

The graphic features a central white circle containing the text. This circle is surrounded by two concentric rings, one green and one yellow, with small dots at their ends. The background is a light blue-grey with faint grey gear and circuit patterns. Green and yellow lines with dots connect various points across the scene, suggesting a network or data flow.

AACRAO Technology & Transfer Conference

Executive Summaries of Selected Sessions

JULY 8–10, 2018

HYATT REGENCY MINNEAPOLIS ●● MINNEAPOLIS, MN

WWW.AACRAO.ORG

SPONSORED BY



TABLE OF CONTENTS

Communication and Technology for a Changing Generation: Gen Z & 2025	3
Sheetal J. Patel, Associate Director and Content Lead for the Career Management Center, Stanford Graduate School of Business	
Guided Pathways from Community College to University	6
Shanna Smith Jaggars, Assistant Vice-Provost for Research in Undergraduate Education, The Ohio State University	
7 Insights at the Intersection of Student Success & Technology	10
Michael Reilly, Executive Director, AACRAO John O'Brien, President & CEO, EDUCAUSE	
Biographies	14

The information contained in this summary reflects BullsEye Resources, Inc.'s subjective condensed summarization of the applicable conference sessions. There may be material errors, omissions, or inaccuracies in the reporting of the substance of the sessions. In no way does BullsEye Resources or AACRAO assume any responsibility for any information provided or any decisions made based upon the information provided in this document.

Communication and Technology for a Changing Generation: Gen Z & 2025

Sheetal J. Patel, Associate Director and Content Lead for the Career Management Center, Stanford Graduate School of Business

OVERVIEW

The shift in the student body from Gen Y to Gen Z is a significant change facing higher education. Gen Z's worldview differs dramatically from that of prior generations. Thanks to technology, this group of "digital natives" has different expectations and communication habits from past students. Experts predict that transformation will become the new currency for Gen Z. Successful transformation on campus will rely on agile communities and experiential learning. Colleges and universities can attain their transformation goals by leveraging technologies like data integration and visualization, artificial intelligence, wearables, and more. The result will be greater Gen Z student success.

CONTEXT

Dr. Sheetal J. Patel discussed Gen Z's unique characteristics and how colleges and universities can leverage technology to meet the demands of this generation of students.

KEY TAKEAWAYS

World events and technological advances have shaped Gen Z's beliefs, values, and behaviors.

Members of Generation Z were born between 1995 and 2009. They have been on college campuses for four years already and will be part of the college community through 2030. Dr. Patel discussed how different world events and technologies have influenced Gen Z's mindset:

- **Employment.** Many Gen Z members witnessed the recession and how it affected their parents and siblings. When it comes to employment, survival matters. Gen Z is looking for job security, but they also want to have an impact through their work.
- **Education.** Gen Z cares about the cost of education. Some question the necessity of higher education for future success.
- **Finances.** Members of Gen Z want financial security. Many are unsure they will be able to afford homes.
- **Safety and security.** Gen Z doesn't see school as a safe place, since they grew up with multiple mass school shootings. They don't know a world without 9/11 and the war on terrorism.
- **Racial equality.** Gen Z is demographically diverse and the majority of Gen Zers think racial equality is the right thing. They are open to diverse sets of friends. Fewer than 20% of Gen Zers believe a friend must come from the same background or culture.
- **A truly digital worldview.** Gen Z does everything online and they communicate in a completely different way. Gen Z members are on YouTube, Twitter, Snapchat, Facebook, and a million other apps. It is a lot of overstimulation and they embrace the chaos. Many students have two or three email accounts and receive 300 to 400 emails a day. With so much information to process, chronic multitasking, reduced attention spans, and forgetfulness are the norm. The Pew Institute estimates that attention spans have decreased from 12 to 8 seconds.
- **Mobile technologies and mental health.** More than 90% of Gen Z has a smartphone and they say it is their most important screen. For Gen Z, fads mean different mobile apps. With mobile devices, they talk, do social, watch videos, shop, and get entertainment. Mobile has driven a "fear of missing out," or FOMO. In addition, Gen Z feels they can't complain on social media because that is where people present polished images of themselves. This is taking its toll, as suicide and depression rates are skyrocketing.
- **Instant gratification and variety.** Gen Z expects instant gratification from entertainment, and that expectation flows to the rest of their life. They want variety in their classroom and work experiences, since they get variety elsewhere.
- **Face-to-face interactions.** Despite the digital inundation, Gen Z wants face-to-face interactions. However, face-to-face for Gen Z includes new modes of communication like Snapchat and FaceTime.

To create scalable transformation for Gen Z students, institutions must focus on agile communities and experiential learning.

Gen Z has grown up in the experience economy. They are accustomed to tailor-made and customized experiences from all brands. Looking ahead, Joseph Pine predicts we will move into the transformation economy. Customers will buy a series of customized experiences that transform them. Transformation will become the new currency for Gen Z.

Fortunately, higher education already facilitates transformation. Students come to campus and participate in a series of customized experiences, ranging from selecting courses to choosing a major and participating in different clubs. When they graduate, they are transformed.

As colleges and universities think about scalable transformation, they must focus on:

1. **Agile communities.** Communities provide emotional connections and a sense of security for students. As students interact with different people, they get a customized experience. Agile communities are essential for transformation. Students and technologies are changing fast, and institutions need communities that can change with them.
2. **Experiential learning.** This is not new. A key aspect of experiential learning is when students reflect on what the experience meant to them. If a professor provides a hands-on experience for 500 students and each one reflects on it, this translates into customized experiences. By participating in a series of customized experiences over a semester, students can be transformed.

“The beauty of the shift to the transformation economy is that higher education already does transformation. Students come to campus, they have a series of customized experiences, and when they graduate, they are transformed. We are poised to make the change already, unlike other industries.”

Sheetal J. Patel

Before selecting technologies, identify the transformation that is needed and then determine the user journey.

Rather than focusing first on new technologies, institutions must define the desired transformation and user experience. The Pew Institute predicts there will be ubiquitous connectivity by 2025. People will complete many of the digital tasks they do today in one system and will connect in more integrated ways. Ubiquitous connectivity could enable ubiquitous community.

If ubiquitous community is the change a university looking for, how could it change its technology to meet that need? Dr. Patel offered a possible scenario:

A first-year student comes to campus and feels anxious. She is worried about navigating in a new place, finding friends, choosing extracurriculars, and ensuring her safety and security. If the institution can connect her to a ubiquitous community, this could help the student find the people and resources she needs to lower her anxieties.

Several technologies could be used to lower anxieties and provide a transformative experience:

- **Data integration and visualization.** The registrar knows the student’s background from the application process and knows from past students what successful trajectories look like in terms of courses and extracurriculars. If technology can be used to connect those data points, the university system can offer suggestions when the student goes to register for courses.
- **Artificial intelligence.** To enhance the ubiquitous community, the institution could provide the student with an AI assistant who will ask questions and enhance the registration experience. The AI assistant could provide customized, personal recommendations, as well as community suggestions related to clubs and other campus resources.
- **Wearables.** When the student walks into a class of 500 people, her smartwatch could alert her about students enrolled in her other courses or that she met at orientation. It could prompt her to message them, so they could sit together.

Institutions must develop a 10-year technology roadmap to support transformation goals.

Once transformation goals have been identified, colleges and universities must analyze the technology stack needed to support the student journey over the next decade. Student data is the “elephant in the room.” Data must be part of the conversation. Institutions can’t use every piece of student data they have, especially with FERPA regulations. Thought must be given to ethics, privacy, and how student data will be used.

“I encourage you to think about your 10-year technology road map. What’s the transformation you want to see on your campuses that will help Gen Z students succeed? What technologies are needed to make that a reality?”

Sheetal J. Patel

Guided Pathways from Community College to University

Shanna Smith Jaggars, Assistant Vice-Provost for Research in Undergraduate Education, The Ohio State University, and Research Affiliate, CCRC, Teachers College, Columbia University

OVERVIEW

Four-year institutions have a vested interest in community college students. Community colleges enroll over one third of the nation's degree-seeking undergraduates, especially traditionally underrepresented students. Over three quarters (80%) of community college students intend to earn a bachelor's degree. Yet, researchers have found that only about 25% of community college students transfer to a four-year college within five years and only about 17% earn a bachelor's degree within six years of transfer.

The three studies below have identified four major barriers to transfer success. The good news is that implementing transfer practices can dramatically improve transfer rates and bachelor's degree attainment.

Research Sources:

- [Are Community College Transfer Students “A Good Bet” for 4-Year Admissions?](#) (2018 study of students in Virginia)
- [A Longitudinal Analysis of Community College Pathways to Computer Science Bachelor's Degrees](#) (2016 study for Google)
- [Student Perspectives of Community College Pathways to Computer Science Bachelor's Degrees](#) (2016 study for Google)

CONTEXT

Shanna Smith Jaggars described challenges facing community college students who intend to transfer to four-year institutions. She discussed how universities can partner with community colleges to support access and academic success for transfer populations.

KEY TAKEAWAYS

Community college students face significant barriers to transfer success.

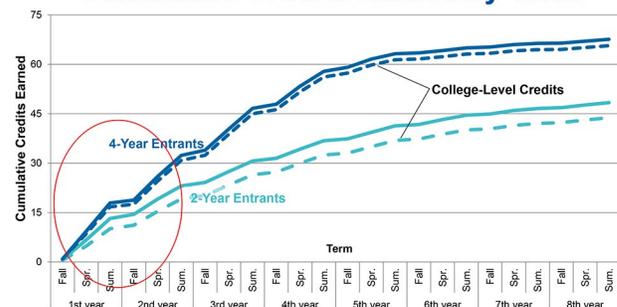
Four barriers to transfer success that confront community college students are:

1. **Students encounter slow early academic progress.** Students who enter community colleges earn a lower number of credits over time. They are more likely to change to part-time after their first semester, as their peers are more likely to be working full-time, going to college part-time, and striving to avoid loans. In contrast, four-year students see their peers attending college full-time and working part-time.

In addition, a larger proportion of credits earned by community college students aren't college-level. Students are more likely to be placed in developmental courses at two-year colleges. At community colleges, up to half of the course credits taken in the first term or first year could be developmental credits that aren't college-level. The slower a student's progress, the easier it becomes to stop for a semester and then never return.

Slow Early Academic Progress Data from Virginia Study

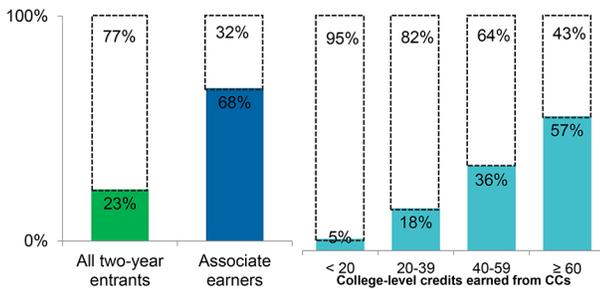
**VA CC & 4-year matched on initial entry:
Cumulative Credits Earned by Term**



2. **Students make progress, but don't transfer.** Only 23% of community college students transfer within eight years of initial enrollment. Although the transfer rate is much higher among students who receive an associate's degree, about one third of those students don't transfer to a four-year institution.

Evidence that Students Don't Transfer Even After Making Progress

**VA CC Bachelor's Degree Seekers:
Rate of Transfer to Four-year Colleges**

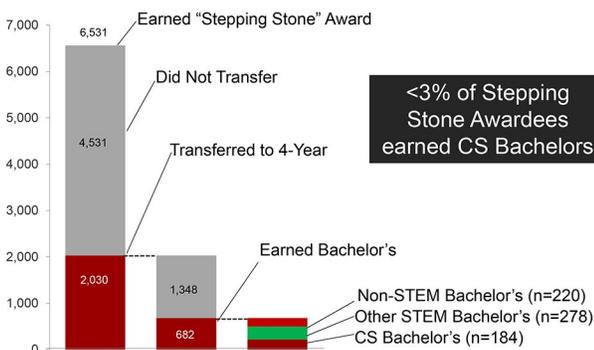


In addition, fewer than 3% of community college students who earned computer science credentials went on to earn a bachelor's degree in computer science within seven years. One reason may be there is typically no clear path for moving from community college to a bachelor's program.

The "two plus two" pathway (i.e., completing two years at a community college, followed by two years at a university) isn't the norm. In fact, transfer behaviors are highly idiosyncratic. A study conducted for Google found 1,213 unique pathways to a computer science bachelor's degree among 3,290 degree earners. The top 10 pathways accounted for only 19% of the graduates.

Transfer Rates Among Community College Computer Science

Students with CC CS "Stepping Stone" Awards



The lack of well-trodden pathways suggests that more advising resources are needed. Students need help in a variety of areas including:

- Exploring and selecting programs of study
- Identifying potential transfer destinations
- Developing a transfer plan and monitoring progress
- Applying to new institutions and obtaining financial aid
- Navigating the logistics of the physical and social move

Unfortunately, large caseloads make it difficult for advisors to provide this level of service. This leaves students frustrated and bewildered. Students are faced with a cost-benefit analysis to determine whether to transfer or simply drop out of community college.

3. **Students face credit loss.** A 2015 study by Monaghan and Attewell found that:

- Just 58% of students successfully transferred 90% of their credits
- 15% can't transfer any credits at all

Students who can transfer 90% of their credits were 2.5 times more likely to get their bachelor's degree, compared to those who transferred half or less. Credits are lost for various reasons. Students may be unclear about their eventual destination college and major. In addition, course requirements can vary dramatically by destination major. Colleges may accept gen-eds for college requirements, but majors may not accept them toward the major requirements.

"You can understand the frustration that community college students face when they've spent time and money they didn't really have on earning credits, then they are told they have to take them over again after they transfer to a four-year institution. It's very disappointing and frustrating."

Shanna Smith Jaggars

4. **Students experience post-transfer “academic shock.”** When community college students transfer to a four-year institution, their GPAs usually drop suddenly and then bounce back over time. This may be due to the challenges of navigating a completely new educational setting and context. Once transfer students become acclimated to the new institution, their grades rebound. There are several reasons why equally academically prepared students may experience post-transfer shock. For instance, they may be overwhelmed by large class sizes and less diverse environments. In addition, transfer students don’t have a “first year experience” on campus and many social clusters like study groups have already formed.

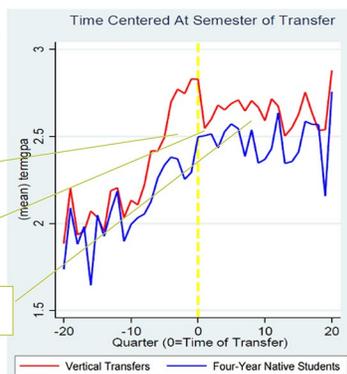
Indicators of Post-Transfer Academic Shock

Term-by-Term Fluctuations in GPA Among Transfers and Matched Native Students

Transfer student community college GPAs pre-transfer much higher than matched sample of 4-Year Entrants

“Transfer Shock” initial drop in GPA; still higher than matched sample of 4-Year Entrants

Transfer Student GPA consistently higher than matched sample of 4-Year Entrants



Community college students that earn bachelor’s degrees are focused and fortunate.

In a study conducted for Google, researchers analyzed community college students who earned computer science bachelor’s degrees. These individuals shared three unique characteristics:

1. They lived near a tech hub. Examples include San Francisco, Boston, and Dallas.
2. They stayed at a single community college and a single four-year institution. Most students attended a total of two institutions and were more likely to go full-time.
3. They went to institutions with good transfer support. Their schools implemented practices that resulted in unusually high numbers of transfers and positive bachelor’s degree outcomes.

“Community college students interested in computer science go to the school that’s closest to them and it’s often just luck that the community college has good transfer pathways. Students that succeed in earning a bachelor’s degree aren’t just focused; they are also fortunate.”

Shanna Smith Jaggars

Implementing essential two- and four-year college transfer practices can enhance student success.

In [The Transfer Playbook](#), researchers analyzed six high-performing pairs of community colleges and universities. Through this work, they identified four essential transfer practices that two- and four-year institutions can implement to support student success:

1. **Prioritize transfer student success.** Transfer must be communicated as a key component of the institution’s mission. A best practice is sharing data to educate about the need for improved transfer student outcomes. Institutions must dedicate significant resources to support transfer students. Everett Community College’s transfer campaign, for example, has led to a 47% increase in transfer out rates and a 57% increase in bachelor’s degree attainment.
2. **Create clear program pathways with aligned, high-quality instruction.** Colleagues at partner institutions must work collaboratively to create major-specific program maps. Processes are also needed to update and improve these maps over time. In some cases, it will be necessary to design unconventional pathways. In addition, community colleges must provide rigorous instruction to prepare students.
3. **Provide tailored transfer student advising.** Advisors must clearly articulate students’ transfer options and help them determine their field of interest, major, and preferred transfer destination as early as possible. Advisors must also monitor student progress, provide feedback, and intervene when students are off-track.

Aspen/CCRC Transfer Playbook

BIOLOGICAL SCIENCES PROGRAM OVERVIEW

PROGRAM OVERVIEW

GENERAL INFORMATION

CAREER OPTIONS

RELEVANT CAREER INFORMATION

PROGRAM ADVISOR CONTACT INFORMATION

PROGRAM ADVISORS

REQUIREMENTS FOR COMMON UNIVERSITY TRANSFER DESTINATIONS

WEBSITES OF BIOLOGY DEPARTMENTS AT COMMON TRANSFER INSTITUTIONS

GETTING STARTED AT EVCC

SUGGESTED COURSE SEQUENCE

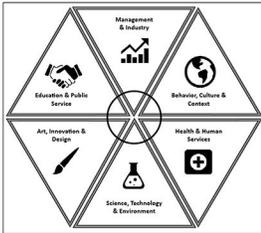
RECOMMENDED COURSE SEQUENCE

FALL	WINTER	SPRING	SUMMER
GENE 101 OR 102	GENE 103	GENE 104	GENE 105
GENE 106 OR 107	GENE 108	GENE 109	GENE 110 OR 111
GENE 112	GENE 113	GENE 114	GENE 115
GENE 116 OR 117	GENE 118	GENE 119	GENE 120
GENE 121	GENE 122	GENE 123	GENE 124
GENE 125	GENE 126	GENE 127	GENE 128
GENE 129	GENE 130	GENE 131	GENE 132
GENE 133	GENE 134	GENE 135	GENE 136
GENE 137	GENE 138	GENE 139	GENE 140
GENE 141	GENE 142	GENE 143	GENE 144
GENE 145	GENE 146	GENE 147	GENE 148
GENE 149	GENE 150	GENE 151	GENE 152
GENE 153	GENE 154	GENE 155	GENE 156
GENE 157	GENE 158	GENE 159	GENE 160
GENE 161	GENE 162	GENE 163	GENE 164
GENE 165	GENE 166	GENE 167	GENE 168
GENE 169	GENE 170	GENE 171	GENE 172
GENE 173	GENE 174	GENE 175	GENE 176
GENE 177	GENE 178	GENE 179	GENE 180
GENE 181	GENE 182	GENE 183	GENE 184
GENE 185	GENE 186	GENE 187	GENE 188
GENE 189	GENE 190	GENE 191	GENE 192
GENE 193	GENE 194	GENE 195	GENE 196
GENE 197	GENE 198	GENE 199	GENE 200
GENE 201	GENE 202	GENE 203	GENE 204
GENE 205	GENE 206	GENE 207	GENE 208
GENE 209	GENE 210	GENE 211	GENE 212
GENE 213	GENE 214	GENE 215	GENE 216
GENE 217	GENE 218	GENE 219	GENE 220
GENE 221	GENE 222	GENE 223	GENE 224
GENE 225	GENE 226	GENE 227	GENE 228
GENE 229	GENE 230	GENE 231	GENE 232
GENE 233	GENE 234	GENE 235	GENE 236
GENE 237	GENE 238	GENE 239	GENE 240
GENE 241	GENE 242	GENE 243	GENE 244
GENE 245	GENE 246	GENE 247	GENE 248
GENE 249	GENE 250	GENE 251	GENE 252
GENE 253	GENE 254	GENE 255	GENE 256
GENE 257	GENE 258	GENE 259	GENE 260
GENE 261	GENE 262	GENE 263	GENE 264
GENE 265	GENE 266	GENE 267	GENE 268
GENE 269	GENE 270	GENE 271	GENE 272
GENE 273	GENE 274	GENE 275	GENE 276
GENE 277	GENE 278	GENE 279	GENE 280
GENE 281	GENE 282	GENE 283	GENE 284
GENE 285	GENE 286	GENE 287	GENE 288
GENE 289	GENE 290	GENE 291	GENE 292
GENE 293	GENE 294	GENE 295	GENE 296
GENE 297	GENE 298	GENE 299	GENE 300

Exemplar Maps:
EvCC
Broward College

OSU Exploration: Meta-Majors

Meta-Majors, or broad fields of study, guide students by:



- ✓ Identifying common courses that help students meet requirements of multiple programs
- ✓ Highlighting important academic markers and milestones to measure progress towards a degree
- ✓ Connecting general areas of interest to potential careers
- ✓ Providing alternative major options for students unable to start or continue in their program of choice
- ✓ Helping potential transfer students narrow down their 200+ options at OSU

4. Build strong transfer partnerships. It is essential for partner institutions to build trusting relationships and communicate frequently at all levels. This includes sharing data on transfer student experiences and outcomes, jointly investing in shared support services and initiatives to benefit transfer students, and collaborating on improving instruction and services for transfer students.

7 Insights at the Intersection of Student Success and Technology

Michael Reilly, Executive Director, AACRAO
 John O'Brien, President & CEO, EDUCAUSE

OVERVIEW

Both AACRAO and EDUCAUSE are engaging their members in efforts to improve student success. At campuses worldwide, technology has changed how higher education operates. Technology now plays a pivotal role in transfer, as well as enrollment and every aspect of the student experience.

Through their research and professional events, AACRAO and EDUCAUSE have explored how technology influences student success. Insights suggest that technologies like iPASS, as well as organizational practices like cross-functional collaboration, strategic planning, project management, and clear process mapping, can improve student success.

CONTEXT

Michael Reilly and John O'Brien discussed how student success initiatives and technology overlap. They discussed how synergies between these areas can benefit students, as well as colleges and universities.

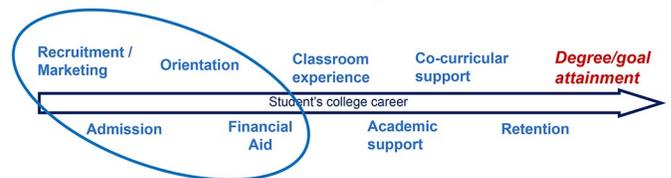
KEY TAKEAWAYS

Begin with the end in mind.

Many times, when higher education teams start on projects, they focus on solving an immediate transactional problem. They don't think about the end goal. As a result, their path becomes circuitous with many discoveries along the way. If teams start with the end in mind, they will build a different process to achieve their objectives.

For example, the traditional enrollment perspective in higher education has been a straight line with degree attainment at the end of the cycle. Yet many teams tasked with enrollment have focused only on student access at the front end: recruitment, admissions, orientation, and financial aid. They haven't focused on the end goal, which is degree attainment and student success.

The Traditional Enrollment Perspective



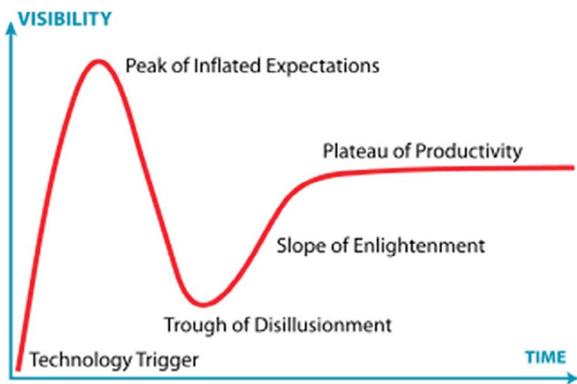
In contrast, the strategic enrollment management (SEM) approach starts with the end in mind and goes beyond student access. SEM highlights the things that must occur before students even arrive on campus, such as P-14 partnerships, bridge programs, and outreach. In addition, degree attainment isn't the final goal. The objective is to generate graduates who enjoy career and work success, and satisfied and engaged alumni who donate to sustain the institution.

“To attain sustained enrollment outcomes, teams must focus on the end goal, but their work must also be built on the foundations of a strategic plan.”

Michael Reilly

Don't be dazzled by technology or hype.

Hype about new technologies has been a reality for decades, going back to the early 1900s. In today's world, the Gartner Hype Cycle is a way to think about how organizations become enamored with new technologies. When a new technology emerges, everyone experiences the “peak of inflated expectations” during which they believe the technology will solve every imaginable problem. When they realize this isn't the case, they descend into the “trough of disillusionment.” Some technologies, like Second Life, never make it past the trough of disillusionment. In some cases, organizations derive benefit from technologies and enter the “plateau of productivity.”

The Gartner Hype Cycle


Rather than being dazzled by technology, a better approach is to be inspired by and informed about technology. [EDUCAUSE](#) conducts extensive research and identifies trends related to educational technology. This information is more useful to focus on than the hype. It is also essential to remember the people. Technology tools are great, but people are what make technology work.

Don't forget to use what you have.

Incremental innovation can occur on top of the existing technology infrastructure. Badges, for example, are becoming very common in higher education. To support them, however, institutions don't have to create new curricular structures and systems. Badges represent small learning modules that already exist. They enable students to gain small pieces of validated learning. Some believe badges could be the transcript of the future.

When institutions buy SIS or ERP systems, it is as if they buy a mansion but only use a few rooms. Colleges and universities implement the technology, but never get to phase two. They focus on one narrow part of the system. Using the mansion analogy, institutions end up working out of one room and that room gets messy. A best practice for colleges and universities is to use the technology they have.

Learn from iPASS takeaways.

Student success is one of the most important ways that technology is making a difference on campuses. Many institutions are working with Integrated Planning and Advising for Student Success, or iPASS. This methodology is supported through technology-enabled software solutions.

Each year, EDUCAUSE publishes a list of Top 10 IT issue lists. In 2018, student success technology was #2, after security. EDUCAUSE offers several iPASS-related resources which include:

- [The iPASS Grant Challenge](#)
- [Integrated Planning and Advising Tools](#)
- [Implementation Checklist](#)

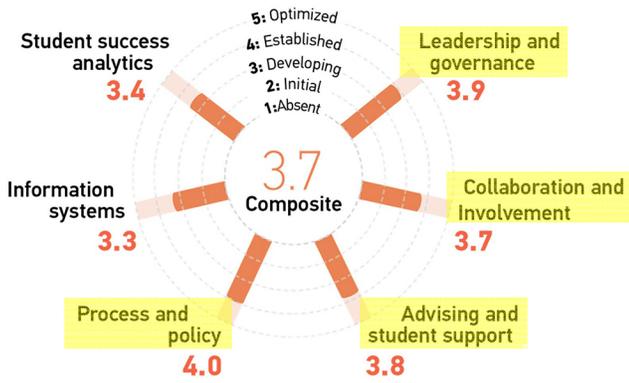
Evidence from numerous institutions suggests that these technologies work:

College or University	iPASS Results
Montgomery County Community College	<ul style="list-style-type: none"> • Between 2012 and 2013, fall-to-fall persistence rates increased 2.2% • Overall student success rates were 3% higher for new students from spring to fall
Patrick Henry Community College	<ul style="list-style-type: none"> • During the first year, year-to-year retention grew 8% • Persistence increased 2% • Graduation rates increase 43%
Georgia State University	<ul style="list-style-type: none"> • By the end of the 2016-17 year, graduation rates nearly doubled in a four-year period
Middle Tennessee State University	<ul style="list-style-type: none"> • Between 2017 and 2018, fall to spring persistence increased 2.4% • Persistence of new transfer students increased 5.2%
University of South Florida	<ul style="list-style-type: none"> • At the end of the 2016-2017 year, retention rates increased 2% and graduation rates increased 3%
University of Texas at San Antonio	<ul style="list-style-type: none"> • Over the five-year period ending in spring 2017, the retention rate increased 9% (62% to 71%)
Central Michigan University	<ul style="list-style-type: none"> • Between year 1 and year 2, persistence increased 3.6%, resulting in an additional \$3M in revenue

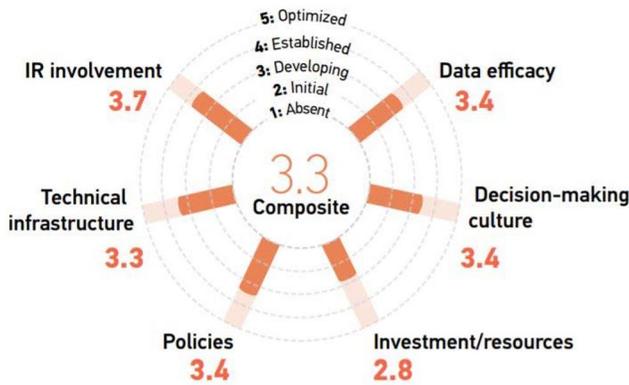
A recent [report](#) by the RPK Group found that on average \$1,000,000 is saved through retention strategies.

EDUCAUSE has created maturity indices for digital capabilities and analytics. Although institutions are investing in different digital tools related to iPASS, they may not be investing enough in analytics and data. It is also important to remember that people, connections, and collaboration are what make student success technology implementations successful. Technology alone isn't enough.

Digital Capabilities Index



Analytics Maturity Index



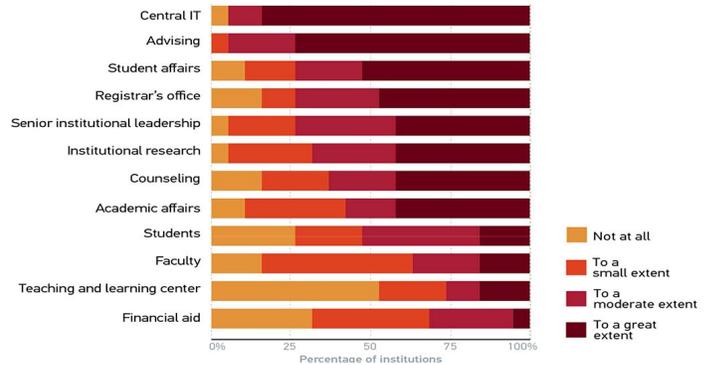
“We’ve moved from the idea of technology as a utility that works in the background quietly, to technology becoming a strategic asset. Technology is providing traction to solve problems on campus.”
John O’Brien

Collaborate, collaborate, collaborate!

Both chief enrollment officers and IT groups must strive for higher levels of collaboration across the institution. By connecting with different units across campus, chief enrollment officers can promote student success. In the past, successful IT people worked behind closed doors. However, a siloed approach won’t move IT to a strategic asset that delivers value to the institution. IT teams must learn what it means to be a collaborator, rather than a gatekeeper.

Collaboration is essential as colleges and universities explore new technologies. The heat map chart below shows the groups involved in iPASS technology implementations at 19 institutions across the country. Although these systems are designed so faculty can help students be successful, these projects had low levels of faculty and student involvement. Collaboration and buy-in across stakeholder groups are essential for successful implementations.

Stakeholder Involvement in iPASS Change Management Initiatives



Working together is the only way to make meaningful progress. One of EDUCAUSE’s three strategic priorities is expanding partnerships and collaboration. IT must engage in dialogue with registrars, admissions, vice presidents, provosts, NACUBO representatives, and more.

Make things as seamless as possible.

Institutions must lay out a clear pathway for students to attain their degree goal. Many community colleges and four-year institutions are participating in partnerships to smooth the transfer path for students.

Example Flowchart—Transferring from a Two-Year Institution to a Four-Year Institution



Invest in you.

Both EDUCAUSE and AACRAO offer a variety of professional development activities. John O'Brien and Michael Reilly discussed different opportunities:

- **EDUCAUSE Institute.** Multiple programs are targeted at higher ed IT professionals at all levels.
- **AACRAO professional proficiencies and core competencies.** It is important not just to be a tactical and transactional higher education practitioner, but to think more broadly about big-picture issues. Professional proficiencies are detailed processes needed to be successful on the job, while core competencies overlay everything an individual does on the job. AACRAO offers a SEM badge as part of its professional development portfolio. AACRAO also encourages higher education professionals to contribute to the field by hosting sessions, suggesting workshop topics, and writing papers.

- **AACRAO International.** This arm of AACRAO has shifted its focus from international credential evaluation to training and building global partnerships.

In addition to these activities, it is also possible for higher education professionals to take a “do it yourself” approach to professional development. For example, if you do specialized work and only three or four other people work in that field nationwide, consider meeting with them and creating your own professional development group.

EDUCAUSE Institute

Program	Target Cohort	When	Duration/Cost	Experience Needed	# Per Institution	Faculty
New IT Managers Program	Those new to higher education and management in IT operations	Spring	2 Days 	0-2 Years 	Multiple 	Senior IT Leaders and CIOs
Management Institute	Coordinators, Managers, Assistant Directors in higher ed IT	Summer	5 Days 	3-5 Years 	Multiple 	Senior IT Leaders and CIOs
Learning Technology Leadership Institute	Leaders in Academic IT, Teaching and Learning with Technology	Summer	5 Days 	3-5 Years 	Multiple 	Senior Teaching and Learning / IT Leaders
Leadership Institute	Current CIOs and CISOs or those actively interviewing for those roles	Summer <small>(by application)</small>	5 Days 	10+ Years 	Multiple 	CIOs and C-suite leaders in higher ed
Leading Change Institute	Senior IT and information technology leaders and administrators who seek advancement in higher education	Summer <small>(by application)</small>	6 Days 	7+ Years 	Multiple 	CIO and Library Executive
Senior Directors Seminar	Senior IT campus leaders who seek advancement and are not CIOs	Autumn <small>(Co-located w/Annual Conference)</small>	4 Partial Days 	5-10 Years 	Multiple 	Mentoring Experience with Senior IT Leaders and CIOs
Hawkins Leadership Roundtable	Current CIOs and CISOs	Autumn <small>(Co-located w/Annual Conference)</small>	3 Partial Days 	10+ Years 	Multiple 	Mentoring time with CIOs and Cohort Peers

Biographies

SHANNA SMITH JAGGARS

Assistant Vice-Provost for Research in Undergraduate Education, The Ohio State University

Shanna Smith Jaggars is Assistant Vice-Provost for Research in Undergraduate Education at The Ohio State University, where she provides evidence-based support for efforts to improve access and academic success among all the university's undergraduates. Previously, Dr. Jaggars was Assistant Director of the Community College Research Center, Teachers College, Columbia University.

Dr. Jaggars has published extensively on student success topics in journals such as *The Journal of Higher Education*, *Economics of Education Review*, *Educational Evaluation and Policy Analysis*, *Journal of Research on Educational Effectiveness*, *Community College Review*, *Computers & Education*, and *American Journal of Distance Education*. She also currently serves as an Associate Editor for the journal *Online Learning*. Her 2015 book from Harvard University Press (co-authored with Thomas Bailey and Davis Jenkins), *Redesigning America's Community Colleges: A Clearer Path to Student Success*, distills a wealth of research evidence into a playbook for college redesign.

JOHN O'BRIEN

President & CEO, EDUCAUSE

John O'Brien is President and CEO of EDUCAUSE, a nonprofit association whose mission is to advance higher education through the use of information technology. Throughout his 25-year career in higher education, John has served as a leader in technology, academics, and institutional leadership. He was a faculty leader in instructional technology, a statewide IT project leader, and associate vice chancellor/deputy CIO at the system level. He has been a provost and college president in the Minnesota State Colleges and Universities (MnSCU) system, the fifth largest higher education system in the country.

Prior to his appointment at EDUCAUSE, he served as senior vice chancellor of academic and student affairs. John holds a bachelor's degree in English and English education from Augustana College, a master's degree in Anglo-Irish Literature from the University of Dublin (Trinity College), and a doctorate in English from the University of Minnesota. Contact John at: jobrien@educause.edu.

SHEETAL J. PATEL

Associate Director and Content Lead for the Career Management Center, Stanford Graduate School of Business

Dr. Sheetal J. Patel is a fourteen-year veteran of creating engaging brands, marketing communication strategies, and stories that effectively impact people's lives. Her recent research has focused on transforming learning and technology for Generation Z and brand management in higher education. She is currently the Associate Director and Content Lead for the Career Management Center at the Stanford Graduate School of Business, and consults regularly in the area of marketing and branding.

Throughout her career, Patel has served in marketing communication roles in Stanford Student Affairs, University of North Carolina at Chapel Hill, the University of Texas at Arlington, and Sulekha LLC. She also served as tenure-track faculty at the University of Texas at Arlington. She has a Ph.D. in Strategic Communication from the University of North Carolina at Chapel Hill; and a Master's degree in Advertising and two Bachelor's degrees in Advertising and Public Relations from the University of Texas at Austin.

Patel has published work in journals, such as *International Journal of Nonprofit and Voluntary Sector Marketing*, *Journal of Advertising Education*, and *Journal of Health Communication*. She was awarded the prestigious NACE/Chevron Award by the National Association of Colleges and Employers for achievement and innovation in branding. She has also been the recipient of over \$225,000 in fellowships, grants, and scholarships for her research.

MICHAEL REILLY

Executive Director, AACRAO

Mike Reilly serves as the Executive Director of the American Association of Collegiate Registrars and Admissions Officers (AACRAO). Prior to coming to AACRAO he served as the Executive Director for the Council of Presidents, an association of the six public baccalaureate degree granting institutions in the state of Washington. He has 25 years of experience in university administration, admissions and enrollment management, including having been the Associate Vice President for Enrollment Management at both Central Washington University and Humboldt State University.

He recently served on the American Council on Education Board of Directors and is currently on the American Council on Education's Commission on Education Attainment and Innovation and the College Board's Access and Diversity Collaborative Advisory Council. He is a frequent writer and speaker on public policy matters impacting higher education. Contact Michael at reillym@aacrao.org.