Information Technology and Its Future Role in Student Success

The increased role technology plays on today’s campuses, especially in areas such as data collection, analytics, and predictive modeling, has taken it far beyond a simple support structure. The ability to not only impact student success models but to take leading roles in future success plans requires campus leaders to rethink their IT structures and determine the best ways to maximize IT potential. The ability for IT to be at the forefront of student success models also raises challenges and questions that need to be answered.

Pelletier sums up the simplistic nature of the future of data on campuses: “With more technology comes more data. With more data comes the need for more technology to make sense of it all. Without experience, insight, and a firm fix on their missions, colleges and universities can get swamped and ultimately paralyzed by the flood of information.” Does it not make sense then to include the very people that run technology and data collection on campuses as part of the bigger picture, especially when strategizing about future initiatives and their impact on student success? Imagine the possibilities with technology staff working hand-in-hand with others on the campus to better understand what questions need to be answered with data, and what processes need to change with technology to better serve the campus and the students? Some additional soft skills will be needed for IT staff to perform at this level, and IT structures and job duties and responsibilities will need to change.

As colleges and universities move forward with technology and the utilization of data, it becomes imperative that both the communication of its potential and a stronger understanding of that potential reach all levels of an institution. While “many college and university executives are convinced of data’s value, many institutions are still finding their way in learning how to use data effectively and strategically.” The point can be raised that the very professionals in charge of data and technology can also be leaders in educating those on campuses of the many uses of data systems and data collection. However, those same technology professionals would be more valuable if they were part of the equation from the start, offering them a better understanding of the institution’s vision, mission, and goals and, therefore, allowing them better insight into the wants and needs of the institutions.

Perhaps Koester summed up the IT role for the future when she wrote: “[I]nformation technology will play a central role in the transformation of higher education, offering unimaginable opportunities and demanding unforeseen responses. . . . IT professionals can and should be at the core of envisioning and shaping the future of our colleges and universities.” It is also important to remember that institutions must be getting the “right data” as opposed to just more “big data.” No longer can data collection be just about education metrics, but rather should be about collecting and analyzing data that has been traditionally missing from higher education. As Busteed noted, this means collecting data that allows for the voices of the consumers and constituents of higher education. This means tracking expectations, experiences, emotions, and outcomes of not just students but alumni, faculty, and staff in order to better understand how institutions of higher education are performing and how they can improve.

Community colleges are expanding focus from access to success. They are also looking beyond their own walls to strengthen their connections with local industries to create a more educated workforce. It will be necessary to track an entirely different type of student, that of the workforce development area. Business needs will have to be evaluated, and students who may not fit into the traditional “credit-bearing” model will have to be tracked and accounted for in the future.

As the IT workforce changes, adapts, and retools to address institution’s technology needs and to address the challenges of student success, affordability, and accountability, IT leaders have to take on new roles as well. As Grajek noted, “the leader of the campus information technology and its applications needs to be a good communicator and salesperson for the internal changes needed, as well as have the ability to build teams and manage the broadening array of technologies.”

One example of the successful teaming and leadership of IT in relation to student success can be found at Montgomery County Community College in Pennsylvania. The institution has been ranked among the top community colleges in the country for its use of technology to support and enhance...
teaching and learning. Working with Achieving the Dream, data was utilized to assist with continuous improvement in the areas of first-year experience, student retention, graduation, and transfer rates. This was accomplished through the IT team working with decision makers to identify unmet data needs in areas such as enrollment management, student performance, institutional research, and ongoing program reviews.

Another take on successful teaming of resources can be found at the University of Maryland University College (UMUC), where the president determined that analytics could assist with combating increasing competition for students, rising costs, and declining state support. He established a data analytics unit and housed it in the Office of Analytics, Planning, and Technology. A study of student enrollment behaviors noted that students who waited until the last moment to enroll were also at the highest risk of withdrawing or failing a course. This led the university to close enrollment four days prior to the first class and also allowed a grace period for students to withdraw without penalty up to four days after a class began. The results? Undergraduate completion rose by 7 percentage points over four years, while persistence rates increased by 4 percentage points.

How else can IT connect with and improve student success models? Let’s turn again to Montgomery County Community College (MCCC) and its focus on improving student access, success, and completion. In 2012, a grant from the Bill and Melinda Gates Foundation allowed MCCC to launch an Integrated Planning and Advising Services initiative. The initiative included an early alert system that allowed faculty to monitor progress and identify at-risk behaviors of students, an educational planning tool that allowed students the ability to map out entire degree or certificate programs, and a student dashboard that allowed students to go to a single source for their financial aid. As a result, the college saw increases in full- and part-time persistence for new and continuing students. In addition, the college experienced an 8% increase in persistence from fall to spring, and a 7% increase from fall to fall.

Creating a more cohesive campus student success effort that includes IT isn’t accomplished without bumps along the way.

Bowers describes the effort to connect student services and IT at the University of Southern California to improve their student success efforts. While key indicators such as persistence, timely graduation, and postgraduation employment or graduate school admission were in place, the ability to marshal forces within multiple departments and manage 25,000 undergraduate students was daunting. Record keeping alone was difficult. A lead IT manager worked with a senior associate registrar and an associate vice president of planning, assessment, and innovation to craft solutions. Challenges included the unfamiliarity with different sets of jargon and acronyms and the difficulty in managing shared ownership of such a large project. Bowers recommends having departments get to know each other before working on large-scale projects, taking steps to have non-IT staff improve their own IT knowledge, communicating the work of various departments with their IT colleagues, and staying informed of work in the IT department. Basically, the more information that is shared between IT and other departments, the better the future outcomes are (Bowers, 2015).

Without question, IT is starting to play a bigger role in student success models, and is also starting to become a bigger player at the table during strategic planning stages. However, more needs to be done.

Notes
8. P. Young, “From Perfect Storm to Successful Spinoff: How One University Overcame Wide-Ranging Challenges to Create a High-Tech Revenue Source,” The Presidency, Fall 2016.

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