The Intel Innovator

Tools and Resources for Educators Vol 4, Spring 2003

Elementary and Secondary Education

International Perspectives

New Professional Development Course Based on *TIMSS Research*

If you are a teacher, curriculum specialist or instructional leader, you are probably aware of the strategies and learning activities being used in the classroom next door. But how about classrooms on the other side of the world—especially in countries known for high student achievement? Classroom observation can be a powerful professional development activity, yet many teachers face time constraints that make it difficult to look beyond their own classrooms.

A new online professional development course, *TIMSS Video Studies: Explorations of Algebra Teaching*, makes available a virtual tour of classrooms from three countries recognized for high student performance in mathematics.

The course, developed by Intel in cooperation with Dr. James Stigler and LessonLab, builds on the research base generated by the Third International Mathematics and Science Study (TIMSS), and the newly released *Video Studies*. The TIMSS research projects were launched by the U.S. Department of Education to provide an international assessment and benchmark of educational achievement in mathematics and science. A follow-up to the original TIMSS was the TIMSS Video Study where Dr. Stigler, author of *The Teaching Gap*, and his research team videotaped and analyzed classrooms from seven countries. Their goal was to investigate whether educators from different high-achieving nations use the same teaching methods. For example, they compared mathematical problems that eighth-grade students were asked to solve during lessons and analyzed the style of teacher-student interaction that takes place in classrooms around the world. The findings from this research note differences in teaching strategies used around the world, and uncover effective strategies for teaching and professional development.

TIMSS Video Studies presents video case studies of algebra lessons from classrooms in Hong Kong SAR, Japan, and Switzerland—all known for high student achievement in mathematics. By observing teachers in authentic classroom settings, course participants explore what they can learn from other cultures to better engage and sustain their own students in doing serious mathematical work. Interactive tools and guided reflection activities can help participants connect what they learn from the videos with what they want to happen in their own classrooms.

Research Highlights

Although the findings from the new *TIMSS Video Study* will not be formally released by the U.S. Department of Education until later this month, the research and the new online course are already inspiring professional development activities for educators. Among the conclusions shared in the course are the following:

- No single method of teaching mathematics is required for students to achieve well.
- Much can be learned by examining a variety of teaching methods and searching for ways to engage students in serious mathematical work.

Course Options

Although teaching algebra is the specific focus in the lessons, the course is designed for middle school and high school mathematics teachers, curriculum specialists, and instructional leaders.

TIMSS Video Studies is available as a six-week facilitated course with optional university credit, or as a non-facilitated course that allows for self-paced learning but offers no course credit. Train to become a facilitator (coming Summer 2003), and lead a customized course for colleagues or adult students.

The Intel Foundation has underwritten the cost of the course. However, there is a $40 fee for materials and an additional $60 to receive university credit if desired.

Register for the course today at www.intel.com/education/math.

What Makes a Good Web Tool?

Web Tools Forum Brings Together Creative Minds to Plan for the Future

In the months ahead, the Intel® Innovation in Education Web site will continue to expand with free tools and resources for educators. Long before a new tool appears online, however, months of planning and design go into resource development. Behind the scenes, a team of experienced educators, researchers, and software engineers work together to create tools for teachers to use to increase student learning.

Jim Pollard, education content manager for the Web site, plays a key role in shaping which tools will make their way from raw idea to reality. A 20-year veteran of education and educational technology, he knows from experience that the classroom value of any tool is what matters most. "What's going on in the classroom is more important than the tool that's helping it go on," he says. In other words: Education is more important than technology.

So what makes a good Web tool for educators? And where do good ideas for teacher resources come from?

Pollard and his colleagues from the Intel® Innovation in Education team invited a group of 50 teachers, university researchers, and software engineers to discuss those intriguing questions at the first Web Tools Forum. Four days of brainstorming and creative thinking generated a slate of new ideas for potential development. All focused in some way on classroom activities that would inspire students to use higher-order thinking skills. "We were hoping to come away with four good ideas to develop, and we got at least 10," says Pollard.

Free to Dream

In the loosely structured environment of the Web Tools Forum, teachers broke into small teams and were encouraged to dream. "We know there are a lot of teachers out there with ideas, and we wanted to bring some of them together," Pollard says. "The best way to be creative is to be with other people who are creative."

The teachers present were from diverse classrooms; an urban high school for students in the California court system, an Alaska district that invests heavily in technology to connect students with the rest of the world, and an Idaho middle school where teachers regularly create projects that cross disciplines. What all share, says Pollard, is that "they're known for being good teachers." And they have a track record of integrating technology into the classroom to boost student learning.

Sitting alongside these creative teachers at the Web Tools Forum were education researchers and software engineers. Drawing on participants' diverse backgrounds, the teams were able to express conceptual ideas for new Web tools in terms of software, and also in terms of pedagogy.

Building Blocks

Months of development and classroom field-testing will take place before any of these new ideas will be ready to introduce on the Web site. However, Pollard already has a good idea of the building blocks required to make a Web tool useful for teachers and appropriate for delivery on the Intel® Innovation in Education site. "In general, a good tool will have little connection to content. It's something that can fit into teachers' lives regardless of what subject they're teaching." And like previous Web tools, the next generation to appear on the Intel Innovation in Education site will relate to higher-order thinking. Pollard describes upcoming tools in broad strokes: "Most will be collaborative. They'll be content-free, so they can work in any subject area. And really good tools involve layering in some way; taking knowledge in one area, overlaying it in some other area, seeing connections, building on ideas. That's appealing from the Web perspective. We can combine ideas from different geographies."

"We know there are a lot of teachers out there with ideas, and we wanted to bring some of them together," Pollard says. "The best way to be creative is to be with other people who are creative."

How soon might these innovative new tools be available for teachers? Look for at least two new ones by the end of this year, Pollard says. But first, there's much work to be done. "It's a challenge," he admits, "but considerable fun."

Try one of our free tools today at www.intel.com/education.

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Navigating the Design Process

***Design and Discovery* Curriculum Puts Students in Roles of Designer, Engineer**

How do you go from a great idea to a working prototype of a new product? Developing creative solutions to real problems is what designers and engineers do every day. Now, a brand-new curriculum called *Design and Discovery* is available for free on the Intel® Innovation in Education Web site to introduce students in the middle years to fundamental concepts of design and engineering.

Design and Discovery covers everything needed to organize and teach a class, including detailed lesson plans for inquiry-based, hands-on learning. The course takes students, ages 11–14, through a series of steps and learning activities, building their understanding in a sequential way.

Students start by examining the design of the simple paper clip, then quickly progress to discovering the properties of physics by taking apart bicycles. Hands-on activities teach them how to wire electrical circuits, build self-propelled toys, and accomplish other targeted goals.

When it's time to create their own working prototypes, students take their ideas for new products through the same process that professionals use. They learn to keep a design notebook, recording their observations as they gather input from focus groups, put prototypes through field tests, and make design modifications.

Students who have participated in the course have developed working prototypes for such innovative products as a sleeping bag roller, wireless Christmas lights, and a remote-control grocery cart. The class also makes the behind-the-scenes work of designers and engineers more visible. One student marveled at how "so much thought and time goes into something as simple as a paper clip or potato masher."

The course is appropriate for both formal and informal learning contexts, such as middle school science electives, summer camps, youth groups, or after-school enrichment activities.

The *Design and Discovery* Web site includes the complete curriculum, which consists of 18 sessions, each lasting two-and-a-half hours. Web resources include all handouts, short readings, materials lists, and links to online resources such as the U.S. Patent Office Web site. *Design and Discovery* also explains how teachers or youth leaders can take advantage of opportunities to enlist mentors from the fields of design and engineering. Suggested field trips take students into their local communities for a fresh look at the designed and engineered world. Some students may develop prototypes they will want to share with a larger audience. Science and engineering fairs, such as local affiliates of the Intel International Science and Engineering Fair, offer a venue where students can share their great ideas.

Design and Discovery grew out of a summer camp project called *Fair Play*. *Fair Play* was intended to increase girls' abilities and confidence in technical areas and allow them to experience the fun and excitement of being an inventor who solves real problems. *Design and Discovery* builds on the success of *Fair Play*, expanding inquiry opportunities to all learners. It has been field-tested and specially tailored for online delivery. Design and Discovery is available at www.intel.com/education/design.

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Institutes Ready to Roll

Free Professional Development Coming

Connecting educators with free resources that fit local needs for professional development is the idea behind the new Intel® Innovation in Education Institutes.

The institutes are designed to interest instructional leaders, curriculum specialists, primary and secondary school classroom teachers, and others involved in using technology to support student learning. Educators should come away from a training event with a better understanding of how to use the growing number of free tools and resources available on the Intel Innovation in Education Web site, (www.intel.com/education).

Among the current course offerings:

- *It's a Wild Ride*: Web-based case study demonstrating technology-supported project learning
- *Seeing Reason*: Web-based tool for exploring cause-and-effect relationships
- *Design and Discovery*: Web-based curriculum that teaches design and engineering concepts through inquiry-based experiences
- Ideas Worth Borrowing: A guided tour of two collections of engaging, technology-supported learning projects
- Technology Integration Resources for School Leaders: Providing school leaders with professional development resources to support teachers in all grade levels and subject areas
- Tour of Web-Based Resources: A guided tour of what's available on the Intel Innovation in Education Web site to assist student learning

For more information and an Intel Innovation in Education Institute catalog, visit www.intel.com/education/institutes.

Science Fair Teacher: Sheila Porter

Two-time *Young Scientist Teacher Award* Recipient

Dublin, Ireland—Science fair season is an exciting time for students and teachers alike. What makes these events worthwhile from a teacher's perspective? We decided to ask two-time recipient of the Young Scientist* Teacher Award winner Sheila Porter. She teaches science at Loreto College, St. Stephen's Green, an all-girls secondary school in Dublin, Ireland. Each year, she mentors and guides some 50 girls who enter projects in Ireland's national fair.
*The Young Scientist is Ireland's national science fair and is an Intel ISEF affiliated fair.

How did you get started with science fairs?

Being young and enthusiastic, I encouraged my students to enter the science fair, beginning in 1995. We had two students that first year, and since, it's grown to over 50.

What do students gain from the experience?

When students pick a project themselves, it's something they want to do. They become the experts. It's a great way of learning. They're interested, and they're doing it for themselves. Sometimes you'll be really surprised at a student who hasn't been particularly good academically, then suddenly she picks some topic and goes in depth with it. It's just lovely.

How do you recruit students to participate?

I have a meeting and show a video of past fairs. And after the fair, we have an exhibition of all the projects at school. We have great excitement, and that sort of sets the ball rolling.

Before they start working on science fair projects, do your students get a foundation of scientific research skills in the classroom?

Yes. In Ireland, students take a class called transition year science. We can teach what we like in transition year, so it's an ideal opportunity to teach something like scientific research and the process of science.

You've attended four Intel ISEF events: What has your involvement meant to you as a teacher?

I've learned so much from attending the events, seeing students' projects, and getting the chance to meet other teachers from around the world. We've exchanged a lot of ideas, and we've stayed in contact. It's great to hear things from another point of view. As a teacher, you should be learning new things all the time. You need to get out of your own classroom and meet one another. In science, particularly, there is so much to learn.

What's the best part of science fairs?

A lot of people say to me, "Why do you bother? You're giving up your free time to do this." And I say, "I do it because I want to do it." I get as much pleasure from it as the students get. As a teacher, you just have a lovely relationship with your students. They might go on to become doctors or get their Ph.D., but when they meet me again years from now, they will always say, "Remember when we did the Young Scientist?"

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Science Fairs As an Educational Tool

Benefits Extend Beyond Prizes and Recognition

In communities around the world, more than a million students are busy polishing their research projects to enter in local science competitions. Some 1,200 winners of regional events affiliated with the Intel International Science and Engineering Fair (ISEF) will come together in the United States in May to compete with students from all over the world. But students participating in these fairs stand to gain benefits that extend far beyond prizes and recognition, according to a recently released white paper from Intel® Innovation in Education.

Shooting for the Stars: How Science and Math Competitions Benefit Students, Teachers, and Communities describes potentially far-reaching benefits that come with participation in academic competitions such as the Intel International Science and Engineering Fair and related regional events.

In the course of engaging in inquiry to solve open-ended problems in science or engineering, students use higher-order thinking skills. They learn to articulate and defend their own thinking, which polishes communication skills. Some projects also require the skills of teamwork and collaboration.

"They learn to articulate and defend their own thinking."

Many of the learning activities that have been proposed to reform mathematics and science education already are the norm in well-designed competitions, the paper suggests. In particular, the paper refers to learning goals set forth in the *National Science Education Standards, Benchmarks for Scientific Literacy, and Principles and Standards for School Mathematics*.

Citing research into how we learn, the paper suggests, "As students test, revise, and refine their ideas in the course of pursuing an independent research project, they are following a path that eventually leads to deeper understanding." Student competitors also benefit from engaging with mentors, socializing with peers, interacting with teachers in a more relaxed, informal learning environment, and by "being taken seriously by peers and adults," the report suggests.

Students are not the only ones who benefit. Teachers who coach participants often gain exposure to scientific or technical concepts that stretch their own knowledge base and keep them engaged as lifelong learners. Many teachers also benefit from working with mentors and gaining access to laboratory equipment and other resources.

Finally, communities stand to gain when students tackle problems in their local setting. Students may contribute novel ideas for solving real-world problems. For example, one student devised a mosquito control device that uses acoustics rather than pesticides. Another devised a refrigeration system that runs on solar power, which has potential for storing vaccines and food supplies in developing countries.

To read more of *Shooting for the Stars: How Science and Math Competitions Benefit Students, Teachers, and Communities*, or to learn more about Intel ISEF, visit www.intel.com/education/ISEF.

Lasting Changes

Intel® Teach to the Future Recognized by South Korea Ministry of Education

Not yet a year old, the Intel® Teach to the Future effort in South Korea has already received recognition from the Ministry of Education and has trained 11,000 teachers. The Ministry Award of Recognition was presented to the Intel team in Korea "in recognition of a strong commitment and enthusiasm shown to contribute to drive the IT Education Initiatives in Korea effectively."

Lasting changes in the profession are already resulting. "Their minds are changing," reports Jay Lee, education program manager for Intel Korea.

A teacher from Chungbuk Internet High School explains: "This training totally changed my understanding of the concept of technology integration in classrooms, as well as my mind-set. I used to use technology only for teacher-centered teaching but through this training I learned to think from the students side and was motivated and empowered to engage them in the classroom using technology" says Mr. Jin, Sang Ho.

Previously, teachers were likely to use technology as a form of classroom presentation. "Now, it's more dynamic. Teachers are using technology to encourage students to think more creatively, to get them to use higher-level thinking skills," Lee says. When teachers see students respond in a positive way to classroom projects that integrate technology, that helps them stay motivated.

"To lead and observe the growth among students is a fascinating process and keeps me motivated to improve my teaching" explains Mr. Lee, Young Suk, a teacher at Shinga primary school in Seoul, Korea.

Fostering higher-level thinking is an important learning goal. "It's what teachers have been wanting for a long time," Lee says. "They know this is what is important for our students." Equipped with good ideas, effective strategies, and a stronger network of colleagues, teachers now have tools for reaching these key learning goals.

Before South Korea joined the Intel Teach to the Future program last year, many educators in this country had already acquired basic computer skills, reports Lee. But as Intel's teacher-training program has taken hold, engaging more than 11,000 participants since June 2002, it has fostered better integration of technology in the classroom and generated a new spirit of teacher collaboration.

"Fostering higher-level thinking is an important learning goal."

In introducing the program, 20 veteran teachers were selected to serve as national leaders. These national leaders, who were proficient in information technology and had strong content knowledge, formed "the human network," Lee explains, to launch the intensive 60-hour training to interested teachers across the country.

After the national leaders participated in Intel Teach to the Future training, they helped further localize the curriculum to meet the specific needs of Korean teachers. Collaborative planning also helped the national leaders come together as a strong team. "They better understood the learning goals and found more ways to enhance learning," Lee says. They developed a Web page to share information, communicate, and mentor each other.

In July 2002 the curriculum rolled out nationwide, with 500 Master Teachers being the first recipients of the training. Then the Master Teachers began taking the curriculum to the local level, following the model used to disseminate the Intel Teach to the Future curriculum around the world.

Within one month, 2,000 teachers had participated and the response was positive. "In evaluations, 94 percent said they would recommend the training to their peers," Lee reports. That positive response, combined with continuing support from the Ministry of Education, swelled the total to 11,250 teacher participants by the end of January 2003.

Empowering Teachers

Benefits of the program don't stop with the initial training. Participants are coming together to form teacher communities and extend the collaboration they enjoyed during training. They have a synergy together, Lee explains, which they hope will lead to school improvement.

The core group of national leaders also continues to maintain a strong network. "They share good examples of how to integrate technology and good teaching strategies. They use e-mail, come to meetings in Seoul, and stay in regular contact," Lee reports. "They are honored to do it, to help one another. It's empowering for teachers."

"It has fostered better integration of technology in the classroom and generated a new spirit of teacher collaboration."

In 2003, Intel® Teach to the Future will continue outreach efforts across South Korea to engage more teachers in training. In addition, a new effort will start bringing pre-service teachers into the program.

Intel Teach to the Future is currently training teachers in 28 countries on six continents, and has collectively trained more than 850,000 teachers around the world.

For more information on Intel Teach to the Future, visit www.intel.com/education/teach.

Higher Education

Collaboration with Universities

Intel Researchers on Campus

In helping to accelerate the advancement of research and curricula to meet the rapid technology advances, Intel collaborates with top universities around the world through its higher education effort. Intel delivers fresh perspectives and fosters collaboration between industry and academia through equipment grants, scholarships and fellowships, research grants and lectures by senior Intel technologists.

As an example, Intel researchers visit engineering and computer science schools to deliver lectures on Intel's cutting edge research. In addition, the researchers have the opportunity to meet and have informal discussions and exchanges with students and faculty working in their area of interest to learn about the latest work that is going on at that university. The visits foster intellectual exchange and research collaboration and they can also lead to finding Ph.D. and master's students who might want to work with Intel in the future.

Lecture topics cover a range of current research interests from nanotechnology and wireless technologies to the social life of cell phones.

To learn more about the social life of cell phones and the collaboration between universities and Intel researchers, read the profile below from Genevieve Bell, cultural anthropologist, and Intel researcher.

Intel's support of higher education extends to more than 75 schools in 25 countries worldwide

Intel Researcher: Genevieve Bell

The Social Life of Cell Phones

"One of the challenges of being a cultural anthropologist at Intel is that I get to do all this interesting work, but very few people outside of Intel know about it," says Genevieve Bell, a member of an interdisciplinary team of social scientists and designers at Intel Research.

"Going to university campuses not only allows me to share the work I'm doing, but also to have a dialogue with students and faculty about their projects and research," says Bell.

Bell is currently the principle researcher in charge of a two-year project in Asia, looking at ways in which cultural patterns affect technology use. "It's a comparative ethnographic project in seven countries, she says, that tests the assumption that early adopters of technology in urban Asia will look the same as in America or Western Europe. And of course we're finding that they are very different."

In India, for example, where long-distance phone calls are prohibitively expensive and mail is slow, Bell found that Indian families with computers use instant messaging to keep in touch with relatives all over the world.

"Interestingly, what the Indians share in these messages is the ephemera of daily life," says Bell. "What they had for dinner, what Aunty wore to the most recent wedding, how the cricket is going; all the daily conversations that are so important to personal relationships but are hard to maintain when people are geographically distributed around the world."

Bell, a frequent visitor to academia, taught anthropology and Native American Studies at Stanford University before coming to Intel in 1998.

"I often talk to engineering or computer science students who do not have a background in the social sciences," she says. "And although as an anthropologist it's quite easy for me to tell a lot of interesting stories about other people and other cultures, the real challenge is how to make my research intelligible and useful to people outside the social services."

Bell recently gave a lecture to undergraduates at the School of Engineering at Stanford on the subject of human-computer interaction. "I talked about how in Asia people use computers differently; where they place them in their homes, for example, and their different rules about who uses computers when. For many of these students, it was the first time they thought about what technology might look like when it goes into another culture."

"We ended up having a really interesting conversation," she says, "and I had some great e-mails from students afterwards wanting to incorporate some of the fieldwork I was talking about into their class projects."

For Bell, a visit to a campus often extends well beyond the hour-long lecture. "The last time I was at MIT, I ended up staying a week," Bell recalls. "I had lots of conversations with faculty members, and students who wanted to talk about their work, or show me demos of projects. I also gave a master class on field methods."

As the result of another visit to MIT, Bell became an industry mentor for a woman with an Intel graduate fellowship, and she coauthored a paper with an MIT student on design technology that supports domestic rituals.

Bell always enjoys a trip to campus, "I'm not only demonstrating that Intel does valuable research in unexpected areas, but I'm also looking for new projects and research from academia that might interest Intel. It's a sort of matchmaking." She says.

Community Education

Making Music in Utah

Intel Computer Clubhouse Youth Signs Record Deal

When Hemen Barzangy's debut album of Kurdish rap music was released by a Swedish recording label in December 2002, the CD release party was held at the Intel Computer Clubhouse in the Sorenson Multicultural Center in Salt Lake City, Utah.

Barzangy, a senior in high school, has been making music since he was a child in the Kurdistan region of Iraq. But it was not until last year when a friend brought him to the music room at the Intel Computer Clubhouse that the aspiring musician had access to equipment that allowed him to lay down the tracks for a studio-quality CD.

A few months earlier a producer from Starn Music Records, the Swedish label, had heard Barzangy's music on a popular Kurdish Web site and suggested the youth send him a demo. With the help of clubhouse assistant Kiril Boyadjieff, Barzangy spent a few months polishing and recording enough songs for an album, which he titled Zhian Parwary Kurds (roughly, "Die for Our Land"). The rest, as they say, is history.

"Hemen has been one of the pioneers in the music room, in that he's the first to take his work beyond the amateur level," says Boyadjieff, who has worked with Hemen and other youth in the music room for the past year.

"When he came to the clubhouse he didn't have more than bare-bones computer literacy. Now he knows how to produce and mix audio on the computer; he's designed all of his own CD inserts and labels, and he's putting together his own Web site."

Barzangy was 12 when his parents and four brothers and sisters came to the United States as political refugees and settled in Utah. At 14 he began to take music seriously after hearing rap artist Tupac Shakur. He acquired a cheap piano keyboard and experimented with recording on a home computer, but repeated crashes and lost recordings left him frustrated.

Then one day last year, his best friend brought Barzangy to the Intel Computer Clubhouse. There he met Boyadjieff, a musician and art major at the University of Utah. Boyadjieff introduced him to a new world of possibilities in a little cubicle with windows in a back corner of the clubhouse: the music room.

"When he came to the clubhouse he didn't have more than bare-bones computer literacy. Now he knows how to produce and mix audio on the computer; he's designed all of his own CD inserts and labels, and he's putting together his own Web site."

With high-grade microphones, electronic keyboard, guitar, drum machine, mixing board, and a computer loaded with music-editing software, Barzangy found himself in a real recording studio.

"The equipment here got me going," says Barzangy, "and it has meant everything. When I'm not in school or working at my after-school job, I come in early and spend maybe 15 hours a week here."

Barzangy's success has had an impact on other aspiring young musicians at the center, according to Intel Clubhouse Coordinator Carole Costa. "Before, the youth were using the music room to make a few songs and burn a CD. After Hemen's release party, they realized that making your own music can actually lead to a recording. Now the room is booked up to two weeks in advance."

A second album is in the works, Barzangy says. "It's totally different from the first one, with new beats and new lyrics in English. But it's still rap and still related to my past themes of freedom and what I've been through."

You can hear the music of Barzangy, or Hama Doshka as he is professionally known, at www.mp3.com/hamadoshka*.

The Intel Computer Clubhouse Network is an after-school community-based technology learning program that enables youth in underserved communities to acquire tools necessary for personal and professional success. The Intel Computer Clubhouse provides a supportive learning environment where youth build skills and self-confidence, working together with adult mentors who provide inspiration and serve as role models.

A Closer Look

Sharing a Passion and Making Dreams Come True

Kiril Boyadjieff, musician and art major at the University of Utah, has worked as an assistant at the Intel Computer Clubhouse in Salt Lake City for the past year.

"I started playing music when I was five or six years old: piano first, then guitar, bass, and drums. After my first computer experience, when I was about 18, I bought my own equipment and threw together a home studio and started producing my own albums. I'm just finishing my fourth album, and now I'm moving into a new creative area of mixed media, with music, video, and photography.

Since I started working at the Intel Computer Clubhouse last year, I've gained an incredible amount of technological knowledge. I work 20–25 hours a week, and sometimes I come in on my days off because I've gotten into elaborate projects with the kids. The experience of working here has been so much fun that it doesn't feel like a job.

My music is mostly storytelling songs. I try to reinvent my sound and purpose with almost every song, but I guess you could call it progressive and sonic rock.

I'm not that interested in marketing my own music right now. I've got about 30 songs on a Web site and I'll add more whenever they're done. They're available to download for free at www.mp3.com/kiril*.

In the future I'd like to find a way to succeed in the music business without having to sell too many chunks of my soul. But right now I want to focus on finishing school and being prepared for the possibility of success. There's no telling what life will bring."

Interested in becoming a mentor? There are over 65 Intel Computer Clubhouses located around the world, and many are in need of mentors. It takes only a few hours each week, and the rewards you receive are definitely worth the time you give. Mentors with all skill levels and types of experience are needed; you don't have to be a "techie" to help out. To learn more about how to become a mentor, visit www.intel.com/education/ICC.