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Learning Analytics: Working in Pasteur’s Quadrant
Current UM Datasets & Sources for Learning Analytics (circa 1996-present)

• Student Records
• Recruiting & Admissions
• Financial Aid / Student Financials
• College Resources Analysis System (CRAS): Collapsed Instructor & Course data
• Human Resources & Payroll
• CTools / Canvas
• Kaltura video content
• Lecture Capture

Data Dictionaries:
http://www.mais.umich.edu/reporting/studentdatasets.html
Emerging LA Data Architecture

- Student Records
- Recruiting & Admissions
- Financial Aid
- CRAS
- LSA & Engr Orientation
- National Student Clearinghouse

Data Warehouse

- Student data
- Student Term data
- Student Term Class data
- Student Group data
- Student Orientation data
- Student post-UM data

Researcher (SQL / flat files)

Statistical software (R, STATA, SPSS, etc.)
Data-Driven Academic Pathways to Success

• Harnessing the UM data warehouse for creating actionable datasets
  o Building models of student behavior for diagnosing students’ academic challenges -> effective interventions before failure
  o Designing personalized learning trajectories that address the diversity of our students & their preparation for learning at a R1 institution
  o Developing new models for effective instruction and fair assessment (one size ≠ all)
  o Creating interfaces for advisors, faculty & students to make data visible, understandable, and valuable