Spring 2023

Level Up

EdTech Magazine

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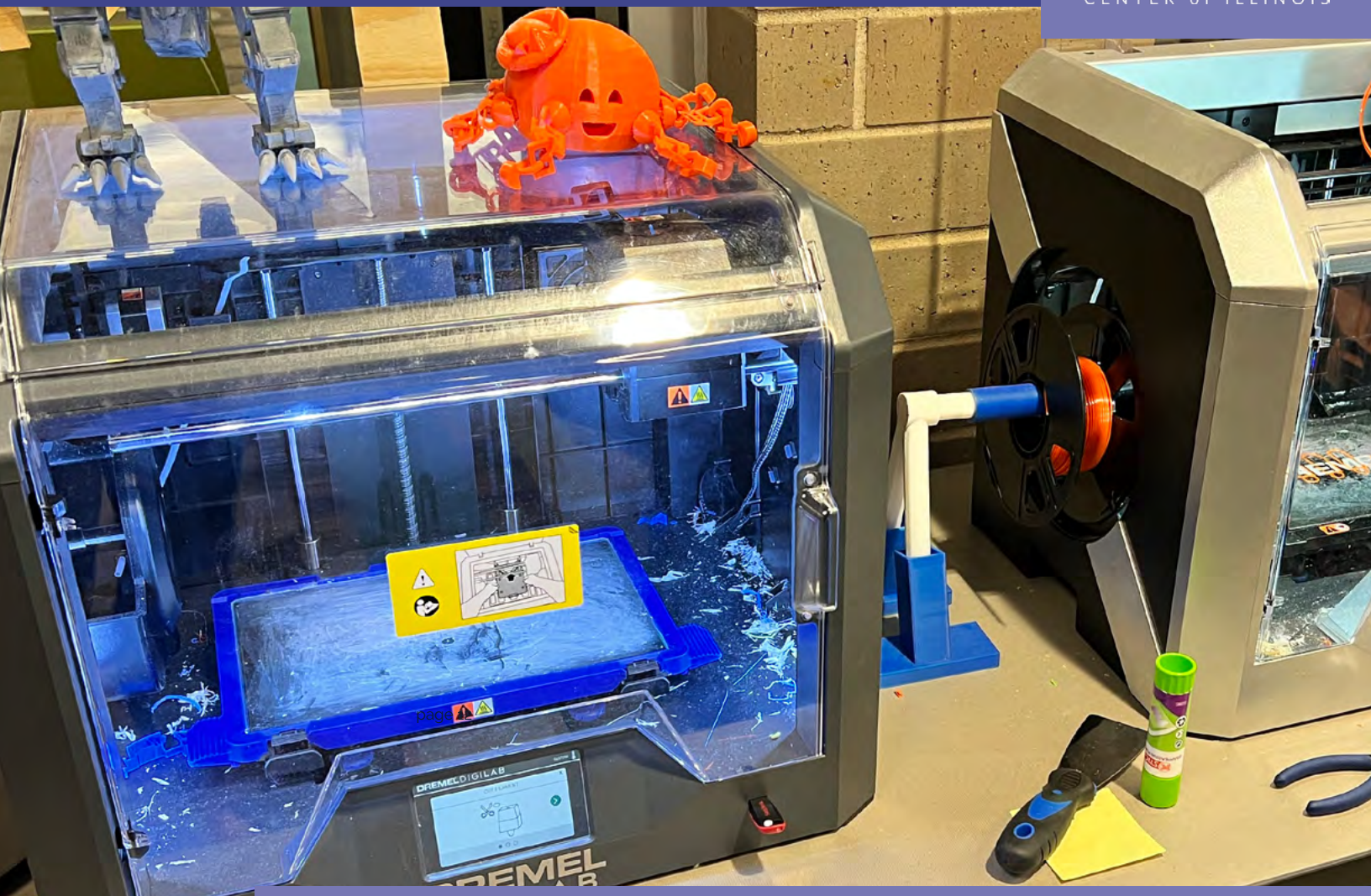

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Director's Letter

What an exciting time in education! Artificial intelligence expands into new and well-known platforms, edtech companies merge, schools prepare for the summer, and our Spring edition of LevelED Up launches.

As always, this issue touches upon the diverse scope of technology in education. We explore AI's role in the classroom, highlight a district STEM lab, explore student engagement through different lenses, reexamine the power of noise, and emphasize the importance of peer networks in K-12 IT. Throughout, we also feature technology tools and LTC programs and PD that can help you and your colleagues tackle the challenges of the modern education experience.

A common theme subtly runs throughout many of these articles - the importance of intentional communities. Educators intentionally share ideas, deliberately create systems of support, and generously open up their schools to serve as models of innovation.
As we move forward into an increasingly tech-driven world, the community that we deliberately create and inhabit will serve as a guiding light.

Regards,
Tim McIlvain, Executive Director

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LevelED Up
EdTech Magazine

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The **Learning Technology Center** is a statewide program that supports all public K-12 districts, schools, and educators through technology initiatives, services, and professional learning opportunities. Our goal is to maximize school districts' access to technology and enhance districts' use of technology to improve educational opportunities for the students of Illinois.

Since 1995, the LTC has supported modern technology environments in all Illinois K-12 schools. Over our nearly 30 years of service, we've expanded our reach to all corners of the state, lead future-focused technology initiatives, and lead countless professional learning opportunities for educators, administrators, and technology support staff.

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Explore how **McHenry SD 15** is sparking creativity and curiosity in its PreK-8 students with spaces centered on collaboration and hands-on construction.

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AI IN THE CLASSROOM

Artificial intellegence - what it is, what it isn't, and how programs like ChatGPT are changing the way we learn and teach.

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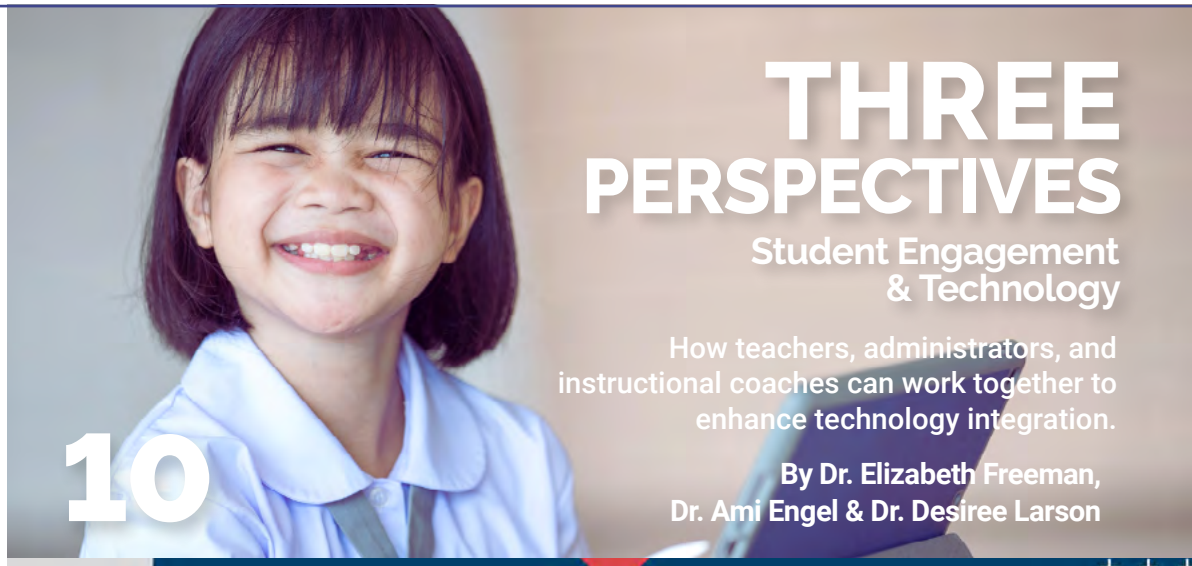

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Student Engagement & Technology

How teachers, administrators, and instructional coaches can work together to enhance technology integration.

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CREATING STANDARDS-ALIGNED LESSONS in Seconds

Just a few clicks away from a full, engagement-filled slide deck complete with vocabulary & assessments.

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AI in the Classroom

By Eric Santos Regional Educational Technology Coordinator, Chicagoland | **Edited by Sam Fishel**

Artificial intelligence, or AI, has been making headlines recently, with natural language chat bots like ChatGPT and art models like Midjourney capturing the public's imagination in a flash. In the education community, many have already hypothesized and seen first hand how these widely-accessible AI could revolutionize the way we learn and teach.

But what exactly is "AI" and how is it already being harnessed in the classroom? Here's what you need to know to make the most of this edtech inflection point:

AI: What it Is & What it Isn't

At its core, artificial intelligence refers to a set of technologies and techniques that enable machines to learn, reason, and perform tasks that would typically require human intelligence. AI systems are "trained" by being fed data, learning how to make connections within that data,and then communicating results in response to outside queries from users. That means you've used ChatGPT since its splashy launch in December 2022, you've helped train it to be better at its job!

In short, AI can be used to accomplish a wide range of tasks, including language processing, image creation, and data analysis. However, it has its limitations.

Current AI systems are good at narrow, well-defined tasks that build on existing information, but lack the ability to think abstractly or creatively in the same way humans can. AI can also reach evidence-based conclusions, but can't replace human judgment and decision-making in complex or ambiguous situations.

Most importantly, they cannot yet adapt to unexpected situations or change their behavior without explicit programming to do so. And despite what you might see in movies, they do not possess consciousness or self-awareness.

AI in Education Today

Around the world, AI is already getting comfortable in many classrooms. Believe it or not, you or your students have likely already utilized AI in some of your favorite apps! Duolingo, Canva, Book Creator, Grammarly, TurnitIn, and more are already using AI to improve personalized learning experiences.

AI is also being used to lighten the load for educators, and streamline workflows that take away from time with students. For example, certain chatbots can generate test questions and essay prompts, while others use adaptive learning algorithms to adjust their content to a student's learning style and pace. These tools can help students stay engaged and motivated, as well as help teachers efficiently identify areas where students may be struggling.

Why Use AI in Education?

Despite its limitations, AI has the potential to be a valuable tool for educators. One of the most important benefits of AI is that it can provide useful academic and interpersonal support for students. For example, an AI-powered chatbot can help students who are struggling with a particular concept by answering their questions and providing personalized feedback. In the future, AI may be used to help identify students who are at risk of dropping out of school, or to help teachers identify students who are struggling with mental health issues.

Another educational benefit of AI is that it can help students develop career-ready skills. Students who are familiar with AI will be better prepared for the future workforce, which continues to embrace AI across many sectors. In healthcare, AI is already working alongside doctors to identify, diagnose, and treat diseases. In agriculture, AI can identify problems with crops and use historical data to quickly suggest actionable solutions. In finance, AI can synthesize massive volumes of financial data and produce models that enhance how financial institutions analyze, manage, invest, and protect money.

Drawbacks of AI in Education

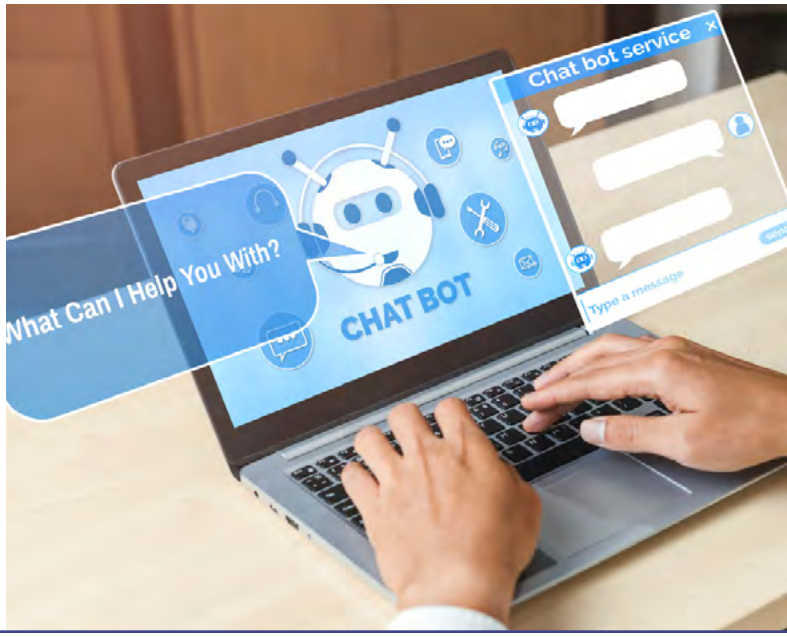
While AI has many potential educational benefits, there are also some drawbacks that educators and leaders need to take under consideration.

One of the biggest concerns is plagiarism. With the rise of AI-powered writing tools, it is becoming easier for students to cheat on assignments by using software that generates short- and long-form written responses to prompts.

To deter plagiarism, teachers need to be vigilant and use tools that can detect plagiarism. Often, the best tool is prevention. Personalized learning can be a boon here, as tasks that require students to bring in personal examples and use their own creativity are harder (though not impossible) to mimic with an AI bot.

Along the same lines, concerns that AI-power image generation tools steal from human artists have also been raised. This primarily stems from the way in which these tools sample from existing works, often without credit to or permission from the original creator. As a result, there remains a legal gray area regarding ownership of AI-created art, as well as if this kind of sampling infringes on copyright or intellectual property rights.

Much like early search engines, AI reliability is also tricky. Current chat bots, for example, are known to sometimes respond with “facts” that are provably false, or present realistic sounding events that never occurred. As always, students and educators should fact check information they get from AI sources, just as they would with any other digital source.



Getting Started

AI Tools for your Classroom

If you're interested in exploring uses for AI in your classroom, there are many tools and resources available to help you get started. Here are three examples:

1. ChatGPT

Currently the most popular and widely-known AI, this chatbot is currently only available to users 18 years or older. While most students won't have access to it as a result, teachers can use it to:

- Outline an instructional unit, complete with activity ideas
- Write a full standards-aligned lesson plan using a specific teaching model
- Create a rubric and write the criteria descriptions
- Compose emails
- Produce notes, an outline, or a summary of a text
- Rewrite text at a specific lexile level and include specific vocabulary
- Produce poetry, prose, songs, or other written examples for students to analyze
- Generate math problems around a specific skill

2. Curipod

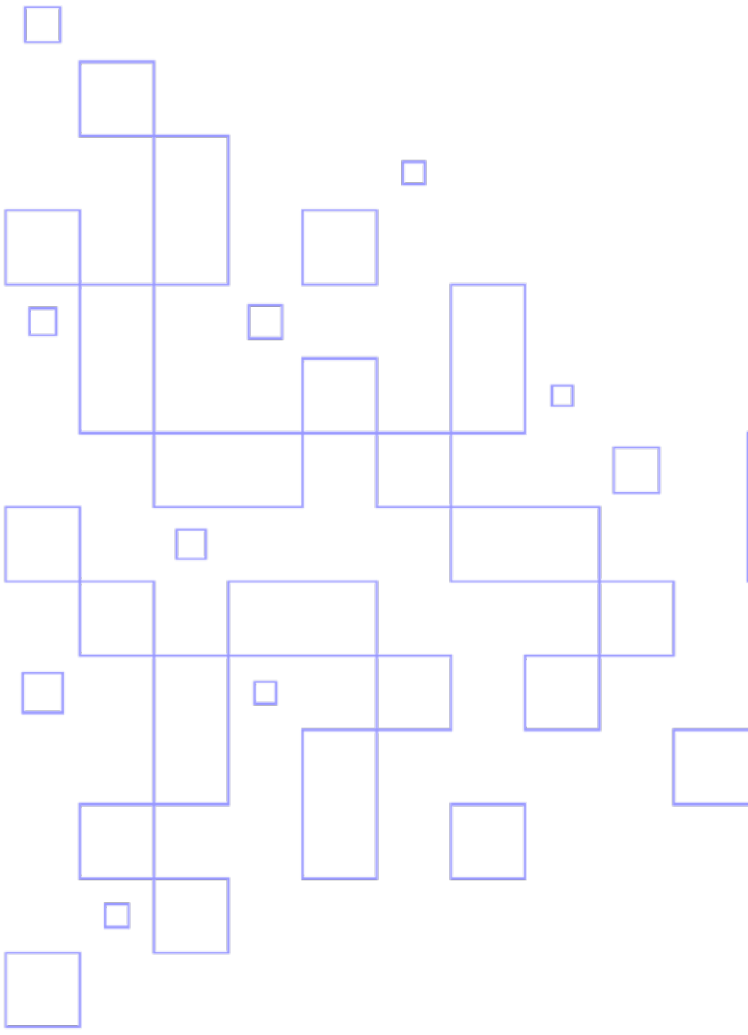
This AI-powered tool can generate a full interactive lesson plan and accompanying slide deck in seconds. All you need to do is input key information like lesson subject, grade level, and relevant learning standards to receive a presentation with prompts, information, images, vocabulary, assessments, and even brain-breaks customized to your curriculum.

Students can even access your slide deck as you present via a QR code, allowing them to directly respond to on-screen prompts.

3. Hyperwrite

This Chrome extension runs in the background to make recommendations that finish your thoughts as you type. It can also generate content for you like emails, newsletters, and announcements, all with just a couple keystrokes.

Most importantly, it learns your writing style over time so each piece of writing sounds more like you, no matter where you write it.



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Three Perspectives

Supporting Technology Integration to Enhance Student Engagement

By Dr. Elizabeth Freeman, Dr. Ami Engel & Dr. Desiree Larson Community Unit School District 300
Edited by Sam Fishel Learning Technology Center

Student engagement is essential to maximizing student learning. Recent research by Gallup suggests that "students who are engaged are 2.5 times more likely to say they do well in school and are 4.5 times more hopeful about their futures than their disengaged peers" (Ravaglia, 2023). Berry (2020) further illustrates that divide through recognizable behaviors in this continuum of student engagement:

FIGURE 1. A Continuum of Engagement

ACTIVE ← PASSIVE → ACTIVE

Disrupting	Avoiding	Withdrawing	Participating	Investing	Driving
Distracting others Disrupting learning	Looking for ways to avoid work Off-task behavior	Being distracted Physically separating from group	Doing work Paying attention Responding to questions	Asking questions Valuing the learning	Setting goals Seeking feedback Self-assessment

DISENGAGEMENT | ENGAGEMENT

Note: This figure is based on Amy Berry's research on teachers' perceptions of engagement (Berry, 2020).

When students work from a place of compliance, they robotically "do school," checking off the boxes that adults determine are important. By comparison, when students work from a place of engagement, they exhibit increased motivation, demonstrate a stronger sense of belonging, and become more accountable for their own learning - all leading to more positive and productive learning outcomes.

A Team Effort

Purposeful technology integration, with the support of instructional coaches and administrators, can noticeably increase student engagement. However, individual devices and apps alone cannot generate novel student engagement. It takes the effort of teachers, coaches, and administrators working in tandem to allow technology to bring out the best in students.

Teachers

At a basic level, a teacher's purpose is to help students reach their learning goals. For many teachers, it is a fulfilling experience to create an environment where well-crafted activities are used to achieve a specific learning goal, not to mention make the full learning experience meaningful and fun.

These engaging experiences all come down to pinpointing purpose and planning accordingly. In addition to monitoring student progress and providing timely feedback, strategies for maximizing learning and engagement could include involving students in developing the goals, differentiating instruction to address specific needs or interests, and creating space so that students can identify their own path to reaching each goal.

These important tasks can all be accomplished by utilizing classroom technology. Doing so places students at the forefront of their learning as content creators, not just content consumers. At the same time, students also gain more agency and choice in their learning when digital tools are used to transform learning, rather than substitute for an analogue tool.

For example, teachers can reach for digital tools that empower students to select their own readings, curate resources, record and edit videos, author books and comics, design and build with 3D printers, create virtual reality modules, and so much more. Regardless of platform or content area, all of these learning experiences offer the potential for increased student engagement as well as the chance for students to showcase their learning through personalized applications.

Instructional Coaches

Instructional coaches are tasked with supporting teachers' technology integration beyond generalized technical instruction. In many cases, they support teachers' use of technology in curricular settings, especially when it comes to using certain apps or devices to increase student engagement.

This can be a scary shift for teachers, who may already feel that their students have more tech know-how than they do. To help teachers grow as tech users, coaches must recognize these fears and provide a safe space that encourages teachers, alongside their students, to take these productive risks.

When they do, teachers see their students become technology integration leaders, helping fellow students troubleshoot and discover new uses for existing tech tools. Student engagement, in turn, increases, even among previously unengaged learners, such as a student who was unengaged by a written essay assignment but jumps at the opportunity to demonstrate their learning through a video essay.

Overall, this coach-led shift creates a student-led environment where the students are engaged and responsible for their learning – a major boon that any teacher can appreciate.

Administrators

As leaders among leaders, administrators also have an important role to play in the tech integration and student engagement conversations. Not only can they provide the necessary encouragement and support, but they can also model purposeful tech integration for their entire faculty.

Here are a few examples of successful technology modeling administrators can try or demo during a staff meeting or inservice day:

- Group polls using Google Forms
- Graphic design apps like Canva
- Learning management system discussion boards
- Data analysis protocols using an online assessment platform

By demonstrating the intent and application of different tech tools, certified staff will be more engaged in staff meetings and walk away from trainings with actionable knowledge they can immediately apply in their classroom. In turn, teachers who take part in these hands-on tech demos will go forward with greater enthusiasm for tech integration, making them more likely to try and use future tech tools as they come along.

Better Together

When teachers, instructional coaches, and administrators all work together to enhance student engagement, learning can expand to new heights. Purposeful technology integration can make those efforts even more potent, and open new doorways to infusing agency into students' learning experiences.

In the LTC Community

Join the conversation for FREE at ***community.ltcillinois.org***

Coding Robots for K-2 Classrooms

What codable robots are your K-2 teachers using?

Botley 2.0 is a fan favorite, but there are so many more to choose from.

This thread is full of recommendations for the bots your peers are using to get their elementary learners into coding.

Interactive Panel Recommendations

Tech Coach Emily wants to know - do you love your classroom's interactive panel? And if you were involved in its purchase, what factors did you consider while comparing models?

Check out these responses if you're working toward upgrading your building's whiteboards.

Chromebooks Vendors

Many Illinois tech directors are looking for the best prices on the latest Chromebook models.

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Google Tips & Tricks

Sorting & Filtering Your Data

For teachers and educational leaders alike, data is critical for making informed decisions. But how can you make sense of it all if your data points are out of order?

Here are three easy ways you can use **Google Sheets** to better organize your data with just a few clicks:

1. Sorting

Click the column you want to sort. Then, click the small dropdown on the right side of the highlighted column and select "Sort A to Z".

2. Color Coding with Conditional Formatting

Right click on a highlighted column and select "Conditional Formatting". Change options to color code desired responses using "Text is Exactly".

3. Filtering

Select "Data", then "Filter Views" and "Create New Filter View." Name the filter then select parameters that you want to filter for.

WATCH FULL VIDEO

Cybersecurity Crisis Response Groups

How They Can Keep your District Secure, Before, During & After a Cyber Incident

By **Sam Fishel** Learning Technology Center

A cyber crisis can happen at any time, even with the best cybersecurity policies and protections in place. All it takes is one wrong click or one misplaced password and your school's networks, servers, and other mission critical data can become exposed.

In the event of a cyber incident, who ya gonna call? Unfortunately, the Ghostbusters can't help you here. But your friends and peers sure can.

Duane Shaffer knows that fact better than most. While with Morrison CUSD 6, Duane started a cyber crisis response group to help nearby school districts prepare for and bounce back from a cyber incident.

I sat down with Duane to discuss his experiences, and highlight why every K-12 district should take part in a cyber crisis response group:

What is a cyber crisis response group? What do they do?

Duane Shaffer: Essentially, a cyber crisis response group is a local/regional team of IT professionals that coordinate resources for managing a cyber incident.

Typically, these groups consist of members with wide-ranging expertise, from cybersecurity and data privacy to networking, data backup/recovery, and more. Together, those experts work to ensure that no single member has to fight a cyber battle on their own or go through the recovery and rebuilding process alone.
aerial photos and videos, which he shared with the whole school.

What role can a cyber crisis response group play in the event of a cyber attack?

Duane: Let's say a district finds itself in the middle of a cyber attack, but can't uncover the attack's source. As a member of a crisis response group, they can get on the phone with a fellow group member or members and work through strategies for stabilizing the situation - kind of like a 911 operator.

These groups aren't just an asset in the middle of a crisis. In the wake of a data breach, for example, crisis response group members can collaborate to help a member's district rebuild their network, set up a new DNS or configure

a new domain. Whatever a district needs to get back up and running digitally, a well-oiled crisis response group can ensure it happens without any further risk or delay.

For K-12 IT teams, what are some of the benefits of participating in a cyber crisis response group?

Duane: Anyone who has spent time in the K-12 IT sphere knows first hand how unique it is compared to the private sector. The stakes are rising, the priorities are different, and quite often, you find that many smaller districts only have one IT staff member.

All of that and more makes dealing with a cyber crisis a much bigger job for K-12 tech teams. Having a network of people to go to in those situations - all of whom understand where you're coming from and have experience working in your world - is invaluable.

Before joining the LTC, you led a cyber crisis response group. Tell us a bit about that group and what it accomplished.

Duane: I'm actually still leading that group! Right now, the Northwest Illinois Crisis Response Group has around 34 districts participating, though we started out much smaller. In fact, I scoured district websites when we were first getting off the ground, reaching out to any and all K-12 tech departments in my region that might have the faintest interest in joining.

Once we had a few members, I'll be the first to admit that we didn't know what we were doing. Centering ourselves on the goal of preparedness and mutual assistance helped us take that important first step, and from there, a few inter-district projects started to bubble up.

So far, our biggest success has been the creation of a "solutions" database for many of the technology systems all or most of our districts use. Cameras, network equipment, filtering, firewalls, student management systems - you name it and there's a good chance one of our districts has already identified or implemented a viable solution. After all, why reinvent the wheel?

At the end of the day, our group is still a work in progress. School IT staff wear so many different hats, both in and out of a crisis, so we're always looking for new ways to leverage our group's first-hand knowledge of this product or that service to help our districts make informed IT decisions.

What steps need to be taken to start up a new cyber crisis response group?

Duane: Reach out to people! That should be step #1. You don't need to cast a huge net; to begin, consider sending out invites to schools in your school's athletic conference or ROE region.

Once you have an initial list, start emailing prospective members with a clear statement of your goals for the group.

If you get a few takers, start meeting on a regular basis to break challenges into chunks and outline ways you can pool your knowledge, should a cyber crisis ever impact a member's district. You might even consider developing a simple database that anyone in the group can reference at a moment's notice or add to when they discover a new resource worth sharing with the collective.

Any final thoughts on K-12 cyber crisis response groups?

Duane: Cyberattacks used to be a matter of "if"; for school districts, they're now a matter of "when." Complacency is not an option anymore, and the sooner districts shift their mindset, the better.

When Morrison was going through a cyber crisis, I felt helpless. I didn't know what I didn't know, and that made it challenging to tackle our emergent crisis with confidence. At that time, I wish I could have reached out to others for support, rather than rely on the old "tech guy" stigma of going at every project alone.

That impetus spurred me to start my region's crisis response group, with help from the LTC's Eric Muckensturm and Chris Wherley. It was important for me to surround myself with people who were willing and able to support me in a time of crisis, and I'm glad I'm now able to give back to the group by offering the same reassurance to my colleagues. There's no reason any district or IT team should have to go through a cyberattack alone. It takes a village, and cyber crisis response group can help you build that village, one helping hand at a time.

Interested in starting your own cyber crisis response group?

Duane: I'd be more than happy to help your

district or region get a new cyber crisis response group off the ground. Reach out to me at **dshaffer@ltcillinois.org** and we'll start a conversation about how you can lead the way toward better K-12 cybersecurity and IT collaboration in your area.

Tech Tip of the Month

Create Standards Aligned Lessons

in Seconds using AI

Using **Curipod,** teachers can produce full interactive lesson plans and accompanying slide decks in seconds. Just pop in a lesson topic and the learning goals or standards you'd like to teach towards and Curipod handles the rest.

Check out this full demo from RETC **Joe Cipfl,** including how to use this tool to create customized prompts, vocabulary, assessments, polls, and brain-breaks.

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School Law Update

What You Need to Know Heading into 2023-24

May 17 | Free

Hosted by Brandon K. Wright, Attorney

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The Power of Noise

By Holly Kelly Learning Technology Center **Edited by Sam Fishel** Learning Technology Center

Noise can be powerful, no matter what you're going through in life. The sounds of a fair, a student's laughter, your favorite song turned up to 11 on a Friday - all these joyful noises can make a gloomy day bright and help you feel more centered in the moment.

But wait, I hear you say - isn't social emotional wellness all about peace, quiet, and stillness? Doesn't adding more noise to my life make it harder to focus on my own thoughts?

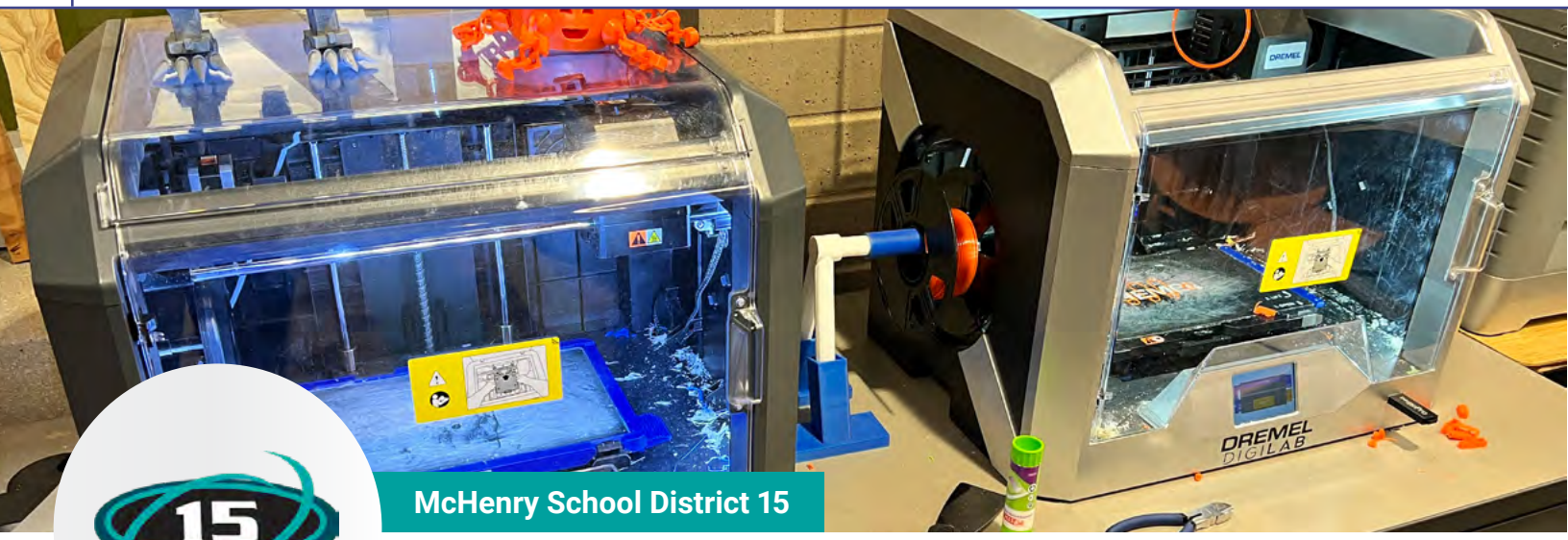
While many wellness practices do focus on silence, purposefully adding noise into your life is another way to make yourself feel happier and more at ease with your surroundings. Listening to music, audiobooks, and podcasts can all do that, with each track or episode increasing your dopamine levels as you take on other tasks throughout your day.

In fact, for many people (myself included), listening to a podcast or audiobook is a favorite way to take time for oneself while busy at work or at home. For me, this productive noise helps keep me motivated and offer me an extra sense of growth during time that I might have just focused on how much I don't want to be doing chores.

Try it for yourself sometime this week. Before starting a tedious task like cleaning the bathroom, folding laundry, or waiting in the after school pick-up line, plug in your choice of earbuds and listen to that book you have been meaning to read or that podcast that everyone is chatting about. Tasks you would have dreaded might now become pleasurable because you are being enriched and doing something you enjoy while getting the job done.

Afterwards, think back on your experience. How did that added noises make you feel? Are you already looking forward to the next time you need to do that chore? Even if it's a minor incentive, that simple change is now helping you find more joy in the ordinary and feel more fulfilled in a small, but meaningful way.

PS: When your task is done, don't forget to unplug and be present with those you share your life with. It's fun to get lost in a good book, but not when dinner needs to be made and homework help needs to be given. Being present is just as important as finding time for you. Plus, unplugging will add to the anticipation of your next round of chores, when you finally get to dive back into your new favorite habit.



McHenry School District 15

STEM Lab Tour

Article and Photography by **Sarah Phelps,** Learning Technology Center
Edited by **Sam Fishel,** Learning Technology Center

Back in early March, I traveled to McHenry SD 15 in McHenry, IL, a northwest suburb of Chicago, to see some of their innovative STEM spaces first-hand. This consolidated district serves over 4,000 pre-K through 8th grade students across its six elementary schools and two middle schools. While I was there, I discovered a robust learning space packed with plenty of takeaways you can use to establish or expand your district's makerspace.

Making Room for STEM Learning

As McHenry transitioned from half-day to full-day kindergarten, district leaders realized they had an opportunity. Since they were already expanding several buildings to accommodate more students, construction of STEM-focused learning spaces was added to the project. Those STEM labs were completed during the 2017/2018 school year.

Jacquie Duginske, Executive Director of Learning Services, explained that the goal of the space is to spark creativity and curiosity in students and prepare them with the skills they may need for jobs that don't even exist–yet!

McHenry's STEM labs were also designed with collaboration in mind! These workspaces from McHenry Middle School feature shared monitors, modular and movable seating, and a teacher's screen that can be seen on multiple screens/projectors throughout the room.

This school year, McHenry's STEM labs all went through a refresh focused on responsiveness to new technology and tool availability. Educators continue to use the International Society of Technology Educators (ISTE) standards, Illinois Computer Literacy continuum, and Illinois Computer Science standards to guide activities and learning objectives in the space.

A Library Connection

Each of McHenry's STEM spaces is attached to their building's library media centers and serve as an extension of these valuable learning hubs. On a day-to-day basis, these libraries are spaces driven by projects and student needs. The STEM labs serve a similar purpose, so students are encouraged to visit often and creatively use the tools available to support projects in their other classes.

To help connect the space to the core STEM curriculum, library media center directors also partner with innovation coaches and STEM teachers to facilitate on-going projects. With MacBooks, iPads, cameras, and more on hand, teachers also have a variety of device-focused options for supplementing their school's existing 1:1 Chromebook program. Many of the more unique tools (including robots) include K-8 alignment resources, too, so

teachers across those grade levels can easily visualize different tools they can use to achieve existing learning goals.

Intentionality also remains a guiding force in the development of these STEM labs, starting with teachers and continuing all the way up through tech department leadership - always with the goal of fostering communication, critical thinking, and creativity skills in collaborative small groups. For example, the middle school STEM labs work closely with their high school counterparts to align learning experiences that prepare students for future learning pathways. Budgets are responsive to student interest and teacher's needs, too, with the technology department covering big dollar items while teachers receive a designated dollar amount per student per year for use on consumables.

"The goal of the space is to spark creativity and curiosity in students and prepare them with the skills they may need for jobs that don't even exist–yet!"

A Peak into the Action

During my time at McHenry, I visited two of their STEM spaces at McHenry Middle School and Edgebrook Elementary School, respectively. I also had the opportunity to speak with the educators facilitating these spaces as well as some awesome students who shared what they're working on during their favorite part of the school day - STEM lab time!

McHenry Middle School

McHenry Middle School offers two courses that fully utilize its STEM lab, both co-taught by Andrea Comes and Micah Riordan. These courses - one focusing on traditional STEM and the other incorporating the arts as STEAM - last seven weeks and offer students the opportunity to act as both a digital creator and an engineer while working on solo and small group projects. Each course also incorporates a variety of physical and digital tools that help students develop their collaboration and critical thinking skills on a daily basis.

Based out of their STEM lab, MMS students also produce their own news show, MMS News, on YouTube. Each episode includes sports reports, movie and game reviews, and upcoming school events, with every segment being fully written, recorded, and edited by students.

In addition, students can utilize these same tools, including WeVideo and iMovie, to record, produce and edit videos for class projects.

MMS' cardboard furniture challenge caught my eye while touring their lab. During this challenge, small groups design a furniture prototype, assemble it solely out of cardboard, and then vote as a class on their favorite design. The winning group then becomes the project leaders, directing the whole group in the construction of the full size piece of furniture.

Edgebrook Elementary School

Rather than devoted courses, Edgebrook Elementary School utilizes its STEM lab to encourage age-appropriate exploration and support individual classroom initiatives. K-1 students, for example, might visit the space with their teacher for a one-off lesson, while 2-3 students attend a STEM-focused class each week.

Much like their middle school counterparts, elementary students are also encouraged to use robotics, 3D printing, and video production tools to express themselves. Gina Nicholls, Edgebrook Elementary School's innovation coach, highlighted just a few of the resources available to get their young learners thinking critically and creatively, including LEGO Education, K'Nex, Quiver AR, and Do Ink.

As in any grade school classroom, thorough organization is key to keeping students on track. Everything in ESS' STEM space is labeled with both words and pictures to help students understand what resources are available and help them pick up and put away things correctly when they are done.

When students visit EES's STEM space, they're organized into small groups that work with a specific tool or resource at a pod. Each day, students are given a fresh set of challenges to work on, and after five days, they rotate to a new pod.

All work doesn't have to be completed in a single session, though. While I toured the space, students showed me their class tubs where they store "works in progress," making it easy for them to pick up where they left off next time they visit.

Takeaways for your Makerspace

I want to give a special thank you to the staff and students at McHenry CCSD 15 for welcoming into their STEM labs. They were incredible hosts and were so generous in sharing the many ways their STEM labs continue to support student learning.

If your district is establishing or expanding its STEM labs, keep these points in mind to help your burgeoning makerspace really shine:

1. Better Together

Encourage your technology department, administrators, and teachers to all work together to determine what tools and tech need to be included in your STEM lab. Having all these stakeholders in the conversation ensures that everyone understands top priorities, how the space needs to be maintained, and how students are utilizing it. You can also invite your IT team in to see how students are using the technology, rather than just calling them when it's broken.

2. Be Thrifty & Flexible

Budgets can be tricky, but it's important that your budget for your space is responsive to students' and teachers' needs. Save some funds for special project requests so students have a voice in what they need or use in their creation.

3. Their Hands, Not Yours

Allow students to experiment and explore with the different resources, even if letting them take the lead makes you nervous at first. Show them how to access the information about the tools, but empower them to figure out how to use them or use them in an innovative (and safe) way. And don't forget - teachers don't always have to be the expert. Encourage students to teach YOU how to use a tool to help them solidify their understanding.

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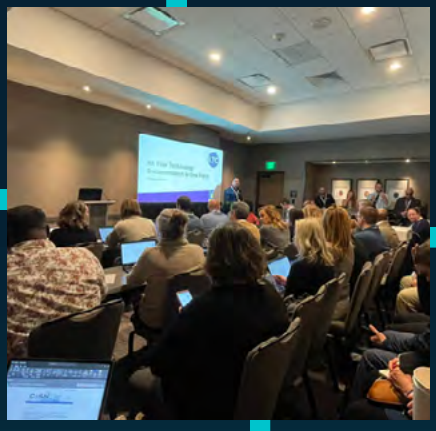

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Be Connected

End-of-School-Year Tips & IT Summer Projects

By Eric Muckensturm Learning Technology Center **Edited by Sam Fishel** Learning Technology Center

Summer break is just around the corner and every K-12 team knows what that means – more time to focus on big picture projects you haven't had the time or energy for during the hectic school year.

Now's the perfect time to make a plan to fully utilize this valuable down time. Here are a few suggestions for projects you can tackle while staff and students are out of the building:

Unblock Chrome Updates

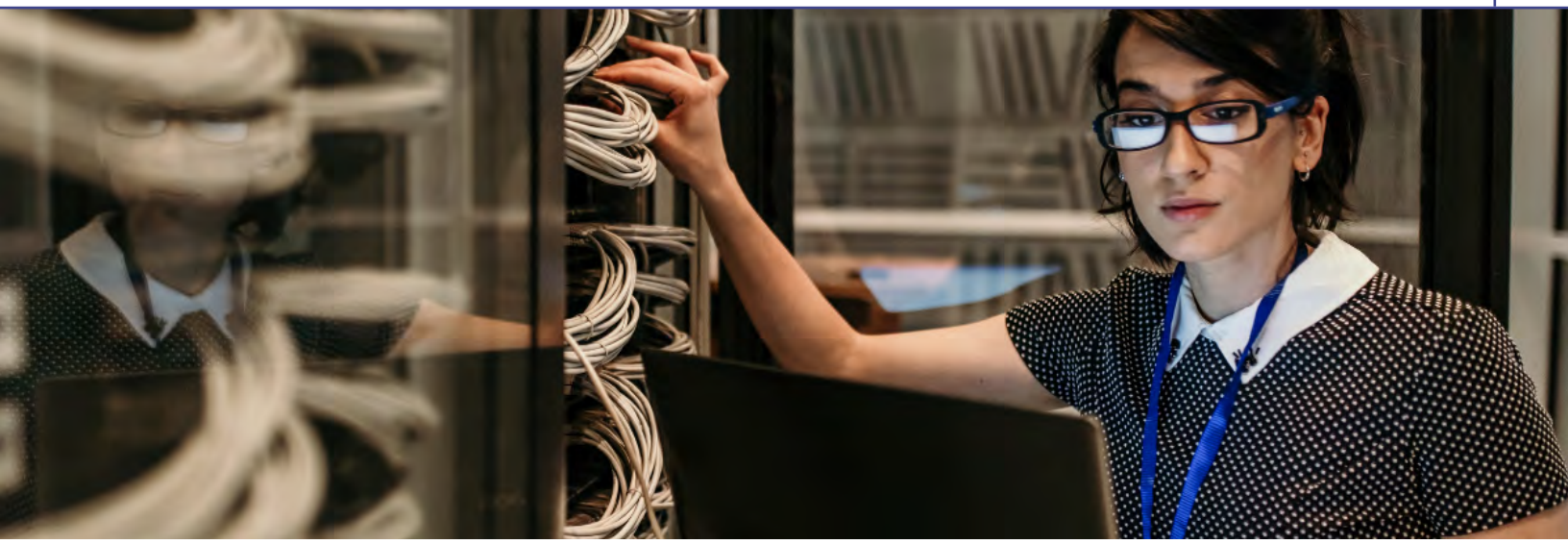
Now that IAR and other end-of-year testing is done, be sure to turn Chrome updates back on across your building's devices. Otherwise, your fleet might miss out on up to two months of important security updates.

Submit your EOY SIS Reports

Whether you use Skyward, TeacherEase, or any other student information system, be sure to take time to compile all required SIS reports and submit them to the state. This can include reports on student enrollment and attendance (among others).

Have an edtech idea worth sharing?

Submit a story pitch for the chance to share with the statewide edtech



Sunset Graduating Students Data

In accordance with your district's policies, begin archiving graduating student data stored on district servers and devices. But before starting, be sure to give those same students plenty of time to download their data from Google Drive and other district licensed file sharing platforms.

Reorganize or Redesign Network Cables

Without needing to worry about service interruptions, summer break is a great time to put a cable reorganization plan into action. This is especially important if you've made any recent hardware upgrades that could be further optimized by eliminating redundant cables.

Take Inventory

Software licenses, antivirus protection, end-of-life devices - even copiers, security cameras, and digital signage; it all needs to be accounted for on a regular basis. While you work on other summer projects, assess what your building has on hand. You might discover other important action items along the way!

Our Technology Documentation Guide can help you organize all of those critical technology-related documents in a single digital repository, making it easier to know what you have and how it is being used throughout the school year.

Take Time for Yourself

Everyone needs some down time for maintenance - **even you**! Be sure to set aside time during your summer holiday for yourself so that you can return in the fall refreshed and ready to tackle new challenges.

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