

Vol. 25, No. 5: Anticipating the 2015 NCPN Conference in Dallas!

From the Director . . .

Debbie Mills, Director, NCPN



I'm so Excited!!!! The National Career Pathways Network (NCPN) conference is just around the corner (<http://www.ncpn.info/2015-ncpn-conf.php>). I hope you will join me in Dallas at this spectacular professional development event on October 28–30, which will include 130+ breakouts, preconference workshops, keynote speakers, networking opportunities, and an exhibit hall showcasing the latest products and services. The conference

will focus on career pathways implementation at the state and local levels and will highlight and support the work of the U.S. Departments of Education, Labor, and Health and Human Services, specifically:

- April 2012 Joint Letter
- DOLETA Six Key Elements in Career Pathways
- OCTAE Program of Study's 10 Components
- National Request for information
- National Dialogues
- Each Agency's Investments in Career Pathways
- Interagency Work and investments
- Aligning Current and Forthcoming Legislation

Don't miss this opportunity to learn from your peers and the feds about career pathways implementation. Hope to see you there!

Leveraging Federal Assets for Independence: Funding to Help Students Pay for Postsecondary Education

Emily Appel-Newby, ICF INTERNATIONAL



As financial aid resources constrict, Career Pathways and CTE students need new ways to help pay for postsecondary education. One option is an Individual Development Account, or IDA, in which participants receive a match of up to \$4,000 on their savings for investing in postsecondary education or training or other goals. The federal Assets for Independence (AFI) program provides funding for new IDA programs at 501(c)3 nonprofits; state, tribal, or local government agencies; or financial institutions. AFI IDA participants are either TANF-eligible or members of households with incomes under 200% of the Federal Poverty Level (about \$46,000 for a family of four). They can be high school students preparing for postsecondary education, currently enrolled students, or adults looking to go back to school. They can be attending full- or part-time and do not have to be pursuing degrees.



NCPN members should consider applying for funding from AFI to start IDA projects for their students. The Administration for Children and Families (ACF) Office of Community Services (OCS) is seeking applications for the Assets for Independence (AFI) demonstration program. The next application due dates are October 13, 2015, and April 4, 2016. The awards of up to \$1 million cover a 5-year project period. Grantees must commit an equal amount of non-federal funds to the project. In addition to funding postsecondary education or training, AFI participants can use their IDA savings and matching funds for purchasing a first home or capitalizing or expanding a business for self-employment. AFI grantees also assist participants in obtaining the skills and information necessary to achieve economic self-sufficiency. Grantees are encouraged to tailor the strategies and services they offer to the needs of their project participants and the opportunities in their community.

<p>STEP 1, Enrollment Grantee receives applications, verifies eligibility, and enrolls participants.</p>
<p>STEP 2, Open IDA Participants open IDAs at insured financial institutions.</p>
<p>STEP 3A, Save Earned Income Participants deposit earned income into their IDAs.</p>
<p>STEP 3B, Matching Funds Grantees deposit matching contributions into the participant’s IDA or into a parallel account maintained by the grantee.</p>
<p>STEP 4, Skills and Information to Achieve Self-Sufficiency Grantees assist participants in obtaining the skills and information necessary to achieve economic self-sufficiency through activities such as financial education, asset-specific training, and credit-building services.</p>
<p>STEP 5, Purchase Asset Participants use their savings and matching funds toward a first home purchase, postsecondary education or training, or business capitalization.</p>

For more information about AFI and resources, trainings, and other assistance for potential applicants, visit the AFI Resource Center website (<http://idaresources.acf.hhs.gov/Home>). You can also view the most recent AFI Funding Opportunity Announcement (<https://www.acf.hhs.gov/grants/open/foa/index.cfm?switch=foa&fon=HHS-2015-ACF-OCS-EI-1005>). Request to be notified when the next Funding Opportunity Announcement is released by emailing info@IDAresources.org.

Cultivating Skills for the New World of Work

Rajinder Gill, Feather River College



The 21st Century Skills Series was started in 2012 through the New World of Work Initiative housed at Feather River College in rural Northern California.

A list of the “Top 10” professional skills, or soft skills, was established through a series of skills panels that brought together educators, employers, and thought leaders from across the state. The skills deemed necessary for success in the modern global workforce are adaptability, analysis/solution mindset, collaboration, communication, digital fluency, empathy, entrepreneurial mindset, self-awareness, social/diversity awareness, and resilience.

Curriculum and video modules for each skill were designed to be shared open source with educators and workforce development specialists across the country. The modules are available for download through <http://www.newworldofwork.org/>. The series is most effective when infused into classroom instruction along with workplace learning. This provides students an opportunity to study the “Top 10” 21st Century Skills and practice them in real workplace settings. The target audience is college students as well as high school juniors and seniors.

The New World of Work team is currently working in partnership with the Foundation for California Community Colleges to develop a digital badging platform in its LaunchPath web tool (<http://www.launchpath.com/>). These digital badges will correlate to each of the “Top 10” 21st Century Skills. By summer 2016, the digital badging tool will allow students to earn micro-credentials in soft skills that can be used as a showcase for potential internship or work placements.

For more information, contact the author at rgill@frc.edu or 415-509-2419.

Robots and Rigor

Engaging and preparing underrepresented Cleveland high school students for STEM studies



George Bilokonsky, Executive Director, Technology Academies at Cuyahoga Community College (Tri-C) in Cleveland, Ohio, sees careers in STEM fields as a means for young people to get out of poverty. Since 2003, this belief has led him to spearhead several high-school-based National Science Foundation grant programs with dual-enrollment in engineering courses at Tri-C and pathways to college in Cleveland, the second poorest city in the

nation according to the U. S. Census Bureau.

The programs, including two Advanced Technological Education (ATE) grants and the latest ITEST program, have used robotics to capture students’ interest while also providing strong doses of mathematics, science, and career exploration—skills and knowledge areas lacking for most Cleveland high school students. The Youth Technology Academy: STEM Academy for Youth featuring Youth Essential Skills (SAY-YES!) ITEST project is building on the results and findings of the previously funded Robotics Corridor Collaborative (RCC) Project, which demonstrated that after-school robotics/math programming is highly successful in motivating high school students to pursue technical and engineering studies. However, this project also found that once students graduated from high school and enrolled in postsecondary institutions, they dropped out from lack of math competencies and other academic and social supports.

The SAY-YES! Program is working intensively to influence students to study STEM subjects and to improve their mathematics proficiencies such that when they reach college, they will not be required to take remedial mathematics.

Targeted high school students are from the high-risk, underrepresented Cleveland Metropolitan School District, which typically suffers from an approximately 50% dropout rate. Further, the focus is on the students in a single school, MC STEM School, a public school of choice in Cleveland, despite high poverty. SAY-YES! includes sophomores, juniors, and seniors who were chosen because of their aptitude to succeed in the SAY-YES! Program, complete postsecondary STEM education, and begin STEM careers.

SAY-YES! is a combination of problem-based, fun learning experiences and rigorous foundational education. Throughout the academic year, students dual-enroll in introductory engineering and robotics courses at Tri-C. They learn how to build robots and participate in robotics tournaments with robots they have built using Arduino, an open-source platform. Students become really engaged in building their robots and are even more committed when participating in the tournaments. And, along the way they learn mathematics and engineering foundational skills.

Each year culminates with a robotics competition in May at Cedar Point Park, an amusement park that boasts of being the roller coaster capital of the world. Competition is stiff even in this fun setting.

SAY-YES! offers a five-day summer camp on the Tri-C campus in partnership with Co-PI Dr. Majid Rashidi, Professor of Mechanical Engineering at Cleveland State University. Camp sessions provide a combination of career exploration and learning opportunities in mathematics and engineering design. Additionally, approximately 10 public high school teachers participate in a week-long professional development camp on making engineering and mathematics instruction more relevant to their classroom instruction.

During the first year of the SAY-YES! grant (2013-2014 academic year), 45 sophomores and 47 juniors participated. An additional 26 juniors and 12 seniors joined the group in 2014-2015. Many of the 2013-2014 students remained in the program. Not all students participated in all activities of the program.

Several pre- and post- instruments were administered to the group, covering career exploration and academic topics. Primary evaluator Dr. Justin Perry, Cleveland State University, analyzed data collected to date. Key findings show that the students on average at the end of year 1 and again at the end of year 2 still needed mathematics remediation. However, students who participated in the Arduino tournaments and/or the Cedar Point Park Robotics Competition had a significantly higher grade in the Introduction to Engineering Course (EET 1150) at Tri-C.

During year 2, many year 1 students expressed a higher interest in engineering careers than those who joined the program in year 2, suggesting that the additional year of exposure to engineering is beneficial.

Mr. Bilokonsky believes that his team's work with students is vital in a broader socioeconomic context: "History shows we are repeatedly faced with cycles of rapid social change due to

innovative industrial processes. At the turn of the 20th century, we started the industrial revolution with the textile industry and then moved to making steel, building cars, developing computers, and now living in the Cloud. Our task as educators is to encourage students to harness the power of technology and innovation to build successful industries for the future.”

For further information about this project, contact George Bilokonsky at George.Bilokonsky@tri-c.edu.

Halifax Community College’s Career & College Promise

Giving students a jumpstart on the workplace and college prep—tuition free



Success in today’s global economy may require a two- or four-year degree, a certificate, or a diploma. Through Career & College Promise (CCP) offered at Halifax Community College (HCC), qualified high-school-age students in North Carolina have the opportunity to pursue these options, tuition free, while they are in high school, allowing them to get a jumpstart on their workplace and college preparation.

The following pathways are offered:

- **College Transfer**

College transfer pathways provide up to 34 hours of tuition-free course credits toward the Core 44, an agreed-upon 44 hours of college credits that will transfer seamlessly to any public or participating private college or university, saving successful students time and money in pursuing four-year degrees. Programs include:

- Business and Economics
- Engineering and Mathematics
- Humanities and Social Science
- Life and Health Sciences

- **Career and Technical Education**

Earn tuition-free course credits at a North Carolina community college toward a job credential, certificate or diploma in a technical career. Programs include:

- Advertising & Graphic Design
- Automotive Technologies
- Welding Technology

- **Innovative High Schools**

Begin earning tuition-free college credits as a high-school student by attending an approved Cooperative Innovative High School. At HCC, this is the Roanoke Valley Early

College. Effective Jan. 1, 2012, legislation combined Huskins, Learn and Earn, and Dual Enrollment into the CCP program, which is offered to all high schools in the service area. Participating schools include Cornerstone School, Halifax Academy, Northwest Halifax High School, Roanoke Rapids High School, Southeast Halifax High School and Weldon High School.

For more information, visit www.halifaxcc.edu and click on the “NC Career & College Promise” link at the bottom of the page.

Contacts: Melanie Temple, Director of Public Relations and Marketing (mtemple295@halifaxcc.edu, 252-538-4319); Dianne Rhoades, Vice President of Institutional Advancement (mtemple295@halifaxcc.edu, 252-536-7239).

Adapted from: <http://www.halifaxcc.edu/halifacts/PressRel/2014/03192014a.htm>

Why Schools Should Consider Wearable Technologies for Their Students

Jeannie Justice, Morehead State University



What are wearables?

Wearable technology, or wearables, is a new buzz word that is frequently thrown around. Unfortunately, it is difficult to pin down an exact definition, since the field is so new and new devices are invented every day. I believe Nield (2015) said it best: “wearables—a fuzzy term that refers to any device that you can wear.” Wearable devices are distinctive

from other mobile devices in two ways: 1) by allowing handsfree or minimal use of a keyboard, and 2) they are always “on” and connected (de Frietas & Levene, 2003; Jones, Williams, & Fleuriot, 2003). The latter suggests that wearables always gather data (i.e., from the user or the environment) or provide information (i.e., link to the Internet) or both (Sibka, 2014).

Why are wearables a good fit for kids?

The whole point of wearables is that they are worn as a person moves through his or her environment. These devices are designed to use on the move, unlike other mobile devices that usually require a person to be static, at least some of the time. Cell phones are a good example, since the user must stand still or relatively still to use many applications. Wearables, unlike video games, computers, and most mobile devices, encourage movement. Getting outside and moving are many of the encouragements children of today receive as more and more children struggle with their weight and activity levels.

Wearables have more potential for flexible authorship and self-direction: children decide their own activities and incorporate these devices into those activities (Jones, Williams, & Fleuriot, 2003). Video games, which have controlled storylines and plots, are often criticized for not

allowing kids to exercise their creativity and imagination. Wearables, on the other hand, have no finite plots or storylines. They don't dictate activities. Wearables just *enhance* the activity. Consequently, whether alone or in groups, children create, imagine, and control their own adventures.

Why should schools allow, and even invest in, wearables?

Children are vanishing from the landscape more and more each day, especially in more urban areas. Why? Fearing for their children's safety, parents increase confinement and control of the children's environments (Hugill, 1998; Jones, 2002; Jones et al., 2003; McNeish & Roberts, 1995; Summers, 1995). Although many of these fears are justifiable, the impact is turning children into couch potatoes, locked inside, with diminished mental stimulation.

Wearables have two important features that help to counteract this trend. First, wearables are mobile and do not hinder movement. In fact, they often encourage motion. Second, wearables may open fun safe spaces for children. With wearables in play, neighborhoods, parks, museums, playgrounds, and other safe places can encourage self-direction and creativity.

Some of the more recently released wearables include technology that would help students, particularly younger ones and those who have disabilities or difficulty behaving in mainstream classrooms. For example, the T.Jacket (<http://www.mytjacket.com/>) or hug simulation jacket (in development) is a mobile device that enables parents to give children simulated hugs. A similar device is Tactilu (<https://www.facebook.com/Tactilu>), a bracelet capable of transmitting touch between people who may be many miles apart. Although T.Jacket was designed for autistic children and Tactilu was probably designed to maintain long-distance romantic relationships, both of these devices could be used to calm the anxieties of children who are separated from working parents or other loved ones (Sears, 2015).

Some wearables on the foreseeable horizon are designed to track health issues in children. For example, a tooth-embedded device (in development) will relay dental cleaning habits and eating habits to dentists (Sears, 2015). These devices can be used for GPS tracking as well.

The Ger Mood Sweater (<http://sensoree.com/artifacts/ger-mood-sweater/>) by Sensoree can be used to monitor emotional health (Sears, 2015). The sweater interprets emotions and displays the wearer's mood instantly as an interactive light display. Imagine teenagers who may have problems with depression, anxiety, and issues of bullying wearing this sweater. This type of technology may give insight into troubled students and prevent suicides and student violence. A troubled student may be able to use the Doppel (<http://www.turquoise.com/>), an empathic technology that changes your mood (Sears, 2015). The Doppel emits a pulse on the inside of your wrist that can naturally make you feel more alert or relaxed, depending on the situation. For example, it can keep a sleepy student awake in class or relax a tense, anxious student taking a test.

Conclusion

Wearables are becoming more popular and trendy. They have been around many years but have been cumbersome and expensive. (The early smartwatch was like a boombox strapped to your wrist.) As sleeker, more adaptable, and less expensive wearables evolve, be prepared for them to become ubiquitous. Like the automobile, the telephone, the computer, and electricity, wearables will eventually become a *disruptive* technology, in other words, a technology that changes our lives to the point that we won't want to be without it.

References

- De Freitas, S., & Levene, M. (2003). Evaluating the development of wearable devices, personal data assistants and the use of other mobile devices in further and higher education institutions. *JISC Technology and Standards Watch Report (TSW030)*, 1-21.
- Hugill, B. (1998). Minded out of their minds: Children trapped inside. *Observer*, 29(7).
- Jones, O. (2002). Naturally not! Childhood, the urban and romanticism. *Human Ecology Review*, 9(2): 17-30.
- Jones, O., Williams, M., & Fleuriot, C. (2003). "A new sense of place?" Mobile "wearable" information and communications technology devices and the geographies of urban childhood. *Children's Geographies*, 1(2): 165-180.
- McNeish, D., & Roberst, H. (1995). *Playing It Safe: Children at Play*. Ilford: Barnardo's.
- Nield, D. (2015). Wearable technology in the classroom: What's available and what does it do? *The Guardian*, July 28, 2015. <http://www.theguardian.com/teacher-network/2015/jul/28/wearable-technology-classroom-virtual-reality> (retrieved 7 August 2015)
- Sears, J. (2015). The future of wearable tech. *TriplePundit*, June 26, 2015. <http://www.triplepundit.com/2015/06/future-wearable-tech/> (retrieved 7 August 2015)
- Sibka, D. J. (2014). The connected age and wearable technology. *Nursing Education Perspectives*, 35(5): 346-347.
- Summers, D. (1995). A modern child's home appears to be its refuge. *Financial Times*, 25(9).

People to Know

Tony Landis, Ohio Board of Regents



NCPN expresses heartfelt thanks to Dr. Anthony M. Landis (Tony), recently retired member of the NCPN advisory Board.

Tony is Senior Director of College and Career Access and Success at the Ohio Board of Regents, where he manages federal and state legislative compliance; oversees performance accountability for continuous improvement; monitors over \$30 million in funding; provides technical assistance to adult career centers, community colleges, and universities; and serves as agency lead on career-technical education matters with the United States Department of Education, national education organizations, Ohio Department of Education, and State of Ohio's legislative initiatives.

More specifically, Tony oversees Ohio's Postsecondary Career-Technical Education portfolio, which includes the Carl D. Perkins federal grant program, as well as other initiatives related to career pathways development, career-technical education credit transfer initiatives, and postsecondary access and success. His responsibilities range from providing vision and direction for Ohio's six economic development regions specific to connecting education and workforce to supervising staff that provide technical assistance, compliance, accountability oversight, program development, and support services implementation to approximately 90 participating adult career centers, colleges, and universities serving over 400,000 students. This includes Ohio's College Tech Prep program, Lumina's "reverse-transfer" initiative focused on awarding two-year college degrees, the Institute for Higher Education Policy's Project Win-Win two-year college completion initiative, and Ohio's One-Year Option credit transfer initiative.



Tony and friends (including Jeraline Johnson to his right) enjoying the member luncheon at the 2014 conference in Orlando

Tony serves on the boards of national education organizations and community organizations and has been a highlighted presenter at national and state conferences. Previously he has held administrative positions at Central State University and Southern Illinois University Edwardsville. He has over nineteen years of experience in higher education administration in the areas of workforce development, economic advancement, academic affairs, and student affairs.

A native of Springfield, Illinois, Tony is a published author and holds BA and MA degrees in history from Southern Illinois University Edwardsville. He and his wife Kai have one son, Grant, and reside in the Columbus, Ohio, area.

Bits 'n' Pieces

Items of interest to our members and affiliates



WIOA Employer Podcast: Hear from your peers on innovative employer engagement, WIOA from a Business Perspective, and partnerships. Listen to the new podcasts and hear how frontline staff members design services with customers at the center. Featured speakers include Workforce Directors from Michigan, New Jersey, and Colorado. (Go here for podcast: <https://wioa.workforce3one.org/view/4201523234503751947/info>)

Workforce System Strategies Tools: The Workforce Innovation and Opportunity Act (WIOA) calls for increased regional planning and a focus on sector strategies that support employer-driven partnerships formed to collectively address industry needs. States and regions adopt policies aimed at training and aligning workers with high-quality positions in particular industries through which both employees and employers stand to benefit. Workforce System Strategies includes a number of publications that examine the different models for sector strategies.

- [Meeting the Needs of Workers and Employers: Implementation of a Sector-Focused Career Advancement Model for Low-Skilled Adults](#)
- [State Sector Strategies Coming of Age: Implications for State Workforce Policymakers](#)
- [Workforce Potential Project: Analysis of Area Labor Market and Provider Capacity](#)

Future Work Skills: The FUTURE WORK SKILLS OF 2020 include:

1. Sense making
2. Social intelligence
3. Novel and adaptive thinking
4. Cross cultural competency
5. Computational thinking
6. New Media Literacy
7. Transdisciplinary
8. Design mindset
9. Cognitive load management
10. Virtual collaboration

Go here for more information: <http://www.top10onlinecolleges.org/work-skills-2020/>

Career Day Planning: Planning a career event for October? Check out BYF's career day planning guide here: http://byf.org/file_download/124/CareerDay_PG2015-REV.pdf

DOLETA Career Pathways Toolkit: Debbie Mills, NCPN Director, was happy to serve on the team to revise the *DOLETA Career Pathways Toolkit*. The Career Pathways Toolkit: A Guide for System Development features Six Key Elements of Career Pathways designed to help guide local and state teams through the essential components necessary for developing a comprehensive career pathways system. The components under each element are not sequential and may occur in any order. Likewise, multiple partners can engage in the components simultaneously to carry out the mission of the career pathways system. Go to the toolkit: <https://www.workforce3one.org/view/2001523732879857569/info>

Youth CareerConnect Grant Recipients

Transforming the high school experience of America's youth



The website of the U.S. Department of Labor describes Youth CareerConnect as a grant program that is “designed to encourage America’s school districts, institutions of higher education, the workforce investment system, and their partners to scale up evidence-based high school models that will transform the high school experience for America’s youth.” The mission of Youth CareerConnect schools is to strengthen

America’s talent pipeline through integrated academic and career-focused learning, work-based learning and exposure to the world of work, robust employer engagement, individualized career and academic counseling, and integration of postsecondary education and training.

For more information about the program, visit <http://www.doleta.gov/ycc/>.

To download a one-page PDF “bright spot” for each of this year’s winning programs, see the online version of this newsletter at http://www.cordonline.net/connections/25_5/.

NCPN Members—Don’t forget all the free resources available to NCPN members at www.ncpn.info.

Connections is published by the National Career Pathways Network, an organization of educators and employers dedicated to the advancement of Career Pathways, and other CTE initiatives. Founded by CORD, NCPN assists its members in planning, implementing, evaluating, and improving workforce education programs.

Questions about *Connections*? Contact: Mark Whitney, NCPN, P.O. Box 21689, Waco, TX 76702-1689; 254-741-8315; or mwhitney@cord.org. Visit NCPN on the web at www.ncpn.info.