

North Dakota Educational Technology Council

Tools for Teaching and Learning – 2015 North Dakota Educational Technology Plan

Purpose of the North Dakota Educational Technology Plan

The purpose of the 2015 plan is to identify goals, strategies, timelines, measures and rationale that state entities will use in supporting the use of technology in schools. The plan also provides guidance to North Dakota K-12 educators, school leaders and other stakeholders as they plan for educational technology in local school districts.

This plan is consistent with the ND Educational Technology Council's mission to *“develop technology systems and coordinate their use to enhance and support the educational opportunities for elementary and secondary education,”* the ND Department of Public Instruction's mission to *“align all elements of public education to help students achieve academic success,”* and *“build capacity to ensure a uniform educational system that meets or exceeds established standards,”* and the ND Department of Career and Technical Education's mission to *“work with others to provide all North Dakota citizens with the technical skills, knowledge, and attitudes necessary for successful performance in a globally competitive workplace.”*

This 2015 plan is a revision of the 2009 plan; it is consistent with the U.S. Department of Education plan tech.ed.gov/netp/. North Dakota's 2015 plan is developed to be consistent with the technology plan requirements of the E-Rate program. www.usac.org/sl/applicants/step01/scope-and-timeframe.aspx.

2015 North Dakota Educational Technology Planning Committee:

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- Mike DeFoe, Devils Lake PS – District Technology Director & NDATL Board Member
- Jeff Fastnacht, Ellendale PS – Superintendent & ND ETC Chair
- Dave Skogen - EduTech Representative
- Denise Soehren, Billings County PS – Principal
- Frank “Steve” Snow – ND DPI Representative & ND ETC member

- Nick Klemisch – ND Special Education Study Council Representative & ND ETC Member
- Monte Gaukler, NDATL Representative
- Wayne Kutzer, NDCTE Representative
- Matt Lonn, NDCDE Representative
- Robert Kaspari, ND EduTech Representative

Vision for Educational Technology in North Dakota

Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved teaching and student achievement.

Goals for Educational Technology in North Dakota

The ND Educational Technology Plan has five goals to achieve the vision.

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Vision: *Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved teaching and student achievement.*

Goal #1: A vision for educational technology is available to schools to help guide their technology planning and implementation.

Background and Rationale

The vision of how and why technology is to be used in schools is the destination, identifying “where we want to go” with technology. Without a clearly defined vision that is known and understood by all stakeholders, everyone will struggle and technology implementations will not have the structure or support necessary to sustain learning environments in which technology is integral to student achievement.

The 2010 National Education Technology Plan includes a student-focused vision, “To prepare students to learn throughout their lives and in settings far beyond classrooms, we must change what and how we teach to match what people need to know, how they learn, and where and when they learn and change our perception of who needs to learn. We must bring 21st-century technology into learning in meaningful ways to engage, motivate, and inspire learners of all ages to achieve”.

The current ISTE Standards for Students, developed by the International Society for Technology in Education (ISTE), identify a vision of 21st Century Skills that students need to possess to learn effectively and live productively in an increasingly global and digital workplace. These standards are: creativity and innovation, communication and collaboration, research and information fluency, critical thinking, problem solving and decision making, digital citizenship and have a sound understanding of technology operations and concepts. Proactive leadership in developing a shared vision for educational technology and how it translates into classroom instructional practice among school personnel, students, parents, and the community is an essential condition to realizing the powerful uses of technology.

ISTE’s Standards for Teachers affirm that effective teachers have a collective vision and apply well defined technology standards as they design, implement, and assess learning experiences to engage students and improve learning. Teachers do this by facilitating and inspiring student learning and creativity, designing and developing digital age learning experiences and assessments, modeling digital age work and learning, promote and model digital citizenship and responsibility, and engage in professional growth and leadership.

The ISTE Standards for Administrators guide educational administrators to inspire and lead the development and implementation of a shared vision for the integration of technology to promote teaching and learning in their schools. Educational administrators also work to create a culture that fosters digital age learning through rigorous, relevant, and engaging instructional practices.

The ISTE Standards for Technology Coaching, provide the framework for coaches to assist teachers in developing and delivering relevant differentiated and engaging instruction. Technology coaches also conduct needs assessments, develop technology related professional learning and evaluate the impact on instruction and learning.

Clear expectations are required to take a strong vision and put it into practice in the classroom. District and building administrators play a key role in communicating the vision to stakeholders and setting expectations for translating that vision into practice. For the learning experience for students to be truly transformative, instructional technology needs to be used (when appropriate) to teach students new ways to learn.

To make the vision become a part of the community, stakeholders must be involved in the development and the support of the vision. Including parents, students and other stakeholders in a process of collaborative, informed planning will foster enthusiasm and urgency for the implementation of the vision. Therefore, school district technology planning and review must take place on a regular and timely basis.

Goal #1: A vision for educational technology is available to schools to help guide their technology planning and implementation.		
Strategy	Measure	Timeline
1.1 The state will have a clear vision for educational technology developed with input from school leaders, educators and others.	The state educational technology plan includes a clear vision statement.	January 2015
1.2 The ND Educational Technology Council will communicate the state's vision for educational technology to stakeholders.	The state educational technology plan is published & distributed to NDDPI, NDCTE, NDEA, NDCEL, NDATL and other administrator and public groups.	January 2015

Goal #1: A vision for educational technology is available to schools to help guide their technology planning and implementation.		
Strategy	Measure	Timeline
1.3 North Dakota schools will, as part of their annual technology planning process, use a broad-based stakeholder group to develop a clear vision for educational technology.	School technology plans submitted to state agency for approval include an educational technology vision.	Revised school technology plans submitted to ND ETC in Summer 2016.
1.4 ND school leaders will articulate and support a shared vision for the role of technology use in their schools.	School leaders engage in technology planning and professional development related to technology use in their schools.	Annually updated technology plans include professional development.

Goal #1 - 2014 Status

The vision for educational technology in North Dakota has evolved to reflect the changing role of teaching and learning in schools and how people get their information today. Technology in schools has moved from a few specialized systems used by a few teachers and administrators, to everyday tools for teaching and learning used by students, teachers, school administrators, staff and parents.

The state provides K12 Active Directory (AD) services including Forefront Identity Management tools and a customer portal. The K-12 AD allows for Office 365 (O365) to be deployed on a statewide basis. O365 is a communication and collaboration package that includes email, calendaring, cloud storage, collaboration spaces, and online document editing using Office Web Apps. AD also provides an improved way for K-12 customers to securely access other K-12 systems such as those provided by the ND Department of Public Instruction. The deployment of Active Directory state-wide will provide an effective way to deliver new technology products and services to K-12 schools and will help pave the way for the state's technology vision to become reality.

Vision: *“Educational Technology is a basic resource that helps schools provide access to learning opportunities for all students, assess and monitor student progress, and support new educational models that can lead to improved teaching and student achievement,”* clearly identifies the need for technology resources in our schools.

Goal #2: Schools create learning environments that include effective technology resources for educators and students.

Background and Rationale

Schools must put in place the infrastructure and other resources necessary to provide and maintain effective and efficient technology deployment and connectivity on an equitable basis. As access to educational resources increases through the use of technology, it is critical that all students in North Dakota have an equal opportunity to participate in technology-enriched learning. Otherwise, we may fail to serve the learners at greatest risk: those with special needs, those with limited English proficiency, those scoring poorly on standardized tests, those with socioeconomic backgrounds that put them at risk, those for whom a historic technology bias exists, and those living in remote areas that lack access to a broad range of curriculum choices and informational resources.

The types of technology tools available and the performance capabilities of those tools should be at a level that will support and sustain current learning practices, but will also encourage new and innovative learning practices. The range of technology tools must go beyond desktop computers with Internet connectivity, and include hardware and software that is appropriate for and specific to individual curriculum areas such as reading, math, science, the performing arts, and career and technical education, including distance learning technologies.

Schools and districts should have an annual plan for updating, refurbishing, and replacing hardware and software resources. Obsolete hardware and software and the lack of well-planned and managed networks make the issue of connectivity and use difficult and create inequities for students.

Adequate and consistent funding is essential to successful integration of technology in schools. Schools should provide funding mechanisms for on-going costs of equipment replacement and employing and training technical support staff. Schools should provide adequate ratios of support personnel based on the size and complexity of the environment to ensure adequate response time and customized support to meet the instructional and equipment maintenance needs of each building. Well-trained student technology assistants may be an appropriate method for providing needed technical support for teachers.

Goal #2: Schools create learning environments that include effective technology resources for educators and students.

Strategy	Measure	Timeline
2.1 The state will continue to ensure that all high schools have basic connectivity through North Dakota STAGEnet.	ND ITD data indicate that all high schools have connectivity of at least 10 MB and is distributed based on the need and size of the school district.	Biennial legislative process.
2.2 The state will provide the support needed to ensure that STAGEnet and other technology resources are reliable and useful for schools to use in teaching, learning and administration of schools.	State funding for ND ETC, EduTech, ITD, NDCDE and other agencies is maintained. Performance data from ITD and EduTech indicate support.	January 2015 and biennially.
2.3 The state will make financial and other resources available to schools to support the implementation of educational technology, including distance education (state funds, IDEA and Career & Technical funds, and E-rate discounts).	State/federal funds are secured and made available to schools. Reports from E-rate, ND ETC, DPI, CTE and EduTech indicate funding and other support provided.	January 2015 and annually.
2.4 ND schools will maintain student-to-computer ratios (e.g. by implementing mobile or other labs, handheld or one-to-one initiatives) in order to provide regular and equitable access for all students to modern multimedia computers and related devices, including assistive technology for students with disabilities.	Data from school annual MIS and E-rate reports indicate 100% of school districts maintain student to computer ratios better than 3.5 to 1.	January 2015 and annually.
2.5 ND schools will provide technical support so technology resources are reliable and available to educators and students.	Data from NDATL and DPI MIS reports indicate staff and funding levels for salaried and contracted support services.	January 2015 and annually.

Goal #2 - 2014 Status

All high school buildings in the state are connected to the state network (STAGEnet) and the Internet with a minimum 10 MB connection. State general funds and federal E-Rate reimbursement pay for basic connectivity at no cost to public schools. Public and private schools purchase additional connectivity beyond that provided by the state. They use local funds to pay for the portion of the additional cost not reimbursed by E-Rate. The ND ITD hosts a number of IT applications for schools including video conferencing and video event scheduling.

Each school district is provided with network based Internet filtering at no cost and has the opportunity to have an individual Internet Filtering Self-Management profile set up for them by EduTech. The individual profile allows them to configure their own Internet filtering preference, such as categories of sites or individual sites to block or allow. School districts can also set their own Internet filter password that works exclusively within their district. This solution also provides mobile device filtering capabilities and is IPv.6 compliant. EduTech provided training and continues to offer support to schools that choose this flexible option for Internet filtering.

Palo Alto Networks security appliances deployed on STAGEnet deliver several types of protection to ND K-12 schools including protection from Internet threats including viruses and malware, application and protocol monitoring and regular reports on network usage.

In addition, federal IDEA funds administered by NDDPI are used for special education activities that may include assistive technology for children with disabilities. IDEA funds are grant requested by individual special education units.

The ND Educational Technology Council coordinates K-12 educational technology statewide and serves as the governing board for EduTech and the ND Center for Distance Education (state distance education high school). EduTech supports the use of educational technologies in K-12 schools by providing O365, blogging services and web-hosting services as well as training and support for statewide applications such as Internet filtering for compliance with the Children's Internet Protection Act. EduTech also supports school use of PowerSchool, the State Longitudinal Data System and instructional coaching. As of February 1, 2013, all public school districts, use the PowerSchool Student Information System. Four non-public schools use PowerSchool and all Bureau of Indian Affairs (BIA) schools use Infinite Campus as required by the BIA.

In the 2013-15 school year 100% of ND public school districts have Internet access in instructional areas. 99% of school districts report a student to computer ratio of 3.5 to 1 or

better. The statewide average student to computer ratio is 1 student per Internet connected computer, with a range of 0.2 to 3.7 students per computer.

As of June 2014, 147 public high school districts have video networking capabilities used to share high school courses through distance education; four high school districts do not have a video classroom.

The North Dakota Association of Technology Leaders (NDATL) is the state's membership organization for K-12 technology coordinators. NDATL is committed to the improvement of education through the uses of technology. In 2014 NDATL has 263 members representing 210 school districts as well as state agencies and other public service providers. NDATL provides professional development opportunities for its members, including two one-day Face-to-Face conferences which are held annually in October and April with 150 people in attendance at each. In addition, the TECO email list provides a valuable communication tool to link technology coordinators together to share technology information statewide.

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Goal #3: Educators use appropriate technologies to improve their teaching and other professional practices.

Background and Rationale

Administrators at the building and district level greatly influence changes in the culture of a school. Because of this, they should model the effective use of technology in support of learning and administrative functions and be expected to maintain a knowledge of the applications of technology to teaching and learning. Administrators should initiate and support professional development processes that reflect attention to principles of adult learning. ISTE's Standards for Administrators are a valuable resource for administrators to use in their own professional development.

The most important factor in student achievement is teacher quality. Teachers must possess skills that allow them to be innovators in a technology-rich environment. If educators are not effective users of technology, they will not recognize how technology can be used in the classroom. Educators must be prepared to support students in achieving high academic performance through the effective use of technology.

Focused professional development will help ensure that technology is used effectively to create new opportunities for learning and to promote student achievement. Through professional development, educators should become proficient at aligning technology use with student learning standards and goals, and integrating technology seamlessly into the curriculum. Ongoing professional development is more effective than topical sessions. The use of curriculum technology partners and/or instructional coaches within the classroom to provide ongoing training and support has proven to be most effective, especially when combined with ongoing professional learning communities, in which teachers regularly meet in teams with their peers for curriculum development and reflective discussion of professional practice. Rural Education Associations (REAs) provide services to improve professional development for member schools.

Communicating school and student results to parents and the larger community can lead to stronger support for all school efforts to improve student achievement. School websites and communication tools within student information systems can be used effectively to communicate with parents and other stakeholders.

Goal #3: Educators use appropriate technologies to improve their teaching and other professional practices.

Strategy	Measure	Timeline
<p>3.1 The ND ETC endorsed the International Society for Technology in Education (ISTE) Standards for Teachers and School Administrators as a guide for K-12 schools and schools of education to use in developing educational programs.</p>	<p>An ND ETC endorsement of the ISTE Standards is published by the ND ETC and posted on its website.</p>	<p>January 2015</p>
<p>3.2 ND ETC and NDDPI will continue to use a common definition for “Technology Integration,” which will be used to guide schools in their efforts to integrate technology into all curriculum areas.</p>	<p>The common definition of technology integration is used by DPI and it is posted on the ND ETC website.</p>	<p>Defined locally by each school.</p>
<p>3.3 ND schools will assess the technology proficiency of all educators.</p>	<p>All schools will periodically assess the technology proficiency of their educators.</p>	<p>AdvancEd data reviewed as defined locally by each school.</p>
<p>3.4 ND schools will make professional development available to educators that meet their technology needs as identified in school education improvement and professional development plans.</p>	<p>EduTech data indicate that schools are using technology professional development resources. Schools’ education improvement and professional development plans identify technology as a means to achieve their goals.</p>	<p>January 2015 and annually.</p>
<p>3.5 ND schools will use student information systems and communication systems such as websites to communicate with students and parents.</p>	<p>The number of schools that use parent communications tools in their student information systems (PowerSchool data) and use websites (EduTech data) increases annually.</p>	<p>January 2015 and annually.</p>

Goal #3 - 2014 Status

Educators who effectively use technology as an integral part of their lessons exhibit the following competencies.

The Educator

- Identifies opportunities within the curriculum to improve student learning through the use of technology and designs technology-enriched learning activities that are aligned with curriculum standards,
- Uses instructional strategies with technology, such as authentic problem-based, project-based, and inquiry-based learning and matches specific strategies with the learning needs of individual students,
- Adopts the role of facilitator, co-investigator, coach, and guide to better support learning in a technology-rich classroom and uses specific strategies for adopting these roles such as modeling, mediating, explaining and providing options without controlling,
- Fosters new roles for students (teacher, independent learner, collaborator, investigator, problem solver and producer of knowledge and products valued by stakeholders outside the classroom) that better support learning in the technology-rich classroom and uses explicit strategies for supporting students as they adopt these roles,
- Designs and implements a variety of ongoing, seamless assessment strategies, including portfolio, performance and product-based assessments that are viewed by students as a valuable part of learning, and are more relevant in the technology-rich classroom than paper and pencil assessments,
- Organizes classroom technology resources and guides students to identify, select and apply the most appropriate technology tools for new kinds of learning activities,
- Configures technology resources within the classroom in order to meet individual student learning needs and to maximize equitable student access,

- Uses technology to track student progress through the curriculum and to manage curriculum resources through the use of electronic grade books, student information systems, and similar tools.

Professional development is offered to educators through a variety of providers including the EduTech regional and state level staff. In the last 12 months EduTech offered workshops covering at least 90 different topics. NDCTE, local district and REA staff, higher education and private sector providers also offered professional development for educators in ND schools.

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Goal #4: Educators provide students with technology-rich learning opportunities.

Background and Rationale

Technology in schools has the potential to transform teaching practices and student learning. It provides opportunities for educators and students to break through isolation and serves as a catalyst for significant changes in teaching and learning.

What do students need to learn and how can technology promote those learning goals? A clear set of goals, expectations and criteria for student learning should be part of the school improvement plan and based on national and state standards, including the National Center on Accessible Instructional Materials (<http://aim.cast.org/>). Only then can technology plans be made for purchasing equipment and materials and for assessing how well the technology helps achieve identified student-learning goals.

The effective use of technology enables educators to implement teaching techniques designed to increase student learning through engaging authentic activities. Teachers who use technology as a tool to support strategies such as problem-based, inquiry-based and project-based learning create environments in which students can work in self-directed, collaborative teams and develop higher-order thinking skills.

Online instruction or courses delivered by video, the Web or other distance learning technologies can make it possible for students to receive high quality instruction that is personalized to their needs. Schools can use these new types of learning to expand opportunities and choices for students and to offer professional development for educators. Blended or hybrid teaching/learning using combinations of classroom and online learning activities engage students in multiple ways and help prepare them for post-secondary education and life-long learning.

Goal #4: Educators provide students with technology-rich learning opportunities.		
Strategy	Measure	Timeline
4.1 ND ETC, NDDPI and EduTech will continue to support the North Dakota Library/Technology Literacy Standards and ND's adoption of the North Dakota English Language and Literacy and North Dakota Mathematics Content Standards.	The ND ETC and NDDPI support the Library/Technology Literacy Standards and North Dakota English Language and Literacy and North Dakota Mathematics Content Standards.	January 2015.
4.2 ND educators will implement standards-based learning opportunities that use effective technology enhanced instructional strategies to meet the learning styles/needs of all students, including students with disabilities.	Local evaluation.	Ongoing
4.3 ND educators will use technology to engage students in collaborative, project-based, problem-based, inquiry-based and other authentic learning activities.	Local evaluation.	Ongoing
4.4 ND schools will use online learning and other technologies to help ensure that students graduate ready for work or post-secondary education.	ND Center for Distance Education and ND ETC data indicate increase in number of schools offering online and blended learning opportunities for students.	Ongoing
4.5 All ND schools gain affordable access to hands on STEM based and project based learning through blended learning opportunities.	ACT data.	Ongoing
4.6 Office 365 is available for schools and office staff.	DPI & EduTech data.	Ongoing

Goal #4 – 2014 Status

North Dakota defines technology literacy for students in its Library/Technology Literacy Standards, which includes benchmarks for grades 4, 8 and 12 and North Dakota's adoption of North Dakota English Language and Literacy and North Dakota Mathematics Content Standards.

The North Dakota Center for Distance Education (NDCDE) offers online courses, print courses and blended learning opportunities to schools and individual students throughout the state of North Dakota and worldwide. NDCDE plays a key role in providing curriculum and instructional equity for North Dakota's students, particularly those students who are educated in North Dakota's smallest K-12 schools. Of 269 NDCDE course titles, 167 are available online. In the 2013-14 school year, 1,813 North Dakota students took over 3,387 courses through NDCDE. In the last year the number of North Dakota students taking courses through NDCDE has increased 88%.

During fall semester 2014, in the 9 school-based video consortiums across the state, over 2,509 students attended a high school class in one of 122 North Dakota K-12 video classrooms. 115 courses were taken by those students, including world languages, math, science, CTE, and advanced placement and dual credit courses for college credit.

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Goal #5: Schools employ technology systems that help improve classroom practice by accessing and monitoring student achievement.

Background and Rationale

Federal and state agencies, local school boards and the general public require schools to be accountable for their results. The State Longitudinal Data System (SLDS) stores current and historical data from K-12 education, higher education, and workforce sources giving decision makers access to readily available data to make well-informed decisions. For K-12 educators, this means easy access to student demographics, attendance/enrollment data, performance assessment results, historical grades, graduation/dropout rates and college/career readiness guidance. For parents and students, it means e-transcripts, an easier process for scholarship application/review and access to their performance results for goal setting.

The use of such tools as; electronic individualized education plans, computer assisted assessments, data warehouses, and tools such as AIMSweb help educators plan teaching strategies to better meet the individual needs of all students. The ND State Assessment, modeled on the Smarter Balanced Assessment Consortium, will be delivered online for most students in Spring 2015. Preparations have been under way since Spring 2013 to ensure that North Dakota schools are prepared to implement this assessment.

Assessment, including online student testing tools and electronic portfolios, should be a seamless part of the learning process and focus on measuring student performance in authentic ways. Assessment and analysis tools should be varied and provide data that will support accountability. Conclusions regarding instructional results should be communicated and used to support differentiated instruction and other data-driven decisions.

Goal #5: Schools employ technology systems that help improve classroom practice by assessing and monitoring student achievement.		
Strategy	Measure	Timeline
5.1 The State Longitudinal Data System (SLDS) tracks achievement and allows analysis necessary to differentiate instruction in order to better meet the learning needs of all students.	The SLDS continues to serve an increasing number of educators, parents and students.	January 2015 and annually.
5.2 ND schools will use technology-based systems to differentiate instruction, assess student achievement, track student progress and analyze achievement results in order to differentiate instruction and improve learning outcomes for all students.	ND ETC data indicate increase in number of schools using data warehousing tools, electronic student information systems and other electronic teaching/learning tools such as online adaptive testing and electronic portfolios.	January 2015 and annually.
5.3 ND schools will deliver the ND State Assessment online in Spring 2015. A statewide technology readiness project has provided preparation.	EduTech & DPI data.	Spring 2015 and annually.

Goal #5 - 2014 Status

Nearly all ND public school districts use MAP (Measures of Academic Progress) online testing from NWEA to periodically assess student academic achievement. The MAP adaptive assessment program is aligned to North Dakota academic standards. MAP testing results enable teachers to identify specific areas where each student needs improvement and then to develop individualized instructional strategies to address those deficiencies. Some schools have transitioned from NWEA to STAR Assessments from Renaissance Learning. The STAR 360 is a comprehensive K-12 assessment solution, that allows educators to screen and group students for targeted instruction, measure student growth, predict performance on summative exams, and monitor achievement on North Dakota English Language and Literacy and North Dakota Mathematics Content Standards.

Thirteen North Dakota school districts have developed and maintain their own data warehouses (Viewpoint) for collecting, storing and analyzing student and school data over

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time. The use of these data warehouses allows school administrators and teachers to identify achievement gaps related to individuals and groups of students and better design interventions for improving the achievement of individual students.

The ND ETC and EduTech provide extensive training on using the SLDS including basic use workshops, training for specific for schools roles such as administrators, AdvancED leaders and counselors and the SEED project which helps build a culture for making decisions that improve student learning. Nearly every ND school has participated in basic training on how to use the SLDS and many have participated in more advanced training sessions with the ETC Data Steward and/or their REA. Participating districts, students and parents access high school transcripts electronically (eTranscript) to identify graduation requirements, scholarship eligibility and forward to ND universities and colleges for admission.

The State Automated Reporting System (STARS) is DPI's primary means for collecting data from the school districts for federal and state reporting. STARS is the state's primary source of student demographic data, including a nightly feed into TIENET, the IEP program. PowerSchool data is linked to STARS on a nightly basis making the submission of data by the schools more transparent and timely.

During the 2008-09 school year, ND DPI implemented a statewide web-based Special Education Case Management System. Nearly 100% of the Individualized Education Programs (IEPs) in the state are currently in this system (TIENET). ND DPI continues to work with special education units and school districts to make the system more user-friendly by providing updates on an annual basis.

Glossary of Terms

Advanced Ed – AdvancED is the largest community of education professionals in the world. They are a non-profit, non-partisan organization that conducts rigorous, on-site external reviews of PreK-12 schools and school systems to ensure that all learners realize their full potential. <http://www.advanc-ed.org/about-us>

AIMSweb - a student progress monitoring system based on direct, frequent and continuous student assessment. The results are reported to students, parents, teachers and administrators via a web-based data management and reporting system to determine response to intervention. <http://aimsweb.com/>

Basic Connectivity (STAGEnet) – Schools have a minimum connection of 20MB. Schools with more than 200 students receive 50MB; schools with more than 500 students receive 100MB and schools with more than 1500 students receive 200MB. .

Data Warehouse - a repository of a school's electronically stored data. Data warehouses are designed to facilitate reporting and analysis. The means to retrieve and analyze data, to extract, transform and load data, and to manage the data dictionary are considered essential components of a data warehousing system. The planned statewide longitudinal data system (SLDS) is made up of multiple agency-based data warehouses that allow for analysis of data from multiple sources from multiple years. In contrast to data warehouses are operational databases that support day-to-day transaction processing such as student information systems. en.wikipedia.org/wiki/Data_warehouse

Differentiated Instruction - sometimes referred to as differentiated learning, involves providing students with different avenues to acquiring content or other academic skills; to processing, constructing, or making sense of ideas; and to developing teaching products or activities so that all students within a classroom can learn effectively, regardless of differences in ability. en.wikipedia.org/wiki/Differentiated_instruction

E-Rate - commonly used name for the Schools and Libraries Program of the Universal Service Fund, which is administered by the Universal Service Administrative Company (USAC) under the direction of the Federal Communications Commission (FCC). The program provides discounts to assist most schools and libraries in the United States to obtain affordable telecommunications and Internet access. Discounts for support depend on the level of poverty and the urban/rural status of the population served and range from 20% to 90% of the costs of eligible services. <en.wikipedia.org/wiki/E-Rate>

Educational Technology Council (ND ETC) - the State Board responsible for coordinating educational technology initiatives for elementary and secondary education. The Council has

12 members, 8 of whom are appointed by the Governor.

www.governor.nd.gov/boards/boards-query.asp?Board_ID=124 and www.ndetc.k12.nd.us/

Electronic Portfolio, also known as e-portfolio or digital portfolio - a collection of electronic student work assembled and managed by the student and teachers, usually on the Web (Webfolio). Such electronic student work may include inputted text, electronic files, images, multimedia, blog entries, and hyperlinks. An e-portfolio is both a demonstration of the student's abilities and a platform for self-expression. E-portfolios can be maintained dynamically over time. Some e-portfolio applications permit access by parents and others. An e-portfolio can be seen as a learning record that provides actual evidence of achievement. en.wikipedia.org/wiki/Electronic_portfolio

Electronic Student Information System (SIS) - a software application (like PowerSchool) that schools use to manage student data: storing student test and other assessment scores, building schedules, tracking attendance, and managing many other student-related data. Also known as student information management system (SIMS, SIM), student records system (SRS), student management system (SMS) or school management system (SMS), these are transactional systems, used on a day-to-day basis, as compared to data warehouses that are used for storing and analyzing data over time (longitudinal data). en.wikipedia.org/wiki/Student_information_system

iBoss - web filter devices that scan web traffic that blocks or allows the traffic to specific sites based on rules set for particular subnets on the state network. Also logs all traffic so reports can be generated by the iBoss reporting device.

IDEA 2004 - The federal Individuals with Disabilities Education Improvement Act of 2004 is designed to ensure equity, accountability and excellence in education for children with disabilities. It authorizes formula grants to states, discretionary grants for research, technology and training. The latest revision of IDEA became effective in October 2006. en.wikipedia.org/wiki/IDEA_2004

Individualized Education Program (IEP) – a process mandated by the Individuals with Disabilities Education Act (IDEA), requiring public schools to develop an IEP for every student with a disability who is found to meet the federal and state requirements for special education. The IEP refers both to the educational program to be provided to a child with a disability and to the written document that describes that educational program. Key to developing an IEP are assessing students in all areas related to the suspected disabilities, considering access to the general curriculum, considering how the disability affects the student's learning, developing goals and objectives that make the biggest difference for the student, and ultimately choosing a placement in the least restrictive environment. en.wikipedia.org/wiki/Individualized_Education_Program

ITD (North Dakota Information Technology Department) – an executive agency of ND state government that is responsible for all wide area network services, including planning, selection, and implementation for all state agencies, including institutions under the control of the State Board of Higher Education, counties, cities, and school districts. ITD is also responsible for computer support services, software development, statewide communications services, IT standards for state agencies and the public, technology planning, design and quality assurance. www.nd.gov/itd/

International Society for Technology in Education (ISTE) - ISTE is the premier nonprofit organization serving educators and education leaders committed to empowering connected learners in a connected world. ISTE serves more than 100,000 education stakeholders throughout the world.

Measures of Academic Progress (MAP) – an online assessment tool to provide educators with data to individualize teaching and learning for students. MAP is designed and supported by the Northwest Evaluation Association. www.nwea.org/assessments/map/

MIS Reports - reports periodically submitted by schools as required by the North Dakota Department of Public Instruction. MIS reports are related to specific student and school data. MIS 01 is the district fall membership report; MIS 02 is the school building-level report; MIS 03 is the report on licensed and non-licensed school personnel. www.dpi.state.nd.us/resource/STARS/index.shtm#MIS

NDATL – North Dakota Association of Technology Leaders is the state membership organization for K-12 technology directors and coordinators. NDATL is committed to the improvement of education through the uses of technology and provides professional development opportunities and other benefits for its members. NDATL is an affiliate of the ND Council of Educational Leaders. www.ndatl.k12.nd.us/

O365 – is a cloud-based productivity suite which includes Office applications for collaboration, communication, productivity, file storage and content creation. It is accessed and utilized via the Web and also integrates into the Office desktop and mobile applications.

Palo Alto - network security device that can scan incoming and outgoing Internet traffic looking for security issues with the content either coming in to the network or leaving the network.

Regional Education Association (REA) – voluntary consortium of ND schools that share educational and administrative services to improve educational services to students and to enhance cooperation in communities and geographic regions. Over 93% of school districts in North Dakota, comprising 98% of all students, belong to a REA (formerly Joint Powers Agreement or JPA). www.ndrea.org/index.html

STEM - STEM is an [acronym](#) referring to the [academic disciplines](#) of [science](#), [technology](#), [engineering](#), and [mathematics](#).^[1] The term is typically used when addressing education policy and [curriculum](#) choices in schools to improve competitiveness in technology development. It has implications for workforce development, national security concerns and immigration policy. http://en.wikipedia.org/wiki/STEM_fields