



# IntelliBoard

Drive Action  
From Your Data

# What's Your Destination?

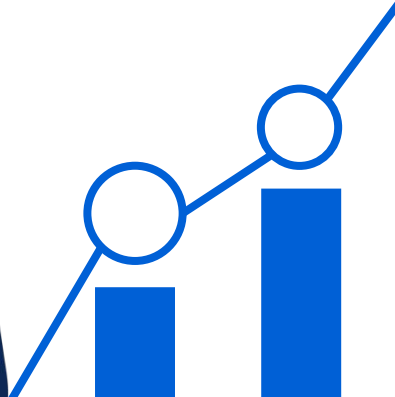
There's so much data,  
candidly I don't know  
where to begin and  
how to access it readily  
and easily

We are heading into a critical  
year where we must make  
intentional bets for our  
institution. Our data will be  
critical informing these  
decisions

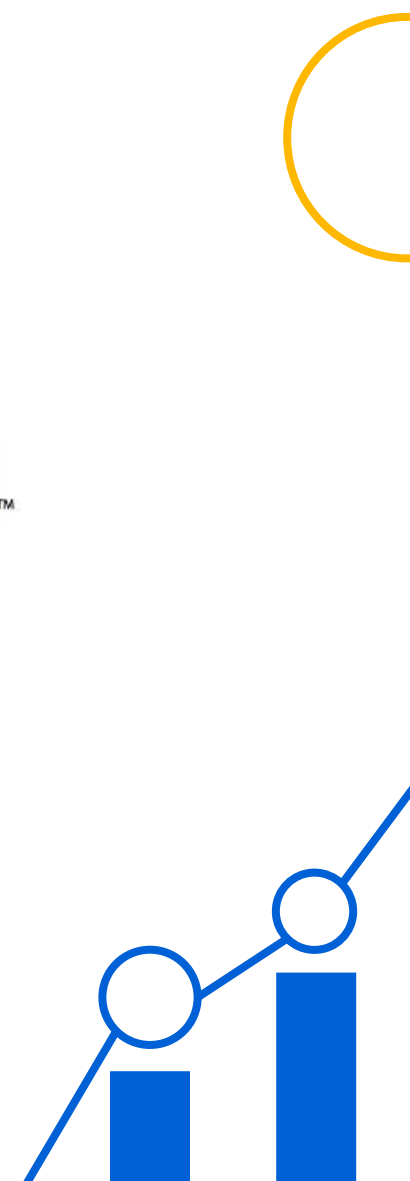
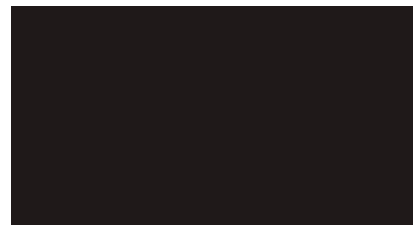
With the enrollment cliff upon us we  
need to be focused on engage,  
nurturing and retaining our current  
student population above all else

At our institution,  
currently everyone is  
focused on retention as  
it represents a critical  
initiative but at the end  
of the day no one really  
owns it

I need to make it  
easier to provide the  
meaningful  
information to  
individuals on  
campus that need it  
early and often



# Fill the Tank: Connect Your Data





Actionable data informs decision-making and improves learning outcomes through better:

- **Engagement**
- **Persistence**
- **Retention**
- **Compliance**


# First Gear: Detailed Reporting

Data is extracted from platforms and processed to Unified Tables in our Data Warehouse

Data is displayed in tabular reports

- Learner Success and Progress
- Course Content Utilization
- Data can be combined from multiple sources

*What's happening now?*



Search Data Columns Aa														Columns: 17	Filters: 0
Full Name	Email	Course Role	Course Name	Teachers	Course Start	Enrollment Date	Enrollment Status	Progress	Raw Point Grade	Percentage Grade	Grade Letter	Completed Activities	Page V		
Pooja Kumar	maus@hotmail.com	Student	Interpersonal Cor	Alex Sokolof Yonger + 27	2021-06-16	2021-06-15	Status Active	<div><div></div></div>	50	<div><div></div></div>	F	3	5		
Elena Balogh	cpascale@datatel.cc	Student	World Literature	Alex Sokolof Yonger + 28	2021-08-19	2021-08-24	Status Active	<div><div></div></div>	100	<div><div></div></div>	F	6	5		
Mon Tanez	mariot@example.cor	Student	Corporate Strate	Alex Sokolof Yonger + 26	2022-04-06	2022-04-06	Status Active	<div><div></div></div>	80	<div><div></div></div>	F	2	14		
Mike Rock	fletchkim@bell.com	Student	Financial Math	Alex Sokolof Yonger + 17	2019-08-19	2019-08-23	Status Active	<div><div></div></div>	130	<div><div></div></div>	F	6	13		
Jake Miller	float@datatelunivers	Student	Sustainable Pack	Alex Sokolof Yonger + 27	2021-01-17	2021-01-20	Status Active	<div><div></div></div>	0	<div><div></div></div>	F	5	4		
Mon Tanez	mariot@example.cor	Student	The Science of W	Alex Sokolof Yonger + 28	2022-02-18	2022-02-18	Status Active	<div><div></div></div>	0	<div><div></div></div>	F	6	18		
Tomas Letsgo	vlad@intelliboard.ne	Student	Accounting - Cor	Alex Mo + 64	2017-03-15	2019-12-11	Status Active	<div><div></div></div>	13	<div><div></div></div>	F	55	165		
Tomas Letsgo	vlad@intelliboard.ne	Student	Accounting - Cor	Alex Mo + 64	2017-03-15	2018-12-08	Status Active	<div><div></div></div>	13	<div><div></div></div>	F	55	165		
Tomas Letsgo	vlad@intelliboard.ne	Student	Accounting - Cor	Alex Mo + 64	2017-03-15	2020-09-21	Status Active	<div><div></div></div>	13	<div><div></div></div>	F	55	165		
Tomas Letsgo	vlad@intelliboard.ne	Student	Accounting - Cor	Alex Mo + 64	2017-03-15	2020-09-17	Status Active	<div><div></div></div>	13	<div><div></div></div>	F	55	165		
10														Prev Next	

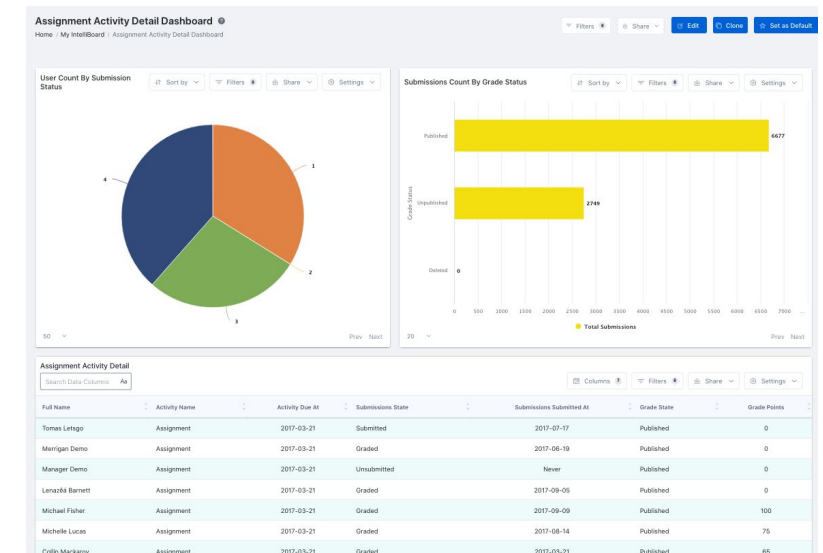
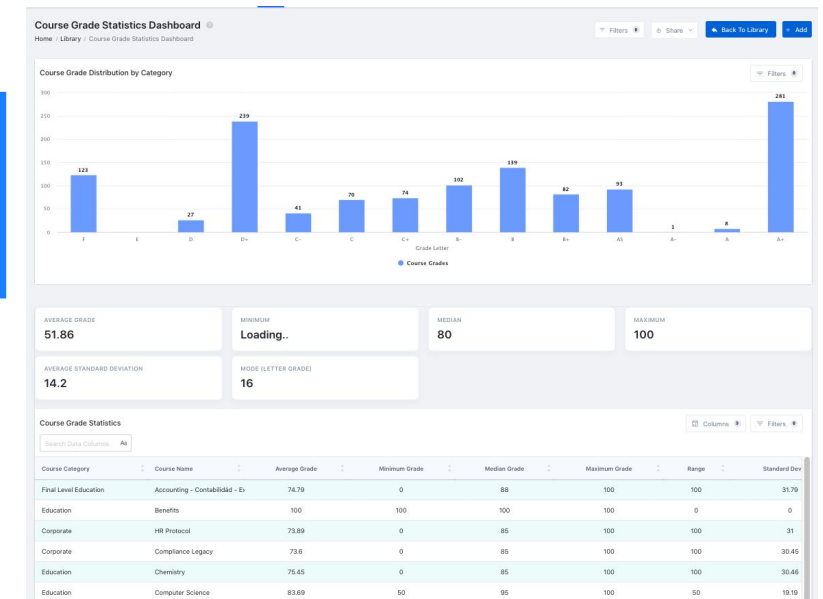


# Second Gear: Summarize and Visualize

Data is summarized, visualized and compared

- Assignment Activity Detail Dashboard
- Course Grade Statistics Dashboard
- Participant Visits per Week

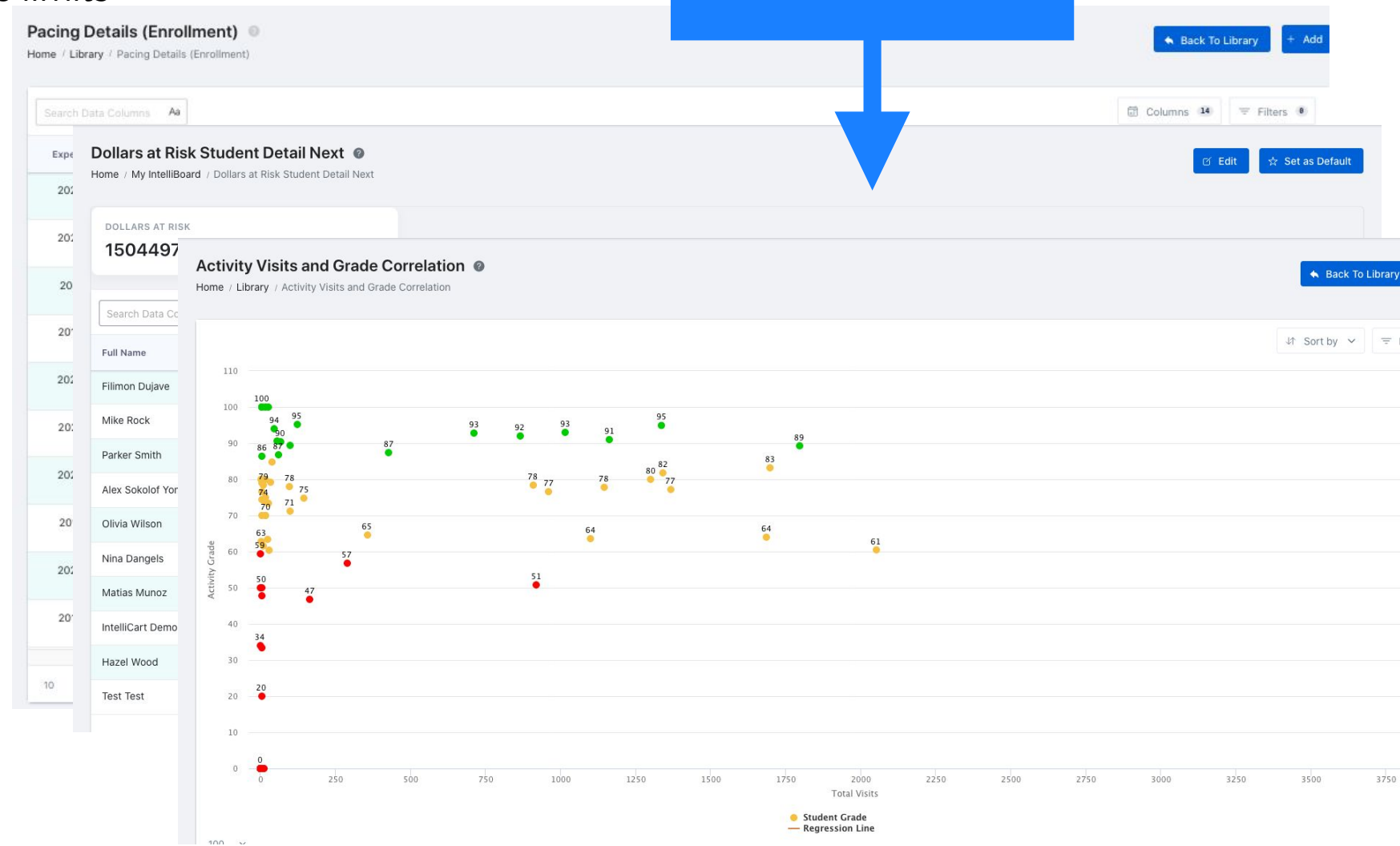
Show me a summary



# Third Gear: Interpret and Identify

- Calculations implement rules
- Conditional formatting detects limits

*What data is critical?*



# Two Types of Risk Reporting

## Rule-Based

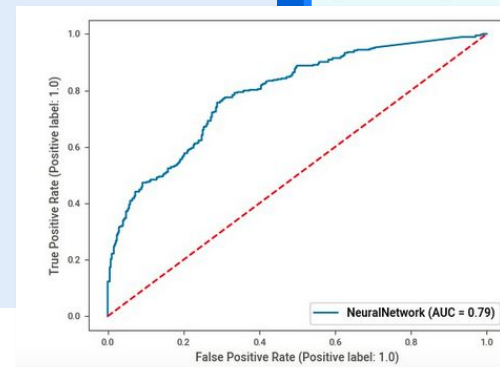
Students are marked as “At Risk” based on If-Then conditional rules

Email Address	On Pace	Course Grade	Course Progress	Enrollment Starts At	Enrollment Created At	Expected Start	Default Expected
micheal.fisher22@ex	Off Pace	84	<div><div></div></div>	2017-03-14	2018-03-11	2017-03-14	90 Days
micheal.fisher22@ex	Off Pace	0	<div><div></div></div>	2017-03-14	2018-03-01	2017-03-14	90 Days
lena.barnett@noem	Off Pace	87	<div><div></div></div>	2017-03-14	2018-03-11	2017-03-14	90 Days
lena.barnett@noem	Off Pace	89	<div><div></div></div>	2017-03-14	2018-03-06	2017-03-14	90 Days
micheal.fisher22@ex	Off Pace	83	<div><div></div></div>	2017-03-14	2018-03-09	2017-03-14	90 Days
lena.barnett@noem	Off Pace	84	<div><div></div></div>	2017-03-14	2018-03-09	2017-03-14	90 Days
jaime.baldwin33@ex	Off Pace	87	<div><div></div></div>	2017-03-21	2017-03-21	2017-03-21	90 Days
jordan.elston78@ex	Off Pace	87	<div><div></div></div>	2017-03-21	2017-03-21	2017-03-21	90 Days
oliver.lee14@examp	Off Pace	91	<div><div></div></div>	2017-03-21	2017-03-21	2017-03-21	90 Days

```
IF(({Expected Activities/Day Simplified})>COALESCE(({Actual Activities/Day}),0),0,1)
```

## Machine Learning

Students are marked as “At Risk” based on analysis of previous successful and unsuccessful students



Enrollment Starts At	Enrollment Created At	Last Prediction	Last Prediction Date	Course Grade	Course Progress	Total Value	Time Spent	Participation	Assignment Submission
2023-03-10-30	2023-10-17	OK	2023-10-17	80	<div><div></div></div>	43	00:11:33	28	3
2023-03-10-30	2023-10-17	OK	2023-10-17	77	<div><div></div></div>	77	00:38:48	77	0
2023-03-10-30	2023-10-17	OK	2023-10-17	77	<div><div></div></div>	77	00:38:48	77	0
2023-03-10-30	2023-10-17	OK	2023-10-17	77	<div><div></div></div>	77	00:38:48	77	0
2023-03-10-30	2023-10-17	OK	2023-10-17	77	<div><div></div></div>	77	00:38:48	77	0
2023-03-10-30	2023-10-17	At Risk	2023-10-17	8	<div><div></div></div>	8	00:00:00	8	8
2023-03-10-30	2023-10-17	At Risk	2023-10-17	8	<div><div></div></div>	8	00:00:00	8	8
2023-03-10-30	2023-10-17	At Risk	2023-10-17	78	<div><div></div></div>	78	00:03:03	78	0
2023-03-10-30	2023-10-17	At Risk	2023-10-17	78	<div><div></div></div>	78	00:03:03	78	0
2023-03-10-30	2023-10-17	At Risk	2023-10-17	44	<div><div></div></div>	44	00:02:48	44	0
2023-03-10-30	2023-10-17	At Risk	2023-10-17	77	<div><div></div></div>	77	00:03:03	77	0



# Fourth Gear: Data-Driven Predictions



What's going to happen next?

Search Data Columns Aa									
Full Name	Courses Name	Progress	Risk	Course Grade	Total Visits	Total Time Spent	Total Participations	Quiz Attempts	
Andrei Radu	Animal Science	<div><div></div></div>	At Risk	<div><div>68</div></div>	28	00:06:53	86	9	
Andrei Radu	Architectural Design	<div><div></div></div>		<div><div>45</div></div>	0	00:00:00	0	0	
Tomas Letsgo	Basic English	<div><div></div></div>		<div><div>0</div></div>	438	02:39:51	91	0	
Tomas Letsgo	Basic French (FR)	<div><div></div></div>		<div><div>0</div></div>	41	00:15:08	61	0	
Andrei Radu	Biology 252	<div><div></div></div>		<div><div>52</div></div>	28	00:09:10	36	0	
Wei Chen	Biology 252	<div><div></div></div>		<div><div>21</div></div>	8	00:01:59	11	0	4
Tomas Letsgo	Chemistry	<div><div></div></div>		<div><div>91</div></div>	1000	03:52:33	1114	2	19
Parker Smith	Chemistry	<div><div></div></div>		<div><div>86</div></div>	322	00:42:18	316	19	19
Andrei Radu	Communication Strateg	<div><div></div></div>		<div><div>70</div></div>	23	00:07:06	20	1	3
Wei Chen	Creativity and Innovatio	<div><div></div></div>		<div><div>0</div></div>	0	00:00:00	0	0	0

10

## Outcome:

We use leading edge machine learning technology to automate identification of at-risk learners. Define any “target” or success criteria – use that LMS data or integrated SIS or HRIS data for our corporate folks. What are your current “indicators” or predictor values? You can use any available data for these models. You decide how often to train models and how often to generate predictions.

# Learner's Permit or Class A CDL?

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## Instructor

Sees only data related to their own courses

## Learner

Sees only their own data

## Advisor

Sees data related to the learners assigned to them

## Manager

Sees only their own category

## Administrator

Sees all data



When we study the  
past, we do so not to  
predict the future, but to  
change it.

**Tim McKay**

University of Michigan

# Overdrive: Notifications and Action Tracking

Name \*  
Weekly Checkin








Description \*  
Automated message to each student per week

Subject \*  
Weekly Checkin

Destination Types \*  
Controll Report

Control Report \*  
Learner Success and Progress [Set Filters](#)

Destination Column \*  
Email

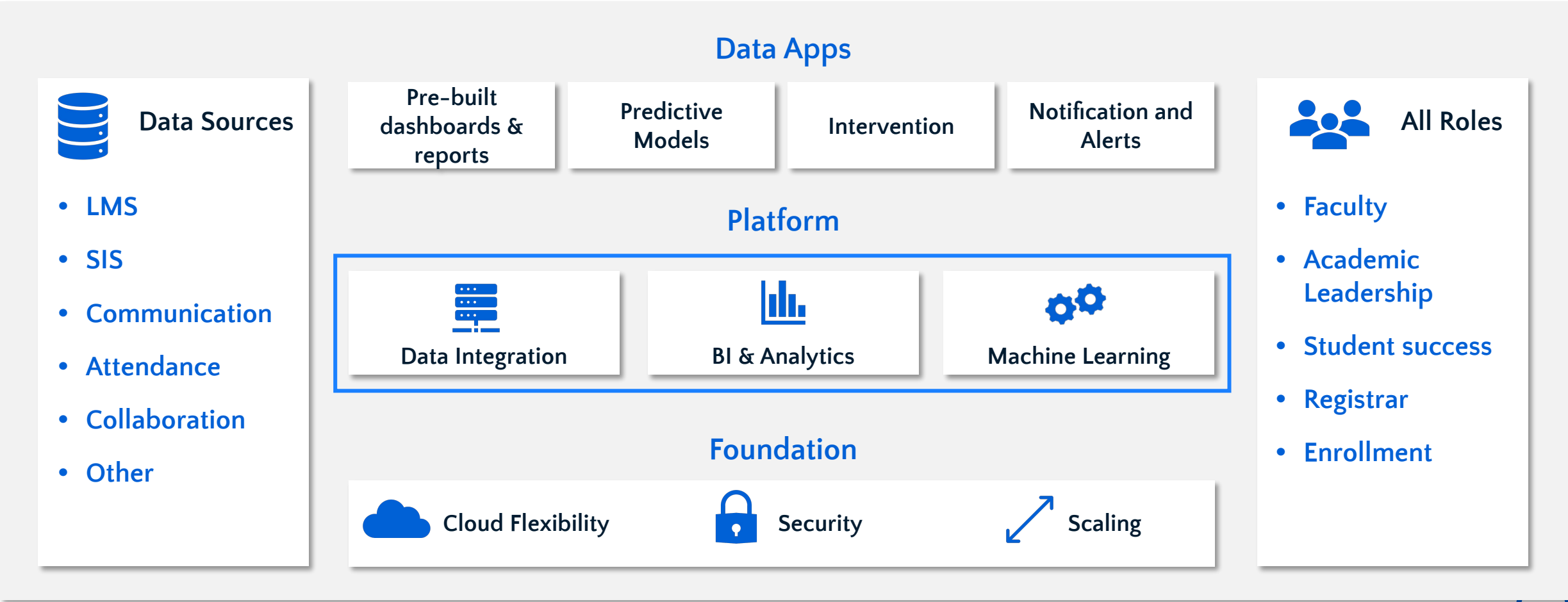
Content \*  
Insert Placeholders ▾ Normal ▾ **B** / U         
Dear {{Full Name}}  
  
Thanks for your participation this week in {{Course Name}}! Your current grade is {{Percentage Grade}} and you last participated at {{Last Participation}}. Looking forward to seeing you this week!  
  
{{Teachers}}

- Data driven notifications
- Customized messages
- Attachments constrained by role
- Notifications automatically logged and reportable
- Links to actions tracked and reportable



## Evaluate Your System

- System Uptake
- Actions Correlated with Outcomes
- Continuous Improvement





# Our Story



**46MM+**

Learners Served

**>500**

Clients

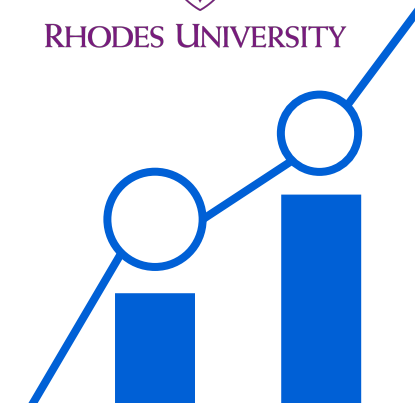
**20+**

Leading LMS  
and SIS providers



**1B+**

Results Served



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# Thank You

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**Elizabeth@IntelliBoard.net**

