Innovate-Ideagora:
A Call for Sustainable Development in Instructional Technology
by Denise Easton and Alan McCord

The Innovate-Ideagora community, now more than 400 members strong, is exploring a number of tough questions and interesting topics. If you have not yet checked out Innovate-Ideagora, please do so by visiting http://innovate-ideagora.ning.com. We encourage members to invite colleagues and associates to join. It only takes a few minutes to establish your profile and begin connecting!

The Hope for a $10 Laptop

A theme has emerged in recent discussions on Innovate-Ideagora: the quest for a low-cost, sustainable model to provide universal access to information and knowledge-building tools. This was the topic of the open discussion we hosted in March.

Community member Patrick initiated this discussion. Patrick is involved in a university teaching and learning center that supports programs for teachers, scholars, and preservice teachers from various countries, including Iraq, Pakistan, Armenia, and Chile. A major hurdle for all the participants is what happens when they return to their home countries where they must struggle with the gap between what they have learned and used during their university studies (Web 2.0 technologies, Ethernet networks, ubiquitous wireless access) and the reality of their teaching environments, which are not nearly as advanced or as consistent in infrastructure or services. In October 2008, Patrick posed a provocative challenge:

I'm interested in your input, web resources, or articles/books that might address adapting instruction to a low-tech infrastructure environment while still incorporating technology where it would be appropriate/possible/beneficial. As an example, participants of the program have received newer iPod nanos, which can be played through an inexpensive CD player by using a $1 cable. Lots of media for teaching English as a Foreign Language can be brought into the classroom without having a snazzy computer lab in place.

Members have responded not only with concrete suggestions but also with thoughtful explorations of the philosophical elements of the problem, including a sobering discussion of what the terms of use specified by such utilities as Google Docs may mean for education.

Denise Easton picked up the story of the $10 laptop reportedly developed by a collaboration of Indian universities from several blogs, the LinkedIn network, and hundreds of Tweets. Easton's initial post suggested that such a project would change the face of education here in the U.S. The story turned out to be incorrectly reported as the "laptop" turned out to be a storage device loaded with data that can be accessed when the device is connected to a laptop.

Although it's not a laptop, the device is still important in that it provides access to information even when Internet connectivitity is not available. The device, now projected to cost approximately $20, includes 2 GB of RAM, fixed Ethernet and wireless networking capability, and expandable storage capacity; moreover, it will consume only 2 watts of power. The Indian government, which is introducing the storage device as part of its new National Mission on Education through Information and Technology, hopes to use the devices to provide

free educational content to schools. Both the fictitious $10 laptop and the $30 storage device bring to mind Nicholas Negroponte's One Laptop per Child (OLPC) initiative, which proposed a laptop computer costing approximately $200. OLPC hopes to create educational opportunities for the world's poorest children by providing each child with a rugged, low-cost, low-power, connected laptop with content and software designed for collaborative, joyful, self-empowered learning.

In spite of the disappointing revelations with regard to the Indian project, Ideagora members continued to think and write about what a $10 laptop—and the ubiquitous access it promises—might mean for education. Al McCord pushed the discussion along in a challenging response to Denise's initial post:

Perhaps one of the questions we need to think about with the "$10 laptop challenge" is what the most important uses of this device would be. For example, is it more important to be able to deliver personalized "lessons" to students (hence the importance of higher video and audio quality) or to have the student compose and contribute original works (hence the importance of input devices and storage)?

So solving the "$10 laptop challenge" will perhaps be much easier than ensuring the provision of learning resources and Internet connectivity to schoolchildren. The storage device is one valuable, low-cost solution to the problem Patrick describes, but it is only one piece of the puzzle. The real question is much larger: how do we provide access to the Internet and to learning resources with the same economies of scale implied by a $10 laptop?

Innovate-Ideagora Interviews

Since our last column, we have hosted two live virtual interviews in Innovate-Ideagora. Both of our interviewees noted the trend toward digital video as the next wave of e-learning tools. We explored the annotation of online videos and its linkage with open documentation and the use of avatar-like characters in three-dimensional commercial training videos. At last count, there were well over 150 million YouTube videos; the recently launched YouTube EDU already features hundreds of videos produced by colleges, universities, and faculty members. How many of us have already posted YouTube videos to support our teaching, created our own channel, or are at least considering the educational benefits of doing so?

Our first interview, on March 25, was with the founders of Nibipedia, a new software platform that allows users to annotate uploaded videos with "nibs," visual bookmarks on a video timeline. Currently, Nibipedia allows nibs to Wikipedia content; eventually other content sources will be accessible. The power of the product will be fully realized when the underlying metadata structure is fully developed so that each nib can be linked not only to the video but to other related nibs. Our discussion with founders Troy Petersen and Terry Schubring began with a prerecorded audio clip explaining how Nibipedia works.

We quickly moved to an exploration of their vision for learning environments that use videos to create learner-centered content. Troy shared several examples of how Nibipedia could be used—from medical school training to professional skill development. A recent beta user, an English teacher in Vietnam, uploaded an episode of the television show *Friends* and then "nibbed" the video by adding annotations from Wikipedia articles to highlight the use and context of English words in the episode. Nibbing the television show provided the teacher with an interesting way to teach English language and U.S. culture to her students.

Troy and Terry look to a future environment where a single video (or any digital media object) can become an interactive learning experience where students can add nibs to the video in real time as well as exploring previously added nibs for related learning paths. Take the vision one step further: Imagine multiple threads of nibs in many types of media—video, audio, animation, text, documents, and user profiles—creating unlimited

opportunity for learners and content to be connected through the same original video objects.

At this time, Nibipedia allows only YouTube and TED Talk videos to be uploaded, but future releases will support uploading of any video type. Only beta users can upload Nibipedia videos, but anyone can add nibs to previously uploaded videos. Readers interested in joining the beta test can request access by visiting Nibipedia. The archive of our Innovate-Ideagora interview with Troy and Terry is available on Innovate-Live.

Our second interview, also on March 25, featured Miriam Scurrah, the training and development designer for Kmart Australia. Miriam uses Reallusion's iClone software to create three-dimensional animated videos for employee training. Although iClone 3 is not created specifically for corporate training, it is designed for users of all skill levels to create movies, Web media, visualizations, and presentations using 3D content. iClone allows designers to use avatar-like actors, which can be made to represent an actual person by importing images of the person, that are brought to life using facial animation, motion, clothing, and accessories. Actors can be placed in scenes using architecture and natural elements including sky, terrain, water, and atmosphere; a sample iClone video demonstrates the use of environmental features and avatars.

Miriam provided us with a short demo as a sample of how the software will be used for more extensive employee training programs. The first full-scale program Miriam is developing is an organizationwide safety training program for Kmart Australia. Three-dimensional animation will provide both a more engaging experience for trainees and a more accurate simulation of live training programs. The archive of Miriam's Innovate-Ideagora interview is available on Innovate-Live.

Both of these interviews make clear that the emergence of video content in all forms offers fertile ground for knowledge exchange. How great will it be when when every digital image or video object can be "nibbed" and the collective experience and diversity of the "nibblers" be accessible to everyone, including students using a $10 laptop?

What's Next in Innovate-Ideagora

We need your input to help plan upcoming interviews! Let us know what topics you would like to explore, who you would like us to interview, and what you would like us to ask them our guests by posting your questions to the discussion forum areas of Innovate-Ideagora. To find out when specific interviews are scheduled or to participate in the live sessions, please check the Innovate-Live schedule.

As a marketplace for ideas, Innovate-Ideagora lets us all participate directly in wide-ranging conversations about education and information technology. Ideagora represents an important step in Innovate's ongoing mission to spotlight the latest innovations in technology and explore their implications for education in all its forms. Membership is open to all and registration is easy and free. We hope you will join us in our experiment. Visit http://innovate-ideagora.ning.com to establish your profile and join the conversation!