Top 10 Mistakes to Avoid When Choosing a Collections Management System

History Associates Incorporated

Selecting a CMS?

Collections management systems (CMS) enable greater efficiencies for maintaining and managing your collections. For museums and cultural institutions, they also enhance education programs, fundraising and development efforts, and institutional administration. Corporations and private collectors benefit from having easily-accessible information to support historical programs and manage the distribution of artwork.

Evaluating and selecting the right CMS for your organization is a critical first step in the process and one that should not be taken lightly. Our collections management consultants at History Associates frequently collaborate with clients and software developers to introduce or upgrade existing CMS solutions. In our experience, the most effective changeovers begin with a structured and coordinated system selection process. Once the system is selected, a methodical approach to migrating existing data and processes can take place.

How to get started? As with any task or challenge in the business world – someone has already been there, tried that, and helped forge the path. Avoid these common mistakes and call on the experts at History Associates!

This paper was prepared by the collections management team at History Associates. The team helps clients get the most value out of their collections through improved policies and processes.
They assist in developing and implementing effective collections management programs, and they provide guidance and hands-on support for the
support for the standardization and development of collections management software. Their work involves collections inventories, assessments of museum procedures, and developing collections management systems.

Avoid these common mistakes

Mistake #1

Evaluating systems before establishing your requirements

The selection committee for the CMS from "Midtown Historical Museum" had been evaluating and testing products for weeks. The registrar really liked one system because its module for tracking objects on loan was first-rate. The collection manager preferred a different system that had a better cataloging capability. The curator wanted to go ahead and buy a system she was familiar with. After a product demo for a web-based system, the entire group started rethinking whether they wanted to have the catalog available online. After weeks of evaluation, they were no closer to a consensus.

Prioritizing your needs into a grading system will make systematic evaluation easier.

Start with a needs assessment

There are dozens of CMS options, hundreds of functions and applications, and limitless possibilities for customization. Don't panic – and don't assume that you need a comprehensive evaluation of every system on the market. Before buying any software, it is critically important to start with a needs assessment:

Identify your users.
Begin the system requirement process by identifying who currently accesses your CMS or collections' files and who may use the CMS in the future. It is important to include the range of users; from interns, to the registrar, to a product manager, to the IT system administrator. Each of these users will interact with the system in a different way and their input is essential early-on in the needs assessment process. If the general public will be using or accessing your collections data, consider whether you require an additional user interface for the public, and whether the system administrator will be responsible for monitoring such use.

Know your data.
Identify the current format and location of all of your relevant collections data. Are you transitioning from a ledger or index card system to electronic records? Do you have several collection-type specific databases you would like merged into a single CMS? Have your collections data or reporting requirements outgrown your current system? Be sure to account for the amount of memory needed to store all of your collections data and associated files. Do you anticipate issues with data format obsolescence? Consider bringing in a technician to migrate any outdated formats into a more current or compatible format.

Know your collections.
What type of collection are you responsible for? Consider the discipline and its related methodologies. For example, the data and collections management tasks surrounding a collection of forensic anthropology will differ greatly from a collection of contemporary art. Take your current holdings into account, but consider your anticipated growth over time. How dynamic is your organization? Do you regularly receive gifts, make new acquisitions, or loan out objects for exhibition?

Determine where and how a CMS can increase efficiency.
If your existing processes or CMS already perform all of your required functions, you may be looking for ways to automate that process or find ways to streamline your efforts. If you have identified new functions or areas to develop, prioritize these functions or use a grading system (e.g., this function is 'mandatory', 'would be nice', 'not applicable') when conducting an evaluation.

Know your budget.
Now that you know what you have and you know what you want – you need to establish what you can afford. Your budget needs to include the initial purchase and installation of necessary software and in some cases hardware, but also costs for the transfer of your existing data, user licenses, system add-ons and upgrades, and ongoing maintenance expenses for the system. Don't forget to budget for the staff hours needed to attend project meetings, test systems, and work with the vendor on customized solutions and data migration.

Mistake #2
Selecting a CMS without thoroughly testing it

"Main Street Art Museum" thought they selected the best-fit system for their needs. It met their list of requirements and the price was right. Everyone sat in on the product demonstrations and was satisfied they made the right choice. The problem arose when "Sandy" tried entering the museum's alphanumeric data into the system. Turns out, the CMS would accept only numeric characters in certain data fields. Worse yet, the system could not be customized to accommodate their existing format.

Run the system through your routine tasks

Sitting in on a product demonstration is a good way to get a feel for a system, but it is no substitute for thorough testing.

Remember your users? Call on them to test potential systems. Your users have first-hand knowledge of your collections and associated data and are most likely to recognize the pitfalls or limitations of a given system. Whenever possible, use a copy of your real data when testing. Run through a list of routine tasks performed with your current collections information, including reports you generate or tracking information you might look up. Conduct a thorough cataloging exercise that addresses the range of processing situations you may encounter. In our experience, these exercises often uncover issues that would otherwise be overlooked.

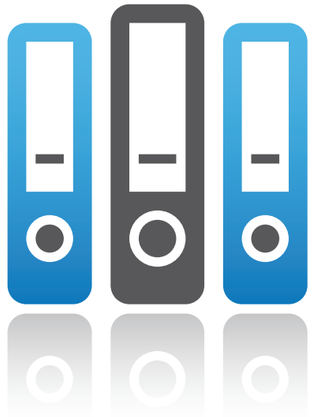
Report any issues you encounter to the vendor. If the issue is resolved through a simple system modification then the system may still prove a good fit. If the vendor suggests modifying your data or workflow this may be a warning sign that the system is not a good match.

Testing a system by using your real data whenever possible gives you a greater chance of uncovering potential issues.

Mistake #3

Buying expensive new hardware first and then looking for a CMS

"Uptown Art Museum" purchased a new network server to manage its overall IT functions. In anticipation of acquiring a new CMS, the museum's IT department purchased hardware that would have ample storage space to accommodate the needs of a CMS. Once the museum staff completed their evaluation of CMS solutions used by their industry counterparts, they determined that the CMS which best suited their needs would require a server with a different operating system environment.



Choose the CMS in tandem with new hardware purchases

It is a common misconception that hardware must underpin and dictate the path for selecting software. If you are in the enviable position of creating an IT environment for your CMS from scratch, don't get locked into a particular system because the server and operating system you've selected provide a narrow scope of systems support.

Look for hardware with inclusive rather than exclusive support and system integration options. To achieve optimal performance, be sure that your hardware and software vendors are brought together for a systems integration discussion – that way your system solution will undergo a technical vetting process and you should not have to contend with expensive troubleshooting, retrofitting, or hardware replacement in the future.

When you get to a short list of potential CMS options, share the list of each system's requirements with your IT staff.

Mistake #4

Unknowingly limiting the scope and function of your CMS

"Midtown Historical Museum" set up their new CMS and were already enjoying the benefits of a more efficient system for managing the collections. The education director, while working on the museum's first-ever electronic catalog for a new exhibition, realized that their new system was limited in its ability to accommodate information about scanned images. Rather than use the new CMS to export the information, the education director was going to have to create a new database for the project.

Consider the future

People consume information in a growing number of multimedia formats. As a result, CMS systems are developing more sophisticated functionality for managing multimedia assets. Even if you don't currently manage image, video, or audio files in your system, consider how these formats may play a role in the future.

Can you identify your organization's standard file formats and anticipate the associated file sizes to ensure that the CMS can manage your workload? Do you need your CMS to provide a mechanism to batch import multimedia assets to streamline processing? If these are not critical functions for your organization today, they may be important activities in the future. Depending on your organization, purchasing capabilities not currently used may save time and money down the road.

Think beyond just replicating the system you have to what you anticipate needing down the road.

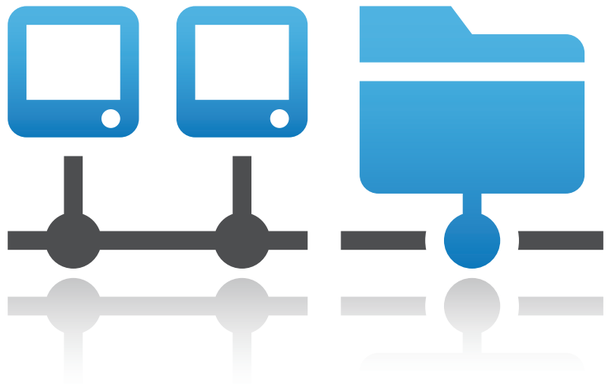
Mistake #5

Assuming that a CMS will be compatible with your organization's other software

"Charitable Foundation" purchased, installed, and was doing well with their chosen CMS for some time. During a period of organizational transition, they sought to train staff in upper-level CMS system functioning. These functions required the use of another software product that would design and generate reports for the CMS. They quickly learned, however, that this additional software was not permitted on the foundation's internal network due to organizational security restrictions.

Include your IT staff

CMS vendors may focus on the minimum requirements needed for their product to operate, but it may not match the technology environment at your facility. Make sure your own IT staff is involved in the system integration discussion. What computer operating systems does your museum use (e.g., Linux, Oracle, Microsoft)? In addition to the main operating system, what other programs might need to interface with your new CMS? In our experience, word processing and imaging software, security and sharing protocols, reporting software, and barcode technology are some of the most common. Failure to take into consideration what may be considered minor software compatibility issues can lead to significant and unforeseen time and financial obligations.



Common CMS integration problems can occur with your word processing and imaging software, security and sharing protocols, reporting software, and barcode technology.

Mistake #6

Launching into a CMS development project without considering the "hidden" time and costs

After considering its collections, "Uptown Historical Museum" determined that a customized CMS was the best fit for their organization. The museum contracted a reputable vendor to complete the CMS development, data conversion, and installation. Once the museum began to use their new system, they were satisfied with the overall product; however, collections staff realized that they could benefit from having additional reporting functions. The staff learned that to create the reporting templates, they would need to purchase secondary software and train a staff member on it, or contract with the vendor to create the reports, which in itself required museum staff time to guide the development and perform testing of the product.

Budget extra time and money for unanticipated needs

If you have a highly unique set of collections, you might need to have a system that is built to your specifications. When planning to have a system built for you, consider the time commitment needed to identify your current data, communicate the alterations, and test the multiple stages of implementation. The costs of building a fully customized CMS will generally exceed the cost of an off the shelf product. Are you able to commit the resources?

Customized CMS products are not right for every organization. Depending on your collection type, the level of your collection documentation, and the size of your collection, an "off the shelf" CMS product may be your best option. Even in this case however, prepare to commit time and money into some level of customization.

Find out from the vendor what various customization projects will cost and accommodate this in your budget, even if you don't anticipate needing the work right away.

Mistake #7

Not taking your organization's IT policies and restrictions into account

"Midtown Historical Museum" sought to incorporate barcode tracking for its collection items. After contacting multiple organizations that had implemented similar systems and conferring with vendors for software and hardware options, the museum felt like it was well on its way of achieving its goal. Once implemented, the museum discovered that the handheld barcode readers it purchased utilized wireless technology, which was not compliant with the museum's security protocols. The museum had to purchase hard-wired, handheld barcode readers to be in compliance until the organization could reevaluate its policy.

Add IT security requirements to your evaluation checklist

Be aware of any IT limitations (hardware and software) which may affect your ability to develop, implement, and maintain a robust CMS environment. Does your organization have rigorous security protocols that inhibit shared network access? Are you able to employ wireless technology? Does your institution support the hardware and software you have selected? Does your organization support a limited type of server environment? If you find that the system you are evaluating does not comply with your current IT guidelines, move on – it is not the right system for your organization. Take as much consideration into how well the CMS will operate in your IT environment as you did with assessing how well your collections data will function in the CMS. Think of the IT environment, the CMS, and the data as a pyramid – make sure your IT foundation is strong so that it can support your system and your collections information.

When you have reduced your list to a few CMS systems, arrange for your IT staff and the vendors' technical advisors to meet and discuss specifications.

Mistake #8

Failing to address data inconsistencies

During an early attempt at incorporating multiple collection documentation sources, "Midtown Historical Society" imported several legacy databases into their newly acquired CMS. While the data migration was successful, variations in the documentation's data structures made conclusive, cross searching for specific terms nearly impossible. It also became apparent to the museum that several of the data structures were misdirected during the mapping process, further complicating their efforts.

Determine how you will import your data

If your organization is "starting from scratch" and entering paper-based documentation directly into your new CMS, the cost of your system may pale in comparison to the cost of entering your collections data. Make good use of the investment and set up standard operating procedures and protocols to ensure consistent and correct data entry. Errors and omissions add up and over time, institutional knowledge is lost. If data requires interpretation or is not consistently updated, you are at risk of creating 'dirty data.'

Try to minimize this risk: consider formatting, cleaning, or synthesizing data prior to entering it into your CMS. If you are importing legacy data from one or more existing systems, it is unlikely that the fields of the old and new systems will correspond exactly. Without careful data mapping between the systems you run the risk of letting important data fall between the cracks or having the data import incorrectly. Be sure to review and clean up the data once transferred. After data migration, you will want to continually audit your system to ensure that new data is entered into the system properly. Data cleaning is an ongoing process. If you don't have the in-house staff or expertise to map and migrate data, contact experienced consultants such as History Associates of find out if your CMS vendor offers such services.

Start with the cleanest data possible before importing it into a new CMS. Consider hiring a consultant if you don't have the expertise in-house.

Mistake #9

Deferring addressing data standards until after you get the new system set up

"Regional Museum" exercised relaxed controls over the documentation practices regulating its multiple collecting units. Each collecting department established its own lexicons and nomenclatures to document its collections, as it deemed appropriate. Once the multiple collecting units were integrated into a single CMS, departments found it difficult to navigate the CMS, since each unit had interpreted their standards of documentation differently. The museum found it necessary to dedicate additional staff time towards standardizing the data using a consistent nomenclature.

Look at the terminology embedded in the CMS

Before selecting a CMS, revisit your collection's documentation standards. Do you have rules and procedures in place for consistently processing or cataloging items? Do you comply with established professional standards when documenting your collections? We recommend using a particular nomenclature or lexicon for cataloging (e.g., Chenhall, Getty Art and Architecture Thesaurus). Consider whether that lexicon comes as an embedded function of the CMS product package you are considering. It could prove costly to retroactively apply standards or vocabulary control.

Find out if the CMS you're evaluating uses industry-standard nomenclature such as Chenhall, Getty Art or Architecture Thesaurus and use the transition as an opportunity to standardize your data.

Mistake #10

Selecting your CMS without learning from others who've been through the process

Through past roles at other institutions, the collections staff at "Midtown Art Museum" all had experience using one CMS that is commonly used in the museum field. When discussions began about converting to a new CMS, the familiar CMS product seemed prudent, since staff training would be minimized.

Ask around for advice

Software providers develop and modify CMS products to address the needs of their clients. Some CMS products cater to scientific collections by providing a built-in taxonomic hierarchy, while others appeal to historical collections or art collections with embedded material culture cataloging lexicons.

Confer with colleagues to help narrow your search to a short list, but don't just talk to your coworkers. Be sure to contact professionals in your discipline as well as people from institutions of a similar size or with a similar mission.

Many CMS vendors host product demonstrations and workshops where you can test drive the system and speak to other system users.

Online user groups and listservs are a great resource for posting and reviewing questions and comments about the software. There are also museum technology organizations such as the Museum Computer Network (www.mcn.edu) that offer networking resources.

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"If only I'd known..."

If you are facing limited in-house knowledge or resources, you don't have to "go it alone." Professional colleagues, software vendors, and consultants like History Associates offer expertise and experience to help make the transition as painless as possible. We can help you avoid potential pitfalls, translate your objectives into clearly-defined tasks for IT vendors, and transfer collections data into your new system to museum-quality standards.

The selection process may seem overwhelming, but it's prudent to take a little extra time at the outset for planning and evaluation of CMS solutions. The reward will be a smoother transition to a new system that will enable broader access, better management of your collections, and may even open doors to new ways of bringing the full value of your collections to light.

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About History Associates

History Associates specializes in helping organizations manage and use historical resources. Since 1981, we've assisted corporations, government agencies, professional associations, cultural institutions, individuals, and others in preserving their legacy and artifacts, telling their stories, and answering their historical questions. Over the years our clients have come to value our ability to complete projects on time, on budget, and tailored to their needs.

The collections management team at History Associates has extensive experience in:

- preservation, arrangement, and description of museum collections and archival materials;
- cataloging collections using a wide variety of museum cataloging software;
- surveys and assessments of collections and archives;
- collection and management of inventory data;
- metadata creation, updating, and quality control;
- creation of planning documents, policies & procedures, and specifications; and
- database design.

Organizations like the U.S. Mint, the United States Merchant Marine Academy, and the National Archives and Records Administration have trusted us with their historical collections. We will treat your collections with the same high level of care and attention.

You don't have to go it alone

We'd be happy to confidentially discuss your project, whether you need project support or you just want to ask a question.

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