

If we build it, will they use it? A case study of implementing an OER textbook replacement in a Gen Ed Humanities course

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ABSTRACT

This case study traces the development, from abstract concept to realization and use, of the NYU Liberal Studies Global Image Gallery, an inclusive, open educational resource (OER) that replaced a costly, Eurocentric art history textbook. It faced the question common to all OER projects: Will faculty and students actually use the resource? The case study details the editorial processes and technological choices that made the answer a resounding “yes.” Beyond shared values of affordability and inclusivity, a collaborative editorial process for which participants were fairly compensated and sustainable technology choices that increased pedagogical options were critical to the project’s success. By first agreeing on fundamental pedagogical needs and then articulating the platform-agnostic design principles to meet them, the project developed a modular design that enables the creation of resources and assignments that utilize the resource in various ways, allowing faculty to create and share additional learning objects among themselves. The high degree of faculty ownership over the project has been a key to its success. At the same time, the sustainability of the project, a major concern when embarking on any OER work, has been ensured by the decision to house assets in databases that are separate from the display platform, allowing the flexibility to respond to future challenges. The case study concludes with a statement of the general

lessons the project team learned, from the importance of choosing sustainable platforms to the means for achieving faculty buy-in, and a summary of its next steps.

Keywords: Open Educational Resources (OER), inclusive pedagogy, image collections, digital textbook, digital humanities, visual cultures

Si lo construimos, ¿lo usarán? Un estudio de caso sobre la implementación de un libro de texto de REA como sustituto en un curso de humanidades de Educación General

RESUMEN

Este estudio de caso rastrea el desarrollo, desde el concepto abstracto hasta la realización y el uso, de la Galería de Imágenes Globales de Estudios Liberales de la Universidad de Nueva York (NYU Liberal Studies Global Image Gallery), un recurso educativo (REA) inclusivo y abierto que reemplazó un costoso libro de texto de historia del arte eurocéntrico. Se enfrentó a la pregunta común a todos los proyectos de REA: ¿realmente utilizarán el recurso el profesorado y el alumnado? El estudio de caso detalla los procesos editoriales y las decisiones tecnológicas que hicieron que la respuesta fuera un rotundo “sí”. Más allá de los valores compartidos de asequibilidad e inclusión, un proceso editorial colaborativo con una remuneración justa para los participantes y las decisiones tecnológicas sostenibles que ampliaron las opciones pedagógicas fueron fundamentales para el éxito del proyecto. Al acordar primero las necesidades pedagógicas fundamentales y luego articular los principios de diseño independientes de la plataforma para satisfacerlas, el proyecto desarrolló un diseño modular que permite la creación de recursos y tareas que utilizan el recurso de diversas maneras, permitiendo al profesorado crear y compartir objetos de aprendizaje adicionales entre sí. El alto grado de implicación del profesorado en el proyecto ha sido clave para su éxito. Al mismo tiempo, la sostenibilidad del proyecto, una preocupación fundamental al emprender cualquier trabajo con REA, se ha garantizado mediante la decisión de alojar los recursos en bases de datos independientes de la plataforma de visualización, lo que permite la flexibilidad necesaria para afrontar futuros desafíos. El estudio de caso concluye con una exposición de las lecciones generales que el equipo del proyecto aprendió, desde la importancia de elegir plataformas sostenibles hasta los me-

dios para lograr la aceptación del profesorado, y un resumen de los próximos pasos.

Palabras clave: Recursos Educativos Abiertos (REA), pedagogía inclusiva, colecciones de imágenes, libros de texto digitales, humanidades digitales, culturas visuales

如果我们建好了，他们会用吗？以通识人文课程中实施开放教育资源教材替代方案为例

摘要

本案例研究追溯了纽约大学文科全球图像库 (NYU Liberal Studies Global Image Gallery) 从抽象概念到最终实现和应用的整个发展历程。该图像库是一个包容性的开放教育资源 (OER)，取代了一本成本高昂且以欧洲为中心的艺术史教科书。它面临着所有开放教育资源项目都面临的共同问题：教师和学生是否真的会使用该资源？本案例研究详细阐述了最终获得肯定答案的编辑流程和技术选择。除了经济性和包容性这些共同价值观之外，参与者获得公平报酬的协作式编辑流程以及能够增加教学选择的可持续技术选择，对项目的成功至关重要。该项目首先就基本的教学需求达成共识，然后阐明满足这些需求的平台无关设计原则，从而开发出一种模块化设计，支持创建以各种方式利用该资源的学习资源和作业，并允许教师之间创建和共享额外的学习对象。教师对项目的高度参与是其成功的关键。同时，项目可持续性开展任何OER项目时都需重点考虑的问题。为确保可持续性，该项目决定将资源存储在与展示平台分离的数据库中，从而能够灵活应对未来挑战。案例研究最后总结了项目团队汲取的经验教训，包括“选择可持续平台”的重要性、如何获得教师的支持以及后续步骤。

关键词：开放教育资源 (OER)，包容性教学法，图像集，数字教科书，数字人文，视觉文化

Introduction

When the Global Image Gallery (GIG) launched in Fall 2019 as an open educational resource (OER) replacing a cost-

ly, Eurocentric art history textbook at NYU-Liberal Studies, it faced the question common to all OER projects: Will faculty and students actually use this resource? The answer has been a resounding “yes,” because the GIG

emerged from a set of shared values around affordability and inclusivity, because of its collaborative editorial process, for which participants were fairly compensated, and because its sustainable technology choices increased pedagogical options. Chtena (2021) explains that “successful OER implementation depends on numerous factors, including disciplinary values, cultures and practices, types of outputs, goals, and practical considerations” (12). This case study examines the role of these factors in ensuring the GIG’s success as an OER now used by more than 2,500 students across a three-semester course sequence. It also illustrates the value, within a framework of limited resources, of confining the first iteration of a project to baseline needs that can be met on a relatively small budget and short timeframe, rather than building to a distant ideal. A project that meets baseline needs stands a good chance to attract the support necessary for further refinement. To achieve this goal, it is necessary to represent all stakeholders at every step of the project.

An Affordable and Inclusive Art Resource: History and Purpose

NYU-Liberal Studies requires a three-course “Arts & Cultures” general education sequence that introduces students to the global development of visual arts (including architecture, film, and photography), music, and literature from the ancient world to the present. Emphasis is placed on exchanges across the arts and across regions. Over the past twenty years, the

Arts & Cultures faculty had adopted a number of traditional Art History texts, from E. H. Gombrich’s *The Story of Art*, to Janson’s *History of Art*, to Gloria Fiero’s *The Humanistic Tradition*, to Marilyn Stokstad’s Art History (all paper texts), and finally a customized online version of Gardner’s *Art through the Ages*. The adoption changed so frequently because no text justified its expense, particularly given that art constitutes only one component of the course sequence; Liberal Studies does not offer specialized Art History courses nor expect more than a small number of our students to major in Art History—for students who do continue in Art History, the three-course sequence counts as one elective toward the major, and does not replace required introductory classes. Moreover, Liberal Studies instructors, who teach about 70 sections at six NYU sites around the world, offer widely varying amounts of art instruction, depending on their locations, backgrounds, and expertise. Asking all students to pay for an expensive text that some of them would use only occasionally created resentment from both students and faculty (Senack, 2014).

Faculty dissatisfaction with the required art history textbook grew when the Liberal Studies curriculum completed its transition from a Eurocentric to a Global focus in 2009–10. This change was two years in the making; as part of the process, the faculty considered the paradigm shift proposed in David Summers’ *Real Spaces* (2003) and the reactions to it collected in the volume *Is Art History Global?* (2006), edited by James Elkins. As art historians reconfigured

their discipline to expand beyond the limited notions of artistic value that ran from Vasari to Burkhardt to Gombrich, it became imperative to revisit the texts that had been used to deliver the visual/spatial art components of the general education Arts & Cultures curriculum. A number of art history textbooks immediately became untenable, but since the discipline of Art History itself had at that time only recently begun to reconsider its paradigms, there were no truly global alternatives (Mast, 2019). As a compromise, an online edition of Gardner's *Art Through the Ages* (Cengage) was adopted, with the publisher developing a customized edition that relocated materials on Asian, African, Latin American, and Oceanic art within the chapter sequence to (somewhat) diminish their marginalization. Going online allowed, for the first time, the

use of the same text at all Liberal Studies global locations (overseas shipping expenses for paper texts had been prohibitive) and proved an important step in preparing faculty for teaching without the use of a physical book. However, despite the integration of global material into the chapter sequence, the balance of coverage and narrative thrust remained Western-centric (see Figure 1 below), the text remained more expensive than its volume of use justified, the faculty remained restricted to the familiar set of commonly-taught images for which the publisher had obtained rights, and they often had to teach against interpretations in the text they found outdated or irrelevant. Students, meanwhile, tended to repeat the text's interpretations as definitive, short-circuiting their training in interpretation, a major goal of Liberal Studies courses.

Gardner's Art through the Ages: 1683 items

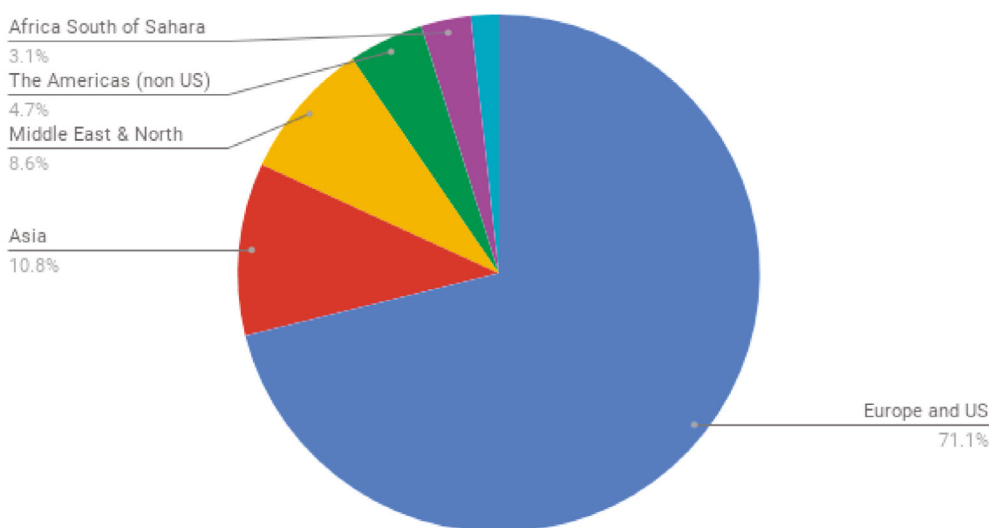


Figure 1: Global representation of objects in Gardner's *Art Through the Ages* textbook

[Alt-text: Graph showing preponderance of Western Art in Gardner's *Art through the Ages* text.]

In light of these deficiencies and the faculty's established comfort with online course materials, in the fall of 2017, the Liberal Studies' Associate Dean for Academic Affairs invited the Arts & Cultures faculty to submit a proposal for developing in-house an OER to replace the Gardner text. Given that any art text in effect curates objects, Hans Belting's essay "From World Art to Global Art: View on a New Panorama" (Belting, 2013) was particularly influential in guiding the sense of mission; Belting describes "World Art [as] an old idea complementary to modernism designating the art of the others because or although it was mostly to be found in Western museums," while "Global Art [is] guided by the intention to replace the center and periphery scheme of a hegemonic modernity" (178). The intention was to provide a resource suitable for instruction under a "Global Art" paradigm. The GIG project thus began as an affordability and inclusivity effort that was closely connected to new pedagogical approaches, so that even the teaching of familiar art objects would locate them in the context of global image-making, rather than strictly in relation to Western tradition—Egyptian artifacts would, for instance, be presented as African, not proto-Western. Liberal Studies faculty sought to develop an online resource that both reflected the global focus of the program, and also gave students and faculty the ability to fashion their own narratives from the images and metadata it contained.

Of course, we considered OER resources that were already available,

but they did not fit with the particular ways our curriculum is structured and the ways our faculty teach. We do not purport to offer Art History training in the way a department of Art History would; our Arts & Cultures faculty is composed mainly of PhDs in English or Comparative Literature, and we teach art in conjunction with literature and music, emphasizing the interconnectedness and dialogue between the arts across media and regions. Our faculty did not desire a textbook replacement, however global and well-organized, so much as a large repository of objects with basic metadata and enough framing material to explain their functions and unique features—all in an online package that users could access through a simple link that sat behind authentication and could be automatically provisioned into our learning management system (LMS). While ArtStor provided an enormous catalogue of images, it lacked framing material and required a separate login for students to access it.

At the other end of the OER spectrum were resources like SmartHistory, which is an excellent OER for Art History instruction that offers far more contemporary understandings of individual objects (and of what constitutes Art History itself) than commercial publishers' texts. However, it includes more extensive commentary and is less flexible to configure in accordance with the individual instructor's approach than what we sought in a textbook replacement. The navigation metaphors for SmartHistory and the Global Image Gallery manifest this difference—SmartHistory's landing

page organizes the user's experience by broad categories of time and place, and from there one drills down through media and styles to reach individual objects, which are thus surrounded by several layers of context and interpretation. Commentary on an individual object in SmartHistory normally runs between 1,000–1,500 words.

The GIG's navigation, on the other hand, privileges the objects themselves—the landing page offers options either to search or browse the collection, with filters to further refine the results. Searches produce persistent links; instructors can determine for themselves whether, e.g., to link students to all the Tang and Song Dynasty objects in the Gallery, to link them only to Tang sculpture, etc.—all depending on how the individual instructor wants to integrate the study of Chinese art from the 7th to the 13th centuries CE into their course. Commentary on a GIG item (“framing sentences”) runs no more than 500 words, with the average closer to 250, and emphasizes interconnection—the GIG's post for Landscape with the *Fall of Icarus* (a copy of Bruegel's lost original), for instance, quote the passage from Ovid

that inspired Bruegel's vision and references W. H. Auden's poem “Musée des Beaux Arts.”

The GIG went into use for all first-year courses in the fall semester of 2019, following a small pilot that summer. It now serves 2,500 Liberal Studies first and second year students across NYU sites (Florence, London, Madrid, New York, Shanghai, and Washington D.C.). In addition to access to the image gallery itself, students and faculty also have access to a copy of the underlying dataset, allowing them to fashion timelines, exhibits, and other digital forms as products of personal or class research projects.

At present, the GIG consists of a dataset stored in Google Sheets, images (stored in Google Drive with tentative plans to someday move to an IIIF Cantaloupe server), and a WordPress site into which content is delivered from the dataset via a customized CSV uploader. The gallery currently includes 1,113 unique posts with more added on an ongoing basis. The gif in Figure 2 below shows the way users find an image in the WordPress site and then zoom in on the larger image in Google Drive to which the WordPress post links:

Search the Collection

Text Search: Type any word, or partial word

Example: Funer will gather Funeral, Funerary, Funeral

Choose Your Arts and Cultures **Course**

Antiquity — gathers images from Pre-History to 750 CE

Crossroads — gathers images 750 CE – 1700 CE

Modernity — gathers images 1700 – present

Multi-Search

Combine searches by Cultural Context, Location, and Worktype

Multi Search

Search ...

Location ▾

Cultural Context ▾

Worktype ▾

Course ▾

Submit

Figure 2: Image search in the Global Image Gallery

[Alt text: A web browser window showing the GIG search function and a zoomable image opening in a new tab.]

Editorial Process: Collaboration and Equity

One of the reasons OER projects can fail is that instructors perceive them to be tailored to a single syllabus or curriculum, or to represent the viewpoint of a single author (Camilleri, Ehers, and Pawloski, 2014). This is also often the reaction when instructors want to make videos or other materials from their flipped classroom work available to others. Compensation, or the lack thereof, for the labor of creating these materials can also produce barriers to adoption, since uncompensated creators can be reluctant to share a resource, viewing it as surrendering their intellectual property; potential users of resources whose creators were compensated can feel they should also be compensated for customizing the resource for their courses. Two decisions allowed the GIG project

to avoid these issues: having the project led by an editorial board (rather than an individual) whose members were compensated for their work and focusing work on curation rather than authoring. This approach left the work of contextualizing items from the GIG to instructors within their courses. Not all instructors are equally comfortable with this level of responsibility, however; as the initiative progressed, we added a section of essays—“Global Art Narratives”—authored by Liberal Studies instructors with the requisite expertise, that provides both historical and theoretical contexts for the periods our course sequence covers. Flexibility in meeting faculty needs has been our guiding principle, even if it requires some conceptual compromise that reifies elements of a traditional art text.

Faculty contributions to the GIG were solicited and organized in a manner that emphasized collaboration and

coherence. The curatorial board of five faculty members, headed by a faculty member who functioned as editor, was awarded financial support for its work in the form of course equivalencies and summer stipends by the Dean of Liberal Studies. The composition of the board also allowed the work to be distributed so that no one perspective dominated. Starting with the ancient world course sequence, each curator was responsible for a region or a hemisphere. They polled other faculty members, collecting lists of objects taught in their classes. They received training on entering data into spreadsheets; finding and downloading high quality images (1000 x 1000 pixels or better); and citing sources. Liberal Studies students joined the effort in Spring 2019 (under the supervision of faculty curators) through work-study placement, independent study credit, or as volunteers in data harvesting Research-a-thon events held in both New York and Florence. To provide a platform for continuous feedback from users, we included both a “Feedback & Error Form” and a “Suggest an Object” link, both of which led to Google forms (which in turn automatically provide spreadsheets of the data collected by the forms). Forms is part of NYU’s Google Apps for Education package and is therefore University-supported and excluded from the company’s data mining efforts.

Critically, the curatorial board decided to make the “framing sentences”—short interpretative statements included with each entry—anonymous, since faculty members were writing for pedagogic purposes and making

no claim to unique scholarly expertise. The result of these deeply collaborative practices was that the curatorial board both created a collection of content based on actual demand by Liberal Studies instructors, and their commentary helped to articulate a pedagogical approach to visual culture that had not existed before. The process catalyzed a self-recognition of curricular approaches to teaching art and architecture at the same time as faculty were revising the curriculum to include under-represented regions.

We also found that successful collaboration with multiple contributors required a structured process. While all contributors worked in the primary spreadsheet initially, it became apparent that a simplified version of the sheet would streamline the process and make faculty contributions easier to manage. The simplified version of the spreadsheet includes twenty-six columns for the various kinds of metadata on each item. Faculty contributors are provided with a data standards document containing a detailed description of the technical, textual, and editorial requirements for each column of the sheet. All updates to the metadata, images, and text are made in secondary spreadsheets by the faculty editors before they are finalized in the primary Google Sheet by the Learning Designer, who is the only person who updates this sheet and the website. This multi-staged process for making updates ensures that the contents go through multiple reviewers, lessening the number of mistakes in the primary spreadsheet and production website. This structure

has enabled the participation of numerous contributors in shared online documents, regardless of their level of technical expertise.

In the early stages, compensation to faculty for the development and rollout of the GIG came entirely from the Liberal Studies dean's awards and the annual faculty symposia. Later, two outside funding sources enhanced the roll-out and added important features while it was up and running: 1) college work-study funds were used to hire undergraduate editorial assistants (2019–2021) to help develop Timelines and StoryMaps, and 2) a Curriculum Development Challenge Fund grant from an NYU's Center for Faculty Advancement, matched by the Liberal Studies dean, paid for the new mapping feature and a graduate student to upgrade our data set to meet international image interoperability (IIIF) standards.

Funds from the Liberal Studies dean came in two forms: first, editorial board members received travel and accommodations and a per diem for participating in our department's annual three-day symposium held at one of NYU's study-away sites. Starting in June 2017 at the London campus, and continuing in 2018 in Florence, and in 2019 in Buenos Aires, editorial board members joined Teaching Excellence & Innovation staff for three days of seminar sessions that initially outlined the contours of a faculty-built textbook that would serve our Gen Ed humanities curriculum. In later stages, at these annual symposia, we articulated classroom applications and ran work-

shops on using GIG's metadata for digital teaching tools like timelines and story-maps. A second source of compensation to editorial board members came from the Liberal Studies dean's annual teaching and research award grants for proposed projects. Each proposal earned one course release per year. For work during the summer months, editorial board members received awards equal to the equivalent of one course salary. Using these two sources for funding, and coordinated by an editor, editorial board members contributed all the labor involved in collecting the images and the metadata and writing the framing sentences. After 2022, the editorial duties did not justify more course releases, and the editor returned to full-time teaching.

Through three years of work, the editorial team succeeded in developing a single-site resource that introduced a far greater diversity of material than the commercial textbook previously in use, while maintaining access to the works faculty had long taught. While less than 30% of Gardner's *Art through the Ages* was devoted to non-Western art, Figure 3 below shows that nearly half of the GIG's images come from traditions outside Europe and the US. Within Europe and the US, there is greater representation of the African diaspora, and, above all, the GIG is not locked into a triumphalist narrative of which the progress of Western art forms the central theme.

LS Global Image Gallery: 1113 items

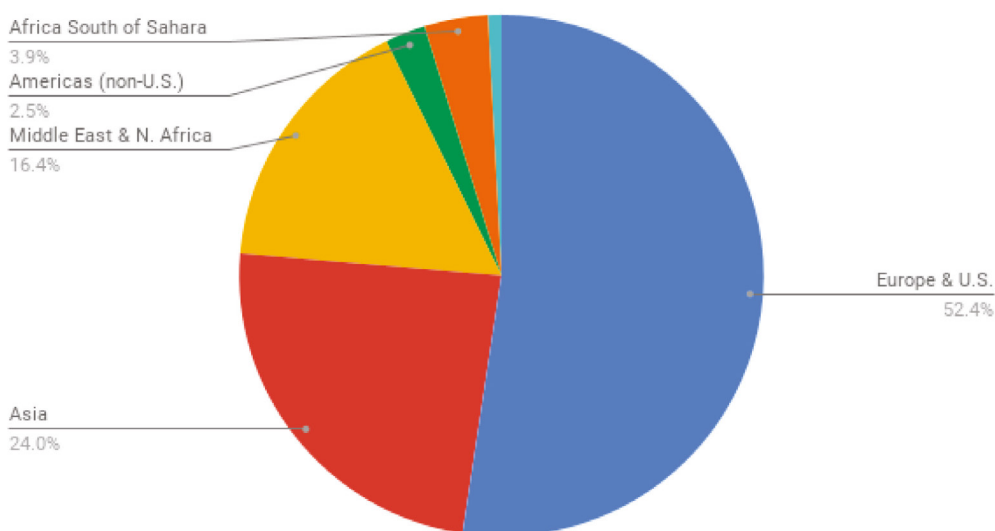


Figure 3: Global representation of entries in the Global Image Gallery as of May 2022

[Alt-text: Graph values are Africa South 3.9%; non-U.S. Americas 2.5%, Middle East & North Africa 16.4%, Asia 24%, Europe & U.S. 52.4%.]

Content Curation: Open Practices & Interoperability

In choosing to make the GIG a curation rather than authoring project, the editorial board added a challenging new aspect to their work, coordinating with other open practices projects. An image-based OER the size and scope of the GIG is possible thanks to the open access image movement at the Metropolitan Museum of Art and other leading museums. These institutions, along with the growth of Creative Commons images (many on Wikimedia), have greatly increased the selection of high-resolution images freely available for educational use. Most images of items from the ancient world up to the 20th century are public domain, but for the Modern period researchers re-

lied in part on NYU-licensed databases (mainly Artstor). Restrictive copyright on recent works accounts for some gaps in the GIG's coverage, a problem shared with other art history resources. In keeping with this philosophy of openness, the [primary GIG dataset](#) is in a Google Sheet that can be viewed by anyone with the link, allowing others to use the images and metadata to create a similar digital resource based on the GIG.

Ensuring that the dataset could be used by others also meant aligning to a standard, although this larger need initially presented itself as the need to improve searchability within the GIG. The editors initially developed their own data standards, based on the tags used in the Metropolitan Museum of Arts' Heilbrunn Timeline of Art History with some folksonomic additions, but

soon realized descriptors needed to be general and broad to yield meaningful search results. Standardizing the search terms involved understanding how WordPress sorts data, as well as adopting international data standards in cataloguing images.

The initial desire was to ensure searchability and minimum levels of uniformity across entries; however, as we investigated emerging open source approaches to image collections, like the [International Image Interoperability Framework \(IIIF\)](#), it became apparent that adopting a common metadata standard was essential to enabling the GIG's interoperability with other open image collections. In Fall 2021, a graduate student in the [Dual Master's program offered by NYU and LIU's Palmer School of Library & Information Science](#) analyzed the GIG dataset and recommended adopting the [Library of Congress VRA Core](#) standard. The work of aligning the existing metadata with it occupied the spring and summer of 2022.

To demonstrate the feasibility of IIIF images for the project, the Learning Designer created a prototype of the GIG website that incorporated images hosted in a IIIF [Cantaloupe server](#), which are displayed through the [Mirador viewer](#) embedded in a WordPress staging site. This prototype demonstrated that IIIF offers several advantages over the current configuration:

- the ability to publish images once and display them in multiple locations
 - the ability to annotate images within the viewer.
 - A transition to a IIIF version of the website remains a goal for the GIG resource; however, before IIIF can be implemented on the website, an organizational support structure for the maintenance of IIIF resources needs to be enabled at our institution.
- improvements in image quality and delivery
 - pairing of images and metadata within sharable manifests

Technology Choices and Management: Sustainability First

OTHER projects can succeed or fail based on the technology they use (Orr, Rimini, and van Damme, 2015). Aware of the importance of these choices, the GIG project team began with a platform-agnostic statement of core design features:

- Modularity: Separation of asset storage from the display platform, to ensure portability of content
- Selection: A collection of high-resolution images sufficient to represent global production across the visual/spatial arts from pre-history to the present
- Context: Framing material to accompany each image, providing

essential context, including standard art historical data

- Searchability
- Single Sign On: To ensure materials were used purely for educational purposes
- Shareability: Unique URLs to allow individual items to be posted to course sites and used in other course materials
 - o Instructors should be able to choose the materials to share to their classes
 - o Students should be able to explore the site independently and incorporate images in essays and presentations

Ultimately, a WordPress front end (hosted on an NYU service and behind NYU authentication) with separate hosting of the image files in NYU-licensed Google Drive best served the project's immediate needs. In particular, WordPress allowed both robust faceted search features (see Figure 4 below) and the preservation of searches because each produced a unique URL. Thus, if a faculty member wanted students to examine all the Benin bronzes in the collection, they could simply paste the search URL in their course site. While Omeka allowed for similar functions, we found the website themes and faceted search functions to be somewhat limited compared to WordPress.

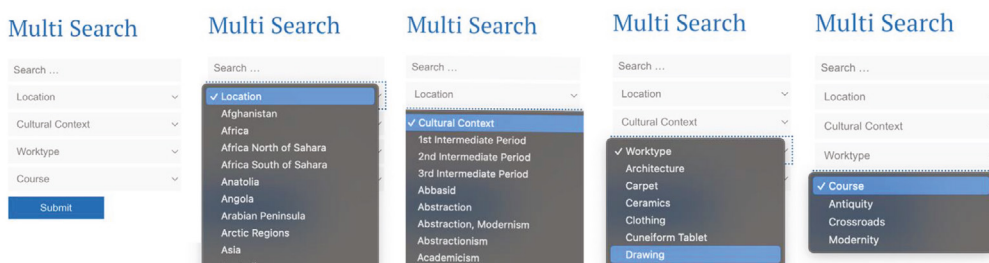


Figure 4: Example of faceted search in the GIG

[Alt-text: A multi search widget for filtering posts by location, cultural context, work type, and course.]

All projects require compromises. While using open-source technologies and practices was a goal of the project at the outset, the software components selected ultimately needed to be a mix of open source (Word Press) and licensed (Google) products. On the data side, the GIG exists primarily as an open dataset stored as a Google

Sheet and uploaded to the WordPress site using a CSV/XML importer plugin. This configuration allows the collaborators to stand up instances of the GIG in other platforms (such as [Omeka](#) or [Wax](#)) and to maintain a separate development environment for testing, both important to the project's longevity.

The primary dataset images are stored in Google Drive and displayed on the website through the WordPress Media Gallery. This necessary duplication allows the image to be seen on the website, while also providing the zooming benefits of the Google Drive image viewer, thereby creating a functionality somewhat similar to IIIF. Our goal is to use the IIIF presentation API for images and metadata in future iterations. However, our adoption of IIIF is constrained by our being downstream users of institutional infrastructure. Security and resource considerations make running our own server prohibitive; moreover, we are not the only group within our institution

to have this need and a common institutional IIIF instance could greatly increase the images available for teaching and learning. We continue to lobby for access to an institutional IIIF resource, but in the meantime, the combination of Google Drive and WordPress has allowed the project to successfully fulfil its user requirements by employing readily available resources provided by the institution.

The =CONCATENATE formula is used to combine the various metadata spreadsheet columns and HTML into the single post content column the CSV uploader uses to generate the main content blocks in the WordPress posts (see Figure 5 below).

	D	E	F
post_content		artist_maker	asset_description
0	Image Attribution: CC 1.0 Universal Public Domain Image Description: Three abstractions of hun	Unknown	Three abstractions

Figure 5: Screenshot of concatenation formulas

[Alt-text: The concatenate formula situated in the GIG Google Sheet.]

Thus, a simple Google Sheet formula (=CONCATENATE) automates the compilation of data into a format that can be displayed on a website relatively quickly.

Enabling Faculty & Student Makers

To illustrate the flexibility of the dataset approach to the project and the potential for users to create their own teaching and learning objects, the initial launch of the GIG

included several classroom-ready digital presentations created by uploading selections from the dataset to platforms such as [Knight Lab Story Maps](#) and [Timelines](#). To generate these examples, the GIG editor gathered suggestions from faculty members and then partnered with student workers to assemble about a half-dozen StoryMaps or Timelines for each of the three courses in the sequence.

Faculty training workshops on creating similar digital materials have

helped generate additional content for the GIG's StoryMaps and TimeLines pages, all available for other users to browse. Examples of these items are shown in the gifs in Figures 6 and 7 below.



Figure 6: Sample JS Story-Map created using Global Image Gallery database

[Alt text: A story map based on GIG entries showing Ukiyo-e woodblock prints and French Impressionist painters.]

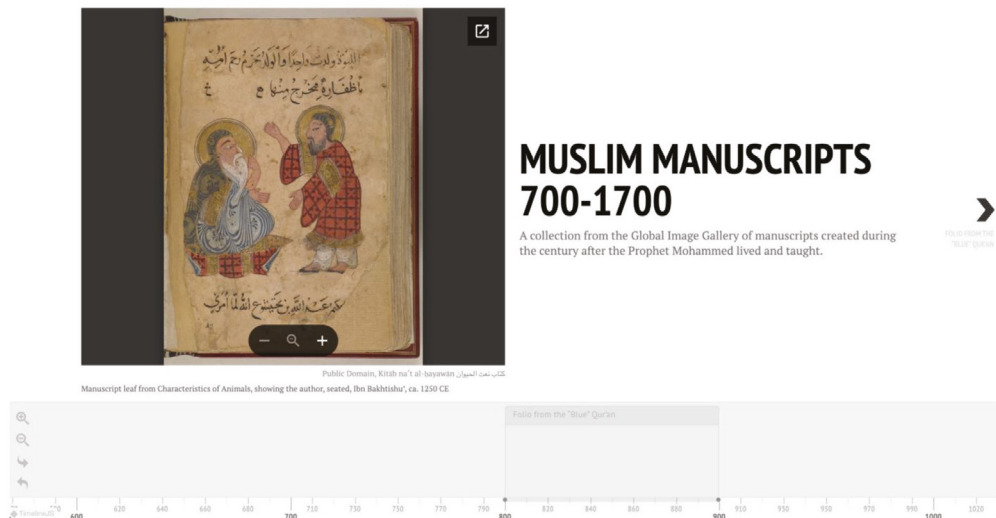


Figure 7: Sample JS Timeline created using Global Image Gallery Database

[Alt-text: A timeline based on GIG entries showing Muslim manuscripts from 700–1700 CE.]

One faculty member generated a multi-chapter Global Arts narrative, illustrated with GIG items, so readers of this digital book (with pages, tables of content) can click from the “book” to the “gallery item” and back seamlessly. Other faculty members have given

digital presentation options for student projects, a process made much simpler by the open GIG dataset.

Maintenance of the site and ongoing support for users is provided by the Arts & Sciences Office of Teaching Excellence & Innovation.

Use Data

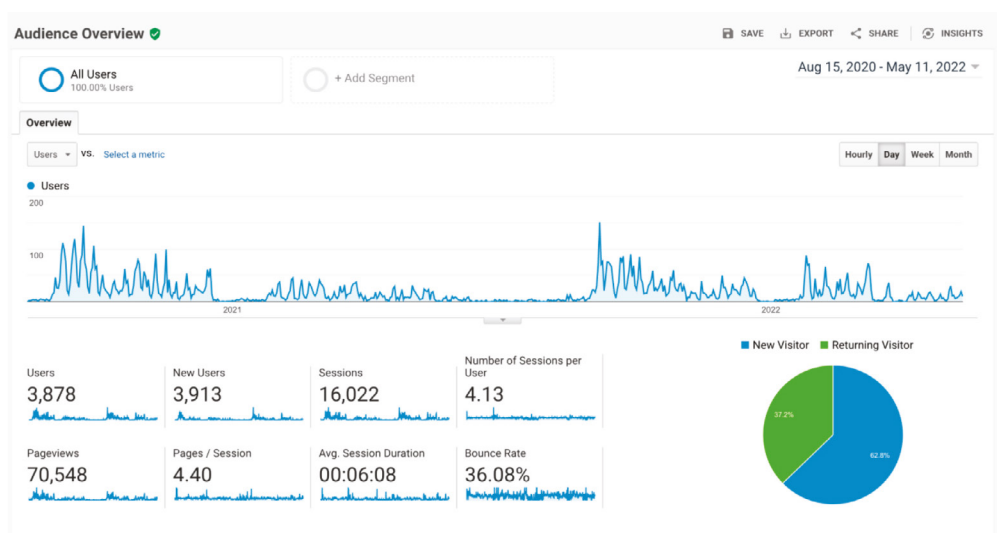


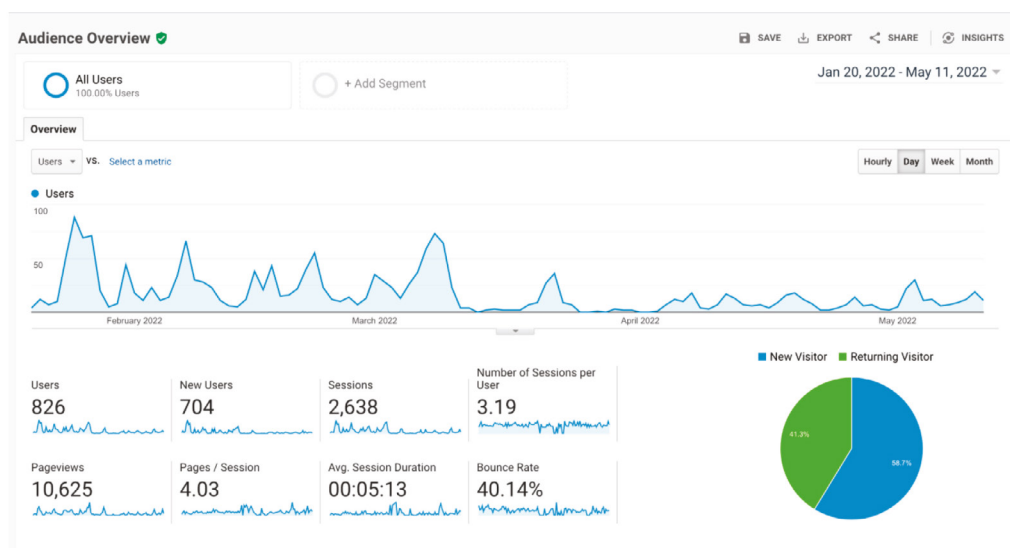
Figure 8: GIG usage data August 2020–May 2022

[Alt-text: Charts and statistics showing the volume of use of the Global Image Gallery]

The GIG project team relies on website analytics to monitor adoption of the resource and to guide planning. Reassuringly, analytics show that use of the resource has been robust since its launch for all three courses in the Arts & Cultures sequence in September 2020, as Figure 8 above, taken on May 11th, 2022, demonstrates.¹ Predictably, usage is at its greatest near

the start of each semester, diminishing sharply during the winter and summer breaks. Greater use of the GIG in Spring 2022 than Spring 2021 (see Figures 9 and 10 below) is an especially encouraging sign, indicating that use of the resource is becoming normalized. A decrease might have indicated that high initial use levels resulted from faculty giving a novel tool a one-time try.

¹ Usage stats are supplied by Google Analytics; they do not distinguish between student and faculty users. The number of students enrolled in Liberal Studies Arts & Cultures courses between August 2020, and May 2022, was approximately 3,750. The number of faculty members who taught at least one section in the sequence over the same period was approximately 100; it thus seems nearly all Liberal Studies students and faculty accessed the GIG at least once and on average 18.3 times apiece in its first two years of use.



Figures 9 & 10: Global Image Gallery Use, Spring 2021 v Spring 2022 Semester

[Alt-text: Chart showing volume of use of the Global Image Gallery, Jan 20–May 11, 2021]

Prior to the GIG, the Liberal Studies faculty had no information about what students were viewing in Gardner's Art Through the Ages except by testing them. Now, using Google Analytics on our Wordpress site, faculty can learn what works are most frequently viewed, which can guide future development of the project. From the Fall 2020 semester through Spring 2022 semester, the ten most visited individual posts were:

1. Venus of Willendorf - 656 views
2. Terracotta Army - 487 views
3. Warka Vase - 414 views
4. Ziggurat of Ur - 371 views
5. Narmer Palette - 366 views
6. Pharaoh Menkaure and Wife Khamerenebty - 362 views
7. Kritios Boy - 342 views

8. Kourous youth from Attica - 336 views
9. Good Mask of Tutankhamun - 324 views
10. Bull-Headed Harp with Inlaid Sound Box - 319 views

Those familiar with ancient world cultures will recognize most of these items, which include canonical works from all hemispheres except the Americas. This top ten list does not indicate achievement of the goal of flattening the canon established by traditional art history textbooks; it does, however, indicate that faculty lean more heavily toward visual art to represent cultural periods for which available literary texts are few (or, in the case of the Venus of Willendorf, non-existent). Since these analytics are new tools, the faculty committees in charge of globalizing the curriculum can start

to ask why these items, and not others from overlooked parts of the world, where ancient cultures flourished, are being taught.

A second category of analytic data shows that results for searches like “cave painting,” “Velazquez,” etc. rank high in the list of most frequent views. Indeed, one of the functionalities planned for future iterations of the GIG is the ability to gather a set of freely-selected images (rather than simply the results of a search) into a shareable collection. We’re aware of the limitations of materials available within CC license, and we try to address this on an ongoing basis. Future additions to the GIG will include items that do not appear in traditional large collections. For example, a faculty member in Latin American cultures has broadened the collection by submitting understudied items from small, focused collections. There is a suggestion form on the site that allows any user to suggest similar items for inclusion.

Updates: After 2022

As of Spring 2025, the Global Image Gallery has continued in use with relatively little need for maintenance, largely because we have restricted development to NYU-supported platforms (nor has the transition to a IIIF server occurred, largely because of uncertainties about a timeline and prioritization of institutional adoption). After the first two years of the GIG’s existence, when new material continued to be added to the database, support hours have been minimal, to-

talling around 15-30 on average per year. In theory, content is governed by a faculty member from the Arts & Cultures curricular area who serves as GIG editor; decisions about technology are made jointly by the Liberal Studies Teaching Excellence & Innovation Liaison (a Liberal Studies faculty member who teaches a reduced load while overseeing the unit’s Ed Tech strategies and projects) and the Arts & Science Office of Teaching Excellence and Innovation (formerly the Office of Educational Technology). However, after a round of content augmentation in spring 2023, it seems the site has met faculty needs sufficiently that there has been no drive for continued editorial input, and the role of Content Editor is currently unfilled.

Lessons Learned

The GIG team learned a great deal from working on this ambitious project, from technical knowledge about WordPress, IIIF servers, and image display software to a deeper acquaintance with artists from Edmonia Lewis to Xia Gui. The lessons most relevant to others hoping to undertake large-scale OER projects:

- Secure institutional support by aligning with institutional goals, such as cost-savings and inclusivity.
- Make access simple, for instance by linking to the resource in LMS course sites. An OER not automatically available in course sites is unlikely to generate a high volume of use across multiple sections/instructors.

- Faculty buy-in is critical. A modular resource is easier for faculty to adopt than a prescriptive text, but it's also critical to instill a sense of ownership by giving faculty control over content and a strong hand in design.
- Identify a core team: while an OER project benefits from a large number of contributors, it is essential to identify a core team that is responsible for the project's governance. It should include the major players on both the content/editorial and design/development sides. Members from both sides should attend all meetings, regardless of the topic.
- It's never done. Any OER project requires long-term attention simply to maintain it and will likely need major overhauls on occasion to ensure it employs the best currently available content and platforms. As the project is now normalized into the curriculum, those who use it have cemented links into their syllabuses, their lecture slides, and other digital teaching and learning documents. The usage analytics suggest most students and faculty use it. When dead links and minor fixes get reported, the Editorial Technology manager responds. Future new users are, of course, incoming first-year students, but also new faculty members, who are introduced to the GIG during their year-long orientation. New faculty with backgrounds in digital humanities are encouraged to consider applying for a dean's award that would grant them a course release as an equivalency to taking on change-making editorial responsibilities. In this way, new editors can use their work on the GIG as an element in their promotion dossiers. In short, when there is no editor at the helm, the GIG works, but it doesn't grow. In a teaching-focused department like Liberal Studies, faculty members use the GIG robustly in their classes; however, they rarely contribute substantial new items to it without receiving a course release equivalency or stipend in exchange.
- Accept mistakes as the price of admission; the perfect is the enemy of the good. Creating something tangible on time, even if it needs considerable refinement later, is critical to convincing users that the project is real. But an important corollary is to leave time to address mistakes and build enough flexibility into the design of the project to allow pivoting as necessary.
- Start with a data standard that is widely accepted.

Conclusion

Given the significant time and resources required to create a digital OER textbook replacement resource, the editors and technologists involved were preoccupied with one question: will the faculty and students use it? Based on the usage data gathered over the course of three academic years,

it is clear that students and faculty spend a significant amount of time on the GIG website; moreover, since the site is free to use, we no longer hear either from faculty or students the bitter complaints about expense that the variations in level of usage by different instructors evoked when we assigned a commercial Art History textbook across all sections, a textbook that might be used for only two sessions in a particular instructor's class. Additionally, the flexibility of the resource has enabled faculty to create resources and assignments that utilize the website in various ways, resulting in additional learning objects faculty have shared among themselves. This flexibility of use was not possible with a traditional, non-OER text. Based on the usage data, student engagement, and creative pedagogical use by facul-

ty, the GIG was worth the investment. With support from NYU's Curriculum Development Challenge Fund and the collaboration of NYU Libraries, plans for three major improvements are projected or were completed since the first submission of this essay:

- using the International Image Interoperability Framework (IIIF) for images (on hold)
- transition of metadata to the VRA Core standard (completed)
- including Leaflet and Google Street View maps for works that remain in situ, such as the Pyramids and the cave art at Dunhuang, to allow users to experience more directly the scale and spatial context of these works (completed).

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