


Technology & Innovation Conference 2018

Exponential Technologies & The Future of Learning



MT WASHINGTON
CONFERENCE CENTER

DEC 3-4, 2018

AIMS

MD+DC



The AIMS Technology and Innovation Conference, formerly the Technology Conference, formerly the Technology Retreat, continues to change and to iterate because of the nature of this subject. Our students are ready to learn using ever-changing technology skills taught in new ways by teachers whose pedagogy is changing, as well. Thus, we are hoping to bring future-leaning learning skills to you in these two days.

The goals of this conference is to deliver a learning experience for attendees that helps to construct meaning, to examine best practices and test them for soundness, to explore new developments in our field as well as provide important face-to-face sharing time. The program is designed to meet these goals!



To start us on that path, Christian Talbot, pictured left, will be speaking on how Exponential Technologies--virtual reality, AI, big data--are and will affect the future of education and learning. Christian founded Basecamp School after completing five years as Head of School at Malvern Preparatory School (PA), preceded by fourteen years as an English teacher at Regis High School (NY). He has shared his experiences in change management, strategic planning, and social entrepreneurship at conferences such as NAIS, CASE-NAIS, TABS-NAIS, and more.

CONFERENCE SCHEDULE



Monday, December 3, 2018

For All Breakout Sessions, see your folder for your selections.

8:00 am – 9:00 am Registration and Breakfast (Pullen Plaza Lobby)
8:00 am – 4:00 pm Visit Exhibitors
9:00 am – 10:00 am Keynote with Christian Talbot in Pullen Plaza
10:00 am – 10:15 am Break/Visit Exhibitors
10:15 am – 11:15 am Breakout Session 1
11:15 am – 11:30 am Break/Visit Exhibitors
11:30 am – 12:30 pm Breakout Session 2
12:30 pm – 1:30 pm Lunch (Buffet and Birds of a Feather Tables)
1:30 pm – 2:30 pm Yoga class, Maker Challenge, Grounds Walk, or Networking
2:45 pm – 3:45 pm Breakout Session 3
4:00 pm – 5:00 pm Cocktail Hour
5:30 pm – 7:30 pm Dinner on your own (Affinity Groups Available)

Tuesday, December 4, 2018

8:00 am – 9:00 am Breakfast
8:00 am – 12:00 pm Visit Exhibitors
9:00 am – 10:15 am Breakout Session 4 (Deep Dive)
10:15 am – 10:45 am Break/Hotel Check Out (must be checked out before 11:00 am)/Exhibitors
10:45 am – 12:00 pm Breakout Sessions 5 (Deep Dive)
12:15 pm – 1:15 pm Buffet Lunch with Birds of a Feather
1:15-2:00- Closing Comments

Breakout Sessions

Breakout Session One 10:15-11:15 AM

Invention Education & Intellectual Property: Preparing Kids for the Future

Katherine Owens, Washington Episcopal School

Juan Valentin and Jorge Valdes, U.S. Patent and Trade

How can educators prepare our students with the skills and mindsets they need to compete in modernizing global economy? Hear from Katherine Owens, an award-winning and nationally-recognized teacher, who cultivates and nurtures her students' skills, curiosity, agency, and cross-curricular thinking through invention education practices.

Then learn from subject matter experts, Juan Valentin & Jorge Valdes from the United States Patent and Trademark Office, about the role of intellectual property (patents, trademarks, copyrights and trade secrets) in exploring and creating inventive solutions to problems of interest in the classroom and beyond.

Alternative Reality Games for Teaching Data Privacy

John C. Fallon

Notre Dame High School, Connecticut

Alternate reality games (ARGs) are cutting-edge learning systems that extend gameplay beyond the screen into the real world, combining digital and analog elements to create embodied anytime, anywhere experiences. Blind Protocol was developed to immerse high school students in a mock cyber warfare competition to make them more responsible digital citizens and better critical thinkers as they learn about online security, privacy, and surveillance.

Creating a Student Innovation Showcase

Towson Incubator

Frank Bonsal

Towson University Incubator holds an annual Innovation Showcase to highlight innovative products and services created by their members. Learn how to use this model to encourage and highlight innovation programs in your school.

Everyone Can Create- Ignite Creativity with iPad

Apple Education Room

To thrive in today's world and to shape tomorrow's, students need to tap into their creative potential and learn to express themselves in new and innovative ways. Creative skills help students become better problem solvers, communicators, and collaborators. They explore more and experiment more. They tell richer stories and find their own unique voices. And they carry all these skills through everything they'll do in school and beyond.

Join us to learn about Everyone Can Create, a new program from Apple designed to help unleash the creative potential in every student. Everyone Can Create includes a collection of free project guides that teach students how to develop and communicate ideas through video, photography, music, and drawing. And it gives teachers fun and meaningful ways to bring these skills into any lesson, topic, or assignment.

Breakout Sessions

Breakout Session Two (11:30-12:30 PM)

Programming Drone Flight with Geometry and Math

STAR Academy

Programming drone flights is an engaging, project based, and fun way to apply basic, intermediate and advanced geometry concepts in the classroom. Whether you are looking for an explanation of perimeter, or want to explore complimentary angles, students will enjoy learning and applying their knowledge with drones! STAR Academy's expert coaches will review the basics of drones, the technology needed to use them in your classroom, and some activities to try with your students!

Formative Assessment Data Using Tech Tools- How to Collect Efficiently, Analyze Quickly, and Actually Use It in Actionable Ways

Dr. Emily Ziegler- Director of Technology for St. Paul's School for Girls

Having actionable data to help you understand your students' learning is ever important but always challenging. Whether it is finding time to grade or figuring out ways to track student progress through time, using formative assessment data to impact your classroom can be a holy grail that can seem to be unattainable. In this session, participants will try out several different tech tools that can help make the most of formative assessment in ways that can track student progress, provide timely feedback, and facilitate a student-centered, interactive classroom. Tools that will be workshopped will include Flipgrid, Plickers, Poll Everywhere, Office and Google forms, Formative, Class Kick, Padlet, and EdPuzzles.

The Nerd Farmer: Plants, 3D printing, & Arduinos

Eric Smith

Woods Academy

During this session, we will take a tour of a project based class taken by middle school students. Students learned about coding, electronics, design, aquaponics, and hydroponics during this class. The students 3D printed plant containers and built soil moisture sensors using Arduinos. Then they created a "Smart Hydroponic Planter" that used humidity/temperature sensor, nutrient solution level sensor, and self feeding pump. We will discuss future project ideas of combining electronics, plants, and aquaponics.

Engaging Primary Learners with iPad

Apple Education Room

Teachers keep finding new and transformative ways that iPad can personalize learning for primary students. Come to this hands-on event and get inspired by stories of teachers who are having great success improving literacy, numeracy, creativity, and student engagement with iPad.

Inquiry Guides: Searching for the Future of Libraries and Educational Tech

Sara Oestreich, Sandy Spring Friends School

What is an Inquiry Guide? At Sandy Spring Friends School the library and educational technology specialists are now a combined team: The Inquiry Guides. Our goal is to reimagine and re-engage our faculty and students in their access and approach to information (both technologically as well as from a traditional library perspective). This session will discuss the concept behind the intentional combination of library and educational technology specialists at the school and the plan for integrating information skills directly into the classrooms and curriculum. It will cover the team's intentional rebranding of information services as well as strategies that are being used for integrating more fully into the SSFS curriculum, PK3 – 12th grade.

Breaktime Fun!

PLAYTIME!

1:30-2:30 PM

-Maker Arcade by KID Museum in Pullen Plaza

Come play with KID-made versions of popular 80's and 90's arcade games, using Makey Makey technology. These projects help inspire makers of all ages to reinvent their favorite gaming platforms. Or design and play your own version of our customizable pinball games made from wood, dowels and 3D printed parts, employing STEM principles and skill along the way.

Participants can also build their own low-tech games on the spot. Using wood, hammer, nails, and rubber bands, they are invited to make challenging pachinko courses. These activities are meant to be a fun introduction to educators seeking new types of projects that bring out the best of maker-based learning.

- Groundswalk (Meet out front of Pullen Plaza)

- Networking and Chill

Breakout Sessions

Breakout Session Three 2:45-3:45 PM

Transitioning from Tech Questions to Tech Transformations

Nate Green and Sam Moser

Lowell School

We will provide a forum for educators to discuss how to move faculty forward pedagogically through a deepened understanding of the role of the academic technologist. Many educators are interested in integrating technology at a traditional, transactional level. Our goal is to provide educators interested in becoming change agents with empowering strategies to move technology integration and pedagogical development deeper into the curriculum through authentic, applicative practice.

10 Lessons Learned in 10 Years of Independent School Online Education

Brad Rathgeber

One Schoolhouse

Ten years ago, four entrepreneurial schools gathered to hatch the idea of creating the first independent school and first girls' school online. In those ten years, we've had more than 7500 semester student enrollments and more than 3000 educators take professional development courses. And, importantly, we've learned a lot about: innovation in the independent school community; the place of online education in financial sustainability of independent schools; and what face-to-face schools can learn from what works well online. This session is designed to share those findings and more in order to help schools translate innovative findings into action for both the academic and operations of schools.

The Real Life Application of STEM Skills Through Invention Education

STEMIE

Christine Lawlor-King

The STEMIE Coalition is a non-profit founded to elevate K-12 invention and entrepreneurship to higher levels in schools, consisting of more than 35 youth invention and entrepreneurship educational programs nationwide. These educational programs have joined to help formalize invention and entrepreneurship education in K-12 schools in the United States and around the world, with more than 100,000 students benefiting each year. Our invention curriculum showcases engineering practices, brainstorming and creative problem solving, all critical to STEM learning.

Everyone Can Create- Ignite Creativity with iPad Apple Education Room

To thrive in today's world and to shape tomorrow's, students need to tap into their creative potential and learn to express themselves in new and innovative ways. Creative skills help students become better problem solvers, communicators, and collaborators. They explore more and experiment more. They tell richer stories and find their own unique voices. And they carry all these skills through everything they'll do in school and beyond.

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Breakout Sessions

Breakout Session Four (Deep Dives) (9:00-10:15 AM)

Don't Recreate the Online Professional Development Wheel, Learn From Us!

Irene Bal

Loyola University of Maryland

Learn from our experiences in developing and facilitating online professional development. Current designers and facilitators of the Loyola University Maryland Micro-credentials for Professional Learning for AIMS Educators will reflect on their experiences and answer participant questions on the creation and facilitation of the fully online Micro-credentials. Hear our stories and bring your questions about the development and facilitation of online professional development.

Global PBL: How to Connect Your Students to the World

Joe Troyen, PenPal Schools Founder & CEO Description:

Internet access has spread to classrooms all over the world. In this practical session we'll review resources that connect students for global collaboration, with extra emphasis on project-based learning. We'll explore how these resources not only provide fun global connections, but also improve reading, writing, and critical thinking through increased authenticity for students. Finally, we'll share inspiring examples of collaborative student projects, and even connect for a live videochat with teachers from around the world to hear their perspectives!

Securing Educational Data in the Cloud

Collin Freebourne, Director of Professional Services, CTI

This deep-dive will cover the critical issues surrounding securing student data, including a discussion of best practices related to: Authentication to cloud-hosted educational applications and storage; Assessment of third-party educational vendor risk; Logging and monitoring educational data access; Security controls for cloud-hosted educational data.

Everyone Can Code

Apple Education Room

We believe that coding is an essential skill for helping students thrive in a technology-driven future. Learning to code unlocks creativity, develops problem-solving skills, and opens career paths.

Join us to learn about Everyone Can Code, the free comprehensive curriculum that makes it easy to teach coding to students from kindergarten to college. With teacher guides and lessons, you can introduce coding concepts visually on iPad in elementary school, move to writing code with the Swift Playgrounds app in middle school, and support students in building iOS apps on Mac with Xcode in high school and beyond. So whether your students are first-time coders or aspiring app developers, you'll have all the tools you need to teach coding in your classroom.

What Does An Innovative Library Require?

A Roundtable Discussion

Facilitator: Amanda Waugh, Instructional Librarian
St. Andrew's Episcopal School

Librarians have been challenged in the last decade to transform the nature of their jobs and spaces. Let's gather to discuss what is essential if that transition is to be successful in today's school library,

Breakout Sessions

Breakout Session Five (10:45-12:00)

Ed Tech Resources Speed Sharing

There are so many technology tools out there, and new ones seem to be coming out every other minute. There are also tools that have been around for a while but whose potential is barely mined by most users. Sometimes there are applications, keyboard shortcuts, or multitouch gestures that make the smallest and most mundane tasks easier to do, or more interesting, or more worthwhile. This speed sharing session will be open for anyone attending to share websites, apps, hardware, software, hacks, etc. that might be of interest to other people; we'll try out as many of the suggested tools as we can in the session, generate a list of what was shared, and have fun learning how to do something new!

Maker and Innovation Resources Speed Sharing

There are likewise so many potential maker challenges or innovation activities out there. There are great blogs and people to follow on twitter. This will be an open sharing session for anyone attending to share maker challenges, tools, kits, websites, apps, curricula, hacks, etc. that might be of interest to other people; In the session, we will generate a list of what was shared and everyone will get it!

Librarian Resources Speed Sharing

Same idea as above, but for Librarians. Have a great online tool you use? Database? Ereader? Come share it here.

Infocus J touch

Bill Hottman, HGCI

JTouch is a powerful teaching and presentation solution that revolutionizes the modern classroom by making curriculum more vibrant and engaging. Teachers and students can easily interact with anything on the display and an open Android platform.

What's New from Apple: Products and Solutions

Apple Education Room

Join us for an exclusive session about what's new for schools in iOS and macOS. We believe technology has the power to transform the classroom and now it's even easier to get devices in the hands of your students.

What you'll learn:

Learn about the latest Apple products and explore new features in iOS and macOS that are ideal for education.

See how Apple School Manager, a single destination for IT admins, simplifies and streamlines deployment.

Discover how teaching tools like Classroom and Schoolwork make it easy to guide how students use devices and apps in the classroom and provide valuable insight into each student's progress.

Learn about zero-touch Apple TV deployment with tvOS 11—no user input required.

Birds of a Feather Topics

Both days at lunch, we will reserve a few tables for those who wish to chat, while they munch, about certain topics germane to their subject areas. These tables will be marked by a table tent with the title of the birds of a feather topic.

Conference Exhibitors

AIMS would like to warmly thank our exhibitors for their support of the AIMS Technology Conference. Be sure to visit these exhibitors during the retreat.

Applied Technology Services (ATS)

11615 Crossroads Circle, Ste J

Middle River, MD 21220

410-344-1256

<http://appliedtechnologyservices.com/>

Contact: Bob Marchese

(bobm@appliedtechnologyservices.com)

Applied Technology Services is a local IT solutions provider focused on State, Local Government and Educational institutions. We are committed to proactively servicing our clients with the highest level of customer satisfaction, including a dedicated sales and support team, and a broad range of industry leading solutions to meet the challenges of enhancing student learning and performance, promoting student safety, and protecting vital information systems.

Comstar Technologies

12900-B Cloverleaf Center Drive, Germantown, MD 20874

301-670-3228

www.comstar-usa.com

Contact: John Cibula (jcibula@comstar-usa.com)

Comstar Technologies is a full service technology and telecommunications provider. Our services include A/V, Managed IT, Voice and Security, giving us the ability to be your sole provider for all technology needs. We believe that every school considers the safety of their student body the most critical responsibility of the faculty, staff and now technology. Our staff of security engineers and installation technicians design a system that not only increases the security of the campus but also minimizes the cultural impact these systems have on the school. With customizable options like CCTV, access control, intrusion systems, fire detection, emergency call towers, E911 and lock down systems, we assure that no option to better your campus is left off the table.

Continental Technologies, Inc.

235 Schilling Circle, Suite 100

Hunt Valley, MD 21031

410-568-7216

www.webcti.com

Contact: Whitney Snoops (wsnoops@webcti.com)

Continental Technologies, Inc. is the area's premier IT consulting and solutions partner. CTI believes in helping companies meet their long term business goals through the right technology. We are passionate about educating our clients and empowering them to make thoughtful decisions.

Data Networks

216 Schilling Circle | Suite 104

Hunt Valley, MD 21031

(800) GET-DNET | (443) 589-9000

www.datanetworks.com

Contact: Brad Kaplon (bkaplon@datanetworks.com)

With 35 years of experience in simplifying IT for private and public schools throughout the Mid-Atlantic, we offer proven services + solutions that drive efficiency into IT, enabling schools – both large and small – to direct their IT investments where they matter most and to fund transformation even in the most resource-challenged environments. Our capabilities include the delivery of complete solutions around Client Computing, Data Center, Networking, Security, plus Cloud and Managed Services.

DSR, Inc.

961-M Mercantile Drive

Hanover, MD 21076

410-579-4508

www.dsr-inc.com

Contact: Donnie Orndorff (dorndorff@dsr-inc.com)

DSR, Inc. is a full service technology firm, with more than 25 years of experience providing technology equipment, network services, and computer repair to schools. Our experienced team can help design, implement, and maintain your school's technology programs.

Conference Exhibitors (Continued)

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HCGI, Inc.

10440 Little Patuxent Parkway suite 810

Columbia, MD 21044

410-302-0403

www.hcgi.com

Contact: Bill Hottman (bhottman@hcgi.com)

HCGI Hartford (HCGI) is an employee-owned, privately held IT and AV integrator and hardware dealer celebrating twenty two years in business in the Mid-Atlantic and beyond. HCGI represents over 200 hardware and software manufacturers. We are on the MEEC and State of Maryland contracts. We are a HPe Gold Partner and hold high-end certifications from NetApp, Cisco, VMware, Lenovo, Microsoft & Epson Brighter Futures Educational Dealer. We will be showcasing Infocus J Touch Interactive Displays designed for K-12 classrooms and Lexmark Multi Functional Printers that eliminate unnecessary activities and give teachers more time to get back to more value-added tasks.

Loyola University of Maryland

Educational Technology Graduate Programs

8890 McGaw Road

Columbia, MD 20145

410-617-5020

www.loyola.edu/graduate

Kelly Keane (kjkeane@loyola.edu)

Loyola's Educational Technology graduate program is designed to help you become an educational technology leader at the school and district levels by emphasizing a conscientious approach to technology that goes beyond the latest trends. Our comprehensive course of study offered either fully online or in a hybrid format blends practical applications of technology integration with ethical, philosophical, and theoretical perspectives, as well as strategies to improve pedagogy and instructional practice.

PenPal Schools

411 W Monroe St.

Austin, TX 78704

717-658-7265

www.penpalschools.com

Contact: Maggie Brown (maggie@penpalschools.com)

PenPal Schools connects over a quarter million students from 150 countries to learn together. Students collaborate through online projects ranging from human rights and the environment to fake news and robotics, all while practicing literacy, technology and social-emotional skills. PenPal Schools was recognized by President Obama and selected by Common Sense Education for the Best Edtech of 2017.

Visual Sound

1642 Sulpher Spring Road

Baltimore, MD 21227

410-737-0130

Contact: Tina Bailey (tbailey@visualsound.com)

Visual Sound provides complete turnkey audio visual system design, installation and service. Representing over 300 equipment brands, we are the region's leading education distributor of SMART Interactive Flat Panel Displays, AV presentation, STEM / STEAM solutions, distance learning and unified collaboration technologies, TV studios, digital signage and video walls and more.

Thought-Leaders and Planners

This year's conference was planned a new way: Through a Thinktank and work groups. Below, we would like to thank those who contributed to one or both.

ThinkTank at Bullis School

Mary Ann Bliss, Beauvoir, The National Cathedral Elementary School
Sara Oestreich, Sandy Spring Friends School
Joe Nardella, Georgetown Preparatory School
David Panush, Edmund Burke School
Bill Pickett, Glenelg Country School
John Faig, St. Patrick's Episcopal Day School
Nate Gordon, Bullis School
Matt Castanera-Bartoszek, Charles E. Smith Jewish Day School
David Darefsky, Green Acres School
Holly Kinnamont, St. Andrew's Episcopal School
Brian Gilbert, Georgetown Preparatory School
Cherisse M. Robles, St. John's Episcopal School
Amanda Waugh, St. Andrew's Episcopal School
Jonathan Fichter, St. Patrick's Episcopal Day School
Mark Smith, The Bullis School
Dawn Stellmann, McDonogh School

AIMS Technology Committee Coordinator

Alecia Berman-Dry

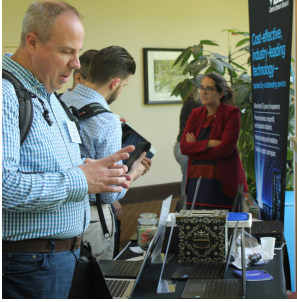
If you are interested in serving on a work group for any professional development event, you may contact Alecia Berman-Dry at aberman-dry@aimsmddc.org for more information.

Reminders

- Please put cell phones on vibrate. Please be respectful to speakers and other attendees.
- Please use your Tent Card in each session for identification so that there is more time for discussion.
- Session numbers that you registered for are listed under your name on your folder.

The wireless connection for this conference is open. It's the GUEST network. No password required.

Registration Information



Deadline for registrations is November 26th and no refunds will be issued after that date. Max Participants 100 people.

Registration for this year's conference will be done completely online, on the AIMS Web site, via the membership portal (<http://www.aimsmdc.org/?page=44>). If you do not have an account for the portal, or do not know your login information, please ask your school administrator (usually an administrative assistant or the head's assistant) or call AIMS at 410-761-3700.

Rates for the 2-Day Conference

Includes continental breakfast, beverages, lunch, and snacks on both days, as well as all learning sessions and a sponsored cocktail hour. We will not be offering a single day option this year.

AIMS: \$270 Early Bird \$295 Regular Rate

Non-AIMS: \$345 Late Fee: \$25

Please note that room reservations are made individually, online. Information below.

Dinner and Entertainment Options



Down the hill from the Mt. Washington Conference Center, there are a multitude of options for dining. These are all within walking distance, and there is also a shuttle that can take groups down the hill that is provided by the hotel. There will be affinity group dinners available for those interested. Information about these can be found here: <https://www.mountwashingtonvillage.com/>

For a fun-filled break, visit the game room, featuring a pool table, board games, overstuffed chairs and a big-screen television.

Making A Room Reservation



If you wish to book an overnight room at the Mt. Washington Conference Center, you may do so at the AIMS rate of only \$119 per night. This rate is available until November 7. You **MUST BOOK YOUR ROOM ONLINE** at our private room-booking portal.

<https://reservations.travelclick.com/11837?groupID=2390076#/guestsandrooms>

After that date, you can call the reservations line and book with our group by asking for our event name. (410) 735-7964