Driving K-12 Innovation

2021 Hurdles + Accelerators

CoSN would like to thank the following sponsors for supporting this work:
CHALLENGE
Technology is an essential element of learning, yet the use and application of it is inequitable.

VISION
CoSN is a community of visionary technology leaders empowering every learner to achieve their unique potential in a changing world.

MISSION
CoSN provides current and aspiring education technology leaders for PreK–12 with the community, knowledge, and professional development they need to create and grow engaging learning environments.

CoSN is vendor-neutral and does not endorse specific products, services or solutions.
CoSN’s Driving K-12 Innovation initiative convenes a global advisory board of 100+ education and technology experts to select the most important Hurdles (challenges), Accelerators (mega-trends), and Tech Enablers (tools) Driving K-12 Innovation for the year ahead.

The Advisory Board engages in virtual discussions and surveys to select the top themes transforming teaching and learning. This year, Advisory Board work took place over approximately seven weeks, involved synchronous as well as asynchronous discussion opportunities, and focused on selecting the top three topics in each category.

The COVID-19 Pandemic + Driving K-12 Innovation

There’s no doubt that the COVID-19 pandemic has, and continues to have, a profound impact on education and society. Yet it doesn’t appear on the list of Hurdles (barriers to advancing K-12 innovation) nor Accelerators (mega-trends catalyzing innovation). Rather, we conceptualize the pandemic as a “state of the world” in which we drive K-12 innovation—an important part of the context of our changemaking work. Advisory Board member Mary Lang, Los Angeles County Office of Education, CA, USA, suggested thinking of the pandemic as a cataclysmic event, like a natural disaster, that will have a lasting effect on education. The degree of that lasting effect will depend on the education ecosystem’s level of commitment to, and capacity for, change and transformation.

The Driving K-12 Innovation framework helps us make sense of the state of the world, no matter what the current state may be—the nuances, possibilities, and paths forward. Advisory Board members shared many ways in which our world is changing and in many cases how the current state is amplifying Hurdles, Accelerators, and Tech Enablers.

Methodology

STEP 1: INITIAL SURVEY

The Advisory Board completed an initial survey to select the topics for subsequent discussion. This survey narrowed down the original list of Hurdles from 34 to 13, Accelerators from 24 to 11, and Tech Enables from 31 to 10. One new Hurdle, Ensuring Mental Well-being, was added during the following discussion.

STEP 2: DISCUSSION

Three weeks of thoughtful conversation and research followed the initial survey. Each week, the Advisory Board responded to prompts and engaged in conversation focused on one of the lenses of the initiative (Hurdles, Accelerators, and Tech Enablers). Discussion opportunities were offered via the online forum and two synchronous video calls each week.

STEP 3: FINAL SURVEY

Finally, the Advisory Board voted on the top Hurdles, Accelerators, and Tech Enablers. Of the many important and impactful topics considered, these nine rose to the top as key considerations for driving innovation in 2021. The survey also helped describe the nature of each topic—the surmountability of Hurdles, the intensity of Accelerators, and the timeliness of Tech Enablers.
1. DIGITAL EQUITY

Digital Equity includes three, interrelated components: digital foundations, conditions for learning, and meaningful learning opportunities. This nuanced hurdle encompasses more than just equitable access to quality digital technologies such as high-speed internet and powerful computing devices both inside and outside of school. It also includes ensuring that students have the knowledge and skills to use technology in the service of learning; that they interact with robust and accessible content and programs; that students and their identities are represented with and by the technologies themselves; and that they experience meaningful opportunities that empower them as learners.

2. SCALING AND SUSTAINING INNOVATION

Whether it be practices for effective teaching and learning, organizational business processes, or technology usage, schools are challenged to engage in and effectively scale innovation. Major challenges include: supporting risk-taking projects and identifying value-adding innovations; building ongoing investment support for integration; adapting what is working well at a small scale and scaling it out across a school, district, or state/country; and embracing the transformation of practices and culture ushered in by innovations.

2. EVOLUTION OF TEACHING AND LEARNING

The teaching and learning landscape is changing, opening up the opportunity to move toward a better balance of teacher facilitation and student learning. As teaching, learning, and learning outcomes are constantly being redefined, schools are tasked with ensuring that teaching practices and pedagogies intentionally integrate advances in technology and learning sciences. Professional development is essential in this evolution.

*Tie* These two topics received the same number of votes from the Advisory Board and are tied for second place.
2. SOCIAL AND EMOTIONAL LEARNING (SEL)

A core function of education is building skills and understanding for mental, social, and emotional well-being, including empathy, grit, persistence, flexibility, and adaptability. These capabilities shape mindsets and enhance successful learning, collaboration, problem-solving, and civic responsibility. In the face of remote learning and the adaptations necessitated by the COVID-19 pandemic, many learners, families, and educators are experiencing tremendous anxiety, loneliness, mental stress, trauma, and grief. In this moment educators are challenged to think about how Social Emotional needs are enhanced or diminished with varying uses of technology, and to reimagine school norms to better enable the wellbeing of staff, learners, and parents/guardians.

3. LEARNER AUTONOMY

Learner Autonomy is all about student agency, encompassing anything from letting students choose how they access content, to how they organize their learning, to how they exhibit their learning. Productive struggle informed choice, freedom, and flexibility are growing values in K-12, especially as students learn to form decision-making and time management habits that set them up for life success. Schools play a major role in scaffolding learner autonomy and cultivating intentional development of student capacities to make effective use of their autonomy to help them harness the power of their own agency.

1. PERSONALIZATION

As the consumer sector has exploded with new ways to customize user experiences and products, schools are also finding ways to provide customized learning and support at the individual level. Personalized learning happens when all aspects of learning are directed by the needs of the learner. This includes teachers shaping the teaching and learners directing the learning in ways that honor the variability of learners needs and strengths including pace, pathways, strategies and demonstrating knowledge/skills.
Exploring the 2021 Hurdles

...BY IMPORTANCE

Top 3 most important Hurdles for education systems to address in 2021 (77 respondents):

- **55%** Digital Equity
- **38%** Scaling and Sustaining Innovation
- **38%** Evolution of Teaching and Learning

...BY DIFFICULTY

Top 3 Hurdles in order of degree of difficulty to surmount, as ranked by the advisory board (Scores reflect the average score out of 5, with 1 being the easiest to surmount and 5 being the most difficult; 77 respondents):

- **3.66** Evolution of Teaching and Learning
- **3.86** Digital Equity
- **4.03** Scaling and Sustaining Innovation
Exploring the 2021 Accelerators

...BY IMPORTANCE
Top 3 most important Accelerators for education systems to address in 2021 (76 respondents):

- **45%** PERSONALIZATION
- **36%** SOCIAL AND EMOTIONAL LEARNING
- **33%** LEARNER AUTONOMY

...BY INTENSITY
Top 3 Accelerators in order of intensity of K-12 impact, as ranked by the advisory board (Scores reflect the average score out of 5, with 1 being the least intense and 5 being the most intense; 76 respondents):

- **3.63** SOCIAL AND EMOTIONAL LEARNING
- **3.87** LEARNER AUTONOMY
- **4.08** PERSONALIZATION
“It’s difficult to know what digital equity truly means in the South African context, when access to electricity, water, and other fundamental services are often in question. Our blended learning model makes use of Chromebooks with Internet in our schools, but when rolling blackouts (called “load shedding”) occur, digital equity can seem to be an impossible dream. However, we have to commit to thinking creatively and nurturing partnerships that allow us to extend the opportunities of digital equity to the children and families we serve, in order to close the opportunity gap.”

(Bailey Thomson Blake, SPARK Schools, Johannesburg, South Africa).

Recommendations from the Advisory Board

BE ATTENTIVE to all of the different aspects of Digital Equity: Digital Foundations (connectivity, devices); Conditions for Learning (accessible content, skills, digital use); and Meaningful Learning Opportunities (curriculum, instruction).

ADVANCE your understanding. Seek examples of how others are addressing Digital Equity and using digital tools to create meaningful learning opportunities for all. Leverage resources from experts, advocates, vendor partners, and professional organizations.

BUILD COMMUNITY AWARENESS of the importance and impact of Digital Equity and the specific challenges faced by students, families, and educators in your district. Ensure that leaders value digital equity and that the organizational culture advances it in everything you do.

PARTNER with communities, businesses, vendors, government, schools, community, and education organizations to identify the specific Digital Equity challenges facing stakeholders in your context; design concrete actions; build community buy-in; and implement and iterate upon solutions to further Digital Equity in your community.

DIGITAL EQUITY IMPLIES THAT ALL STUDENTS EXPERIENCE CURRICULUM-RICH LEARNING OPPORTUNITIES THAT ARE MEANINGFUL TO THEM.
Scaling and Sustaining Innovation

The general consensus is the pandemic has changed the face of education forever. If that is true, what is the new vision for education and how will it be shaped? The biggest hurdle for most education systems is to carve out time to focus on the future when current challenges are so fluid and demanding (Lillian Kellogg, ENA/CatchON, TN, USA).

Scaling and Sustaining Innovation is all about cultivating organizational culture and practices that enable risk-taking, support change agents, value iteration, and scale what works. At The American School of Lima in Peru, the Innovation Academy for high school students provides learners with a project-based approach. “This is definitely a risk-taking project as it encourages students, parents and teachers to change their mindset about highschool courses” (Daniela Silva, Dulwich College International, Singapore). While longer-term research on this approach is underway, educators are gathering information on students’ perceptions of the program and its impact.

In California, USA, Fresno Unified School District developed and scaled their Personalized Learning Initiative (PLI) to over 1,000 teachers across 90 schools over the course of five years. Additionally, 35 of these schools have worked to design and implement blended learning school-wide. Fresno Unified intentionally involved stakeholders in efforts to develop and scale PLI, prioritizing teacher choice, sharing compelling reasons for the initiative and process information, and focusing on personalized learning that is experiential and actionable.

“PLI created the digital foundation, cultivated conditions for learning, and shaped meaningful learning opportunities for all students” (Philip Neufeld, Ed.D., Fresno Unified School District, CA, USA).

Recommendations from the Advisory Board

PRIORITIZE EQUITY AND AGENCY for learners, teachers, families, and leaders as fundamental values in scaling innovation.

FOCUS ON ORGANIZATIONAL CULTURE. Intentionally build a value-led culture that empowers and supports educators in taking risks, iterating, and scaling innovation. Change in education is multilayered, involving classrooms, schools, and school systems aligned around a coherent, compelling vision. Demonstrate trust in teachers and create space for them to engage in adaptation and changemaking. Develop leaders throughout the organization and be attentive to culture in succession planning and formal leadership changes.

MAKE INNOVATION ONGOING. Consider adopting an iterative or rotating innovation approach. For example, with an 80/20 model schools would keep 80% of what existing practices that work well and focus on innovating 20%. Over time, the 20% portion is transformed and integrated into the practices to be kept, and a new 20% is selected for innovation.

ENVISION LEARNING FUTURES. Spend time and energy considering what improved education in the future could look like. What values and priorities should be embodied in education, and what does this mean for how learning takes place or is measured? What does future readiness look like for students, teachers, schools, and school systems? Design backward from this vision and take concrete action toward it.

The pandemic has changed the face of education forever.” —Lillian Kellogg, ENA/CatchON, TN, USA
Evolution of Teaching and Learning

Young minds are curious. We need to figure out how to re-capture that curiosity with an education that is both relevant and intriguing” (David Jarboe, HSD2, CO, USA).

With the pandemic, overcoming the Hurdle of the Evolution of Teaching and Learning is even more challenging. For many schools, it has become less a matter of technology implementation and more an issue of facilitating quality remote learning, eradicating digital inequities, and providing online content and applications that are easy to access. “Now we need to come together, listen to teachers’ voices about what worked and what didn’t, dig in to analyze why, and rebuild an idea of school that marries pedagogy to student learning” (Susan Davis, Association of Technology Leaders in Independent Schools, VA, USA).

Pedagogy, student success, professional development, and integrating student ideas remain essential challenges of the Evolution of Teaching and Learning.

In Hanoi, Vietnam, Michael Lambert is working on starting a bilingual school that leverages research and development staff. “We often do not have the time to research... this [Head of R&D] position aims to provide faculty with ideas/resources, and then use faculty meetings/professional development days for teachers to ‘choose’ and ‘experiment’” (Michael Lambert, True North School, Hanoi, Vietnam).

Recommendations from the Advisory Board

GO BEYOND DIGITIZING existing practices. Rather than implementing existing teaching approaches or activities directly in digital tools, consider how the technology could enable you to transform teaching and learning practices. Models including the SAMR Method® and the TPACK Framework® offer guidance in leveraging technology in support of learning.

BUILD THE HUMAN CAPACITY to engage in change. Model experiential and collaborative learning in professional development and invest in ongoing learning opportunities. Foster a growth mindset and be intentional about supporting stakeholders. Consider convening small groups of teachers around the evolution of teaching and learning (exploring, for example pedagogy and technology, cognitive science insights for education, Personalization, SEL, or Learner Autonomy).

(RE)THINK WHAT IT MEANS to be educated in order to evolve our paradigms. Consider education as a system, an interconnected network of elements. For many, the changes catalyzed by the COVID-19 pandemic have drawn attention to connections between seemingly distinct pieces of education, health, and society. Lead with values, pedagogy, and purpose and leverage systems thinking to evolve learning norms.

“WE NEED TO...REBUILD AN IDEA OF SCHOOL THAT MARRIES PEDAGOGY TO STUDENT LEARNING.”

—Susan Davis, Association of Technology Leaders in Independent Schools, VA, USA.
The focus needs to be on the learner. What does this learner need in order to succeed which may be different from all the other learners?” (Ken Zimmerman, Lancaster-Lebanon Intermediate Unit 13, PA, USA).

Personalization can include individualized student-centric learning opportunities and systems that provide just-in-time information for educators and learners. Stakeholder buy-in and professional development are key to successful personalization programs.

In South Carolina, USA, the state’s Department of Education created a framework that builds shared understanding of four elements of personalized learning: student ownership, learner profiles, learner pathways, and flexible learning environments. In Austria, educators and students can use the Digital School Portal to access individualized administrative and learning pathway resources.

The Lancaster-Lebanon Intermediate Unit 13 education services agency in Pennsylvania, USA, developed a Personalized Learning Academy. This program guides schools in developing knowledge, buy-in, and capacity to envision, implement, scale, and sustain personalized learning.

Personalization was the #3 Accelerator for both 2019 and 2020, and is now the #1 Accelerator for 2021. It is closely connected to the #3 Accelerator for 2021, Learner Agency.

**Recommendations from the Advisory Board**

- **FOCUS ON LEARNING**
  More than on the technology tools. Provide learners with scaffolding and co-create learning experiences with students. For example, give students more flexibility to use the tools they want while simultaneously providing common standards or guidelines. Continue to foster relationships between students and between students and teachers.

- **PRIORITIZE ACCESSIBILITY AND EQUITY**
  Provide tools and services to enable equity for all learners, and support their use.

- **CULTIVATE STAKEHOLDER BUY-IN**
  Prioritize communication and awareness. Build shared understanding around the meaning of personalization.

- **PROVIDE TRAINING**
  Encourage teachers to model personalized learning for other teachers.
Social and Emotional Learning

It will take time to understand the intensity of the trauma and anxiety of our students (and educators) resulting from COVID-19. Prioritizing Social and Emotional Learning is paramount to helping students and educators feel safe and welcomed at school” (Justin Thompson, NEA Education Policy & Practice, Washington, D.C., USA).

Social and Emotional Learning (SEL) has been one of the Driving K-12 Innovation Top Accelerators for the past two years. Many educators are seeing a clearer or more intense need for SEL given the learning and societal changes of this year under the stress of the pandemic and remote learning.

Cristiana Assumpcao partnered with a school in São Paulo, Brazil to integrate project-based learning and SEL into their STEAM curriculum. During the transition, they discovered that many educators were unfamiliar with their own emotional needs and well-being. “Some [teachers] felt very uncomfortable having to think about discussing emotions. It had never been part of their job” (Cristiana Assumpcao, EDUC’4x100, FL, USA).

Recommendations from the Advisory Board

➧ PROVIDE SEL AND WELL-BEING SUPPORT for educators and students. SEL is important both in the current moment and beyond. Be aware of the potential social, emotional, physical, and mental health impacts of COVID-19 on students, educators, families, and other stakeholders. Leverage resources and examples to integrate SEL in your contexts.

➧ INTEGRATE SEL INTO CURRICULUM and education practice, across digital and in-person environments. Create a culture that enables the well-being of everyone involved. Encourage educators to model social-emotional learning and related behaviors, both for their students and their colleagues.

➧ BUILD EDUCATOR AND COMMUNITY BUY-IN. Intentionally communicate the value of Social and Emotional Learning and engage in dialogue around the district’s approaches and processes. Consider how SEL should be assessed and build in accountability in ways that do not unnecessarily increase workload.

“It will take time to understand the intensity of the trauma... from COVID-19.” — Justin Thompson, NEA Education Policy & Practice, Washington, D.C., USA
Teachers provide their students with guidance and structure, but at the same time leave ample free space for them to create their own learning pathways through the learning material” (Arjana Blazic, EduDigiCon, Zagreb, Croatia).

Learner Autonomy is all about student voice and choice — enabling students to choose how they access content, organize their learning, and demonstrate that learning. Learner agency, however, does not mean the loss of teacher influence or leadership; supporting students and scaffolding learning is essential.

For example, at the Singapore American School in Singapore, a capstone project is required for high school graduation and students are set up for success with guidance, coaching, and clear criteria. “This ensures high quality alongside voice and choice” (Chip Kimball, Former Superintendent, Singapore American School, Singapore). Student-selected projects are also offered at the middle school and elementary school levels, with guidance and support from educators.

Modeling learner autonomy in teacher training can be a powerful way to familiarize educators with the practice. At the Bedford School District in New Hampshire, USA, a professional development day emphasized choice and autonomy, offering traditional workshops in the morning and a choice board of options in the afternoon. Learners also had autonomy in where they learned during this workshop day.11

Recommendations from the Advisory Board

- CREATE learning environments (in-person, hybrid, and online) that are welcoming, empowering, and student-friendly so that students want to take ownership of their learning. Scaffold learning to provide students with necessary guidance while leaving space for student’s interests and abilities to inform their learning opportunities. Trust students and assume positive intentions.

- PROVIDE students with freedom of choice. Encourage them to choose and create their own learning pathways, set their own learning goals, and empower them to make important decisions that have impact on all the relevant segments of their learning. Develop data-informed approaches to evaluate the outcomes of those choices and decisions.

- MODEL autonomy in the way that educators and staff are treated and trained. Create a culture in which everyone is a learner. Consider a team based approach to the development of learner autonomy practices.

- BUILD shared understanding and communicate the value to stakeholders. Clarify educators’ continued involvement in student learning. Provide support and guidance to enable educators, administrators, parents, and staff to be involved in learner autonomy efforts.
7. The theme of Systems Thinking is discussed more in the 2021 Driving K-12 Innovation: Tech Enablers publication: https://www.cosn.org/k12innovation


9. This example was shared by Stephan Waba, Federal Ministry of Education, Science and Research, Austria.


11. This example was shared by Holly Doe, Bedford School District, NH, USA.

References & Notes

1. This comment was shared by a group of Advisory Board members during a synchronous discussion call (Beatriz Amillas, Amazon Web Services, FL, USA; Kate Crawford, Fayette County Public Schools, GA, USA; Marlo Gaddis, Wake County Public School System, NC, USA; and Mary Lang, Los Angeles County Office of Education, CA, USA).

2. For more information, see CoSN’s Digital Equity initiative.

3. The Advisory Board selected Personalization as one of the top three Accelerators for Driving K-12 Innovation in 2021. More information is included later in this publication.

4. Blended Learning Tools was selected by the Advisory Board as one of the top three Tech Enablers for Driving K-12 Innovation in 2021. For more information, see the 2021 Driving K-12 Innovation Tech Enablers publication: https://www.cosn.org/k12innovation


Acknowledgments

CoSN gratefully acknowledges its sponsors for supporting the Driving K–12 Innovation series:

Gold
- Amazon Web Services
- CDW-G
- ClassLink
- HP

Silver
- Kajeet

Bronze
- ENA (Education Networks of America)/CatchOn

Additionally, CoSN is grateful for its in-kind partners:
- Alliance for Excellent Education
- American Association of Colleges for Teacher Education
- American Association of School Administrators
- American Association of School Librarians (AASL)
- American Federation of Teachers (AFT)
- Association of Technology Leaders in Independent Schools (ATLIS)
- Beijing Open University
- Education Services Australia
- Finnish National Agency for Education
- German Alliance for Education
- Kennisnet
- KERIS, South Korea
- KnowledgeWorks
- National Association of Elementary School Principals (NAESP)

National Education Association (NEA)
National School Boards Association (NSBA)
National School Public Relations Association (NSPRA)
Polish Ministry of National Education
State Education Technology Directors Association (SETDA)
Virtual Educa

CoSN acknowledges the vision and leadership of Laura Geringer, Project Director + Writer, and Samantha Becker, strategic advisor.

Design and layout by Jennifer Prescott, Daniel Schultz, and Ellen Ullman.

CoSN would also like to extend special thanks to our Editorial Board:
- Arjana Blazic, Teacher Trainer, EduDigiCon, Zagreb, Croatia
- Michael Flood, SVP, Strategy, Kajeet, NC, United States
- Beth Holland, Partner, Research & Measurement and Digital Equity Advisor, The Learning Accelerator & CoSN, RI, United States
- Lillian Kellogg, Senior Vice President, Client Services, ENA/CatchON, TN, United States
- Chip Kimball, Former Superintendent, Singapore American School, Singapore
- Mary Lang, Officer, Organizational Change Management, Los Angeles County Office of Education (LACOE), CA, United States
- Philip Neufeld, Ed.D., Executive Officer, IT, Personalized Learning, Learning Analytics, Fresno Unified School District, CA, United States
- Ed Snow, Assistant Director of Instructional Technology Services, Wisconsin Department of Public Instruction, WI, United States
Advisory Board Members

Bryan Alexander, Senior Scholar, Bryan Alexander Consulting, LLC, VA, United States

Beatriz Arnillas, Sr. Instructional Designer, Amazon Web Services, FL, United States

Cristiana Assumpcao, Ed.D., Instructional Technology and Media, EDUC4x100, FL, United States

Anna Baldwin, Director of eLearning and Integration, Anderson School District Five, SC, United States

Samantha Becker, Advisory Board Co-Chair, CoSN, IL, United States

Eileen Belastock, CETL, Director of Technology and Information, Nauset Public Schools, MA, United States

Bailey Thomson Blake, Chief of Schools, SPARK Schools, Johannesburg, South Africa

Arjana Blazic, Teacher Trainer, EduDigiCon, Zagreb, Croatia

Michelle Bourgeois, Chief Technology Officer, St. Vrain Valley Schools, CO, United States

Mellissa Braham, APR, Associate Director, National School Public Relations Association, MD, United States

Jennifer Burks, Ed.D., Associate Superintendent Technology and Innovation, Poway USD, CA, United States

Trisha Callella, Ed.D., Director of Product Partnerships, Digital Promise, CA, and Faculty, M.Ed. Program, Western Governors University, UT, United States

Teshon Christie, CETL, Executive Director of Organizational Effectiveness, Kent School District, WA, United States

Freddie Cox, CETL, Chief Technology Officer, Knox County Schools, TN, United States

Kate Crawford, Director, Digital Learning & Media Services, Fayette County Public Schools, GA, United States

Helen Crompton, Associate Professor, Old Dominion University, Norfolk, VA, United States

Jeff Cullen, Director of Technology, Foundations for the Future Charter Academy, Calgary, Alberta, Canada

Gordon Dahlby, Chief Innovation-owner, Ed Technology Leadership & Policy Consulting, IA, United States

Susan Davis, Professional Development Director, Association of Technology Leaders in Independent Schools (ATLIS), VA, United States

David Deeds, Technology Specialist, American International School of Egypt, Giza, Egypt

Holly Doe, Director of Technology, Bedford School District, NH, United States

Diane Doersch, Technical Project Director, Digital Promise, WI, United States

Darren Draper, Director of Innovative Learning, Alpine School District, UT, United States

Peter Drescher, Director of Technology and Innovation, Essex Westford School District, VT, United States

Heather Evans, Senior Director of Data & IT, Uncommon Schools, NY, MA, & NJ, United States

Christine Evely, Head of Education, ACMI, VIC, Australia

Kim Flinton, TIDES Coordinator, Peter Carnley ACS, WA, Australia

Michael Flood, SVP, Strategy, Kajeet, NC, United States

Mario Gaddis, CTO, Wake County Public School System, NC, United States

Laura Geringer, Driving K-12 Innovation Project Director, CoSN, IL, United States

Claus Gregersen, Head of studies, Herning Gymnasium, Denmark

Norton Gusky, Educational Technology Broker, NLG Consulting, LLC, PA, United States

Lisa Gustinelli, IT Administrator/Instructional Technologist, St. Vincent Ferrer Catholic School, FL, United States

Kris Hagel, Executive Director of Digital Learning, Peninsula School District, WA, United States

Justin Hardman, Founder & Director, 21st Century Learning International, Hong Kong, China

Beth Haviing, Managing Director, German Alliance for Education, Germany

Shauna Hobbs-Beckley, Director of Analytics, Innovation, and Research, Graded-The American School of Sao Paulo, Sao Paulo, Brazil

Beth Holland, Partner, Research & Measurement and Digital Equity Advisor, The Learning Accelerator & CoSN, RI, United States

Vince Humes, Director Innovative Technology Solutions, Northwest Tri-County Intermediate Unit, PA, United States

Anton (Tony) Inglese, Chief Financial Officer, Batavia USD 101, IL, United States

Frankie Jackson, Director of Strategic Initiatives for the Texas K-12 CTO Council and independent K-12 CTO education technology strategist, TX, United States

David Jarboe, Executive Director, Technology and Innovation, HSD2, CO, United States

Øystein Johannessen, Deputy County Governor, County Governor of Trøndelag, Trøndelag, Norway

Wendy Jones, K-12 Education Strategist, CDW, TX, United States

Lillian Kellogg, Senior Vice President, Client Services, ENA/CatchON, TN, United States

Jerri Kemble, National Academic Advisor, ClassLink, NJ, United States

Chip Kimball, Former Superintendent, Singapore American School, Singapore

Beverly Knox-Pipes, Ed.D, Ed Tech Leadership Consultant/Adjunct Professor/Dissertation Chair, BKP Solutions/Nova Southeastern University, FL/MI, United States
### ADVISORY BOARD MEMBERS

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keith Krueger</td>
<td>CEO, CoSN, Washington, D.C., United States</td>
</tr>
<tr>
<td>Michael Lambert</td>
<td>Head of School, True North School, Hanoi, Vietnam</td>
</tr>
<tr>
<td>Mary Lang</td>
<td>Officer, Organizational Change Management, Los Angeles County Office of Education (LACOE), CA, United States</td>
</tr>
<tr>
<td>Liz Miller Lee</td>
<td>Director of Online Learning, ISTE, Washington, D.C., United States</td>
</tr>
<tr>
<td>Edward McKaveney</td>
<td>Director, Los Angeles County Office of Education (LACOE), CA, United States</td>
</tr>
<tr>
<td>Guy Levi</td>
<td>Digital Learning Leader, Mandel Foundation, Israel, Israel</td>
</tr>
<tr>
<td>Rafał Lew-Starowicz</td>
<td>Vice President, EdTech Poland Foundation, Poland</td>
</tr>
<tr>
<td>Jesse Lubinsky</td>
<td>Chief Learning Officer, Ready Learner One, NY, United States</td>
</tr>
<tr>
<td>John Lucero</td>
<td>Deputy CIO, Worthington City Schools, OH, United States</td>
</tr>
<tr>
<td>Louis McDonald</td>
<td>Director of Technology, Fauquier County Public Schools, VA, United States</td>
</tr>
<tr>
<td>Edward McKaveney</td>
<td>Technology Director, Hampton Township School District, PA, United States</td>
</tr>
<tr>
<td>Michael McVey</td>
<td>Professor, Eastern Michigan University, MI, United States</td>
</tr>
<tr>
<td>Sophia Mendoza</td>
<td>Director, Instructional Technology Initiative, Los Angeles Unified School District, CA, United States</td>
</tr>
<tr>
<td>Janice Mertes</td>
<td>Assistant Director Teaching and Learning, Wisconsin Department of Public Instruction, WI, United States</td>
</tr>
<tr>
<td>Ann S. Michaelsen</td>
<td>School leader, Sandvika high school, Oslo, Norway</td>
</tr>
<tr>
<td>Matthew Miller</td>
<td>Superintendent, Lakota Local Schools, OH, United States</td>
</tr>
<tr>
<td>Punya Mishra</td>
<td>Associate Dean of Scholarship and Innovation, Mary Lou Fulton Teachers College, Arizona State University, AZ, United States</td>
</tr>
<tr>
<td>Jacqueline Rodriguez</td>
<td>Vice President, Research, Policy, and Advocacy, AACTE, Washington, D.C., United States</td>
</tr>
<tr>
<td>Tom Ryan</td>
<td>Ph.D., Chief Information and Strategy Officer, Santa Fe Public Schools, NM, United States</td>
</tr>
<tr>
<td>Tara Nattrass</td>
<td>Education Strategist, Dell Technologies, VA, United States</td>
</tr>
<tr>
<td>Philip Neufeld, Ed.D.</td>
<td>Executive Officer, IT, Personalized Learning, Learning Analytics, Fresno Unified School District, CA, United States</td>
</tr>
<tr>
<td>Sylvia Norton</td>
<td>Executive Director, American Association of School Librarians, IL, United States</td>
</tr>
<tr>
<td>Kyle Pace</td>
<td>Director of Instructional Technology, Lee’s Summit School District, MO, United States</td>
</tr>
<tr>
<td>Hae Ja Park</td>
<td>President, KERIS, Daegu, Republic of Korea</td>
</tr>
<tr>
<td>Francesc Pedrò</td>
<td>Chief, education policy, UNESCO IESALC, Caracas, Venezuela</td>
</tr>
<tr>
<td>Victor Pinedo</td>
<td>Director of Technology, Southern Westchester BOCES, NY, United States</td>
</tr>
<tr>
<td>Sam Plambeck</td>
<td>Director, Information Technology Westminster School District, CA, United States</td>
</tr>
<tr>
<td>Richard Platt</td>
<td>Director of Technology and Innovation, North Allegheny School District, PA, United States</td>
</tr>
<tr>
<td>Alex Podchaski</td>
<td>Director of Educational &amp; Information Technology, North Broward Preparatory School, FL, United States</td>
</tr>
<tr>
<td>Ruben Puentevedra</td>
<td>Founder and President, Hippusas, MA, United States</td>
</tr>
<tr>
<td>Charles (Charlie) Radman</td>
<td>HP Education Software Solutions, HP</td>
</tr>
<tr>
<td>Karen Swift</td>
<td>Head of Department - Business and Technologies, James Nash High School, Queensland, Australia</td>
</tr>
<tr>
<td>JUSTIN TALMADGE</td>
<td>Assistant Director of Digital Learning, Kent School District, WA, United States</td>
</tr>
<tr>
<td>Justin Thompson</td>
<td>Senior Policy Analyst, NEA Education Policy &amp; Practice, Washington, D.C., United States</td>
</tr>
<tr>
<td>Karen Triquet, PhD</td>
<td>Researcher, Education &amp; Behavioural Scientist, and Edtech Advisor, Vrije Universiteit Brussel, Brussels, Belgium</td>
</tr>
<tr>
<td>Tim Truesdale</td>
<td>Superintendent, J. Sterling Morton High School District 201, IL, United States</td>
</tr>
<tr>
<td>Wietse van Bruggen</td>
<td>Advisor Innovation, Kennisnet Foundation, Holland, The Netherlands</td>
</tr>
<tr>
<td>Jason Van Heukelum</td>
<td>Superintendent, Winchester Public Schools, VA, United States</td>
</tr>
<tr>
<td>Jim Vanides</td>
<td>Senior Education &amp; Industry Advisor, Vanides2 Consulting, Menlo Park, CA, United States</td>
</tr>
<tr>
<td>David Vidal</td>
<td>Innovation &amp; Edtech Officer, Aonia Educación, Spain</td>
</tr>
<tr>
<td>Stephan Waba</td>
<td>Deputy Head of Department for IT-Didactics, Federal Ministry of Education, Science and Research, Austria</td>
</tr>
<tr>
<td>Tennille Wallace</td>
<td>Executive Director of Technology Services, Rock Hill Schools, SC, United States</td>
</tr>
<tr>
<td>Amanda Wilkerson</td>
<td>Instructor, Central Nine Career Center, IN, United States</td>
</tr>
<tr>
<td>Jason Zagami</td>
<td>Dr, Griffith University, QLD, Australia</td>
</tr>
<tr>
<td>Ken Zimmerman</td>
<td>Supervisor of Educational Technology, Lancaster-Lebanon Intermediate Unit 13, PA, United States</td>
</tr>
</tbody>
</table>