Open Academic Analytics Initiative Project

The Open Academic Analytics Initiative (OAAI), funded through the Next Generation Learning Challenges (NGLC), is a collaborative, multi-year grant program aimed at increasing college readiness and completion through applied technology. NGLC partners include EDUCAUSE, the League for Innovation in the Community College, the International Association for K-12 Online Learning (INACOL), and the Council of Chief State School Officers (CCSSO). Funding is being provided by the Bill & Melinda Gates Foundation and The William and Flora Hewlett Foundation. The OAAI will develop, deploy and release an open-source environment for academic analytics with the goals of increasing student content mastery, semester-to-semester persistence and degree completion in postsecondary education.

In its second year of execution, the OAAI project at Marist was initially run from a physical server (an IBM x3400 - Xeon E5410 2.33 GHz, Quad-Core, 64 bit, 10GB RAM, 230GB HDD, OS: Windows Server 2008 Standard Edition) located in a faculty office. The physical server environment was recently migrated to an equivalent virtual platform running in the Enterprise Computing Research Lab.

The migration process to the ECRL server was performed in 5 stages.
1. Setting up of OAAI research environment. The following software packages were installed:
   - MS SQl Server 2008 R2,
   - Pentaho Weka Machine Learning Environment version 3.7
   - Pentaho Kettle (ETL) Environment version 4.3.0
   - Pentaho Report Designer (3.8.3)
   - IBM SPSS Modeler(version 14.2)
   - IBM SPSS Statistics (version 20)
   - MS Office 2010 Suite
   - Access 2010
2. Migration of Source Data files (data from Marist College as well as the three institutions participating in the pilot program: Savannah State, Cerritos College, and Redwoods College.
3. Migration of the Database from the physical server to the ECRL
4. Migration of Data mining & Predictive Analytics (Kettle/WEKA) flows
5. Migration of research analysis flows

The Marist run flows and first Academic Alert Report run flows for each of the member institutions have been successfully migrated tested and verified. This enabled the researchers to tackle the Fall 2012 OAAI pilots more efficiently, with better security and back-up services. The researchers will complete the migration, e.g. testing and verification of second and third Academic Alert reports runs, as part of the Fall 2012 pilots.