Development of a Tool to Bridge Analytics and Curricular Design

Robert Dunbar Molly Dingel Xavier Prat-Resina

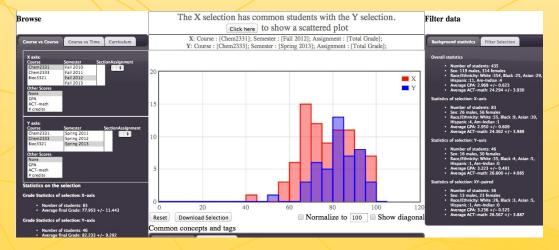


University of Minnesota

BoSCO: purpose

 We want to design a tool that allows us to navigate, filter and graphically represent student's grades and class materials.

Browse



Filter

Statistics

Display



BoSCO: requirements

 It needs to read different kinds of data from different sources

List of courses -Rooms -Sections -Instructors Grades: -All assignments -Surveys -ACT, GPA, cumul-GPA

Run on browser and available to everyone

BoSCC

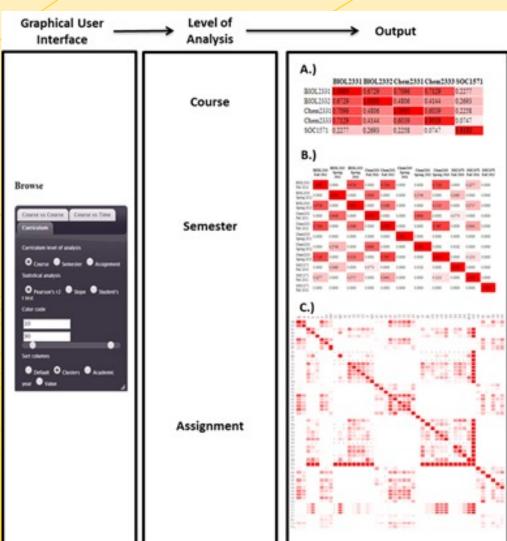
Open source to allow input from collaborators



BoSCO: examples

Different levels of analysis

- Courses
- Semesters
- Assignments

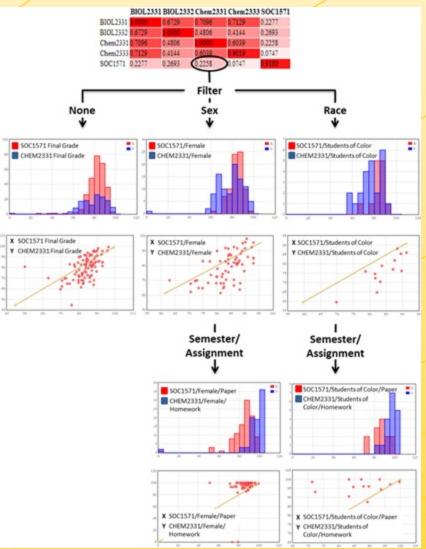




BoSCO: examples

Filter data based on:

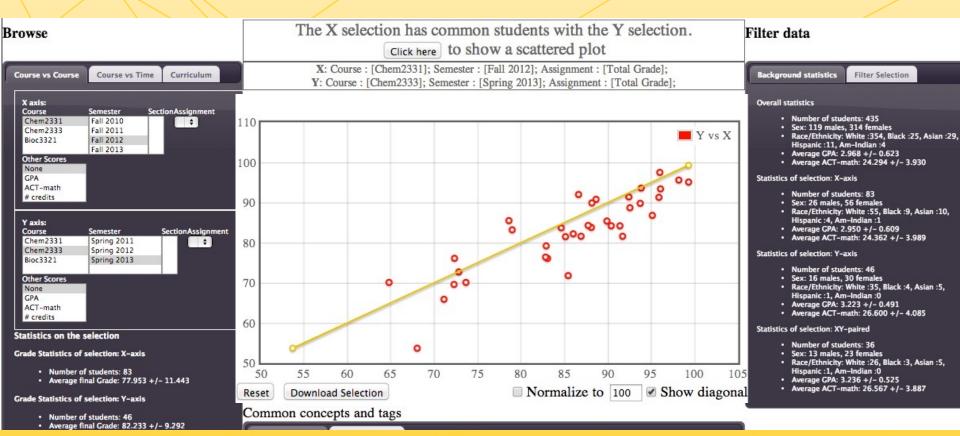
- Demographics
- Course performance
- Survey results





BoSCO: examples

Bar graphs and scatter plots



BoSCO: future directions

- Interface with Moodle Learning Management system
- Enhance automatic metadata extraction from course materials.
- Integrate qualitative (non-numerical) surveys in the data browsing