OPERATIONALIZING PREDICTIVE ANALYTICS

For Advancement of Higher Education Practices

TEXAS A&M UNIVERSITY
COMMERCE

YOUR PRESENTERS

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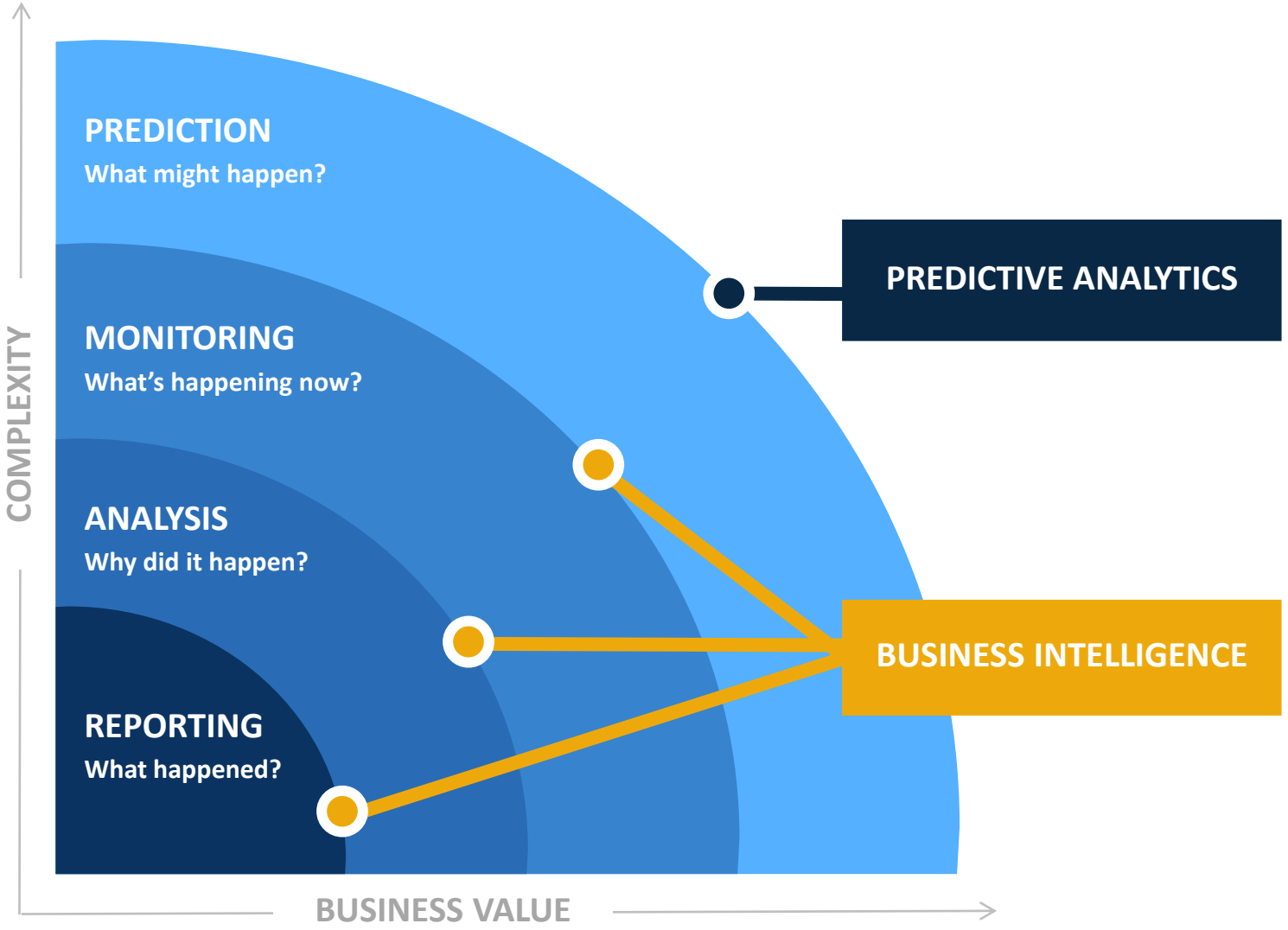
TEXAS A&M UNIVERSITY
COMMERCE

- FOUNDED IN 1889
- PUBLIC, DOCTORAL, R2
- 13,000

INSTITUTIONAL RESEARCH

Institutional Research (IR) supports the ongoing process of collecting, analyzing, reporting, and warehousing quantitative and qualitative data about the institution’s students, faculty and staff. IR provides information to support university decision-making through a variety of analytic activities, data-gathering tasks, and research projects. IR works with offices and individuals internally and externally to maintain data/report integrity and quality to fit for their intended uses in operations, decision making and planning.



Predictive Analytics

AT A GLANCE

What is it?

The practice of extracting information from existing data sets in order to determine patterns and predict future outcomes and trends.

Why use it?

Use predictions to act on that knowledge in order to potentially take advantage of a future opportunity or mitigate any potential risk.

PREDICTIVE ANALYTICS
BACKGROUND

- University had an existing external predictive analytics provider
- Report users wanted to better predict student success
- Administrators wanted to better allocate staff time & resources
- IER wanted to build predictive models in-house

LOCALLY DEVELOPED

- No dependency on external providers
- Flexible & Cost efficient solution
- Leveraged existing university reporting software
- Partnership between IER & ICBE

WEBFOCUS
RSTAT

- Add-on to existing university reporting software
- Leverages the power of R
- Graphical User Interface (GUI)
- Ease of predictive model deployment to existing user reports
- Better use of staff time & resources
- Limitless applications

INTERNAL USER EXAMPLE

- Enrollment Management Division:
  - VP of Enrollment Management
  - Admissions Director
  - Financial Aid
  - Registrar office
  - Admissions Recruiters

Business OBJECTIVE

Increase freshmen enrollment for Fall 2018

IER Solution:

- Create enrollment probabilities for all admitted freshmen students
- Deploy enrollment model to existing Enrollment Management reports
- Rank students by enrollment probabilities to focus on top enrollment targets

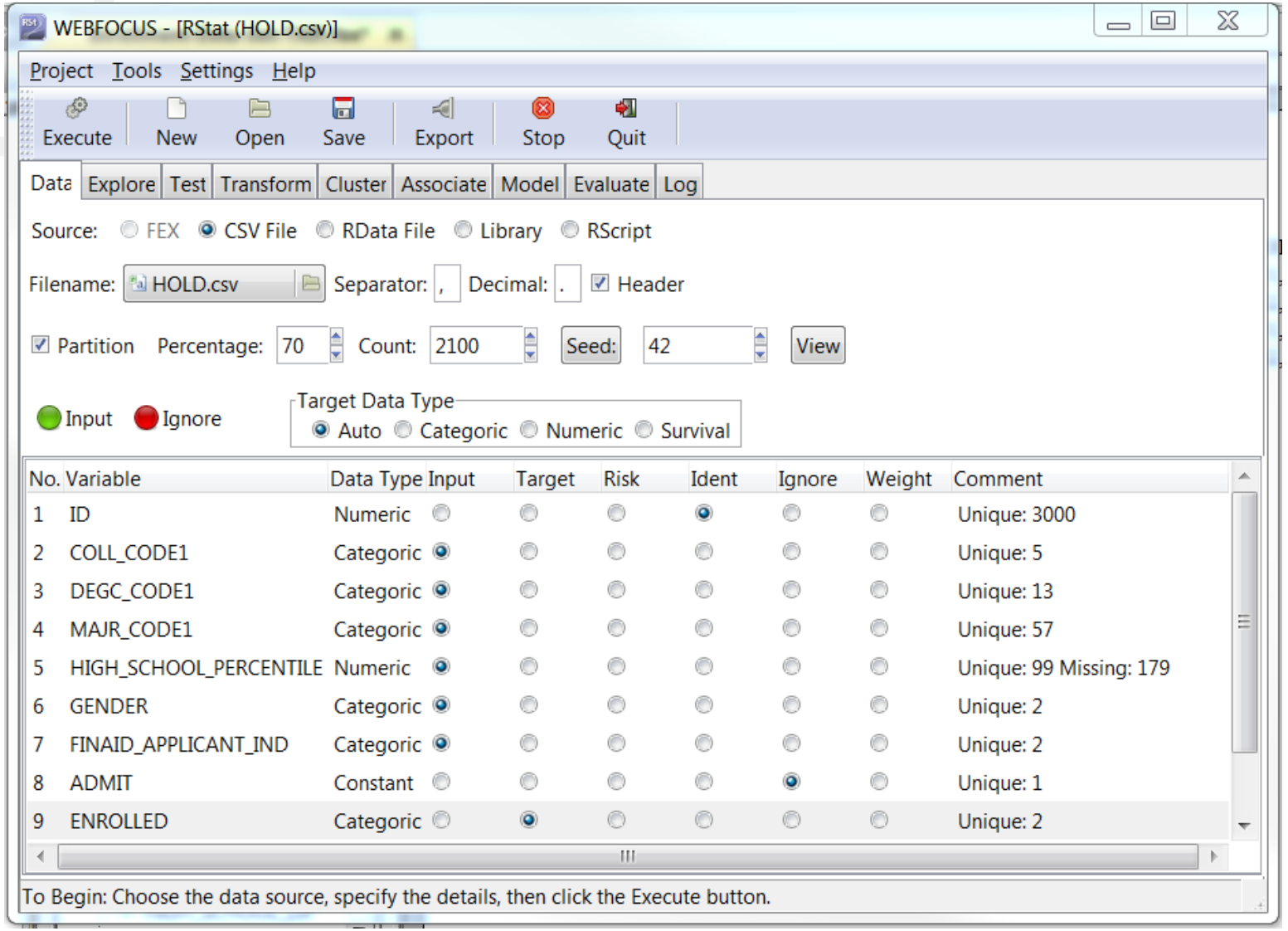
CRISP-DM Model

The model splits a data mining project into six phases and it allows for needing to go back and forth between different stages.

Cross Industry Standard Process for Data Mining

WEBFOCS R-STAT DEMO

WebFOCUS R-STAT delivers powerful predictive analytics functionality. Business users can leverage a single integrated solution for BI, data modeling, and scoring, so they can make decisions based on accurate, validated future predictions instead of relying on gut instinct alone.



PREDICTIVE ANALYTICS
FOR HIGHERED

USE CASES

Empower the institution to be able to build/use predictive models to deliver insight and help drive data driven decisions that ensure institutional and student success.

- Enrollment
- Retention
- Graduation
- Financial Aid

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ANY QUESTIONS?

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CONNECT WITH US

THANK YOU

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