



Solomon Senrick, a middle school social studies teacher, has also served as an ASB tech integration presenter.

Tech Planning and Fostering Change

Typically, a tech department or a tech director writes a school's technology plan. Sometimes school boards never formally approve the plans, and they become neither an official nor an unofficial vision of a school's technology program. The community support and ownership is lacking, the plans are never truly adopted, and implementation is, at best, a slow and half-hearted effort.

The TLT and its members have taken on a formal leadership role as the school's technology planners. They develop ASB's integration plans (www.asbindia.info/tp) and influence the culture by articulating a vision that the school's stakeholders can believe and act on. The plans the TLT writes help create and sustain a culture of tech integration and an environment that encourages risk-taking



TLT meetings provide an opportunity for students, faculty, and parents to engage in collaborative group discussions about technology.

and experimentation. They actively participate in the plan's execution and oversee the continuous and ongoing evaluation/assessment of the implementation.

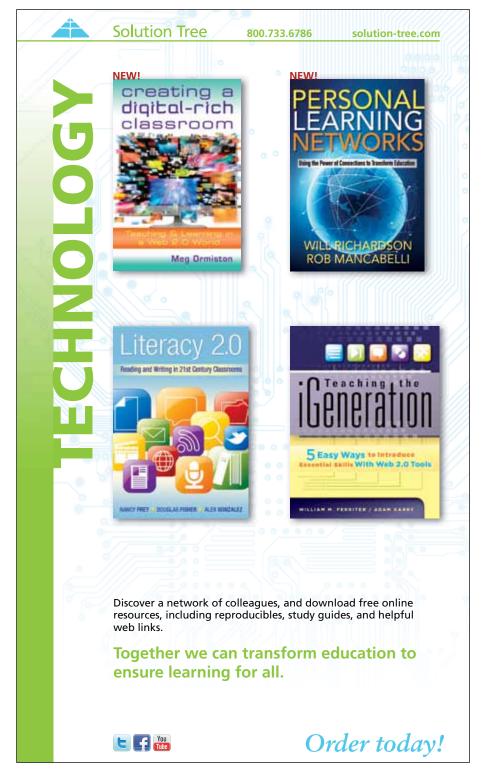
Through a process of empowerment, the TLT members serve as mentors and coaches for others and create an atmosphere that promotes growth. An example is how the TLT guides technology professional development for a division. The TLT has identified one of ISTE's teacher technology standards as a staff development goal for each division. The middle school tech PD goal is Standard 5: Engage in Professional Growth and Leadership. The TLT members for this division are at the center of an effort to facilitate learning and leadership among their

colleagues. They identified several measures to achieve the goal. One of these was to set up a weekly Tech Matters Café, a meeting place for teachers to share tools they are either exploring or using in their classroom, and instructional and assessment strategies that support the use of the tool. This has become a popular PD venue that supports the culture of innovation and exploration.

The collaborative nature of the TLT's interactions has developed new learning partnerships between students and teachers, between students and parents, and between students and administrators. Role reversal between the adults and students is leading to a redefinition of teaching and learning, the transformation of the learning culture of the classroom, and the creation of a culture of innovation. One example is the use of DyKnow in combination with Skype for delivering synchronous math instruction at a distance with the teacher in the United States and the students in Mumbai. Teachers used the tool in ways that even DyKnow hadn't envisioned! This is the outcome of ongoing explorations with students, who are actively participating in these new partnerships, acquiring skills to learn and work with adults, and developing a respect for learning. This new relationship between adults and students translates into new roles for students as technology leaders. The student members of the TLT are role models for their peers. Using the school's mission of enhancing the lives of others as their guide, some students are engaged in leading the school's One Laptop Per Child (OLPC) project.

TLT parents are another important stakeholder group engaged in defining ways to raise their digital children. Parents are involved in all aspects of the team's work, from actively participating in drafting the Responsible Use Policies to writing the tech integration plan to learning more about ISTE's

tech standards and the classroom processes that support them. They have launched the Parent Tech Tutors program to offer workshops to small groups of other parents on topics such as blogging, using Facebook, and working with Microsoft Word, PowerPoint, Google Docs, and Twitter. They help develop parents' technology literacy skills.



Test-Bed Culture

A couple of years ago,

two members of the TLT recommended creating a segment called Tools and Toys during the TLT meeting time. They believed that if stakeholders were encouraged to share with others what they are trying in the classroom, the momentum for change would grow. During this 30-minute time, TLT members share their explorations with tech tools and the connections between the tools and learning and teaching. At one meeting, a high school math teacher and student shared their explorations with using Google Wave as a communication and teaching tool for an international baccalaureate math class. We have noticed that as technology tools rapidly evolve and teachers continue to experiment with them and develop new and creative ways of using them to enhance student learning, the momentum for the integration of technology increases, and teachers become leaders for the adoption of an innovation. We've witnessed this with the exploration of electronic portfolios by a grade-level team. Their explorations and reflections on the use of the tool are slowly building a momentum for change in how students use eportfolios. The success of the Tools and Toys segment has highlighted the idea that tech integration requires a test-bed culture to support continuous

Sustaining Change

innovation.

ASB is developing a flexible, risk-taking environment that encourages experimentation. Continuing stakeholder ownership of this process is important to sustain and embed the changes that have taken

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ASB integrates technology into every subject. For example, high school students use laptops loaded with music software to practice scales and other elements of music.



ASB's robotics class gives students a place to use technology and practice solving problems together after school.

We believe that no one individual has the full range of knowledge and experience necessary to create a learning environment that meets the needs of a diverse community.



innovation is

"Anything that deviates from traditional industrial school models. It's enlightened improvement combining human caring and understanding with situational experiences that are intrinsically rewarding for a student. Innovation is part synthesis, part invention, and, when done right, it changes things forever."

— Terry Smith University of St. Francis Illinois

place. As teachers, students, and parents acquire new skills and witness and participate in learning environments that improve student learning, their ownership of tech integration increases.

During the last few years, we have taken many steps to sustain the culture and embed tech use so that it becomes internalized and habitual. This required deeper changes in the structures and culture of the school, but we believe that



Collaboration and tech integration is now part of the daily routine at ASB. These ASB students use a tablet computer as a tool for collaboration to solve a math problem.



Two elementary students work together to complete a unit of study that is part of the school's International Baccalaureate program.

this will contribute to lasting change. To ensure this change, the TLT will continue to evolve. It will identify and develop new strategies and action plans and work with the administration to set timelines for implementation.

In addition, the TLT now functions as a monitoring group, because evaluation is a key component of any change. It is a powerful strategy for revision and provides a reality check

and a chance for change if needed. For example, the TLT designed a Digital Citizenship Program (http://digitalcitizenship.asb-wiki.wikispaces. net) for the school. This included defining the philosophy, identifying the elements of digital citizenship, defining each element and its importance, identifying issues associated with each element, and identifying appropriate and inappropriate instances. The

tech coordinators are responsible for implementing the program in collaboration with the counseling department. The coordinators keep the wiki updated with lessons they are implementing across all grade levels. Each year the coordinators share their progress with the TLT and seek feedback and input for any modifications as the program evolves and grows. As the TLT is made up of a diverse group of students, faculty, and parents, this feedback is essential to ensure that the program's implementation is having a positive effect on everyone. Ongoing evaluation of tech integration practices helps create new and improved staff development opportunities.

There is a myth about leadership that a visionary leader gives directions to followers who execute the plan. We believe that no one individual has the full range of knowledge and experience necessary to create a learning environment that meets the needs of

a diverse community. It is important that leaders encourage use of their vision as a foundation for better insights.

Harnessing the power of technology with students who are growing up digital is critical. Schools can achieve genuine and lasting tech integration when each stakeholder accepts responsibility for engaging the future today.



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innovation is

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> -Nathan Robinson Hanalani Schools, Hawaii

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