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How AI Helps Schools Keep
Students Safe, Secure and Ready to Learn.

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Topics for today's presentation

01 The Promise of AI
The fundamental challenges we face

02 Examples of AI in Education Today
How AI can help and what data you can generate

03 How AI Can Help Schools Make Decisions Going Forward
Strategic value of easily accessible, always up-to-date AI-generated data

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01 The Promise of AI

The fundamental challenges we face and address with our AI tools

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AI is the most compelling and powerful technology of our time

The New York Times

Robots Learn, Chatbots Visualize: How 2024 Will Be A.I.'s 'Leap Forward'

A.I. is set to advance at a rapid rate, becoming more powerful and spreading into the physical world.

Forbes

2023 Was The Year Of AI Hype— 2024 Is The Year Of AI Practicality

Eric Johnson is the Chief Executive Officer at SurveyMonkey, a global leader in online surveys and forms.

TechCrunch

Google goes all in on generative AI at Google Cloud Next

npr

Apple doubles down on artificial intelligence, announcing partnership with OpenAI

Crowded Market of Free AI Teaching and Tutoring Tools

Influx of venture capital investment, driving early stage startups companies, all delivering quickly commoditized tools.
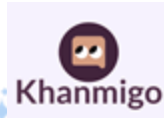
Teaching Assistance

1 on 1 Tutoring

Automated Marking

school AI

Eduaide.Ai

MAGIC SCHOOL

TeachMateAI

Khanmigo

AITutor

EssayGrader

markr

gradescope

How Securly has pioneered AI to enhance school filtering and student wellness support so far

Interventional AI

Analyses all student activity one single activity at a time

Designed for high-risk, urgent-need identification

Intervenes quickly to safeguard students against self-harm, suicide, bullying and violence

aware

Narrow AI, leveraging machine learning, optimized for speed and accuracy.

Supports Child Protection

- Longest-learning AI

- Sentiment analysis

- Think Twice bullying prevention

- Wellness Levels

- Real-time alerting

Every school leader has the same goals:

✦ Improving the academic performance of students

✦ Tackling the student mental health crisis

✦ Teacher recruiting, retention and addressing burn-out

✦ Satisfying diverse demands of your school community

✦ Identifying harmful behaviours and risks to students

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Addressing these challenges requires answering important questions:

Another Example:
Tackling student mental health crisis

- ✦ How many students are suffering with anxiety?

- ✦ Why are our students struggling?

- ✦ Which students need help now?

- ✦ Do these students pose a threat to themselves or others?

- ✦ How much is technology usage contributing to mental health challenges?

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Answering these questions requires reliable up-to-date data

Yet most schools do not have an easy way to collect, analyse or leverage data:

Key drivers:

✦ Limited time and resources

✦ Data locked up in edtech apps or reports

✦ Staff lack the right skills

✦ We don't know the right questions to ask

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02 How Can AI Help?

How AI can help with Child Protection and what data can you generate?
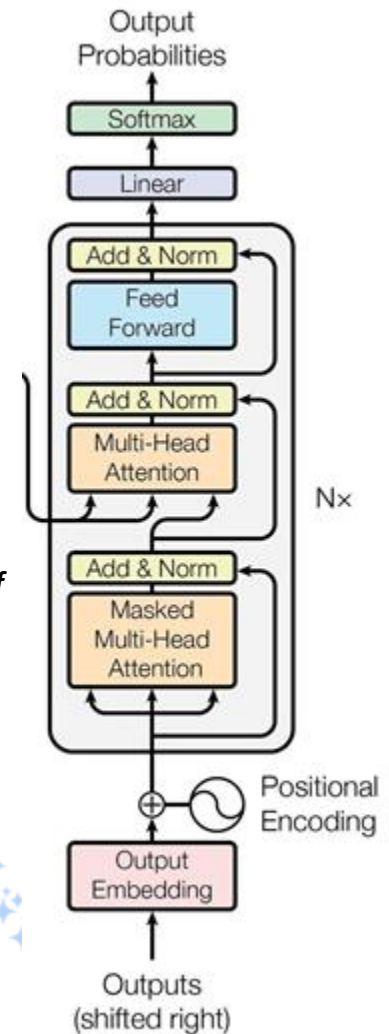
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The Architecture of AI

✦ The Transformer
- ○ The Output Layer
- ○ The Attention Layer
- ○ The Embedding Layer

✦ The Training Process

✦ The Implications
- ○ *"If one were to happen to have very large data sets of internet speak-laden online activities, Generative AI would be ideally suited for making meaning of that data and generating impactful insights from it."*

Familiar Sounding Quick Hitters

✦ The Applications

- **Gain an understanding of students online behaviours, interests and learning patterns.**

- **Identify trends and early warning signs for potential issues such as cyberbullying, mental health concerns or academic struggles.**

- **Monitor the effectiveness of interventions and programs, allowing for continuous improvement and optimization.**

- **Make data Informed decisions, allocate resources effectively, personalise learning where possible and provide targeted support.**

- **Use data that already exists to anser key questions effectively and efficiently.**

Root cause of data challenges is the legacy survey model schools and MAT's use

Labour and resource intense

Student engagement challenges and hesitancy

Snapshot in time, quickly out of date

More work for teachers / staff

Answer Questions

Objectives

Provide Reporting

Collect Data

Analyze Data

Manual Processes Take Months

JANUARY · FEBRUARY · MARCH · APRIL · MAY · JUNE · JULY · AUGUST · SEPTEMBER · OCTOBER · NOVEMBER · DECEMBER

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13

Limitations of the survey

Surveys are an efficient way to gather attitudes and perceptions of a relatively large population, such as secondary age pupils, however they also have limitations in terms of how results are collected and interpreted. Some of the general advantages and limitations of the survey are given below.

Table 1: Advantages and limitations of surveys

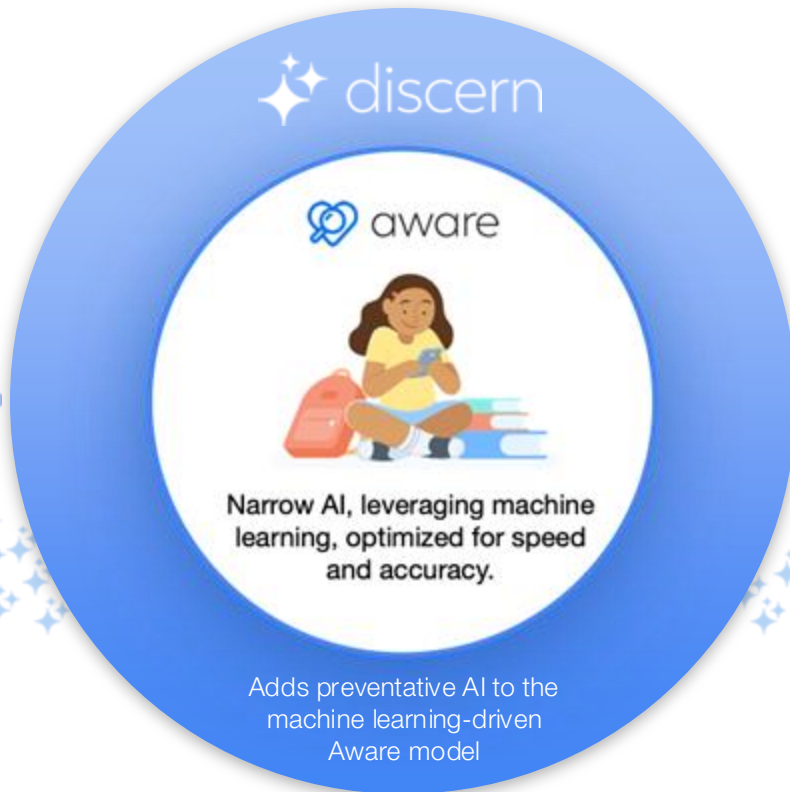| Advantages	Disadvantages / Limitations
Is a suitable method for generalisations.	Accuracy of response: e.g., bravado /social desirability bias /response fatigue
Standardised responses make comparisons and analysis easier.	Sample bias – which schools agree to complete the survey may skew the results
Surveys are anonymous, which helps elicit truthful responses.	The size and representativeness of the sample achieved in each year group by schools may skew the results.
Survey questions and format are well tested.	Questions can be interpreted differently by individuals.
Teachers are able to support during completion of the survey (e.g., understanding questions or technical issues).	The survey responses will only provide a representative view of the pupil population and cannot speak on behalf of all pupils or individual pupils
Surveys are undertaken online, all results are captured electronically, thus reducing possibility of admin errors.	The survey is good at identifying how pupils feel about particular issues but cannot always provide a rationale or explanation why pupils have responded in a particular way.

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14

How does Discern build on Securly Aware's foundation?

Aware is Interventional AI

Analyses all student activity one single activity at a time

Designed for high-risk, urgent-need identification

Intervenes quickly to safeguard students against self-harm, suicide, bullying and violence

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aware

Narrow AI, leveraging machine learning, optimized for speed and accuracy.

Adds preventative AI to the machine learning-driven Aware model

Discern is Preventative AI

- Deeper understanding via pattern recognition
- Identify intervention opportunities earlier
- Avoid false positives with the latest inferential AI
- So much more

Delegate Activity

✦ You are a DSL

✦ You have been given this web filter data to analyse

✦ There is at least one serious safeguarding concern in this data

Make 3 Observations From This Data

2 Minute Timer

User	Keyword	Site Name	Keyword	Site Name	Keyword	Site Name
Brandon Dempsey	font generator	https://r6---sn-q4f7sn76.googlevideo.com	austin and ally songs	https://fandom.com	#marbletoys	https://mail.google.com
Brandon Dempsey	french to english	https://mail.google.com	what are the primary sources of particulate pollution?	https://archives.gov	hacks	https://swagbucks.com
Brandon Dempsey	how to calculate mean	https://google.com	naruto	https://mail.google.com	google translate	https://google.com
Brandon Dempsey	spiderman	https://mail.google.com	targets burned because of riots	https://youtube.com	fetti playboi carti	https://coolmathgames.com
Brandon Dempsey	www.vec.virginia	https://hiperdex.com	kayla maisonet	https://google.com	petroleum	https://google.com
Brandon Dempsey	toddlers teeth x ray	https://youtube.com	famous people that start with a l	https://google.com	how long does it take for a moon to change phases	https://fandom.com
Brandon Dempsey	ariana fletcher	https://youtube.com	peter and catboy	https://google.com	translate	https://fandom.com
Brandon Dempsey	staggering	https://zoom.us	how did roosevelt prepare for ww2?	https://youtube.com	google website	https://fandom.com
Brandon Dempsey	synonyms for playful	https://fandom.com	grass png	https://youtube.com	when was the tesla car invented	https://scratch.mit.com
Brandon Dempsey	math playground	https://disqus.com	ino's thicc body	https://google.com	how many coins are in the eurosystem	https://swagbucks.com
Brandon Dempsey	how to activate nuclear bomb in jailbreak	https://scratch.mit.com	what did the people eat	https://coolmathgames.com	desmos calculator quadratic	https://google.com
Brandon Dempsey	kitchen grill	https://freegamesforyourwebsite.com	coronavirus	https://google.com	how to login play planet pilkey with google	https://canvas.apps.chrome
Brandon Dempsey	good no bake desserts	https://terrywahls.com	strasburg mavis	https://swagbucks.com	romeo and juliet vision board	https://google.com
Brandon Dempsey	youtube	https://google.com	who was killed in the sunday morning bombing at the birmingham sixteenth baptist church who did the bombing?	https://google.com	space ship	https://youtube.com
Brandon Dempsey	shein	https://auth.services.adobe.com	princess anne cavaliers	https://google.com	erector spinae antagonist	https://clever.com
Brandon Dempsey	radio	https://google.com	kristallnacht-	https://sp-studio.de	royalty family	https://google.com
Brandon Dempsey	list the 3 things that determine the number of calories someone burns in a day. (3 points)	https://google.com	find molly	https://youtube.com	last airbender air pdf	https://youtube.com
Brandon Dempsey	how to start a bracelet business	https://google.com	is nucleus in human body	https://google.com	tcc to odu credit	https://vox.com
Brandon Dempsey	tesco	https://nearpod.com	the adventures of super mario bros. 3 cast	https://trueself.com	cat ahesetic art	https://google.com
Brandon Dempsey	avatar the last airbender kindle	https://google.com	clintons anti crime bill	https://mail.google.com	how was bin laden captured?	https://google.com
Brandon Dempsey	porn	https://youtube.com	how do you find the volume of a square pyramid	https://swagbucks.com	8bitheater little big planet whale	https://eurogamer.net
Brandon Dempsey	gravity dwarf is big enough to be roughly spherical due to	https://google.com	....,ùÀ,ûÀ&nÀ¥"ÇÀ¥í ,ó´,ó´ÿØ	https://flipgrid.com	17 inch laptop bag waterproof	https://quizizz.com
Brandon Dempsey	black lightning season 3	https://youtube.com	how to hid a gun from medal detector	https://abcya.com	calendar	https://minecraft.net
Brandon Dempsey	newspaper article on coronavirus	https://google.com	cristiana iceskater	https://fandom.com	wow super slide instructions	https://youtube.com
Brandon Dempsey	what are all spanish words?	https://clipart-library.com	wedgie girl	https://google.com	email	https://brainpop.com
Brandon Dempsey	girl in red wallpaper	https://solarmovie.fun	did the bite of 87 actually happen?	https://gimkit.com	roblox	https://brainpop.com
Brandon Dempsey	let it grow trump	https://mail.google.com	how much money is it to buy it iced guava passionfruit drink	https://google.com	why do i keep forgetting things	https://google.com
Brandon Dempsey	the jungle book netflix series mowgli is taken	https://scratch.mit.com	how to move vil	https://coolmathgames.com	font generator	https://calculatorsoup.com
Brandon Dempsey	how many days is spring break	https://sites.google.com	the bee and the biscuit	https://forms.gle	what happened right after the election of abraham lincoln	https://youtube.com
Brandon Dempsey	curious george	https://fandom.com	hercules 1997 titans	https://youtube.com	victorious full episodes	https://prodigygame.com
Brandon Dempsey	the bt anton chekhov	https://brainpop.com	italy quarantine	https://youtube.com	porn	https://youtube.com
Brandon Dempsey	„Çñ„Éé„Çß„Éà„É´„Éï„Çë„Çñ	https://mail.google.com	job application for 17th street surf shop	https://google.com	hw to pass a drug test	https://google.com
Brandon Dempsey	video games	https://fandom.com	lace styles with one yard	https://swagbucks.com	equations of circles solver	https://youtube.com
Brandon Dempsey	squid game	https://fandom.com	what is the antagonist of the latissimus dorsi	https://google.com	baby songs	https://pngjoy.com
Brandon Dempsey	how to detox	https://youtube.com	mariah and bill letting my boyfriend sleep with another girl prank	https://youtube.com	target	https://youtube.com
Brandon Dempsey	landscape	https://youtube.com	hjdhfjdhjhdjfhjdhfj	https://youtube.com	what is the antagonist of the deltoid	https://youtube.com
Brandon Dempsey	google translate	https://youtube.com	meme	https://google.com	gmail	https://drive.google.com

✦ **What 3 observations have you made?**

✦ **How did you find the experience?**

✦ **How could it be made easier?**

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https://talktofrank.com

find molly

hw to pass a drug test

how to detox

19

Fast, labour non-intense analysis process easily repeated any time school leaders need a new set of data - which all lives in one place
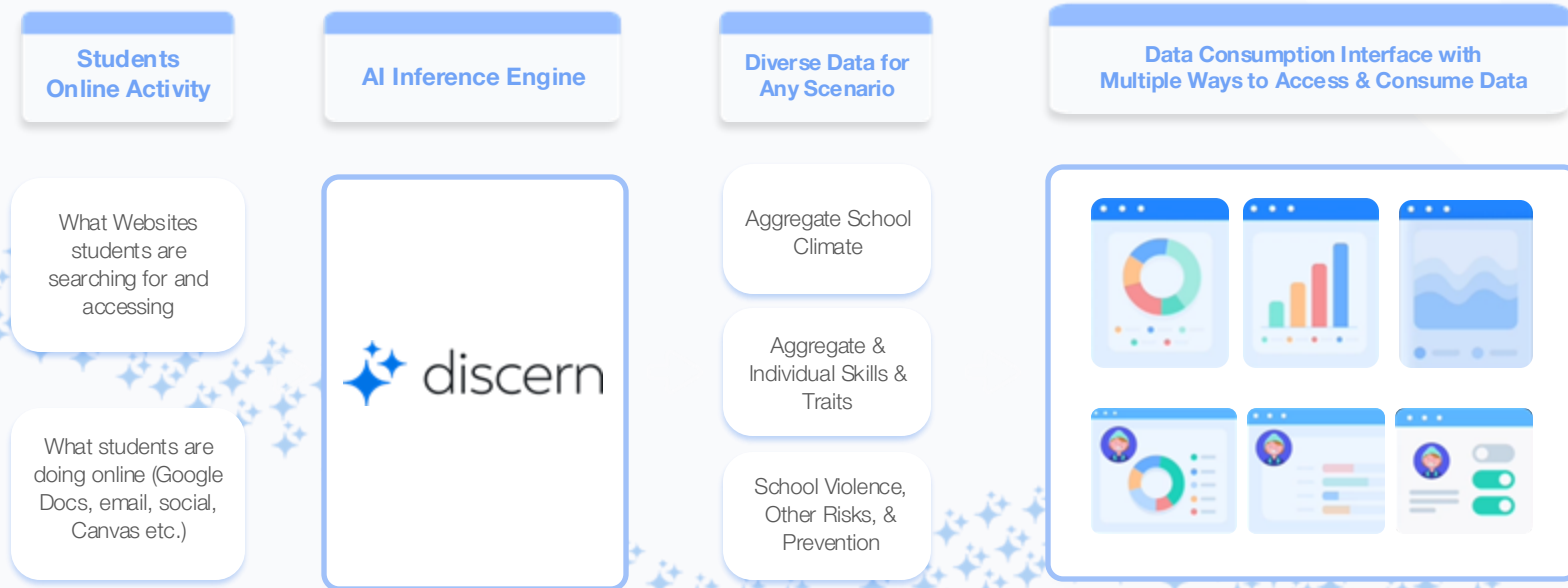
All your data in one place

Saving schools money & time
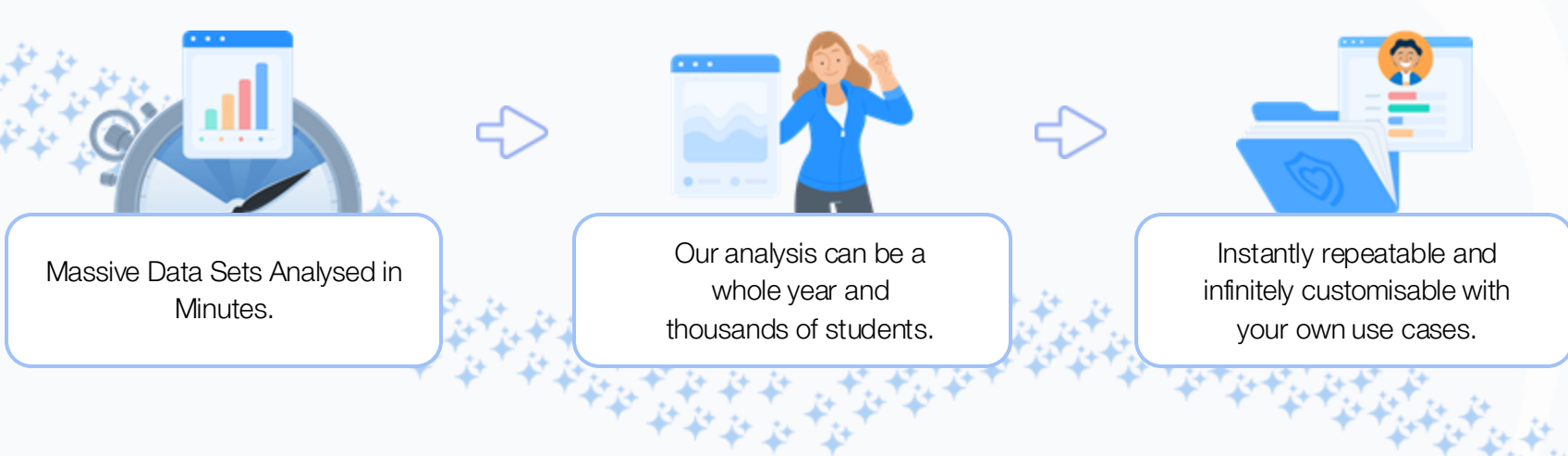
Increasing their ability to serve students

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How it works: Discern uses AI to generate data for SEND, SEL, student interests, school climate and more, based on **your students'** online activity

Students Online Activity

What Websites students are searching for and accessing

What students are doing online (Google Docs, email, social, Canvas etc.)

AI Inference Engine

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Diverse Data for Any Scenario

Aggregate School Climate

Aggregate & Individual Skills & Traits

School Violence, Other Risks, & Prevention

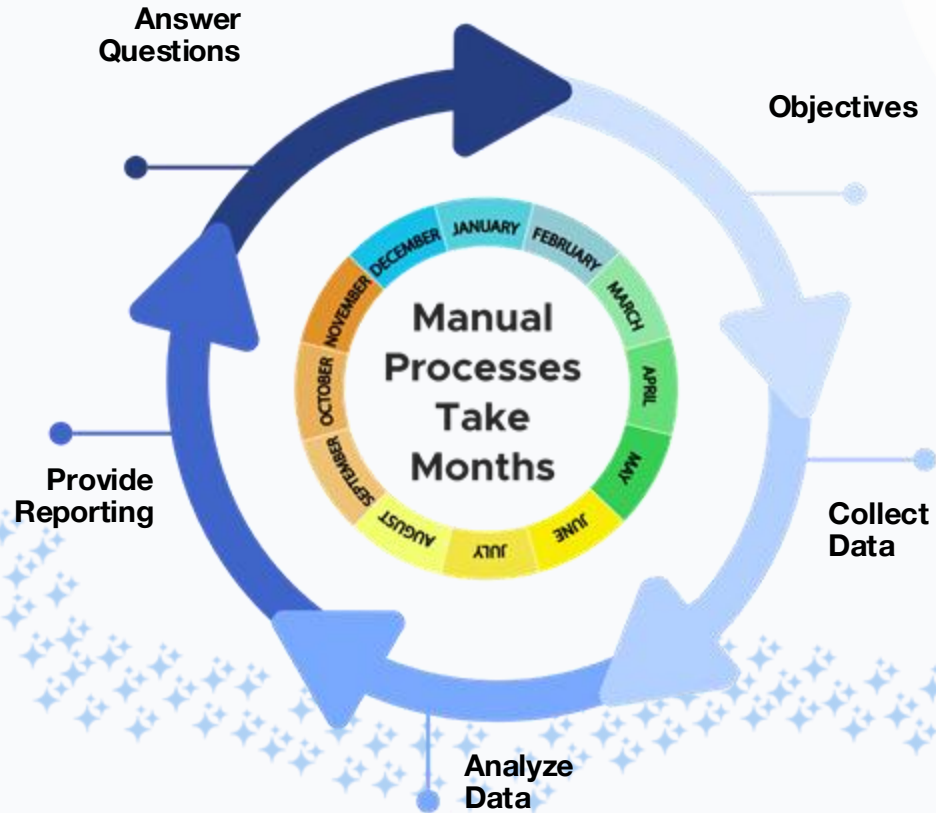**Data Consumption Interface with Multiple Ways to Access & Consume Data**

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Discern / AI Inference Engine Analysis / Outcome / Report

In the same time span as you took to review the data (The AI engine) Discern can do this...

Securly Discern Demo Report

Massive Data Sets Analysed in Minutes.

Our analysis can be a whole year and thousands of students.

Instantly repeatable and infinitely customisable with your own use cases.

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Answer Questions

Objectives

Provide Reporting

Manual Processes Take Months

JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

Collect Data

Analyze Data

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23

03 How AI Can Help Schools
Make Decisions Going
Forward?

Strategic value of easily accessible, always
up-to-date, AI generated data.

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Frameworks to support every division and answer every question…

	Superintendent & School Leaders	Teachers & Academic Counselors	Student Services	Student Safety Resources
Discern Use Cases →	**District Measures** Measure, track and benchmark aggregate district metrics to drive school improvement efforts.	**Personalized Learning** Customize learning experiences based on student's strengths, needs, skills, and interests.	**Student Screeners** Identify students who are in need of individualized academic or social support.	**Safety and Wellness** Identify student mental health concerns and negative behaviors - before they become severe.
Discern Data Frameworks →	School Climate	Student Interests	MTSS Screener	Preventative Mental Health
	Skills & Competencies	Skills & Competencies	School Climate	School Violence Threat
	Readiness to Learn	Readiness to Learn	Lexical Analysis	Circumvention Audit
	Needs Assessment	Portrait of a Graduate	Digital Citizenship	Digital Citizenship

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25

Questions?

www.securly.com/discern