Public Library Director's Summit – 10/23/19

Basic IT Skills for a Library Director

1.) Basic troubleshooting for hardware and software

Don't feel bad about whatever technology experience you bring to the table! We're all ultimately in the same boat, no one (not even Bill Gates or your 15-year-old neighbor) knows everything about computers. Much like math, no one should feel that they are "just bad at computers." All we can do is try to learn just a little more each day.

Try not to feel overwhelmed or intimidated! The only way to become more skilled at computers involves two steps – learning how to do things (with websites, classes, books, and whatever), and practicing those things. Here are some potential resources:

- *Goodwill Industries Web Tutorials* – https://edu.gcfglobal.org/en/subjects/tech/
  Goodwill has a great site, which is useful for staff and patrons. It does an especially good job with software (MS Office, browsers) and Windows.
- *Techboomers* – https://techboomers.com/
  Offers tutorials for all kinds of topics, from iPads to Ebay.
- *Learning Express*
  You can take video tutorials (30-60 minutes) on computer and internet basics, running Windows, and using Microsoft Office.
- *Universal Class*
  Universal Class has a range of classes about specific software. Windows 7/10 and the Microsoft Office-related courses look promising (I don't think Computer Basics looks especially useful for staff members).
- *Tech Tools with Tine* - https://www.tsl.texas.gov/ld/workshops/webinars/techtools.html
  Archived webinars on specific topics (YouTube, LinkedIn, security, etc…)
- *MIT Open Courseware* - https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/
  Undergrad and Graduate classes on more advanced topics.
- *Jessamyn West on Twitter* - https://twitter.com/jessamyn
  Along with a ton of other useful info, Jessamyn live tweets her drop-in tech nights. Though often beyond the scope of what many staff can do for a patron, it gives a lot of examples of potential tech challenges that pop up.
- *Panurgy* - http://www.panurgyvt.com/
  In-person paid classes, tend towards intermediate to advanced topics. Located in South Burlington.
- (Patrons) Basic Mouse Skills - http://tech.tln.lib.mi.us/tutor/
  This is a basic tutorial for mouse functionality for novice computer users.
- *Google (or any other search engine)*
  Even for tech pros, the internet is a godsend. No matter how obscure your problem, someone has probably encountered (and written about it) before. Try searching with as specific information as you can; in the case of an error, include the exact phrase in quotes. Often, there's an easy solution!

However, be mindful that you can easily get in over your head. If you make changes, write down exactly what you have done. Keep in mind that suggestions can be wrong or far more advanced than you should be comfortable doing. Changing settings will rarely cause permanent problems, but deleting arbitrary files, disabling hardware, or changing the registry definitely can!

- *Listservs*
Particularly for library-specific software, you should always feel free to ask a pertinent listserv if anyone else has faced the problem. If it's an ILS question, and you're on VOKAL, Catamount, LibraryWorld, or Verso, try their listserv. Otherwise, post a question to lib.staff (and start with "[Tech] in the subject field).

2.) Finding a Source for Computer Support
No matter how much you know, you will eventually need help from someone else, and it's good to create those relationships before something goes wrong. Possible options:

- *Municipal Government* – Depending on how things are structured with the town, they may have someone on staff who could be helpful.
- *Trustee/Volunteer* – You may have a trustee or volunteer who has more tech knowledge, or you might be able to court a patron who would do some volunteer work.
- *Paid Professional* – If you or someone you know has experience with local pros you could start there, or you could ask for recommendations from patrons.

3.) Backups
If you don't back up data, it means you feel it's basically inconsequential if you lose it. Otherwise, you should be backing it up in some way. We may not have to worry about our web-based ILS, but there are still plenty of documents, photos, and files that would be difficult or impossible to replace.

Write down everything important that you use on the computer (especially the ones you use rarely), and make sure your chosen solution covers it. Back up frequently enough that it would minimize problems – is weekly often enough? You should do a dry run through of the restoration process from time-to-time, just to make sure everything is working (but don't overwrite any current files). Here are some strategies:

- Flash Drive/External Drive – Less expensive, more work. Purchase 1-2 drives that are big enough for your storage needs. You can use the backup software that's part of your OS, one that comes with the drive, or that you've downloaded/bought on its own. Ideally, keep one drive off-site (in case of disaster), while the other is on-site (but only plugged in while you are actively backing up).
- Cloud Backup – Less work, more expensive. Buy a subscription and install their software to do regular updates to the cloud.

3b.) Backups for Libraries who put everything in Google Docs/OneDrive/DropBox
An increasing number of libraries and other small organizations keep all of their files in Google Docs or another equivalent service. They are ahead of the game for backups, but I would recommend backing everything up locally (on a computer or flash drive) from time-to-time (maybe monthly); Google is unlikely to close, but it's certainly possible that you would lose access to your account somehow. Also, keep an eye out for any obscure files that you never need to share (so they aren't in the cloud), but that you would be sad about if they were gone.

4.) Alternative Plan
You should have a simple written plan for what to do when primary equipment fails or goes down. For example, if the internet is down, or your ILS isn't available, how do you circulate items? If your circ computer fails, can you switch to another? If the WiFi, public computers, or printers aren't working, how do you let patrons know? And in all cases, what are your next steps to start diagnosing the problem?

5.) Library-Related Software
The best way to get to know software that patrons is to use it yourself, at least semi-regularly. Resources like Listen Up Vermont, Learning Express, Vermont Online Library, RB Digital, HeritageQuest, and Universal Class are much easier to walk people through if you've used them yourself. It's also useful to try logging in and using your ILS from the patron side. If you or the library has a Kindle or iPad, it can also be really helpful to try them out.

Tech Topics

Anti-Virus and Security – How do we protect our public computers?
There are basically three types of relevant security programs:
1. Anti-Virus and Malware Removal – These help protect from viruses, and prevent or help remove malware. There are a number of free options, or cheap ones on Techsoup.
2. Locking Down the Computer – In Windows, limiting the permissions that the patron account has can prevent some issues, though it means you may have to run over and enter the admin password for some tasks. There is specialized kiosk software, but it may be overkill.
3. State-Saving Software (Deep Freeze) – With this type of software, each time you restart the computer is returned to its saved state. Faronics Deep Freeze, Reboot Restore/RollBack RX Pro (available on Techsoup), CleanSlate, Centurion SmartShield. Some people have encountered more problems under Win10 (particularly around updates).
4. Time-Management Software – Not related to security directly, this formalizes patrons signing in, and time limits, and may include other features.

WiFi Statistics
Libraries use all kinds of solutions for counting WiFi, from low to high-tech. Strategies tend to be dependent on your hardware. Some products (Meraki for example) handle it for you, but they tend to require a subscription. If you can send users to a portal page, you can sync it up with Google Analytics to get a count. Or if you have admin access to your WiFi, you can check the logs to see the number of connections (this likely requires checking whenever you want a count, perhaps weekly). If you have a spare device with a WiFi connection, you can run a network scanning program to count connected devices. There are also services like WhoFi that can count this (and give other stats), but the cost might be prohibitive. Samples are an option.

- Library Research Service - https://www.lrs.org/data-tools/public-libraries/strategies-tracking-reporting-wifi-usage/
- Library Journal - https://www.libraryjournal.com/?detailStory=ljx181101Stars2018WiFiTips

Wireless Printing
A number of libraries use wireless printing happily without issue, while others have encountered challenges. Libraries on FiberConnect are not currently able to do this (at least not smoothly). One thing to keep in mind is that many WiFi-enabled printers are for whom use, and tend to cost more in ink. I have an email on the listserv where I sent out collected responses on this topic, and would be happy to send it again.

Buying Stuff – Where do I buy hardware and software
- First off, you should make sure to use TechSoup, which provides discounts to libraries on a wide range of products (especially software). Has anyone subscribed with Techsoup on their computer support subscription ($350/yr). How about the Dell/Lenovo Affiliate membership programs?
- Be aware that you can get some software at dramatically reduced prices because you are a library. You can get Microsoft products for public computers very cheaply through TechScoup, while for staff computers you can buy an academic volume license (for a bit more).
- Windows – Support for Windows 7 will be ending in January 2020. After that point, they will not receive security updates. If you have computers that would be able to run Win10 but haven't been updated, you can get an inexpensive upgrade from TechSoup.

- Buying Computers – There isn't a real trick for buying computers for libraries. You can get refurbished machines from Techsoup (or other vendors), but otherwise you're left getting one from a manufacturer (HP, Dell, Lenovo), or from a store/site (Newegg, Best Buy, Staples). Business computers usually come with a 3-year warranty, which can be helpful. Excepting events like the Win10 switch, computers can keep up for longer than they used to, so it can be worth it to get a nicer machine (and eek a couple extra years of lifespan).
- Desktop/Laptop/All-in-One – These mostly come down to space needs and how you'll use them. Laptops and All-in-Ones are a bit pricier (though the difference is less than it used to be), and probably tend to break more, but can be really useful in certain locations.
- Upgrades – If you have computers running Windows 10 that only have 4 GB of memory (you can see by right clicking the start button and choosing System), it may be worth upgrading to 8 GB. It's easy to add memory to desktops, it can be varying levels of harder for laptops and All-in-Ones.

Other possible discussion points – Lendable laptops or hotspots.