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THE INTERPARES 3 PROJECT: IMPLEMENTING DIGITAL RECORDS PRESERVATION IN A CONTEMPORARY ART GALLERY AND ETHNOGRAPHIC MUSEUM

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Abstract

InterPARES 3 is a five-year multi-national project currently involving 17 countries on 5 continents. The goal of the project is to enable small and medium sized public and private archival organizations and programs to preserve over the long term authentic record that satisfy the requirements of their stakeholders and society's need for an adequate record of its past. The paper will examine InterPARES 3 research at two institutional test-beds responsible for the preservation of digital cultural objects: the Morris and Helen Belkin Art Gallery and the Museum of Anthropology, both at the University of British Columbia. The Morris and Helen Belkin Art Gallery needs to have policies and procedures in place for the acquisition and maintenance of digital artworks and the ability to maintain these into the future while respecting the integrity of the artists' vision. The Museum of Anthropology requires assistance with formulating policies and procedures for maintaining diverse cultural resources from exhibition records to object information in a complex multi-use and multi-platform environment. Discussion will focus on the progress towards achieving the above goals, including research methodologies, action plans and results to date.

The purpose of this paper is to provide information about the InterPARES 3 project and to highlight two cultural institutions at the University of British Columbia that are acting as case studies for research. First, I will discuss the project as a whole then I will look specifically at the issues being faced by the Museum of Anthropology (MOA) and the Morris and Helen Belkin Art Gallery and the challenges we hope to address in collaboration with InterPARES researchers.

InterPARES is the acronym for the *International Project on Permanent Authentic Records in Electronic Systems*, a multidisciplinary and multinational research effort that is now in the third phase of implementation. The project's researchers come from the varied disciplines of the humanities and the sciences and represent the interests of both the academic and the professional world. Despite these broad intellectual influences, the overarching principles of InterPARES are drawn from archival science. InterPARES maintains research teams in the varied business and juridical environments of North and South America, Africa, Europe and Asia, but its administrative base of operations is at the University of British Columbia (UBC) in Vancouver Canada. Major funding for all three of the project's phases has been supplied by the Social Sciences and Humanities Research Council of Canada with matching funds provided by UBC's Vice President Research Development Fund, the Dean of Arts and the School of Library, Archival and Information Studies.

Before proceeding to a discussion of the three phases of InterPARES, it is useful to explain the key terms that have been defined by the project. The maintenance of authenticity is central to ensuring that records remain juridically valid during their preservation. With the digital realm characterized by the rapid pace of software and hardware obsolescence, records on electronic systems are at great risk of losing their identity, integrity, and thus their authenticity in a very short period of time. Authenticity refers to "the quality of a record that it is what it purports to be and that it is free from

tampering or corruption.¹ Authenticity does not speak to the content of the record; rather, its presence indicates the degree to which its identity and integrity have been maintained. The former term is defined as “the whole of the characteristics of a document or a record that uniquely identify it and distinguish it.”² A record’s integrity is “the quality of being complete and unaltered in all essential respects.”³ If these two components can be maintained in digital environments, then digital records’ authenticity can be ensured and long-term preservation becomes viable.

InterPARES 1 was conducted from 1999 to 2001 and adopted the perspective of the records preserver. The research was divided into four domains which broadly focused on “the preservation of the authenticity of electronic records that are no longer needed by the creating body to fulfill its own mandate, mission or purpose.”⁴ The first domain examined the “conceptual requirements for assessing and maintaining the authenticity of electronic records” using a methodology that combined an inductive approach based on archival diplomatics⁵ and a deductive approach that used grounded theory to examine specific studies. The second domain determined whether records appraisal “should be based on the same or different criteria as those for traditional records and how digital technologies affect appraisal methodology.”⁶ The third research area developed preservation models based on a survey of existing plans, practices and technologies. The final domain assimilated the previous research to develop a framework for “the articulation of international, national, and organizational policies, strategies, and standards” for digital records preservation.⁷

¹ InterPARES 2, “Terminology Database.” Available from http://www.interpares.org/ip2/ip2_terminology_db.cfm; accessed May 16, 2008.

² InterPARES 2, “Authenticity Task Force Report,” p. 47. Available from http://www.interpares.org/book/interpares_book_d_part1.pdf; accessed May 15, 2008.

³ InterPARES 2, “Terminology Database.” Available from http://www.interpares.org/ip2/ip2_terminology_db.cfm; accessed May 16, 2008.

⁴ InterPARES 1, “Project Summary.” Available from http://www.interpares.org/ip1/ip1_index.cfm; accessed May 16, 2008.

⁵ InterPARES defines diplomatics as “the discipline which studies the genesis, forms and transmissions of archival documents, and their relationship with the facts represented in them and with their creator, in order to identify, evaluate, and communicate their true nature.” InterPARES 2, “Terminology Database.” Available from http://www.interpares.org/ip2/ip2_terminology_db.cfm; accessed May 16, 2008.

⁶ *Ibid.*

⁷ *Ibid.*

From 2002 to 2006, the project's second phase adopted the perspective of the records creator in order to test the validity of their earlier findings. Case studies were drawn from the dynamic and experiential records of creative arts, science and e-government. InterPARES 2 based its research methodology on the principles of interdisciplinary, transferability, open-inquiry and multi-method design. The project yielded a number of products that can be applied to a host of situations analogous to the case studies examined, including the digital records preservation needs of the Morris and Helen Belkin Art Gallery and the Museum of Anthropology. InterPARES 2 produced records creation, appraisal and preservation guidelines tailored for both the creators and the preservers. Both of these documents are available freely through the products area of the InterPARES 2 website.⁸

However, thorough academic research and dense policy documents are of little use if they are not tested in practical environments. With this truism in mind, the project administrators successfully applied for a further grant to extend InterPARES into a third phase. InterPARES 3 was initiated in 2007 and will continue to 2012. It is mandated to apply the products of the earlier phases to the records creation, control and preservation environments of archives and records management units with limited resources and funding. InterPARES 3 is presently in the initial stages of implementation: case study researchers are examining the legal, administrative, and records management contexts of small to medium sized archival programs across the globe.

In Canada, the project has divided its efforts into general and case studies. The former will generate a review of the existing digital records projects, a bibliography of international and Canadian standards, as well as a terminology database to supersede those of InterPARES 1 and 2. The selected Canadian case studies are divided into three categories: examinations of specific groups of digital records; evaluation of existing recordkeeping systems; and the development of digital records preservation policies. The

⁸ See InterPARES 2, "Products." Available from http://www.interpares.org/ip2/ip2_products.cfm; accessed May 16, 2008.

Morris and Helen Belkin Art Gallery and the Museum of Anthropology fall under this latter rubric.

The case studies for InterPARES 3 are guided by the methodological principles of action research: “a set of disciplined, material practices that involve collaborative dialogue, participatory decision making, inclusive democratic deliberation and the maximum participation and representation of all relevant parties.”⁹ This methodology was chosen for its suitability for the project’s research, education and knowledge mobilization components. Collaborating with the records creators and preservers within the practical contexts of their work allows the researchers to fine-tune their academic expertise to the realities of the specific case study environments.

The research itself follows a seven stage iterative process. The test-bed partner identifies the records management problem first. InterPARES 3 research assistants then collect data that reflects the legal, administrative and technological contexts of the partnered organizations. Once this information has been analyzed by the project, the first iteration tests a plan of action specifically designed to address the needs of each case. These results will then be shared amongst the team of researchers and professionals in order to evaluate their efficacy. A second and third iteration further refines the designed solutions. The tests are followed by group comparisons, where organizations with similar digital records preservation needs compare their respective strategies. The final stage of the methodology requires that the researchers and professional co-investigators “reflect on the issues and processes and make explicit their assumptions and biases, thereby giving rise to theoretical considerations.”¹⁰

At the time of this writing, InterPARES3 is still in the initial phase of this seven-stage process. The two case studies will serve to illustrate the challenges faced by cultural institutions in developing electronic records policies. Research assistants have gathered

⁹ InterPARES 3, “Case Study Methodology.” Available from http://www.interpares.org/ip3/ip3_case_study_methodology.cfm; accessed May 19, 2008.

¹⁰ *Ibid.*

contextual information on each institution and helped to define the policy issues they face. At the May 2008 TEAM Canada Workshop action plans were developed that will be carried out in the next 6 months. The remainder of this paper will provide background on each institution and discuss the electronic preservation and authenticity challenges faced by each and the action plans for the next phase of InterPARES research.

The University of British Columbia has been collecting ethnographic material since 1927, but it was not until 1947 that it decided to bring this material together to form the founding collection of what would become the Museum of Anthropology. The new Museum officially opened in 1949 in the basement of the UBC's main library, where it remained until 1976 when it moved to its current purpose built location. Today, the museum is Canada's largest teaching museum and is committed to balancing research, teaching, public programming, visitor services and the development, documentation, and preservation of its collections. MOA is mandated to "investigate, preserve and present objects and expressions of human creativity in order to promote understanding of and respect for world cultures."¹¹ Within this framework, the museum seeks "to provide information about and access to cultural objects from around the world, with emphasis on the achievements and concerns of the First Peoples and British Columbia's cultural communities."¹² Its functions are currently divided amongst four administrative sectors: administration, collections care and management, public and community services, and curatorial.

Currently there are no policies in place for digital records preservation. The museum holds digital records that are maintained on its servers and on the hard drives of individual employees regardless of whether the records are active or inactive. The museum's archives also holds some digital materials, mainly image files and older disk formats. A solid digital records policy needs to be in place to manage electronic records before any digital material can be transferred to the archives for long term preservation. However, the museum faces numerous challenges with implementing digital records

¹¹ MOA, "Our Mission." Available from <http://www.moa.ubc.ca/history/mission.php>; accessed 14 May 2008.

¹² MOA, "Our Mission." Available from <http://www.moa.ubc.ca/history/mission.php>; accessed 14 May 2008.

preservation: lack of an up-to-date records management policy; lack of collaboration, cooperation and understanding between its units; and a complicated technological infrastructure. These issues will prove to be challenging obstacles to the creation and implementation of a digital records preservation policy.

A major obstacle in this process is the lack of an institutionally supported records management policy at the museum. Instead, records management is treated in an *ad hoc* manner, with hard-copy records remaining in their office of origin until compelling circumstances arise for their transfer to the archives. Digital records that are considered important are printed and kept in files in their originating offices. In 1998 a draft Records Management Guidelines for the museum was written. Although this general plan was revised and recommended for implementation in 2001, its basic outline has only been adopted by a small percentage of the staff for their paper records and thus far has not been adopted formally across the institution despite support from the museum's executive and a commitment from the museum's archives to assist with implementation. The main contributing factor for this is the museum's organizational culture where individuals have a great deal of autonomy within their own spheres and are also overburdened with other responsibilities that make recordkeeping a low priority. Given these circumstances, the archives does its best to implement aspects of records management and educate staff about basic responsibilities towards records preservation. Although institution-wide records management for paper and electronic records have not been achieved, some success has occurred on a case-by-case basis.

Another key factor complicating the preservation of electronic records is that the Information Technology (IT) Department (consisting of one person, the IT manager) is isolated from the records creation and management functions of the various offices, focusing instead on operational maintenance and electronic storage. Furthermore, records creation and management is constrained by the museum's technological infrastructure: for example, digital records are created using a variety of software packages with files maintained on the servers. There is no current mechanism for the

long-term preservation or intellectual management of the files from creation to transfer to the archives or destruction. Both the IT manager and the archives understand that they need to work in collaboration in order to ensure efficient records management and preservation of digital files according to a structured plan. Practically, however, it has proved difficult to achieve this despite good intentions by both parties.

Further contributing to the complex infrastructure is the museum's decision to continue to support a mixed platform hardware environment, which currently consists of 33% MAC and 66% PC. This situation has led to a number of compliancy issues that effect workflow and staff resources. For example, the current collections management program does not support MAC computers in an efficient manner. This system is in place to manage the museum's object collection, yet the portion of staff that uses MAC computers cannot easily access the database or they are creating files that will create further complexity when it comes to preservation.

To sum up, a complicated technological infrastructure, the creation of numerous digital entities, a lack of centralized resource management, a policy vacuum, technological obsolescence and a lack of a formal records management program all contribute to the challenges faced by the museum. As a partner in the third phase of the InterPARES Project, the museum hopes to move closer to developing policies and procedures for the creation, management and preservation of all its digital records. The InterPARES 3 Project and the Museum of Anthropology case study are currently underway. A contextual analysis of the museum has been completed and with this background research finished, InterPARES is able to begin working on the action plan developed at the May 2008 TEAM Canada Workshop. This plan calls for an up to date assessment of the museum's current digital infrastructure and resources, the development of preservation guidelines as drafted by InterPARES 2, and a renewed effort to educate staff about records management in general.

Also currently underway is research related to records policy issues at the Morris and Helen Belkin Art Gallery. The Belkin Art Gallery is one of the more prominent contemporary art galleries in Canada, with a reputation for an exhibition program that explores thought provoking and daring issues and ideas. Specifically, the gallery's mandate is to research, exhibit, collect, publish, educate and develop programs in the field of contemporary art and in contemporary approaches to the practice of art history and criticism.¹³ The gallery also manages the university's art collection and actively builds its holdings of contemporary art through purchases, gifts from artists and donation. Increasingly the challenge of managing, maintaining and preserving mixed media and electronic artworks has become an important factor in the acquisition process. We found ourselves thinking critically about our ability to properly care for mixed media artworks that we were considering for the permanent collection. In addition, the gallery already holds a significant number of analog artworks and elements that we did not have a strategy for transferring and maintaining in a digital format. Although we had been researching these issues, and applying ad hoc band-aid fixes, no structured in-house solutions or policies had been formulated at the time we were approached by the InterPARES 3 Project to become a test-bed partner. We welcomed the opportunity to work with this project to find a manageable solution to the issue of media art preservation.

The InterPARES Project is not the first to look at the problem of how to maintain artworks that were created using a variety of media. A number of other initiatives have been examining this issue and working towards finding solutions that will assist institutions and individual artists to preserve their works into the future. InterPARES 3 hopes to contribute to this emerging dialogue and to learn from work that has already been completed. The Daniel Langlois Foundation, the San Francisco Museum of Modern Art, the Tate Gallery, the Guggenheim and others have all created various tools and applications to help define the scope of the challenge and to create documentation with the input of the creators that will allow their pieces to live into the future. A detailed

¹³ Belkin Mandate. Available from <http://belkin.ubc.ca/about/mandate>; accessed 20 May 2008.

survey of these initiatives is outside the scope of this paper however it is important to note that the input of the creator is a key factor and a common element in this process.

We must also distinguish that the works in question are those created by artists by means of some creative or artistic process. The gallery acquires artwork after their creation and thus each piece may have different levels of complexity, use different software and hardware components, and have different exhibition and installation requirements, and varying degrees of communication between the gallery and the artist responsible for the work. Each individual or collective may also approach and view the preservation and maintenance of their work in different ways. The main issues of media fragility and technological obsolescence remain a constant; it is the manner in which the artists' vision of what constitutes an authentic iteration of their work in the face of these constants and the role of the gallery in determining and maintaining that vision that form the crux of the challenge.

There are a number of strategies for preserving media art that may be considered, including migration, emulation, and storage of original hardware and software. The latter may not be practical as there are many reasons why storage may ultimately fail – including physical deterioration of the originals. More important, however, relying on storage of individual elements may not compel a meaningful discussion with the creator on what contextual and elusive elements of the work are important to capture if the original version of the work is presumed to be saved. Emulation may provide a better means of preservation, as its goal is to recreate the appearance and feel of the original using current technology that mimics original hardware and software. If emulation is not possible or not chosen by the creator as the best means to preserve their work, migration may provide a better option. Migration simply transfers a work of art from an outdated format to a more current one. The intention is to maintain the integrity of a work in this process, but this means that there must be meaningful input from the creator as to what integral elements of the work must survive a change in medium and presentation. For example, the Belkin Art Gallery recently migrated a multimedia work created in 1972 for

exhibition purposes. The original used three simultaneous slide projectors that had scripted slide changes, and were accompanied by sound and music. Although the artist is deceased, we were able to recreate the work using DVD and computer elements with the input of the artist's surviving spouse (also an artist). Although the work did not look exactly the same as in 1972, we feel that the new version of the work preserved those elements most important to the creator – namely the multi-sensory experience of the visuals and sounds, as well as the viewers' ability to synthesize the disparate elements in a way that was meaningful to them.

Because the Belkin is a relatively small gallery with limited resources and staff, the need for policies and tools to address the issues of media preservation is important for us if we hope to continue to be a leader in the field of contemporary art exhibition and collection. It seems clear that the policy cannot be created without some means to capture the intention of the artists whose works we hold, but we need to determine the best way to not only understand the vision of the artist and how they see this vision being perpetuated into the future but how the gallery will physically address the technological challenges that will emerge from this. If we are to emulate a work, what are the specific hardware and software resources that we must engage with? If we are migrating a work, then we must also do this on an ongoing basis as new technologies emerge. The practicalities of media preservation as well as the more nebulous process of understanding each individual artists definition of an authentic work is the dual challenge we face. Our hope is that the Belkin's partnership with InterPARES 3 will allow us to create lasting policies and procedures that will have practical and ongoing value.

To move closer to this goal the action plan for the Belkin consists of re-working our current acquisition process to ensure that all contextual information related to a multi-media work be acquired along with the work itself whenever this is possible. In addition an oral interview component should become part of this process in order to better understand how the artist wishes to preserve their work into the future. Finally, the

researchers will draft guidelines for artists about the type of information that would assist galleries in preserving their work.

As already noted, InterPARES 3 is only in the first year of its five year research phase with much work ahead. The challenge is to create workable solutions for small and medium sized institutions with limited resources such as the Museum of Anthropology and the Belkin Art Gallery. Research at both is still nascent, with the emphasis on understanding the records keeping and creation context as well as an analysis of the institutions themselves. These components contributed to the creation of action plans at the May 2008 TEAM Canada Workshop, whose implementation will be the focus from May to November, 2008. It is important to keep in mind that the two case studies discussed here are part of a much larger, international project. With many countries and individuals with different expertise working on the issues of electronic records preservation, InterPARES 3 hopes to assist all institutions and records creators with ensuring the authenticity of their electronic records.