

Educational Use of Museum Multimedia The AMICO Library™

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Abstract

As education and research institutions struggle to come to terms with networked resources, new kinds of organizations and partnerships are emerging to support the distribution of networked cultural heritage information. The Art Museum Image Consortium (AMICO) (<http://www.amico.org>) provides an example of how museums have collaborated, in a manner that respects the requirements of education and research, to enhance access to the digital multimedia documenting their collections. AMICO has responded to visual resource curators' and librarians' concerns about administration, economics, access and use in this new information environment, leveraging resources and – we hope – providing cost-effective, unprecedented access to cultural multimedia.

Introduction

The means by which students, scholars, teachers and researchers gain access to information has changed significantly as digital information resources, particularly those delivered via the World Wide Web, have permeated academic culture. In this radically changed information landscape, visual collections, libraries and visual resource curators and librarians have been called upon to embrace new streams of reference materials. The new diversity of electronic sources offers many advantages, as it is often regularly updated, can support multiple users, may provide access without regard to "opening hours," and provide greatly improved depth and scope of information for researchers.

In the traditional library, a repository of books, periodicals, pictures, slides and other printed matter, the visual resource curator or librarian acted as both conduit and filter, identifying and providing appropriate sources for their patrons. Libraries have been challenged to find a comfortable position in evolving digital environment, as the focus of their activities has shifted from developing collections to managing access to information (see, for example the research agendas of organizations such as the Council on Library and Information Resources, CLIR and the Digital Library Federation, DLF).

It is clear to all involved that electronic resources, especially those publicly available on the World Wide Web, are not without problems. They may raise questions of authenticity, legitimacy, information discovery, interoperability and documentation (all issues addressed by initiatives such as the JISC DNER and the DLF). Art libraries and visual resource collections provide a case in point for the exploration of issues related to the delivery of a new kind of online content – digital museum documentation.

Museums and galleries too have been working to find their position in this new online landscape (MW97 – MW2001, ArtsConnectEd 2000, IMLS2000). This article will explore

the administrative, economic, accessibility and content development challenges posed in the online information environment, and illustrate how the Art Museum Image Consortium was influenced by the requirements of scholars and collecting institutions when it planned to make The AMICO Library™ available. Organizations such as the National Humanities Alliance (NHA Principles 1997), the International Consortium of Library Consortia (ICOLC Principles 1998) and the Association for Research Libraries (ARL Principles 1997), have highlighted issues of particular relevance to research organizations, art librarians, visual resource curators and the faculty, students and researchers they assist, in seeking ongoing access to high quality digital documentation of works of art.

Administration of Rights

The administration of a visual resource collection is a complex problem. Managing a range of reproduction formats within a demanding environment is a challenge (regularly discussed by the Visual Resource Association, VRA and reviewed in Trant 1996). Introducing the complexities of rights and reproductions administration for digital and networked uses on top of the requirements of more traditional formats added a layer of issues that revealed a community-wide need for information and guidance (NINCH Town Meetings, VRA Guide, 2000).

The community has reached the consensus that for visual resources to be useful in education, the rights to use images in a wide range of normal ways, including classroom projection, online reserve and student paper use, must be readily available. Academics cannot afford the time to clear each specific use, and faculty and students (and their institutions) cannot afford to risk copyright violations in institutional activity, even when some individual uses may be “protected” by fair use (a legal defense in the US). To make administration as manageable as possible, it is hoped that standard terms and conditions for image use can remain consistent across collections, and thus eliminate confusion and end the need to manage “special cases”. (See particularly the statement of licensing requirements developed in the Museum Educational Site Licensing Project – MESL 1998a).

Toolsets to present and use images are typically supported locally. Therefore, when image resources are acquired by an institution, art librarians and visual resource curators will often want to administer online digital image collections at the institutional level, integrating them with resources available from other sources. This typically requires bringing portions of a resource onto university computers to be used locally (Pisciotta 2000). This further challenges the licensing frameworks offered by many electronic journals and databases (LIBLICENSE). Distance education also poses a challenge to the concept of a physical ‘site’ as does the desire not to restrict access for members of the community working from home, their dorms or traveling to conferences or on sabbatical (see the Distance Education sections of the NINCH Town Meetings 2000 report).

Economics

Externally acquired digital resources should be economically attractive when examined in light of the cost of local digitization and management of comparable resources. While a fair bit is known about the costs of delivering digital content in an academic environment (see Besser/Yamashita 1998 for a full enumeration of the costs associated with digital image resources in universities), the concomitant significant costs of producing museum-quality documentation, photography and digital images remain to be studied in depth.

The costs of digitizing works of art, which include the art handling and professional services necessary to create quality photography surrogates (such as 4x5 transparencies) for digitization, and/or all of the expenses of running a professional photographic studio for the creation of new digital photography, are quite high. Very large collections of images, are therefore, very expensive to create. In addition, creating art documentation is a costly curatorial undertaking, and publishing documentation involves expensive editorial reviews.

As the debate over journal subscription pricing has shown, the economics of scholarly communication are changing dramatically in the online environment (LIBLICENSE, Lynch 1999, Mellon 1992). Art libraries and visual resource collections seek to acquire digital image collections that are priced in a predictable manner. They want to be assured that their costs will not increase out of proportion to the growth of the collection (or their budget!) and want to limit unpredictable costs such as per-user, or per-use fees. Visual resource curators and librarians generally wish that the cost-savings (if any) of electronic publishing, and the benefits the new formats provide, be passed through. However, making electronic image databases is likely to be significantly more expensive than converting print journals. We are creating a new product without a physical analog, for which user requirements and expectations are quite high.

Even without accounting for the costs of acquiring rights, the cost and administrative burden of rights clearance for networked use of visual images is very high; one of the attractions of pre-formed collections is that they come with a bundle of educational rights. But it is essential that external resources be leveraged. Academic institutions want to be able to easily link locally digitized resources to those acquired from outside sources. Ideally, outside resources would use the same standards that are employed locally, and might even bring toolsets that could be used locally with a combined resource, making it a more attractive proposition.

Access

Visual resource curators and librarians – probably more so than their clients – are sensitive to the transience of resources that are posted on public web sites. The friable nature of the public web has led to many calls for persistent identifiers and consistent, reliable access to online digital resources. The effort required to maintain lists of links to web resources is staggering as the many portal projects have reported. As more and more museums move to conceptualizing their public web sites as active programmatic spaces this problem will only be exacerbated. New mechanisms are needed to ensure that there are persistent online digital collections (AMICO, ARTSTOR). Art librarians and visual resource curators would likely enjoy long-term collaborations with these new organizations around the creation of digital art documentation and have a significant role to play in ensuring that these new resources mesh with broad institutional needs.

Librarians and visual resource curators want to ensure both access at all times and that provisions for multiple simultaneous users, both of which are potential strengths of online delivery over traditional library materials. The ability to search across a range of types of materials obtained from different sources should also be a strength of electronic resources. But without attention from resource providers, cross-collection searching remains a dream, and materials once they are discovered can often not be easily incorporated into a scholar's ongoing work. (These issues are the focus of the Dublin Core Metadata Initiative, and have

informed the work of the VRA Core and CIMI. They are also at the core of the activities of the JISC DNER and the Interoperability Focus. *Scholarly Work in the Humanities and the Evolving Information Environment* (Brockman et al 2001) explores them in detail.)

Content, Users and Uses

Art librarians and visual resource curators know that the faculty they serve often require images that are of a high resolution and quality. Online image resources need to be structured to provide images at a number of resolutions that will suit the various purposes and practices of academic work. (Greenhalgh 2000, Object, Image, Inquiry 1998.) Resource providers need to remember that it is the content which is of primary concern to the researchers, rather than its format (Bailey/Graham 2000). There need to be tangible benefits to converting to digital formats for this to be worth the investment in time and energy. Scholars have identified many ways that digital tools and techniques could support the work of art historians (Rhyne 1998, Lavin 1997, Stephenson 1999, AIC final report). These statements of requirements begin to move our understanding of users needs beyond discovery and into the research process as a whole (Bearman/Trant 1998b).

Access to good textual documentation that meets scholarly requirements (such as the *Categories for the Description of Works of Art*) is one such ancillary benefit. But documentation associated with the works needs to be consistently formatted. Local practice still abounds in visual collections (Graham 1999). Convenient tools or methods of citing works of art, which are not specific to the publication and point back to the original work of art, are essential to ensure that discourse can take place within and outside the community of those with access to an art image resource (Sandore/Shaik 1998).

Though works of art are preserved for centuries, their documentation changes continually. Not only is it added to and enhanced, extended as the objects are included in new exhibitions and publications, but it is corrected as scholarship advances. A source of documentation that does not enable regular updating by the curators responsible for the works will rapidly be of historical interest only, and cease to be reliable as the basis for new scholarship or further study.

Beyond rich images and deep texts, there is significant educational and research value in a range of multimedia sources, including artists' interviews and statements, curators' tours, and other kinds of audio and video. Anecdotal evidence shows that these are highly valued, both at an introductory level in higher education, and with lay and younger audiences.

Many initiatives have explored these issues over the past decade, a study that has been made all the more challenging by changing nature of Art History and the eager embrace of visual evidence by more Humanities disciplines (as is shown by the work of centers like IATH and projects like Perseus). The Art Museum Image Consortium (AMICO) is one such effort, founded by museums to enable educational use of the digital documentation of their collections. (Bearman/Trant 1998c and 1997d).


Netscape: AMICO Members: Library: Sample Records

Location: http://www.amico.org/AMICOLibrary/samplerrecords/ex.CMA_.1940.465.a.html

AMICO
Art Museum Image Consortium
enabling educational use of
museum multimedia

Home
Join
Benefits
Members
AMICO Library
Contents
Free Trial
Subscribe
Benefits
Subscribers
Use
Schools
Universities
Museums
Distribute
About
Documents
Search
Contact
Sponsor

AMICO Sample Records



Michelangelo
(Italian, 1475 - 1564)

Study for the Nude Youth over the Prophet Daniel (Primary title), 1510/1511

Studies for the Sistine Ceiling: Ignudo (Former title)
Studies for the Sistine Chapel Ceiling: The Nude Figure next to the Prophet Daniel (Alternate title)

Sheet: 33.5cm x 23.4cm, Secondary Support: 34.4cm x 24.4cm
Red chalk over black chalk

Full view:
CMA_.1940.465.a.tif

Inscriptions: lower right, in black ink: 55 [crossed out]; SECONDARY SUPPORT, lower left, in purple crayon: [illegible] O a; lower center, in graphite: 80

Context:
Michelangelo, who is universally recognized as one of the greatest artists, regarded himself as primarily a sculptor. The peak of his early career, however, was the vast ceiling fresco in the Sistine Chapel, in which he depicted scenes from the Old Testament.

This is a preparatory drawing for the monumental nude youths who sit at the four corners of every other narrative scene in the fresco. It is one of a small group executed during the second phase of Michelangelo's work on the chapel ceiling (1511-1512), in which he used red chalk with a precision more typical of penwork. During the first phase, in 1508, Michelangelo had used traditional techniques: most often black chalk for loose figure studies and pen and brown ink for more finished drawings. In 1510 Michelangelo's patron, Pope Julius II, became engaged in war, and the ceiling project was discontinued until the following year. When work resumed, Michelangelo began the unusual practice of using red chalk for finished drawings instead of fine hatching in pen and brown ink, presumably after finding a supply of red chalk hard enough for such exact work.

In the Cleveland drawing Michelangelo first traced an earlier drawing to the sheet with black chalk and then drew the elaborate shading over it in red chalk, probably studying the subject from a wax or terracotta model. The precise function of the drawing was to provide a detailed image of the surface modeling to copy directly onto the wet plaster of the ceiling within the outlines that had been transferred from a full-sized cartoon.

The Cleveland Museum of Art, Cleveland, Ohio, USA
No. 1940.465.a
Gift in memory of Henry G. Dalton by his nephews George S. Kendrick and Harry D. Kendrick

Provenance:
Pierre Jean Mariette (Lugt 1852, stamped, lower left, in black ink); Burckel, Vienna; Dr. Alexander de Frey, Tamesvar, Romania; Henry G. Dalton, Cleveland; George S. and Harry D. Kendrick, Cleveland. Sale: Paris, Galerie Jean Charpentier 12-14 June 1933 (de Frey collection), no. 7, pl. ii (verso, as school of Michelangelo).

Index terms
Drawings and Watercolors

View catalog record in [data dictionary format](#)
View catalog record in [output format](#)

View metadata record in [data dictionary format](#)
View metadata record in [output format](#)

[Return to the AMICO Examples page](#)

Last modified on May 16, 2001

Figure 1: A sample work from The AMICO Library, as shown on AMICO's public Web site (http://www.amico.org/AMICOLibrary/samplerrecords/CMA_.1940.465.a.html) Michelangelo, (Italian, 1475 - 1564), *Study for the Nude Youth over the Prophet Daniel* (Primary title), 1510/1511, Red chalk over black chalk, Sheet: 33.5cm x 23.4cm, Secondary Support: 34.4cm x 24.4cm, The Cleveland Museum of Art, Cleveland, Ohio, U.S.A., Gift in memory of Henry G. Dalton by his nephews George S. Kendrick and Harry D. Kendrick, The AMICO Library: CMA_.1940.465.a. Photo: © The Cleveland Museum of Art.

Art Museum Image Consortium (AMICO)

The Art Museum Image Consortium (AMICO) is an independent not-for-profit membership organization of institutions with collections of art. AMICO was formed in September 1997 – after an open, intensive, self-funded and collaborative planning process – to encourage expanded educational use of museum collections in digital form. AMICO's Members have pooled their collective resources to create a digital library known as The AMICO Library™, which is being offered as a collaborative response to the issues facing museums and educators in the digital environment. (Full background about AMICO's founding, including many planning documents, can be found on its web site <http://www.amico.org>.)

As a museum-governed, non-commercial enterprise AMICO's digital library publication policy has been designed to recover the costs of compilation and distribution of The AMICO Library, but not the greater expense to the member museums of creating digital documentation of their holdings, which they consider part of their educational mission and custodial responsibility. Our subscription fees are designed, over time, to recover only the cost of making the resource available for educational use AMICO does not return any income to its Members. Nor does AMICO subsidize the digitization of works of art in member collections. Our role is to provide a cost-effective and efficient distribution system that enables Members to provide additional services to their educational publics without incurring significantly increased costs.

Museums participating in AMICO are motivated by their educational mission. They wish to facilitate the provision of digital documentation of their collections for educational purposes, speed rights clearance for the educational community, and create a forum for the exchange of information and sharing of experience with the technologies and techniques for digitizing of collections documentation

Our hope is that we can find economies of scale that make the process affordable for all involved. The more educational institutions subscribe, lower the cost-per-user of The AMICO Library; it is hoped this will allow AMICO to offer annual subscription charges that remain stable despite the growth of The AMICO Library and the number of users. At present, schools typically subscribe for about \$200 (US) per year and universities for between \$2,000 and \$10,000 (US) per year, depending on their size. (A full discussion of the economic rationale for the collaboration can be found in Bearman/Trant 1998c.)

AMICO was formed by 22 museums from the United States and Canada as charter Members. Today AMICO membership stands at 39 institutions and continues to grow. New Members are welcome, and European institutions are actively encouraged to join us. (Full details about membership can be found at <http://www.amico.org/join.html>). Institutions subscribing to The AMICO Library will benefit from the expanding membership of the consortium as new collections are included in the combined resource. All Members have seen benefits in collaborating beyond those of acting alone in the digital environment.

We've also found other unforeseen benefits to cooperation: AMICO has been able to facilitate the incorporation of additional Library content through links with other organizations such as Antenna Audio. The Consortium has also facilitated the clearance of

rights requests through agreements with the Artists Rights Society (ARS) and the Visual Artists and Galleries Association (VAGA) that cover all AMICO Members uses of works from ARS and VAGA represented artists or estates.

Delivering The AMICO Library

There are many players and processes involved in creating The AMICO Library (See Fig. 2). Members create digital content. AMICO compiles and edits it. Distributors deliver it to Institutions, who subscribe on behalf of end users. AMICO's distribution model – while complex – recognizes the expertise required in each of these areas, and leverages collaboration with existing organizations to deliver services in a cost-effective manner. A modular approach to task analysis has enabled us to break down the required skills and expertise at each phase, and develop an appropriate strategy.

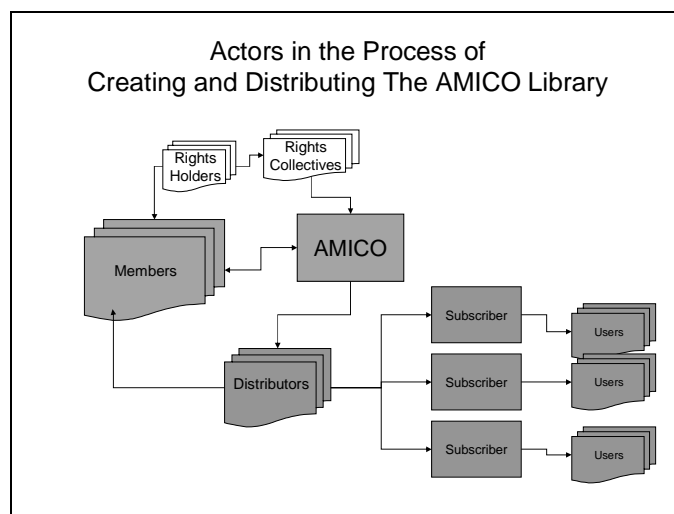


Figure 2: AMICO bridges the distance between museum collections and educational end users. This diagram shows the actors and their relationships.

AMICO and its Member determined that several fundamentally different audiences might want to access the networked cultural heritage that is provided in The AMICO Library: universities, schools, museums and cultural research organizations, and the general public. Each of these groups has particular needs. For example, while a researcher or scholar would like access to a large number of examples of a particular kind of work – for example early photographs – a high-school teacher may only want to use exemplary images representative of early photographic techniques. By collaborating with different information-providing organizations it would be possible for AMICO Library delivery services to be developed that met the particular requirements of each of these communities.

Working with other organization as Distributors has also enabled museums to meet the digital library service provision challenge. Museums are not equipped to support a world-wide community of users, on a 24-hour-a-day, seven-day-a-week basis. Collaboration with distributors leverages their investment in infrastructure and user support services.

AMICO Distributors integrate The AMICO Library into their information delivery systems and provide access through an interface and with associated tools that meet their clients' needs. It is, therefore, possible to subscribe to The AMICO Library through a number of distinct service providers: The Research Libraries Group (RLG) has offered an academic and research-oriented application since 1999 (first launched in the University Testbed in 1998). A state-wide consortium in Ohio (OhioLINK) has developed a service for higher education, launched in 1999, and is experimenting with delivery to primary and secondary schools. Since 2001, H.W.Wilson has offered a distribution that is very popular with primary and secondary school users, public library users, and state universities. VTLS Inc. is distributing an interface to The AMICO Library, also launched in 2001, that lends itself to easy adaptation for presentation of multi-lingual access. The Scottish Cultural Resources Access Network (SCRAN) is making The AMICO Library available with tools for teachers with a planned 2003 launch. (A forthcoming paper at the Museums and the Web 2003 conference explores these distributions in more detail.) IN addition, the University of Michigan has had The AMICO Library available in their local digital library system since 2000.

A multiplicity of Distributors enables users in distinct communities to encounter The AMICO Library in environments they already know, integrated with other data. This context adds value, facilitates cross-linking with other resources, and puts AMICO Library content in conjunction with tools that provide for their needs. Our key goal is to have users encounter The AMICO Library when and where they are searching for information, including making AMICO available through other tools and interfaces that provide access to art and cultural information.

Addressing Digital Librarians' and Visual Resource Curators' Needs

The model of a member-led consortium, offering an increasingly rich resource through varied distributors each serving different user communities was developed with an awareness of the requirements of digital librarians and the managers and users of digital resources. We've tried to address expressed concerns regarding administration, economics, access, content and end use.

The AMICO Library is acquired as a library resource, and it is available to all departments and all library branches on campus. Compared to other methods of building a digital resource, such as the digitization of in-house slide collections, and their documentation and rights acquisition, or the licensing of individual digital files, The AMICO Library is a cost-effective means of building a broad digital database of visual resources. Annual growth of the Library and updates to associated documentation assure its continued value (over 20,000 new works have been added each year to date).

Campus-wide subscription facilitates administration (all eligible users have access regardless of their department). A single annual subscription fee for unlimited use makes budgeting for resource acquisition predictable. AMICO Library subscriptions are scaled, based on numbers of users, to permit small institutions to obtain affordable access. Consortial subscriptions at a discount offer another mechanism for passing on cost-savings we realize from lower administrative burdens.

Since visual resource curators and librarians act as resource guides to both students and faculty, they need to have stable, known environments so that they can train others. AMICO enters into multi-year agreements with its Distributors, so The AMICO Library will be available in a predictable manner. Since AMICO works with established digital resource providers, who offer The AMICO Library within a suite of other resources that libraries already subscribe to, the learning curve to adjust to a new interface or delivery environment is reduced for new users of The AMICO Library.

The AMICO Library License Agreements (available from <http://www.amico.org/subscribe.html>) reflect a delicate balance between the needs of users and the requirements of copyright holders – particularly those who hold copyright in contemporary works of art. They incorporate the experience of collaborative projects such as the Museum Educational Site Licensing Project, and as much as possible meet the principles of organizations such as the ICOLC and the NHA. As an example, AMICO Members recognized that many educational and research uses cannot be fully supported solely through a network accessible resource. To allow for more flexibility, including the ability to incorporate AMICO works in online course reserves, The AMICO Library University Agreement allows for adaptations of the content to different formats and deliveries. Authorized users may print images, integrate images from the Library into password-protected course web sites, place images into other software program, such as M-DID for presentations and papers, create slides or download images and place them on a CD, or even incorporate works from The AMICO Library with a university-created image database of locally digitized slide collections (as in Pitt et al 2002, or at the University of Michigan) .

When desired uses extend beyond those provided for in our standard agreements, AMICO has created an online Reproduction Request form (Fig. 3), to facilitate the permission-seeking process. Users can pass a detailed request directly with the Rights and Reproductions department at the appropriate AMICO Member, without the trouble of finding addresses and identifying individuals.

Sticking points to date still prevent us from distributing The AMICO Library as we would like. Restrictions on public web site use for some artists, mean that we cannot offer a full and complete public Thumbnail Catalog on the public web (<http://search.amico.org>). We still have not been able to negotiate a rights and distribution services at a reasonable cost for access to The AMICO Library by independent “scholars” , including those with an exceptional in life-long avocational interest in the arts.


A M I C O		Art Museum Image Consortium enabling educational use of museum multimedia
<ul style="list-style-type: none"> Home Join Benefits Members AMICO Library Contents Free Trial Subscribe Benefits Subscribers Use Schools Universities Museums Distribute About Documents Search Contact Sponsor 	<h3>AMICO Reproduction Request Form</h3> <p>Please fill out as much of the following form as possible:</p> <div style="border: 1px solid gray; padding: 5px;"> <p>Work Requested</p>  <p>Covered Jar. Ming period, Jiajing era, 1522-1566 Chinese. Asia Society, No. 1979.182a-b. Photo: Copyright Asia Society.</p> </div> <div style="border: 1px solid gray; padding: 5px;"> <p>Requester Information</p> <p>Your Name: Prefix <input type="text" value="Ms."/> First Name <input type="text" value="Jennifer"/> Middle Initial <input type="text" value=""/> Last Name <input type="text" value="Trant"/></p> <p>Your Institution: Job Title <input type="text" value="Executive Director"/> Role in Institution <input type="text" value="Other"/></p> <p>Department <input type="text"/></p> <p>Institution <input type="text" value="Art Museum Image Consortium"/> Institution Type <input type="text" value="Consortium"/></p> <p>Your Address: Street <input type="text" value="130 St George St"/> Suite / Building <input type="text" value="7th floor"/></p> <p>City <input type="text" value="Toronto"/> State / Province <input type="text" value="ON"/> Postal Code <input type="text" value="M5S 1A6"/></p> <p>Country <input type="text" value="Canada"/></p> </div>	

Figure 3: A sample of AMICO's online Reproduction Request Form. See <http://www.amico.org/use/reproRequest.html> for further details

AMICO Library Content

The works of art represented in The AMICO Library reflect the breadth and diversity of the collections of member institutions. Works of art and artifacts available in digital form were created from prehistoric time to the present day and represent a broad range of cultures including African, Asian, Pacific Islands, Meso-American and Pre-Columbian, and Native American, European and American Western art. The AMICO Library contains large numbers of many object types, such as paintings, sculptures, photographs, decorative arts, prints, textiles, books and manuscripts, arms and armor, costumes and jewelry.

The Testbed edition of The AMICO Library (1998-1999) contained images and documentation of over 20,000 works of art from member collections. Since AMICO Members contribute additional works from their collections and because AMICO membership is growing, the number of works in The AMICO Library increases every year. The annual update of the Library is issued to subscribers on the first of July each year. The 2003-2004 edition will document approximately 120,000 works. Faster growth would be possible with more Members and if Members had access to additional funding for digitization.

The digital documentation included in The AMICO Library is governed by the *AMICO Data Specification*. Each work of art in The AMICO Library is represented by a textual catalog record with at least one image, recognizing a user requirement for a visual representation of each work of art. Additional images, multimedia and related documents can also be included (Figure 4.) The descriptive standards adopted are based on the *Categories for the Description of Works of Art (CDWA)*, of which the *VRA Core* is a subset. Each AMICO Member maps the fields in their local system to the AMICO Data Dictionary. AMICO compiles contributed documentation, and ensures that the data specification is followed, and further indexes the works to enhance retrievability. Achieving integration between data from many institutions is still difficult. Further development of the export capabilities of collections management systems would assist in this process. However this is not a priority of systems vendors (as they are focused on supporting internal museum functions), and is not something AMICO can specify unilaterally, because it requires the full collaboration and cooperation of systems developers and users. Perhaps the CIMI DTD offers away forward.

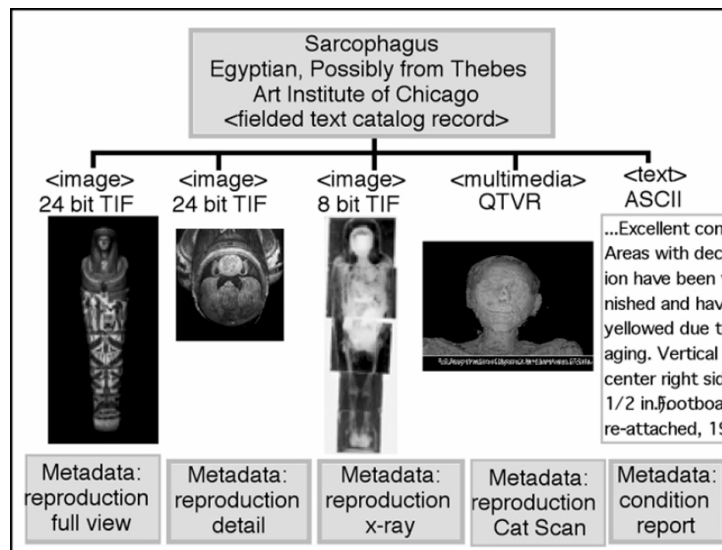


Figure 4: Types of Documentation in The AMICO Library. Each work in The AMICO Library is documented by a catalog record, a digital image, and metadata record about that image. Additional media files may also be present, each of which also has a metadata record. Diagram © Art Museum Image Consortium and The Art Institute of Chicago, 1998.

The documentation of works of art provided in The AMICO Library moves beyond that of a standard picture library. As well as basic identification, The AMICO Library offers interpretive content. Peppered throughout the Library are multiple views and details of works, curator commentaries, sound, video, and other multimedia, provenance and exhibition histories, and publication references. Recently AMICO has reached agreements with Antenna Audio™ to add sound files originally created as part of audio tours of museums and with Roland Video™ to incorporate documentary art video. How this associated content enhances learning and understanding is something that museums and educators need to explore systematically and in tandem. The business processes of museums creates new documentation of their collections on a continuing basis; AMICO hopes to work closely with Member institutions to engineer this business process so that information flows more smoothly into deeper and more up-to-date collections documentation that is available for educational uses



Figure 5: A sample work from The AMICO Library featuring Antenna Audio, shown through the Cartography Associates Interface, Luna Insight™: Dante Gabriel Rossetti (British, 1828-1882) The Salutation of Beatrice, 1859, Oil on wood, mounted in a frame designed by the artist 101 x 202 x 10.9 cm with artist frame, National Gallery of Canada, Ottawa, Ontario, Canada, Purchased 1957. The AMICO Library, NGC_.6750. Photo © The National Gallery of Canada.

The AMICO Library also moves beyond the content available on the Web. As well as higher quality images, users can expect to see many works under copyright, not available elsewhere in digital form. As a consequence of an agreement between AMICO, the Artists Rights Society (ARS) and the Visual Artists and Galleries Association (VAGA), and reciprocal agreements through them with dozens of artists rights associations worldwide, The AMICO Library includes many works in copyright. AMICO's rights agreements recognize the economies of institutional negotiations and the efficiencies a blanket contract offers over work-by-work negotiations. It is now much easier for AMICO Members to include modern and contemporary works, and consequently The AMICO Library has a wealth of works from the 20th century – over 10,000 works in copyright appear in The AMICO Library 2003 edition.

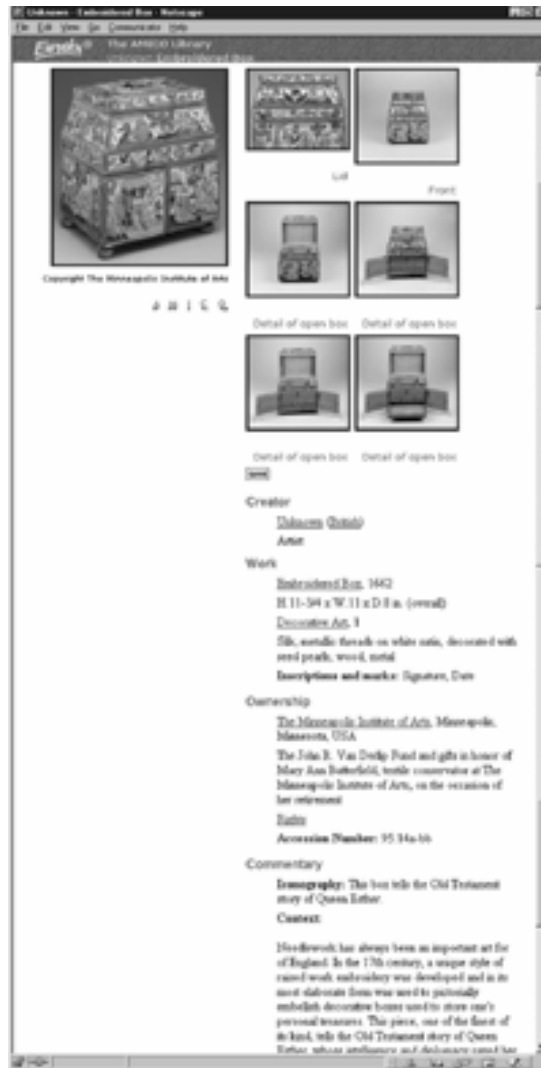


Figure 6: A work from The AMICO Library, including extended commentary and multiple views shown in the Research Libraries Group (RLG) Eureka® Interface: Unknown, (English), Embroidered Box, 1662, silk, metallic threads on white satin, decorated with seed pearls, wood, metal, H.11-3/4 x W.11 x D.8 in. (overall), The Minneapolis Institute of Arts, Minneapolis, Minnesota, U.S.A., The John R. Van Derlip Fund and gifts in honor of Mary Ann Butterfield, textile conservator at The Minneapolis Institute of Arts, on the occasion of her retirement, The AMICO Library: MIA_.95.14a-bb. Photo: © The Minneapolis Institute of Arts.

The selection of works to include in The AMICO Library has necessarily had to balance requirements within institutions for limited digitization resources and have to leverage investment by contributing works to AMICO that have been digitized for publications or Web-based projects. AMICO itself has tried not to be prescriptive; we have encouraged Members to contribute those works that are well-known from their collections (including those reproduced in standard art history textbooks) but have also recognized that the desire to introduce users to a broader range of works in their collections is one of the benefits of participation for AMICO Members.

AMICO Members are committed to adding digital documentation of works from their collections to The AMICO Library as this documentation becomes available. As a consequence, works included in recent publications, displayed in current exhibitions, or recently acquired are all likely to be seen in The AMICO Library. AMICO conducted a review of major art history texts to encourage its Members to contribute other works from their collections that are widely known. But it is not the canon of art history that is the strength of The AMICO Library – it is the wealth of access to unpublished or inaccessible works of art. For example, while a textbook may include one example of a Henry Moore sculpture, The AMICO Library contains hundreds of sculptures, maquettes, drawings and full-size plasters as well as the finished bronzes that are so well known. We hope to enable the new art history (Bailey/ Graham 2000) and facilitate the creation of alternate histories (Walsh 2000) with a breadth of material that moves beyond the ‘canon’.

The range of content in The AMICO Library is beginning to facilitate work in other Humanities disciplines, including history, philosophy, religious studies and cultural studies, as well as art history. Users can compare techniques across cultures and museum collections. They can explore time periods across continents in ways not facilitated by the classic textbook structure of cultural segmentation. And they can find depth in collections that traditional publishing could never afford to illustrate due to the economic realities of color print reproduction. The AMICO Library contains hundreds of comparative illustrations and accompanying depth of associated works that are not included in the textbooks and perhaps very infrequently on view in the museums themselves.

Collaborations with Users

AMICO Members seek to build links to user communities to gain an understanding of their needs for digital art documentation, and to explore new ways to incorporate museum collections into learning. There is still much to be learned regarding the effective integration of new media into teaching and learning. It is widely recognized that cultural heritage institutions have a great deal to offer in terms of content. But how best to collate and deliver digital cultural heritage information over networks remains to be fully determined. With a better understanding of the ways in which digital documentation of works of art is used in education, Members hope to encourage the design of user interfaces and delivery services both for The AMICO Library™ and for their own educational web services. We hope the multi-source availability of The AMICO Library will be a laboratory for learning more about users’ needs and the features and functions of interfaces that support these needs.

AMICO has built upon the experience of several testbeds. The foundation was laid during the Museum Educational Site Licensing Project (MESL). We continued this kind of university/museum collaboration in the AMICO University Testbed was one such project. Before The AMICO Library was made available for subscription, AMICO Launched the University Testbed Project; 12 universities had access to 20,000 works in a preliminary version of The AMICO Library for the 1998-1999 academic year. Participating institutions provided feedback and direction on structuring The AMICO Library prior to its public launch on July 1, 1999 (AMICO University Testbed 1998). AMICO also conducted focus groups with art historians and visual resource curators, to be sure that their opinions were heard in our planning. (AMICO Focus Groups 1999).

In the fall of 2000, AMICO launched a K-12 Schools Testbed involving a dozen teachers in all disciplines and with students of all ages, from schools across North America. This two-year collaboration has yielded requirements for new interfaces and tools for primary and secondary school teachers and students that will become part of The AMICO Library distribution environments in the future.

AMICO is constructing means for routing regular feedback from end users to museum Members, using online and traditional communications methods. AMICO has an e-mail distribution list for users to provide feedback and share experiences with The AMICO Library. Library User Group meetings are being held at conferences of associated professional organizations. Suggestions about what users would like to see represented in The AMICO Library are shared regularly with Members. Users are also beginning to share their experiences in using The AMICO Library. To facilitate the adoption of digital series of model assignments is being developed to illustrate how such a rich educational resource can be integrated into a broad range of teaching subjects and styles. We'd like Michael Greenhalgh's prediction of an 'environment richer than a darkened room' (2000) come to pass.

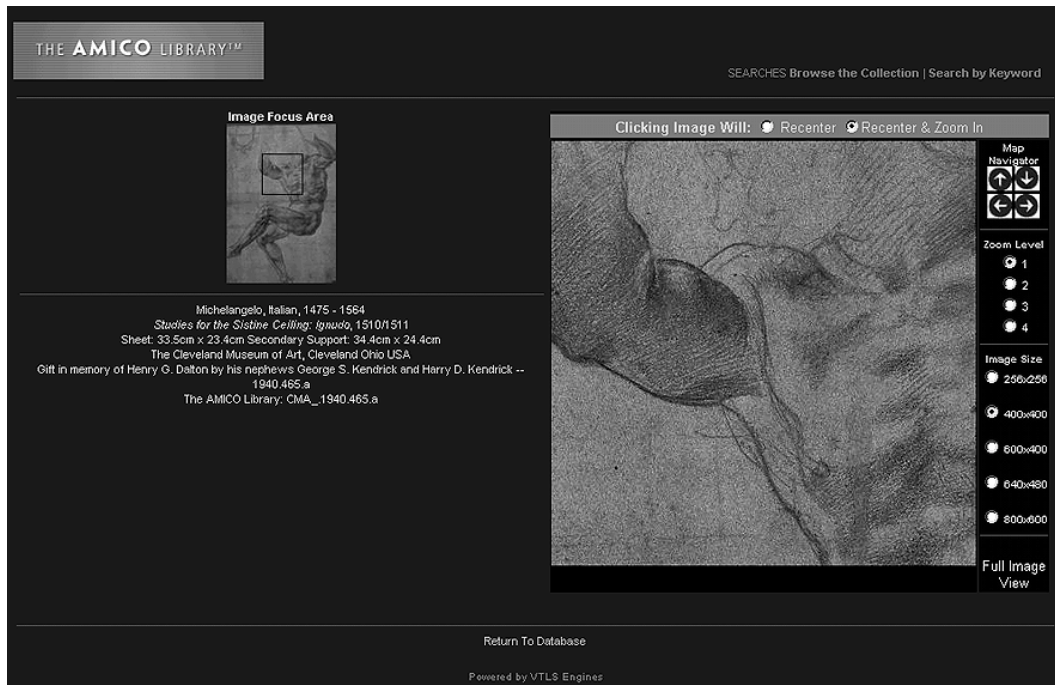


Figure 7: The VTLS Interface, showing the zoom feature to view the same drawing shown on the AMICO Sample Records page: Michelangelo, (Italian, 1475 - 1564), Study for the Nude Youth over the Prophet Daniel (Primary title), 1510/1511, Red chalk over black chalk, Sheet: 33.5cm x 23.4cm, Secondary Support: 34.4cm x 24.4cm, The Cleveland Museum of Art, Cleveland, Ohio, U.S.A., Gift in memory of Henry G. Dalton by his nephews George S. Kendrick and Harry D. Kendrick, The AMICO Library: CMA_.1940.465.a. Photo: © The Cleveland Museum of Art.


Portfolio: Michelangelo drawings open portfolio

images with captions | images with full record | captions only delete portfolio

sort: Date ▾

Click on thumbnails to view larger images and to access the full record. Click "descriptive info" link to view record data to the left.

check all | uncheck all | add checked to portfolio | remove checked from portfolio



Object-Title-Name Studies for the Sistine Ceiling: Ignudo
Studies for the Sistine Chapel Ceiling: The Nude Figure next to the Prophet Daniel
Study for the Nude Youth over the Prophet Daniel

Object-Type Drawings and Watercolors

Creation-Date-Text 1510/1511

Creator-Name-Text Michelangelo

Creator-Culture/Nationality Italian

Creator-Name Buonarroti, Michelangelo

Creator-Role artist

Creator-Birth-Date 1475

Creator-Death-Date 1564

Owner-Acquisition-Number 1940.465.a

Owner-Credit-Line Gift in memory of Henry G. Dalton by his nephews George S. Kendrick and Harry D. Kendrick

Owner-Place Cleveland, Ohio, USA

Materials and Techniques-Description red chalk over black chalk

Measurements-Text Sheet: 33.5cm x 23.4cm. Secondary Support: 34.4cm x 24.4cm


Related-Image-Description Full view

AMICO Identifier CMA_1940.465.a


AMICO Library Year 1998

Owner Name The Cleveland Museum of Art


AMICO




Michelangelo
c. 1508
City of Detroit Purchase Scheme for the Decoration of the Ceiling of the Si...
AMICO
[<<descriptive info](#)




Michelangelo
1510/1511
Gift in memory of Henry G. Dalton by his nephews G...
Studies for the Sistine Ceiling: Ignudo
Studies...
AMICO
[<<descriptive info](#)



Made by Michelangelo Buonarroti
1508-12
Purchase, Joseph Pulitzer Bequest, 1924
Sheet of Studies for the Libyan Sibyl
AMICO
[<<descriptive info](#)



Made by Michelangelo Buonarroti
1508-12
Purchase, Joseph Pulitzer Bequest, 1924
Sheet of Studies for the Libyan Sibyl
AMICO
[<<descriptive info](#)



Made by Michelangelo Buonarroti
1508-12
Purchase, Joseph Pulitzer Bequest, 1924
Sheet of Studies for the Libyan Sibyl
AMICO
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Figure 8: University of Michigan Interface showing the Portfolio tool to compare the Cleveland Michelangelo drawing with others in The AMICO Library.

Conclusions

Our experience has been a positive one; in the first three years that The AMICO Library has been available for subscription over 250 colleges and universities in the United States and Canada – approximately two million students – have gained access to The AMICO Library. An agreement with the Joint Information Systems Committee (JISC) in the United Kingdom makes the Library available to Higher Education institutions throughout the United Kingdom, and currently serves universities with approximately 500,000 students. After one year of making The AMICO Library available for school subscription, we have licensed to almost 100 institutions and are now receiving requests for trial access at a rate of several a week.

We realize, however, that the use of digital resources in art and cultural studies is still in its infancy. The AMICO Library was designed to satisfy several key concerns of the art library and visual resources community; we remain open to the kinds of experiments that will surface new requirements and new methods. In particular, AMICO hopes that the availability of a persistent, high quality digital art resource will begin to encourage uses that will in turn suggest future tools and content interpretations. For example, we're actively

encouraging Distributors to bundle The AMICO Library with other electronic art reference materials and indexes (as H.W. Wilson does, enabling the cross-searching of The AMICO Library, Art Index and Art Full Text). AMICO is also open to collaboration in the development and implementation of tools such as M-DID. Through such continued experimentation AMICO Members will continue to enable educational use of the digital documentation of their collections. We remain committed to open communication and look forward to learning more as our users' needs develop and as AMICO Members' digital documentation is used more widely in research, learning, and teaching

Note: If you wish to review The AMICO Library free for 30 days, please visit <http://www.amico.org/trial.html> to make an online request.

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