisciplinary efforts among those professionals who are in those different fields?

Two thoughts come to mind.

First, there is a semantic problem with the word "curation" these days, especially in regards to digital curation. There is a whole field of practice called "digital curation" that is coming from the library, archive, and even research/scientific data world, where they consider "digital curation" to be all the activities that revolve around preservation, access,

and management of digital collections, very generally. So it brings up issues when you say “digital curator” and [it means something different] to someone in a different domain. That is just a side note, [but] in this cross-disciplinary world, we try to speak the same language or at least understand what each other means.

A digital curator from the museum side of things [is something different]. I agree that it can be challenging for a curator to be trained in the skills of a technologist who would understand these works more deeply. If [curators] have access to others with [technical] knowledge and skills—and if there are practices, procedures, and policies at the institution that would require those types of people to engage with one another at the point of acquisition or exhibition—that would be fine; it would be a great solution. The curators could focus on what they do best, and technologists too, and then they could come together as they need.

What I have seen in practice is that there is a lot of disconnect. People [with different areas of expertise] who may need to engage with one another in these types of situations, such as at the time of acquisition, are not doing it. What we sometimes see—and this is not at any one institution—is that works are acquired that are not the *whole* thing needed by the museum or the institution in order to ultimately care for those works. That’s because the curators are tasked with the acquisition and they don’t always engage with the conservationists, the archivists, or the technologists about particular works, because everybody is so busy. So certain pieces are left out of the equation, certain documentation isn’t acquired. If it is a complex computer-based work, we have seen cases where source code or databases weren’t acquired, so you end up with only a part of the work.

Moving forward, there have been enough scary moments where people have seen that happen that everyone is now trying to do a better job of using interdisciplinary approaches to these kinds of work. Definitely [there needs to be] an awareness that if you do not understand the technology, you certainly need to engage with someone who does before any major curatorial decisions are made.

Any other comments?

How documentation is expressed is really important. Documentation is not just someone writing down their impressions of things or collecting what the artist said. We actually need more. To answer the question of what we still need to work on, documentation is one of those things. Documentation needs to be in formats that are machine readable, that are parsable, that are analyzable, that you can do searches and queries on. We need ways of expressing metadata about these types of work that will allow us to do [both] high-level and low-level analysis that will ultimately lead to revealing characteristics or traits or ways

of moving forward with these types of works. I don't see that happening right now, and that's not specific to the museum or gallery world. It's a general issue with time-based media; we need to do a better job of finding ways to [document these media] systematically, formally, and in analyzable ways. So on one hand, yes—we need to figure out what questions to ask. On the other hand, we need to figure out how to capture and document the answers to those questions so that we can use them in more revealing and innovative ways.

That sounds like an area where we might need some standards!

That is exactly right. The answers that we crave are many times locked away in forms of documentation that are not as accessible as we expect them to be, and I think we can do a better job. We are seeing some movement [but there could be more]. For TBMA, that is where community practice, guidelines, or standards can evolve.

Some organizations are trying to fit that information into their existing collection management systems or DAMS, and I wonder if you think there is space for that or if that requires a completely new schema or system.

It depends case by case. What we see is that everybody crams too much text into one field—the “Other” field—[which is] not very parsable. We need to engage with the vendors and developers of those systems and talk about our requirements for metadata management so that there is a place to capture those things at a granular level. We need to first more formally develop data models that can then be implemented in various systems. The people that care for these collections need to [communicate] with technologists, software developers, database administrators, and developers to articulate their requirements, because [the technical] people are only going to build things that they are being asked to build. If we [content people] do not engage with the developers of the tools we use to manage our collections, they will not make things that are useful for us, because they will make their own assumptions.