

NCTI 2007 Innovator's Conference

Session Title Implications of the National Instructional Materials Accessibility Standard (NIMAS) and the Role of Technology and 21st Century Skills Breakout Session

Names of Presenters Jim Fruchterman (moderator), Chuck Hitchcock, Lucy Gray

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Summary

Chuck Hitchcock, Director, NIMAS Development and Technical Assistance Centers [<http://nimas.cast.org/center/index.html>] and Chief Technology Officer, Center for Applied Special Technology (CAST) [www.cast.org/index.html]

NIMAS (National Instructional Materials Accessibility Standard) Update

Chuck provided a background for how NIMAS was formed in the mid to late 90's. He shared that CAST's big hope is that ultimately the accessible version of specialized formats will be available directly from the publishers – but there is a lot of work to be done to drive the market in that direction. Two forces are at work on the market currently:

- Commercial interest in preparing accessible materials, and
- Worldwide movement towards digital speaking books - Digital Accessible Information System (DAISY) digital standard. DAISY standard is essentially tags and ways of marking up content. NIMAS is based on the DAISY standard, and hoping that eventually DAISY and NIMAS will be the same.

See the NIMAS Donut in Chuck's presentation slides at http://www.nationaltechcenter.org/documents/conf07/presentations/nimas_hitchcock.pdf for a graphic illustration of how accessible materials get to students through the NIMAS process.

Accomplishments to date for the NIMAS Center and effort:

- OSEP released an RFP for 6.3 mil dollars for States or Consortium of States. CAST and 15 states came together into an "AIM Consortium" to apply, and were awarded \$4.9M. See slides for AIM Consortium goals and exemplar products and services, and to learn which States are involved.
- Important trainings, working meetings, and more at both Federal and State levels, and International DAISY meetings took place. CAST is currently working on new textbook-centric structured guidelines for developers for DAISY/NIMAS. These will hopefully be out and up on web in next couple weeks for public review.
- The NIMAS TA Center [<http://nimas.cast.org/center/index.html>] is available to help support States, LEAs, and other organizations that are interested. A document on website provides info on the various formats and the Center will soon be releasing another document that touches upon which formats are appropriate to use for which kids and when – that will hopefully be posted within the next month.
- The NIMAS Development Center [<http://nimas.cast.org/center/index.html>] focuses on technical issues and questions. The Center is developing a committee that will focus just on this.
- NIMAC (National Instructional Materials Access Center) now has 42 publishers that contribute, 40 State level coordinators that have applied, 43 accessible media producers who can draw files down from NIMAC, 55 authorized users in 33 States and territories, 2600 files available, 634 text books, and 1792 supplemental reading materials, and hundreds of other consumables.
- There is an indemnification issue that is currently in the process of attempting to be resolved
- The commercial sector (technology companies) has responded to NIMAS by creating new tools that use the NIMAS format (see presentation slides for samples).

Comment by Jim Fruchterman: Microsoft announced this week a partnership with the DAISY Consortium to provide in MS Word a way to “save as” DAISY – this will be a very big deal because the average volunteer or teacher will now be able to do this without becoming an XML specialist. This is due out early next year as an add-on for Word 2003 and Word 2007.

Jim Fruchterman, Chairman and Founder, Benetech [<http://www.benetech.org/index.shtml>]
and 2006 MacArthur Foundation Fellow

Introduction to Bookshare [www.bookshare.org]

Jim focused his remarks on the new initiative at Bookshare. Benetech (parent company) won a competition from OSEP on September 28, 2007 to supply K-12 and post secondary materials for Chafee Amendment qualified students with print disabilities. On Oct 1st, Bookshare became subscription-free to all schools and students with print disabilities. It was possible to move that fast because Bookshare is a digital service. Now Bookshare is signing up thousands of students very quickly, and that’s happening just through word of mouth. This new grant will have the following impact:

- Existing OSEP regulation to serve students 22 yrs. old and under was waived by OSEP so Bookshare can also serve graduate students 22 and older.
- Will quintuple the level of book production from roughly 5700 books last year to at least 20, 25k books on educational materials (reference material, recommended reading lists, and textbooks).
- Timeliness commitment: If Bookshare receives NIMAS ready format from a publisher or individual, they can put it on the website for students to access within one week – big part of IDEA has been this dream that disabled students get their books at the same time as students with print disabilities.
- Will be investing in books under highest demand
- Will take any high-quality scanned NIMAS book received – Bookshare has no space limitations. The only issue is not being able to doing EVERY textbook at the high-level image description goal they have, due to the cost.
- Series of upgrades:
 - Text only today
 - Text + images by end of 2008
 - In 2009 they will start adding text based image descriptions for graphics
 - Also committed to delivering free AT that reads Bookshare’s books. Right now Bookshare uses Victor Reader Software (free from Uniware) – a VI focused product that reads Daisy books. Bookshare will add an LD focused product.

Bookshare is about a dream Benetech had about delivering books to all students at the same and to filling in gaps in making books accessible. Benetech is committed to tapping the incredible effort being made by individuals for social benefit, i.e., getting teachers who did a great job with certain books to put their work into the Bookshare collections so the next teacher can use that without having to duplicate the effort.

Lucy Gray, Lead Technology Coach, Center for Urban School Improvement [<http://usi.uchicago.edu/>]
You’ve Got It Digitized

Lucy shared her perspective as an educational leader for her district and professional organizations (such as Google Educators and Apple Educators), and as a parent of a child with a learning disability. She sees NIMAS as a delivery system rather than a learning system – the significance to her being that it would allow for the *timely* delivery of high quality accessible materials.

A lot of the technology, tools, and content are already out there, and teachers are already using technology for free. The question is, how do we get teachers to wrap their minds around a resource like NIMAS, and how do we break down the barriers to get these digital materials to kids? How can social media and Web 2.0 content that is free and available help? Some of the types and ways teachers are already using Web 2.0 tools include:

- *Social bookmarking tools* such as “del.icio.us” [<http://del.icio.us/about/>] – educators use these type of sites quite a bit to learn from each other
- *Media sharing tools* such as YouTube [www.youtube.com]. However, YouTube is not captioned, and we need to talk to companies about how we can make the tools that are already being used accessible
- *Apple Learning Interchange* [<http://edcommunity.apple.com/ali/>] - Apple has changed its educational repository; it used to be a great tool for teachers on how to find exemplary lessons using technology, but it was very flat. They have completely revamped it, and the Apple Distinguished Educator community has been a large part of that. The site now offers threaded discussions; allows members to submit their own work, add colleagues to their networks, etc. For instance, when Lucy did an exhibit with four other educators on how to revamp field trips into revamp field trips into an interactive, student-produced experience, they:
 - Developed different lessons
 - Produced a video
 - Provided links to other social media
 - Showcased pictures other people took
- *Ning* (www.classroom20.ning.com) – This site was probably was not intended to be an educational tool when it began, but people just flocked to it – there are now 4,000 members, which is very high in terms of online communities of teachers. Includes an area for personal pages (profiles, blogs, photos), announcements, forums, etc. and teachers have been surprisingly active on this site.
- *Wiki spaces/Wikis* – a set of webpages that you can edit quickly. There is history tab where you can see previous edits, and you can also have a notification sent to you whenever there is an edit. There is also a discussion tab. You can embed videos, images, RSS feeds. A wiki can become a living textbook that students/classrooms can create and collectively add to.
- *Google earth files* [<http://earth.google.com>] – teachers can download historical maps so kids can see where events took place.

The people who are participating in these communities are the people that are going to get the word out for you about NIMAS – so you need to get the word out to these kinds of people. We need to think about how we can get tools like these out to kids.

Parents are forced to figure out on their own how to navigate to the resources they need. For instance, Lucy’s daughter does not have an IEP at the private school she attends, so Lucy will have to try to take her to a public school to see if she can get access to NIMAS that way. Throughout the process of trying to find help and resources for her daughter, there was no one-stop shop for Lucy to go to in order to figure things out; she had no idea about half the things she needed to know about. However, she has slowly been able to figure it out through social networking, which was hugely helpful to her. If Lucy, as a fairly savvy person, had such a hard time navigating her way through, what about other parents? How can we bring these resources to them and help them figure out that there is help available?

Questions

Question (Lucy): *How will teachers in the field develop an awareness of NIMAS’ existence? Where is the content going to be delivered and presented? The publicity piece is very important to consider.*

Jim: Bookshare has a big educational project ahead of us. It was written by someone like me; it has tons of text that describe in gory detail all the technical wonders of the technology. Meanwhile, teachers and parents are asking, “Can I get my books?”

Bookshare is reworking the entire site to focus in on that. It will be like amazon.com – you’ll be able to type in a keyword, and it will pull up all the books that match. If you are a member (school, student, or parent/volunteer), you can immediately save the books on the student’s computer. The file arrives zipped, you type your password, and it comes out as specified (whether a DAISY file or digital Braille or other). Benetech also provides text-to-speech software for reading the file. The site has to support multiple ways for people to get a hold of the file.

Question: How will families qualify to use Bookshare?

Jim: Bookshare is currently available to students with IEPs who qualify under the Chafee Amendment (i.e., students who have someone who can sign the Chafee form certifying that the student has a qualifying disability). There was debate about how to reach students who are not covered under either 504 or IEP but do have special needs, and Bookshare wants to tackle these larger problems, but for now OSEP has decided on Chafee only.

Question: It's great that Bookshare is now available for students with Down Syndrome, and potentially LD students, but how can we get Bookshare to go to the next step of being available for at-risk kids? Who will sign off for them? Schools sometimes choose to label kids as "at risk" and not "LD" because of Response to Intervention (RTI) funding.

- **Chuck:** If tools are free then there is no reason not to use these tools. One option is to do something along the lines of writing an article in Parade magazine to increase awareness - some of the pressure needs to come from families.
- **Jim:** This is a collision between two different bodies of law: *educational law*, which mandates serving a broad range of students with disabilities, and *copyright law* – the amendment to which only applies to a very narrow set of students, and requires that a *qualified* professional be able to sign a form saying the student qualifies under Chafee. If there is a disincentive by a school to have IEP students, parents can get others to sign off so there will be another avenue to get materials.
- **Chuck:** possibility of following the Community College solution from California. They decided that civil rights law trumps copyright law. If that applies to community colleges in CA, it applies to K-12 too, but no one's brought a class action suit. Someone needs do this, and it's going to make a huge difference.

Question: What was Mary Ann Wolf, who is the executive director of the State Educational Technology Directors Association (SETDA), planning to present if she had been a part of the panel today?

Chuck: We know that the role of the State Director of Technology is critical. We are trying to bring together parties that do not normally work together closely at the State level – such as the State level technology director along with the State AT Center (whether State or federally funded), and the Special Education department. Getting those three working together and helping to solve these problems I think is really critical. I suspect she was going to talk about the resources and mechanisms for bringing technology to support the use of accessible materials at the classroom level. SETDA also has a new report out in collaboration with the Partnership for 21st Century Schools and ISTE that she was going to discuss (see http://www.nationaltechcenter.org/index.php/2007/12/19/1207_setda_report/).

Also, Lucy was building the case for making textbook publishers obsolete [by teachers writing wikis]. I actually favor vetted content – it does require some expertise to pull together the right materials for science or social studies, and to do a scope and sequence, and link that up with the standards – and publishers are pretty good at doing that. But all in all, some of the textbooks are kind of tired. We know in higher education they recycle them - every two years there's a new version. In K-12, it's often 7 or 8 years before they're renewed. But Lucy raised the question, "Does every classroom actually need textbooks?" I think we're going to see a lot of experimentation around that in the next couple years in a couple of ways:

1. Through the use of social networking along with various other web-based resources – so another challenge is making sure that those resources are accessible.
2. The international movement with Curriki [<http://www.curriki.org/xwiki/bin/view/Main/WebHome>] and others that are trying to use open source materials and technologies to provide online textbooks that can be used in every country – in different languages and through various open source technologies. The question is: Will those be made accessible? We don't know yet.

Question: For students who don't qualify to access materials under Chafee, could they buy accessible materials from the publisher?

Jim: Currently if students do not qualify under Chafee they cannot access materials, and if they do qualify under Chafee, they cannot pay. With Chafee, the publishers get nothing – but because we're only serving the 1-2 % of the most severely disabled kids, the publishers do not care that they're not making

money off of it. You can guess, though, that 15-30% of kids could benefit from this content, and would be willing to pay for it.

So we are talking to States and publishers about the possibilities of a 504 Bookshare-type service, but it will not be under Chafee and will not be free. It will be based on State law or contract (through buying books or making deals with the publisher); we will offer the Bookshare infrastructure to States to operate, but it will have to be a State-operated entity, where the States will cut the deals with the publishers. We have talked to the publishers about this and as long as they're making their money, they are willing to talk more about it. So it has to be taken out of the realm of the Chafee copyright exception mode and into a market model, driven by State education-access law – we have to separate the two.

We're hoping that the publishers will be willing to do that, and it seems like they will as long as it's discretionary vs. compliance-based.

Question (Lucy): *How do we get textbook publishers to be more open to allowing changes to even the paid-for versions of their books (for instance, for possibilities of allowing students to enhance the content and make it their own).*

Jim: We've talked about open-source, but you're talking about open content, where it's community-driven and users can add creative comments. Right now, we've got open content around curriculum – teachers and universities control that. So there's a lot of a curriculum but no textbooks for that curriculum. And wikibooks don't work for textbooks – or haven't yet – because of quality control issues. There are a lot of people investing money in the textbook area – but its tough to have a textbook that meets the State standards, and it can't be done by a bunch of different people nibbling away at it. But I see that as the opportunity - give the education professor who wrote that great book \$10k to be able to turn the book into creative comments and make it available to everyone around the globe. I think we're going to have to remediate most publishers because they're hanging on to the old model. The same thing is happening in the scientific publishing area – the publishers are having a cow about possibility of federally funded research being made available in open content – even though tax payers are paying for it.

There is also the possibility of conceiving enhancements as an “extra layer” on top of the content, so you're not changing the actual content or the intent of the author, but adding a supplementary layer of content to it (comments, etc.) that can be viewed alongside it if desired.

Comment: *It is very exciting, but overwhelming to a parent or teacher that isn't familiar with it – how to find the time to learn about all the different resources and tools and how to use them, etc.*