

Monday, July 31, 2006

Open Source for Education

Open Source Projects in our Schools: Let's Dialogue about Real World Issues

I believe that real-world issues need to be opened for discussion, and that an open dialogue needs to begin. Open Source Advocates need to open a communications channel to bring teachers into this dialogue, and they must pay attention to the needs of teachers. If Open Source Advocates fail to complete this single step, they become no better than the clueless administrators that drive unworkable, useless and detrimental curriculum initiatives.

Most of the time, Open Source Advocates put technology first, and teachers are not considered as a primary part of an Open Source implementation plan.

I suggest that Open Source proponents open a dialogue with teachers, discover curriculum needs, and assess the "what is" condition of education before presenting solutions. Any sign off on Open Source solutions needs to come from teachers, as well as other stakeholders.

Teachers prescribing technology and Open Source Advocates prescribing "solutions to educational intelligence issues" are both dead ends.

The teachers job is to set requirements, functional targets, and student outcomes. None of these should be (or can be) set by Open Source Advocates, district administrators, or school district technology departments.

Once teachers set requirements, it is up to technology staff and other support staff to identify a package of equipment, software, and support services that can deliver on these requirements. (This package is the project or initiative.) The technology department should develop a service plan, called a Service Level Agreement (SLA). The SLA spells out uptime, response time, and other service factors that will be guaranteed. Technology staff also should also attach a price tag to this entire package...a realistic price tag with enough funding for contingencies.

The teachers job is not to prescribe technology or set budgets. Delivering instruction is what teachers are experts at. Teachers do not know the ramifications of the purchase of any technology system, computer purchase and long-term maintenance requirements, of network feasibility.

Once teachers set requirements, and after technology develops a solution package and budget; it is up to district administrators to put together a funding strategy. District administrators have a limited knowledge of instruction, and a less than competent knowledge of technology; so their focus must be restricted to identifying priorities and putting together a funding package.

A funding package consists of all elements that are required to ensure that the project will be successful.

Teachers will identify every (and all) instructional cost associated with the project proposal, including:

Training and professional development...

- Costs for Release Time
- Costs for After School Stipends
- Costs for Trainers
- Costs for Training Materials
- Costs for Training Equipment
- Costs for Consultants

Technology then calculates the total cost to provide a solution for each requirement.

- All hardware, software, network and support costs will be evaluated
- All training costs will be calculated

Administrators will identify all direct and indirect management costs associated with this project

Cost Areas

The biggest factor responsible for whether a school district obtaining its money's worth [Return on Investment ROI] in any Open Source project implementation is the professional development and the backend systems programming that need to be put in place. Almost every district fails on this crucial measure.

The reason for this waste and inadequate planning is the making decisions and project choices without finding out what teachers and students need. This mistake is made both by district administrators and by district technologists.

The second factor contributing to project waste is the under funding of almost all educational programs.

The areas most likely to be shortchanged, under funded, "skimped on" are the items that teachers need most:

Release time

Paid training, if after the training is held after hours

In class modeling (of technology integration methods) by experts who have actually done this integration successfully

Personal self-improvement plans that targeted a three-year period for gaining competence

Access to reliable technical support instead of a 150 to 1 (or more) computers per technicians staffing levels

If school district administrators do not want to pay for the introduction of technology in a professional way, they should say so.

Valuing Teachers

Teacher time is under valued, disrespected, and considered "free." and teacher status is less than professional.

It is ironic that because teachers are considered "professional" that they are considered "exempt" from overtime (and fair treatment). This means that time that custodians, cafeteria workers and bus drivers is respected more (and paid attention to more) than teachers' time.

The True Meaning of "Exempt"

What "Exempt" means in actual practice is...

Hundreds of extra work that teachers do will be uncompensated

Teachers will be forced to work on "extra" projects to make up for administrator mismanagement and budget shortfalls

Experimental, superfluous, political and questionable initiatives will be forced on teachers

To compensate for budget planning shortfalls, teachers will be forced to do more; i.e., teachers are an almost unlimited source of free labor

Because these forced and unreasonable projects are not funded (they operate "below the radar screen". Unless the project accidentally pans out, no one will ever check to discover just how much teacher time and teacher energy were wasted on the go-nowhere, achieve-nothing, "push stress to the max" initiative

The uncompensated time that teachers are forced to "contribute" will not be appreciated

Teachers will be blamed for the less than satisfactory results of the "initiative"

Adopting an Open Source Strategy

An Open Source strategy has a chance for adoption in our schools when Open Source advocates start talking to teachers and describing benefits for adoption to teachers using educational and student outcome terms.

Talking to teachers about how Open Source software is free, or how Open Source software is "better" than Microsoft software is useless.

Microsoft software is good enough for what most teachers want to do, teachers buy Microsoft office software for about 1/3 that retail price, and the Microsoft operating system software comes pre-installed on their home computer.

Teachers don't know (and probably don't care) that Microsoft sells office productivity software to school districts at almost 1/10 of the retail price...almost giving the software away.

And, teachers don't care if money is saved on software because there is always plenty of money to fund useless projects that some administrator pushes without asking teachers if the project is of any value. (When royalty feasts, it is difficult to convince the peasants that there is a famine.)

Dialogue Across the Board

I am not advocating that we focus a dialogue on a single group (teachers), to the exclusion of other stakeholders.

What I am proposing is that we pay attention to teachers instead of ignoring them, instead of treating them as though they were an unlimited source of free work and instead of treating them as though they were of marginal importance in the planning, delivery and management of instruction to our students.

The success of the Open Source Movement needs to be measured by learning outcomes for our students, rather than how much of what kind of computers and operating systems are installed; or by how much money was not spent. This success must be systemic and systematic if it is to be considered accomplished.

Systemic and systematic means that the levels of teacher performance and the level of improvement of instructional delivery and instructional management skills are measured.

Success of the Open Source project depends upon the benefits that the technology delivers to students and teacher, benefits that cannot be delivered better in any other way.

If any other conditions are set as outcome targets, we will continue to see what we have now, an oasis of technology application here or there, scattered in the desert of computers with no real curricular use.

It is unrealistic to think that any one group can assume sole leadership of the Open Source movement, but, the Open Source movement needs a strategic focus. Because teachers are the key to education, I believe that teachers should be the Open Source movement's strategic focus.

Instead of thinking, "Teachers have not been doing their part to integrate technology, let's put more pressure on them," a better and more accurate assumption is needed. That assumption is that "Technology will be integrated when it is easy enough, and reliable enough, and when it solves enough instructional needs." Until technology benefits become invisible; and instructional needs become obvious, apparent and visible through the use of technology...benefits for which technology delivers the easiest, fastest and most desirable results...the Open Source advocates will be talking another language other than "teacher language."

Real-World Questions

Here are some questions for the real world that Open Source advocates need to ask:

What will it take to ensure that every student is helped along in the curriculum through the use of technology tools?
What support do we need to provide teachers for integrating this technology?
How long will it take teachers to develop new skills, how long to implement new ways of teaching, how long to change?
How do we restructure school governance and operation to ensure that these changes are made, system-wide?
How much money will this take?
When do we commit whatever it takes to make this happen?
What other "priorities" will we have to defer to make this happen?
What backend programming do we have to complete before our solutions are easy enough for teachers to adopt?

Marketing Educational Benefits

It is benefits that build adoption, not technical superiority.

Open Source solutions need to be marketed, and that marketing needs to focus on benefits to students and teachers, rather than a focus upon the technology.

"Ease of use" was not enough to keep school districts loyal to Apple(TM), and "Free" is not enough to bring school districts into the fold as serious adopters of Open Source technology.

What Open Source developers need to be working on are "Killer Applications"...applications that will make teachers' work easier and more effective?

I always point to the copy machine as the competition that Open Source, computers and software must beat in the classroom.

Open Source software and materials solutions must become...

"Push button" easy
Indispensable

The test is whether Open Source software and materials save teachers time, reduce teachers' work load, and perform job-related tasks better than any other application.

When Open Source solutions can answer, "Yes, we deliver time-savings, workload reducing, better than anything else" solutions, the Open Source movement will be over.

Open Source will then be "Mainstream."

Real-World Action Plans

Programs, initiatives, projects and prescriptions cannot be copied from one site to another, or even from one classroom to another.

Real-world action plans have to be unique and tailor-made for each location, no exceptions.

The same "prescription" will not work for every campus in a district, or, for any two districts, and maybe not for any two campuses within the same district.

This is one of the mistakes that politicians and administrators make when they want education to conform to Industrial Age, factory output methods. The outcomes from this approach will always tend toward the mean, i.e., move closer and closer toward mediocrity.

What this means is that Open Source solutions must be easy to customize.

Open Source solutions must be dynamic, not static. Applications must be easy to be made to do what teachers want.

The applications should not make teachers do what the application wants.

Take Standards with a "Grain of Salt"

A district must strike a balance between standards and individual creativity and dynamic, self-directed improvement.

Too many, tight, rigid standards; and creativity and spontaneity are sapped, and educational outcomes are diminished.

There is lots of stress in the classroom that coalesces around conformity.

Too few standards, and curriculum maps become puzzles, educational outcomes diminish and stress abounds.

Standards without funding sends educational outcomes into a downward spiral.

Standards without professional development and sufficient "time to learn and practice" sends stress (for both teachers and students) "through the roof."

And, that professional development must be done right.

Instead of learning word processing, spreadsheet use, and the other flavor-of-the-day application initiative; the training

needed to focus upon what teachers do in their classrooms, minute-by-minute to engage, motivate, empower and energize students.

The educational outcomes (results) that most schools and classrooms have achieved from the introduction of computers has been dismal.

I think that we would have seen the same appalling results if Open Source systems had been placed in schools, if Open Source operating systems had been placed in schools in the same way that the Microsoft®; and Apple®; systems were.

Learning from our Mistakes

This Opinion-Editorial suggests the changes that Open Source advocates and school districts need to make to bring the promise of Open Source solutions to fruition.

Do you think that Open Source advocates, school administrators, politicians and school district technologists have learned from past mistakes and are charging a corrected course toward well-managed improvements.

What is the chance of success for the Open Source movement?

Answer: There is a high chance of success if teachers are involved in the planning, funding and implementation dialogue.

The chances of mediocre results or downright failure, similar to our track record, remain high if teachers remain shut out of the planning, funding and implementation dialogue.

The Key to Open Source Success

Teachers are the key, but someone has to show politicians, school administrators, school technologists and politicians that there is a door and a lock.

Teachers are the key, but someone has to convince politicians, school administrators and school technologists to stop turning locks and doors into walls and barricades to learning.

Our prescription for Open Source success: Start talking to teachers, start listening, start fulfilling teachers' needs.

In the immortal words of teachers everywhere, "OK Class, please pay attention."

Posted by Classroom Toolkit Newsletter in Open Source at 03:00

Thorough discussion of critical issues associated with implementing Open Source technology. While I'm willing to grant that teachers need to be included, it's not clear exactly how teachers are going to impact on the implementation issues. I still need definitions of "open source" and a framework of inquiry to teachers that will glean their "needs" on the implementation issues. I believe that the article was written to direct attention to these needs. However, it "chicken walks" a bit away from this central notion and the concluding paragraphs don't rescue the diversion. It would help to get a feel for what teachers would add to the implementation process that's currently missing. What is the vision for open source technology and learning (note that I did NOT say teaching)? Although I believe the article was intended to coopt teachers into central decision making role regarding open source, I don't think it achieved this goal. I'll continue to read the open source articles because it seems to be a technology the writer favors but not at the expense of teacher input. So, keep writin' and I'll keep readin'.

Anonymous on Aug 2 2006, 15:48