Survey Results:
State Adoption of
Electronic Instructional Materials

Presented at the Annual Meeting of the
National Association of State
Textbook Administrators

July 24, 2005

Software & Information Industry Association

SIIA

About SIIA

- Principal trade group of software and digital content industry
- Represent 750+ high-tech companies publishing for consumers, business, entertainment, education and Internet
- Education Board Includes:
  - Apple - ETS - Inspiration
  - Kaplan - Learning.com - McGraw-Hill
  - Pearson - Red Hat - STI
  - Scholastic - Siboney - Thomson
- Education Mission:
  - Advocate for technology in education among educators, policy makers and other stakeholders
  - Liaison to educators to ensure the industry meets their needs and requirements
  - Leadership to foster collaborative problem solving necessary to advance development and integration of education technology.
  - Actionable market intelligence and business development opportunities

The Software & Information Industry Association (SIIA) is the principal trade association of the software and digital content industries. SIIA provides global services in government relations, business development, corporate education, and intellectual property protection to more than 750 leading high-tech companies that produce software and electronic information for business, education, consumers and the Internet.

SIIA's Education Division represents more than 150 leading and innovative companies that provide education software, digital curriculum, online learning, computer-based assessments and other technology tools to the nation's schools. Many also provide textbooks and other print-based curricular materials and assessments.

SIIA and our member companies have long worked with educators and state officials to leverage opportunities and address challenges aimed at delivering innovative educational technologies that meet education's evolving needs, including the use of computer-based or online digital instructional materials.

More information: http://www.siia.net

Software & Information Industry Association

SIIA

21st Century Classroom
Many are Ready for eTextbooks!

- School Access to Technology (NCES 2004)
  - Internet Access: 99% schools / 93% classrooms
  - Student to computer ratio 4.4:1
  - 600+ district (4%) and 2 state 1:1 Pilots (QED 2003)
- Teachers Take Advantage of Technology (NetDay 2004)
  - 75% incorporate Internet materials into lessons
  - 78% view technology as asset in meeting standards
- Students Surrounded by & Masters of Technology
  - 74% K-6 and 91% 7-12 students say technology helps them with their schoolwork (NetDay 2004)
- Publishers responding to education interest with innovative yet stable supply of software, e-textbooks and online core instructional materials to meet state standards

Schools and educators have made great progress in their effective use of technology.

Students and educators are looking increasingly to electronic learning resources to address education goals and meet the needs and expectations of 21st century students.

SIIA and our member companies recognize that not all communities currently have the technology infrastructure, training, support and practices necessary to take advantage of electronic learning resources as their primary curriculum. Yet, it may be safely stated that the number of such schools is steadily growing, and the increase in available electronic resources is instrumental to that growth rate. For those districts now looking to electronic learning resources and who can develop models for others to follow, state instructional materials review and adoption reform provides a critical and necessary means of support. Failure to change could inadvertently hold back those districts on the leading edge of modernization through technology.

Software & Information Industry Association

SIIA

Benefits of e-Instructional Materials

- Learner appropriate, aligned to state standards, and built around effective pedagogy and instructional design
- ***Engage*** students through multi-media, interactive and ***adaptive*** instructional content
- Support ***differentiated*** or personalized learning for unique student learning style, pace or needs
- Keep knowledge ***current*** and information accurate
- Support ***accountability*** through integration of assessment and classroom management tools
- ***Expedite*** delivery/access and increase ***portability***
- Enhance ***flexibility*** to meet evolving curriculum needs

From Kindergarten to the corporate classroom, technology is encouraging us to rethink teaching and learning traditions and to fundamentally transform many long-standing education models. From diagnosing learner needs to managing accountability data and from distance learning to individualized instruction, technology is helping improve educational opportunities, productivity and outcomes.

In addition to instructional and practical benefits, education technology is increasingly important in light of the changed learning needs and styles of today's students. Today's students matured in a digital world and are masters of technology. They seamlessly integrate multiple technology tools and digital resources into their daily lives, but are too often forced to leave these skills and aptitudes at the classroom door. As a result, students are increasingly disengaged in school, and are forced to adapt to a learning process and medium that stands in contrast to that which is most comfortable and successful for them.

As educators increasingly recognize this dynamic and adjust their instruction accordingly, it is critical that state adoption systems embrace innovation and change to ensure the sustainability and viability of the adoption process through the evolution of instructional materials and models.

Software & Information Industry Association

SIIA

Adoption Challenges

- Definition of Instructional Materials
- Review Process
  - Reviewer Training - Sampling
- Review Criteria
  - Digital Correlation
  - Design & Function Differences
  - Submission/Bid Forms
- Content
  - Linking to websites - Dynamic/Updated
- Pricing
  - FWO - Subscription/License - MFN
- Distribution
  - Depository - Bonding/Escrow

SIIA and our member companies, many of which are traditionally print publishers, view technology and electronic instructional materials as important tools for effective education, student success and academic preparedness for the 21st century.

We appreciate that many states define instructional materials to include software, digital learning resources or similar items. However, many of the rules and processes originally crafted for evaluation and adoption of print-based textbooks have not been appropriately revised to accommodate electronic materials, thus often resulting in their unintended exclusion. A more detailed review of several key challenges along with options for potential solutions is provided in the SIIA policy brief, State Instructional Materials Review and Adoption Reform: Rules and Processes to Support Electronic Learning Resources (see http://www.siia.net/govt/docs/pub/SIIAAdoptionLtrBrf.pdf).

In most cases, there has been no intentional effort to exclude or bias electronic learning resources. Instead, adoption rules and processes were crafted over many years in a period of exclusive reliance on print-based textbook and other core print-based instructional materials. In so doing, guidelines evolved that were often specific to print or failed to consider the relevance to, or other issues unique to, technology.

Software & Information Industry Association

SIIA

SIIA Survey

- Why a Survey?
- Sent to Textbook Administrators in 21 Adoption States
- Completed Online; May – July, 2005
- Yes/No & Open-Ended Questions
- 18 States Completed

AL	CA	FL	GA	ID	IN
LA	MS	NC	NV	OK	OR
SC	TX	TN	UT	VA	WV

- Thanks for NASTA Support

Survey of state textbook administrators on state rules and process related to adoption of electronic learning materials.

•Survey is part of SIIA initiative aimed at helping states ensure the adoption system evolves to meet the classroom environment and instructional materials of today's digital age. In light of the evolution in student needs, educator interests and school technology infrastructure, this is an opportune time to pursue collaborative efforts aimed at ensuring states recognize the many issues unique to electronic learning resources and ensure their fair and comprehensive review. SIIA and its member companies look forward to working with state officials and other stakeholders to examine and update, as appropriate, evaluation processes and adoption rules to enhance education's options for electronic learning resources that align to state standards and support the diversity of learners and learning styles.

•Survey goal to build understanding of these issues among state officials and other education leaders, and to provide information and facilitate discussion aimed at state adoption reform and modernization. Survey intended as an analytical tool as state agencies, educators and publishers work collaborate to address these issues and better take advantage of electronic and online learning resources.

•Questions pulled from SIIA policy Brief: State Instructional Materials Review and Adoption Reform: Rules and Processes to Support Electronic Learning Resources. These issues were raised as challenges/barriers by SIIA's working group on state adoption reform for electronic instructional materials.

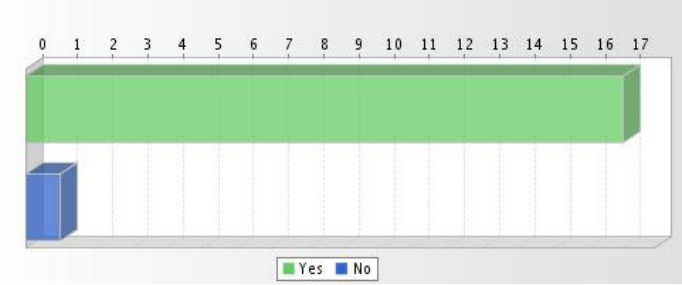
•Data and findings must be verified and clarified in some cases due to: (1) misunderstanding of questions; (2) incomplete responses; and (3) skipped questions.

Software & Information Industry Association

SIIA

Definition of Adopted Instructional Materials

Q: Does your state define adopted instructional materials/textbooks to include one or more of the following: software, electronic learning resources, digital curriculum and/or online content, etc.?



Results:

-Question intended to reference adoption of entirely electronic programs (as opposed to primarily print materials that include an electronic component). Some confusion possible among respondents, although most definitions submitted seem to suggest those responding "Yes" do include entirely electronic submissions in their definitions.

-Oregon responded "NO" but appears to be "Yes"

-Several states responded "YES" where their definition does not seem to reference electronic/software, although neither does it prohibit it.

-WV: 'Textbooks' includes books, instructional materials, learning technologies, and other materials. 'Learning Technologies,' include, but are not limited to, applications using computer software, computer assisted instruction, interactive videodisc, and other computer courseware and magnetic media.

-ID: Defined as any curricular materials for content area, this can be in textbook, web based, computer or server based.

-MS: Any medium or manual of instruction which contains a systematic presentation of the principles of a subject and which constitutes a major vehicle for the subject.

Software & Information Industry Association

SIIA

Review Criteria/Process

- Reviewer Technology Literacy
- Correlation to State Standards
- Sampling
- Submission/Bid Forms
- Design/Functionality

Background: The current adoption review process generally focuses on two sets of criteria: content and design. Content includes alignment with state standards, appropriate scope and sequence, appropriate reading level, etc. Design includes both physical layout (e.g., readability, appropriate use of illustrations, etc.) and technical specifications (e.g., textbook weight, font size, etc.). Recognizing that electronic learning resources must meet the same standards for quality content, technology does present unique opportunities and challenges that state adoption review criteria should evolve to address.

Software & Information Industry Association

SIIA

Review Criteria/Process
Reviewer Technology Literacy

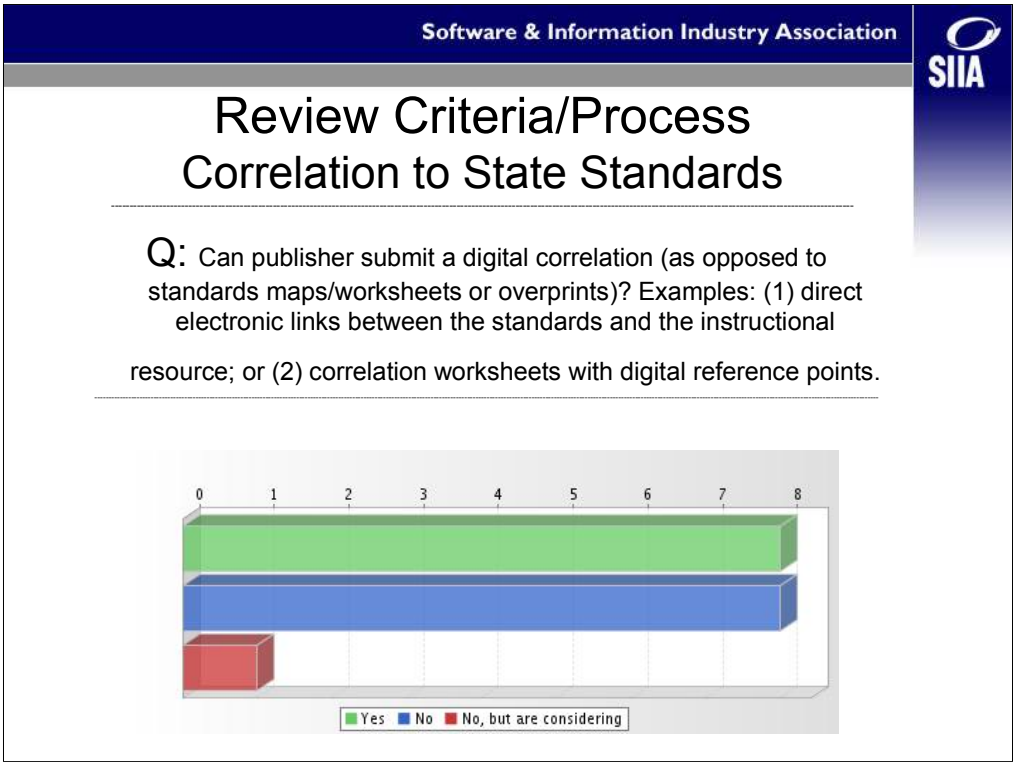
Q: What steps to ensure review committee possess necessary technology experience and skills?
Examples: questionnaire, provision of training, etc.

Results:

- Most cited state code for reviewer qualifications, which does not mention technology in nearly all cases
- CA and TN applications ask reviewers about computer skills
- NC, SC and TX all provide training as needed
- Majority of states seem to have little process to ensure reviewers have experience/skills to review electronic learning materials

Background:

States generally assemble a team of curriculum specialists to review and recommend submitted instructional materials for adoption approval. Very often, reviewers have limited experience in evaluating electronic learning resources and employing technology in the classroom. In such cases, the review process can not fairly treat submitted electronic learning resources. For example, publishers submitting electronic resources are often asked to supply computer hardware for their reviewers. This further suggests reviewers often are not themselves computer users. Therefore, a comprehensive review by technology savvy reviewers is critical for electronic learning resources, just as current reviewers are expected to be textbook savvy.



Question: *In judging whether instructional materials submitted for adoption are correlated to state standards, does your state allow publishers the option of submitting a digital correlation to state standards? For example, do you allow the use of direct electronic links between the standards and the relevant component of the instructional resource to demonstrate correlation, or do you allow correlation worksheets to employ digital navigation reference points? These methods are in contrast to standards maps/worksheets or overprints.*

Results:

-YES: FL, ID, LA, MS, NV, TN, TX, UT

-Many responses unclear.

-Many states do not rely on publisher correlations. Question then becomes again whether reviewers are trained to determine alignment for electronic learning materials.

Background: Alignment to State Standards: Instructional materials are generally judged in large part on the degree to which they correlate to state content standards. Most often, states require publishers to submit a printed correlation worksheet demonstrating which book chapter, page, etc. covers each standard. This structure is often not natural for digital materials that are non-linear, adaptive and interactive; and it often presents navigation challenges that undermine the important goal of demonstrating content alignment.

Software & Information Industry Association

SIIA

Review Criteria/Process
Sampling

Q: Challenges faced with distribution of sample copies (sampling) of electronic learning resources to reviewers?

Responses:

- Reviewers w/out internet access (WV)
- Technical problems (GA, NC, OK, UT, VA, WV)
- Reviewers w/out skills to evaluate (FL, TN)
- No significant problems (AL, CA, ID, LA, OR, SC, TX)

Results:

•Some problems were indicated as isolated and not a major concern.

•Technical problems included:

- •Publisher log-in did not provide access to enough of program
- •Difficulty navigating product
- •Hardware incompatibility with product
- •Reviewers unsuccessful in accessing product website

•Unclear how many of these problems due to lack of reviewer skills/experience? In any case, publishers also must make sure to address any technical issues.

•TX: Web-Based easier than printed since documentation, logins, etc. all provided together

Software & Information Industry Association

SIIA

Review Criteria/Process
Sampling

Q: What processes to address the unique issues -- e.g. computer or Internet access?

Responses:

- Addressed case-by-case (GA, LA, VA, WV)
- State provides computer (AL, ID, OR, VA)
- Publisher provides computer (CA, NC, OK, TX)
- Provide technical assistance (NC, FL)

Results:

•Most states seem to have addressed challenges and do not consider these significant issues

•Several suggested issues largely parallel that faced with printed textbooks.

Software & Information Industry Association

SIIA

Review Criteria/Process
Submission/Bid Forms

Q: Changes to submission or bid forms that recognize design/functionality differences of electronic / online instructional materials? Examples: "type of media"; "predominant instructional mode" or "distribution options".

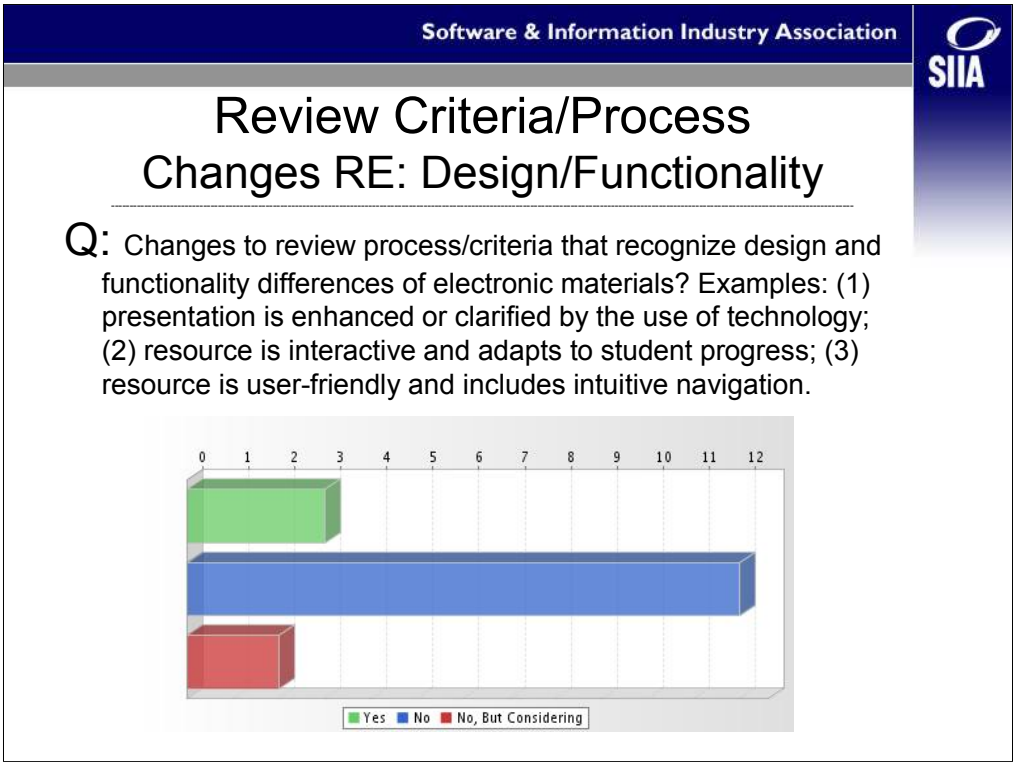
Results:

- Yes: FL, ID, LA, MS, NV, TX, UT
- 4 other states answered “No”, but indicated submission form spot for “media type”
- May have been confusions about “has state made changes” as perhaps changes were made many years ago

- TN: Added TD Basal (Technology Dependent) to Textbook Selections Classifications.
    - Identifies a basal program which requires technological hardware, software, and/or infrastructure for its implementation.
    - Requires descriptions of technology components, including Web sites and any hardware or software requirements.
    - Schools responsible for determining the necessary technology platforms and infrastructure.

- VA: Added questions specific to electronic materials, including: (1) do you provide training to teachers; and (2) what form did it take.

Background: While textbooks are print-based, bound and linear, digital resources are multi-media, computer-based and often interactive and adaptive. As such, many physical design adoption requirements around paper weight, layout, book binding, etc. are not relevant, while many core elements unique to technology are not currently addressed.



Question: *Has your state made changes to state review processes / criteria that recognize design and functionality differences between printed textbooks and electronic / online instructional materials? Such changes might include certifying that: "presentation is enhanced or clarified by the use of technology"; "the resource is interactive and adapts to student progress;" or "the resource is user-friendly and includes intuitive navigation."*

Responses:

ID: Publisher allowed to give brief presentation to reviewers.

NC: Provides reviewer training

TX: Reviews only whether content standards are met and products are error-free / Does not review for quality or ease of use.

Software & Information Industry Association

SIIA

Content Linking & Substitution

1. Allow web links (publisher assurance)?
   Yes: 9 No: 3 Considering: 4
2. Allow update if new content is supplemental or correction?
   Yes: 10 No: 1 Considering: 4
3. Allow marginal content changes; publisher change log?
   Yes: 6 No: 3 Considering: 7
4. Allow technical changes to address new tech standards?
   Yes: 9 No: 3 Considering: 3
5. Allow schools to select alternative in mid-cycle if web-based product is changed to not meet state standards?
   Yes: 6 No: 6 Considering: 1

Question: *Electronic learning resources can provide great flexibility by both linking directly to additional resources, as well as changing over time to reflect new information and/or new technologies. Please identify which of the following policies your state employs (or is considering):*

1. *Allow electronic learning resources to link with other web-based resources, provided publishers ensure all such resources are live and appropriate?*
2. *Allow for update of content in electronic learning resources where changes are supplemental (i.e., add additional information) or a correction and also remain aligned to state standards?*
3. *Allow for marginal changes to content , but require publishers to provide a change log at intervals based on their periodic product/website update?*
4. *Allow for refinement of the electronic learning resource's technical design and functionality, provided the changes are necessary in light of new technical standards, and do not impair continued use of the resource?*
5. *Allow school customers to select an alternative web-based electronic learning material in mid-cycle upon demonstration that, due to changes to its content, the resource no longer meets state standards?*

Background: Electronic learning resources can provide great flexibility by both linking directly to additional resources as well as changing over time to reflect new information as well as new technologies. Adoption policies should embrace the dynamic qualities brought by electronic resources to enhance the student experience.

Software & Information Industry Association

SIIA

Content Linking & Substitution

Responses:

- 8 states *Yes* to 3+
  (AL, FL, GA, LA, NV, OK, SC, TN)
- 3 states *Considering* 3 or more such policies (MS, UT, TX)
- Several policies appear crafted for printed textbooks, but being interpreted to apply similarly to electronic materials
- Potential Problems:
  - Lack of publisher notification on software changes/upgrades
  - Possibility of constant review of changes in web-based materials
  - Introduction of content not approved or with errors

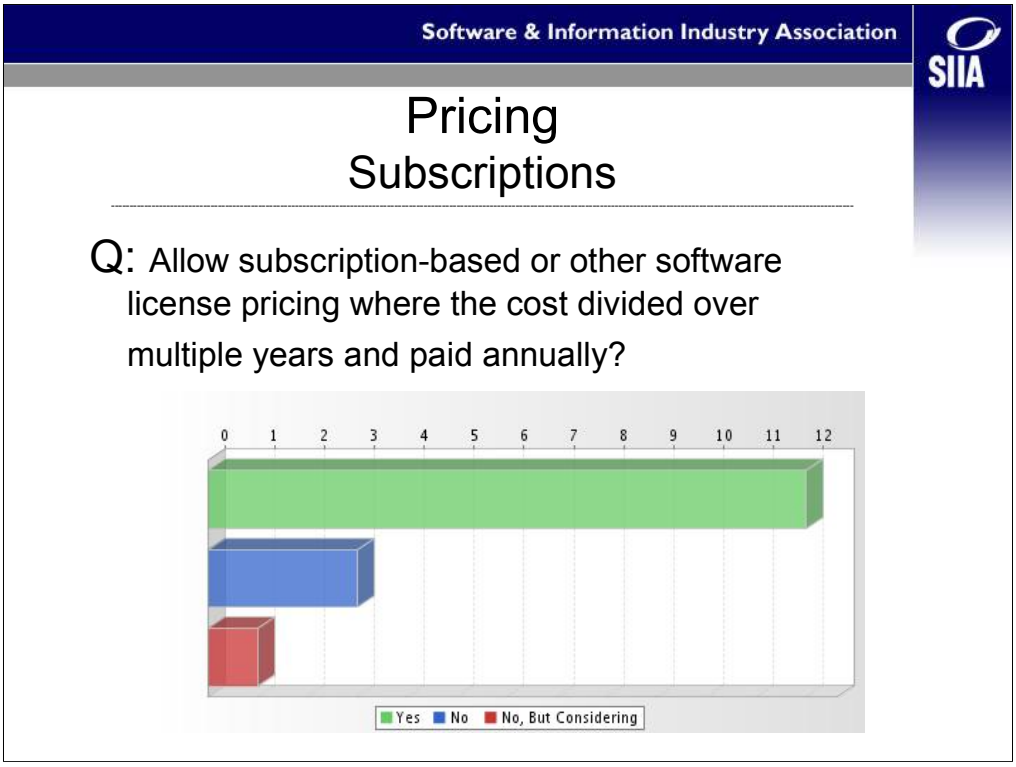
Results:

1. Yes: FL, GA, ID, LA, MS, NV, SC, TN, WV	Considering: OK, TX, UT, VA
2. Yes: AL, FL, GA, LA, NC, NV, OK, SC, TN, WV	Considering: MS, TX, UT, VA
3. Yes: AL, GA, LA, NC, NV, OK	Considering: FL, MS, SC, TX, UT, WV, VA
4. Yes: AL, CA, FL, GA, LA, NV, OK, SC, TN	Considering: MS, TX, WV
5. Yes: FL, GA, LA, OK, TN, UT	Considering: MS

ID: Allow software upgrades and content changes, provided for error corrections and do not alter original content. Publishers submit letter outlining product change and reason for modifications for state approval

AL/VA: Textbook process for substituting new materials w/review & approval (could be used for electronic)

TX: Proposed legislation: off-cycle submission/review; expedited review for updates; and open submission with biannual approval



Question: *Does your state allow publishers the option of a subscription-based or other software license pricing model where the cost may be divided over multiple years and paid annually (as opposed to a single payment)? What challenges would a subscription model pose to your state and/or your districts?*

Results:

Yes: AL, CA, FL, ID, LA, MS, OK, SC, TN, TX, UT, WV

Background:

The pricing models for electronic learning resources may vary significantly from that employed for printed textbooks, especially for products delivered over the Internet. Integration of this pricing model into state adoption contract terms presents a further issue to be addressed. In short, current adoption practices assume a fixed fee per unit to acquire possession of a physical book. In contrast, electronic learning resources are generally licensed or provided by yearly subscription fee, which takes into account that the resource is dynamic, highly portable among computer devices, and often hosted remotely (an on-going expense to the publisher).

Pricing Terms: Adoption rules now provide for a single payment for an instructional material generally intended to last for six years. Prices are set in the state contract and generally remain fixed for the entire adoption period. However, electronic learning resources are instead licensed or offered by subscription, in part in recognition (and expectation) that the product will change and improve over time.

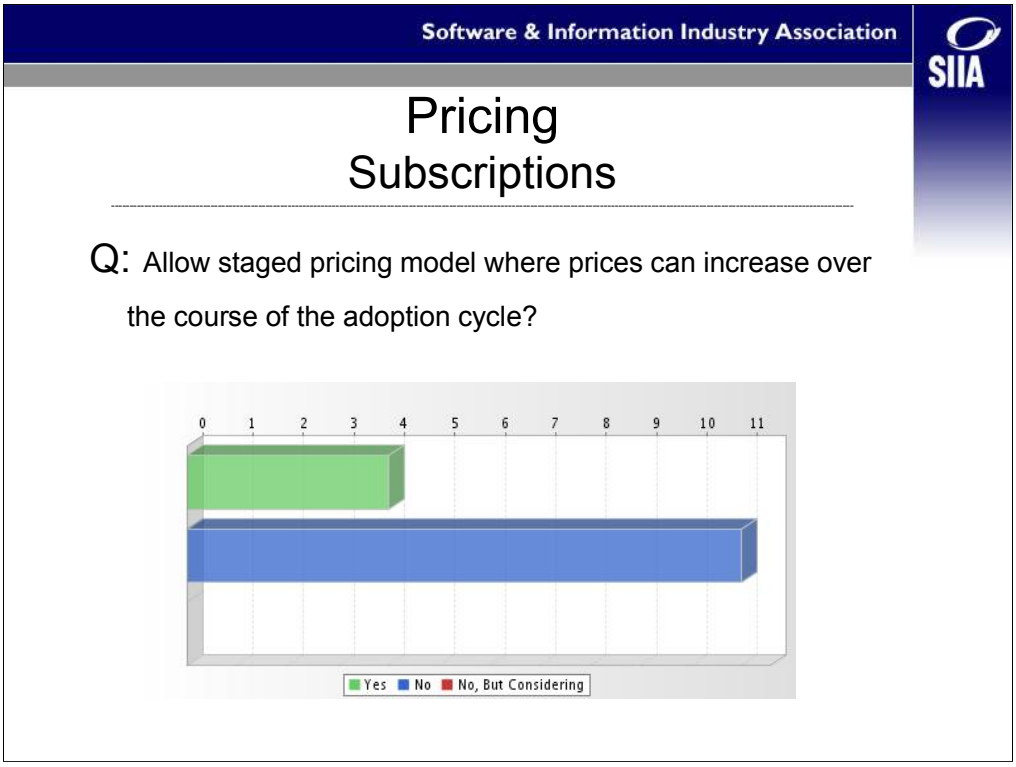
Pricing
Subscriptions

WV: Schools could choose that model since they pay directly out of state line item

IN: Textbook rental state

TN: No Challenge. Subscription price, like that of print or CD is fixed for 6-year adoption cycle by contract.

Challenges:
- Inconsistent state funding
- Longstanding local budgeting and processes:
  - Districts accustomed to one-time purchase for 6 year adoption
  - Districts spend funds on certain subject(s) each year, but now would use funds for each subject each year
- Enrollment fluctuation



Question: *A staged pricing model consists of a schedule that is submitted at the start of the adoption cycle detailing that prices can/will increase over the course of the adoption cycle to reflect and encourage updated/improved electronic learning resources. Does your state allow such a model?*

Results:

Yes: LA, TX, UT, VA

OK: No, but publishers can go through bid process out-of-cycle to raise price of materials or programs.

LA: Publishers indicate on bid sheets the pricing model. Districts have the choice to select the program or not.

TX: In a recent adoption, the subscription price increases in year three and year five with an expectation that the materials will be updated at least twice over the six-year adoption.

VA: State allows publishers to request price increase every two years within 6 year contract.

Software & Information Industry Association

SIIA

Pricing
Similar Material / MFN

Q: While electronic material submitted to two states may be "similar" in content, other functionalities may be different due to the integration of other tools and functions. In determining equivalency under MFN, does your state take such features/differences into account?

- Yes: 3 (AL, LA, TX); No: 6
- Most skipped question
- 7 allow for publisher appeal

Question: *While electronic material submitted to two states may be "similar" in terms of the nature/scale/scope of the content, other functionalities may be quite different due to the integration of additional assessment, classroom management, productivity and other tools. In determining equivalency under most favored nation (MFN), does your state take into account that such features may make the value (and therefore the appropriate price) of such submissions quite different?*

Background:

State adoption contracts often require that publishers provide the state with the same, lowest price as other states for identical or similar textbooks. Thus, if state A negotiates a contract for a certain amount, then state B would require the same price if the two textbooks are similar. In making this determination for electronic materials, such MFN policies must recognize several unique factors:

- First, while a cursory look may suggest two products are the same, software/web-based materials often evolve in subtle yet significant ways over time.
- Second, software and web-based materials often integrate instructional, curricular, assessment and management tools that change the product and its value.
- Third, implementation may require various technical set up and support costs that vary across states (and districts), and which therefore impact the degree to which two seemingly like products are truly similar. For example, professional development may vary widely depending upon both product version between two states, as well as local teacher skill level within a state.

Strictly implemented without accounting for these unique technology factors, MFN pricing would therefore provide significant disincentive for electronic publishers to enhance or vary their product to meet unique and evolving needs.

Software & Information Industry Association

SIIA

Distribution / Depositories

Depository Requirement

- 13 states with depository requirement
- 3 w/out requirement (AL, IN, VA)
- Depository Purposes (beyond warehousing and distribution)
  - District customer service
  - Maintain catalog (print and web-based)
  - Sales and marketing data
  - Accuracy of adoption list/prices
  - Purchase materials from publisher
  - One-stop shopping for districts

Question: *Does your state have a depository requirement for distribution of adopted materials? If YES above, what critical functions, beyond physical warehousing/distribution, does the depository provide to the state and/or districts?*

Background:

In many adoption states, textbooks are distributed through a textbook depository, which often places orders, provides delivery, takes payment and otherwise acts as retail distributor for publishers. The role of depositories in the adoption and dissemination of instructional materials needs to be reevaluated in light of efficiencies brought by modern customer service management, billing and distribution technologies. For electronic learning resources, especially web-based resources, electronic fulfillment and delivery provides the most stark case for reconsideration and new or parallel models.

Software & Information Industry Association

SIIA

Distribution / Depositories
Depository Requirement

Q: If state uses depositories, allow publishers to use alternative to state depository, including acting as own depository?

	Yes	No	Considering
Web-based:	8	3	1
Software:	6	6	0
Printed:	6	6	0

- Alternative: Direct from publisher / Publisher depository

Results:

Yes:

•Web-based: CA, FL, GA, LA, OK, TN, TX, WV

•Software: CA, FL, GA, LA, TX, WV

•Printed: CA, FL, GA, LA, TX, WV

WV: Material may be purchased either from the depository or direct from the vendor at the contract price. Shipping is included in the contract price.

ID: permit direct purchase from publisher.

CA: publisher can maintain a rep/office in lieu of depository

GA: Materials may be housed in another state; however, freight charges must be assessed as if the materials are being shipped within our state.

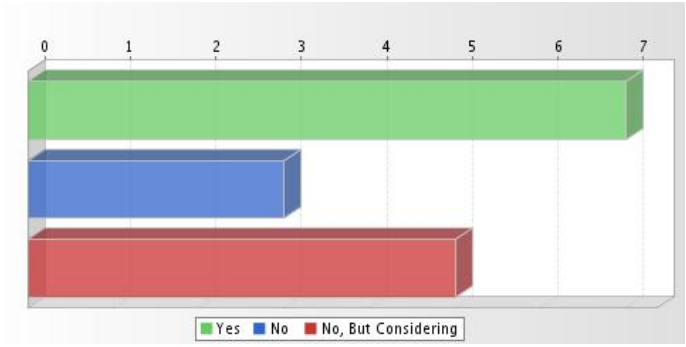
LA: Publishers identify alternatives on bids.

Software & Information Industry Association

SIIA

Distribution / Depositories
ISBN

Q: Allow alternatives to an ISBN for identifying adopted instructional materials, particularly electronic instructional materials?



Results:

Yes: AL, CA, FL, LA, ID, IN, TN
Considering: OK, MS, SC, TX, VA

ID: ISBN preferred, but in some instances may allow a product number, version, edition, etc. provided material submitted can be clearly identified.

CA: Materials must have a unique identifying number

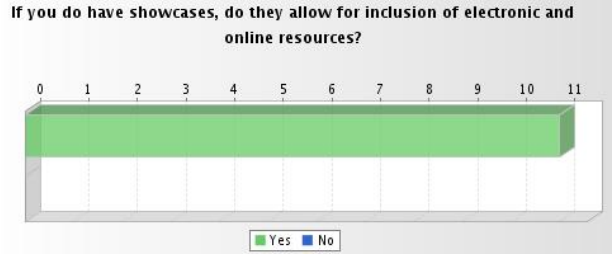
IN: All publishers can use any identifying number.

FL: URL allowed

TN: Only require a unique identifier

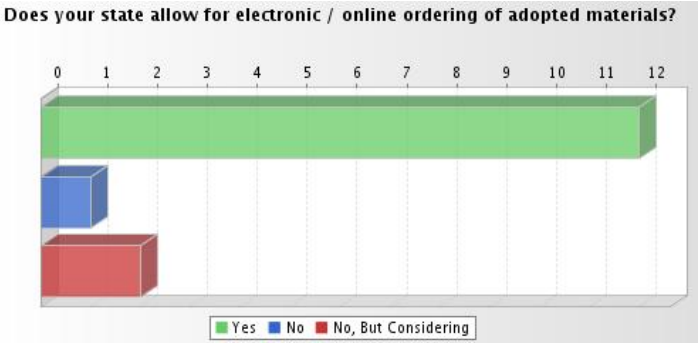
Distribution / Depositories

Showcase / Caravan



Distribution / Depositories

Online Ordering



Software & Information Industry Association

SIIA

Next Steps

- Survey results released to SIIA members, education leaders and other stakeholders.
- Encourage state textbook administrators to review survey questions and results as analytical tool for further internal reform.
- Encourage NASTA to continue to serve as forum for examination of these issues.
- SIIA working group will continue to engage NASTA and individual states toward reform.

In light of the evolution in student needs, educator interests and school technology infrastructure, this is an opportune time to pursue collaborative efforts aimed at ensuring states recognize the many issues unique to electronic learning resources and ensure their fair and comprehensive review.

To that end, SIIA and its member companies look forward to working with state officials and other stakeholders to examine and update, as appropriate, evaluation processes and adoption rules, and to enhance education's options for electronic learning resources that align to state standards and support the diversity of learners and learning styles.

Software & Information Industry Association

SIIA

Thank You!

Mark Schneiderman
SIIA Director of Education Policy
202-789-4444 / marks@siia.net

http://www.siia.net/education