

Director's Report to the Board of Education

April 20, 2009



Item #1: Our focus this month continues to be on recruitment and retention of students. At our last Teacher Workshop day, we listened to Mark Perna, a marketing specialist from Cleveland, Ohio. His workshop was informative and timely. Teachers and administrators took away some great ideas as to how to recruit students and retain them once they've enrolled.

Item #2: I asked Bruce Lee-Clark to attend conference earlier this month in Brattleboro on the topic of the **American Recovery and Reinvestment Act** or more commonly known as the stimulus package. The workshop I attended focused on how funding Vermont receives from this act will benefit education. Bruce brought some interesting information. In a nutshell, money is finally beginning to reach localities in the form of competitive grants. The first grant to reach Bennington is a Department of Labor grant to develop, design, and run a summer youth work program for at-risk individuals ages 14-24. We here at the CDC are busy working on a plan to run a four week summer work program for students ages 14-18. I hope to have good news to report to this board at the May meeting should this grant proposal be approved.

Item #3: I was asked to testify at a Senate Committee hearing on the 2nd of April in Montpelier. Representing all of the tech centers across the state, I informed the senators that the tech centers are ready and eager to serve as workforce retraining sites for displaced, unemployed and underemployed workers when the time comes to fund these programs.

Item #4: I was privileged to attend the final day of the FBLA (Future Business Leaders of America) statewide conference and competition held in Burlington on April 3rd. My compliments to Ms. Nikki Forest and her students for their hard work and competitive spirit. Results of the competition are in your board packets. **I ask that the board direct me to relay their compliments to Ms. Forest and the FBLA Students.**

Item #5:

The Human Services Program recently partook in a 2-day trip to New York City. While there they learned about social services needs of immigrants in history. Additionally the Children's Museum designed a hands-on workshop for the students on the importance of play, and adapting activities for children with special needs. Bringing the school year to an end, first-year students are finishing up the yearlong study of the lifespan and related issues throughout the stages. Learning about adults, students also study substance abuse, mental illnesses and domestic violence and will end with units on the elderly and death & dying. Second year students are studying developing curriculum as well as meeting the needs of children with special needs. Their second semester of classtime in local child care settings involves intensive study of various areas of

curriculum. They will also visit several local human services agencies to learn about their services and the many rewarding career opportunities in the helping professions.

The seniors in the Human Services Program have been accepted to a number of colleges, including UVM, Castleton and Lyndon State Colleges, Clinton Community College, Keene State College, Anna Maria, Elms, Cazenovia, Endicott, and Russell Sage Colleges, and all juniors are looking forward to the Human Services 2 program next year.

Item #6:

I met with Ken Facin, the Superintendent of Schools for the Hoosic Falls Central School District. He indicated to me that he would be in favor of allowing Hoosic Falls students to attend the CDC if two barriers could be overcome. First, if the CDC Board and Administration could successfully petition the Vermont Legislature to reinstate a law they previously enacted that was specific to an agreement reached between the CDC and the HFCSD. This law basically set the tuition for HF students at \$100 above our in-state tuition, and that HF students could only enroll in courses where there was space available. The second barrier is a slightly more formidable one. Both Ken and I would send a joint letter of appeal to the New York State Legislature allowing HF to recoup tuition costs associated with sending students to the CDC via a state aid formula similar to the one used when a school sends students to a BOCES tech program. I would request that this board allow me to pursue this avenue as indicated above.

Item #7:

Artificial Intelligence Program

All students in the Artificial Intelligence program have received Certificates of Achievement and a small prize from Toshiba and the National Science Foundation for their participation in the 2009 Exploravision contest.



For the competition, teams of between two and four students had to research the history of a technology, explain the current state of that technology, and predict how it would develop over the next 20 years. They also had to design a web site for their projects.

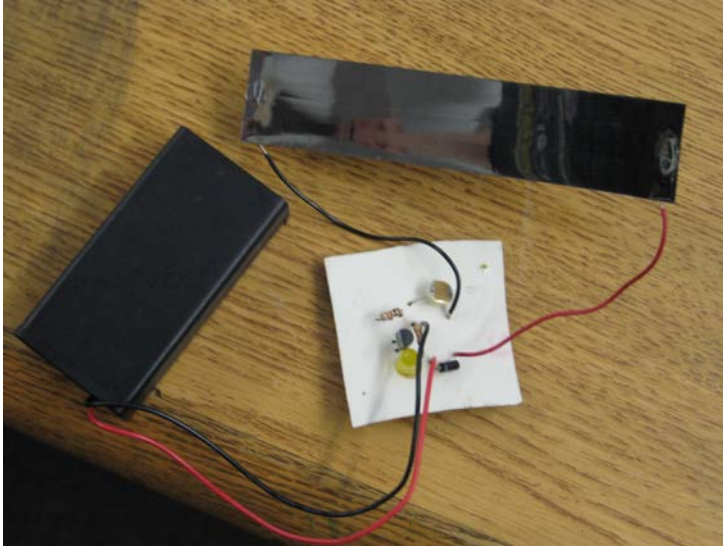
This year's entries from the CDC included.

Alternate Energy & Highway Technology by McKenzie Saunders & Dan Krebs

This project was all about highway safety and making roads and signs easier to see.

Already we see solar energy being used for emergency phones and some road signs. This team predicted a future where highway signs could be powered by wind, solar and in road generators where the weight of cars passing over them generated power. Future highways would have solar powered, color coded “Cats eyes” or LEDs (Light Emitting Diodes) that light up at night as lane markers and also delineate road edges as well as exits and rest areas.

A solar LED charging circuit built by AI students.



The Me Shirt by Even Francis, Trevor Derby and Steven Silber

The future as envisioned by this team would have us wearing clothing with a wide variety of technologies incorporated. To keep them clean and bacteria free, clothes would be hydrophobic and contain silver nano-particles. In addition they would incorporate sensors that

monitored respiration, heart rate, blood pressure and other medical data that would all be relayed wireless to a medical database for the wearer. Fashion would also change with light emitting diodes allowing changing patterns and designs to be downloaded into the clothes. All this would be powered by generators that would absorb energy from body heat and motion.

Medical Nano Machines by Anthony Ketchum and Hugh Galvin

This team predicts a future where current MEMS (Micro Electro Mechanical Devices) technology has developed to the point of performing a multitude of medical functions. This include nano-bots that can be injected into the body to target and attack bacteria, viruses and other unwanted targets such as cancer cells. A kind of super immune system. In addition these machines would be able to perform nano-surgery such as cleaning plaque buildup from fats in blood vessels. The nano-bots would also act as sensor platforms, collecting and wirelessly reporting such things as pH levels, blood gas levels, enzyme and hormone levels in the body.

Non-Leathal Weapons by Trevor Murray, Brandon Bountin, Garrett Gerrity & Nicholas Lincourt

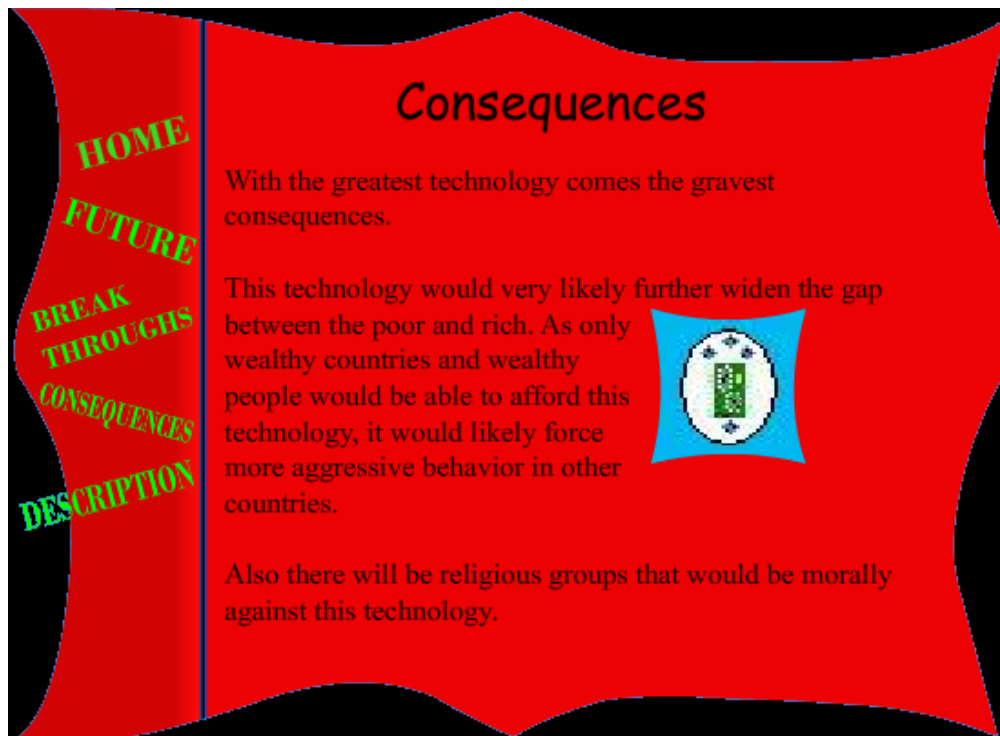
The focus of this group was mainly on the safety of law enforcement officers. This group sees a future where guns are replaced by an arsenal of new technologies. Vehicles would be stopped by remote systems like Onstar or through the use of Electro-Magnetic Pulses. Current systems like the Tazer would be replaced by guns that fire nets to entangle suspects or new glue foams that immobile the target and can be released with special solvents.

RF ID Cards by Stephanie Borden & Samantha Boyd.

Are the days of the supermarket cashier numbered? Already we see self checkout stations in stores and this will become the norm if this team's predictions come true. UPC bar codes on products would be replaced by small printable radio frequency transponders. The supermarket basket or checkout station would be able to read these RF signals, adjust the stores inventory system and add up the contents of a shopping basket. The customer would then use a credit card or feed bills into the checkout station to pay. No word yet on when they will develop the technology to automatically bag the groceries but almost anything is possible.

JoeBot-s by Madison Pace, Preston Endres, Joseph Seeger & Josh Greenlaw

This is another proposal for nano scale robots that would be used within the human body. The JoeBot would act to fabricate and/or repair tissue. This group sees a future with individual specialized nano-bots that would each have specific functions. Some would repair bone or cartilage ending the need to hip and knee replacement surgery. Others would specialize in cardiac repair. Still others would fix genes that needed to be turned on or off as in the case of diabetes or Multiple Sclerosis. Damaged or worn out units would be broken down and recycled by other specialized nano-bots. These nano-bots would communicate with each other through the nervous system providing a safe form of communication that could not be hacked by outside methods.



HOME
FUTURE
BREAK THROUGHS
CONSEQUENCES
DESCRIPTION

Consequences

With the greatest technology comes the gravest consequences.

This technology would very likely further widen the gap between the poor and rich. As only wealthy countries and wealthy people would be able to afford this technology, it would likely force more aggressive behavior in other countries.

Also there will be religious groups that would be morally against this technology.

A screen shot from the JoeBot web site design.

Item #8:

The Mount Anthony administration asked me to attend a meeting of the Mount Anthony High School Board Policy Committee to lend support for their recommendation to adopt the same use of electronic equipment policy we presented to our policy committee last month.

Item #9:

Bennington Students –Champions at Work



SW VT Career Development Center students have once more proven their technical skills and leadership abilities through the Vermont State SkillsUSA Competitions. Local teens represented the CDC in nine competitions, at the Air National Guard Base in Burlington on Thursday, bringing home a total of eleven medals. Two local

teams placed first and third in Health Knowledge Bowl. The gold medal team included Savannah Kozo-Gates, Shelby Hunter, Ian Hulbert and Corbyn Loomis. The bronze medal team included Clint Davindonis, Anna Jewett, Heena Patel and Ashley Ward . Alternates Whitney LeBlanc, Courtney Garrison provided support to both teams. Second place finishes were earned by Haleigh Knapp for State Pin Design, Fereshah Patel for Job Interview, Renee Noel for Promotional Bulletin Board. Ian Fisher Paced third in Technical Drafting.

The CDC has historically placed well in these events, but this year’s showing was exceptional in that the winning Health Knowledge Bowl team answered every question posed to them correctly. Medical Professions teacher and advisor Kathy Slade remarked “I couldn’t be more proud. The hard work and studying that this team did really paid off.

Senior Shelby Hunter called the competitions upbeat and fun. When asked how her involvement relates her future plans, she said that it showed how hard work pays off in the end. Shelby will graduate from MAU this year and anticipates studying dental hygiene at Mt. Ida College next year.

Students also participated in competitions including Advertising Design, Carpentry, Job Demonstration Technical Math, and Technical Drafting. Co-Advisor, Barbara Gorbaty said that the 21 students who represented the school served as fine ambassadors for the CDC and the community. “When kids participate at this level,

we expect a good showing. This year's group showed remarkable sportsmanship and great attitudes.”

The statewide event qualifies first place finishes in each competition to enter national competitions that will take place in Kansas City, MO in June.

I ask that the board direct me to relay their compliments to co-advisors Barbara Gorbaty and Kathy Slade

Item #10

Under the Category of Great News!

At its April 2-3 meeting of the Commission on Technical and Career Institutions, the New England Association of Schools & Colleges, Inc. (NEASC) reviewed and accepted, without change in membership status, the two-year progress report submitted by the Southwest Vermont Career Development Center. Further, the commission noted, during its deliberations, **commendations** in five separate and critical areas. The full content of the notification is available in the CDC office for board and public review. Kudos to Bob Montgomery and the rest of the team who worked on the two year report.

Item #11

Repair and sale of bus. The CDC owns three 24 passenger school busses. One of these diesel busses is having some engine work done on it at a local shop. Once repaired, it is our intent to sell it following state mandated guidelines. We then hope to use the proceeds of the sale towards the purchase of a six or seven passenger van. Our rationale is that it would more cost effective to transport small numbers of students in a six passenger van than in a 24 passenger diesel bus. The remaining two busses the center owns have proven to be more than adequate for our needs relative to transporting larger numbers of students. Thank you to Fran Kinney for his consult with regards to this process.

Item #12

PowerPoint presentation on current enrollment and enrollment trends over the past five years here at the CDC.

Respectfully Submitted,
Dr. Frank J. Barone