

Technology for Personalizing Learning
2012-2015 Technology Plan
Washington West Supervisory Union

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Washington West Supervisory Union (WWSU)
Technology Plan 2012-2015

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Executive Summary:

Three years ago in 2009, there was no Supervisory Union (SU)-wide approach to technology. Instead, technology implementation was handled largely as separate schools, with limited inter-school collaboration. The 2009-2012 Technology plans for individual schools show that schools had different goals and it indicates the degree that Information Technology (IT) was handled by individual schools. Some schools were focusing on access, other schools were focusing on professional development (PD) and others on World Wide Web (WWW) tools. For example, many schools installed SMART™ boards or equivalent in classrooms, some implemented Powerschool for electronic report card access and parent reporting, and many expanded their Websites, offering more interactive or search-able information.

Today, we are approaching technology together as a Supervisory Union for first time as a whole, with the possibility for cost-sharing, technical resource and information sharing among schools, and the opportunity to provide equivalent technology opportunities between the schools. Also, this year marks the first year of the existence of a SU-wide IT staff person, who will help to provide leadership and create movement and direction toward common IT objectives. The SU is at an evolutionary stage from working separately, and we are continuing to work on existing goals while developing curricula and implementing new technologies. We are committed to maintaining and developing the skilled and effective use of technology in the classroom and administrative functions to further our educational and management goals.

In summary, in the goal of “Student-Centered Learning”, we are committing to: clear and consistent curriculum framework for technology in a student-centered curriculum; and, embedded/experiential technical training for teachers. In “Leadership in student-centered environment”, we are committing to requiring staff to have a technology-related annual goal; to maintaining an SU Technology Committee which will look at infrastructure efficiencies and common tools; to the creation of long-range budget plans to support IT with a focus on

budgetary equity between schools in technology investment; and to the integration of technology goals with other strategic plans in development. In “Flexible Learning Environments”, Goal 3, we are committing to: increase student learning opportunities through flexible learning pathways; and, increasing anytime/anywhere access to information by providing portable devices to all professional staff; and to the investigation and support of 1:1 computer or device programs in participating schools. In “Engaged Community Partners we are committing to: continued development of WWW tools for community outreach; continue to develop the use of Alert Now and other tools to automatically communicate with parents and the community; and to further grow opportunities for learning partnerships with community members and organizations through the use of technology.

Goals and Assessment Strategies:

The following four goals outline the primary areas of focus in technology in the State of Vermont. WWSU has responded by further defining action steps and assessment strategies for each of the VT goals.

Goal 1: Student-Centered Learning

Local Goal: WWSU teachers will use information and communication technologies to engage students in tasks that are personalized and provide meaningful, relevant, and authentic ways to engage student interest and foster independent and collaborative learning.

VT Department of Education suggests:

- Provide a robust, cross-curricular, student-centered, personalized learning environment that uses modern technology tools to engage individual learning styles, extend learning opportunities, support individual learning plans, and provide access to resources not typically found in the school environment.
- Set goals around proficiency-based learning combined with Common Core standards and include these updated standards in planning activities.
- Develop student-centered learning environments that take advantage of technology-rich applications and develop environments where students develop solutions to problems.
- Work toward student-centered learning practices that take advantage of effective technology use and the ways in which technology can enrich and expand the learning environment.
- Provide professional development opportunities, with the expectation that teachers will learn and use these tools.
- Help teachers build Personal Learning Networks that might include social media tools and collaborations that stretch far beyond the classroom walls.
- Create assessments for all learning content areas that integrate technology skills as a part of the assessed student learning.
- Explore STEM career paths for all students. This may include connecting deeper with local Career and Technical Education centers so that all students might develop the breadth of skills necessary in tomorrow’s work force.
- Integrate the use of assistive technologies and accessible instructional materials into the overall technology planning for the school.

Action Step A

Description: Develop a consistent WWSU curriculum framework for technology in a student-centered curriculum within and across the content areas..

Staffing:

WWSU Curriculum Director
Building Administrators
SU Curriculum Committees
SU Technology Committee

Infrastructure:

- No changes needed

Budget:

Local budget support for stipends/release time for teachers to participate in SU IT curriculum work.

PD: Continued PD on project-based learning, 21st Century Skills, and Common Core Standards.

Year 1:

- Y1: Develop K-12 Technology Curricular Framework in committee.
- Explore model curricular frameworks (especially Transformation & Technology Classroom Scenarios, ISTE, P21, Common Core, etc.)

Year 2:

- Y2: Utilize existing or develop “model” project-based units for each grade cluster and document instructional strategies for teaching technology skills within content curriculum. Share these models with teachers through PD.

Year 3:

- Y3: The creation of social media policies for students and for teachers. Learn about the educational opportunities for using social networking, media, and student-owned devices.

Data Collection:

- Full WWSU Curriculum document/product
- Curricular Map with Model Units
- Student work examples
- SU survey of current use re: technology in content areas, begin committee work
- Y3: evaluate project-based units for their effectiveness in accomplishing technology skill objectives.

Action Step B

Description: Promote embedded/experiential professional development on using technology to support a more student-centered learning environment.

Staffing:

- Building Administrators
- SU Curriculum Director
- Integration staff/curriculum coaches in each building

Infrastructure: N/A

Budget:

- Sufficient funds for adequate staffing in each building
- Early release days

PD:

- Provide SU-level opportunities for staff to engage in PD with considering differentiation based on assessed skills and comfort level.
- Partner with organizations and institutions to provide high quality PD

Year 1:

- Maximize use of web-based tools (Docs, Sites, blogs, wikis, etc.) by staff and students
- Identify technologies which already exist in the school but are under-utilized such as robotics, Learning Network of Vermont (LNV), computer interface devices like scientific data collection
- Develop presentations and discussions regarding proficiency/competency based assessment strategies through cloud-based Learning Management Systems (LMS).

Year 2:

- Identify proprietary tools that can be replaced with Open Source tools; explore the use of “universal” tools and software to establish equitable access and reduce technology-related expenses

Data Collection:

Quantitative analysis of total number of IT- related sessions provided on PD days. Annual faculty survey regarding IT PD needs and degree of fulfillment of IT PD goals.

Action Step C

Description: Maintain and grow student skills and knowledge in the ethical and responsible uses of technology.

Staffing:

- Building Administrators
- Teachers
- Tech Integration Staff

Infrastructure: N/A

Budget: N/A

PD: For each new technology implemented by schools, PD content will include considerations of student safety issues and methods for responsible student use of the given technology.

Year 1-3:

Student practices and engages in safe, responsible and ethical use of technology. The student:

- 1) applies a fundamental understanding of the ethical/legal issues surrounding the access and use of information and media.
- 2) advocates and practices digital citizenship (digital etiquette, digital communication, digital literacy, digital access, digital commerce, digital law, digital rights and responsibilities, digital health and wellness and digital security).

Data Collection:

Review and compile PD content materials for ethics and responsible use considerations with the goal of inclusion of these issues in all materials.

Indicators of Success for this Goal: The most significant indicator is the existence of a consistent

and working technology curriculum framework at the end of the three year period. Also, documentation of student work in portfolio or other frameworks will display student technology skill development. Also, data on professional development activity in IT will be collected to determine whether skill development goals as well as the coverage of topics in the responsible and ethical use of technology have been met.

Goal 2: Leadership in Student-Centered Environment

Local Goal: WWSU administrators foster the development of teacher and student leaders for student-centered learning through technology.

VT Department of Education suggests:

- Build awareness for learners of opportunities that take advantage of the use of technology beyond school walls, and seek ways to integrate these tools into everyday instruction and student learning plans, thereby creating personalized learning structures for all students.
- Develop expectations for district professional development activities that require true integration of technology and a focus on student-centered learning in classrooms.
- Model the use of technology in everyday practice. This may include the effective use of online communication tools for communicating with parents and the community.
- Strive to devise innovative, meaningful ways to provide technology for teachers as a necessary tool for their daily work. This may include developing teacher contracts and compensation packages that provide laptop or mobile computing devices specifically for teachers, thereby raising an expectation for the use of said device.
- Strive to provide adequate access 24/7/365 for students to technology tools for learning in student-centered environments.
- Coordinate with the State Readiness Coordinator to be sure schools in the SU are prepared for online assessments in 2014.

Action Step A

Description: Require staff to have an annual technology related instructional goal as outlined in Tech Plan Goal 1A to increase technology use in the classroom.

Staffing:

Building Administrators

Infrastructure: N/A

Budget: N/A

PD: As needed.

Year 1-3:

- Activity in all years

Data Collection:

- Representative sample of Annual End of Year Reflection forms which represent the range of technology integration from each school for the committee to review for qualitative analysis and next steps planning

Action Step B

Description: Maintain SU IT Committee to further develop options for efficiencies in technical infrastructure and to look at system-wide tools.

Staffing:

- Include Administrative Reps on the committee
- IT representatives from 7 schools

Infrastructure:

- Robust bandwidth and wireless networks
- Promote “cloud tools” to move away from local storage and device dependency
- Apply and identify existing or new additional technologies including robotics, scientific probes, camera/software, etc.

Budget: 1 hour per month staff time.

PD: N/A

Year 1-3: Activity in all years

Data Collection: Meeting minutes

Action Step C

Description: Create long-range budget plans for the allocation of resources to achieve technology goals (e.g. Staffing, 1:1 programming, licensing renewals, replacement cycles) to assure sustained progress in the implementation & integration of IT with a focus on achieving IT budget equity between schools.

Staffing:

- Include systems support AND integration support

Infrastructure:

- Identify infrastructure needs following systems assessment.

Budget:

Sufficient funds for SU-level System Admin, Tech Support Team AND shared Integration Specialists, infrastructure, and software.

PD: Local and collaborative among WWSU schools

Year 1: Complete systems assessment (audit) and develop recommendations for schools and SU

Year 2: Develop long-range budget plan(s) to meet recommendations outlined above

Year 3: Monitor and adjust

Data Collection:

- Audit and budget plans

Action Step D

Description: Coordinate the action steps within this plan with the WWSU Strategic Plan and other strategic plans across the district.

Staffing: Use common committee members to coordinate effort

Infrastructure: N/A

Budget: N/A

PD: N/A

Year 1:

Start integrating with June 2012 Strategic Plan.

Year 2 and 3:

Ongoing revisions of strategic plan and IT plan.

Data Collection: Survey data on student/ curriculum uses of collaborative tools

Indicators of Success for this Goal: Leadership and staff using technology efficiently and effectively in their work. Increased integration of technology in the learning environment. Long-range fiscal plans support the goals outlined in strategic plans. Strong alignment and integration between technology plans and school-based/SU-based strategic plans.

Goal 3: Flexible Learning Environments

Local Goal: WWSU schools will extend learning opportunities within and beyond the school, using technology to provide robust educational opportunities which may include online learning resources, distance learning, and to collaborate with others to solve problems, create new knowledge, and develop necessary community skills.

VT Department of Education suggests:

- Develop resources that provide learning opportunities that students can access via technology beyond their school day. This may include online courses, cloud-based resources, and connectivity beyond the school environment for a variety of personal devices.
- Provide robust broadband access for school campuses, and provide reliable, cost-effective digital devices for student use.
- Explore scenarios for students to utilize student-owned technology on the school campus. (BYOD=Bring Your Own Device concept, while maintaining an equitable situation for all students.
- Become aware of the variety of rich opportunities available through distance learning, and encourage its use by teachers and students.
- Extend learning opportunities by using technology to collaborate with others locally, regionally, statewide, nationally, and internationally to solve problems, create new knowledge, and develop necessary community skills.
- While striving to create opportunities for learning throughout a learners day, school leadership should also explore opportunities for creating and maintaining physical environments conducive to technology-rich collaboration. Examples might include: Wireless access points throughout school buildings, common student areas that allow for collaborative learning, and bright, well-lit common spaces for presentations and larger

group gatherings. This may also include opening school spaces and wireless access up to community at large.

Action Step A

Description: Increase student opportunities to access learning through flexible pathways

Staffing: Building Administrators and integration staff

Infrastructure:

- Robust bandwidth and wireless networks
- Promote “cloud tools” to move away from local storage and device dependency
- Apply and identify existing or new additional technologies including robotics, scientific probes, camera/software, etc.

Budget: Funds for PD and possible technology infrastructure improvements

PD: Local and collaborative among WWSU schools

Year 1:

- Maximize use of web-based tools (Docs, Sites, blogs, wikis, etc.) by staff and students
- Identify technologies which already exist in the school but are under-utilized such as robotics, Learning Network of Vermont (LNV), computer interface devices like scientific data collection
- Develop presentations and discussions regarding proficiency/competency based assessment strategies through cloud-based Learning Management Systems (LMS).

Year 2:

- Identify proprietary tools that can be replaced with Open Source tools; explore the use of “universal” tools and software to establish equitable access and reduce technology-related expenses

Data Collection:

Survey data on student/ curriculum uses of collaborative tools

Action Step B

Description: Effort will be made to provide staff access to technology tools “any time, any where” by providing portable devices to most professional staff.

Staffing: Building Administrators and integration staff

Infrastructure: Ensure sufficient bandwidth for increased access

Budget: Increase budgets to accommodate reasonable replacement cycles of staff laptops or devices

PD:

- Develop common PD goals for staff (eg. Safety & Security, Fair Use, Project Based Learning, Digital Personal Learning Networks)
- PD focus on function vs. specific tools.

Year 1: Extensive PD, focus on use

Year 2- Year 3: PD focus on instruction & pedagogy

Data Collection: Longitudinal tracking of student experiences before/after deployment of staff laptops & PD

Action Step C

Description: Committee(s) will recommend an action plan for the development of a 1:1 device and/or Bring Your Own Device (BYOD) initiative for schools choosing to participate.

Staffing:

- SU Admin support
- School Administrators
- Tech Coordinators/Tech Integrationists

Infrastructure: Robust bandwidth and wireless networking capabilities at all schools

Budget: Professional development funds, committee work funds, pilot programs. Network investment may be required at individual schools. Ongoing support beyond initial grant funding is required.

PD: Professional development for technical staff as needed to assess appropriate solutions for individual schools, and to plan implementation process.

Year 1: Extensive PD, focus on use

Year 2- Year 3: PD focus on instruction & pedagogy

Data Collection: Committee report of 1:1 program options and peer school results with recommendations for further action.

Indicators of Success for this Goal: Teachers throughout WWSU will regularly utilize a variety of technologies to meet professional and instructional goals and will maintain an understanding of the tools available to them and how these tools can be applied to provide a teaching and learning environment that reflects 21st century learning goals and outcomes. Students at all grade levels will have regular and consistent access to up-to-date technology tools and will be guided in their use and application to explore content, manipulate content in order to learn, and to demonstrate their learning. Exploration of existing 1:1 programs and further discussion and planning leading to action steps and the possible adoption of a carefully considered 1:1 program by some or all schools.

Goal 4: Engaged Community Partners

Local Goal: WWSU schools will provide online resources for fostering parent and community involvement in school communities.

VT Department of Education suggests:

- Provide online resources for fostering parent involvement in school communities. These may involve, for example, day-to-day communication with parents via email, social networking sites, and new modes of electronic communication providing access to student files and individual learning plans and examples of work, and providing regular access to student information system data on their child's progress.
- Strategize with Vermont Virtual or other distance learning partners to provide connections via coursework with in and out of state entities and experts.
- Become a model of collaborative communication for local communities, with students involved in the creation, development, and maintenance of websites, blogs, apps, and other collaborative tools for local projects and entities.

Action Step A

Description: Continue to develop web-based information (school and classroom sites, calendars, etc) and electronic communication with parents.

Staffing: Building- based identified staff (may differ at each building)

Infrastructure:

- Web-platform.
- Adequate bandwidth established and provided.

Budget: Some investments may be needed for initial development.

PD:

- Building-based PD for classroom webpages
- PD for local web coordinators

Year 1:

- Identify common criteria for school web pages. All schools have an active "web presence." Identify "web coordinators" in each building.
- Implement "push technologies" such as newsletters delivered via email.
- Develop common expectations for communication of meeting minutes
Identify questions to be included in the 2012-2013 Climate Survey re: Website, Calendar, Push Technologies

Year 2-3: All classrooms or program areas have an active web presence

Data Collection: Bi-annual climate survey of parents to see what aspects of the websites and calendar features are most utilized and what is needed.

Action Step B

Description: Leverage the use of Student Information Systems (SIS) such as Powerschool to share and publish information about student performance and school initiatives.

Staffing:

- Building Administrators and integration staff

Infrastructure: Robust bandwidth and wireless networking capabilities at all schools

Budget: Professional development funds, committee work funds, pilot programs. Network investment may be required at individual schools. Ongoing support beyond initial grant funding is required.

PD: Professional development for technical staff as needed to assess appropriate solutions for individual schools, and to plan implementation process.

Year 1: Maintain subscription to PowerSchool and promote its many uses

Year 1-3: Promote technological strategies for delivering school content eg: student newspaper articles, meeting minutes, etc.

Data Collection: Bi-annual climate survey to determine satisfaction with push-data content from SIS and portal information resources

Action Step C

Description: Continue AlertNow subscription to allow for immediate dissemination of information and to aid parent/school communication.

Staffing: Building based identified staff / Administration

Infrastructure: Annual subscription to AlertNow

Budget: Annual subscription to AlertNow

PD: Professional development for technical staff as needed to assess appropriate solutions for individual schools, and to plan implementation process.

Year 1-Year 3: Maintain subscription.

Data Collection: Summarize annual frequency and type of use of Alert Now.

Action Step D

Description: Continue to explore and cultivate new learning partnerships which support Service Learning projects, collaboration with distance learning partners, and collaborative efforts to enhance communication with the community.

Staffing: School administrators, teachers, technology integration staff, service learning coordinators

Infrastructure: N/A

Budget: Support for transportation and grant-writing to bring community experts to school and students into field

PD: Workshops in student-centered learning and service learning.

Year 1-Year 3: Ongoing development.

Data Collection: Student work developed as a result of community collaboration.

Indicators of Success for this Goal: Evidence is student work developed as a result of community activity and engagement. Increased use of distribution/push technologies to share school information with parents and the community. Climate surveys will show satisfaction with school electronic communication and site content.