

Funding and Professional Development

Special Report Supplement

A RESEARCH REPORT FROM THE CENTER
FOR DIGITAL EDUCATION AND CONVERGE

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New Opportunities, New Challenges

These are exciting times in education. Academic institutions, organizations, private sector partners and innovative individuals are creating new blended and online learning opportunities via the use of technology. Some states now require high school students to take an online course to graduate: Virginia, Idaho, Alabama, Florida and Michigan all have such laws.^{1,2} In fact, a recent survey reports that 45 percent of middle and high school students, 46 percent of parents and 69 percent of administrators believe students should be required to take an online course before graduating from high school.³ As more K-12 and higher education institutions transition their curriculum content to digital environments, there are two key challenges that surface — funding and professional development.

This Special Report Supplement to the Center for Digital Education's *Converge* Blended and Virtual Learning Special Report will cover both of these topics by providing examples of funding sources and a list of suggested professional development questions that help educators better understand blended and virtual learning.

Funding FEDERAL GRANTS

Race to the Top

Since 2008, over \$4 billion has been awarded to 18 states and the District of Columbia through the Race to the Top (RTT) federal funding program. The latest round of Race to the Top-District (RTT-D) funding focuses on district and school collaborations as opposed to state education agencies. It encourages applicants to create learning environments that are aligned with college- and career-readiness standards, accelerate student achievement and expand access to the most effective teachers. The U.S. Department of Education (USDOE) announced in August 2012 that it expects 893 applicants. Applicants will need to design innovative programs that personalize learning through the use of digital learning environments, data and tools.

With approximately \$400 million in grants available this round, the USDOE will distribute the resources to support local initiatives aimed at closing the achievement gap and preparing students for college and the workforce. Based on the number of students served, the USDOE will provide 15 to 25 four-year grants ranging from \$5 to \$40 million.

School Improvement Grants

In order to raise student achievement in the lowest performing schools, the USDOE is offering School Improvement Grants. Local education agencies seeking funding must implement one of four school intervention models: turnaround, restart, school closure or transformation. It is estimated that a total of \$600 million will be distributed in FY 2012, up \$65 million from the previous year. In the past few months, there have been a number of states that have received funding to improve persistently low-performing schools such as Minnesota (\$6 million), Nevada (\$3.5 million), Louisiana (\$10.1 million) and Indiana (\$9.3 million).⁴

Arkansas, which received \$11 million, is distributing the funds to three schools: Forrest City High School (\$4.9 million), Hughes High School (\$1.8 million) and McClellan High School (\$4.3 million). The schools will incorporate the transformational model which includes improvements through comprehensive curriculum reform and extended learning time.⁵ Hughes High School has not yet determined what it will do with the funding, but initial investments will support blended learning environments within the classroom through the

Funding Source: Race to the Top-District

IMPORTANCE: The application due date for this grant program is **October 30, 2012**, with an anticipated award announcement date in **December 2012**. There is information posted on the RTT-D website to assist applicants in navigating through the process.

LEARN MORE: www2.ed.gov/programs/racetothetop-district/index.html

procurement of tablets, interactive whiteboards, projectors and other educational technology equipment that promotes online learning.⁶ Forrest City High School plans to improve literacy skills through the incorporation of classroom technologies and computing devices that will provide students with blended and individualized learning opportunities.⁷

PRIVATE GRANTS

ING Unsung Heroes

The ING Unsung Heroes grant has provided nearly \$3.8 million in funding over the past 15 years to educators with innovative programs. Each year, 100 K-12 educators are selected to receive \$2,000 to help fund their innovative class projects. Three of the 100 are chosen to receive the top awards of an additional \$5,000, \$10,000 or \$25,000. The following winners have all been able to use the grant money to support blended and virtual learning efforts:

- In 2012, Thunder Mountain High School in Juneau, Alaska, used funding to support its “Engaging Digital Natives” program, which creates virtual learning opportunities, integrates digital inquiry-based science labs and online note-taking, and provides daily opportunities for students to incorporate technology into their learning.
- Minot High School in North Dakota is using funding to support

its “Write On!” program, which focuses on interactive, online writing through the use of mobile devices and various types of software.

- Seneca Valley Middle School in Harmony, Pa., is supporting its “Community of Writers” program, which immerses students in a virtual and digital writing community that emphasizes 21st-century learning skills.⁸

Next Generation Learning Challenge

The Next Generation Learning Challenge (NGLC) is a philanthropic collaboration between five education technology organizations. NGLC has awarded over 48 grants worth \$17.5 million to date. Funding from this program supports a wide range of organizations, including universities, community colleges and school district associations. NGLC grants are delivered through multiple funding waves launched every 6 to 12 months. One of the most recent waves challenged applicants to redesign scalable models that combine the best aspects of traditional and online learning to create more personalized learning opportunities.⁹

Bryn Mawr College in Pennsylvania received a \$250,000 grant to support blending learning approaches of introductory science, technology, engineering and mathematics (STEM) courses. College faculty will use the funding to experiment with different methods

Funding Source: ING Unsung Heroes

IMPORTANCE: The purpose of this program is to drive the creation of innovative projects within schools or school districts. At least one award will be granted to winners in each of the 50 states. The grant program expects to award over \$234,000 in 2013. The application deadline for this grant program is April 30, 2013.

TO LEARN MORE: <http://ing.us/about-ing/citizenship/childrens-education/ing-unsung-heroes>

of integrating open license online tutorials and courseware into traditional classroom-based courses.¹⁰

LANL Foundation

Since 1998, the Los Alamos National Laboratory (LANL) Foundation has distributed more than \$29 million to school districts to improve education. The LANL Foundation has made \$2.1 million in Educational Enrichment grants available to public schools in seven Northern New Mexico counties to teach STEM and promote teacher training, curriculum development and technology in the classroom. In 2012, the Foundation awarded Pojoaque Valley Schools over \$240,000 to start a distance learning program. The program will remodel two high school classrooms to be able to interact digitally with schools throughout the country. Additionally, Chama Valley Independent School District received \$5,805 to expand online courses.¹¹ In 2011, the Foundation invested \$2.4 million in Educational Enrichment awards to support STEM education projects, many of which were delivered via blended learning environments.¹²

Funding Source: School Improvement Grants

IMPORTANCE: This grant program provides districts the opportunity to reshape the structure of low-performing schools through the adoption of new approaches and methods to deliver instruction and learning.

LEARN MORE: www2.ed.gov/programs/sif/index.html





EASTERN ARIZONA COLLEGE/VAN UFFALIAN

Bill and Melinda Gates Foundation

In June 2012, the Bill and Melinda Gates Foundation announced \$9 million in grants for “breakthrough learning models” in higher education. The goal is to boost the number of students who attain a high-quality and affordable postsecondary credential through innovative practices and delivery methods. The Massachusetts Institute of Technology (MIT) received \$1 million to develop and offer a free online computer science course and partner with a post-secondary institution that targets low-income young adults to experiment with inverted (or flipped) classrooms. In addition, the League for Innovation in the Community College received \$450,000 to develop and pilot a national consortium of leading online two- and four-year colleges. The objective is to increase seat capacity in the

community college system and increase post-secondary credential attainment of low-income students. The consortium will initially include Coastline Community College, the University of Massachusetts Online, Pennsylvania State World Campus and the University of Illinois-Springfield.¹³

Howard Hughes Medical Institute

The Howard Hughes Medical Institute awarded \$50 million in grants to 47 small colleges and universities that will enable the institutions to work collaboratively to improve their science curriculums by creating more engaging science classes and bringing real-world research experiences to students. The grants range in size from \$800,000 to \$1.5 million.¹⁴ The funds will allow these institutions to try new and untested ideas that would not otherwise be possible. Although these schools have yet to launch their programs, the possibilities for technology-rich alternative learning environments are promising. Institutions were awarded

grants based on criteria, notably preparation of future K-12 teachers and competency-based curriculum.¹⁵

ALTERNATIVE APPROACHES

The following four examples highlight creative funding methods that support online and blended learning.

Idaho Global Entrepreneurial Mission (IGEM)

In early 2012, Idaho awarded \$2 million in grants to three universities. The grants are part of a program approved by the Legislature in 2012 (House Bill 546) that aims to boost the state’s economy by fostering public-private partnerships. Boise State University was awarded \$700,000 to support computer science and the University of Idaho was awarded \$640,200 to support cybersecurity research and education.¹⁶

OpenStax College

Universities across the country are launching pilots and programs that offer affordable online and digital curriculum materials and resources. OpenStax College, led by Rice University in Texas, is an effort to provide online course textbooks to students. Students can download the textbooks for free, but there is a charge for print versions or copies with add-on features. Add-on features are part of OpenStax’s long-term financial strategy to generate revenue

Funding Source: Bill and Melinda Gates Foundation

IMPORTANCE: The Bill and Melinda Gates Foundation is a strong supporter of education technology initiatives. The Foundation’s website is a good resource for education grants supporting a variety of initiatives related to blended and online learning.

LEARN MORE: www.gatesfoundation.org/education





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Funding Source: Digital Learning Initiative

IMPORTANCE: In the previous year of offering blending learning opportunities to students, the Partnership experienced a 25 percent increase in California State Test (CST) scores. Positive results such as these help justify investment from private foundations to cooperatives such as the Partnership for Los Angeles Schools.

LEARN MORE: www.partnershipla.org/council-appointed.aspx

for the program and its partners. The program was supported by a variety of grants, including funding from the William and Flora Hewlett Foundation, the Bill and Melinda Gates Foundation, 20 Million Minds and the Maxfield Foundation.¹⁷

Digital Learning Initiative

The Partnership for Los Angeles Schools is a collaborative effort between the city of Los Angeles and Los Angeles Unified School District.

The Partnership is responsible for 22 of the district's most impoverished schools.¹⁸ In May 2012, the Partnership received \$1.6 million in grant funding from the Broad Foundation, Riordan Foundation, Whitman Foundation, OneWest Foundation, Weingart Foundation and W.M. Keck Foundation to support its Digital Learning Initiative.¹⁹ The Partnership is using the funding to integrate technology tools into the classroom to support blended learning and various learning styles through face-to-face instruction, e-learning programs and self-study opportunities. Blended learning will be enabled through teacher professional development, computing devices, curriculum software and other classroom technology tools.

Digital Learning Collaborative

Tigard-Tualatin School District in Oregon launched a Digital Learning Collaborative this year to foster innovative learning practices through blended learning approaches. Teachers and teams of teachers within the district are eligible to apply for the technology grant program, which is funded from a \$20 million bond.^{20,21}

Professional Development

This professional development section is provided in two parts: The first addresses content understanding of the Special Report on blended and virtual learning; the second assists professional development leaders in framing discussions around topics addressed in the Special Report.

Suggested Investigations for Understanding:

1. List and describe the four types of blended learning styles outlined in the Special Report.
2. True or False — According to a CDE study, the majority of community college students are participating in online or blended learning courses.

3. Give three reasons why K-12 schools are adopting virtual learning. What are the parallels for higher education?
4. Describe how video is being used to blend learning in higher education.
5. What are MOOCs and how might they impact a traditional higher education institution?
6. Discuss the issue raised by funding according to seat time versus student performance.
7. Discuss how virtual learning can be proctored in a way that reduces incidences of cheating.
8. Talk about how the use of lecture capture and streaming video is accelerating on campus.



Funding Source: OpenStax College

IMPORTANCE: The purpose of mentioning this program is to illustrate the diversity and creativity of education leaders within the field to deliver digital learning resources while simultaneously generating revenue.

LEARN MORE:
<http://openstaxcollege.org/>



EASTERN ARIZONA COLLEGE/TODD HAYNIE

9. What are some of the challenges for institutions purchasing online courseware today?
10. Identify five skills needed for an effective online teacher.
11. Discuss how desktop virtualization may be the wave of the future for delivering online and blended instruction.
13. Discuss how online instruction is supporting response to intervention (RTI) and re-entry students while providing an added source of funding for K-12 districts.
14. How can blended learning experiences work best in your discipline or your area of instruction?
15. Identify certification programs that are offered to prepare instructors for online and blended learning teaching.

Suggested Topics for Group Discussion:

1. What are we currently doing well in either online or blended learning? How can we improve?
2. What are the biggest challenges in developing and delivering blended learning courses on our campus?
3. The MOOC movement is causing higher education institutions to rethink their strategies. What

4. Some virtual educational entities (like Florida Virtual School and Western Governors University/McGraw Hill) have agreed they will not get compensated unless the student receives an adequate grade. How might this practice change attitudes about virtual school adoption on our campus, district or region?
5. What barriers must we overcome to implement online and blended learning options on our campus?
6. How should our curriculum and technology leaders work together to provide the most effective learning tools for instruction? Should there be other inputs?
7. Some institutions foster online and blended learning to make instruction more adaptive and less reliant upon a few textual sources. What are the benefits and challenges in making this adoption?
8. Online and blended learning models have broken down brick-and-mortar boundaries. Students have more choices. Campuses at all levels, whether public or private, will face a more urgent need to compete for students. What should our institution do to get ahead of the curve?

9. Should we develop our own curriculum? How do we ensure institutional integrity and protect intellectual property rights?
10. Discuss the benefits/drawbacks of some of the new online learning models: Northern Arizona University with its flat-rate fee for unlimited courses; University of Wisconsin with its flexible undergraduate degree program in which students can test out of requirements; University of Texas at Arlington with its virtual life program for nursing; etc. Can our campus model any of them?

Conclusion

Blended and virtual learning require using a wide variety of technology tools — both inside and outside the classroom — which can be acquired through numerous grants or revenue streams. Understanding which funding streams exist and how they can be leveraged is often difficult and complex. One of the best approaches is to work collaboratively with peers, look for relevant examples and conduct research. This report attempts to pull those three elements together, and offer professional development in order to illustrate and support creative approaches that educational institutions are leveraging across the country. ■

Sponsors:



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THE CENTER FOR DIGITAL EDUCATION is a national research and advisory institute specializing in K-12 and higher education technology trends, policy and funding. Along with its research services, CDE issues white papers and conducts the annual Digital School Districts and Digital Community Colleges surveys and award programs as well as hosting events across the K-12 and higher education arena. CDE also supports the Converge media platform comprised of the quarterly themed Converge Special Reports, Converge Online, and custom publishing services.

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