



from the [TechEssence.info](http://TechEssence.info) blog

The essence of information technology for library decision-makers

---

# The Top Ten Things Library Administrators Should Know about Technology

By **Roy** Tennant

It's not insulting to say that those who run libraries tend not to know all that much about technology. A very different set of skills are needed to run an organization, and those skills do not often come packaged along with technical knowledge and experience. But administrators need to know some specific things about technology in order to do their jobs well, so here is my list:

1

***Technology isn't as hard as you think it is.***

At least compared to years ago it isn't. Any reasonably competent library technologist can take a server from scratch to a fully-functioning web site in a day. And with services like Amazon's Elastic Compute Cloud (EC2), you don't even need hardware to get a site up and going in no time. Quite literally, you can go from nothing to a fully-functional LAMP stack (operating system, web server, database, and programming language) as well as any of a number of free content management systems (e.g., Drupal) in less than a day. Sure, there are some things that are still quite time consuming and complicated (e.g., writing software from scratch), but many of the basic services are today quite easy and fast.

2

***Technology gets easier all the time.*** I recall a time not all that long ago when installing software on Unix was a royal pain. You would need to download the release, then configure it, then com-

pile it. And if you hadn't already installed required software dependencies (other applications this application needs), then you'd have to do those first. Now installing applications and any required dependencies can be as simple as a one-line command (e.g., "sudo apt-get install X"). Plus, there are now projects like Bitnami that have pre-packaged complete technology stacks that can take you from scratch to fully-functional in a variety of applications in no time at all.

3

***Technology gets cheaper all the time.***

I rent a server from a service provider, and have for years. Recently when I filled my disk drive I realized that I could pay the same amount per month but upgrade to a server with twice the RAM and more than twice the amount of disk space. Just keep breathing and what you can buy for the same amount of money gets better all the time.

4

***Maximize the effectiveness of your most costly technology investment -- your people.***

As technology itself falls in price per unit, your staff is likely to get more expensive. So pay attention to what is required to make the most effective use of them. This means getting them the training and resources they need to do their job well. I can't believe how many administrators skimp on hardware and make their staff make do with inadequate amounts of RAM and processors when they are the least

expensive part of the equation. Believe me, you do not want your most expensive resource sitting around waiting for your least expensive resource to boot up.

5

**Iterate, don't perfect.** Librarians seem to love perfection. We don't want to put any technology out for the public to use until we think it is perfect. Well, we need to get over ourselves. Savvy tech companies know the path to success is to release early and iterate often. One of the major benefits of this is that your users can provide early feedback on what they like and don't like, thereby providing essential input into further development. Do not be afraid of a "beta" or "prototype" label -- people are now accustomed to such, and it can provide the necessary "cover" to being less than perfect.

6

**Be prepared to fail.** The twin to our tendency toward perfection is our fear of failure. But just like the pursuit of perfection is the enemy of progress, so is our fear of failure. Innovative organizations know that they will throw many things against the wall and only some will stick. But you don't usually know ahead of time which ones they will be, so you need to experiment, try things out, and see what works. This means you must be prepared for some experiments to fail. Just learn what you can and move on.

7

**Be prepared to succeed.** Hardly any technology success can be truly successful without a set of associated non-technology efforts to support it. Full administrative support that is communicated throughout the organization is essential. Publicity is often key, to alert your user community to a new web site or tool. Don't make the mistake of implementing a technology well but fail to get it out the door properly.

8

**Never underestimate the power of a prototype.** Prototypes are simple implementations of a new site or service that can help demonstrate what a fully-developed site or service would be like. Since many of us find it difficult to imagine a new site or service from a text description, prototypes can spark understanding in a way that few things can. Also, they tend to be much easier and faster to put together and can provide enough learning opportunities so that if you decide to support full development, the result will be more effective than it would have been otherwise.

9

**A major part of good technology implementation is good project management.** Many technology projects are not as simple as just installing an application -- often the process is a long and complicated one that requires developing an implementation plan, a schedule, and coordinating with other affected individuals and departments. Therefore, many technology projects require good project management to be successful. Keep in mind that your best technologist may not be your best project manager -- this is why using teams is often the best implementation strategy for anything beyond minor projects.

10

**The single biggest threat to any technology project is political in nature.** In the end, technology is the easy part. What's difficult is the people part. That's why your role, as library administrator, is the single most important role in any technology implementation. Are you willing to throw your political support behind it? Are you willing to invest the resources required to make it a success? Will you marshal the entire organization to support, promote, and use this new site or service? If not, simply don't bother. If yes, then welcome to what will likely be a successful project.

This is my list, and I welcome your comments on what would be on your list, or if you prefer, arguments about where I went wrong. Effective use of technology in libraries is too important to not get right.

## Roy Tennant

has, over the years, been a major contributor to Ontario Library Association programs and to special projects such as the OLA's Ontario Digital Library, now known as Knowledge Ontario. In his day job, he is a Senior Program Officer at RLG Programs, part of the Programs and Research division of OCLC. He is best known for his leadership of the California Digital Library, and was instrumental in the development and deployment of the eScholarship Repository and the eScholarship Editions publishing services. He created and managed the Berkeley Digital Library SunSITE for the UC Berkeley Library, a digital library and support service for digital library developers. He is an experienced commercial whitewater river guide, and has led numerous trips down western rivers, including the Colorado River through the Grand Canyon.