



## Open-Source Considerations: A Reality Check for K-12 Administrators

With the recent economic crisis, K-12 education is feeling pressure to reduce costs in all areas including technology. There is a lot of information being traded about regarding cost cutting, the use of Open-Source solutions, and what schools should be doing. While it's important to consider all of this information, it is also important to make sure this information is viewed from an informed business perspective.

To accomplish this, there are some basic assumptions that should be established to navigate the thought process surrounding the deployment of enterprise level e-Learning technologies.

### Assumptions

1. If an institution is committed to using an LMS and integrating it across all elements of the institution, then the LMS should be considered an integral part of the institution's strategic plan and thus a "mission-critical" application. Mission-critical applications that have the potential to impact the entire organization should be scrutinized carefully for value and applicability.
2. Regardless of funding sources or definitions, Education is a business and needs to operate like one. In many communities, the school district is the largest employer with budgets that exceed those of the small local businesses. Technology investments must be viewed from a business perspective.
3. In the absence of a CIO, someone must think like one. Planning for and managing a mission-critical application deployment that needs to be up 99.99% of the time, needs support and maintenance is serious business. Does the institution have the talent and resources to deliver? Will it ever? While the LMS may be "mission-critical" is staffing such talent part of district's mission?

### The lure of open-source LMS Solutions.

While there are many powerful and valuable open-source applications such as Open-Office, Audacity, Gimp, etc., an enterprise-level open-source LMS is different. An Open-Source LMS is a techno-cultural phenomenon. An institution needs the technology staff and the culture to support it.

Loosely defined Open-Source means that you have full access to that source code of the product and you can modify that source code to your own desire. It also means you have the responsibility to maintain and support it. The technical talent to support development and maintenance of an Open-Source LMS is not found at every institution.

### Understanding Free...Free is good..... Right?

It is important to understand that no technology is truly free. Everything has an associated cost or risk factor. Open-source applications have a very attractive **price** (free) but the **cost** is not clearly defined.



Institutions must research both **direct** and **indirect cost** and value factors, not just price. Furthermore, these factors need to be considered over an extended period of time. Those tasked with researching open-source solutions should understand the value trade-offs.

- Consumer Behavior 101 example: A consumer may drive across town to save a few dollars on a particular product. Focused on price and perceived savings, the consumer does not consider the cost associated with the trip. Fuel, parking fees, the time to travel across town and lost opportunity to accomplish something else may negate any true savings.

### **4 really Important Ideas Related Enterprise-Level Technologies**

**Stability**- The system should be well tested and inherently stable with documented versioning, regular supported updates.

**Scalability**-The system should grow as usage patterns change and should deliver the same level of performance regardless of the number of users.

**Sustainability**- The system should allow for growth and still be technically and financially practical over time.

**Extensibility**- The system should easily interface with other major systems and 3rd-party applications through standard API's without the need for custom programming.

### **Further Points of Consideration**

Concepts every institution should consider before selecting an open-source LMS.

- **Consider Applicability and potential use:**
  - Is an e-learning system considered to be a mission-critical application for your institution?
    - If so, think like a CIO, manage and support the application as if your business depended on it (because it does).
  - Will it be used across the institution or just in selected areas?
    - Leveraging the power of an LMS across the entire institution means greater value for all.
  - Will the system be available to everyone?
    - Full integration into teaching and learning activities will ensure long term success.
- **Consider Functionality:**
  - Current usage of an LMS may not be indicative of future need.
    - Plan for the future, not the present. The world is changing and so will your needs. You may outgrow your system sooner than you think. Your LMS choice should support where you are going not just where you are now.
  - Does the system contain functionality that can encompass or replace another application such as curriculum mapping, benchmark assessment or rubric building systems?



## Alternate insights on education and training

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- Potential cost savings can be found by deploying the full power of the LMS to solve traditional problems and potentially.
- What other sub-systems will you have to license and support to equal the functionality provided in a commercial LMS?
- **Consider the cost of Professional Development and Re-training of teachers/users.**
  - How much has already been invested in training with the current system?
  - How much do you plan to spend to re-train the teachers on the new system?
    - Teachers are smart. But they are also very busy and do not have time to properly learn and manage a new system. If they're not using the current system, they won't use the new system unless something changes in the institution.
- **Consider Technical and Support Issues**
  - What is the cost of having the correct IT people to staff and manage an open source solution?
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  - What is the total cost of conversion: Moving from one LMS to another has its own unique set of challenges. These can require major project management talent.
  - Do you have the programming talent to deploy manage and repair an enterprise-level open-source system?
  - Will you need to hire someone?
    - Be honest, entrusting the system to the someone that is not fully trained and certified in the appropriate areas is like asking someone with Microsoft Flight Simulator experience to land an airliner filled with passengers. It can be done, but the risk is very high.
  - If there are technical issues, to whom do you turn and how quickly will you get a resolution/response?
    - With a commercial provider you turn to the help desk and response time is document in your service Level Agreement (SLA's)
    - With open-source solutions, you turn to a community and hope that somebody can answer your question.
  - Is there Technical and Training/Help documentation available for both system administrators and users?
    - Does it support the version of the application that you use?
    - There may not be consistent or current documentation for your Open source application.
- **Consider Content Portability and Instructional Design**
  - Can you import/export content effectively?



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- What is the cost in human capital? Time? Resources?
- Will the content need to be redesigned?
- Consider the cost of course/curriculum re-design
- What is the cost in time and resources to refit the content and functionality to the new system?
  - Many systems can import content from other systems which is certainly an important consideration, but it is also important to redesigning the content to maximize the functions and capabilities of the new system.

### **Closing Thought**

There are many ways to rationalize conversion to an Open-Source LMS, however, most k-12 School districts are better served by partnering with a commercial LMS provider. Remember, it is not about price, it is about value to the mission of the district and its staff and students.

This excerpt from an LMS List-Serve says it all:

*.....“One of my favorite expression applies here or with ANY open source project; It's free like a puppy. You have slightly more control in that you have the source code, but, YOU have the source code and are the ultimate responsible entity for your code base. What if you use a module from another institution, it breaks and they aren't interested in fixing it? Now, you're the one that has to devote resources to either move to another module or fix their code.*

*Another thing to think about is just because you and your peers at other institutions are both running Moodle doesn't mean you're running the same version of Moodle even if the version numbers are the same. Heck, version X that your friend is running may not look anything like the version X you're running at yours.”*

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