Digital Dexterity
The Morgan's Medieval World at Your Fingertips

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The Digital World of Art History
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"The Magnet," by Joseph Keppler, Jr., *Puck* magazine
New York, v. 69, no. 1790 (June 21, 1911)

William Voelkle:

While we still continue to acquire manuscripts, because of availability and price, we are no longer the powerful magnet that draws all treasures from Europe, as shown in this Puck cartoon of 1911. Thus we have sought achievements elsewhere, in the digital world of art history, more specifically in the area of illuminated manuscripts.

CORSAIR, our online catalog, is already transforming the way illuminated manuscripts are seen and studied by both the scholarly community and the public. It represents a truly democratic vision of accessibility – though at a distance – that would have been inconceivable only a generation ago.

Hopefully CORSAIR, with its digital images, will be the new magnet that draws interested parties to the glory of illuminated manuscripts, opening up new possibilities of research and discovery, not to mention pleasure. Though incomplete, the project already goes far beyond what others offer.

The ongoing catalog, unlike printed ones, can be continually expanded and updated, or even changed to meet new needs; some entries already include collation diagrams. Thus the catalog will never become obsolete or go out of print. Nor will such an expanded catalog require precious shelf space! However, these digital developments do not mean that original manuscripts will no longer be accessible, as some fear. They will certainly be available to scholars whose work requires their consultation. Not even digital catalogs, it seems, will ever answer all the questions they raise.
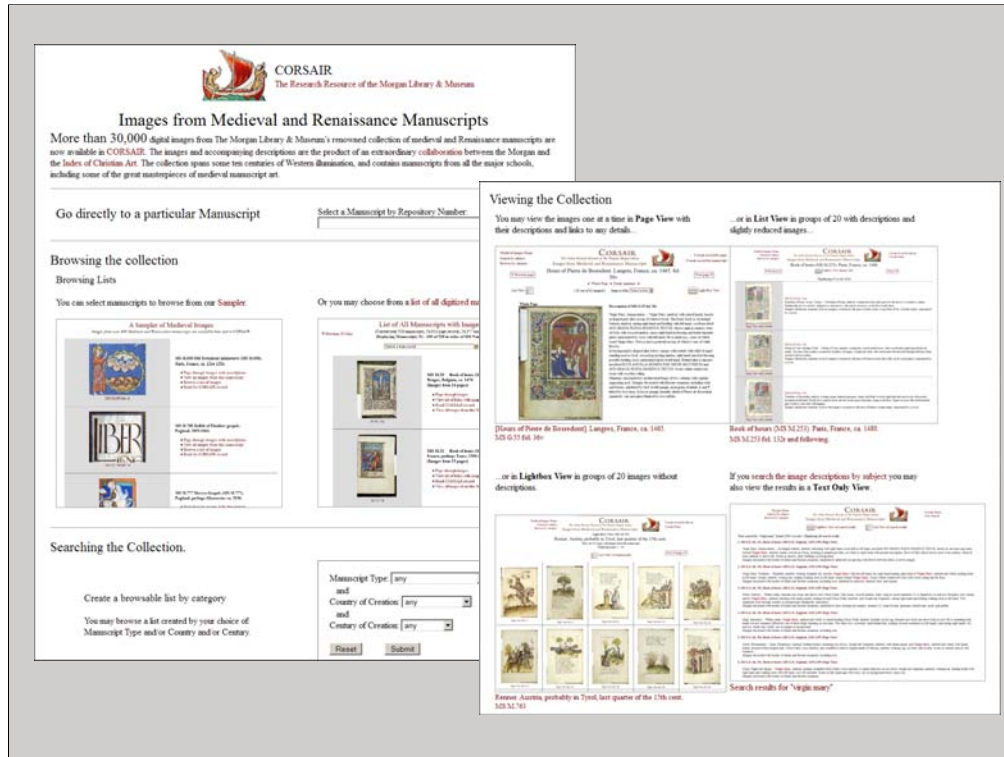
Maria Oldal:

Link to: Images from Medieval and Renaissance Manuscripts

It is my pleasure to introduce to you the newly redesigned gateway to images from the Morgan's medieval and Renaissance manuscripts. We think of it as the icing on the cake, a lovely top layer to many years of hard work on the Index of Christian Art and the Morgan Library & Museum collaboration. I hope you will enjoy a walk through the images gateway before I turn the floor over to Liz O'Keefe who will tell you about the underlying foundation of the gateway, CORSAIR, the Morgan's collections catalog.

All the information in this gateway is taken from CORSAIR, but it provides a more user-friendly graphic interface for exploring images. The site supports various approaches to research. Seasoned manuscript scholars will zero in on their favorite repository number. Iconographic researchers may prefer the subject approach. Others may opt to view a sampler of images, which offers a delightful entry into this treasure trove of medieval iconography.

Once you choose the option to pick an item from a **list of all digitized manuscripts**, you can scroll down the page, 50 manuscripts at a time, or you can use the pick list to select the manuscript you wish to explore.
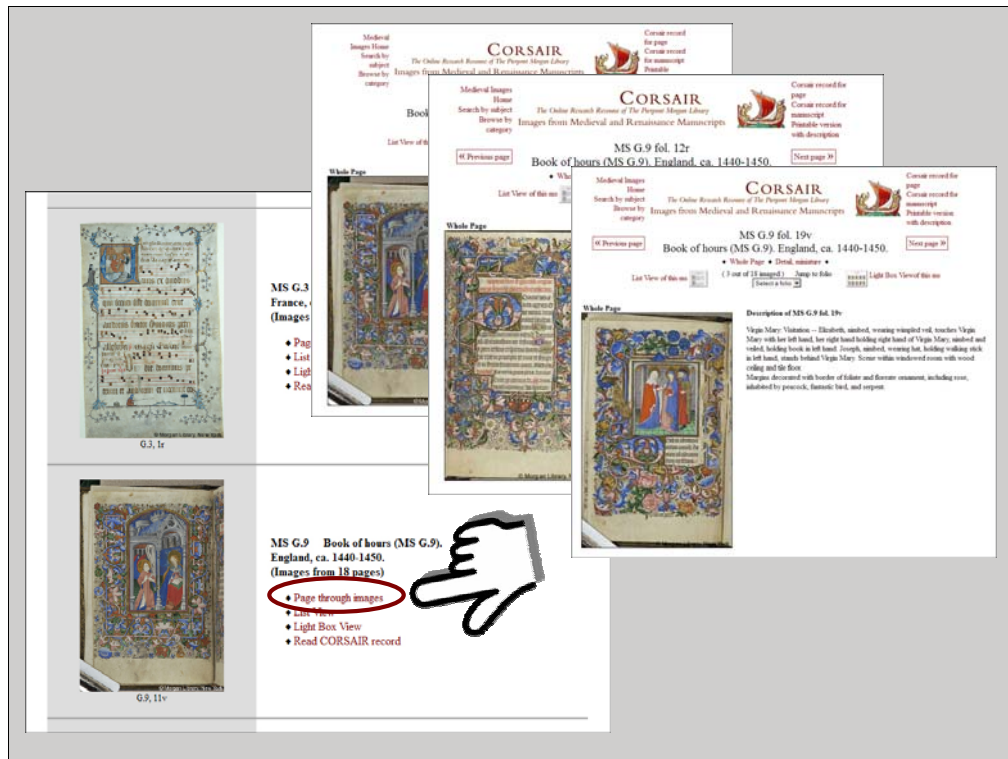
Clicking the image or the **Page through images** hyperlink brings you to the Web page for that image within a page-through list of all illustrated pages of the manuscript (purely textual pages were excluded from the project). Every page is represented by an image of the entire page; many pages also include images of additional details. The **Previous** and **Next page** buttons take you back and forth in the sequence, while the **Select a folio** box in the middle provides a drop down menu of all illustrated pages in the manuscript.

A favorite approach to exploring images within a manuscript is the **Light Box View**. Again, by clicking any of the images, you can page through the folios and read their iconographic descriptions one by one within the manuscript.

The **List View of manuscript** option offers a different display of the same folios. It has the advantage of showing the detailed iconographic descriptions right next to the images.

For those who wish to target all manuscripts with a specific type of textual content, or created in a specific country or century, the gateway provides a search area.

This slide shows you the drop down menus for manuscript type, country and century of creation. The menus eliminate the need to figure out and type in search terms, and show only those categories that will bring back results.

Let's say you have chosen the manuscript type **Book of Hours** from **France** made in the **14th century**. You can scroll down the list or click the **Light Box View** of the search results. Once you select a manuscript to explore, you have four hyperlinked choices. You can page through the illustrated pages, or you can see them as a list or as a light box display. The last link leads to the underlying record in CORSAIR, which contains much more descriptive information than the images gateway.

The gateway includes a link to a subject search page complete with tips and examples.

Link to: Search Images by Subject

It is possible to search for pages that contain images of **rabbits** AND **dogs**, or **esau** NOT **jacob,** or **spear** OR **sword**.

The opening page of the search screen alerts users to the fact that it focuses solely on iconographic terms. A combination search for iconography and manuscript type, place and date of origin, can only be performed in the CORSAIR search interface (see page 41 below).
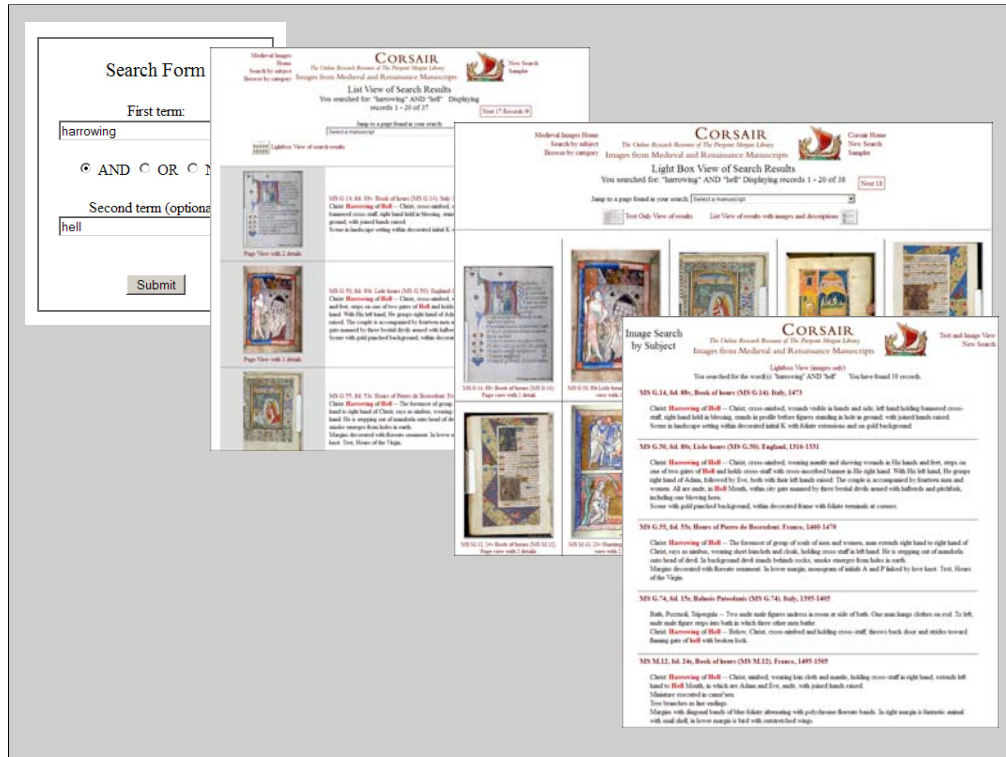
Above is a sample search for illustrations depicting the **Harrowing** of **Hell**. The resulting scrollable list of pages can also be viewed in a light box, or in a text-only version. In all the views, search terms appear in red, greatly assisting in identifying the context in which they appear.

Clicking on any image or text brings up the page view. The **Previous search result** and **Next search result** buttons will take you back and forth in the subject search result. The drop down box in the center enables a jump to any folio within the subject search result.

A link in the upper left corner, however, will show other pages from the same manuscript, where the **Previous** and **Next Page** buttons allow the browsing of all images within that particular manuscript.

Groundbreaking Collaboration

Collaboration between the Morgan and the Index of Christian Art to digitize and describe all significant illustrations within the Morgan's medieval and Renaissance manuscripts.

Approximately 58,000 images of 26,000 pages from more than 900 illustrated manuscripts dating from the 9th century to the late 16th century

Mostly Western--excludes most Islamic manuscripts, but includes Coptic and Ethiopian manuscripts within the chronological limits

The gateway blends images and descriptions created as part of a groundbreaking collaboration between the Index of Christian Art and the Morgan.

Its goal was to photograph and describe about 26,000 pages in 900 manuscripts dating from the 9th to the late 16th century, resulting in approximately 58,000 digital images.

The project focused mostly on Western manuscripts, excluding, with a few exceptions, the Islamic collection, but including Coptic and Ethiopian manuscripts within the chronological limits.

Link to: History of the Project

Project Tasks (1997-2012)

Morgan staff examined every manuscript, identified pages to be photographed

ICA photographer took all photographs

ICA catalogers created records for each ms and for each illustrated page

Morgan staff reformatted ICA page records and loaded into CORSAIR

The idea of the project was first broached in 1997.

Morgan staff meticulously examined every manuscript and identified every page to be photographed.

Index photographer John Blazejewski completed photography a few years ago.

Just a few months ago we celebrated the completion of records by Index catalogers for every illustrated page.

At the Morgan, we are still hard at work reformatting the Index's records for inclusion in CORSAIR.

Current Status (July 2012)

All records and images are available in ICA database

Available on the Morgan site
        558 manuscripts
    18,071 page records
    39,841 images (includes full pages and details)

April 2013: all records and images will be accessible on the Morgan site

Currently all records and images are available in the Index database. CORSAIR includes records and images for over 60 percent of the manuscripts. We hope to complete reformatting Index records and loading images by the end of this calendar year, but no later than April 2013.
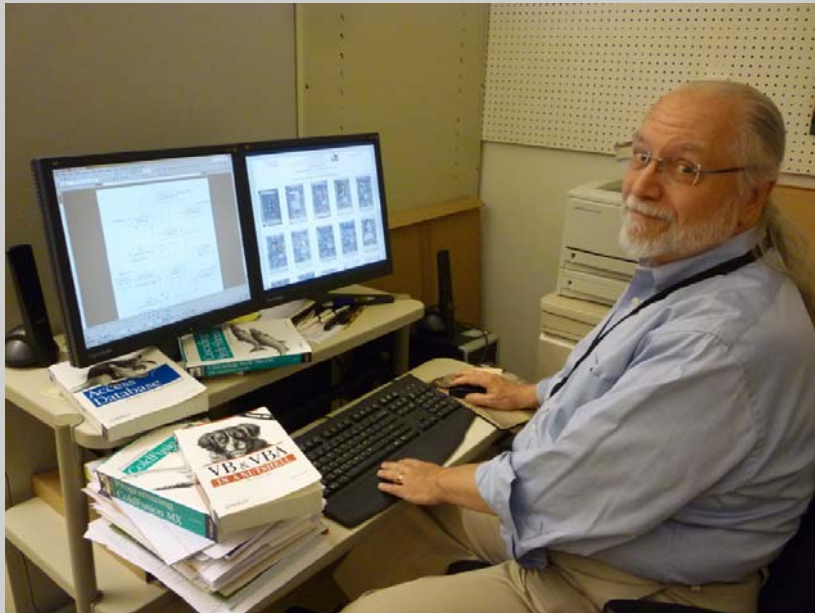
I would like to express special thanks to Robert DeCandido, The Morgan's Database Coordinator, who has been the guiding hand for the layout, navigation, and visuals of the gateway.

At this point, Liz O'Keefe will take over to tell you more about CORSAIR, the foundation of the project, the underlying database that powers the images gateway.
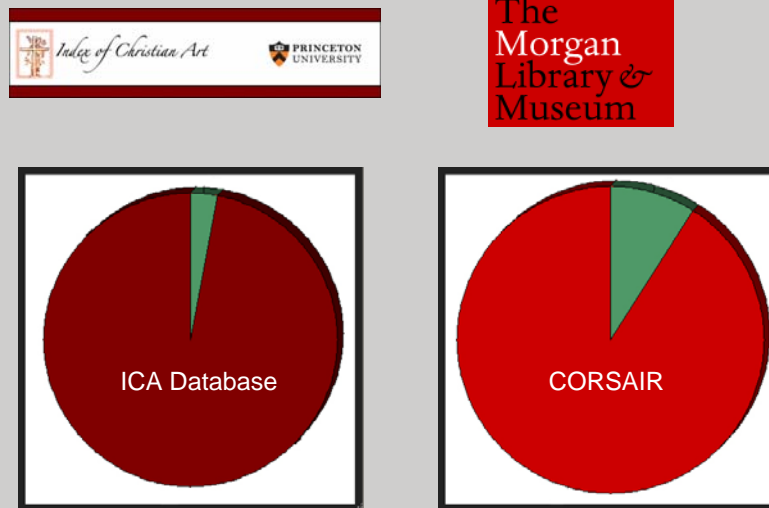
Liz O'Keefe:

The images and the descriptions produced by the project reside in two different databases. In each database, images and descriptions created by this project live in much larger universes.

In the Index database, descriptions and images of Morgan manuscripts co-exist with descriptions and images of other manuscript collections and with other types of medieval art, such as stained glass, metalwork, sculpture, painting, etc.

In the Morgan database, accessible through CORSAIR, the images and descriptions of illustrated pages created by the Index's catalogers co-exist with descriptions created by the Morgan's staff of everything in the Morgan's curatorial and reference collections.

Much more than medieval and Renaissance manuscripts …

CORSAIR
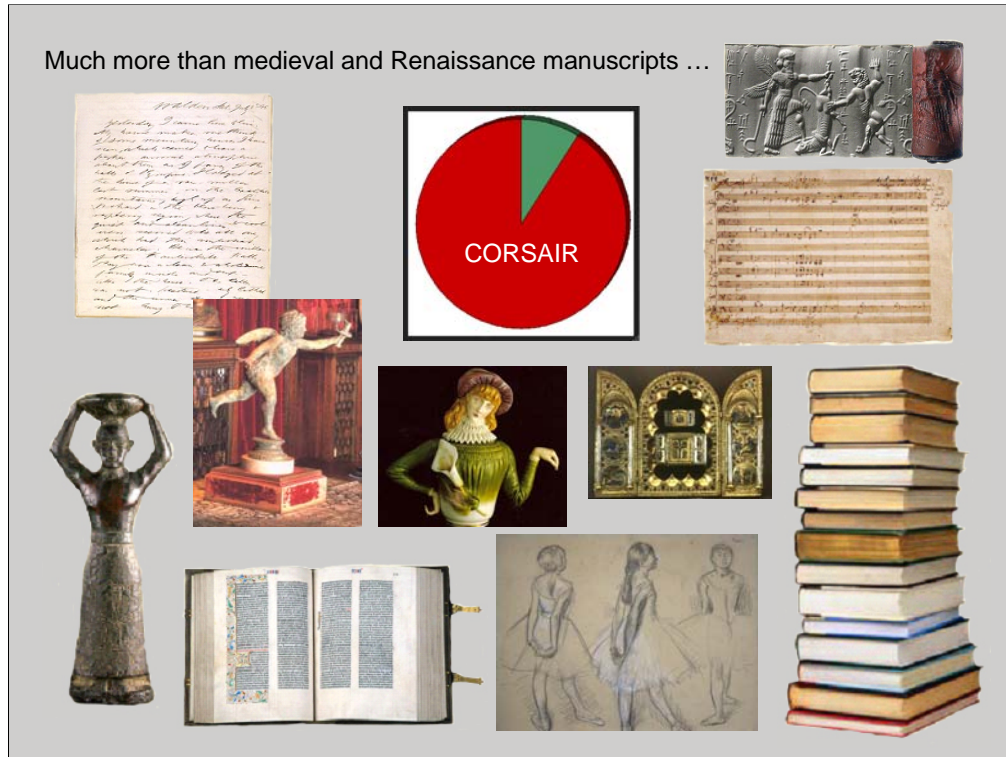
That includes textual manuscripts from the medieval and Renaissance period and illustrated manuscripts that fall outside the time and place limits of the project. It also includes rare and reference books and periodicals, literary and historical manuscripts, printed and manuscript music, drawings and prints, ancient near Eastern seals and seal impressions, and art and cultural objects. Many of these items are related by artist, author, work, provenance, time period, form or genre, or subject to the medieval and Renaissance manuscripts. Medieval objects such as the Stavelot Triptych, the Malmesbury Ciborium, and Byzantine enamels are obvious examples. So are first and early printings of classical and medieval texts and liturgical works, as well as stunning examples of early illustrated books. We will see some other examples of related material a little later in the presentation.

It's easy to get to CORSAIR from the medieval images gateway. There is a link from the medieval images homepage to the CORSAIR homepage.

Link to: CORSAIR Home

Each manuscript is linked to the CORSAIR record for that manuscript.

Each page is linked to the CORSAIR record for that page.
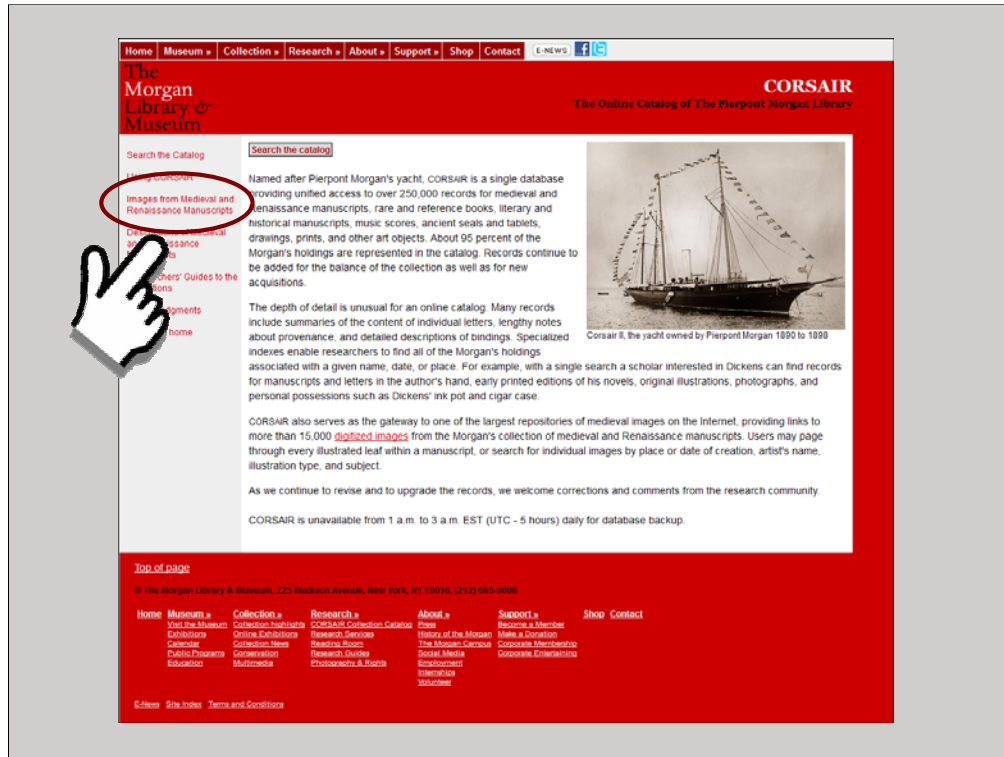
It is equally simple to get from CORSAIR to the medieval images gateway. The CORSAIR welcome page contains a link to **Images from Medieval and Renaissance Manuscripts**.
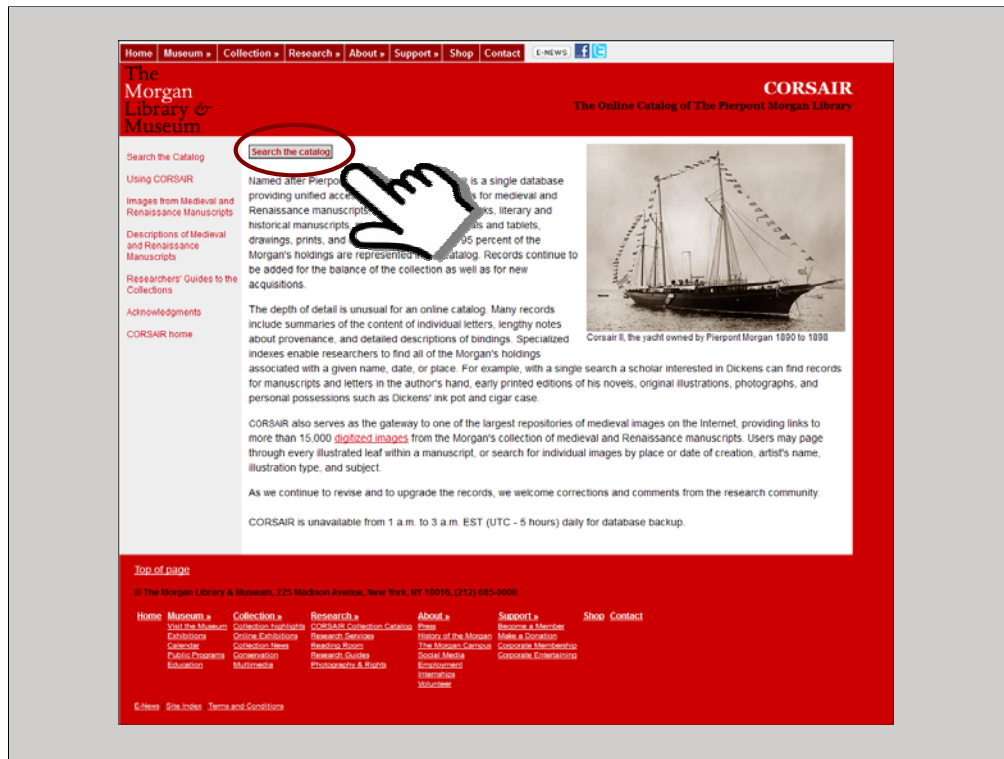
Or you can get to images of the manuscripts by searching CORSAIR. The CORSAIR welcome page contains a link to the search screen.

The CORSAIR search screen looks like a typical online library catalog search screen. That's because CORSAIR is a online library catalog. If you can search your local library's online catalog, you know how to use CORSAIR (although CORSAIR lists many items you would never find in a typical library catalog).

A search for **ms m.69** has been entered in the **Find This** box. This is the shelfmark for the *Farnese Hours*. Researchers usually identify the manuscript by its shelfmark. You can also search by the manuscript's popular name, if it has one.

This search retrieves many hits for secondary material about the *Farnese Hours*.

If you're not interested in reference collection material, you can eliminate these search results from the list by choosing to limit the search to **Rare material only**.

This is the result set after eliminating reference material. Notice that the results include not just the manuscript, but also an autograph letter from the artist, Giulio Clovio, a drawing attributed to Clovio, and correspondence between Belle DaCosta Greene, the Morgan's first librarian, and Leon Gruel, a binder who worked on the *Farnese Hours*. These are some of the examples of the related items you will find in CORSAIR that are not available through the images gateway.

The record for the *Farnese Hours* is a very long one. Too long to fit on one slide or even two. Only a drastically shrunken version (too small to read) will fit on the slide.

But here is a list of data elements that appear in CORSAIR records for medieval and Renaissance manuscripts. Most of these fields are repeatable; most records include multiple values for associated names, genres, and citations to publications. Every word in every record is keyword searchable, so you can search by anything in the record and combine terms. I did a search for **france 15th century bennett hours vellum bastarda zaehnsdorf** (8 words) and got one hit. The more words, the more precise the result, so start with fewer words and then add additional terms if the results are too large.

The records are also rich in hyperlinks. These lead to related material: other works by the same artist, or with the same provenance, or the same binding type, or the same genre, or the same place of production or date.

If you wish to view the images for this manuscript, you can do so by clicking the **Browse through Images of this Manuscript** link, which takes you to the **Light Box View**.

Most manuscript records also include a link to **Detailed descriptions and additional bibliographies**.

The link takes you to the home page for documentation for this manuscript. From there, you can go to scanned curatorial files. The first page of the scanned file for MS M.69 is shown. As you can see, it dates from the typewriter era. Some of the information has been superseded, though it is still of historical interest. But the files contain valuable information, much of it never published.

Sometimes more recent additions, such as collation diagrams, are also available. An example of that is the collation diagram just created by one of the Morgan's book conservators. (Just to clarify, it is actually a diagram of MS H.6, not the *Farnese Hours*, and is linked to the record for MS H.6.)

Updated bibliographies also exist for most manuscripts. These supplement bibliographical citations in the scanned curatorial files. The updated bibliographies are compiled by manuscript curators, and uploaded to CORSAIR every quarter. Here is the first page of the six-page additional bibliography arranged by date of publication for the *Farnese Hours*.

Records for whole manuscripts also contain links to the individual page records for that manuscript.

Clicking on the **Illustrated Folios** link brings up a list of CORSAIR records for each illustrated page in the *Farnese Hours*.

At present, the Morgan is the only repository that imports Index of Christian Art records into its own catalog and presents them in the context of the Morgan's holdings. It takes a certain amount of data massaging, but it is well worth it. This record for an individual page in the *Farnese Hours* illustrates why.

Once again, the size limitations of a Power Point slide prevent showing the entire record. What displays on the slide is about one-third of the record. The medieval images gateway presents only an abbreviated version of this description. The Index records displaying in CORSAIR contain much more. For example, transcriptions of rubrics, incipits and captions; controlled indexing terms for subject and genre; physical description, including illustration type, medium, technique; information about where the illustration appears within a liturgical text, e.g. Matins within a Book of Hours, or the preface to the Canon of the Mass. Every word is keyword searchable. And the records include many hyperlinks that lead to related material.

Manuscript Record:

#	Full Title	Dates
[1]	Farnese hours (MS M.69).	1546

worn by crouching unicorn; putto next to vase with handle from which fleurs-de-lis emerge.

Genres: Miniatures (Illuminations) --Italy --Rome --16th century.
Miniatures (Illuminations) --Renaissance --Italy --Rome --16th century.
Marginal illustrations --Italy --Rome --16th century.
Marginal illustrations --Renaissance --Italy --Rome --16th century.

Language: Latin.

#	Titles	Headings	Headings Type
1	62	Marginal illustrations--Italy--Rome--16th century.	Art and Architecture Thesaurus
2	7	Marginal illustrations--Italy--San Benedetto Po--11th century.	Art and Architecture Thesaurus
3	5	Marginal illustrations--Italy--Taranto--14th century.	Art and Architecture Thesaurus
4	7	Marginal illustrations--Italy--Tuscany--11th century.	Art and Architecture Thesaurus
5	13	Marginal illustrations--Italy--Veneto--15th century.	Art and Architecture Thesaurus
6	2	Marginal illustrations--Italy--Veneto--16th century.	Art and Architecture Thesaurus
7	47	Marginal illustrations--Italy--Venice--15th century.	Art and Architecture Thesaurus
8	10	Marginal illustrations--Italy--Verona--15th century.	Art and Architecture Thesaurus
9	2	Marginal illustrations--Merovingian--France--Luxeuil-les-Bains--73th century.	Art and Architecture Thesaurus
10	1	Marginal illustrations--Mozarabic--Spain--Tábara--10th century.	Art and Architecture Thesaurus
11	94	Marginal illustrations--Netherlands--15th century.	Art and Architecture Thesaurus
12	42	Marginal illustrations--Netherlands--16th century.	Art and Architecture Thesaurus
13	36	Marginal illustrations--Netherlands--Delft--15th century.	Art and Architecture Thesaurus
14	1	Marginal illustrations--Netherlands--Ghent--15th century.	Art and Architecture Thesaurus
15	55	Marginal illustrations--Netherlands--Haarlem--15th century.	Art and Architecture Thesaurus
16	21	Marginal illustrations--Netherlands--Utrecht--13th century.	Art and Architecture Thesaurus
17	53	Marginal illustrations--Netherlands--Utrecht--15th century.	Art and Architecture Thesaurus
18	31	Marginal illustrations--Netherlands--Utrecht--16th century.	Art and Architecture Thesaurus
19	18	Marginal illustrations--Ottonian--Austria--Salzburg--11th century.	Art and Architecture Thesaurus
20	12	Marginal illustrations--Ottonian--Germany--Cologne--11th century.	Art and Architecture Thesaurus
21	61	Marginal illustrations--Renaissance--Belgium--15th century.	Art and Architecture Thesaurus
22	82	Marginal illustrations--Renaissance--Belgium--Bruges--16th century.	Art and Architecture Thesaurus
23	1	Marginal illustrations--Renaissance--Czech Republic--Prague--15th century.	Art and Architecture Thesaurus
24	4	Marginal illustrations--Renaissance--Dutch--Delft--15th century.	Art and Architecture Thesaurus

For example, each page record includes links to other pages with the same type of illustration. When you click on the heading for **Marginal illustrations**, you get a browse list, starting with the term you clicked on. You can go backwards or forwards in the list to find marginal illustrations from A (Armenia) to T (Turkey). (Zaire is out of scope.) Clicking on any term in the list brings up all the pages with marginal illustrations from that place and date.

Language: Latin.
Notes: Artist: Giulio Clovio.
Liturgy: Hours, Hours of the Virgin, 2. Lauds.
School: Italian, Latium, Rome.
Style: Renaissance.
Description based on record created by Index of Christian Art, Princeton University.
Associated Names: Clovio, Giulio, 1498-1578, illuminator.
Cite as: Pierpont Morgan Library, MS M.69, fol. 17v.
Formatted Place: Italy Rome.

#	Titles	Headings	Headings Type
1	72	Clovio, Giulio, 1498-1578	Personal Name
2	2	Clovio, Giulio, 1498-1578, Follower of,	Personal Name

#	OPAC Name Headings Search	Full Title	Dates
[1]	Clovio, Giulio, 1498-1578	Autograph letter signed : Piacenza, to Cardinal Alessandro Farnese, 1558 May 10.	1558-0510
	Literary and Historical Manuscripts (LHMS)	Call No.: Misc Artists — Status :	
[2]	Clovio, Giulio, 1498-1578	Dream of Human Life ("Il Sogno"), after Michelangelo [drawing].	15uu
	Dept. of Drawings and Prints	Call No.: It. 15.5 — Status :	
[3]	Clovio, Giulio, 1498-1578	Farnese hours (MS M.69).	1546
	Title has multiple holdings		
[4]	Clovio, Giulio, 1498-1578	Farnese hours : the Pierpont Morgan Library, New York / introduction and commentaries by Webster Smith.	1976
	Title has multiple holdings		
[5]	Clovio, Giulio, 1498-1578	Fol. 004v, Virgin Mary: Annunciation : miniature, full-page, interspersed, margins.	1546
	Medieval Manuscript Folio Records (non-circulating)	Call No.: MS M.0069, fol. 004v — Status :	
[6]	Clovio, Giulio, 1498-1578	Fol. 005r, Isaiah: Prophecy to Ahaz : miniature, full-page, interspersed, margins.	1546
	Medieval Manuscript Folio Records (non-circulating)	Call No.: MS M.0069, fol. 005r — Status :	
[7]	Clovio, Giulio, 1498-1578	Fol. 006v, Mask : margin, left, margin, lower.	1546

If a known artist, such as Giulio Clovio, is associated with the illustration, clicking on his hyperlinked name brings up a browse list of names. Clicking on his name within the browse list of names shows a list of records for items associated with Clovio.

The links to manuscript pages that are related by iconographic content are particularly impressive. The Index's catalogers have assigned terms from its vast thesaurus of iconographic terms to every illustration. Clicking on a term such as "**Virgin Mary—Visitation**" on this record for fol. 17v retrieves a browse list. From there, you can view all the records for pages that contain illustrations depicting the Visitation. There are 175 of them, as of July 10, 2012, but keep in mind that this is a work in progress, so more may have been added since then.

The Index catalogers don't skimp on their terms. On this record, 19 subject terms have been assigned to a single page! Note that the terms are often hierarchically structured, so that from the browse lists, you can browse all examples within a category (Utensils, Containers; Animal, Fantastic), or all attributes or events relating to a person (from Virgin Mary--Adoration to Virgin Mary--Visitation). Note, too, that the terms describe component elements, such as building, altar, bowl, statue, as well as iconographic scenes. This fosters the study of medieval material culture as well as more traditional art historical approaches.

Thanks to this type of indexing, Morgan manuscripts are showing up in unexpected places on the Web. Not just scholarly sites, but more recherché types of research, such as hay in art, or the medieval pelican, or ancient manifestations of Bigfoot. As Bill Voelkle said earlier, CORSAIR is indeed transforming the way illuminated manuscripts are seen and studied …

Any Word(s) Anywhere

Subject and Country and Date
   annunciation italy 15th century

Subject and City and Date
   annunciation Florence 15th century

Text on Page and Date
   parce domine 13th century

Medium
   "pen drawing"

Something to keep in mind is that CORSAIR supports more sophisticated searching than the medieval images gateway. You can search by any words anywhere in any combination. You can combine subject searches with place and date searches. You can search for manuscripts by city instead of just by country. You can search for text appearing on the page (and look only for instances of that word or phrase appearing in a manuscript from a specific century, or place).

Using quotation marks, as in **"pen drawing"**, makes results more precise. But it is better to start without quotation marks, look at a few records, and then decide whether you need to narrow the search.

Note that it is often helpful to change the sort order of the results. For example, if you re-sort your search for **"pen drawing"** by **Date (earliest first**), it is easy to tell what is the earliest example of a page with a pen drawing. Re-sorting by earliest date first is also a quick way to move reference material down to the end of the list.
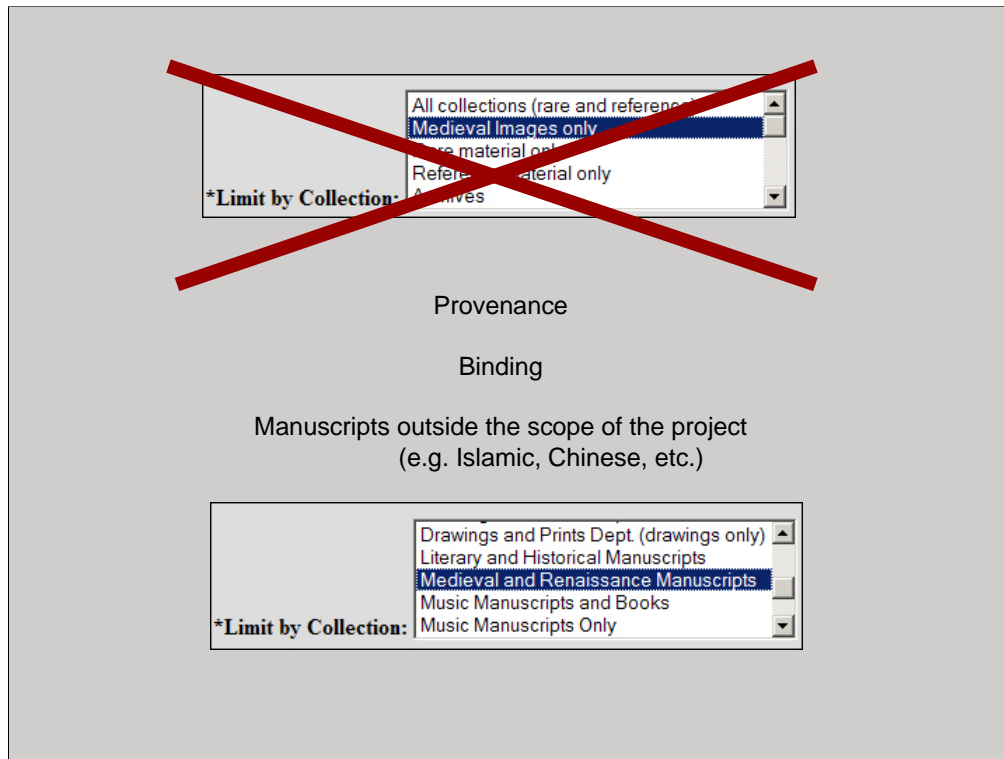
A word of caution: Some types of information that pertain to the manuscript as a whole appear only on the record for the manuscript, not on each page record. If you are looking for manuscripts owned by Sir Thomas Phillipps, or manuscripts with royal bindings, or manuscripts outside the scope of the Index of Christian Art project, don't limit by **Medieval Images Only**, but by **Medieval and Renaissance Manuscripts**.

Finally, a few words about the Morgan's Reference Collection. The Reference Collection includes material acquired for its relevance to the Morgan's collections, rather than its artifactual value (though some reference books would count as rare in another library). For manuscripts especially, it is very deep and very comprehensive. It includes facsimiles, textual editions, catalogs and inventories, dissertations, monographs and periodicals, Festschriften, and many individually cataloged offprints and articles in periodicals. All records are keyword searchable, and contain many hyperlinks to related material.

Here are the results of a search for **giulio clovio** limited to the Reference collection.

From that result set, here is a record for a dissertation about Clovio. Let's look at where one of the many subject hyperlinks, **Illumination of books and manuscripts, Italian—Italy—Rome—16th century**, leads.

It heads a browse list of many different headings beginning with **Illumination of books and manuscripts** … Clicking on any of these headings will bring up all the records for reference material related to that topic.

Returning to the same record, there is another subject hyperlink for **Illuminated manuscript artists** …
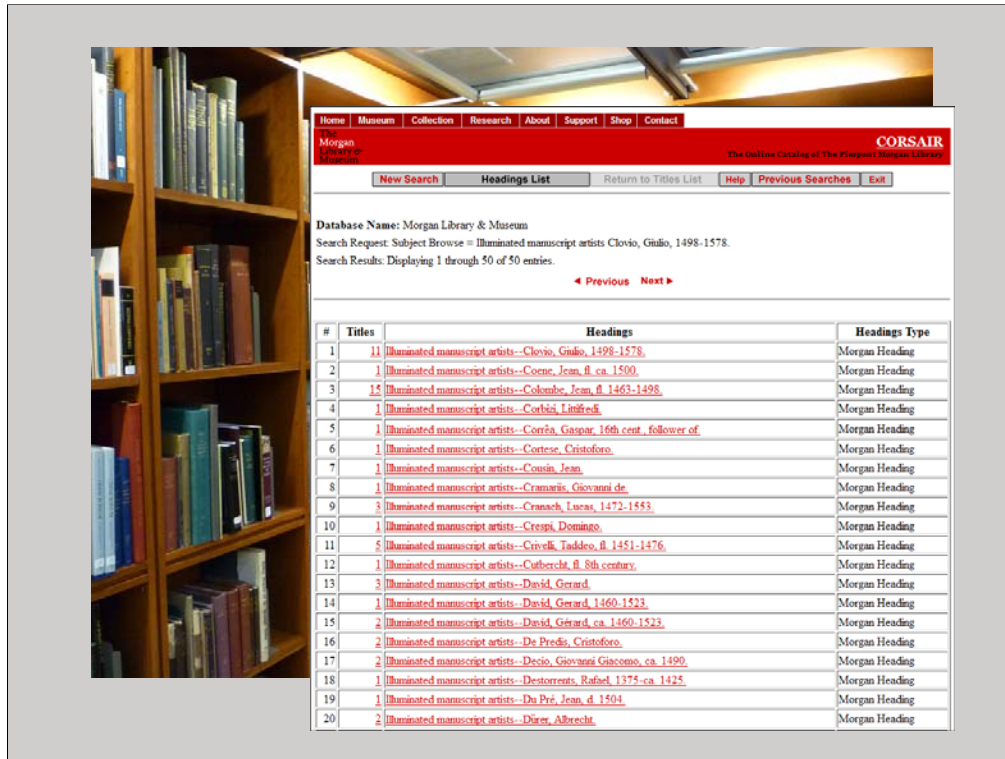
This leads to a browse list of material about illuminated manuscript artists, starting with Clovio. This is a local heading, not a standard Library of Congress Subject Heading. We use it to pull together all material about manuscript illuminators to facilitate browsing. You can browse back and forth through this list from A:

Illuminated manuscript artists--Agnese, Battista, 16th century

to W:

Illuminated manuscript artists--Wolfram, von Eschenbach, 12th cent.

and follow the links to records for secondary material about these artists.
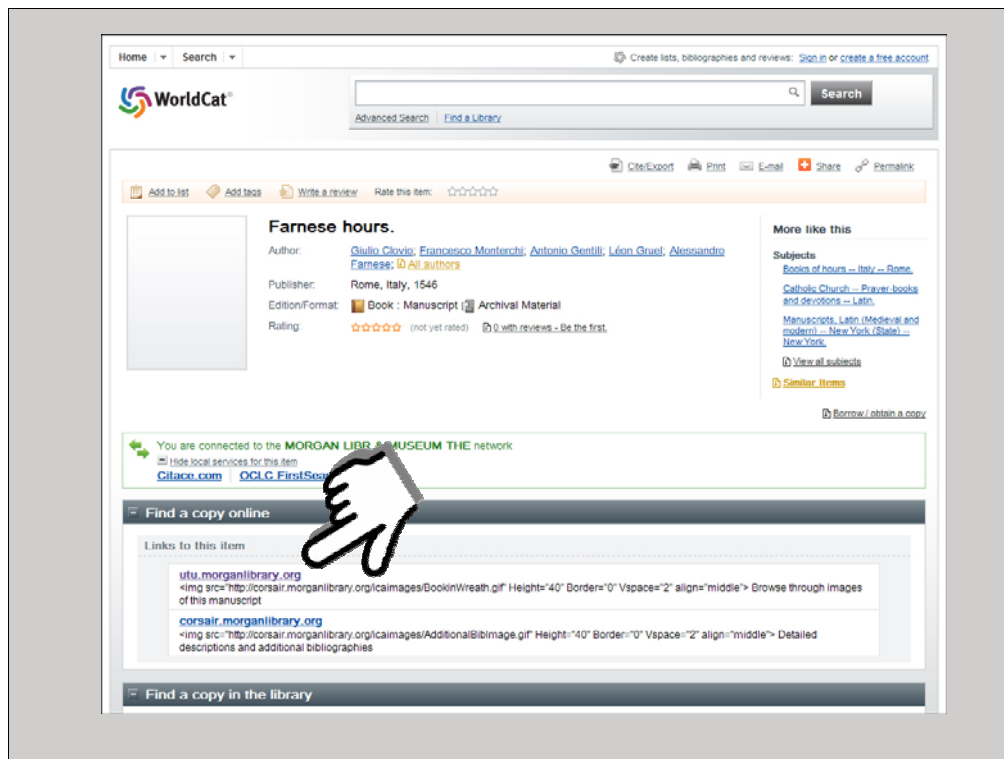
Finally, here is a view of yet another database where our records for medieval and Renaissance manuscripts reside. OCLC's WorldCat is a worldwide union catalog listing 271 million bibliographic records representing more than 1 billion individual items held by libraries all over the world. Our records constitute the tiniest sliver—more like a crumb—within WorldCat. We contribute them to WorldCat to reach people who may never have heard of the Morgan Library or the Index of Christian Art, but who are interested in medieval art or medieval culture.

Link to: OCLC record for the *Farnese Hours*

The OCLC records include links to the CORSAIR records, to the detailed descriptions and additional bibliographies, and to the images, if the manuscript is part of the Index project.

Now that you've had this tour, we hope you will be encouraged to let your fingers do the walking and explore the riches of the Morgan's medieval and Renaissance manuscript collections.

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William Voelkle:

You have now heard about both the new medieval images interface and the wealth of information in the Morgan's online catalog, CORSAIR. Indeed, there are search options, thanks to the detailed cataloging provided by the Index of Christian Art, which were not possible when I came to the library. Researchers were often at the mercy of curatorial memory, as when I was asked by Philadelphia's Pretzel Museum (now defunct) if pretzels were ever depicted in medieval manuscripts. Nowadays, a simple search will reveal their astonishing presence in this eleventh-century Last Supper from Salzburg.

Link to: MS G.44, fol. 80r

Apparently pretzels were customarily eaten during Lent at some monasteries. A closer inspection reveals that Judas is eating part of one, doing his penance before his deed.

"The Magnet," by Joseph Keppler, Jr., *Puck* magazine
New York, v. 69, no. 1790 (June 21, 1911)

It was the goal of our founders to bring the best of European culture to America, for the pleasure and edification of its people. The two Morgans, father and son, could never have imagined the ways in which global Internet dissemination shares and fulfills their goals. And it's free. All you need is a little digital dexterity.