



Recommendations for Museums Looking at Future IT Purchases (Winter 2020)

This document was prepared by John Benson, owner of Eaglez Consulting Services, with nearly 25 years of Information Technology & Communications (IT&C) related experience. I have worked in many facets of the IT&C industry and have also had the benefit of working as part of or in tandem with the Nova Scotian museum community (and non-profits in general) during that time.

Following are some good basic rules to consider when looking at upgrading and/or replacing your IT equipment. Each section will include a brief explanation and a list of what to look for, what to avoid and why. These are strictly the opinions of Eaglez Consulting Services based on my experience over the years and should not be seen as ANSM endorsing a particular brand or product.

One little gem I will share in terms of trying to make comparisons between computers and their various parts is the following web site. It compares “apples to apples” in terms of performance between CPUs, video cards, hard drives, systems and mobile devices. The site is: <http://www.cpubenchmark.net/>

I hope this summary will assist you in your endeavour to go shopping for new equipment, software and services. There are many other things commonly used by museums and I may expand on recommendations for those in a future version of this document. If you have more detailed inquiries on these or any other equipment, please forward them through the ANSM office who will contact me to assist you.

This document covers helpful advice on the following areas:

- Flatbed Scanners
- Portable Handheld Scanners
- Film, Slide & Negative Scanners
- Digital Camcorders
- Desktop Computers Notebook Computers
- Netbooks, Convertible Notebooks & Tablets
- Data Backup Options
- Computers for Schools- Nova Scotia (CFS-NS)
- National Heritage Digitization Strategy –
- Digital Preservation File Format Recommendations
- Open-Source Tools
- TechSoup Canada

Please note: These are recommendations. Instead of focusing on the newest and best tools available, it is important to weigh the needs of the museum and let that guide the museum's decision about future purchases.

Flatbed Scanner

There are a large variety of flatbed scanners available, however the style best-suited for museum applications is a *dedicated flatbed-style scanner*.

Recommended: Epson, Canon, HP and Plustek.

Note: Scanners built in to a multi-function printer or automatic feeder are *not* recommended. Museum conservation standards states that these scanners should never be used as they have high potential for damaging fragile documents and/or artefacts.

What to look for:	What to avoid:
Choose the flatbed scanner that best suits your collection's needs: • Tabloid size scanners (11"x17") offer greater flexibility, can scan large and small documents, and can over time minimise your total scanning budget as most objects can be scanned in-house. • Letter size (8.5 x11") and Legal size (8.5"x14") are easy to find and come in at a lower cost if this suits your collection. It will limit your ability to scan larger objects. Choose one that offers as many types of scans as possible.	If you must use a scanner integrated into a multi-function printer, <i>do not use</i> the automatic feeder. The roller mechanisms have huge potential to damage and destroy a document. Generally, the best quality scans will occur when the item being scanned is not in motion. Place it directly on the glass.
Choose a device that has the ability to scan either slides and/or negatives. Some scanners include this as an attachment while others have them built right into the lid.	Dedicated purpose scanners (that <i>only</i> scan slides or negatives) will limit the work you can do with your collection. Choose a scanner that is well-rounded and offers many types of scans.
A device with a "hinged lid" allows for scans from sources such as books and ensures no damage to the original and/or distortion of the scanned image due to the object not sitting flat on the scanning surface.	

Compatibility of the hardware/software of the scanner to match the specs of the computer(s) you will be using it with.	
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Portable Handheld Scanners

Portable handheld scanners are increasingly becoming popular in the Museum community as innovations have made them easier to use, easier to connect and interface with other devices, have better quality, and often have optical character recognition built-in.

These scanners can be useful in a number of situations including, but not limited to: scanning odd-sized documents, book pages, fragile documents or photos, items that cannot be moved without damaging or easily processed in a flatbed scanner and scanning documents off-site from the museum's location.

Recommended: Two very well-reviewed models made by IRIS currently available offer all of the basic features plus many enhanced ones as well. The non- wireless model, IRIScan Book 5 retails for ~\$170 and the wireless model, IRIScan Book 5 Wifi retails ~\$200.

What to look for:
Many models come with a number of standard features and are available ~\$150-200. Standard features may include: • Being cordless • Minimum resolution of 300 dpi • Power-save capability • File formats for saving should at least include JPG and PDF • Ability to store images onto a memory card (usually MicroSD) • Ability to connect to a computer.
Some advanced models may have additional or enhanced features which may include: • Rechargeable batteries • Higher scan resolutions (up to 1200 dpi) • Wireless transfer capability to computers and/or iOS/Android-based devices • Optical character recognition (OCR) • Ability to do translation.

Film, Slide, and Negative Scanners

There are a number of affordable devices that can easily/readily scan photo media into a high-quality digital format. These scanners are able to take still images from the following media: 4" x 6" prints, 35mm, 126, 110, Super 8 and 8mm film negatives and slides.

Useful features of these devices include image correction, the ability to save to either computer and/or memory card, photo resolutions in the 15-20 megapixel range and TV/Video out connection for viewing on larger screens.

What to look for:
There are essentially two "grades" of these scanners: consumer and professional. ● Consumer-grade models are made primarily by Magnasonic and Kodak and are ~\$150-200. They are made with basic features, easy-to-use controls and their image sensors are typically limited to a maximum of 3,200 dpi optical resolution and 4,000 dpi interpolated (software-enhanced) resolution. ● Professional-grade models include those by Plustek with their OpticFilm series, and are ~\$800-1,000 and up as features increase. These more expensive models include dedicated media carriers for each common format and much higher quality image sensors producing optical scan resolutions just over 5,000 dpi and interpolated (software-enhanced) scan resolutions just over 10,000 dpi.

Digital Camcorders

Digital camcorders are versatile multi-function devices: they can record video, audio, as well as single images. In recent years, they have mostly replaced Digital Voice Recorders for the purpose of recording personal histories. In many cases, you get only one opportunity to record those stories, so the reliability of your equipment is key.

Recommended: The Canon Vixia HFR series of camcorders continues to be among the best combination of features at a reasonable price. A good quality recorder in this series generally retails ~\$300-500. Sony has an extensive consumer line of 4k models, starting in the \$800 range.

What to look for:	What to avoid:
Image Stabilization – the ability of the camera to counteract slight wobbles or shakes is important when not using the camcorder on a tripod.	Avoid purchasing less expensive camcorders that have specs lower than 1080p (1920x1080) resolution (aka Full HD) and 60 frames per second. 4K (3840x2160) resolution (also known as Ultra HD), is most popular and offers high quality recordings.
A low Lux Rating – the camcorder will be more forgiving in various lighting conditions and can still function well in an area that is not well lit. The closer the value is to 0, the better.	Avoid purchasing recorders that do not use Lithium-Ion battery packs. Modern camcorders are considered “high-drain” devices, and require a battery capable of handling the power requirements as well as being recharged. Lithium Ion batteries are less prone to developing a “memory” (which shortens their life) after being charged many times, compared to other types of rechargeable batteries. If running primarily on battery, invest in a good-quality spare battery and charger, rather than using the cheapest of what is available.
The storage ability of the camcorder. This determines how much video can be recorded (stored) onto the camcorder. Many offer built-in storage, as well as storage to be expanded through the use of memory cards. • The most flexible, best supported, and used type of external storage is SDHC/SDXC. When purchasing external memory cards, buy “Class 10” or “Ultra High Speed (UHS) Bus” card as they are fast enough to handle writing the video storage to memory. Getting a “lower	

class” card could jeopardize the quality and/or integrity of the data being stored on the card because it cannot keep up with the camcorder.	
Connectivity options for transferring your video can range from standard USB cable and/or removable memory card to camcorders being able to transfer and/or stream video using wi-fi or controlling your camcorder remotely with a smartphone via Bluetooth. ● Be mindful to only get the features you need, as it can add to the expense of your purchase.	

Desktop Computers

These are basic guidelines to help you in narrowing down your selections when searching for a new desktop computer. When making a new purchase, assume that you are going to make this equipment last as long as possible (5+ years), and invest accordingly.

What to look for:
Intel Central Processing Units (CPUs) are generally more diverse, and more reliable. They are the majority choice of CPU for both PCs and MACs.
Buy as current a generation CPU as possible - at least 8th with the newest being 10 th .
The naming system for desktops is relatively simple and is as follows: • The first generation sub-models are all 3 digits long and any sub-model numbers made after that are all 4 digits long and begin with the number of the generation (ie. 9th generation sub-models all start with 9, etc.). Generations are broken up into 3 common levels and 2 less common ones. The i3 series is the entry level series which is good if purchasing a system strictly for use as an office/correspondence computer. The next level is the i5 series which is ideal if you need to have a computer be a “jack of all trades”. It is great at office stuff, usually sufficient when running databases and similar projects and will not bog down when doing many of these things at once. The next highest level is the i7 series and is generally reserved for specialty use, such as a graphics/video editing station or if setting up a server machine within your organization. • The i9 series is extremely expensive and usually used in special-purpose, high-performance machines. • You will also see CPUs in each generation either called Pentium G/Celeron G series which are the very low-powered and cheap desktop CPUs. I would avoid purchasing these altogether.
Many components make up desktop systems, and the large majority of them are integrated right into what is known as the motherboard. • Audio, networking, expansion ports, and quite often video are now included. • When speaking about RAM memory, find something with a minimum 8GB of memory (DDR4 is the most common style, although DDR3 is still around, but quickly disappearing) with 16GB becoming more common. • Dedicated video cards in the context of museums are generally only needed when setting up a higher-end workstation such as one for graphics and/or video editing; otherwise the popular on-board video cards will quite often suffice for general office use.
Internal storage media (hard drives or various types of solid-state drives) - Which one you have in a system is often determined by the connectors built into the motherboard used in that system. • The largest capacities and lowest cost are with the hard drives with common sizes up to 6TB (6000 GB) and going to a current single-drive maximum of 16TB (16000 GB). Recommended are the Western Digital Black or Gold series of drives (and Blue series if very budget-conscious), although there are many brands and models to choose from. • With solid-state drives, there are two major types which are different based on their type of “bus” (SATA or PCI Express). The rule of thumb is that SATA drives are the slower type and PCI Express based drives are dramatically faster. Common capacities for SSD drives go up to 4TB

(4000 GB). Popular, high-quality brands of SSD drives include Western Digital, Samsung and Intel.
Operating Systems - With the end of support by Microsoft this year for Windows 7 and support for Windows 8/8.1 ending in 2023, Windows 10 has become the standard. All new computers, unless they are Mac or Linux-based, come pre-installed with Windows 10. There are only two editions of Windows 10 available to general consumers. It is recommended that you go with the Professional edition when possible as it is more flexible than the Standard edition, especially with varying networking configurations. The standard edition (which is simply called Windows 10 with no name after it) is the most common of the two, however and will work well on most machines.
In terms of average cost (assuming it comes with a decent wired keyboard and mouse, good quality parts and at least 1 year warranty, usually without a monitor), you should be looking at ~\$600-800 + taxes for an i3 series system, ~\$800-1000 + taxes for an i5 series system and ~\$1000-1200 & more + taxes for an i7 series system.

What to avoid:
If buying a desktop pre-built off the shelf, it is highly recommended to do some research online to see if you can find reviews on that model or one very close to it. Be sure to look at both expert reviews <i>and</i> consumer ones; they will usually identify very different points of view on the same product. Dell, ASUS and HP's business lines (formerly Compaq) are recommended over their consumer ones, as they tend to be more reliable and have the features in the system where most museums need them to be.
If buying a desktop custom-built from a local shop, the biggest things to look for are reputation and longevity of the business you are dealing with. In the event of problems, you want the place you are dealing with to be around at that time. It does not hurt to do a bit of research on the businesses you are looking at by talking to other local organizations and businesses to see who they use and what their experience has been like, especially in the after-service category. Most reputable shops will use good quality parts because if they do not, customers will not continue to go there and they will lose business in the long-term.

Notebook Computers

Many of the guidelines for the desktops are similar for notebooks. Any differences unique to notebooks are mentioned below.

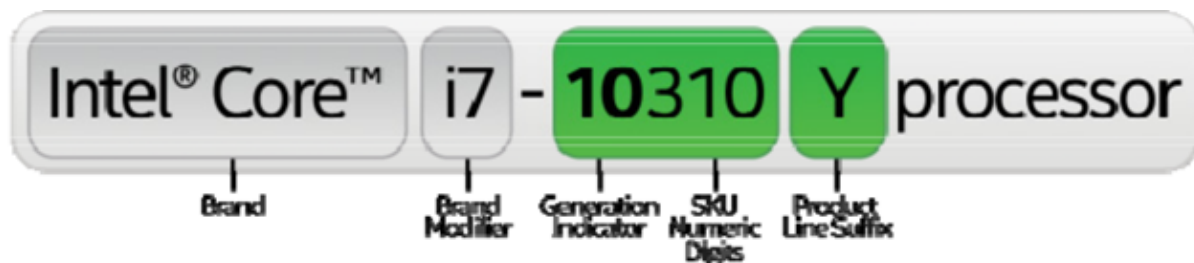
What to look for:

When deciding whether to purchase a notebook rather than a desktop, it is important to look at the specific usage and how much need there really is for portability and compactness. In terms of “bang for the buck”, desktops generally beat out notebooks every time. However, if having a notebook in a certain role makes a lot more sense, then it is a sound investment. Some notebooks are being designed as “desktop replacements” and in many roles, such as the average office, they may suffice.

The biggest features that will generally distinguish the price levels in notebooks are the CPU, the hard drive size, type (and speed) and the video capabilities.

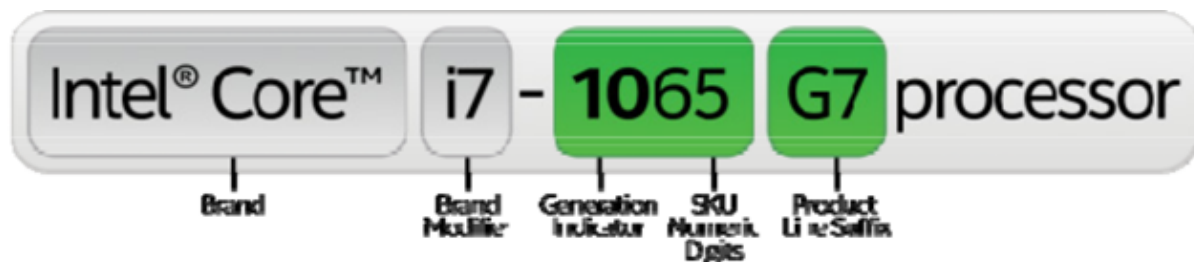
- For all of the laptop CPU generations up to the 9th generation, the difference between the 3 levels of the current generation CPUs will make the biggest impact. i3 will always be cheapest, followed by i5 and then i7.

With the current generation (10th), Intel made their naming system much more complex. See the images below for examples. In short, the naming system depends first on whether the laptop CPU is the absolute newest “Ice Lake” group or the older “Comet Lake” group.



The diagram above is for the “Comet Lake” group and works as follows:

- i3, i5 or i7 is the same as previous generations in terms of usage
- The second number is 2 digits meaning the generation (ie. 10 for 10th) and then a 3-digit model number where the higher the number, the better the model.
- Lastly, the final digit will be either Y (for low-end model CPUs) or U (for mid/high end model CPUs).



The diagram above is for the “Ice Lake” group and works as follows:

- i3, i5 or i7 is the same as previous generations in terms of usage
- The second number is 2 digits meaning the generation (ie. 10 for 10th) and then a 2-digit model number.

- The second digit of that 2-digit model number will be either 0 if it uses the Y series (for low-end model CPUs) or be 5 if it uses the U series (for mid/high end model CPUs).
- The last part of the name will always be a “G” then either a 1, 4, or 7 – the higher this number, the better the built-in graphics are for that CPU.

With internal storage, much of the cost of newer laptops is based on the type of storage it uses. The cheaper, slower ones will generally still have hard drives, while as the laptops increase in speed and decrease in weight, they will typically have SSD drives. Most commonly, the PCI Express based ones which are the smallest, lightest and fastest are the type chosen in higher-end laptops.

Video capability is usually the last major factor when looking at notebooks. Just like desktops, video cards can either be integrated or separate (“discreet”) cards in a notebook. Discreet cards are almost always faster, but also more expensive. The same rule applies as for the desktops – if you need it, get it, otherwise most often the onboard type will work just as well.

The types of “VIDEO OUT” ports are another thing to examine. More often, notebooks are hooked up to external monitors and/or televisions and the most common hookup these days is HDMI. It is always a nice feature to have a HDMI port. Very few notebooks available now offer what is called RGB or the 15-pin port still used by many older monitors and projectors, etc. If you absolutely need to have this connection, your best bet is to invest in an HDMI-VGA adapter.

The cost of notebook computers/laptops vary because of the large variety of configurations available. Typically, they can be very similar in cost to desktops.

What to avoid:

In general, you will buy a notebook computer off the shelf unless going through a special order company such as Dell, where you can specify what you want to a greater degree in terms of particular parts and features. Prior research is key to making a sound purchasing decision. Checking reviews on the models you are looking at is usually most helpful, as there are both excellent finds and lemons out there. Recommended, due to their broad variety of models, price ranges and feature sets is ASUS. A close second is usually between the business lines of Dell and HP (formerly Compaq).

NetBooks, Convertible Notebooks, and Tablets

A number of other portable options are available at reasonable prices. These include NetBooks and Tablets. It should be realized from the very beginning, that none of these types of devices should be considered for general day-to-day office use. Instead, there are specific purposes these should be considered for.

Another option which merges the features of both notebooks and tablets are often referred to as “Convertible Notebooks” or “2-in-1 Notebooks” because they are essentially a tablet that attaches to a bottom portion which includes the keyboard, ports, additional battery, etc. This option is usually more expensive and should only be considered with a very specific purpose in mind.

For tablets, the best devices to purchase will be Android-based tablets. However, there could be certain situations where the app you want to use is available for iOS (Apple) only.

What to look for:
NetBooks are not as powerful as laptops in any aspect and at best, are useful for the functions of internet surfing, e-mail and the like. If you are considering purchasing one, they are best suited for the function of a “patron” workstation or for one used for web-based research or entry. To use these for anything else, such as an office setting would be setting yourself up for frustration. An average NetBook is typically ~\$150-200, sometimes as much as \$300 depending on what extra features may be added. There are several manufacturers of these, with one of my preferred again being ASUS.
Convertible Notebooks (aka 2-in-1 notebooks) are essentially a mixture of a high-powered tablet plus all of the other parts that would normally come with a notebook such as the keyboard, various ports, additional battery, etc. They are very flexible in how they can be used and quite often are as capable as full-fledged notebooks in most uses. They do tend to be more expensive, and due to their cost, would likely have limited applications in most museum environments. If you feel you do have a use for the particular advantages of such a set-up, the most popular ones are the Microsoft Surface Pro series and the Lenovo ThinkPad Yoga series.
Tablets for office use are not recommended, however can be used in exhibit spaces as interactives. Their use depends on the ability/creativity of the museum’s staff and how far they want to venture into this type of technology. Two common tablets include: • iOS tablets otherwise known as iPads by Apple • Android-based tablets are made by a multitude of companies (most popular).
iOS-based tablets (some iteration of the Apple iPad, iPad Mini or iPad Pro) has a handful of sub-models within each generation and there are currently 3 major generations. When a new generation is released, the absolute cheapest ones are just over \$400 and the most expensive are over \$1200. Pricing is standardized and strictly controlled by Apple, (as are sales) so you will not see any big sales on these devices. The main benefit of iOS devices is the sheer number of apps available for them and people’s familiarity in using them. In terms of how the actual hardware compares to others, they are typically in the mid to high range of the features and performance and their size is in the 8” to 10” range at the moment, however there are 11.0” and 12.9” models now available in the iPad Pro series.
The Android-based tablet is a hard one to describe because of the variety of hardware and software combinations on the market. • In terms of hardware, they range from the very low end to the fastest tablets on the market. They are priced accordingly on their hardware capabilities. The cheapest ones are under \$100

and even the most expensive ones top out around \$1000+ due to their size and multitude of extra features. The smallest tablets are generally in the 7" size range, while the largest ones are as big as 24" wide. The vast majority are ~\$150-350 and in the 7"-10" size category. The key thing to be looking for once you have determined your hardware needs and budget, is which Android operating system is installed. The most recent, at the time of writing, is Android 10 and is only available on a handful of the newest devices, primarily those made by Google/ASUS or Samsung. The most common versions of Android on the market right now are 6.0 "Marshmallow", 7.0/7.1 "Nougat", 8.0/8.1 "Oreo" and 9.0 "Pie". Purchasing any version older than 6.0 is not recommended.

What to avoid:

"Chromebooks" (a subcategory of NetBooks) are so-named because of their hardware. They are similar to NetBooks, however instead of running a version of Microsoft Windows, they instead run "Google Chrome OS" which is a proprietary version of Linux made specifically for this line of hardware. From a museum's perspective, their usefulness is *very* limited, as there are very few useful applications for it beyond basic office functions. Chromebooks are not recommended for use in a museum setting unless strictly used for surfing the web/Internet research workstation.

Data Backup Options

There are three popular methods of backing up and storing copies of your important data. An effective backup strategy uses at least two of these methods together, with the premise of having something easily available on-site (or can be quickly brought on-site) and also having something off-site in the case of an emergency such as a fire and/or flood.

The **first** is to use equipment that remains permanently connected to your computer(s) and/or network. This includes external desktop expansion hard drives and what is known as network-attached storage, which is basically an external hard drive (or group of them) with the ability to be accessed directly by your computer(s) across your network, rather than through a device cable.

This method has the advantage of rapid access to your data, both when backing up and restoring it. It does have the disadvantage of not being able to be taken off-site on a regular basis, so this limits its usefulness in the case of a catastrophic emergency.

The average desktop external drive costs ~\$200-300 and the storage capacity of this style of system can be as big as 12TB (12000 GB); it is typically connected to a single computer and then shared onto the rest of the network through that computer.

The other style of on-site storage is referred to as Network Attached Storage (NAS). It is usually comprised of one or more hard drives put together into a single enclosure and sometimes even setup to be mirrored, so that the data is copied onto two identical drives in the event that one of them fails. This enclosure is then connected onto your network via an Ethernet cable. The simplest and cheapest of these enclosures can start around \$300 and can run into the \$2000+ range depending on what you decide to purchase.

In both cases, the most reliable brand of hard drives are made by Western Digital and are from their Caviar "Red" product lines. For the desktop expansion drives, the line of preference is the Western Digital "My Book" series. For the enclosures, the most common brand that includes the hard drives are those made by Western Digital in the "My Book" and "My Book Pro" series. For the enclosures that do not include drives, good quality ones are made by Synology, QNAP and Thecus.

The **second** is to use equipment that is removable and can be easily taken off-site. This includes portable external hard drives and flash (aka "thumb" drives).

The second method of using portable removable equipment does have the advantage of both rapid access to your data, both when backing up and restoring it and still having the safety of being off-site in the case of an emergency. If you can only use a single method of doing backups, this is highly recommended.

There is the option of both portable, external hard drives and flash drives. For the purpose of relying on equipment long-term for data storage, flash drives are not the best solution. Despite having no moving parts, the vast majority are not made to be used for transferring large amounts of data on a very regular basis. They are wonderful for carrying data from point to point on an occasional basis, but when used too often most of them will eventually "wear out". The other major disadvantage is their limited capacity. The absolute largest size for flash drives is 2TB and those drives cost more than many external hard drives. Flash drives seen most often are up to 512GB for \$200+ and accordingly become less expensive as their capacity goes down. Flash drives do have their place and are very useful tools, but it is highly recommended using portable external hard drives as your regular backup solution.

Portable external drives can be purchased in capacities up to 5TB (5000 GB) and are rather affordable with 1TB models averaging ~\$80 and 2TB models ~\$120. They are small and robust enough to be

carried back and forth and are still generally fast enough for data transfers for your backups. The main brand of preference is the Western Digital “My Passport” series with the Seagate “Backup Plus” series as a close second.

The **third** data backup option is to employ the use of online backups, which relies on an internet connection to transfer your data which is then stored on remotely located servers.

The primary benefit is that it provides a secure, off-site storage area with redundant drives and often redundant servers, and can be accessed from virtually anywhere you have an internet connection. Many services offer storage capacities up to 5TB (some even more), but the main disadvantage is the ongoing cost incurred in order to both store and access your data and the requirement to have a high-speed internet connection. In order to be practical, you will need a download speed of 50-100 Mbps minimum and an upload speed of 10 Mbps. In the case of some rural or remote locations, this may not be an option as it may not be available. For smaller museums with a very limited budget, the cost of a high-speed internet connection plus the added expense of the storage service may not be affordable. Another challenge is that the internet connection speed controls how quickly you can both backup and restore your data. A large amount of data can take a significant amount of time.

Another concern around the use of online or “cloud” storage involves privacy issues and laws. There is much confusion over whether or not an online storage service that is physically located outside of Canada should be used. The bottom line for Nova Scotia museums comes down to whether or not your museum is considered a “public body”. Nova Scotia’s anti-export law requires that information under the custody and control of a public body be stored only in Canada and accessed only in Canada. If your museum is not considered a “public body”, then technically you have the option of using a non-Canadian service provider.

See this Google Doc link for a much more detailed explanation:

<https://docs.google.com/document/pub?id=1R1lIPEArYOns9eJZ0c1o4zgH-vqUIA7TvVBfbx50Xak>

For well-established Canadian companies that provide online backup services located in Canada, the following ones offer affordable services: Boldbeaver.com , CloudPockets.com, MasterMindBackup.com, SherWeb.com, Storagepipe.com and Sync.com.

Comparable American companies (IDrive.com and Carbonite.com) tend to offer more storage for less cost, but this is only an option if you are not subject to Nova Scotia’s anti-export law.

Additional Resources:

Computers for Schools- Nova Scotia (CFS-NS) gathers all surplus computer equipment and accessories made available through governments, businesses and individuals for refurbishing and distribution to the education community of Nova Scotia. Learn about eligibility requirements here:

<https://trp.ednet.ns.ca/eligible.shtml>.

National Heritage Digitization Strategy – Digital Preservation File Format Recommendations by Ern Bieman, Canadian Heritage Information Network & William Vinh-Doyle, Provincial Archives of New Brunswick

<https://www.canada.ca/en/heritage-information-network/services/digital-preservation/recommendations-file-format.html>

Open-Source Tools

In 2017, the Canadian Heritage Information Network (CHIN), with the assistance of an advisory group of museum professionals, developed a vendor profile survey to collect key information about collections management software. This survey information is intended to supplement the Collections Management Software Criteria Checklist in order to assist museums in selecting the proper software to meet their needs. In the winter of 2018, the vendors demonstrated specific functions of the software systems, and community members evaluated and rated them. Collections Management Software: Vendor Profiles:

<https://www.canada.ca/en/heritage-information-network/services/collections-management-systems/collections-management-software-vendor-profiles.html>

CollectiveAccess (<https://collectiveaccess.org/>) is a free open-source software for managing and publishing museum and archival collections, which is used by ANSM's Advisory Service member institutions.

Techsoup Canada

Techsoup Canada is a resource available strictly to non-profit organizations and registered charitable organizations. It works with all of the largest software companies to give non-profits easy access to software donations from those companies. The savings realized through this service are phenomenal, with savings as much as 95% possible.

The program assists your organisation by making donated software available for a very low administrative fee, thereby helping you to make the most of your ICT purchases and infrastructure. Receiving technology product donations frees up stretched organizational budgets for both technology priorities and other program areas. Software and other technology products can be more than just mere acquisitions; their website helps you to make the most of your ICT purchases and infrastructure by providing resources and advice on technology planning, ICT tips and tricks, and other technology assistance you may require.

If you have not already signed up with TechSoup Canada, no matter what size museum you are, it is highly recommend that you visit their web site at www.techsoupcanada.ca and begin the registration process.

<https://www.techsoupcanada.ca/en>