

WEEKLY NEWSLETTER

2022-2023 ARTIFICIAL INTELLIGENCE IN NEOM

Ready*AI*



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Artificial Intelligence

NEWSLETTER

May 29, 2023



Project-Based Learning Beyond Programming

As we bid farewell to another wonderful year at NCS, we wanted to take a moment to express our deepest gratitude to each and every one of you for being an essential part of our remarkable journey. It has been a year filled with growth, learning, and countless memorable moments, and we couldn't have done it without your unwavering support, dedication, and enthusiasm. From the bottom of our hearts, thank you!

First and foremost, we want to extend our appreciation to our incredible students. Your curiosity, passion, and commitment to learning have been truly inspiring. You have embraced new challenges with open minds and eager hearts, demonstrating remarkable resilience and adaptability. Your thirst for knowledge and your determination to overcome obstacles have paved the way for tremendous personal and academic growth. It has been an absolute privilege to witness your achievements and watch you blossom into confident and capable young individuals.

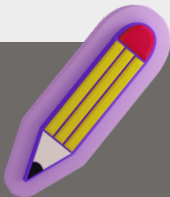
To faculty and staff collaborators, we cannot thank you enough for your tireless efforts and unwavering commitment to our students' success. Your dedication, creativity, and unwavering support have made a lasting impact on the lives of our students. Through your passion for teaching and your relentless pursuit of excellence, you have nurtured a love for learning in each child. Your genuine care, patience, and mentorship have helped shape them into the remarkable individuals they are today. We are forever grateful for your invaluable contributions to our school community.

Last but certainly not least, to the parents, we extend our deepest appreciation for your trust, collaboration, and partnership. Your active involvement, support, and encouragement have been instrumental in creating a nurturing and stimulating environment for our students.

Your unwavering support, whether attending parent-teacher conferences, volunteering, or simply being there for your children, has played a vital role in their educational journey. Your belief in the power of education and your continuous engagement have made all the difference. Thank you for entrusting us with your children's education and allowing us to be a part of their lives.

As we reflect upon the year gone by, we celebrate the collective achievements and growth of our entire school community. Together, we have created a vibrant and inclusive learning environment where each student can thrive. We look forward to the exciting adventures that lie ahead and the opportunity to continue working hand in hand with you to inspire, nurture, and empower our students. We can't wait to see you again for another incredible year at NCS.

What's New in AI



It's officially graduation season, and unfortunately, college seniors are entering a very uncertain job market. So it's only natural that the Class of 2023 are turning to generative AI bots like ChatGPT to write their resumes and cover letters to help bolster their chances of landing a job.

According to the "Class of" report by iCIMS, 47% of college seniors are using chatbots to write their applications.

But beware: 39% of HR professionals view using AI tech during hiring as a deal breaker.

That's a bummer, huh?

Looks like it might just be worth it to write your resumes and cover letters in the traditional way - *on MS Word with extended margins and 8.5 font.*

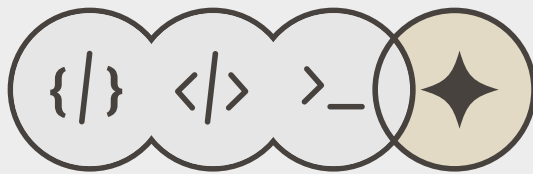
Artificial Intelligence

NEWSLETTER

May 22, 2023

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Project-Based Learning Beyond Programming

Today, we're diving into the exciting world of project-based learning in computer science and why it's a game-changer for our aspiring young programmers. As traditional education evolves to meet the demands of our fast-paced digital era, project-based learning emerges as a remarkable approach that fosters creativity, problem-solving skills, and real-world application.

Picture this: your child embarks on a computer science project where they create their very own interactive game from scratch. They get to brainstorm ideas, design captivating characters, write code, and bring their imagination to life. Through project-based learning, they become active participants in their education, transforming from passive learners to passionate creators. This approach allows them to not only understand the technical concepts but also apply them in a practical and engaging manner.

Moreover, project-based learning promotes essential skills beyond programming. Collaboration, critical thinking, and problem-solving become second nature as students work together in teams, troubleshooting hurdles and seeking innovative solutions. By tackling real-world challenges, they develop resilience and learn the art of adapting their skills to various situations. These experiences are invaluable, as they prepare your child for the dynamic landscape of the digital age, where adaptability and creativity are highly sought after.

By embracing project-based learning in computer science, we empower our young learners to become confident problem solvers and innovative thinkers. Through hands-on projects, they gain a deeper understanding of computer science concepts and develop crucial skills applicable across various disciplines. So, let's embrace this exciting journey alongside our children, where their imagination flourishes, and their passion for technology thrives. Together, we can create a future where our learners at NCS become the tech leaders and change-makers of tomorrow!

Remember, folks, the world of computer science is at our fingertips, and project-based learning is the catalyst that propels our children toward endless possibilities. Let's ignite their curiosity, foster their creativity, and watch them embark on a thrilling educational adventure that will shape their futures. Get ready to witness their brilliance shine through, one project at a time!



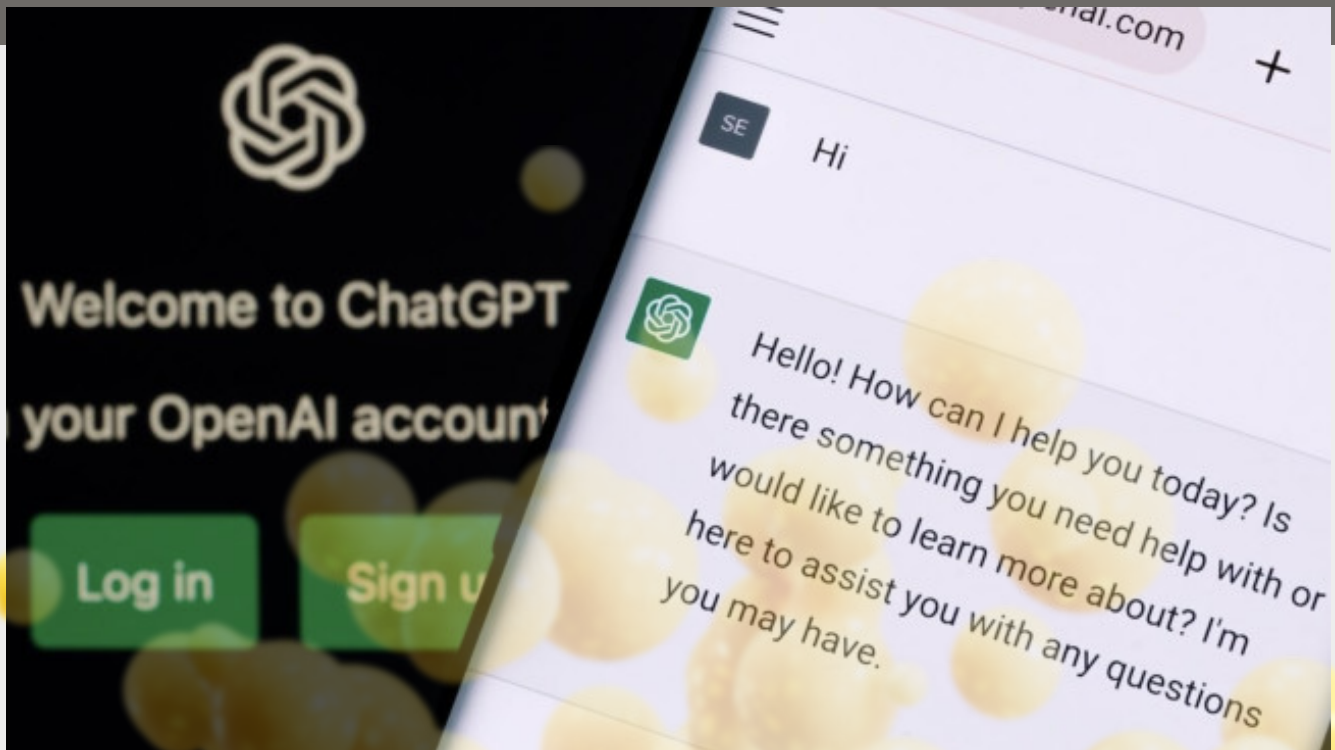
What's New in AI

Back in January, the New York City (NYC) Public School system, the largest school system in the United States, placed a ban on ChatGPT, stating "negative impacts on student learning, and concerns regarding the safety and accuracy of the content."

But in this op-ed, David Banks, the head of NY Public Schools, stated that he's reversing the ban on ChatGPT and admitted that banning the bot was a "knee-jerk fear."

Banks promised to support educators and students as they learn about the technology, and the school system will provide AI resources to help with discussions and lessons surrounding the subject.

NYC's decision to embrace AI in the classroom comes after several other school districts, including Baltimore County Public Schools and the Los Angeles Unified School District (the 22nd and 2nd largest school districts, respectively) also placed restrictions on ChatGPT earlier this year.



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NEWSLETTER

May 15, 2023



Problem-Based Learning and AI

I hope this blog post finds you all in high spirits. Our final CS/AI projects focus on something that's incredibly important for our learners: teaching sustainability practices to primary grade learners. Picture this: a world where our kids grow up to be eco-champions, armed with the knowledge and passion to protect our planet. Sounds awesome, right? Well, that's exactly what happens when we teach our learners about sustainability from an early age. Here are some fantastic benefits that'll make you jump on board the sustainability train:

1. **Sparking Environmental Curiosity:** Kids are natural explorers, and by introducing them to sustainability practices, we ignite their curiosity about the world around them. They become aware of the impact their actions have on the environment, fostering a deep love and respect for Mother Nature. Think about all the fun conversations you'll have about recycling, saving water, and taking care of plants and animals. It's an adventure every day!
2. **Empowering Problem Solvers:** Sustainability education is like giving our children a superpower: the ability to think critically and find solutions to real-world problems. When they learn about renewable energy, waste reduction, and protecting biodiversity, they become little superheroes who can tackle environmental challenges head-on. Who knows, they might come up with ideas that leave us adults in awe!
3. **Instilling Responsibility and Empathy:** Teaching sustainability practices nurtures a sense of responsibility in our young learners. They understand that their actions have consequences and learn to make thoughtful choices that benefit not only themselves but also the world they live in. Plus, it's amazing to see them develop empathy for the planet and its inhabitants. Their little hearts will overflow with compassion for the environment and all the creatures that call it home.
4. **Cultivating Life Skills:** Sustainability education is hands-on and practical, providing opportunities for our kids to develop essential life skills. Whether they're starting a school garden, organizing a recycling drive, or planning an eco-friendly project, they'll learn teamwork, problem-solving, and decision-making skills that will benefit them throughout their lives. It's like a secret recipe for success!

We hope you'll continue to ask questions and talk to our students about sustainability and how they can design both physical and digital systems for a bright and sustainable future!



What's New in AI

On Tuesday, Sam Altman, CEO of OpenAI, the parent company of ChatGPT, got his moment in front of the United States' Senate Judiciary Committee panel on AI, where he was asked questions regarding the risks and benefits of AI.

Here's a gist of the 3 hr meeting:

In his opening remarks, Sam claimed that AI has the potential to improve "nearly every aspect of our lives" and that this can be a printing press moment for the technology.

He believes that the benefits of the AI tools currently available vastly outweigh the risks they pose, but there still needs to be procedures in place to ensure user safety.

OpenAI spent ~6 months working on GPT4 to ensure that it responds "helpfully and truthfully, while refusing harmful requests," making it safer to use than any other widely deployed model.

Sam also openly acknowledged the need for regulation in AI development.

He stated that AI can "entirely automate away some jobs" but noted that it could also create new job opportunities that would be "much better." How? We have no idea.

Overall, Altman proposed a few ways in which governments could take the lead in regulating AI:

- Create an agency that issues licenses for the creation of large-scale A.I. models
- Have safety regulations and tests that A.I. models must pass before being released to the public.

Now, the question becomes how fast the government can act on creating these guardrails. If history is any indication, we could be waiting for a while...



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NEWSLETTER

May 8, 2023



Problem-Based Learning and AI

As we dig into how best to formulate some amazing student projects at the end of the year, we want to be intentional about design thinking and how it relates to PBL. Problem-based learning (PBL) is a student-centered approach to education that involves tackling real-world problems and challenges. Instead of traditional lecture-based teaching, PBL encourages students to engage with complex issues and work collaboratively to find solutions. It's a more active and hands-on way of learning that prepares students for the challenges of the real world.

PBL can be applied to a wide range of subjects and issues, from environmental sustainability to justice. By practicing critical thinking, collaboration, and problem-solving skills in the classroom, students are better equipped to tackle the challenges of the workplace. While there are challenges to implementing PBL, the benefits of this approach make it a powerful tool for engaging students and preparing them for the real world.

AI in Neom

In the final series of AI lessons for students in grades 3-6, students will explore using Cloud Calypso, a visual programming language that demonstrates the potential of AI applications in real life. Students will begin by learning some of the basic Calypso concepts in Lesson 1. They will also learn how to manipulate the map editor in order to create a scenario that could exist in the real world.

What's New in AI

The article "The Politics of AI: ChatGPT and Political Bias" published on the Brookings Institution's TechTank blog explores how AI language models like ChatGPT can be politically biased because they learn from the online text that's full of biases. Yikes! That means ChatGPT's responses may reflect those biases and influence our opinions and decisions.

But don't worry; the author has some suggestions to tackle this problem such as using more diverse and balanced training data, making AI language models more transparent and accountable, and involving a diverse group of experts in their development. The article reminded me of how Siri could recommend a sushi place that turns out to be terrible. That's probably because Siri learned from biased restaurant reviews online. We can't have that happening with important decisions, can we?



It's crucial to recognize and address political bias in AI language models like ChatGPT. We need to be more transparent and diverse in our approach to developing and deploying AI technologies.

That's all for now, folks! Stay tuned for more interesting AI news. Read the article [here](#).

Artificial Intelligence

NEWSLETTER

May 1, 2023



AI Inquiry and Analysis

Inquiry and analysis are crucial aspects of learners at NEOM because these skills help students develop valuable talents that are necessary for success in the real world. Through inquiry-based learning, students learn how to ask questions and seek out answers on their own, which can be incredibly valuable in a wide variety of situations. When students engage in analytical thinking, they are able to break down complex problems into smaller, more manageable parts, making it easier for them to identify the root cause of an issue and develop effective solutions.

Inquiry and analysis also help students develop a sense of curiosity and a desire to learn more. By encouraging students to ask questions and seek out answers, teachers can help them develop a passion for learning that can last a lifetime. When students are engaged in their learning and are genuinely interested in the topics they are studying, they are more likely to retain the information they are learning and apply it in a meaningful way.

For our learners here at NCS, inquiry and analysis are essential skills embedded throughout the curriculum including their CS and AI work. By fostering a sense of curiosity and encouraging students to ask questions and analyze information, we can help their students become critical thinkers who are able to navigate the challenges of the real world with confidence and skill. So if you're a K-12 student, don't be afraid to ask questions and think critically - you never know where your curiosity might lead you!

AI in Neom

According to *The Washington Post*, climate change was responsible for the catastrophic drought in East Africa. According to [the article](#), "With global temperatures about 1.2 degrees Celsius (2.2 degrees Fahrenheit) higher than the preindustrial average, the scientists say, droughts like this one are 100 times more likely than they would have been in a cooler world." While NCS students cannot solve this directly, NCS students are learning about AI's role in combating climate change in this final unit of inquiry. The first lesson of the three lesson sequence had K-2 students learning to code AI in order to teach an AI powered simulated robot to assist with fighting litter in students' local communities. The second lesson will learn through exploring a robot that cleans up the environment. The third lesson in this final series will have students conceptualize their own AI powered tool for improving the environment.



What's New in AI

The City of Yokosuka, Japan, became the first to have its municipal office use ChatGPT to help with admin tasks. They will use it for a one-month trial period to see if it improves operational efficiency.

The reason? It turns out that Japan's population problem is literally affecting its ability to run the government, leading to many administrative issues.

Their goal is for ChatGPT to help them establish a better workflow by using OpenAI's brainchild to "summarize sentences, check spelling errors, and create ideas."

The move comes after Open AI CEO Sam Altman's visit to Japan, where he met with Prime Minister Fumio Kishida to discuss the future of AI.



Officials note that this is a tool they hope to exploit and will be widely used by staff, but one that will not see any personal or confidential information entered into it due to the privacy concerns surrounding chatbots.

The same privacy issue has led Russia, China, Cuba, and Italy to ban the technology.

Maybe a Sam Altman Senate hearing is needed for these concerns to vanish? Who knows. Either way, keep an eye on this - it will be interesting to watch this unfold.

Read more: [The Japan Times](#)



Artificial Intelligence

NEWSLETTER

April 24, 2023



AI & Real Life Problems

We have been thinking about the importance of curiosity in exploring computer science and artificial intelligence for our learners here at NCS. Design thinking is a problem-solving approach that emphasizes empathy, creativity, and experimentation. It's a process that encourages you to understand your user's needs, brainstorm ideas, and prototype your solutions. But what's the key to making design thinking work? Trial and error. It's all about testing your ideas and learning from your mistakes. When you try something new and it doesn't work, that's not a failure - it's an opportunity to learn and improve. In fact, some of the best design solutions come from multiple iterations and refinements. So, don't be afraid to take risks and make mistakes. Embrace the trial and error process, and you'll be well on your way to becoming a successful design thinker!

AI in Neom

According to *The Washington Post*, climate change was responsible for the catastrophic drought in East Africa. According to [the article](#), "With global temperatures about 1.2 degrees Celsius (2.2 degrees Fahrenheit) higher than the preindustrial average, the scientists say, droughts like this one are 100 times more likely than they would have been in a cooler world." While NCS students cannot solve this directly, NCS students are learning about AI's role in combatting climate change in this final unit of inquiry. The first lesson of the three lesson sequence had K-2 students learning to code AI in order to teach an AI powered simulated robot to assist with fighting litter in students' local communities. The second lesson will learn through exploring a robot.

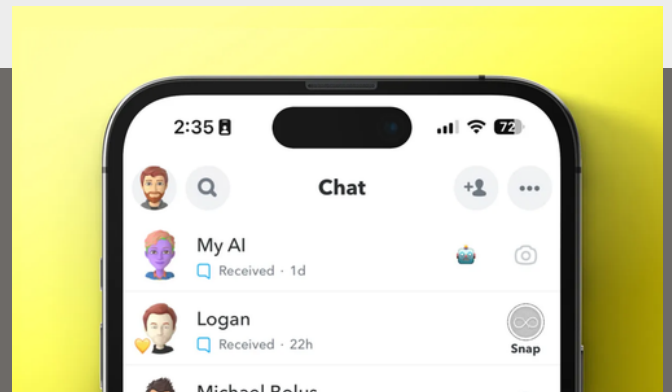
What's New in AI

The reviews for Snapchat's new "My AI" chatbot feature are in, and they aren't pretty.

Over the past week, Snapchat's average U.S. App Store reviews dropped from 3.05 to 1.67, with 75% of reviews being one-star, according to data from app intelligence firm Sensor Tower.

Since its global launch last week, the chatbot has garnered some harsh critiques:

- The feature sits at the top of Snap's main chat tab and cannot be unpinned, blocked, or removed unless - you guessed it - you cough up some money for Snap+ (it's giving Twitter Blue).
- It knows user locations even if they aren't sharing it on Snap Map - the age-old "data privacy" saga continues.
- It doesn't have parental controls, which has led to inappropriate exchanges with underaged users.
- Last but certainly not least - no one asked for it.



These complaints sound familiar, though, because we've heard variations of them with almost every AI product launch over the past few months. Companies need more time to tinker with their models to ensure that these chatbots are truly trustworthy, a word that's currently being thrown around like candy at Halloween.

All in all, it's safe to say that users have the right to be concerned with the product. If not resolved quickly, it could lead to serious trouble for Snapchat, with many users threatening to leave the app.

Artificial Intelligence

NEWSLETTER

April 10, 2023



Technology's Design Cycle

Part of gaining fluency with technology through computer science is understanding how to design things - solutions, interfaces, projects and more. And as we move closer to the end of the year, some of our learners will be exploring what exactly is entailed in the design cycle. It's certainly more than going straight from idea to finished product! We need to think about what might work, why it might not, problem solve, and iterate. So as we continue the year, you'll be hearing more about some of these projects and how the design cycle is an important part of our learning process in school and put in the real world.

AI in Neom

The final unit of inquiry at Neom Community School broadly explores the idea of humans' connection to their environment. Students in the various grades will be engaging AI in three lessons this time, instead of the traditional one lesson of AI. Why? AI is poised to make humans far more capable of engaging the environment in non-destructive ways. Additionally, AI can help reverse years of mismanagement and abuse perpetrated on the environment. Students will explore how AI can help with rubbish as well as the construction of green energy infrastructure and its maintenance. Additionally, the semester will end with a project that will highlight the AI learning students have engaged all year long.

What's New in AI

Shortly after its release in November 2022, ChatGPT faced criticism for enabling students to cheat on assignments effortlessly. The Los Angeles Unified School District was among the first to block access to OpenAI's website on their network, and many other school districts worldwide soon followed suit. Several top universities also warned against using ChatGPT for cheating. The New York City Department of Education emphasized that although the tool may provide speedy answers, more is needed to foster critical thinking and problem-solving abilities essential for academic and lifelong success.

However, after three months, the situation seems far less dire. Teachers and educators are presently reconsidering the implications of chatbots like ChatGPT on their teaching methods. Rather than merely a tool for dishonesty, many teachers now believe that ChatGPT could enhance Education by enhancing interactivity during lessons, teaching media literacy, creating personalized lesson plans, streamlining administrative tasks, and more. Educational technology companies such as Duolingo and Quizlet, whose digital flashcards and practice assessments are utilized by half of all US high school students, have already integrated OpenAI's chatbot into their applications.



Artificial Intelligence

NEWSLETTER

April 03, 2023



Makey Makeys and STEM Education

What if you could touch a physical picture and hear a voice? Or maybe have a comic strip come to life by hearing the sounds and scenes from the place? This week, we are working on using Makey Makey's to explore how communication happens between physical objects and computers while also learning about the ways people communicate. Utilizing conductive material (items that let electricity travel through), we are creating multimedia art pieces that explore some of our favorite fairy tales and myths. So when our students draw the main character, you might just hear some of their favorite lines from the story, sounds from the environment, or an explanation as to why they like it!

AI in Neom

If you could design something to help clean up your environment, what would it be? Or, if you could design something to help provide clean energy or wholesome food to your community, what could it be? The possibilities are endless-if we use AI for good. All technology has positive and negative implications, and AI is no different. What we choose to do with it is key! This is why any discussion of AI has to include a discussion of the ethics surrounding it. How does this piece of AI create winners and losers, and is there anything we can do as a society or even as AI developers to help mitigate the negative effects this technology might bring?

What's New in AI

BloombergGPT: A Large Language Model for Finance

Bloomberg's 50B Parameter AI Model is Revolutionizing Finance.

Bloomberg just dropped some exciting AI-related. They've released a research paper unveiling their latest creation, BloombergGPT. This large-scale generative AI model has been specifically trained on a vast array of financial data to support natural language processing (NLP) tasks within the financial industry.

To make this happen, Bloomberg developed one of the largest domain-specific datasets out there. This dataset was used to train a 50-billion parameter decoder-only causal language model, which outperforms similarly-sized open models on financial NLP tasks by significant margins. But that's not all - it also maintains competitive performance on general-purpose NLP benchmarks.

In a nutshell, BloombergGPTTM is a game-changer for financial NLP tasks. It's exciting to see how AI is continuing to transform the finance industry, and we can't wait to see what else Bloomberg has in store.

Artificial Intelligence

NEWSLETTER

March 27, 2023

Reedy AI NEOM

The Value of Older Technology

As we continue the design and development of our computer science learning experiences, we are always on the lookout for ways to introduce new and exciting technologies to learners of all ages. Even technology that has been around for a while gets refreshed, giving us the chance to look at it in a new light. Although Ozobots aren't the newest tool on the market, we find that they provide an incredible opportunity to introduce learners to fundamentals of coding logic while also leveraging their open-ended possibilities to enhance creative applications across the curricula. Plus, they are deeply interactive, making sure that even the youngest learners are engaged in hands-on STEM learning. These might even make an appearance at our end of year event...Stay tuned!

AI in Neom

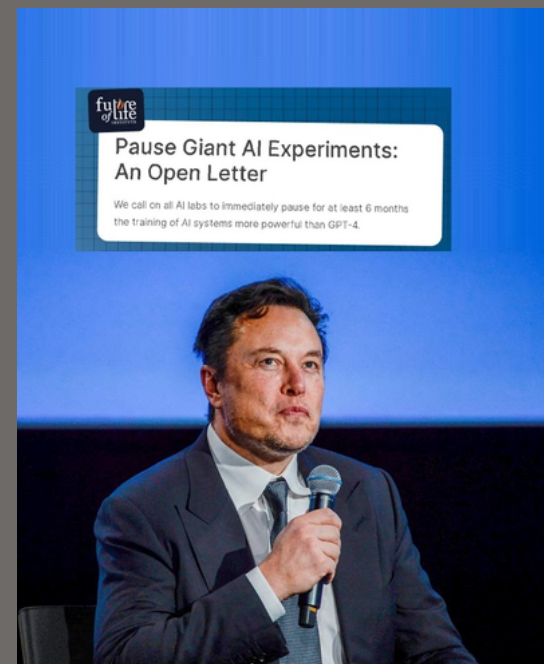
Have you heard about a Mr. Trash Wheel? Or, have you heard about Dustbot? These are two pieces of technology that students will soon learn about during their last unit of inquiry. These devices implement various types of artificial intelligence in order to help humans keep their environment safe and clean. What types of technology can you find that are helping you in your day life to breathe clean air, drink clean water, and enjoy a trash free environment?

What's New in AI

According to an open letter signed by billionaire Elon Musk and over 1,000 other prominent figures in artificial intelligence, there is a call for a six-month "pause" on further AI development to prevent the creation of digital minds so powerful that they cannot be controlled by humans, which could potentially threaten humanity.

However, some speculate that the use of "humanity" is actually code for protecting white-collar jobs, as Goldman Sachs recently warned that AI could replace up to 300 million jobs within a decade, primarily desk jobs rather than the blue-collar manufacturing jobs that were once thought to be most at risk of automation.

While preventing the automation of political misinformation in social media is also a concern, it is up for debate whether it is more or less important than stopping the development of AI. Additionally, there is the possibility that China may take advantage of the pause to surpass the other countries in the AI race. What are your thoughts about taking a break from AI development?



Artificial Intelligence

NEWSLETTER

March 20, 2023

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Computer Science is Not Just Coding

As we continue our movement towards the end of the school year, we are excited to see our computer science curriculum growing and gaining momentum. We know that there can be a conception that computer science is all about coding but that couldn't be further from the truth. Learning computer science happens in the world of code but critically happens by looking at the world around us. It's about problem solving and exploration, critical thinking and asking big questions. So our curriculum builds these critical dispositions alongside the important ability of working with technology through coding and making. If you have questions about the kinds of learning happening, feel free to reach out to us at any time! But, importantly, make sure you ask one of our young learners - it will start helping them make connections between the classroom and the world around them.

AI in Neom

How can AI help the environment? The final unit of inquiry students across Neom Community School will engage focuses on questions regarding the environment and AI's role in sustainability, environmentalism, agriculture, and so forth. Students will be exploring AI coding, various inventions available that use AI to help the environment, and generating their own ideas in terms of how AI can make their world a cleaner and more sustainable place. As you think ahead, how do you envision AI working alongside humans to make such a future possible?



What's New in AI

On March 21st, Google launched its Bard artificial intelligence chatbot to the public.

Google is months behind some competitors in rolling out its first version of its chatbot, which caused some employee frustration. They're now scrambling to secure their dominance over the internet.

Bard is not intended to replace search but to complement it, and generative AI tools will be included in workplace products like Docs and Sheets in the coming weeks.

Join the waitlist using this link: <https://bard.google.com/>.



Artificial Intelligence

NEWSLETTER

March 13, 2023



Holding Space for Innovation

As we get back to our regular classroom activities, we are still very excited about the work that the students completed as part of the hackathon. We hope you've had a chance to ask them about their efforts - what were they curious about, what did they like about it, what might they want to explore more in the future? And maintaining these kinds of questions are important whether they are building projects or engaging in the regular flow of learning. That being said, we want to make sure that we keep creating spaces for all of their incredible ideas - so keep an eye out for an upcoming announcement about an end of year learning exhibition. Lego robotics and Scratch programming are just the start for us!

AI in Neom

As students continue to engage AI throughout their units of inquiry, it is good to ask: What long term benefits come from this education? In a similar vein to this week's notes about holding space for innovation, encourage students you interact with to hold space for AI. Where are they seeing AI in their day to day lives? Ask them regularly. AI continues to integrate itself into our lives so seamlessly that we do not even know it's there. From facial recognition scanners to speaking to our phones to obtain information, AI is here to stay! Ask students where they see it and, more importantly, where they can use it to help shape their futures.

What's New in AI

Do your students or your children play Roblox? According to the company, it is "an online game platform and game creation system ... that allows users to program games and play games created by other users."

Roblox is developing generative AI tools to make game development more accessible for developers on its platform. These tools include a tool for making "generative AI materials from a text prompt" and a tool for generative AI to complete code.



Roblox is also considering moderation and economic systems to ensure safety and fairness for AI creators.

Generative AI's full impact on game creation is uncertain, with some benefits but also worries about job elimination, and the tools have not yet been released.

Artificial Intelligence

NEWSLETTER

March 6, 2023



The First Annual Neom Community School Hack-a-Thon

This week, we had the opportunity to host guests and showcase some of the completed projects for our first ever Hackathon! The students did an absolutely incredible job in imagining the future of transportation at NEOM and their creativity, innovative thinking, and collaborative efforts were on full display. From a solar powered double-decker bus to friendly scooters and more, their work highlights just how important computer science and AI learning can be in helping us all create a more sustainable and enjoyable future together! Stay tuned for photos and for updates on our next big student showcase.

AI in Neom

ChatGPT and other AI powered generative language models continue to make the news. Most recently, Bing's new generative language model garnered attention in how it tried to persuade a *New York Times* journalist to fall in love with it. However, there are other types of generative AI, as well. In this lesson, students in Grades 7-9 will explore the nature of how text to image generators work. All the recent rage, including in winning various awards, these systems use complicated neural networks to create images from text. Students in this lesson will experiment with them, learn how they work, and identify the deficiencies even the most advanced image generators still demonstrate.

What's New in AI

Elon Musk is recruiting a team of AI researchers to form a new research lab to develop an alternative to the OpenAI chatbot ChatGPT.

Musk, a cofounder of OpenAI, has been critical of OpenAI's content safeguards, which he believes to be an example of "training AI to be woke."

His lab's goal is to improve the reliability and factualness of language models and not create a chatbot with fewer content safeguards.



Musk has tapped Igor Babuschkin, who recently left Alphabet's DeepMind AI unit, to spearhead the effort. As to whether the project will be standalone or integrated into Twitter (which Musk recently acquired), we'll have to wait and see.

Artificial Intelligence

NEWSLETTER

February 27, 2023

Ready AI

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What Are Hack-a-Thons?

Our first hackathon is NEXT Monday and we are really excited to show off some of our student's projects. We know that it's many of their first times building a prototype. It is a completely different type of learning but it encourages collaborative, innovative, and critical thinking. Making use of Lego Spike kits gave many of the learners an easy entry point to explore builds, creatively reconfigure upon feedback, and generate creative solutions to complex real-world problems. We hope their projects push you to imagine their creative inventions just as much as they have inspired us to grow and learn alongside them.

AI in Neom

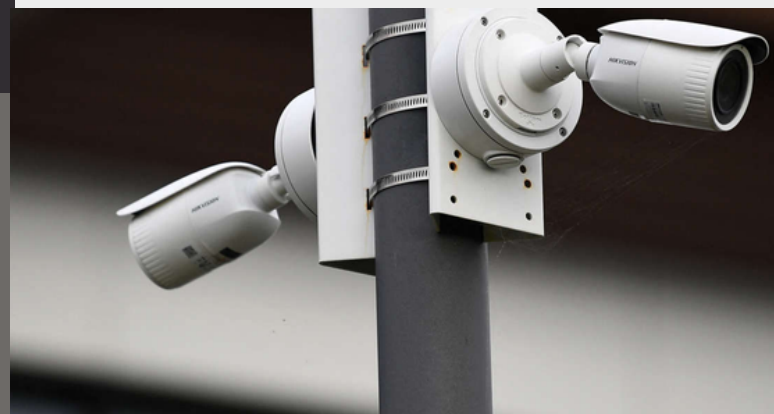
ChatGPT has captured the world's interest by engaging humans in a natural conversational way, thereby making people question how soon AI could realize a general intelligence ability. Yet ChatGPT is far from perfect, and even developers of AI do not have a full grasp of how it works. In this upcoming unit of inquiry, Grade 3-6 student will explore the abilities of AI language models such as ChatGPT, probe their weaknesses, and gain a basic understanding of how they work.

What's New in AI

France is fast-tracking laws to use AI surveillance for the 2024 Paris Olympics that would allow AI systems to monitor crowds and detect suspicious or "abnormal" activity from fixed CCTV cameras or drones.

The lower house considered the bill in February, and rights groups are concerned that the measure could lead to a violation of the right to privacy and fundamental freedoms. They're also worried that the Olympics could be used as a political moment to pass legislation that might otherwise be unacceptable.

Qatar used AI to monitor the FIFA World Cup, and with this technology becoming increasingly prevalent at sporting events, the question becomes: Is it necessary? Or is a major sporting event the perfect cover for passing legislation that might otherwise be concerning to citizens of those countries?



Artificial Intelligence

NEWSLETTER

February 20, 2023



What Are Hack-a-Thons?

We're only a couple weeks away from our hackathon event! Though not everyone will get an opportunity to present their efforts, that doesn't mean the project, time, effort, and passion for learning doesn't matter. In fact, the process of working through these BIG IDEAS is an incredible achievement by itself. Exploring complex problems in traffic, energy, and community are real world things that all of us are involved in everyday. So while we encourage everyone to be diligent in working together and supporting one another in their work, we want everyone to know that wherever you wind up is a success as long as you pushed your thinking and got creative. This project is just one step along the way for all of us!

AI in Neom

Augmented reality is an up-and-coming form of technology. Businesses are using it to let consumers "try" products from shoes to clothes to even furniture. In this upcoming unit of inquiry, K-2 students will explore how augmented reality works, including exploring how machines were trained on the settings for augmented reality, including hands, bodies, rooms, and so forth. Students will connect augmented reality to motion capture and use various AI based apps to explore how motion capture and augmented reality use the same training data to create a variety of possibilities, including movies like Avatar and animated cartoons.

What's New in AI

AI has been increasingly involved in layoff decisions in companies across the world.

During Google's recent mass layoff of 12,000 folks, there was strong suspicion that a "mindless algorithm" was involved in making the layoff decisions, but Google denied those claims.

Even still, a January survey of 300 human resources leaders at U.S. companies revealed that 98 percent of them say algorithms will help them make layoff decisions this year.

Performance has to be the most important factor considered, but these algorithms will also include metrics that are harder to measure traditionally, such as "flight risk," were also considered.

Having algorithms involved in layoff decisions raises crucial ethical questions about how HR departments can ensure the transparency of these decisions and that they aren't biased against protected groups.

AI has always had a transparency problem, and making layoff decisions is one use-case where the need for transparency is dire.



Artificial Intelligence

NEWSLETTER

February 20, 2023



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Artificial Intelligence

NEWSLETTER

February 13, 2023

ReadyAI  NEOM نيوم

What Are Hack-a-Thons?

We are inching closer to our big hackathon and are incredibly excited! Have you been hearing any ideas about some of the projects the learners are working on? Something that research has taught us is how important it is to model behaviors we want our students to develop over time. So don't be afraid to ask questions! Do research together! And importantly, be curious and don't shy away from mistakes along the way. Mistakes are normal. Sometimes, they are how we learn the most. So - what do you have questions about?

AI in Neom

As we look forward to the end of the school year, we do well to think about final projects in AI. Soon, students will have the opportunity to demonstrate their varied learning in AI. For instance, might a student demonstrate facial recognition through building a Snapchat-like filter using Scratch? Or, what kind of art project might a student use various tools to build, such as DALL·E? Or, might someone be able to use ChatGPT to demonstrate AI learning? Stay tuned for more!

What's New in AI

Last Sunday was America's biggest sporting event, the Superbowl. With over 113 million viewers, the annual game is one of the most watched games in the world. Do you know the two teams that were playing? They were the Kansas City Chiefs and Philadelphia Eagles.

ChatGPT also made an (unsolicited) prediction for the Super Bowl last week. But was it correct?

Nope. It wrote,

"It was a thrilling game between the Philadelphia Eagles and the Kansas City Chiefs, two of the best teams in the NFL this season," Bing said. "The Eagles, led by quarterback Jalen Hurts, won their second Lombardi Trophy in franchise history by defeating the Chiefs, led by quarterback Patrick Mahomes, with a score of 31-28."

While the Super Bowl did end up being a high-scoring affair like ChatGPT predicted, the winner was the Kansas City Chiefs. And the final score was 38-35.



Artificial Intelligence

NEWSLETTER

February 6, 2023

Ready*i*



نيوم NEOM

What Are Hack-a-Thons?

We are getting closer to our hackathon date and our excitement is growing! Sometimes, students can feel a lot of pressure to make sure they get the “right answer” but hackathons are about exploration, creativity, and trying out ideas. They’re also about collaborating with friends, sharing your ideas, and supporting our classmates in their own pursuits. We hope everyone feels comfortable along this journey and encourages all of these dispositions for our young learners!

AI in Neom

DALL·E and ChatGPT are two of the most recent developments in AI. These pieces of software use powerful neural networks to render image and text in a way that is comprehensible to humans, and what’s more, both DALL·E and ChatGPT are capable of producing art and text faster and in greater quantity than humans. In the fifth unit of inquiry, students in Neom will be exploring these two pieces of software as they create art, text, and learn about the ethics of using these powerful AI tools.

What's New in AI

Day of AI is back! Last year more than 3,000 teachers in 90 countries signed up for Day of AI from MIT RAISE—and this year, [maybe you can join!](#)

Reminder: [Day of AI](#) is a free curriculum of hands-on classroom activities designed to introduce K-12 students to the basics of artificial intelligence (AI). MIT RAISE supplies the lessons and activities—and teachers around the world share them with their students. The MIT-developed coursework requires no AI experience to participate.

Day of AI | May 18, 2023

Give your students an opportunity to learn how artificial intelligence is already transforming our lives and how they can become part of shaping AI to create a better future world for all.

[Bring Day of AI to Your Classroom](#)



More than 3,100 educators across 48 U.S. states and 90 different countries brought Day of AI to their classrooms last year. Will you join them this year?

Artificial Intelligence

NEWSLETTER

January 30, 2023

ReadyAI



NEOM نيوم

What Are Hack-a-Thons?

As we start to gear up for our very first Hackathon, we want to encourage some exploration! Hackathons are known for finding creative and exciting solutions to real world problems. So as students begin this process, remember that creative thinking is about divergent thinking - not necessarily just landing on one single solution but trying out many different types. Think about "what's possible" not just "what is." Most of all, don't be afraid to explore!

AI in Neom

As students in all grades at NCS explore intelligent agents in the upcoming weeks, we might do well to ask what role they play in our lives. When Google developed its device, and when Amazon developed its Alexa, the manufacturers expected these devices to just be used to help people buy more stuff. However, how do users tend to engage these devices? More than anything, users ask Google to "Play music," or they ask Alexa to "Set a timer." Can these devices play more of a useful role, though?

Here are some additional uses that people are exploring: Use Alexa to "Drop in" on a device. This lets you communicate with someone in another room. While that drop skill doesn't demonstrate AI in itself, the fact that the device understood spoken language does!

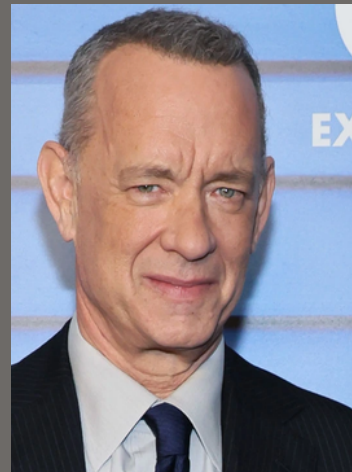
Parents can try Word Chain, a spelling game for young learners. This game challenges younger learners to think spatially about words and language!

Keep exploring new uses of these intelligent agents in your home-beyond just more products! And let's teach younger learners to put these devices to good use as well!

What's New in AI

Tom Hanks and Robin Wright, stars in Robert Zemeckis' upcoming Miramax movie *Here*, will be de-aged using a new AI-driven tool called Metaphysic Live. What does this mean for actors? Might an actor be able to play many roles that do not require him, her, or them to be a certain age? We might also ask what this means for up and coming actors. Will it be harder for them given that senior actors can be used to play more roles?

Metaphysic Live will create high-resolution photorealistic face swaps and de-aging effects in real time. Metaphysic CEO Tom Graham believes AI-generated content will shape the future of entertainment, allowing people to create photorealistic immersive content while controlling their data. Not to mention, de-aging using AI is much, much cheaper than the alternative (*used in films like The Irishman*).



Artificial Intelligence

NEWSLETTER

January 30, 2023

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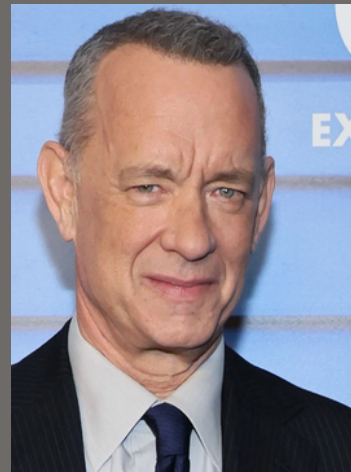
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Artificial Intelligence

NEWSLETTER

January 23, 2023



The Neom Hack-a-Thon

We know that learning computer science is very rewarding but can sometimes be a slow process as we learn about data, design, and code! To make sure that learners know how important this work is and to ensure they can see their growth, we are working on our first hackathon. If you don't know what a hackathon is, you can think of it like 'a marathon for invention'. During our hackathon, learners will design, program, and create a solution based on the theme of the day. More details will come in the following week but we want you to be as excited about this event as we are! What kinds of themes do you think would be fun and educational for our learners to explore?

AI in Neom

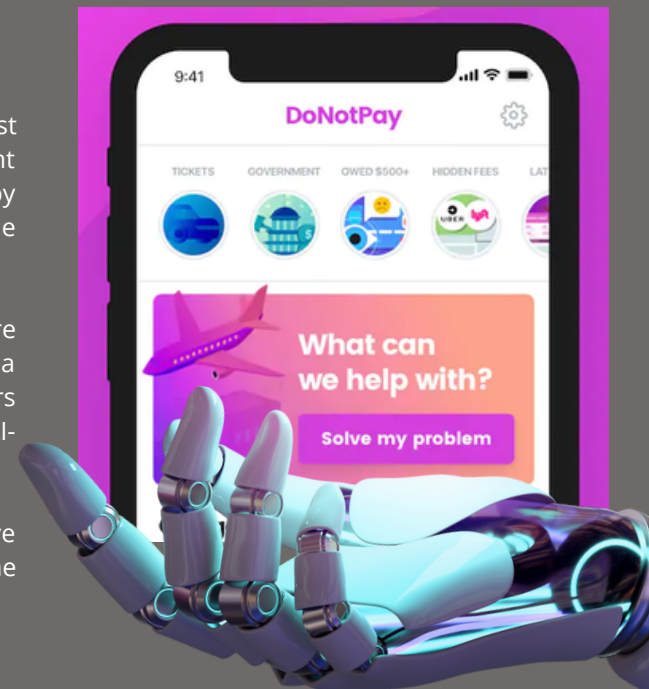
This newsletter has said it before: Interacting with intelligent agents has become a part of everyday life. Grades 7-9 students at NCS will soon explore first how sound works and is represented on a computer. Then, students will use the SpeechDemo tool to determine how computers render the sound and make informed guesses as to what users have said. This also presents limitations that students should be aware of. Finally, using Scratch, students will create a tool that allows them to engage the programming of intelligent agents.

What's New in AI

Robo-lawyer: AI lawyer suits up for court. You read that right. For the first time in history, an AI-powered "robot" lawyer will represent a defendant fighting a traffic ticket in a US court next month. The AI lawyer, created by [DoNotPay](#), will listen to court arguments and formulate responses for the defendant in real time by whispering into the defendant's ear.

Since its inception in 2015, DoNotPay has raised \$27.7 million from venture capital firms. Although this is the first time their AI is representing a defendant in the courtroom, the company has already helped its customers win over 2 million customer service disputes and court cases using AI-generated form letters and chatbots.

The AI lawyer is only legal in some courtrooms, and many lawyers have opposed the idea. But for those who can't afford legal representation, the democratization of legal representation is welcome news.



Artificial Intelligence

NEWSLETTER

January 16, 2023



Place, Time, and Scratch Coding

How can we use coding to better understand the world around us? Ideas like 'place' and 'time' seem like they might be difficult to explore when we talk about coding and computer science. Actually, with a little creativity, we can help students connect even these seemingly disparate ideas by doing some fun graphical coding experiments. This week, we are working on these kinds of explorations in Scratch - making sure that computer science is connected to ALL of our classrooms and the work our learners are doing.

AI in Neom

Interacting with intelligent agents has become a part of everyday life. In their upcoming AI lesson, students in Grades 3-6 will explore the nature of how sound is produced by exploring their own articulatory organs. Using a computer simulation of these organs, they will try to manually reproduce sounds that come naturally to humans. In doing so, Neom students can explore how computers can recognize those sounds, produce representations of them, and then discriminate between one sound and another. Understanding these concepts will facilitate learning how intelligent agents such as Alexa, Google Home, and Siri recognize not just sounds or even words but entire sentences spoken to them.

What's New in AI

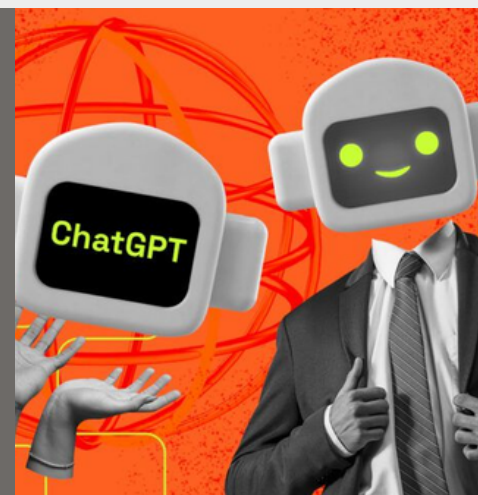
ChatGPT (almost) passes the USMLE and the Bar Exam!

It seems like only yesterday that ChatGPT entered our lives, and within just a few short months, it's already gotten close to attaining both a medical degree and a law degree.

Should we be proud or terrified?

A (pre-print) study done by US-based Ansible Health says that ChatGPT achieved over 50 percent in an abbreviated version of one of the most difficult standardized tests on the planet: the US medical licensing exam (USMLE).

This ain't no joke. For most medical students, the USMLE takes more than a year of preparation time. It comprises three exams in total, spanning 4 days in total. The future is here, and it's moving at breakneck speeds. For medical and law students, the directive is similar to that of programmers: learn how to augment the work you're doing using technologies like ChatGPT or be at risk of falling behind.



Artificial Intelligence

NEWSLETTER

January 9, 2023



What are Voice Assistants?

As we start this new term, we continue our explorations of artificial intelligence and how deeply connected these technologies are to our daily life. One way these technologies are part of our routines is through voice assistants. Whether on our phones, smart devices, or cars, voice assistants have changed the way that we work and relate to the smart devices around us. This week, we will explore the foundations of voice recognition - how exactly do the devices know when we are talking to them? And how can they tell what we are saying? In our explorations, students will get the chance to begin digging into these real-world questions and start to build their knowledge of core AI perception ideas.

AI in Neom

As more of the world is built on technology, how it works and how learners interact with it becomes a central question for instruction. While Siri is not a person, Grades K-2 students will soon learn how to interact with it effectively and politely. They will explore its uses and how speaking with agents, whether Siri, Google Translate, or others, offers great possibilities now along some limitations that they should be aware of.

How does a Voice Assistant work?



What's New in AI

A recent article was published in Education and Information Technologies entitled "A review of AI teaching and learning from 2000 to 2020." The abstract, excerpted below, presents the argument that there has been little coalescence in the research of AI in teaching and learning:

... [R]esearchers have begun to discuss an emerging term "AI literacy." ... [T]his systematic literature review conducts a thematic and content analysis of 49 publications from 2000 to 2020 to pave the way for recent AI literacy education. ... The results show that AITL focused more on computer science education at the university level before 2021. Teaching AI had not become popular in K-12 classrooms at that time due to a lack of age-appropriate teaching tools for scaffolding support. However, the pedagogies learnt from the review are valuable for educators to reflect how they should develop students' AI literacy today. Educators had adopted collaborative project-based learning approaches, featuring activities like software development, problem-solving, tinkering with robots, and using game elements. However, most of the activities required programming prerequisites and were not ready to scaffold students' AI understandings. ... These findings provide a research foundation to inform educators and researchers the growth of AI literacy education that can help them to design pedagogical strategies and curricula that use suitable technologies to better prepare students to become responsible educated citizens for today's growing AI economy.

The full article can be found [here](#).

Artificial Intelligence

NEWSLETTER

January 3, 2023



Happy New Year!

Welcome back to this new term! ReadyAI is excited to rejoin our friends and collaborators here at NCS on another exciting journey into AI and Computer Science learnings. As we come back from break, we are looking to continue developing how each grade here at NCS can develop at their own unique pace with content specially designed for them. Our current exploration is with the third grade curriculum where we are thinking about how contemporary robotics interact with our society and how those interactions cause changes in both big and small ways.

AI in Neom

What are intelligent agents? Students in Neom will soon be exploring what they are—and if you didn't know, intelligent agents include anything from the Siri operating system on your phone to the Alexa or Google home system found within your home. These devices have an ever growing presence in our lives, and people are beginning to use them for more than setting timers and alarms. Students will be learning about how they work, why we should treat them with care, and what ethics guide their design and our use of them.

What's New in AI

After 28 exhilarating days, the 2022 FIFA World Cup finally ended. What. A. Tournament!

Many people are calling it the “best World Cup in history, but it was definitely the most AI-driven World Cup in history.

AI was literally used everywhere in the stadium, from controlling stadium temperature to making on-field decisions, like the controversial onside call that ultimately led to Argentina's third and final goal.

By justifying the onside call, AI played a tiny role in helping to cement the legacy of, arguably, the GOAT. That's right. Lionel Messi.



Some say that the sport's charm is ruined by technology like video assistant referees (VAR) and ball sensors. What do you think? Is it better to be *technically right* or to have a *good game*?

Artificial Intelligence

NEWSLETTER

December 12, 2022

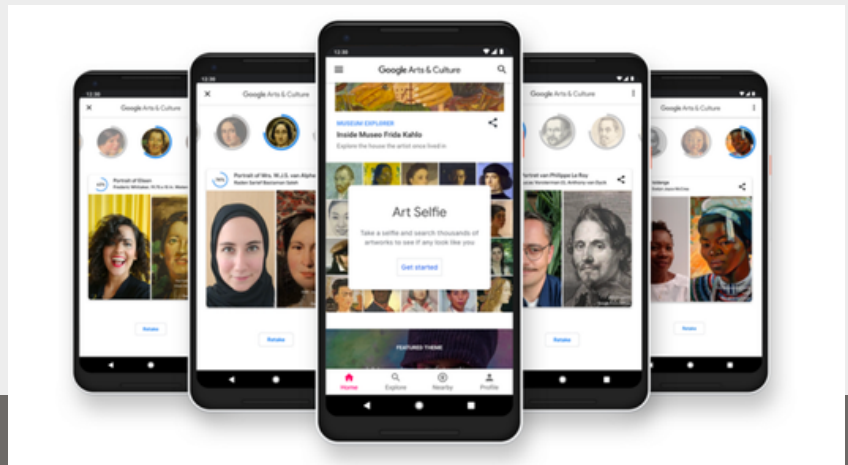


Almost WAICY!

As we are winding down the term, we wanted to thank all the students, family, and staff at Neom Community School for their support in exploring computer science and artificial intelligence. We know that this work can be challenging, but it's so exciting to see the growth and learning from all the students who participate. And a special 'thank you' to Mr. Abbas and Mr. Madjide for all their time and inspiration in collaborating with us at ReadyAI and mentoring the youth of NCS!

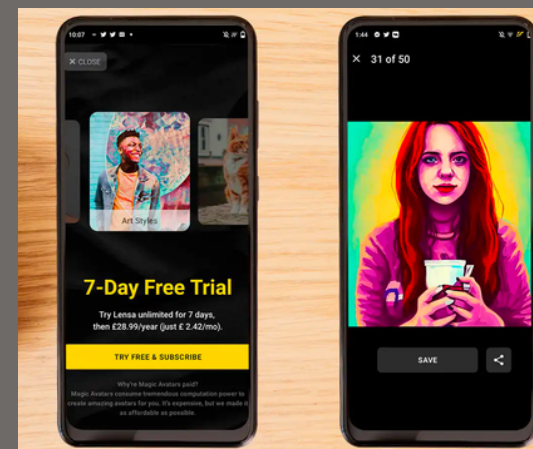
AI in Neom

In the third Unit of Inquiry, students will explore the nature of AI and art by using Google's Art and Culture app. The app's "Art Selfie" function allows students to take an image and use AI to locate paintings held in major art galleries around the world that resemble the image. In the second part of this lesson, students will practice creating their own art using the style transfer functions in Deep Dream Generator. Altogether, this lesson provides students an opportunity to understand how AI uses computer vision, machine learning, and image synthesis to analyze and remix images.



What's New in AI

The app Lensa is all the rage right now. Using this app, people post a picture of themselves, and the app then can smooth out the face, render the eyes differently, and add special effects to make the user look like a superhero. However, does the app render men and women differently? The answer is yes—but what's more, the app made many female users' avatars as cartoonish "while ... male [users] got to be astronauts, explorers, and inventors" (Heikkil, 2022). What does this say about the inventors of this particular app? Clearly, the inventors of the app envision the rendering of women's avatars differently. You can find Melissa Heikkilä's article in the [MIT Technology Review](#), dated December 12, 2022.



Artificial Intelligence

NEWSLETTER

December 5, 2022

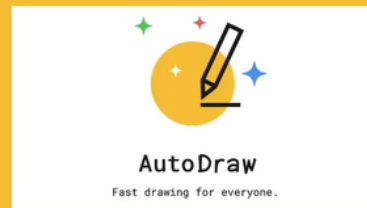


Almost WAICY!

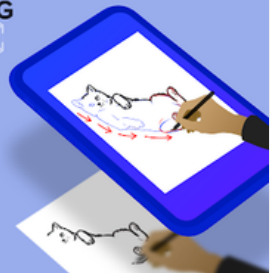
Exploring the world of artificial intelligence opens up so many doors to related technologies! This week, we started to think about how it might connect to experiences with augmented and virtual reality. The use of AR/VR is only increasing in our world and you can find examples happening right now with events like The World Cup. But this requires a lot of advanced work and understanding core ideas around data and visual recognition programs. It's important to have a grasp on these big ideas but you might just see our students developing a NEOM AR app in the coming term. Keep checking back in for updates!

AI in Neom

Autodraw and SketchAR are great apps that allow users to play with AI's abilities to help humans generate art. Using these apps, students in Grades 3-6 will explore computer vision. Students will first try using AutoDraw to help them engage AI in the creation of more realistic images than what most humans can produce on their own. Then, students will use SketchAR to demonstrate the uses and limitations of AI in creating anime portraits of humans.



DRAWING WITH AR



What's New in AI

ChatGPT is a new chatbot released last week by OpenAI based on their GPT-3.5 large language model. ChatGPT is astonishing. It can hold a conversation, write stories, write code in many different computer languages, solve analogies, answer questions about hypothetical situations, compose poetry, and more. The world has been going nuts over it, with over 1 million users signed up to play with it. You have to try it and show it to your students and/or children. Just follow this link:

- <https://chat.openai.com/chat>

Here's a good New York Times article on the phenomenon:

- <https://www.nytimes.com/2022/12/05/technology/chatgpt-ai-twitter.html>

This critical article in The Atlantic advises to "Treat it like a toy, not a tool"

- <https://www.theatlantic.com/technology/archive/2022/12/chatgpt-openai-artificial-intelligence-writing-ethics/672386/>



Artificial Intelligence

NEWSLETTER

December 05, 2022

ReadyAI NEOM نيوم



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What's New in AI

Sign up for the "[Tackling Climate Change with Machine Learning](#)" webinar hosted by the conference on Neural Information Processing Systems (NeurIPS 2022) on December 9th. This workshop is promoting an exchange of knowledge and the opportunity to network with other leaders in climate change and in AI. Registration is open, and everyone is welcome to attend, even if you did not submit a paper, proposal, or tutorial.



Climate Change AI

Artificial Intelligence

NEWSLETTER

November 21, 2022

ReadyAI NEOM نيوم



Happy Thanksgiving!

For those familiar with American holidays, Happy Thanksgiving! In the United States, many Americans will gather with friends and family to give thanks for what they have.

Even though we are still concentrating on the upcoming WAICY event at KAUST, our learners are continuing to explore core concepts in data and computer science. This week, we further explore data management. First, students will understand how the use of data on their devices gets managed in many of the same ways as data in large businesses and organizations. From there, each student will identify qualitative and quantitative data in their everyday life and describe how the quality of the data is essential to not only how we describe the world, but how we can improve systems and processes. Data isn't just inside of computers. It's the world around us!

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Climate Change AI

Artificial Intelligence

NEWSLETTER

November 15, 2022



WAICY 2022 is Coming

This week, we are excited to prepare projects for the upcoming WAICY event to be held at KAUST. We want to make sure that our explorations of artificial intelligence have a positive impact on our community and the world around us.

Each of the student projects are connected to a Sustainable Development Goal from the UN, helping us to develop technological solutions to the world's most pressing problems! We hope you'll follow the event online and support our learners in this important exploration.



What's New in AI

I did not write the post below. An AI called Jasper wrote it in seconds. I gave Jasper the prompt "Metaverse, Business" and instructed it to keep the tone "professional." Does it write better than me?

The metaverse can best be described as a virtual reality world that exists in parallel to our physical world. It's a place where people can interact with each other and with digital content in a way that feels real. And it's not just a bunch of gamers in their parents' basements, either; the metaverse has the potential to revolutionize the way we live, work, and play.

Here are just a few ways businesses can make use of the metaverse:

- *Immerse customers in your brand: Build a virtual representation of your business, products, or services that customers can explore. Think of it as an interactive 3D commercial that people can experience on their own terms.*
- *Create new customer touchpoints: The possibilities are endless for how you can reach and engage customers in the metaverse. From hosting virtual events to setting up VR kiosks in high-traffic areas, there are many ways to get your message across in a whole new way.*
- *Enhance existing customer experiences: Integrate the metaverse into your existing customer touchpoints to create an even more immersive and engaging experience. For example, you could use VR to give customers a tour of your manufacturing facility.*
- *Offer employees remote work options: The COVID-19 pandemic has forced many businesses to reevaluate their remote work policies. Using VR technology, businesses can set up virtual offices that allow employees to interact with each other and with clients as if they were all in the same room—no matter where they're physically located.*

Here's why Jasper is a big deal:

- Jasper just raised \$125m at a valuation of \$1.5B to help marketers generate content.
- It is easy to use, fast and affordable (a monthly subscription starts at \$40).
- It uses a technique called Generative AI, which receives a text prompt and then generates an output (from articles to songs to art to code).

If you read Jasper's output, it's no wonder the text-to-everything AI is the hottest trend in venture capital today and will impact the work of every knowledge worker amongst us. Want to try it out? Go to www.jasper.ai

Artificial Intelligence

NEWSLETTER

November 7, 2022

ReadyAR NEOM نيوم

Happy November!

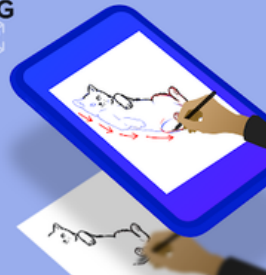
This week, we are interested in understanding how data works and why it's so important to computer science. We'll be exploring the ways that data management systems function but first...what exactly is data? The world around us has SO MUCH data and part of our exploration will involve what counts as data and why. This is all critical information because building artificial intelligence relies on making sense of data so that we can help machines learn.



AutoDraw

Fast drawing for everyone.

DRAWING WITH AR



AI in Neom

Using a series of different apps, students in Grades 3-6 will soon explore computer vision and its abilities to help human users create a range of art. Students will first try using AutoDraw to help them engage AI in the creation of more realistic images than what most humans can produce on their own. Then, students will use SketchAR, an app containing free AI tools, to demonstrate the uses and limitations of AI in creating anime portraits of humans.

What's New in AI

Darth Vader in Star Wars. Hidden behind his mask, he is recognizable as much by his iconic voice as by his black mask and cape. But James Earl Jones, who gave Darth Vader his voice for 45 years, is now 91 years and ready to retire. So what will happen to Darth Vader?

An AI stepped in to simulate Jones' voice for the latest Star Wars Disney+ series, Obi-Wan Kenobi. Trained on archival audio of Jones' voice, the AI developed by the Ukrainian company, Respeecher, was able to generate new lines for the Star Wars miniseries that sounded just like the actor. May the Force be with you.



Artificial Intelligence

NEWSLETTER

October 31, 2022



Variables in Programming

In our work this week, students are continuing to think about the ways that variables are part of the world outside of computer programming. While knowing what variables are and how they work is important, it is also critical for students to know how they fit into larger projects and ideas. To that end, learners are going to continue the design process of their shareable games in Scratch - making sure that the program works and, importantly, that the game they build is easily explainable and engaging for others to use!

AI in Neom

With the upcoming WAICY events being hosted by KAUST as well as online, this is a perfect time to submit a project!

Students can submit different kinds of projects for WAICY. There are artwork based projects that demonstrate the potential AI has. Students can also use apps and other coding languages to create a program based presentation. Finally, there are also robot demonstrations for students using some kind of device that can physically demonstrate AI capabilities.

Watch this [interview](#) with Rishi, who won one of the prizes from the 2020 WAICY. Maybe a NCS student can be the next winner!



What's New in AI

The FIFA World Cup in Qatar is starting in November. There will be 36 referees from 29 nations, plus a new referee team member: the AI referee assistant.

Here's how it will work:

- A dozen cameras placed around the stadium will track and collect data from 29 points on each player's body.
- The soccer ball by Adidas will have a sensor at the center, which will relay its exact location 500 times per second.
- The AI will process all this data. If the AI catches a player offside (when a player is too far into opposing territory when passing the ball), it will alert the control room team, which relays the information back to the human referees.



Why this matters

If football uses AI referee assistants, expect many other sports to follow. Football is the world's number one sport, with over 3.5 billion fans around the globe.

Using the Video Assistant Referees (VAR) system isn't new. It was used in the FIFA World Cup 2018 in Russia to validate referee calls, but what's new is that this time the AI is noticing an offense, and the referee will validate it. Football fans, what do you think?



Artificial Intelligence

NEWSLETTER

October 24, 2022



WAICY is Coming!

This week, we are working on expanding our understanding of variables in computer programming. And we also have plans to participate in the 5th annual WAICY event taking place both live and virtually out of KAUST. The event will happen on December 3 and 4, featuring student groups from around the globe demonstrating their work in artificial intelligence learning!

Watch WAICY 2022 Welcome Video

<https://youtu.be/IWSwey8raKw>

Watch WAICY 2021 here: https://youtu.be/dakZ_NymM0g

Watch WAICY 2020 here: <https://youtu.be/zgWMxcvLJKs>

Watch WAICY 2019 here: <https://youtu.be/L-IGz0CyhMg>

Watch WAICY 2018 here: <https://youtu.be/s2VS0KHDGS8>

AI in Neom

In the upcoming third Unit of Inquiry, NCS students will be exploring the use of computer vision. Computers, whether they have been trained on images or are using built in cameras, have the ability to “see” and “learn” thanks to complex algorithms. Students will be exploring these AI skills across the grade levels at NCS in the upcoming weeks.



What's New in AI

AI-powered text-to-image generators such as Dall-E 2 are amazing demonstrations of the power of deep neural networks trained on massive datasets. Initially research curiosities, they are now making their way into commercial products.

The Wall Street Journal has a nice article on this. Dall-E 2 isn't the only tool around anymore, either. Google's Imagen creates better images, and Facebook (Meta) now has a tool that can generate short video clips.

However, a deeper question worth asking is, “Is this art?”



Artificial Intelligence

NEWSLETTER

October 17, 2022

ReadyAI NEOM نيوم

Block Based Coding

This week, Neom Community School students are developing a lesson and accompanying project in block-based coding for learners to better understand variables in computer science applications. Learners will get to explore real-world variables prior to building them in the context of Scratch. It is always important for learning to be connected to the world outside of school, so students will get to design, develop, and implement their own 'game' project that includes variables and is playable by other students in their class!

AI in Neom

If you were to look at a selection of dates of varying types, would you be able to differentiate one date from another? Likely—but could you teach a computer to do so? In this Unit of Inquiry's AI sessions, students will be exploring feature classification and feature vectors, which help machine learning algorithms to differentiate between objects. Try it at home with at least four different types of dates. How is each one unique?

What's New in AI

Climate Change AI will be co-hosting a three-day symposium from November 17-19 in Arlington, VA, USA, as part of the AAAI Fall Symposium Series. This symposium will bring together participants from across academia, industry, government, and civil society to explore the intersections of AI with climate change, as well as how each of these sectors can contribute to solutions. The symposium schedule will explore how to best move the field of AI & climate change forward. For more information, please visit [the symposium website](#).



Artificial Intelligence

NEWSLETTER

October 10, 2022

ReadyAI NEOM



Scratch Programming

This week, Neom students are working on understanding variables in programming. Utilizing Scratch for basic coding, they are making connections between real-world examples and block based code languages. By making these connections, learners can more readily apply critical thinking skills both in code and in off-line learning activities. ReadyAI and NCS are also taking this CS learning into the real-world by having students create their own 'variables' for other students to work with and act out.

AI in Neom

As students continue to learn about AI in their homeroom classes, they will soon engage concepts of decision trees and classification algorithms. You can prepare your child to learn about AI decision trees by completing this activity: "Should I go for a walk?" Ask your child what factors one must consider before going for a walk. Some possible answers might include the temperature, whether it's raining, or whether it's windy. Together, you can create a simple decision tree. [This article](#) will walk you through the process. Have fun with your young AI learner!

What's New in AI

On December 5th and 6th, 2022, UNESCO will be hosting the International Forum on AI and Education under the theme "Steering AI to Empower Teachers and Transform Teaching." What will come from this conference? Of greatest interest to parents, the conference planners propose four areas to discuss:

- AI technologies, by design, to empower teachers
- AI technologies designed to move from content profiling to promoting inquiry-based learning and higher-order thinking while respecting ethical norms

What is being done where you live or where you are from to empower teachers to engage AI in their classrooms, particularly in a way that respects ethical norms?



Artificial Intelligence

NEWSLETTER

September 25, 2022

Ready*i*

NEOM نيوم

Welcome Back to School

Exciting to be back with everyone at NEOM Community School again this year! Students have started the academic year off by exploring the basics of working together in technology labs as well as navigating how to best use technology alongside their classmates. We think it is really important for learners to make connections between how to care for and learn from their teachers and classmates in the same ways that they respect and learn with technology. As they move forward in exploring how information gets into and out of computation systems, they'll grow their understanding of how to leverage technology for their own learning and growth. Being able to understand information flow leads to a more robust ability to analyze how we work as part of an interconnected world. Our older learners are investigating this connection by establishing healthy, mindful habits around technology usage in their everyday lives.

Students will also begin studying AI very soon! Their first AI lessons in their classes will focus on facial recognition technology. Younger learners will; explore facial recognition technology in the context of learning about their own emotions. Grades 3-6 will learn about Scratch programming and use Scratch's AI plug-ins to create tools that allow them to have fun with facial recognition. Older students will use industry technology and explore the limits and ethics of facial recognition tools in AI.

As we move forward, we are excited to begin diving into making, coding, artificial intelligence, and creating with technology! Here is to a great, CS+AI 2022-2023 academic year!



What's New in AI

Have you ever created an app? Prof. Dr. rer. nat. Christiane Gresse von Wangenheim, PMP and the initiative Computação na Escola of the Department of Informatics and Statistics of the Federal University of Santa Catarina/Brazil developed an extension that can be used in MIT's App Inventor software. Students at Neom will be using this software later in their academic careers, but [click here](#) to learn more about what this app allows someone to build and how it uses AI.

Artificial Intelligence

NEWSLETTER

October 6, 2022

Ready*i* NEOM نيوم



Happy October!

October just began, and there is a lot to learn this year. This week, students begin to develop an understanding and appreciation for how their use of technology impacts those around them. Students will consider how technology requires focused attention and that multitasking is ineffective for work and potentially hurtful to friends, family, and community members. Learners will evaluate when they should take breaks from technology and be courteous to those around them while exposed to technology.

AI in Neom

Students recently learned about facial recognition and Artificial Intelligence. They learned about how this technology is already found throughout their lives, from entering the Neom facilities through the security gates to unlocking their devices using only their faces. Our younger learners (Grades K-2) learned specifically how emotions and facial expressions work hand-in-hand, and they learned how computers can identify people's emotions using just the expressions and features of an individual's face. Ask your kindergarten, 1st grade, or 2nd grade where having a computer identify a person's emotions could be useful! It's always fun to hear their ideas.

What's New in AI

AI can be used to help people, as your students learned in their lesson on AI and facial recognition. However, AI can also be used to harm. A new European Union bill aims to hold companies accountable when they use AI harmfully. According to *MIT Technology Review*, people will be afforded the opportunity to litigate when companies use AI to harm consumers. Read more about it [here](#).



Artificial Intelligence

NEWSLETTER

September 2022 / ReadyAI

Welcome Back to School

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