



# Predictive Analytics

Harper College Board Meeting  
March 20, 2013

- What is data analytics?
- How our team could utilize it?
- How could it benefit our students?
- What we need to leverage it effectively?



## Predicting Success at Harper

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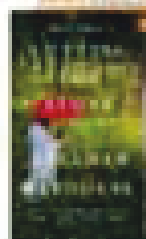
## Today's Recommendations For You

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**LOOK INSIDE!**

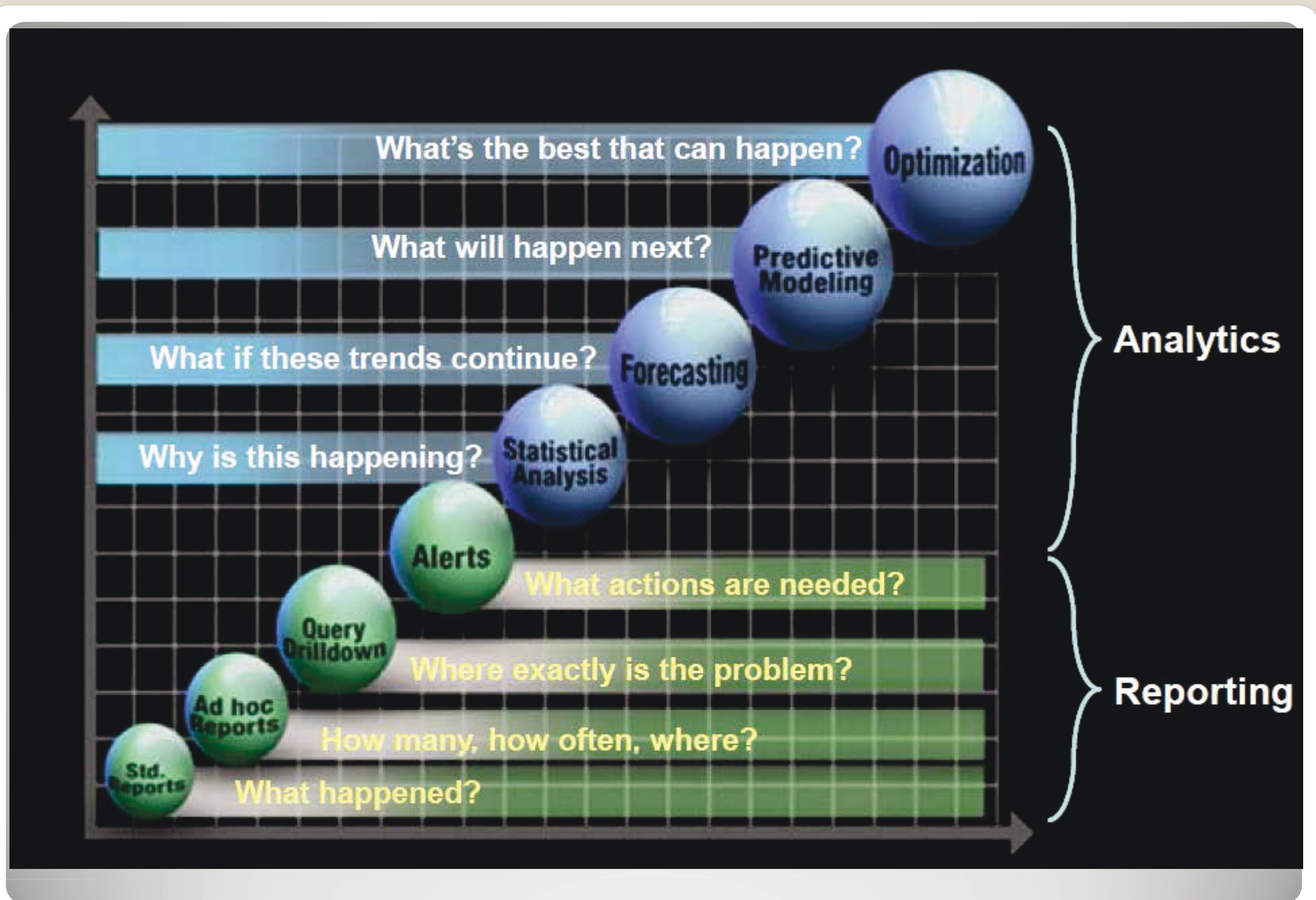
Daniel H. Pink

**DRIVE****Drive: The Surprising Truth  
About What Motivates Us**  
(Hardcover) by Daniel H.  
Pink**★ ★ ★ ★ ★** (1198) **\$16.22**[Fix this recommendation](#)**LOOK INSIDE!****Cutlins for Stone** (Paperback)  
by Abraham Verghese**★ ★ ★ ★ ★** (643) **\$14.47**[Fix this recommendation](#)**LOOK INSIDE!****The Girl with the Dragon Tattoo**  
(Perfect Paperback) by Stieg  
Larsson**★ ★ ★ ★ ★** (2,576) **\$5.47**[Fix this recommendation](#)**Midwinter Murders Set 15** DVD  
- John Nettles**★ ★ ★ ★ ★** (40) **\$36.48**[Fix this recommendation](#)**New For You**

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**Tap Into Your Friends****BETA**

# We experience it every day



## From Reporting to Analytics



What if we combined all that we know:

- High School GPA
- Placement Scores
- Attendance Patterns
- Engagement on Campus
- Progress in Course Work
- Age
- Pell Eligible
- Full Time vs. Part Time
- Ethnic Background
- First Generation College Attendee

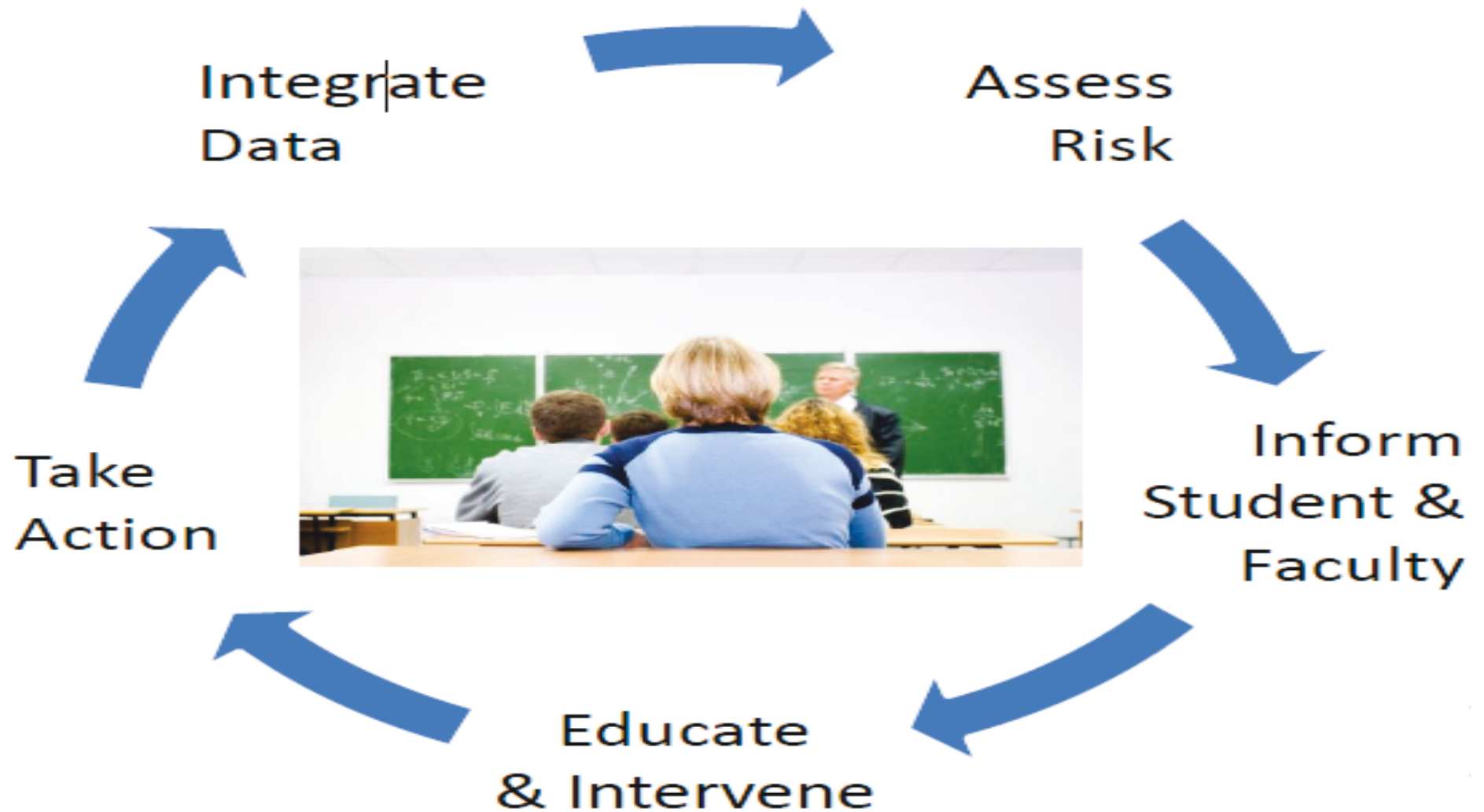


# Aggregating Data

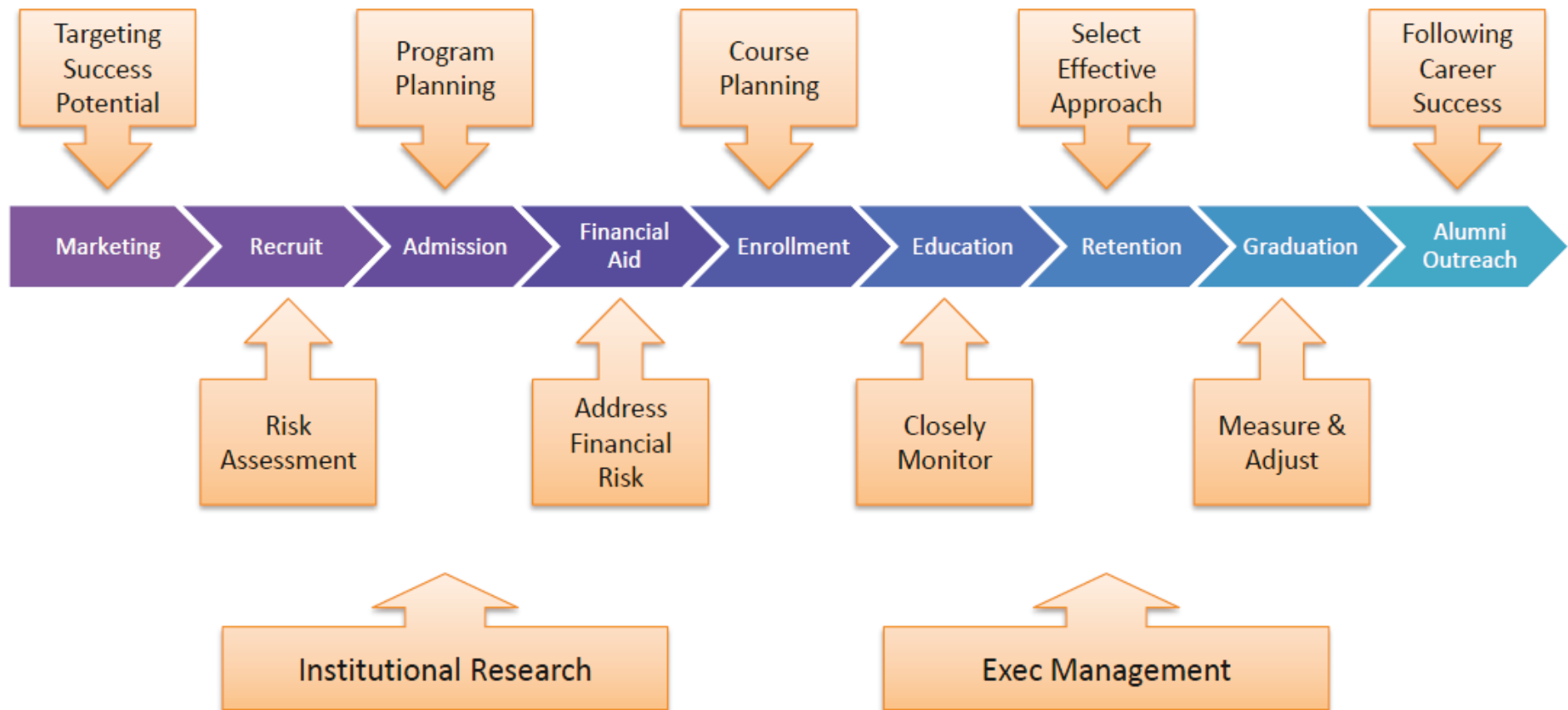


- Abilities
- Counseling
- Program of Study
- Course Scheduling
- Support Services
- Placing into supported classes prior to experiencing failure

## Removing the Guesswork



**Improving Personalized Experience**



# Improving Student Support Across the Pathway

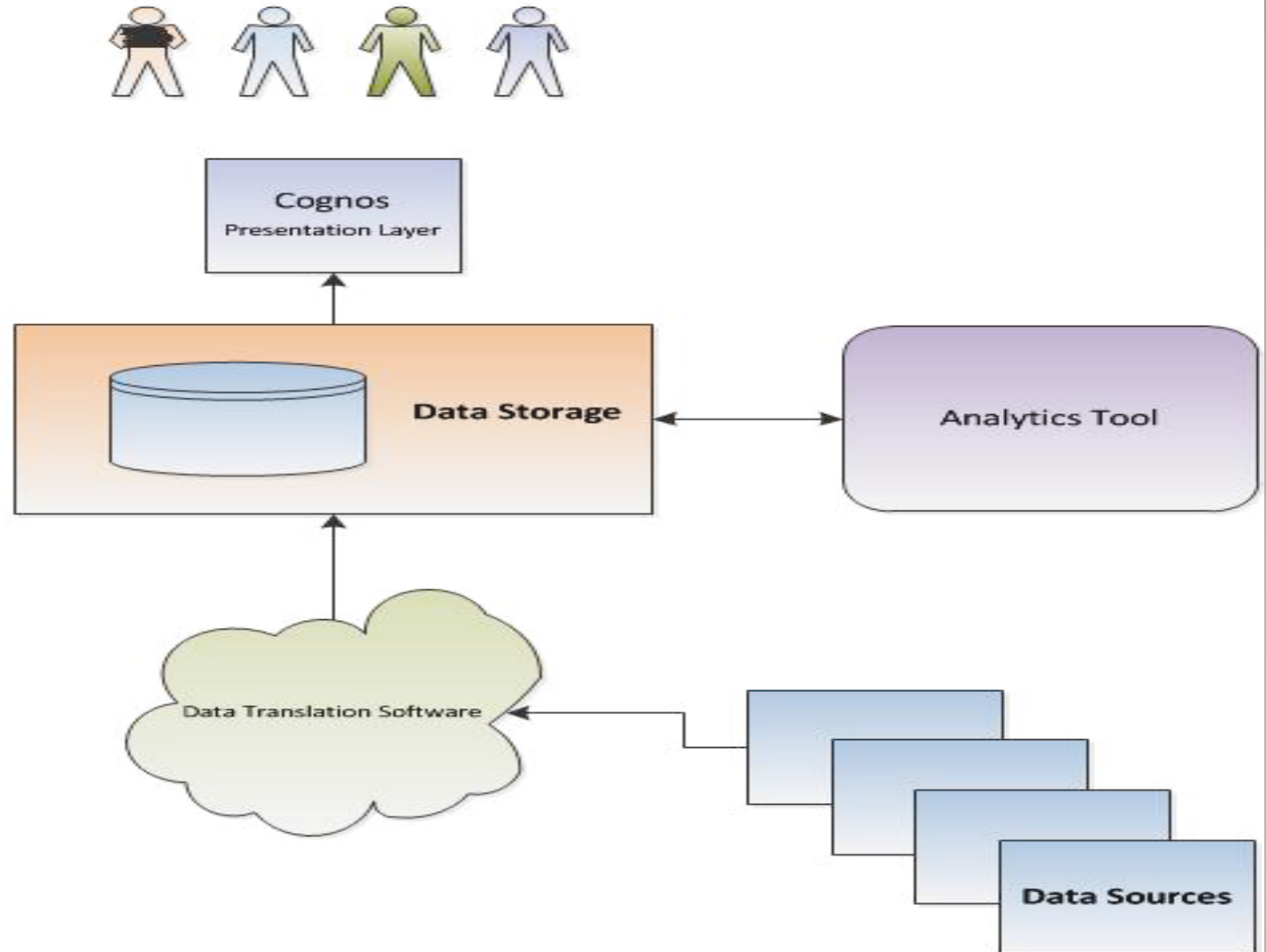
- Single login
  - Easy to understand
  - Monitors students
  - Alerts when student begins to slip
  - Graphical interface
- Ever improving predictions for personalized student educational solutions



**Ease of Use for Harper Staff**

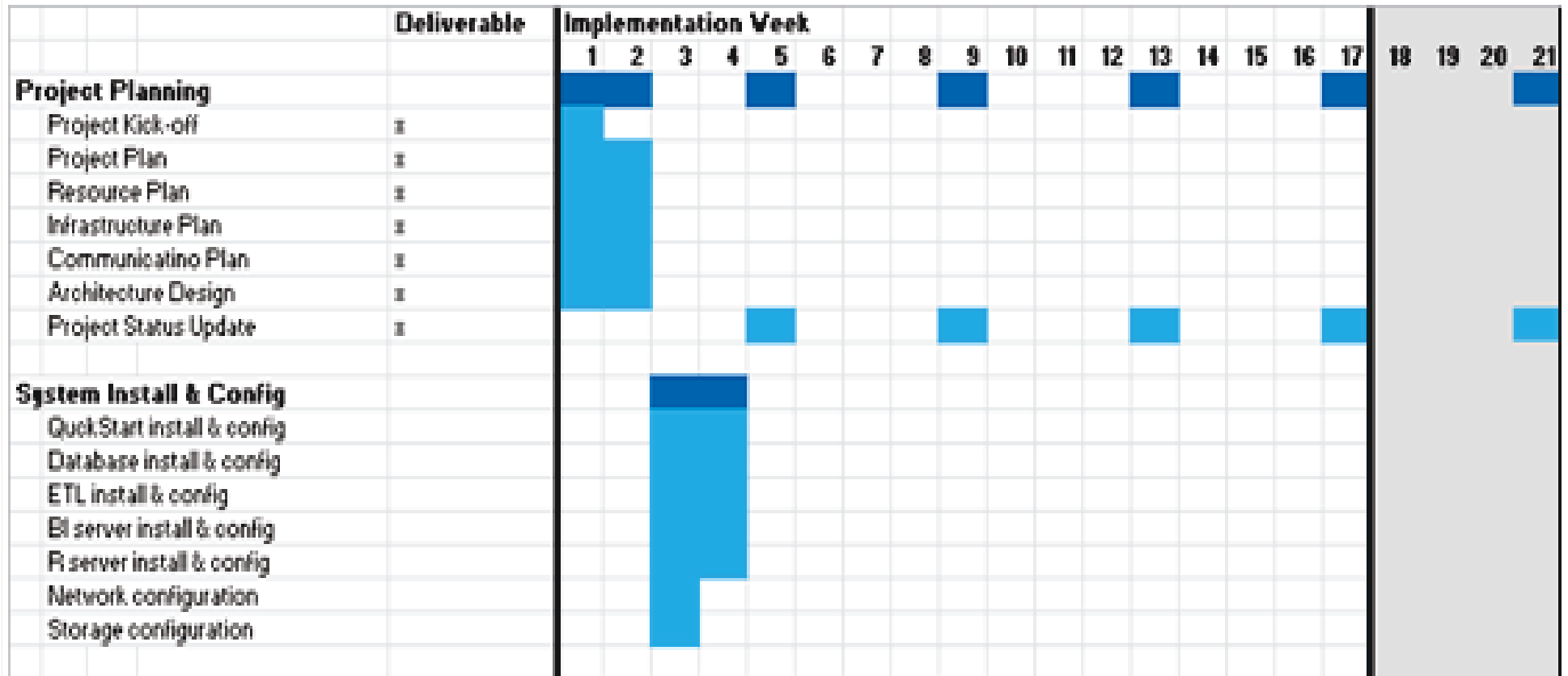


## ***Solution Architecture***

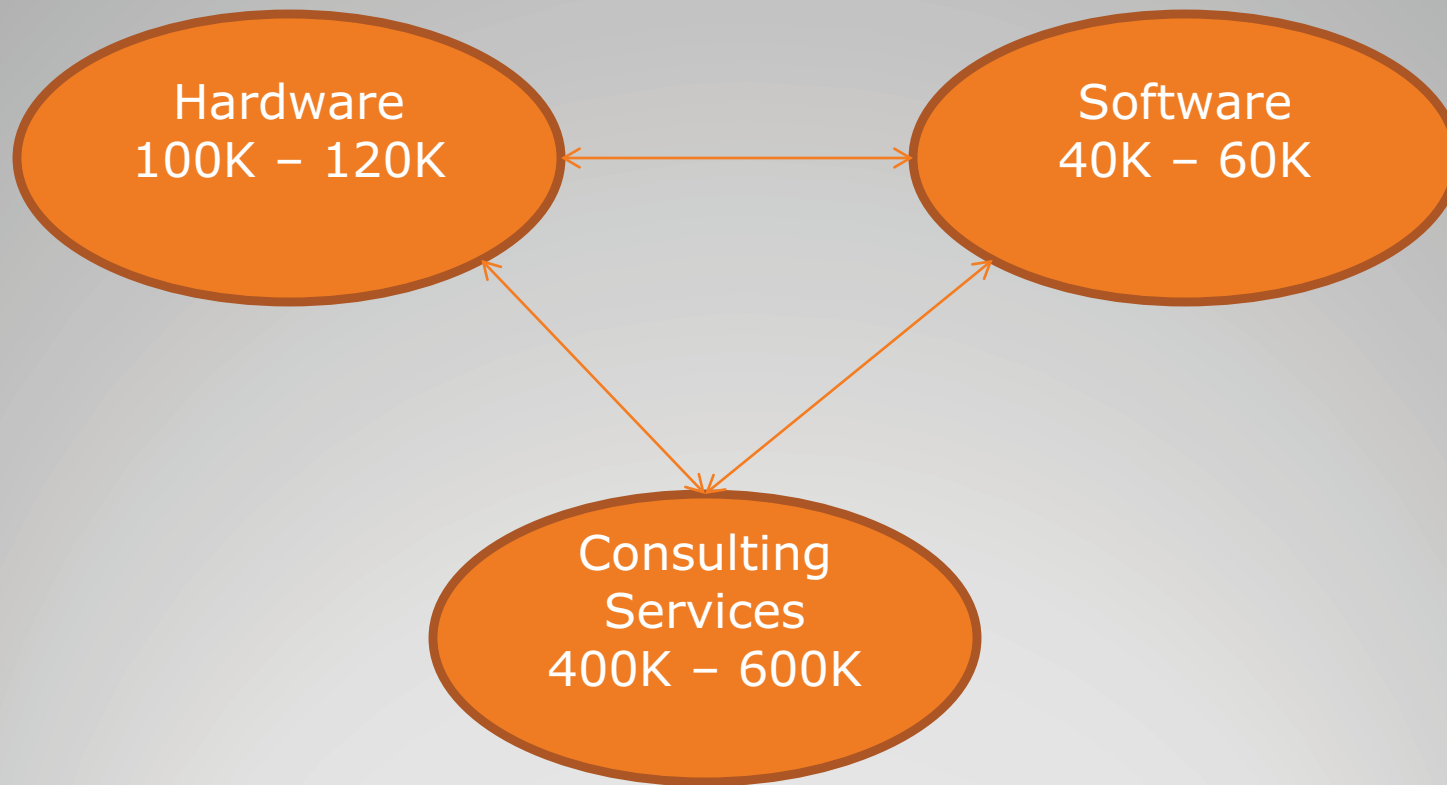


# **Technology – High Level View**

- Estimated 18 to 26 weeks after parameters defined



# Implementation Timeframe



## Projected System Costs

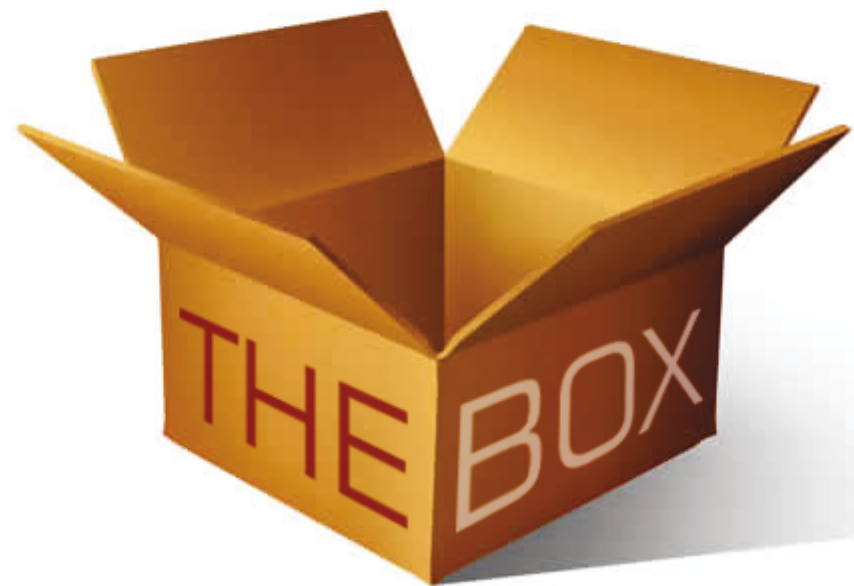


**Predictive Analytics =  
Personalizing and Increasing  
Student Success**



HARPER COLLEGE

t h i n k i n g



Questions





## Darren K. Rutland Profile

- Student last tested as Advanced on 9th grade DCAS Reading.
- Student last tested as Well Below Standard on 9th grade DCAS Mathematics.
- Student last tested as Met Standard on 8th grade DCAS Science.
- Student last tested as Below Standard on 7th grade DCAS Social Studies.
- Student has the following warnings in the Dropout Early Warning System:
  - Math

### SUMMARY

STATUS 



#### Attendance and Discipline

Students attendance and discipline patterns

- **Attendance**  
Daily and class period attendance
- **Discipline**  
Discipline incidents and actions



#### Assessments

State and local examinations and assessments

- **State Standardized Assessments**  
Performance and progress on state standardized test



**DCAS Performance**  
Test scores and whether met standard  
**Math** **644**

#### Grades and Credits

Student's progression in coursework

- **Course Grades**  
Performance and progress in current courses
- **Credits**  
Student's progress toward graduation



#### Advanced Academics

Advanced coursework opportunity and performance

#### College and Career Readiness

Student's ability to succeed in higher education and the workforce

#### Dropout Early Warning System

- **Attendance**
- **Math**
- **ELA**
- **Retained**



 Special Services

 Met Goal

 Below Goal

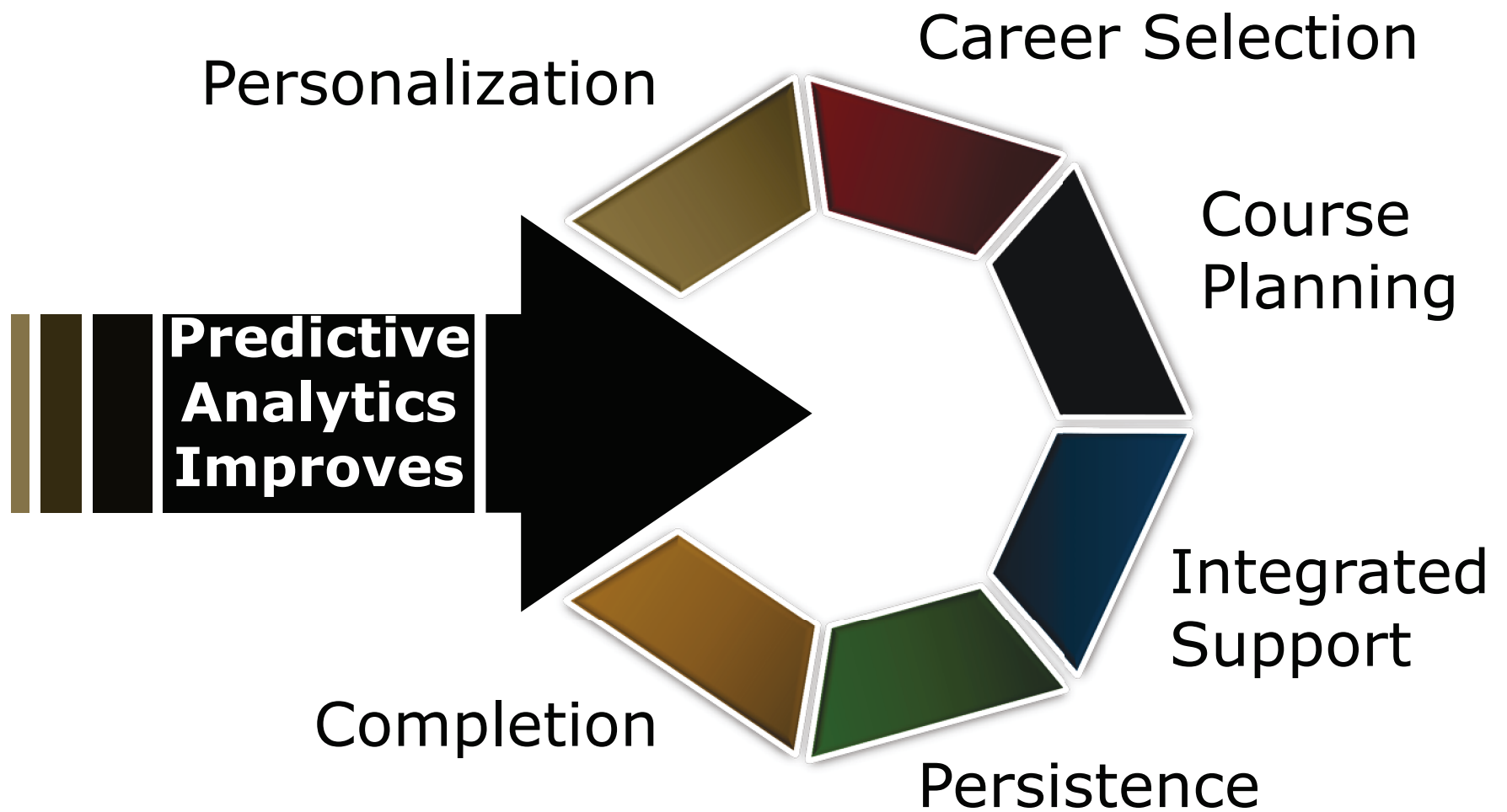
 Alert

# What if we knew all of our Darrens?

- Data Warehouse
- Data Dictionary
- Customized dashboards by role



**Additions to Harper Capacity**



# Goes Beyond Reporting

- Pattern recognition
- Predictive
- Prescriptive
- Inferential



**Really Knowing Our Students**