

Empowering Education with AI: The Future of Individualized Instruction





How great is the need for individualized instruction?

Students are struggling and need individualized instruction.



"Average math scores declined 7 points since 2020, with the lowest performing students posting a 12-point decline compared to the highest-achieving students, who posted just a 3-point decline. Meanwhile, average reading scores for 9-year-olds declined 5 points from 2020 to 2022, with the lowest-performing students posting a 10-point decline compared to the highest achieving students, who posted just a 2-point decline."



"Fewer 9-year-olds now have the basic reading and math skills they need. This puts their futures – and our nation's – at great risk and should spur us all to action. We can't keep blaming COVID. We need to accelerate their learning."

Gov. Beverly Perdue North Carolina Governor Chairperson of the National Assessment Governing Board Going forward will there be more individualized learning or less?

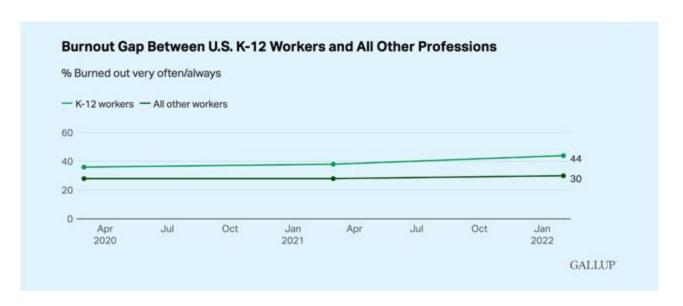
Do you feel the role of teachers will be enhanced by individualized instruction support?

The 'Worst' Shortage Florida Has Ever Seen

There were 5,294 teacher vacancies in Florida in January 2023, according to the Florida Education Association's (FEA) last count of teaching and staff positions advertised on district websites. Furthermore, the number of support staff vacancies was 4,631.



In a 2022 survey conducted by the National Education Association, 55 percent of educators said that they were thinking about leaving the profession, many of them citing pandemic-related difficulties and burnout.

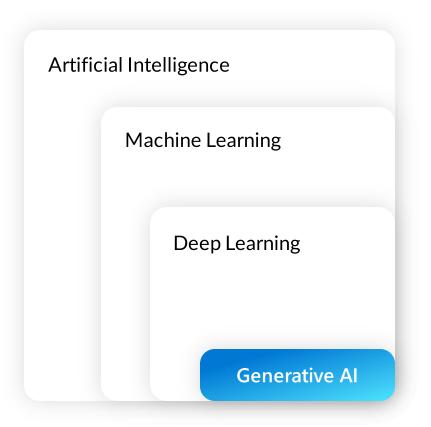


Where does Ai fit in?

Where are YOU and your school on embrace scale?

Technology that can perceive, learn, and reason to extend the capabilities of teachers, schools and students.

A brief history of Al



1950s

Artificial Intelligence

the field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

1959

Machine Learning

subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2017

Deep Learning

a machine learning technique in which layers of neural networks are used to process data and make decisions.

2021

Generative Al

create new written, visual, and auditory content given prompts or existing data.

What is in a name?

Artificial Intelligence (AI)

A broad set of techniques used to train computers to complete tasks that would otherwise require human intelligence, such as answering questions, generating data and recognizing objects.

Large Language Model (LLM) Models trained on large amounts of text data that can perform a wide variety of language tasks, including text summarization, generation, and categorization. These models can perform generative tasks like text generation and so there is some overlap between LLMs and generative AI. *Example: GPT models*

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Reading comprehension & machine translation Human parity General language understanding

Turing-NLG language models

Human parity

Human parity

2016

2020

Object & speech recognition

Natural Language Understanding
Human parity

Commonsense Question Answering

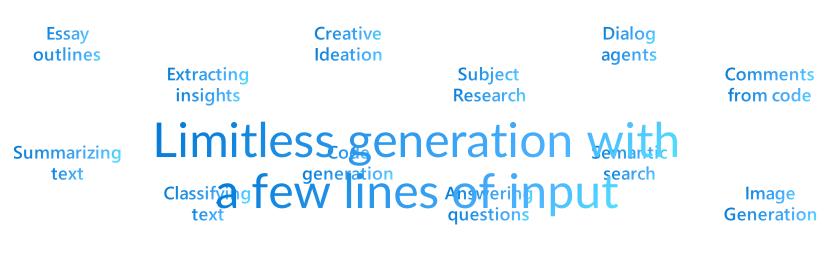
First Al supercomputer

Image captioning

Human parity

Generative Ai general availability

Generative AI capabilities



Virtual **Assistants**

Language Translation Poem creation

Code refactoring

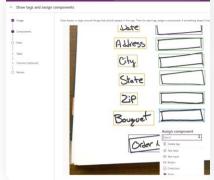
Writing assistance

What can these new Al services do?

- Natural language chatbots: everything from homework help support to personalized recommendations on learning.
- Advanced search capabilities: searching not just for links, but for answers.
- Generate text: outlines, lesson plans, homework study sheets, tests, IEPs.
- Real time translation, transcription, analysis, and summaries of content (audio, video, text).
- Image recognition and generation.













Khaleej Times

Dubai: 'Hello ChatGPT, how much is my electricity bill?' Dewa uses chatbot to provide 24x7 service

Integrating the AI tool with Rammas will allow users to feel as if they are communicating with a customer service agent





Unleashing the Power of Al: Governments Tap into ChatGPT to Drive Efficiency and Innovation in Public Service Delivery

Forbes

What ChatGPT And Generative AI Mean For Your Business?





BUSINESS.

Real estate agents say they can't imagine working without ChatGPT now





The most in-demand AI skills — and how companies want to use them

Studies from job listings and professional networking sites detailed the top attributes would-be hires are highlighting and companies are seeking. No surprise: various Al skills top that



politics

Al can be creepy. What should we do about it?

WIRED

People Are Increasingly Worried AI Will Make Daily Life Worse

(C) REUTERS

Focus: As Al booms, EU lawmakers wrangle over new rules

TEURACTIV

Commission issues internal guidelines on ChatGPT, generative Al

Evolving Education Reaction to Ai



New York City public schools ban access to Al tool that could help students cheat





Seattle Public Schools bans ChatGPT; district 'requires original thought and work from students'

Study: How Districts Are Responding to AI & What It Means for the New School Year

Dusseault & Lee: Tutoring, tracking students, giving teacher feedback, answering parents: How schools are thinking about using artificial intelligence

Impact on Homework

Newsletters

The Atlantic

The College Essay Is Dead

Nobody is prepared for how AI will transform academia.



But new ways to evaluate students are quickly emerging

OFFICE OF THE PROVOST



As we near the start of spring semester classes, we wanted to acknowledge the opportunities and challenges presented by the new generation of artificial intelligence text generators. This technology is evolving rapidly; we write now to encourage awareness of these tools and provide resources for instructors to explore their implications and potential uses.

We recommend that you **familiarize yourself** with **tools like ChatGPT** by entering some of your assignment prompts and evaluating the generated responses. As this technology will only get more sophisticated and become more widely used, we should begin where possible to incorporate it into our courses in ways that <u>support course learning objectives</u>. Further, it will also be important to consider <u>restructuring assignments where needed</u> to maintain the learning that can only come from students' direct engagement with the writing and learning process.



Al and students' learning experiences

"There are myriad possibilities for using and examining these tools related to educational efforts and inquiry," says T. Chase Hagood, senior associate vice president for Academic Affairs and dean of the Office of Undergraduate Studies. "As with any rapidly developing tool and adoption, we have the opportunity to consider how technology can positively impact higher education. ChatGPT, among other educational technologies, is an opportunity for U faculty and students to remain on the leading edge of teaching, learning and research." Hagood has convened a working group of experts from across the U to innovate in thinking, producing and consuming information related to ChatGPT and academic integrity.

"The integration of advanced language models such as ChatGPT in education has the potential to revolutionize teaching and assessment methods, as well as enhance student writing skills," says Sparks. "Similar to how programmable calculators and mathematical modeline software have expanded students' mathematical abilities. ChatGPT can serve as a



Artificial Intelligence for Human Interaction



Real-world application of AI in use today at Nerdy

- 1. Learner-Expert matching algorithms
- 2. Computer Adaptive Testing (Learning Diagnostics)
- 3. Customer inquiry scoring
- 4. Personalized homepage for Learners
- 5. Expert vetting and recruitment
- 6. Detect patterns of good vs. bad customer Interactions (tutoring sessions, phone calls, etc.)
- 7. And more ...

AI has already allowed for us to:

- Increase lifetime value of customers via better match
- Assess student knowledge
- Vet Experts' subject-specific knowledge
- Decrease effort for sales and customer service, drive prioritization
- Personalize product and content recommendations
- Identify drivers of successful vs. unsuccessful tutoring sessions

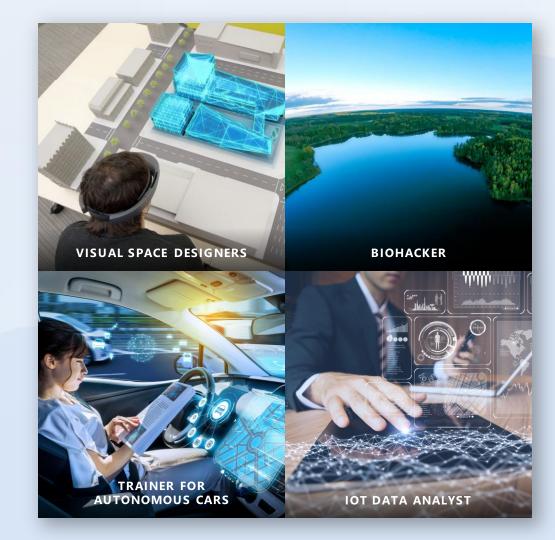
Recent advances in AI will supercharge AI for HI in 2023

- Launch of ChatGPT by OpenAI made AI available to everyone (non-engineers)
- OpenAl is partnering with Microsoft to deploy technology everywhere (Bing, Microsoft Office suite, etc)
- Google and other leaders in AI infrastructure now feel immense pressure to release their AI to the general public
- Tools available to Nerdy (and others) just dramatically improved

What is the implication on skills needed? Future workforce?

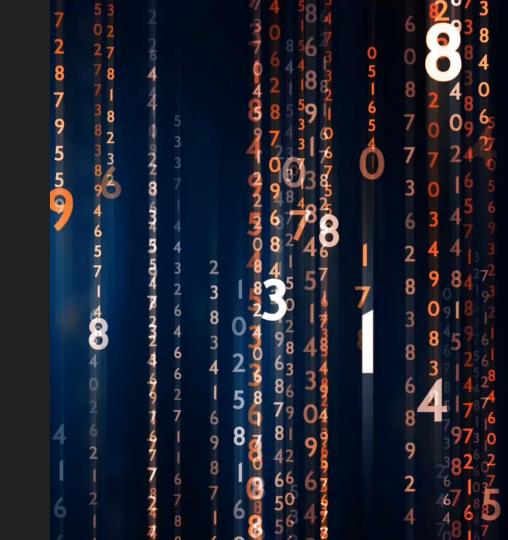


What jobs will Al create?





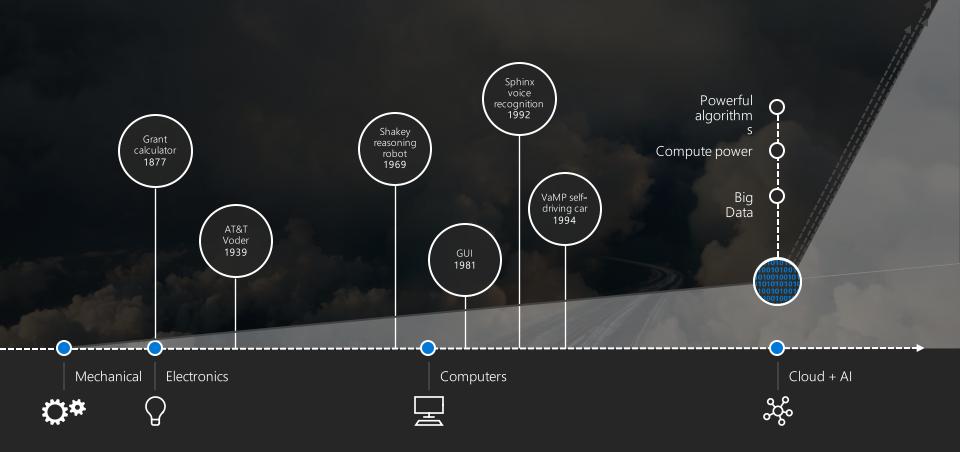
POWERED BY



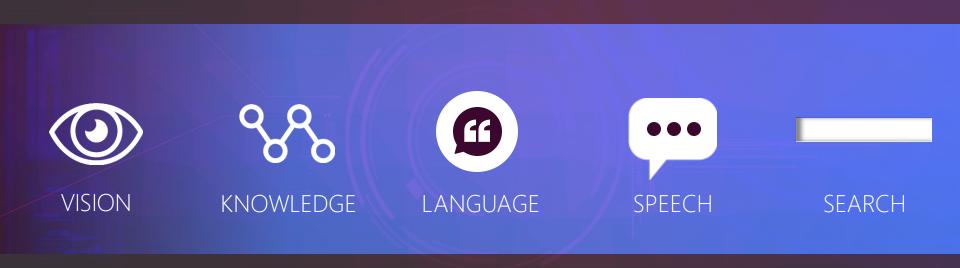


DATA IS THE NEW OIL

WHY NOW?



ARTIFICIAL INTELLIGENCE AND COGNITION



Microsoft's aim:

Make Al available to everyone



We are pursuing AI to empower every person and every institution ... so that they can go on to solve the most pressing problems of our society and our economy.

– Satya Nadella, CEO, Microsoft

THE ETHICS OF AI





Reliability & safety



Privacy & security



Inclusiveness



Transparency



Accountability

THE ENGINES OF OUR FUTURE











ARTIFICIAL INTELLIGENCE

INTERNET OF THINGS MIXED REALITY **BLOCKCHAIN**

QUANTUM COMPUTING







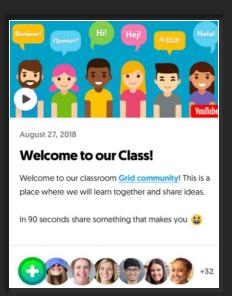
driven action

with growth mindset







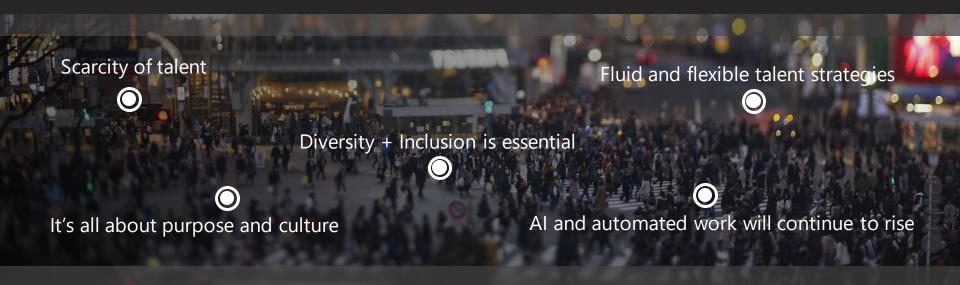


MINECRAFT LINKEDIN GITHUB FLIPGRID

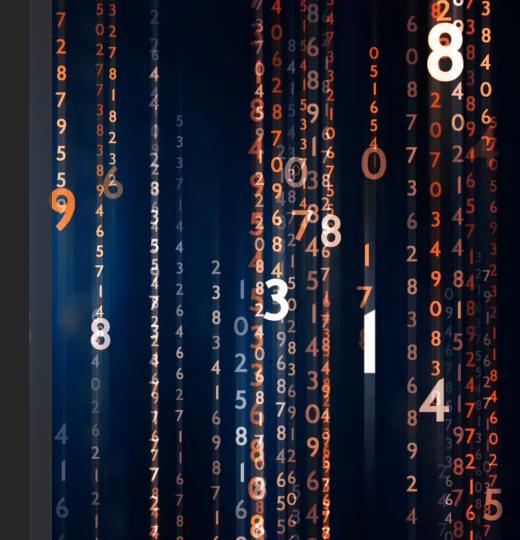
SKILLS FOCUS Human skills for an age of machines

Workplace Trends

A shifting landscape

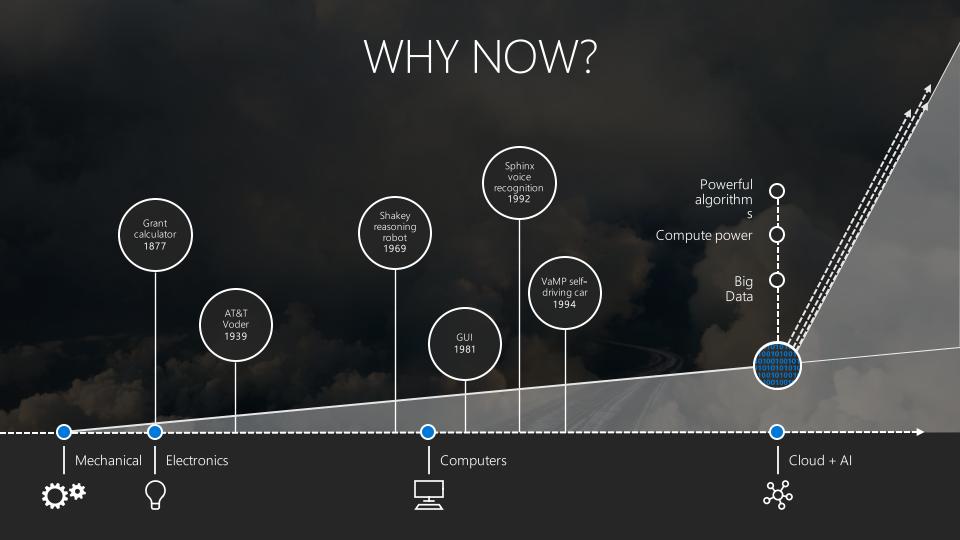


POWERED BY
DATA





DATA IS THE NEW OIL



Technology that can perceive, learn, and reason to extend the capabilities of people and organizations

ARTIFICIAL INTELLIGENCE AND COGNITION



Microsoft's aim:

Make Al available to everyone



We are pursuing AI to empower every person and every institution ... so that they can go on to solve the most pressing problems of our society and our economy.

– Satya Nadella, CEO, Microsoft

THE ETHICS OF AI



THE ENGINES OF OUR FUTURE







INTERNET OF THINGS



MIXED REALITY



BLOCKCHAIN



QUANTUM COMPUTING

EMPLOYMENT OPPORTUNITIES IN 2030







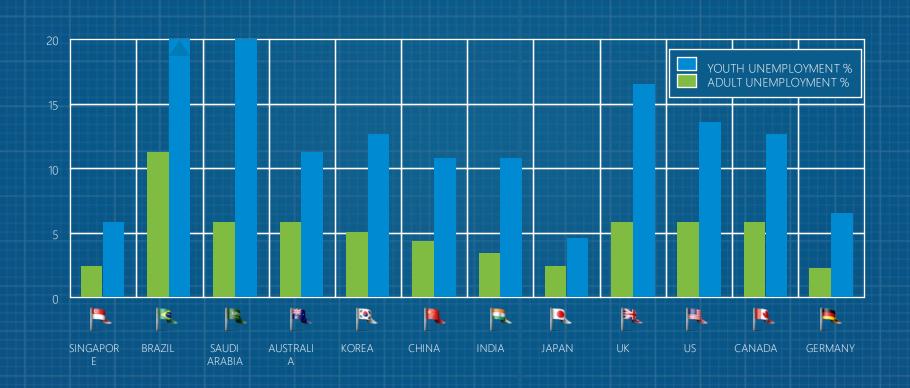


35% OF CORE JOB SKILLS WILL CHANGE BY 2021

Next year!

THE SHELF LIFE OF TODAY'S WORKFORCE SKILLS IS LESS THAN 5 YEARS

THE CHALLENGE FOR YOUNG PEOPLE



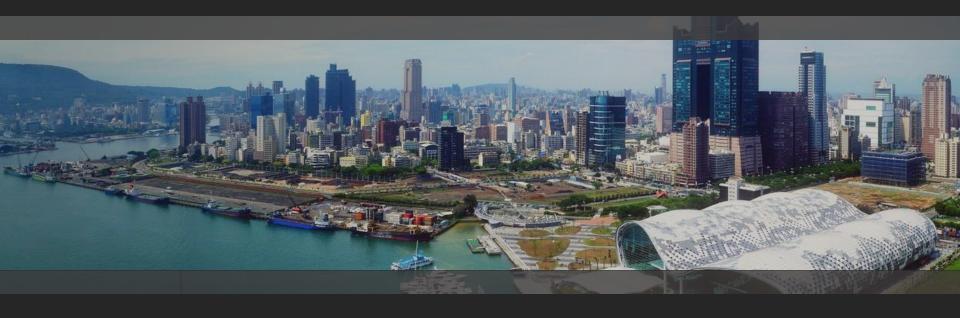
More than **50%** of today's jobs require some technology skills, and experts say that percentage will increase to **77%** in less than a decade.

THE DEMAND FOR TECHNICAL SKILLS IS GROWING

2017

2025

PEOPLE USED TO MOVE TO FIND JOBS



TODAY, JOBS MOVE TO FIND PEOPLE

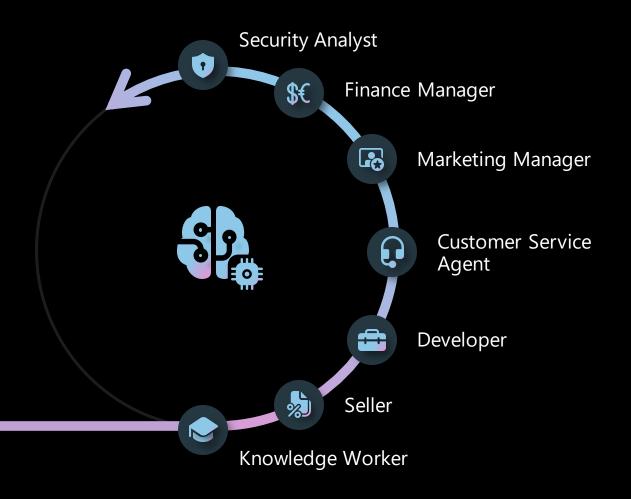








Your Learning Coach



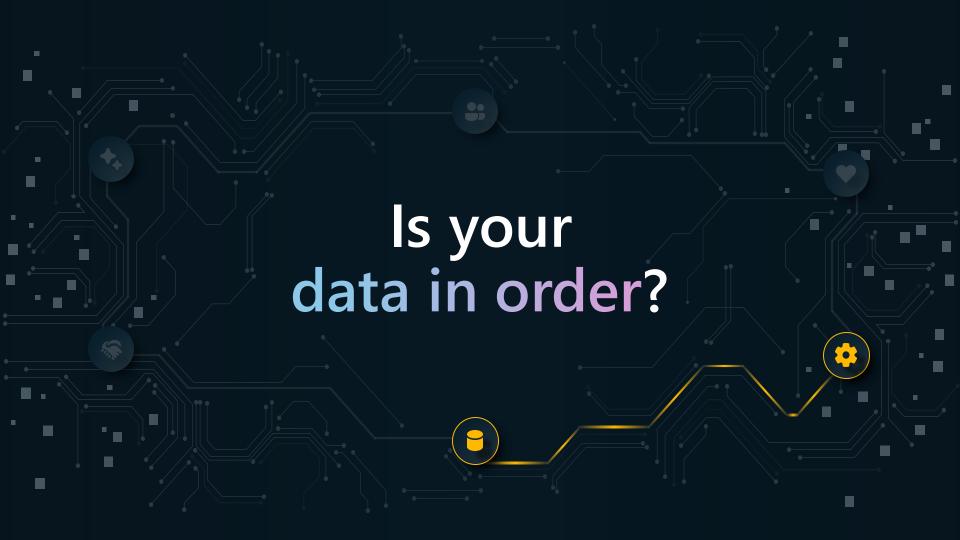


















Your comprehensive solution for district-wide tutoring.











Live 1-on-1 Tutoring

Live Small Group Tutoring

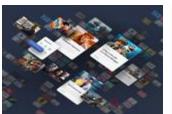
24/7 On-Demand Tutoring

Progress Reporting

Live Small Group Classes



College & Career Readiness Essay Review & Coaching



Recorded Enrichment Classes



Self Study & Practice Problems



Adaptive Assessments & Personalized Learning Plans



We've spent 16 years refining our approach.

We bring the expertise, best practices, technology and support to meet your district's unique needs.

250+ Partnering with over 250 schools and districts.

Hours of LIVE online learning learning delivered in the past year.

Variables in our proprietary Aldriven matching process to pinpoint the exact-right tutor for each student.

The leader in live, online learning.

A trusted choice for parents and school districts, backed by a strong track record of positive reviews.







We help districts scale effective high dosage tutoring.



Streamlined Implementation

Our user friendly platform tools and dedicated Customer Success Team reduce friction and make it easy to operate programs at scale.



Aligned to Your District

Varsity Tutors for Schools integrates seamlessly with classroom tools and curriculum used across your district, while delivering targeted support that aligns to your district's educational goals.



Research-Backed Approach

Our 1:1 and small group (up to 1:5) tutoring sessions leverage research-backed best practices to close learning gaps and meet student learning needs.



We improve learning outcomes for students.

- Leveraging pre and post-assessment scores, we demonstrate tutoring impact.
- Work with district leaders and research partners to implement efficacy studies.
- Apply learnings to continually refine our methods and interventions, ensuring the most effective tutoring solutions for students and districts

Study shows more than 2X growth in math proficiency for students who participated in tutoring with Varsity Tutors for Schools.

DISTRICT PROFILE

One of the three largest districts in southern California



Student Enrollment:





Faculty & Staff:





Schools:

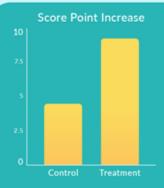
OBJECTIVE

- · 4th grade math proficiency
- 1:1 student to tutor ratio
- 45 minute tutoring sessions
- · 3 times per week for 9 weeks











What teachers are saying about us:





The best thing this program gave me was time. Time back. 1-on-1 time for students who need it and don't get it enough.

Elizabeth Wilson, Third Grade Teacher, Polk County Publics Schools





It's like having a group of teacher assistants to help me truly meet the needs of all my students.

Melissa Kelly, Kindergarten Teacher, CODE Academy





Every day my students get on the platform and are engaged without my help. There is a beautiful hum in the classroom.

Bridgette Crose, Intervention Teacher, Wake County Public Schools



What district leaders are saying.





It's like Varsity Tutors was not only developing their academic skills, but also their willingness to put forth that effort and motivation in the classroom setting.

> Casey McLeod, Head of Schools, KIPP Indy Public Schools





I have been in education for 24 years, and I have never worked with a partner that is so deeply invested in seeing the success of this program - not for their own benefit, but for the benefit of our district's students and staff.

Fred Heid, Superintendent, Polk County Public Schools





[Varsity Tutors] was able to customize and create an environment for our schools to be successful. The gains have been immeasurable.

Cheryl Lawson, Superintendent, The Lawson Academy



Join the 250+ Districts Partnering with Varsity Tutors for Schools

































Targeted Intervention

Intensive tutoring that works.

Varsity Tutors for Schools is committed to making high dosage tutoring more affordable for districts, allowing them to support more students in need. Districts can now leverage high dosage tutoring at scale, supporting more students while minimizing administrative burden and proving the value of their investment.



Easy To Use

District staff can quickly make requests for tutoring and easily manage program details.



Available to All

Our platform and tutors are equipped to support students with unique learning needs, including ELL and special education.



Evidence-Based

Our 1:1 and small group (up to 1:5) tutoring sessions provide a highly effective approach to closing learning gaps to meet district standards.



A purpose-built platform designed for impact.

Engaging, Scalable and Built For Tutoring

- Two-way **live** video chat
- Interactive tools and collaborative workspaces
- Supplemental learning resources
- Works across all devices



5-to-1 tutoring



Embedded into your district's existing workflows.

Integrates with your district's strategies, tools and goals:

- Seamless connection between academic goals, classroom instruction and curriculum
- Leverage your assessment data to define tutoring objectives (content agnostic)
- Tutoring sessions work within your classroom schedules
- Integrates with popular educational tools like
 Classlink and Clever
- Device agnostic (web, tablet, mobile friendly)
- Consistent student/tutor engagement





DISTRICT ASSIGNED

Targeted Support

District Assigned offers a suite of features that help district staff deliver personalized intervention to targeted groups of students with a focus on bridging learning gaps.

Using District Assigned, administrators can manage tutoring programs centrally, identify the district staff that is best suited to request tutoring, and define academic focus areas for student learning.

TOOLS FOR CENTRALIZED PROGRAM MANAGEMENT

	Admin Portal	One-stop hub for district leaders to manage program.
0-C	Flexible Scheduling	Administrators have control and easily manage schedules
	Targeted Approach	Administrators can easily select students and specify areas of focus for tutoring.
and a	Progress Data	Transparent reporting gives administrators visibility to improve outcomes for each student.

The comprehensive tutoring solution your district deserves.

- As a district leader you are uniquely qualified to choose the program that aligns with your district's needs.
- You have the flexibility to administer tutoring at the district level, empower teachers to manage tutoring, allow parents request tutoring at home.
- No matter the approach, we deliver high quality tutoring aligned with your district's curriculum and academic approach.
- Every student will get access to our comprehensive Live Learning Platform and all of our supporting resources.





Implementation models that fit your district's needs.

Choose an approach or combine approaches to meet the unique needs of your district community.



Teacher Assigned

Empowers the educators that know the students best to provide the added individualized support needed to close learning gaps and return to class.



District Assigned

District administrators focused on bridging learning gaps manage programs centrally, delivering targeted intervention to groups of students.

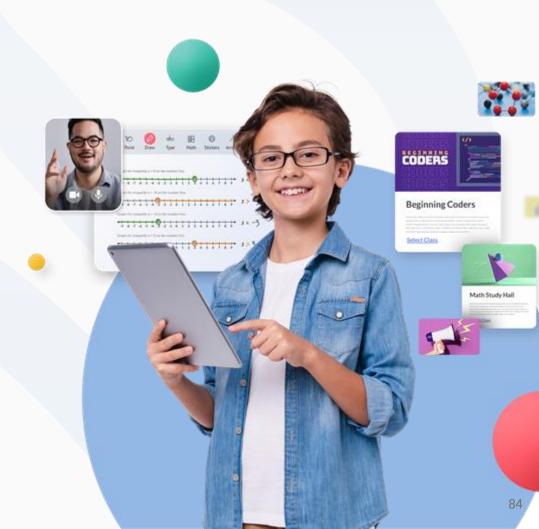


Parent Assigned

Enable parents to be advocates for their children by requesting and participating in tutoring sessions scheduled while at home.



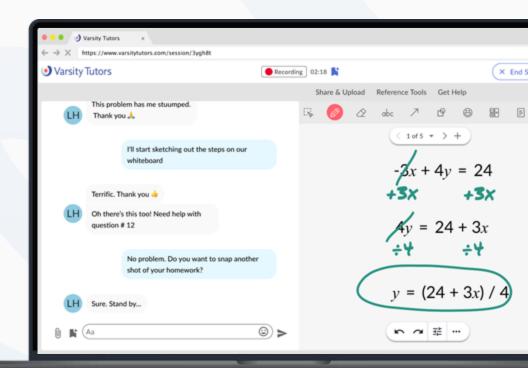
Comprehensive resources for your entire district





24/7 On Demand Tutoring

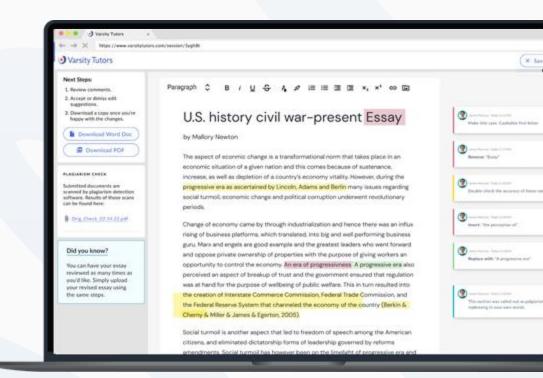
Give every student in your district access to 24/7 live support. Highly qualified tutors are ready to help with whatever questions they have, whenever they have them.





On Demand Essay Review & Coaching

Expert educational guidance and assignment feedback.





Weekly Live Group Classes

Live Online Classes Available In 100+ Subjects Every Week

Academic, Test Prep, and Enrichment subjects



Browse this month's courses



Weekly Live Group Classes

Explore Your Interests

Cultivate curiosity with a *huge* selection of extracurricular classes from filmmaking to drawing and more.









Learn to Code

Learn principles of coding and build video games with classes on Roblox, Minecraft, Codeverse, and Python.









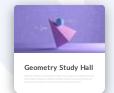
Study Halls

Interactive and collaborative sessions led by an expert instructor to dive deeper in course-specific content.









Celebrity-Led StarCourses

Newly Released Collections

- Historical Viewpoints
- STFM Success Series
- College Prep
- Afterschool Brain Builders
- Math Mastery
- CodeVerse
- And More!



Abracadabra Academy with Justin Willman







College Prep & Admissions Resources

Give students the edge they need to unlock scholarships and more college opportunities.







SAT Writing & Language Prep



ACT 8-Week Bootcamp



Application Essay Workshop

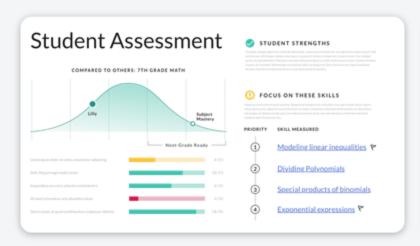
Live Instructor-Led Group Courses

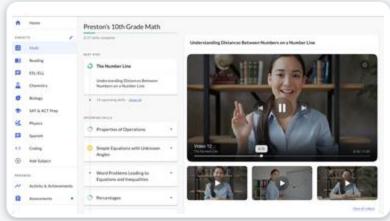
- Live SAT, ACT, PSAT Classes
- Live College Prep + Readiness Classes
- College Essay Workshops
- Application Strategy Workshops

Self-paced ACT + SAT lessons

Adaptive Assessments and Practice Questions

Comprehensive Self Study and Assessment Resources







Our Tutors



Rigorous vetting process ensures high quality tutors at scale.

Our rigorous vetting process sets a high bar for talent.

Tutors on our platform have:

- Subject matter expertise
- Previous tutoring experience
- Proven efficacy with virtual tutoring & teaching
- Experience teaching to district standards
- Tutors completed training on FCRR science of reading



Standard Aligned Lesson Plans

Al-Powered Lesson Plans:

- Session content is aligned to classroom curriculum and B.E.S.T Learning Standards
- Lesson plans are generated from student learning plans, focusing on the root skills students have not yet mastered
- Tutors can easily deliver interactive and engaging instruction that helps students master standards

Session Details	Learning Objectives	Lesson Content
Date: Monday, 10/4/21 Time: 3:00-4:00 PM Duration: 60 minutes Student Name: Lilly Hammersmith Tutor Name: Samantha Jones	Instruction will focus on the following skill(s): 1. Comparing Fractions with Different Numerators and Denominator After this lesson, students will be able to: • define and explain the term denominator • compare fractions represented by drawings or models with unlike denominators	The tutor will write the fraction ¼ on the white an inquiry based approach to define the term d the student. The tutor will use the math workbeircle, divided into four equal parts and ask the the boxes to show ¼. The tutor will repeat this circle divided into 3 equal parts, and represent The tutor will use a question based approach to discussion to determine which fraction is great student to recognize that the circle with the mrepresents the largest fraction. The student will writing fractions with an inequality symbol. The review inequality symbols, specifically greater encourage the student to use the symbol to confractions. The tutor will use practice problems 12-3 more examples with the student, allowing the lead the work and demonstrate concept understand the student of the student of the student of the work and demonstrate concept understand the student of the student of the work and demonstrate concept understand the student of t
Varsity Tutors	Mastery Check: The student will draw several examples of fractions with unlike denominators of board, and write the fractions with an inequality symbol, comparing the fractions.	
Date: Wednesday, 10/6/21 Time: 11:00-11:30 AM Duration: 30 minutes Student Name: Lilly Hammersmith Tutor Name: Samantha Jones	Instruction will focus on the following skill(s): 1. Adding Fractions with Base Ten Denominators After this lesson, students will be able to: • Express a fraction with denominator 10 as an equivalent fraction with denominator 100	The tutor will start by reviewing the concepts of hundredths by working through a table of samp. The tutor will use questions to prompt the stud the first 2-3, and then will ask the student to coremaining 2 examples on their own to check un Next, the tutor will introduce two fractions wit 10 denominators (ex 9/10 + 8/100) and ask the they could add them together. The tutor will prostudent to convert the tenths fraction into hun explain the same denominator is required to adhelp the student add the two like denominator together. The tutor will introduce another example to guide the solution, explaining their scomplete them on the math workboard. The tuthis twice, providing guidance as needed.

Mastery Check: The student will successfully write two fractions on the workboard with unlike



Maryn S.

English (Smith College | UMass)

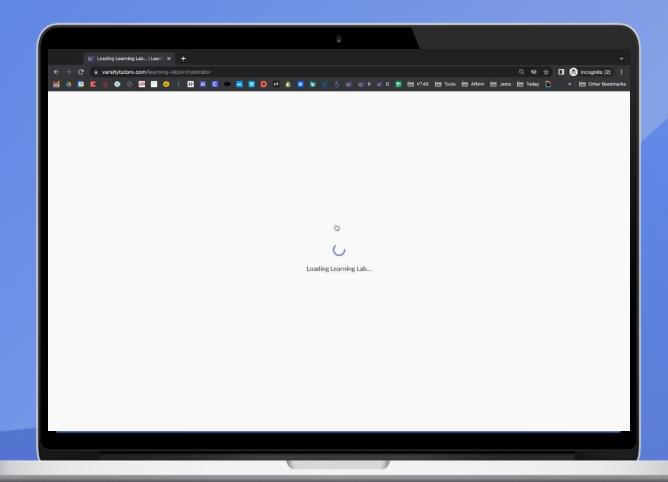
Maryn has a Ph.D. in English and has been on the Varsity Tutors platform for eight years—tutoring over 300 students. She currently creates curriculum and teaches at the University of Washington. As a tutor, she focuses on helping students find the confidence to build their skills.

"I believe talented students are often frustrated by large classes and the unfair pace of education, and that's why I work with Varsity Tutors."

Interests: reading about the history of London, hiking, and camping in the mountains



Demo





Reporting

Varsity Tutors for Schools

INSIGHTFUL & TRANSPARENT

Program Reporting



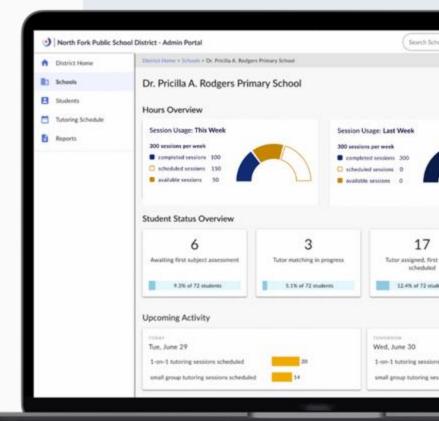
Usage tracking to understand weekly sessions and which teachers and students are most active.



Recorded sessions available for review along with tutor notes to establish trust.



Progress Reporting to easily understand program impact and effectiveness.

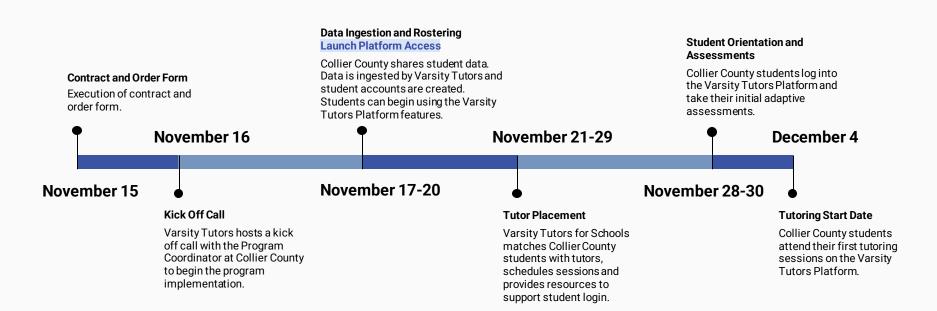


Customized Reports Examples





Collier County School District High Dosage Tutoring Onboarding Timeline





Dedicated Customer Support

Ongoing Training and Program Management

Platform Training

Varsity Tutors for Schools supports live and/or asynchronous platform training and resources for district staff, students, teachers and parents.

Program Support

Collier County will have a dedicated Customer Success Manager that partners with district staff to plan the program, ensure a successful launch, manage tutoring engagement and provide progress updates and reporting.







The Subject Matter **Experts** You Need

- Tutors on our platform specialize in Third Grade
 Reading and Secondary Program Education, including
 Math, ELA and Test Preparation
- Our proprietary approach to identifying and onboarding high-quality tutors enables us to source tutors nationally while maintaining a high bar for quality.
- With over 40,000 tutors on the platform, we can deliver live, personalized instruction to every student in your district.
- Our expertise in sourcing tutors allows Varsity Tutors for Schools to quickly scale our supply for districts that have specific or niche learning needs, ensuring that we always have the right experts ready to deliver the tutoring your district needs at scale.



METAXIA
Secondary English
Instructional Specialist



DEREKCognitive Science Expert,
Middle School STEM



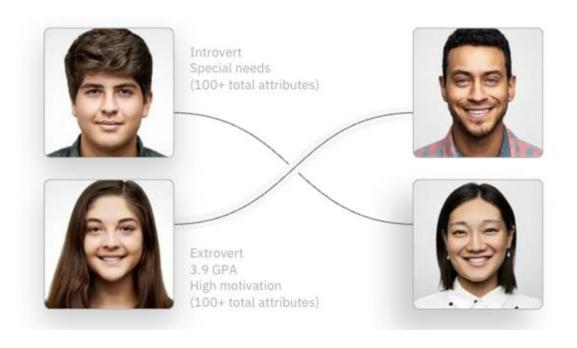
TIMOTHY
SAT and ACT
Preparation Expert



DEVANReading Specialist,
3rd Grade Teacher

The **Right** Tutor for Every Student

Taking into account everything you tell us about your students, your district's assessment results, and over 100 additional attributes, we use a series of intelligent algorithms to pinpoint the perfect tutor for each student's unique learning needs.

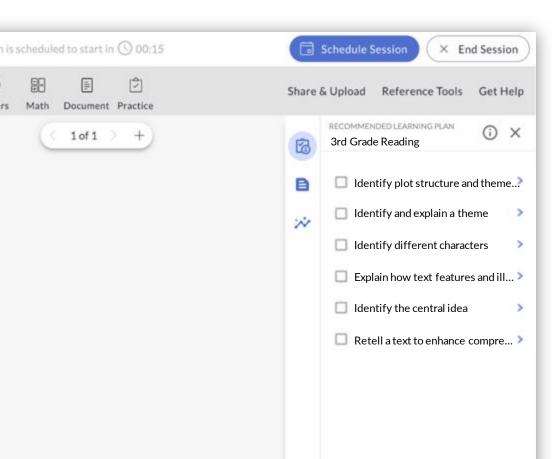


Consistent Tutor Student Relationships

- Students are paired with the same tutor for the duration of the tutoring program
- Tutors reserve the student's session time in their schedules to ensure they can consistently meet with each student
- If a tutor needs to miss a session, we provide a substitute to keep learning momentum on track
- Strong tutor-student relationships increase student attendance and improve academic achievement



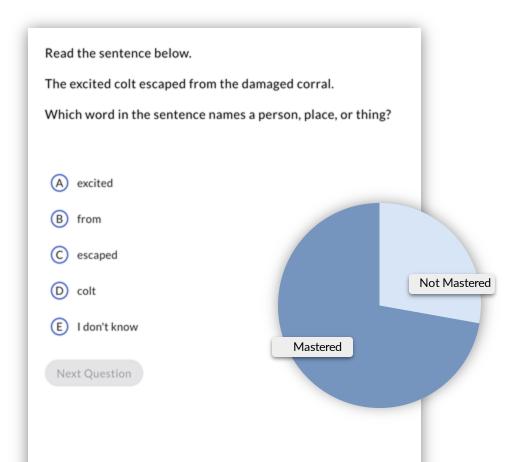
Embedded Standard-Aligned Learning Plans



- Tutors will access individualized student learning plans in the Live Learning Platform
- Learning Plans guide instruction and ensure instruction is focused on the right standards in every session
- Tutors mark standards as complete as they are mastered and leave detailed session notes about student progress

Routine Progress Checks and Reporting

- Students complete Exit Tickets at the end of each session
- Exit Tickets are five question skill based assessments that students complete in the Live Learning Platform
- Student Exit Ticket results provide a real time understanding of student progress and mastery





Thank You

