

**Title:** New perspectives on museum's information and knowledge management systems: the case of Pinacoteca do Estado de São Paulo

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### **Abstract**

The social transformations presented by global dissemination of new technologies contributed to a major change on how various publics can, will, need or want to interact with the museum. This new paradigm deeply connected with the rapidly transformation of human cultural forms of production propose a complex challenge to our institutions demanding a new perspective towards museum practice and its dynamic interaction to museum theory and methodology.

This paper intend to present selected experiences developed at Pinacoteca do Estado de São Paulo (São Paulo state art museum) that point to multidisciplinary work and research tools based on databases and information systems. Among the main projects discussed are the organization of the Center of Documentation and Memory, the integrated research interface for both art collection, archives and library cataloging database systems and the common based acquisition policy and management standards for all the museum holdings and collections. Another objective is to understand how records and archives management systems could play a fundamental role on the development of more integrated and effective museum workflows. At last this presentation expect to contribute with the debate on preservation strategies for non-object and conceptual art experiences, which best chances of social permanence could lie on dynamic, cooperative and technology based documentation and information systems.

As a conclusion this study will point that a collaborative and multidisciplinary work associated with a more conscious and broader use of information technology could indicate an interesting strategy to undertake some of the challenges faced by contemporary museum.

## **New perspectives on museum's information and knowledge management systems: the case of Pinacoteca do Estado de São Paulo**

Gabriel Moore Forell Bevilacqua

### **Introduction**

With the development and evolution of digital tools used to organize and disseminate information and the propagation of computer networks, the informative potential of museum institutions has expanded enormously in the last three decades. The traditional museum focus on exhibitions and paper publications as main resources of access to their collections and to the knowledge generated from its activities doesn't need to be placed as a reality to be supplanted, but rather strengthened and expanded with new strategies and technologies.

The specificity of museums as unique institutions is based upon the temporal and material permanence of representative selections of vestiges and fragments of human experience and the natural world associated with the capacity to critically reframe and communicate this heritage in new contexts and perspectives. Most certainly, these special characteristics also point to a peculiar appropriation of the contemporary information technologies.

New information technologies can be interpreted as a necessary resource to expand the capacities of rethinking and distributing information and knowledge, but in fact not to replace the unique character and signification of the whole museum experience. Undoubtedly, the intensification of production and circulation of digital objects, artworks and documents will directly transform the structure and understanding of the materiality of our collections, and consequently the strategies and methods we use to organize and access our holdings.

However, it's very probable that museums maintain their social significance as unique and necessary institutions for the research and permanence of our cultural and natural heritages. But why discuss information in the museum? What would be the specificities of this concept in the perspective of museum methods and theoretical assumptions?

From a multidisciplinary point of view museological institutions constitute themselves into a privileged space for discussions involving information and library science, museology and archival science. This is achieved by two factors mutually connected: the museum is one of the few organizations that has (to a greater or lesser extent depending on the type of the museum and its size) collections consisting of sets of objects / documents three different natures (museological, archival and library material), and has extensive demands for organization and dissemination of information, both internal and external.

Thus, the museum constitutes not only a rich field for theoretical investigation involving the prospect of integrated policies for information, but also as a space for experimentation and implementation of new tools of information technology. Despite the increasingly widespread need for an integrated and multidisciplinary approach is important to emphasize that this not necessarily means the denial of theoretical or methodological independence of any science or discipline involved. Solely the information perspective is not sufficient to resolve all issues and questions rose by each of these areas of knowledge or presented in collections of various natures but it can be understood as a common point of inflection if analyzed from the communication and information necessities of museums.

### **Objectives**

The Pinacoteca do Estado de São Paulo (São Paulo State Art Gallery in a free translation) is the first public art museum of São Paulo State. Created in 1905 with the transference of 26 paintings from the Museu Paulista

(Paulista Museum of the University of São Paulo) Pinacoteca is today one of the most important art museums in Brazil with a collection of more than eight thousand works of art from Brazilian and foreigners artists. The museum curatorial aim is to collect Brazilian Art from the colonial period to contemporary manifestations. Since 2004 Pinacoteca do Estado administrate two historical buildings both of then part of the architectural heritage of the city of São Paulo. The museum also organizes and houses innumerable exhibitions from Brazilian and International art. On the building known as Estação Pinacoteca do Estado is also the Memorial da Resistência (Resistance Memorial in a free translation) an institution created to work and interact with the memory and history of the building that was used as a prison during the military regime period (1964-1985).

The Center of Documentation and Memory was created during the festivities of the museum centenary (1905-2005). Its first objective was to reunite, organize, preserve and make accessible the museum archive which until then was disperse between various departments of the institution. This objective was achieved totally in 2006 when the archives were open to the public fully organized with a specially created database that granted access to the vast documental repository of the museum history and activities. The archive access made possible the development of two other important research tools that facilitated the studies on the museum history. The first of then was a vast historical chronology of the institution that point with details to its activities and major changes since the origins of ideas which made the museum possible in the end of the Nineteenth-Century to the beginning of the Twenty-first Century. The second was an almost complete list of all the exhibitions and artistic happenings housed and organized by the museum during its one hundred years of activities with more than twelve hundred events documented.

In 2007 the goals of the Center of Documentation and Memory were expanded and the department became responsible for the management of all the private archives and documents collections of the museum. With this the museum started an acquisition plan to collect original documents and archives for Brazilian art history research and as a complementary resource to the documentation and investigation of its on art objects collection. In the same period the department was also asked to respond for the institutional records management activities. This new perspective gave a more complete dynamic to part of the archival lifecycle management and allowed to follow some records from their production by museum activities to its permanent deposit in the institutional archives and further reutilization by curators and researchers to generate new knowledge and new cultural activities.

By now the Center of Documentation and Memory consolidate itself as a important department at the museum collaborating in many central research efforts and projects. In 2006 the archives were open to both internal and external researchers and the number of consults reached fifty solicitations. Four years later in 2010 the solicitations were more than three hundred revealing until now an almost continuous and exponential growth of interest. The collections manage by the Center of Documentation and Memory also grow rapidly and from the only archival fond held in 2005 (the museum archive) now the department maintain fifteen archival groups and collections, from artist, curators and art historians personal papers to research projects archives and other private collections.

The first database system developed for the archives management was a Microsoft Access tool that was designed by the department own staff and developed by a contract programmer. This was followed by a MySQL open source application created in the same way and it is now on the second version. The database system was developed as a complete management system that not only can describe objects/documents and recover related information but can address to their use status and physical location or administrate conservation data and other issues. After the consolidation of the Center of Documentation and Memory new issues begin to challenge the museum staff.

As an art museum Pinacoteca's holds three collections of different nature. The first is the art collection which is the central core of the institution activities and research efforts. The other two born as resources developed to support these activities. A specialized library named Walter Wey Library after a former director of the museum that holds a vast collection of books, magazines and ephemera focused on Brazilian and international visual arts. And the Center of Documentation and Memory which was the central subject of this presentation until now and is responsible for the museum archive and other original and unique documental collections and archives. All of then had its own database management systems with its own procedures, cataloging methodology and research tools. The problem identified by the museum staff was quite simple in its

conceptual conformation. Usually the researchers interested in the museum holdings and cultural heritage point their initial questions to a person (an artist or a curator name), work of art (an object belonging to the collection or exhibited in the museum in the past) and/or to an event (an exhibition organized or housed by the museum). Although in most of the cases the researcher doesn't care where (in which department our collection) he is going to find his answers he is usually forced to delivery then to three different databases (museum collection, library and archives). How could the museum simplify the access (both to internal and external researchers) to the collections and create a more dynamic environment to information recuperation and knowledge production?

Initially the idea was to build equivalence structures for the principal fields of information of the three databases creating similar patterns in cataloguing/description activities. However the huge differences identified in the selected methodologies used in each database systems proved it very difficult to integrate the recovery information tools from this point of view. The new option was to work in the development of a single interface and search engine based on common controlled vocabularies for content indexing. The first activity to implement this project was to identify the way the majority of museum information users (both internal and external) tend to look for their information resources. It was possible to conclude that the interested researcher/user of Pinacoteca's holdings and information resources conduct his search looking primarily for three different but connected information references deeply related to modern and contemporary art museums in general: the artist name, the work/object of art and the artistic event (exhibitions organized by the museum). Besides these three demands it's often usual to seek for specific subjects related to art history topics such as "modernism", "conceptual art", "constructivism" or "abstractionism" and cataloging terms and technique categories like "painting", "performance", "installation", "sculpture", "drawing" and "engraving".

After the identification of these patterns we were able to elaborate a new project for the development of an integrated virtual interface for information recovery. The project currently involves several museum professionals and departments (library, archives, curators/researchers, conservators, collection documentation and information technology) and is divided in the following steps:

1. organization and normalization of an artist name controlled vocabulary (initially those belonging to the museum collection - about twelve hundred names);
2. organization and normalization of an exhibitions controlled vocabulary (initially those organized by the museum collection - around thirteen hundred events);
3. organization and normalization of a works of art controlled vocabulary (initially those belonging to the museum collection - about eight thousand objects);
4. development of a management system to administrate the application and actualization of the vocabularies behind the existing collections databases (museum collection, archives and library);
5. indexing the controlled terms to all databases entries (about thirty five thousand);
6. development of an integrated interface for collection's information recovery on the museum website;
7. organization, normalization and application of subject/technique controlled vocabulary.

The project started in 2009 and intend to implement the integrated interface (step 6) until the end of 2012. As a complementary investigation project Pinacoteca is also studying various methodologies developed for data normalization and content information recovery for cultural heritage institutions. Between then are those developed by the Getty Research Institute (Getty Vocabularies), CIDOC's Conceptual Reference Model and Data Model and Iconclass.

Since 2009 Pinacoteca is also taking part in the organization of important scientific events and work groups in the field of documentation, archives and information. Examples of these initiatives are the *I International Seminar on Museum Archives and Research* (2009, November 9<sup>th</sup> and 10<sup>th</sup> - Pinacoteca do Estado de São Paulo and Museum of Contemporary Art of the University of São Paulo) which have its annals released in 2010, the *I Seminar on Museum Information Services* (Pinacoteca do Estado de São Paulo (2010, November, 25<sup>th</sup> and 26<sup>th</sup>) and the *II International Seminar on Museum Archives and Research* (scheduled to happen at Pinacoteca on November 16<sup>th</sup> and 17<sup>th</sup>, 2011) organized by the Museum Archives and Research Work Group (created during the first edition of the Seminar in 2009), a major reunion of professionals from about twelve museums and cultural heritage institutions from São Paulo.

Together with the databases integration project another initiatives are also being developed to enhance the circulation and dissemination of the knowledge produced:

- publication (website) of the bibliography about the museum linked with the library database;
- publication (website) of the illustrated the chronology of the museum history;
- publication (website) of the museum's historical list of exhibitions with attached documents like photographs and press-releases;
- publication (website) of the technical production of the museum staff/departments (scientific papers, articles, dissertations and presentations in congress, seminars and other events).

## **Conclusion**

One of the main theoretical premises of the presented project is the concept of integrated collection management in museums developed in 2010 together with the museum specialist Juliana Monteiro from the Secretaria de Estado da Cultura de São Paulo (São Paulo State Department of Culture in a free translation). The concept was originated from common experiences and collective studies carried by Juliana Monteiro who since 2008 works in the management of the museums owned by the State of São Paulo (more than twenty museums with over eighty thousand objects in their collections) and myself as head of the Center of Documentation and Memory of Pinacoteca do Estado de São Paulo (one of the São Paulo State museums). Integrated collection management stands for:

1. The perspective of the museum as an information service center where its various and innumerable users (public) can access answers for their research, investigation and informational needs towards the totality of the organization holdings (collection, collection documentation, library, archives and documentation centers) through an integrated system of data/information recovery independent from the holdings typology, applied methodologies or the several departments involved in their management. It's possible only through information technology systems as databases and Intranet and Internet tools allowing information crossing recovery and the creation of dynamic research reports offering to the interested various search and access possibilities to the institutional holdings in one information/communication interface. The application of such a system requires an integrated organizational policy for information production, circulation, use and dissemination.
2. Development of an integrated collection management system from an integrated organizational policy aiming for a more dynamic and productive interaction between the vast and diverse collections/holdings preserved by the museum and its main objectives as an institution of specialized knowledge production and dissemination. It is based on the creation and application of common and interrelated directives developed from collection management procedures: acquisition policies and programs, delineation of thematic fields of interest/content areas, methodologies (cataloging/description, identification, classification, work-flows, use, access, reproduction, circulation, documentation, search tools and conceptual definitions and boundaries, etc.).

It's important to acknowledge that an integrated perspective applied to different/diverse collections and holdings isn't necessarily based on the suppression or substitution of specific methodologies traditionally used or proposed by the involved disciplines/fields of knowledge (archival science, museology, library science or information science). The proposition is focused in a technical and methodological approximation through a not excluding hybrid tool solution or an information system supported by the normalization and combination of multiple criteria allowing information recovery from different but profoundly related museum sources.

There's also a genuine need to investigate the practices, theories and functions of the archive inside the museum in general and particularly in art museums. As an example of the proposals of the *I International Seminar on Museum Archives and Research* (2009, November 9<sup>th</sup> and 10<sup>th</sup> - event organized by Pinacoteca do Estado de São Paulo and the Museum of Contemporary Art of the University of São Paulo) two lines of investigation and debate could be set:

1. record management and archive administration: the role of the archive in the museum, the archive in the art museum, archival methods and technical procedures, museum documentation (practices and approaches), demands and functions of archival material, support of the institution administration, databases and electronic information systems, other research tools and the users demand.

2. the museum's archive as information source: the research in the museum (lines and profiles), the research in the art museum (specificities), exhibitions organization, institutional history, art history and critique, specificities of modern and contemporary art.

The specific relation between archives and art museums is also needed because of the new discussions around the nature, function and medium of some materials often found in modern and contemporary art museums which points to new uses, production and accumulation patterns of documents/archives and art objects/museum collections. The peculiarity of this organizational dynamic reveals the need to debate and outline new definitions, concepts and methods concerning the modern museum collection and services administration.

Also as part of a possible conclusion some questions and conceptual issues that demand further investigation should be pointed:

1. Integrated management system for museum collections: technical problems, conceptual boundaries, practicality and applicability.
2. Production, circulation and usage of information in the museum: from the internal user to the outsider researcher and the general public.
3. The museum as an information system and service: limitations due to the specificity of museum activities and advantages.
4. The collection documentation as a major museum information resource: conservation, access (internal and external researches), interrelations and boundaries with archival holdings and physical place (the curators/cataloguing office or the archives/library).
5. Development of museum databases (conceptual and practical challenges): from a collection reference information tool to a complex integrated management system (document production, circulation and conservation control, workflows, multitask and interdisciplinary digital environments).
6. Contemporary challenges on museum documentation: from the object to the action.
7. The role of museum's libraries and archives: from information support to collaborative research and curatorial activities.

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