**ILLINOIS STATE BOARD OF EDUCATION**
May 15-16, 2002

**Agenda Topic:** No Child Left Behind Act – Technology Application/
State Plan for P-12 Technology

**Materials:** Federal Requirements for Consolidated Technology
Applications;
Draft Technology Goals, Indicators, and Strategies; and
Proposed Illinois Technology Literacy Standards for
Students

**Staff Contact(s):** Dick Miguel
Rich Dehart

**Purpose of Agenda Item**

- To discuss key components of the proposed Illinois application for federal
technology funding and the draft 2002-2007 Illinois State Plan for P-12
Technology.

**Expected Outcome(s) of Agenda Item**

- Board action on Superintendent’s recommendations.

**Background Information**

The State Board of Education has reviewed two drafts of the proposed 2002-2007
State Plan for P-12 Technology (March 2001 and December 2001). These drafts
reflected the comments of hundreds of Illinois citizens who participated in a statewide
planning process and built on the staff analysis of what has been accomplished since
the first Illinois State Technology Plan was adopted in 1995.

During the weeks following the Board’s review of the December draft State Plan, the
federal government adopted the *No Child Left Behind Act of 2001* (NCLB) and
provided additional direction through the requirements for consolidated plan
applications. At that point, Cheryl Lemke, nationally-recognized technology
consultant, was asked to work with State Board staff and a group of external
stakeholders to

- review the federal requirements in light of Illinois’ needs and goals;
• develop a final draft of the 2002-2007 State Plan for P-12 Technology that incorporates relevant aspects of the NCLB; and
• develop recommendations for a NCLB technology application aligned with that plan and the federal requirements.

The Metropolitan Planning Council/Network 21 technology committee also provided assistance to the project.

During this Board meeting, the Board will have an opportunity to review and respond to two key issues related to the NCLB technology application. The final draft of the state plan will be presented to the Board for formal action no later than August, 2002.

**Special Issues for Board Consideration**

1. **Goals, Indicators, Targets and Strategies**

The initial federal requirements for state consolidated plans included three specific performance indicators related to technology. These were:

   - The percentage of (8th grade) students that meet or exceed State standards for student literacy in technology.
   - The percentage of teachers qualified to use technology for instruction.
   - The number of schools in which all students are able to work from a networked computer.

The State Board adopted these indicators in April and staff used them extensively in the development of the proposed federal application. However, on May 8, the State Board received revised federal requirements for the consolidated plan that included “withdrawal” of the three previously-required performance indicators for technology in lieu of broader guidelines.

For example, states are to include in their applications the “program goals, performance indicators, performance objectives, and data sources that the State has established for its use in assessing the effectiveness of the program in improving access to and use of educational technology by students and teachers in support of academic achievement.” (See Attachment 1 for the full set of technology requirements for the NCLB application.)

Although these changes eliminate the explicit requirements of the earlier federal directions, the new requirements still clearly anticipate that states will address student technology literacy, educator competence and student access to technology resources. Therefore, these issues have been incorporated into a draft set of performance goals and strategies for Illinois.
The goals and strategies in this draft document (see Attachment 2) reflect the December draft of the State Technology Plan, the Board’s reaction to that document, and the federal “expectations.” There is still much work to be done to refine these strategies and determine the appropriate data sources. The purpose of this discussion is to obtain Board reaction to the draft.

2. Technology Literacy Standards for Students

During the development of the Illinois Learning Standards (ILS), technology knowledge and skills were integrated into each set of standards and benchmarks. In addition, the 1995 State Technology Plan identified “Six Essential Learnings” for technology literacy among Illinois students.

Subsequent work on the performance standards for the ILS indicated that the integrated technology standards were not readily apparent to local educators and the “Six Essential Learnings” were not widely recognized as a fundamental part of the educational teaching/learning/accountability process.

The extent of this disconnect was evident in the work of teachers on the development of performance standards and classroom assessments. As a result of their concern about technology availability and their lack of emphasis on the development of technology literacy, there were no recommendations for technology-based instructional strategies or classroom assessments.

Because of this disconnect and because technology literacy is a “basic skill” in a Digital Age, the earlier drafts of the State Plan indicated that the State Board should adopt specific standards to provide greater clarity regarding the technology skills needed by students. We now believe that the Board should act immediately to adopt specific technology literacy standards for students. This will allow the State Board to better inform educators and parents about the technology skills needed by students, build technology into the infrastructure of performance standards, and establish a baseline for measuring progress over time.

The International Society for Technology in Education (ISTE) has developed a nationally-recognized and widely-accepted set of standards for students called the ISTE National Education Technology Standards (NETS). These standards, which are shown in the attachment, match the “Six Essential Learnings” adopted by Illinois in 1995 on an almost one-to-one basis and therefore do not constitute new or different expectations. Rather, they clarify and provide specificity to technology standards and allow for transferability among states. Therefore, it is recommended that the Board endorse the ISTE NETS standards as the state technology literacy standards for students (see Attachment 3).

Although these ‘stand-alone” technology literacy standards will be used to highlight desired technology knowledge and skills and collect and report data on student
technology literacy, their use in schools is to be integrated into teaching and learning of academic subject areas. To support this integration, the performance standards for the Illinois Learning Standards will be revisited in order to clearly identify technology-related instructional strategies, assessment techniques, etc.

**Recommendations for Board Action**

The State Board should:

- Endorse the ISTE National Education Technology Standards as the Illinois Technology Literacy Standards for Students; and

- Provide direction to staff for further refinement of the draft goals, indictors, and strategies.

**Next Steps**

- Staff will complete and submit the technology portion of the consolidated NCLB plan, consistent with Board direction and newly-received federal requirements for consolidated plans.

- The 2002-2007 State Plan will be completed and submitted in final form for Board adoption no later than August 2002.
ATTACHMENT 1

Consolidated Plan Requirements
For Technology

1. Describe the program goals, performance indicators, performance objectives and data sources that the State has established for its use in assessing the effectiveness of the program in improving access to and use of educational technology by students and teachers in support of academic achievement.

2. Provide a brief summary of the SEA’s long-term strategies for improving student academic achievement, including technology literacy, through the effective use of technology in the classroom and the capacity of teachers to integrate technology effectively into curricula and instruction.

3. Describe key activities that the SEA will conduct or sponsor with the funds it retains at the State level. These may include such activities as provision of distance learning in rigorous academic courses or curricula; the establishment of support of public-private initiatives for the acquisition of high-need LEAs, and the development of performance measurement systems to determine the effectiveness of educational technology programs.

4. Provide a brief description of how –
   
   • The SEA will ensure that students and teachers, particularly those in schools of high-need LEAs, have increased access to technology; and
   • The SEA will coordinate the application and award process for State discretionary grant and formula grant programs under this program.
**STATE GOAL FOR LEARNING TECHNOLOGY**

To ensure that all Illinois students are ready to live, learn, and work successfully in a knowledge-based, global society.

**STATE PERFORMANCE GOALS (STUDENTS)**

<table>
<thead>
<tr>
<th>Student Goal 1:</th>
<th>Student Goal 2:</th>
<th>Student Goal 3:</th>
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<tbody>
<tr>
<td>Illinois students will demonstrate continuous improvement in all learning areas, with particular emphasis on reaching 100% of student meeting reading and mathematics standards by 2013-14.</td>
<td>Illinois students will demonstrate continuous improvement in higher-order knowledge and skills essential for the 21st century.</td>
<td>Illinois students will meet the Illinois Technology Literacy Standards and select 21st Century skills in multiple content areas</td>
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**Benchmark:**

<table>
<thead>
<tr>
<th>Benchmark:</th>
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<tr>
<td>Baseline data to be collected in 2002, with incremental annual progress to reach 100% by 2013-14 (Data sources to be determined)</td>
<td>Baseline data to be collected in 2003, with incremental annual progress to reach 100% by 2013-14 (Data sources to be determined)</td>
<td>Baseline data to be collected in 2003, with incremental annual progress to reach 100% by 2013-14 (Data sources to be determined)</td>
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**STATE STRATEGIES**

<table>
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<tr>
<th>Strategy 1A:</th>
<th>Strategy 2A:</th>
<th>Strategy 3A:</th>
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<tbody>
<tr>
<td>Link effective uses of technology and the Illinois Technology Literacy Standards to the Illinois Learning Standards</td>
<td>Link effective uses of technology and the Technology Literacy Standards to the Illinois Learning Standards and the Applications of Learning</td>
<td>Establish a common vision for technology literacy for students through endorsement of Illinois Technology Learning Standards parallel to the ISTE NETS</td>
</tr>
<tr>
<td>Strategy 1B:</td>
<td>Strategy 2B:</td>
<td>Strategy 3B:</td>
</tr>
<tr>
<td>Provide information about technology programs that have proven effective in supporting improved student achievement, particularly in reading and mathematics.</td>
<td>Provide technical assistance to local districts for effective use of technology in promoting 21st century skills.</td>
<td>Promote technology literacy of students in the context of the Illinois Learning Standards</td>
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<tr>
<td>Strategy 1C:</td>
<td>Strategy 3C:</td>
<td></td>
</tr>
<tr>
<td>Focus local technology projects funded with state and federal money on improvement of student achievement in reading and mathematics.</td>
<td>Focus local technology projects funded with state and federal money on improvement of technology literacy among students.</td>
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## DRAFT STATE GOALS FOR LEARNING TECHNOLOGY

### STATE GOAL FOR LEARNING TECHNOLOGY

To ensure that all Illinois students are ready to live, learn, and work successfully in a knowledge-based, global society.

### STATE PERFORMANCE GOALS (SYSTEM)

<table>
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<tbody>
<tr>
<td>Students, educators and community members acknowledge the mission-critical role of technology in the education of today's learners. (Data sources to be determined)</td>
<td>Illinois students will learn under the guidance of educators who routinely and effectively use technology in teaching, learning, leading, and administration. (Data sources to be determined)</td>
<td>Illinois students will be educated in environments conducive to learning in a technological, knowledge-based age. (Data sources to be determined)</td>
<td>Illinois students will have equitable access to rich, diverse and high-quality learning opportunities. (Data sources to be determined)</td>
</tr>
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**Benchmark:**
Baseline data to be collected in 2003, with incremental progress to reach 100% by 2013-14.

### STATE STRATEGIES

|--------------|--------------|--------------|--------------|

**Strategy 5B:**
Build professional development systems that ready and support teachers and other educators to meet the technology standards.

**Strategy 5C:**
Assess technology competency of beginning teachers prior to Initial Certification (beginning in 2003).

**Strategy 6B:**
Build the capacity of all local school districts, particularly schools with high percentages of children in poverty, to increase access to and effective uses of technology.

**Strategy 6C:**
Based on the Illinois Digital Learning Framework, develop a self-assessment tool that enables educators to profile learning environments, schools, and districts.

**Strategy 7B:**
Create standards for electronic-learning programs and services made available for Illinois students by commercial and public vendors.
## DRAFT STATE GOALS FOR LEARNING TECHNOLOGY

### STATE GOAL FOR LEARNING TECHNOLOGY

To ensure that all Illinois students are ready to live, learn, and work successfully in a knowledge-based, global society.

### STATE PERFORMANCE GOALS (SYSTEM)

<table>
<thead>
<tr>
<th>System Goal 8: Robust Technology Access</th>
<th>System Goal 9: Digital Equity</th>
<th>System Goal 10: Policy, Leadership and Accountability</th>
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<tbody>
<tr>
<td>Illinois students will have access to contemporary and high-speed technologies and communications networks</td>
<td>All students have equitable access to technology during and outside the school day, regardless of the student’s race, ethnicity, family income, geographic location, or disability.</td>
<td>Policies, leadership and budgets are aligned to and support a statewide school system that makes appropriate use of technology in teaching, learning, leading, and administration</td>
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<tr>
<td>(Data sources to be determined)</td>
<td>(Data sources to be determined)</td>
<td>(Data sources to be determined)</td>
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**Benchmark:** Baseline data to be collected in 2003, with incremental annual progress to reach 100% by 2010.

**Benchmark:** Baseline data to be collected in 2003, with documented progress to reach 100% by 2013-2014.

**Benchmark:** Baseline data to be collected in 2003, with incremental progress to reach 100% by 2013-14

### STATE STRATEGIES

<table>
<thead>
<tr>
<th>Strategy 8A: Establish and continuously update standards for technology infrastructure, networks and technologies.</th>
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<tr>
<td><strong>Strategy 8B:</strong> Continue state support for purchase of technology resources and the operation and improvement of the statewide technology backbone, the Illinois Century Network.</td>
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<tr>
<td><strong>Strategy 8C:</strong> Provide assistance to local school districts re effective use of resources for technology.</td>
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<td><strong>Strategy 9A:</strong> Provided intensive and focused technical assistance to schools and districts that are not providing equitable access and use of technology for all students.</td>
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<td><strong>Strategy 9B:</strong> Promote public-private partnerships that support equity of access, particularly for students from high-poverty schools.</td>
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<tr>
<td><strong>Strategy 9C:</strong> Promote community access to technology resources for students and parents, including in 21st Century Schools programs.</td>
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<td><strong>Strategy 10A:</strong> Establish a state-level policy and action agenda aligned to the state goals.</td>
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<td><strong>Strategy 10B:</strong> Provide leadership and support systems for learning technology at the state and regional levels</td>
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<td><strong>Strategy 10C:</strong> Establish ongoing, sustainable funding for technology</td>
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<td><strong>Strategy 10D:</strong> Establish and fund a research agenda related to technology literacy and learning</td>
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<td><strong>Strategy 10E:</strong> Establish a comprehensive evaluation process that tracks and reports progress in meeting the goals and benchmarks of the plan.</td>
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Proposed Illinois Student Technology Standards

(from the ISTE National Education Technology Standards (NETS))

1. **Basic operations and concepts**
   - Students demonstrate a sound understanding of the nature and operation of technology systems.
   - Students are proficient in the use of technology.

2. **Social, ethical, and human issues**
   - Students understand the ethical, cultural, and societal issues related to technology.
   - Students practice responsible use of technology systems, information, and software.
   - Students develop positive attitudes toward technology uses that support lifelong learning, collaboration, personal pursuits, and productivity.

3. **Technology productivity tools**
   - Students use technology tools to enhance learning, increase productivity, and promote creativity.
   - Students use productivity tools to collaborate in constructing technology-enhanced models, preparing publications, and producing other creative works.

4. **Technology communications tools**
   - Students use telecommunications to collaborate, publish, and interact with peers, experts, and other audiences.
   - Students use a variety of media and formats to communicate information and ideas effectively to multiple audiences.

5. **Technology research tools**
   - Students use technology to locate, evaluate, and collect information from a variety of sources.
   - Students use technology tools to process data and report results.
   - Students evaluate and select new information resources and technological innovations based on the appropriateness to specific tasks.

6. **Technology problem-solving and decision-making tools**
   - Students use technology resources for solving problems and making informed decisions.
   - Students employ technology in the development of strategies for solving problems in the real world.