System IT Board Report

September 14, 2022

Preliminary Technology for Colorado Online and the Rural College Consortium

While the various sub-committees have been working on business processes related to Colorado Online, System IT has been busying evaluating potential commercial solutions and consultant developed solutions. We have identified, based on business needs and what is available in the market place, that the solution will be primarily an in-house built solution using Banner Application Programming Interfaces (API) developed by Ellucian, who provides Banner which is used to handle all of our administrative business processes for Student, Financial Aid, Finance and HR/Payroll. Colorado Online will actually touch all of those components as students need to register, pay their bills, receive their grades and transcripts, apply for and receive financial aid all at their home college, regardless of which college may be teaching their online course. All of this needs to be seamless to the student. A learner record will be created for each student from another CCCS college at the teaching college of their online class(es). This record will facilitate advising and other student support activities both at the teaching college and at the student's home college as well as be integrated into another software application we use, The Educational Advisory Board (EAB) product Navigate. Of course, if a student is attending an online class taught by their home college, all this is already in place. There are impacts on Finance in regards to the revenue sharing model that is being developed which will require information about the teaching college, students' home colleges and tuition paid. And, of course, faculty and instructors need to be assigned to their courses and paid appropriately as part of a teaching load or an as overload or instructor assignment. The advantage to using APIs is that they are typically built by the vendor and supported by the vendor and modified as the software is modified. Banner has a suite of over 100 APIs that perform various processes and use code that is the exact same code that is used in Banner itself. For example, one of the Banner Student APIs registers a student for classes, performs all the hold and pre-requisite checks, verifies the class has seats available, can waitlist a student if the class is full, updates all the appropriate Banner tables and audit trails. However, the API is invoked in the EAB Navigate product which provides a student with a helpful user interface and academic planning when they register. The Colorado Online subcommittees overwhelming wish to continue to use EAB Navigate for student registration and Colorado Online will support that business need.

As we discussed the concept of course sharing and student ease of use, we realized the College Rural Consortium (RCC) had many of the same needs as Colorado Online. Therefore as we build the technology for Colorado Online, we will take into account any needs for the RCC and ensure RCC's business needs for rural college sustainability are also met. The RCC project updates a lot of our six rural colleges' network infrastructure and classroom technology as well as providing a way for our rural colleges to share their courses synchronously via Zoom and other web-based technology so students from any of the rural colleges can get the classes they need even if their college doesn't offer the class. The $8.6 million that was provided by the State through the Joint Technology Committee will be used to acquire and implement network infrastructure and classroom technologies at each of the rural colleges and we are almost ready to issues the purchase orders for that equipment and hardware.

Enrollment management is also a component of both Colorado Online and the RCC, but primarily Colorado Online. Students taking certain online courses will register into pooled sections of a particular course, such as ENG 1021, that is then parsed out into optimal class sections with a goal of all online courses having an average enrollment of 25 students by census date (the last day to add/drop) through a process we call "sectionizing." Colleges will be assigned sections to teach based on historical enrollment in the online courses with rural colleges having an opportunity to teach online classes even if they haven't typically had significant enrollment in the course. This is somewhat similar to what has been done in concept with CCCOnline over the last 20 years, but supports the instruction being done at the colleges by their faculty and instructors and an enhanced revenue model. The existing sectionizer process will be redeveloped to include additional data that is required so that all the data can be present in Banner which is official system of record. Having the data in Banner also allows for automatic migration to our Operational Data Store (ODS) where it can be used for reporting and analysis.

We in System IT are very excited to be working on two such important and strategic projects along with several other concurrent supporting projects initiated by Academic and Student Affairs that will enhance both Colorado Online and the Rural College Consortium as well as make life easier for our students.