

UMBC Report Exchange (REX) Data Warehouse

ABOUT

- Based on a collaborative partnership between DoIT, IRADS, EM, A&F and others around common decision support needs.
- Developed in 2006 with the purchase of iStrategy to better understand PeopleSoft.
- Blackboard acquired iStrategy in 2010, in part to build a learning analytics platform (released in 2012) that UMBC helped influence and test.
- **Key Benefit: Extensibility.** We have been able to add and correlate multiple data sources.

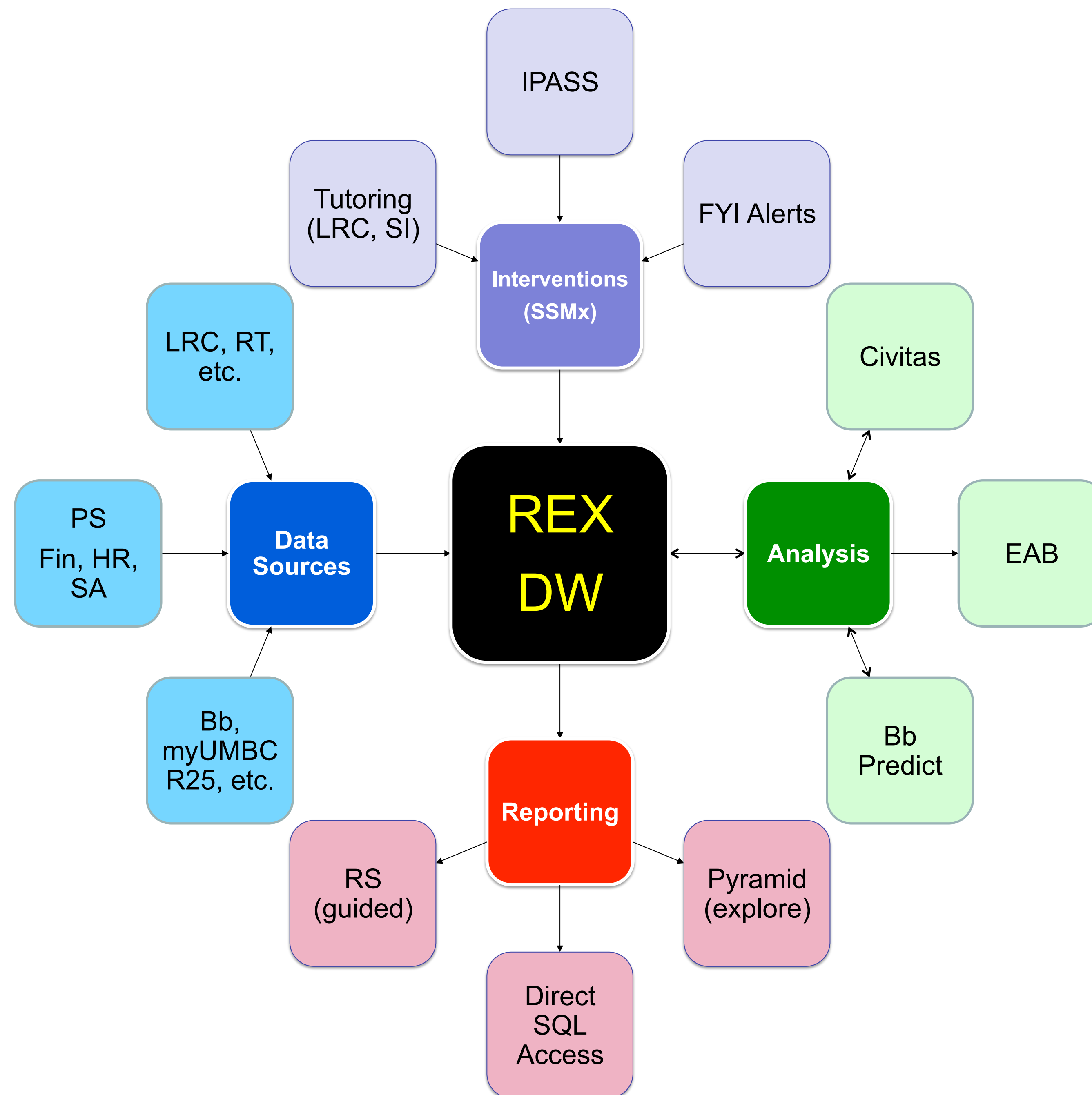
DATA SOURCES

- Typically, transaction systems are not suited for simultaneous reporting at scale. They would grind to a halt, defeating their primary purpose and value to users.
- **Extract, Transform and Load (ETL)** is the process whereby data from these systems are standardized for and thus useful for the data warehouse to query against, especially in combination that would be impossible in single systems.
- Other data sources include but are not limited to Campus Card, Central Payroll Bureau, ImageNow/ Docusign, Symplicity (ResLife), T2 (parking).

REPORTING

- Once transactional data is loaded in REX, there are three ways to report on it (pending access):
 - Structured Query Language (SQL): Typically used only by a handful of data warehouse admins, selected researchers and report developers.
 - Pyramid: A more visually intuitive interface than SQL, allows one to explore relationships in the data and build custom reports.
 - Reporting Services (RS): Pre-written (“canned”) reports based on frequent requests to Institutional Research and Decision Support (IRADS).

Note: UMBC is obliged to comply with the Family Educational Rights and Privacy Act (FERPA), which all employees must acknowledge to gain or retain REX access.



ANALYSIS

- UMBC is seen as a national model for innovative use of analytics, but our most recent Strategic Plan calls for a deeper investment to improve efficiency and effectiveness in all aspects of campus life, including student success.
- As a result, we’ve partnered with three organizations that complement the scope, scale and importance of our aspirations:
 - Civitas Learning: Consisting of predictive models on student persistence, we’ll soon be able to also measure impact of current interventions.
 - Blackboard Predict: Similar to Civitas, but more focused on the role of the LMS, we’ve already done a FA16 pilot.
 - Educational Advisory Board (EAB): Focused more on course utilization.

INTERVENTIONS

UMBC uses the **Student Success Matrix (SSMx)**, designed to catalog “any intervention that assists students in the successful completion of a given course or degree credential of value in the workplace.”

- Examples:
 - LRC tutoring or supplemental instruction (SI)
 - First Year Intervention (FYI) Alerts
 - Integrated Planning and Advising for Student Success (IPASS).

Note: To properly analyze any intervention’s “lift” or impact, we need to track who participated – and was eligible – by studentID.

MORE INFO

- <http://rex.umbc.edu>
- <http://doit.umbc.edu/analytics>