The modern student

Why This Generation Is So Different and Why That's a Good Thing

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CAL POLY POMONA
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Baja Team Wins Endurance Race

CAL POLY POMONA’S BAJA TEAM WON THE PRESTIGIOUS FOUR-HOUR ENDURANCE RACE to finish fourth overall at the SAE international event in Pittsburg, Kan.

“We generally do very well because we have good hands-on engineering students,” says Clifford Stover, the mechanical engineering professor who oversees the program. “You can throw as much money as you want at a project, but if you don’t have good engineers you’re not going to come up with something that’s competitive.”

Stover says the event was not just a race but a collegiate design competition. “The students build a prototype off-road vehicle for sale to a fictitious business firm. That’s the concept of the competition.”

The Society of Automotive Engineers competition lasted four days, from May 26 to 29, testing students in multiple categories of design and performance including presentation, maneuverability and top-speed acceleration. Cal Poly Pomona’s 15-member team built the car from scratch, with the exception of the fictitious business firm. That’s the concept of the competition.

One team of Cal Poly Pomona faculty and students will partner with the UC Cooperative Extension in San Bernardino County to explore new technologies for the detection, monitoring and treatment of mastitis in dairy cows.

“After the Baja, we have to earn money,” says Ryan Harris, a fourth-year engineering technology student and vice president of Cal Poly Pomona’s SAE team, who was one of two drivers for the endurance race. “We say the first-place finish was especially sweet because other teams got off to a faster start. “When you get to the end of the endurance race and you see that you are the No. 1 team and other teams are right behind you, it’s a good feeling,” Harris says.

The course was littered with obstacles including mud, hills and wooden road ties. Of the 103 cars that started the race, only about three dozen finished. Cal Poly Pomona’s vehicle, which weighed 430 pounds before the race, was caked with 100 pounds of mud when it crossed the finish line.

Cal Poly Pomona’s victory in the endurance event propelled it from eighth to fourth overall. The team received the Honda R&D award and other awards from Briggs & Stratton and SAE.

Josh Tatum

Researchers Partner with UC on Ag Research

Two teams of Cal Poly Pomona researchers have received funding from the University of California’s Division of Agriculture and Natural Resources. The two $10,000 grants will help foster collaboration among California’s colleges and universities. The two projects were selected among 44 proposals that address high-priority issues in agriculture, natural resources and human sciences.

“The challenges we face today are highly complex,” says Lester Young, dean of the College of Agriculture. “We need to approach them from many directions. That’s why we so gladly welcome the opportunity to collaborate with the University of California.”

One team of Cal Poly Pomona faculty and students will partner with the UC Cooperative Extension in San Bernardino County to explore new technologies for the detection, monitoring and treatment of mastitis in dairy cows.

Another group of researchers from Cal Poly Pomona will team with UC Riverside in assessing technology literacy skills among minority college students with an eye on improving student success.

Josh Tatum

History Professor Awarded Another Fulbright

PROFESSOR MAHMOOD IBRAHIM, WHO TEACHES MIDDLE EAST AND NORTH African history, has received his fourth Fulbright award. He plans to research Muslim women during the Middle Ages, a topic spawned by a 14th century manuscript he found in a library in Cairo during a previous Fulbright fellowship.

“I was very delighted to know I received the award, of course. It is an exciting time in the Middle East,” Ibrahim says. “The Fulbright is a prestigious award for a scholar to get and it gives me the time to do the research that I wanted to do.”

Ibrahim will go to Rabat, Morocco, in December to study the women who lived in Damascus in the 14th century. In particular, he wants to translate their obituaries into English, as well as provide a commentary on the texts and an introduction to the subject.

“I want to turn these obituaries into life histories by investigating social connections and household environments of these women,” Ibrahim says. “I want to give these women some substance rather than just who they were.”

Ibrahim chose Rabat because he takes Cal Poly Pomona students there on a study abroad program during the summer. Rabat has several libraries that are repositories of Arabic manuscripts, and he plans to study them for his next publication.

The Fulbright is part of the Council for the Exchange of International Scholars. It supports American scholars as they travel abroad to study different cultures and encourage academic discourse. In addition, the program funds scholars from around the world to conduct research in the United States.

Josh Tatum

Campus Continues Excellence in Sustainability


The guide is a free downloadable book that lists colleges in the United States with notable achievements in sustainability. Colleges were surveyed based on their sustainability initiatives and those scoring in the top 80th percentile were chosen for the guide. Likewise the guide does not rank the schools; rather they are listed alphabetically.

Some of Cal Poly Pomona’s accomplishments include: using 75 percent green-certified cleaning products, recycling and composting 70 percent of waste, and watering plants with 99 percent reclaimed water. The campus created a climate action plan in 2009 that lays a path to reduce carbon emissions and reach climate neutrality (no greenhouse gas emissions) in the next 20 years. Individuals who wish to see Cal Poly Pomona’s profile in the guide can visit www.princetonreview.com/green-guide.aspx.

Josh Tatum

Watch a special Earth Day video at http://bit.ly/climate2030 to learn more about the university’s efforts to achieve carbon neutrality. Or, scan the QR code with your smart phone.
Mike Santora, Gold Glove Team, along with teammate him land a spot on the ABCA National slugging percentage, recorded a .534 on-bases, walked 50 times, posted a .744 runs, collected 51 RBIs, tallied 148 total every offensive category, as he batted the Year awards. All-American and West Region Player of honor. He also earned NCAA Division II person in university history to receive the Collegiate Athletic Association Male He was named the 2010-11 California career, bringing home a slew of accolades. In addition, senior outfielder Travis Taijeron capped an impressive collegiate career, bringing home a slew of accolades. He was named the 2010-11 California Collegiate Athletic Association Male Athlete of the Year, becoming the fifth person in university history to receive the honor. He also earned NCAA Division II All-American and West Region Player of the Year awards.

Taijeron led the CCAA in virtually every offensive category, as he batted .392, clubbed 16 home runs, scored 59 runs, collected 97 RBIs, tallied 148 total bases, walked 50 times, posted a .444 slugging percentage, recorded a .524 on-base percentage and had a 1,000 fielding percentage. His defensive skills helped him land a spot on the ABCA National Gold Glove Team, along with teammate Mike Santora.

**Track and Field Athletes Reach Nationals**

Four Cal Poly Pomona track and field athletes competed at the NCAA Division II Championships in Turlock at the end of May, bringing home two All-American awards. Heather Cordova, Jacob Deavers, Tramieka Thomas and Lance Walkington earned a spot at the national event for the first time in their Bronco careers.

“It’s been a long and successful year for our program,” says head coach Troy Johnson. “Nationals can intimidate a lot of athletes, but I think that the recent championship-type meets prepared those four to handle it all.”

Walkington, a senior, placed fourth in the javelin to earn All-American status on the final day of the championships. In his first three attempts, Walkington’s top throw of 61.60 metres advanced him into the final. There, his second attempt flew 63.29 metres, or 207 feet and 6 inches. That was the fourth-best mark nationally on the afternoon.

Deavers battled cold and rainy conditions, finishing seventh in the 400-meter hurdles final to receive All-American recognition. The junior posted a mark of 54.81. Despite being in her first year of collegiate competition, Corder raced to an all-American. Thomas, a junior, placed 17th in the 100-meter hurdles. She also earned the chance to compete in the long jump, in which she finished 16th.

**$1 Billion CSU Cut Tied to Tax Extensions**

Gov. Jerry Brown’s May revision of the state budget proposes an additional reduction of $500 million for the California State University, bringing the total budget reduction to $1 billion if his proposal for temporary tax extensions is rejected. That would represent a 35 percent year-over-year reduction in state funding for the largest public university system in the country. The legislature had earlier approved an initial $50 million cut to the CSU for the 2011-12 fiscal year that starts July 1.

“That would be a scorched earth budget and would inflict lasting damages to the university,” says CSU Chancellor Charles B. Reed. “There will undoubtedly be severe and painful choices that we would have to make to address such a massive funding reduction.”

The CSU outlined a budget contingency plan of action to address an “all-cuts budget.” As part of the contingency plan, CSU said it would wait-list applications for winter and spring 2012. Under this worst-case scenario, CSU estimates it could turn away 20,000 qualified applicants who would otherwise enroll for the winter and spring terms. In addition, the CSU board could be asked to authorize a tuition fee increase of up to 32 percent on top of the 18 percent increase approved for fall 2011.

“Raising tuition is always a painful choice, but at this point we are faced with just trying to keep our classroom doors open,” Reed says.

Since the state’s fiscal crisis began in 2008-09, CSU has reduced the number of its employees by 4,145 or 8.8 percent. In addition, CSU has implemented a number of strategies to address decreased state funding, including employee furloughs, tuition fee increases and enrollment cuts.

**University Hosts Senate Budget Committee Hearing**

Local leaders from the Inland Empire testified about the difficulties of managing the current budget cuts and the potential severe damage of an “all-cuts budget” at a state Senate Budget Committee hearing.

The April 29 hearing at Cal Poly Pomona was the only one in Southern California this fiscal year. Chaired by Sen. Mark Leno (D-San Francisco), the committee received testimony from representatives of local government, public safety and education. Local leaders urged the senators to put aside partisan politics, work together and find a solution to California’s fiscal crisis.

Gov. Brown’s May revision proposed a $1 billion total budget reduction for the California State University if temporary tax extensions are rejected. University President Michael Ortiz painted a grim picture should the university lose $50 million or 40 percent of its state funding.

“At virtually every campus, the all-cuts budget would kill the mission of access and slow current students’ path to graduation,” Ortiz said. He called on the state senators to show real leadership and offer a viable solution.

“Stop playing poker with the lives and futures of California’s students,” Ortiz said. He called on the state senators to show real leadership and offer a viable solution.

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“Stop playing poker with the lives and futures of half a million faculty, staff and students in the CSU, as well as the countless industries in California that depend on our graduates. If you cannot show real leadership, let the voters of this state decide.”

The hearing included Sen. Bob Huff (R-Diamond Bar), the vice chair, whose district includes part of Cal Poly Pomona; Sen. Bill Emmerson (R-Hemet); Sen. Joe Siminaitis (D-Palo Alto); Sen. Alan Lowenthal (D-Long Beach); Sen. Michael Rubio (D-Bakersfield); Sen. Carol Liu (D-La Cañada Flintridge), and Sen. Gloria Negrete McLeod, whose district includes part of Cal Poly Pomona. Ed Hernandez (D-West Covina) also attended the meeting.
CBA Maintains Prestigious AACSB International Business Accreditation

The College of Business Administration has maintained its business accreditation by AACSB International, the Association to Advance Collegiate Schools of Business. Less than 5 percent of schools worldwide have earned this hallmark of excellence. To maintain accreditation, a business program must undergo a rigorous internal review every five years and demonstrate continued commitment to 21 quality standards relating to faculty qualification, strategic management of resources, interactions of faculty and students, and a commitment to continuous improvement and achievement of learning goals in degree programs.

“It takes considerable effort to maintain accreditation,” says Dean Richard Lapidus. “Ultimately, we have shown that we provide improvement and achievement of learning students, and a commitment to continuous commitment to 21 quality standards relating to resources, interactions of faculty and students, and a commitment to continuous improvement and achievement of learning goals in degree programs.

“This Intern” is both a competition and a Web show conceived by history student Desiree Duriez and members of the American Marketing Association, similar to NBC’s “The Apprentice,” competitors face weekly challenges that test their business skills. Challenge winners receive interviews with recruiters from Prudential and NBC Universal, among others.

Danielle Murcia (‘10, international business and marketing) brought her Crepes Bonaparte gourmet food truck onto campus for a challenge, and students competed to see who could sell more of her food. In other challenges, competitors offered ways for Target Corp. to improve its supply chain operations, and students consulted with executives and corporate recruiters to see who could sell more of her food. In other challenges, competitors offered ways to help Prudential and NBC Universal, among others.

Matthew Martin, an international business and marketing student, won the competition. He will begin a paid internship with Louis and Company this summer.

“For a month, a select group of College of Business students applied their business skills in ways they never imagined. They solved real business problems and interacted with executives and corporate recruiters all while being filmed by an aspiring director doing her first Web show. In the end, only one person could win the inaugural season of “The Intern.” After nine students had been told to “return to the classroom,” Matthew Martin, an international business and marketing student, won the competition. He will begin a paid internship with Louis and Company this summer.

“It feels amazing,” Martin says. “I entered this competition to get some career experience, network professionally and pump up my resume. I have achieved all of those goals and more.”

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Double Impact

Joint Research into Nicotine and Diabetes Finds Crucial Connection

By Tim Lynch

Medical researchers have long known that diabetics who smoke are compounding their health risks and very possibly shortening their lives. What had remained a mystery was the specific culprit that lurked in a pack of cigarettes.

Two teacher-scholars at Cal Poly Pomona appear to have found the answer: nicotine. The addictive chemical is widely considered the leading suspect, but scientific progress rests on research, the kind that Liu and John Chan meticulously perform in the lab they share on campus.

Though they caution that their results are preliminary, they appear to have opened a new window to the way doctors and patients assess diabetes risks among smokers. Liu, an associate professor of chemistry, is an expert in A1C, more commonly known as glycated hemoglobin. (A higher blood sugar level is typically associated with a higher A1C level.) Chan, a professor of biology, studies nicotine. With offices just down the hall from each other, they frequently talk shop, but took a casual conversation over lunch in the Campus Center Marketplace to forge a research partnership.

“We talked about the possibility that nicotine could affect A1C levels,” Liu says. “Afterward, we went to the [scientific] literature and couldn’t find anything. That’s when we decided to collaborate.”

Looking back, Chan says with a smile, had he and Liu not grabbed a bite to eat that afternoon two years ago, “this wouldn’t have happened.”

“This” has taken place over many months in a nondescript laboratory on the third floor of the biotechnology building. In layman’s terms, their research involves meticulously following a basic recipe, altering the amount of one ingredient and then assessing the results.

“We put human blood cells in a solution to release the hemoglobin and then we added metabolized blood sugar: glucose-6-phosphate,” Liu says. “We added various amounts of nicotine and checked the A1C level.”

The process initially sounds complex, but Chan and Liu explain it in a way that even a scientifically challenged observer can grasp.

First, they create a gel that acts as a magnet for A1C. They put the gel in a test tube (called a column tube) and add a solution containing released hemoglobin from human blood cells exposed to glucose-6-phosphate and various amounts of nicotine. Through a process called elution, the A1C can be collected.

The A1C is then transferred to a small, light-transparent container called a cuvette. The cuvette is placed in a spectrophotometer, whose readings show how much the A1C fluctuates.

The implications could be significant. People who smoke but have no familial disposition to diabetes might raise their risks through their consumption of nicotine. Those who decide to quit smoking by weaning themselves with nicotine patches could still experience greater A1C levels. Long-term use of patches, then, might continue to expose the user to a higher risk of diabetes.

After hearing about the research, “doctors were initially surprised but they saw that it made sense,” Liu says. “In the long term, this research could influence how diligently doctors screen their diabetic patients.”

Liu and Chan both caution that they are working with preliminary results in a laboratory setting and that more concrete data beyond their initial findings are required.

The next step, Chan says, is to examine whether similar observations can be reproduced in studies on animals. Once confirmed, the mechanism of how nicotine induces more A1C in the presence of glucose at a chemical and molecular level can be examined.

“We need to do more study,” Chan says.

The research was supported with residual funds from previous grants, a grant from the Faculty Center for Professional Development and assistance from the College of Science. Chan and Liu say they need outside support to complete and publish their findings.

“We don’t need a lot,” Chan says. “We believe this could be significant.”

Diabetes Research Starts Nicotine Buzz

In late March, an article previewing the national meeting of the American Chemical Society appeared online. Among the agenda items mentioned in the article was a presentation by Associate Professor Sean Liu. “Smoking on diabetes — effect of nicotine on the formation of hemoglobin A1C in human blood.”

Within days, stories about the research appeared on dozens of news websites, including Time Magazine, Business Week, the New York Daily News, the Times of India and WebMD.

“We never thought it would gain such attention, but if you think of the significance, we could see why people would be interested,” Liu says. “We are connecting research in labs directly to people’s lives.”

Liu and his research partner, John Chan, have received inquiries from a major pharmaceutical company, doctors who expressed interest in collaboration, as well as diabetic smokers, and they have shared information with a professor from Auburn University.

“This has been very rewarding, but we know we have more work to do,” Chan says.

To see Sean Liu’s news briefing at the American Chemical Society meeting, go to http://bit.ly/nicotinediabetes or scan the QR code below with your smart phone.

By Tim Lynch
HAMINOEA JAPONICA, a small, grayish sea slug with indistinguishable features, has been causing headaches for swimmers in San Francisco Bay. Not only has the invasive species virtually wiped out the natives, it also hosts an unidentified species of parasite that gives summer swimmers a nasty rash.

Cal Poly Pomona biologists are researching how the sea slug, which originated in Japan, came to the bay and the likelihood of it spreading to Southern California.

"Just think about having to close all the beaches in Southern California. It would be devastating to the tourism industry," says biology Professor Ángel Valdés, an internationally recognized expert in sea slugs and systematic biology.

Although it sounds benign, swimmer's itch is much more than a nuisance. Microscopic larvae from the parasite burrow into human skin, causing an allergic reaction and rash. Although the parasite doesn’t reproduce in people, the red, itchy rash usually develops into pustules or blisters that last a week or more. Children are especially susceptible.

Scientists say the sea slug made its debut in Northern California about a decade ago. Before that, its existence in the United States was thought to be limited to the waters off Washington state, says biology master’s student Dieta Hanson.

"The discovery in 2000 was the first time H. japonica was seen so far south," Hanson says. "It’s an indication of how far they’re spreading, and they could potentially spread farther."

Hanson, who studied conservation biology at the University of British Columbia, Canada, has been tracing the migration of H. japonica over the past century through the commercialization of oyster farming, whose history is easily traceable. That’s the case, then, the slugs may be spreading when farmers ship young oysters. Transported all over the world, between different places, like Europe and Washington.

One popular hypothesis is that H. japonica spread in the early 20th century through the commercialization of oyster farming, whose history is easily traceable. If that’s the case, then the slugs may be spreading when farmers ship young oysters.

"Just think about having to close all the beaches in Southern California. It would be devastating to the tourism industry." — Ángel Valdés, biology professor

Carefully extracting DNA from sea slugs, graduate student Dieta Hanson is tracing the migration of Haminoea japonica.

Researchers Explore Invasion of Small Sea Creatures Causing Big Problems

Haminoea japonica is thought to be limited to the waters off Washington state, says biology master’s student Dieta Hanson. "It’s an indication of how far they’re spreading, and they could potentially spread farther."

"The discovery in 2000 was the first time H. japonica was seen so far south," Hanson says. "It also helps us figure out how and when they got to different places, like Europe and Washington."

One popular hypothesis is that H. japonica spread in the early 20th century through the commercialization of oyster farming, whose history is easily traceable. If that’s the case, then the slugs may be spreading when farmers ship young oysters. Transported all over the world, between Washington, California, Hawaii and Europe, oysters may provide the perfect way for H. japonica to spread. What is not known is how far the slug can travel on its own once it reaches a new environment.

"When we went to San Francisco to look for slugs, we wanted to know how far they’ve spread," says Jessica Goodheart, a biology senior. "We didn’t find any south of San Francisco. If we find them farther south, it means they’re spreading by themselves."

Another important question is whether H. japonica can survive in warm waters or is limited to colder regions.

Goodheart, who is trying to raise H. japonica and Southern California’s native Haminoea vesicula in tanks in the biology lab, plans to test the creatures’ tolerance for water temperature. She also hopes to get them to reproduce in the lab and will compare their life cycles. Her first groups of slugs, collected in March, unexpectedly died just two months later.

"Studying sea slugs’ life cycles is a long process, and even their lifespan is a small mystery," Goodheart says. "Once a month, she looks for and collects data on the native slugs in Colorado Lagoon in Long Beach. She also looks at data on water temperature and salinity and takes note of the algal life cycle. In the lab, the process of extracting, amplifying and analyzing DNA sequences for a batch of specimens can easily take two weeks.

"Conducting field research can be hard because you can’t always collect what you want, and you don’t know what you’re going to get," Goodheart says. "Sometimes, you don’t get anything."

Still, sea slug research has a few side benefits. Valdés has traveled to coastal areas around the world, including the Caribbean Islands, the South Pacific, Central America and the Red Sea.

This summer, he will take a few students on a research trip to Hawaii for 10 days to look for evidence of H. japonica and possibly identify new species of sea slugs, supported through a $7,000 research grant from the university. In addition, Hanson secured her own grant, $1,500 from the Southern California Academy of Sciences, to conduct research in Japan for two weeks this summer. Her focus will primarily be on Hokkaido Island in northern Japan, the native environment for H. japonica.

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Increased Demand and a Challenging Budget
Shift the Profile of Fall’s Incoming Class

By Deborah L. Brandon

As Cal Poly Pomona graduates another class of students, in the Office of Admissions & Outreach, our minds naturally shift to this fall, when we once again begin the recruitment of a new group of students eager to join the university community and begin their educational journey.

Our journey with students and their families begins with our outreach and recruitment efforts. As one of only two polytechnic universities in the 23-campus CSU system, we have begun to recruit students from neighboring communities, across the state and even foreign countries. Our campus is already well known in Southern California, and interest is growing in the northern part of the state as well. We go where the students are, including schools, community centers and even churches. We help students get to know the university and imagine themselves at Cal Poly Pomona.

Unless you’re a parent, a high school senior or a transfer student, admissions and outreach might not be on your radar. But the decisions we help make have a direct impact on the university. Our department helps to shape the profile of each entering class.

For those who wonder whether admissions has changed and whether students have changed, the answer is, unequivocally, yes. Over the past several years, we’ve begun to see some significant transformations in our students. Some of the changes are based on the university’s long-term goals and mission, while others are in response to state and community needs.

Every year, we see phenomenal applicants, from high school seniors and community college transfers to nontraditional students to professionals looking for a graduate degree. We’re noticing a clear increase in demand to attend Cal Poly Pomona. Admissions applications have hit record levels, with more than 35,000 each year, putting us on par with some University of California campuses.

Admissions might seem simple and computerized, especially when applications are filled out and turned in online. But it is actually highly personalized. To us, admissions is an experience, not a process. We consider ourselves partners and facilitators of one of the most important decisions that people will ever make. Even when students are not admitted, our admissions counselors work closely with them to develop educational plans and viable options to later transfer.

How do we determine which students to admit? At Cal Poly Pomona, our guiding principles are to sustain access, excellence and diversity. Those are hallmarks of our university and characteristics we look for in each incoming class.

It’s not easy, because those qualities can sometimes be at odds. A simple case in point is the delicate balancing act between access and excellence. We now have 14 undergraduate programs that are impacted — so popular that there aren’t enough spaces to keep up with demand. They require higher admissions standards for entering undergraduates. By limiting access to these highly sought-after programs, we protect the quality of students’ educational experiences and ensure that current students are able to enroll in the classes they need to complete their degrees and start their careers.

Over the last five years, we’ve seen that our students are changing. Don’t worry, our student body is still richly diverse and has countless opportunities to collaborate with people from many cultures and backgrounds. Today’s prospective students are more prepared to embrace the rigors of higher education. Our entering freshmen have more college prep courses under their belts and come in with higher standardized test scores and GPAs. Our entering transfer students also have higher GPAs.

While students often have other choices, Cal Poly Pomona has become a first-choice campus. Word has spread about our unique programs, affordable tuition and learning-centered curriculum. People know it’s hard to find programs with hands-on learning opportunities quite like ours. Our students design homes for the homeless, build hybrid cars from scratch and run their own restaurant. The learn-by-doing approach to education will undoubtedly help students make a difference in their communities, the state and the nation. That’s part of the anticipation we feel each spring as students march in their robes to “Pomp and Circumstance.”

Just as the university will change each student, each student also changes the university. Imagine the impact that this high-achieving incoming class will have on campus. The possibilities are endless. And it all begins this fall.

Deborah L. Brandon is executive director of admissions and outreach at Cal Poly Pomona.

“Admissions applications have hit record levels, with more than 35,000 each year, putting us on par with some University of California campuses.”

—Deborah L. Brandon
By Tim Lynch

Peggy Kelly sees the differences whenever she steps into the Quad. Jack Fong does as well from his classroom. And Ray Wang has perhaps the best vantage point of all — the second floor of the library. What they are witnessing is one of the most significant changes at Cal Poly Pomona in its 73 years. It isn’t the new buildings, the environmental initiatives or even the hiring of some of the best minds in academia. It’s the students.

Today’s undergraduates are significantly different from their predecessors. They study differently. They socialize differently. They interact with their professors differently and see the world differently.

It’s folly, of course, to make sweeping comparisons among generations. “Modern students” have been assessed and critiqued since the time of Socrates, and each generation claims its unique place in the world. It’s also folly to assume that any two students among the nearly 20,000 now on campus have an identical story. With that said, an unmistakable seismic shift in higher education has occurred in the past decade and it is gaining momentum with the admission of each freshman class.

The clearest manifestation of that shift is the centrality of technology. Today’s students, the Millennial Generation, grew up alongside the Internet, came of age with social media, and were among the first to master smartphones. Learn by doing was hard-wired into their mindset long before they stepped on campus.

“I find them really amazing,” says Wang, dean of the library. “I admire the kind of ability they have. They are so connected because of technology.”

Kelly, dean of the College of Education & Integrative Studies, agrees. “They’re the digital natives, and we’re the digital immigrants,” she says, pointing to the bottom of her bookshelf, which contains her voluminous research on the role of technology in the classroom. “I don’t even have a degree in it,” she says. “I’d already earned my doctorate when the world changed.”

Her research shows that students improve their conceptual understanding significantly when they use technology to access information and collaborate, as well as manipulate variables in research when a real-world alternative isn’t possible.

“Today’s students ask far more questions and challenge assumptions, but they also can get lost in the myriad of information available to them,” Kelly says. “So they gradually learn to be critical about the information they seek. They multitask in ways that drive us crazy. But they are learning — learning in their own way.”

Finding ways to engage students beyond the traditional lecture-discussion is a priority in every college on campus. Hands-on learning has long been among Cal Poly Pomona’s strengths, with virtual hands now part of the equation. Smart Boards, distance learning, cutting-edge software and access to experts and colleagues around the world ensure that the digital immigrants and natives can thrive.

“Cal Poly Pomona has phenomenal faculty who have stepped up to the plate in a major way, and it’s not the age issue you might think,” Kelly says. “I’ve seen senior faculty use Twitter to interact with their students.”

Perhaps more significant than technology itself is the modern student’s approach to learning. Simply reading an assignment, writing down what the professor says and referring to it before a test is old-school.

Fong, an assistant professor of sociology and a 1992 alumnus, knows firsthand how much the dynamics of education have changed in the 20 years since he was an undergraduate.

“Technology magnifies the assembly of knowledge, and students today are greater experts at that assembly,” he says.

Often, when Fong lectures on a theorist or topic, one or two students with laptops serve as volunteers to search Google Scholar for additional works by the thinker, as well as specific sociological concepts or issues that can enhance their understanding. Students are then given a few minutes to read the abstract and search the University Library’s databases since the abstract frequently lays out the hypotheses, methodologies and findings of the research.

“When they find the particular target article, they send it to me via email and I employ the smart classroom’s media to immediately open up the article for further discussion.”

By Tim Lynch

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They’re the digital natives, and we’re the digital immigrants.” — Peggy Kelly
that is more than a quarter Latino, Asian and white, and slightly more male than female. "When I was here, diversity meant a white population with dribbles of minority students. Today the egalitarianism is very explicit," Fong says, though he is concerned that some people might become complacent.

"I see a retreat back to cultural comfort zones, with cultural pockets and grudging acceptance of the unknown," he says, residue, perhaps of the suspicions and apprehensions that were stirred after 9/11. With that said, he sees tremendous opportunity in the changing face of the university.

"Diversity is an opening for people to learn diplomacy," he says. "Why go to Stanford and study international relations when you can go to a classroom with such a variety of students?" One stereotype that is hard to avoid on campus is the image of students crossing campuses, eyes fixated on an iPod while listening to music, checking text messages or perhaps talking on their cell phone. How can they have a social life when they're plugged in 24/7? Kelly says relax, the kids are alright.

"Most of our students are every bit as social as students 10 or 15 years ago," she says. "They have even more interaction because of texting and social media. And for those who are socially awkward, texting has become a good thing because some people are better with the written word."

So, who is the modern student? Wang says he or she is not only a very different learner, but a model for the future of education.

"We are in an amazing time in that we can really learn from them: how they process information, how they view the world, how they connect with each other. "They can show us a thing or two. We used to know better because we've been there, but we haven't been here. They live in the future."
By Esther Chou

From caring for Bengal tigers to excavating a 17th century settlement in Poland to working at a body farm in Tennessee, Katie Murtough’s five years at Cal Poly Pomona have been packed with action and education. When the animal science and anthropology double major walked across the stage at commencement, it was surely the start of a new adventure.

Soon after graduation, Murtough flew to Rwanda to spend seven weeks exhuming, cataloging and studying gorilla skeletons. The research trip immediately immerses her into the doctoral program in hominid paleobiology (the study of early human ancestors and our development as a species) at George Washington University in the nation’s capital. Murtough has not only been accepted into the highly competitive program — only three or four students are admitted annually — she has also earned a fellowship covering tuition and living expenses.

Because of her dual background in animal science and zookeeping, Murtough calls herself the “oddball” of the anthropology program at Cal Poly Pomona, but her unique experiences also helped her into graduate school. Animal science courses taught her histology, pathology and how to understand animal behavior. Anthropology classes exposed her to previously unknown cultures and took her on archaeology field excursions to Big Bear.

“I saw myself as a veterinary professor focusing on pathology, but I wasn’t truly passionate about it,” she says. “That’s when I discovered my passion for anthropology, especially biological anthropology. I can see myself teaching anthropology and traveling the world as a researcher. My two interests came together perfectly. It’s a harmonious marriage because I’m going into biological anthropology, and I needed a strong science foundation, which is what I got from Cal Poly Pomona.”

Last summer, Murtough participated in a weeklong program at the University of Tennessee, Knoxville, in forensic taphonomy, the study of how the body changes after death. Students observed cadavers at the university’s one-acre body farm as they went through stages of decomposition and disturbances by animals and weather.

Murtough also spent a month in Drawsko, Poland helping researchers at the Slavia Field School in Mortuary Archeology excavate a site in the middle of an agricultural field. The site, which had repeated burials for more than 2,000 years, possessed clay cups for Adventures in the afterlife and urns for cremated remains, as well as intact bodies.

“That was an interesting experience. It was my first field archeology experience,” Murtough says. “The days were either split between being in the field for several hours or in the lab. I probably learned more in those four weeks than I could at any university.”

Dorothy Wills, professor and chair of the Department of Geography & Anthropology, says Murtough’s experience with animals, their anatomy and behavior, are valuable assets in bio- and paleoarchaeology. “Katie developed a lot of work discipline and an acute observational capability when she was working at the zoo,” Wills says. “She has a strong sense of ethical treatment of animals, which extends to human beings and artifacts.”

Whether in class or off campus, Murtough says that learning should be about “getting your hands dirty, getting in there and getting those experiences.”

When she’s not in school, Murtough works part-time as a zookeeper at Rancho Las Lomas in Orange County, caring for the Bengal tigers, zebras, llamas and other wild cats in the private zoological garden. Not surprisingly, Murtough grew up in an animal-loving home, with cats, birds, snakes and a rat. She’ll bring just one of her pets with her when she moves to Washington, D.C. — the rat.

“It’s a really sweet rat. I call it LP, which stands for Little Prince because it’s so spoiled,” she says. “It was supposed to be food for a snake, but this particular one was special. It was so cute.”
By Marisa Demers

Donor’s Time as Student and Lecturer Inspires Giving Toward Scholarships and Financial Markets Room

As a finance executive for an oil and natural gas company, Doug Ramsey ('82, Finance, real estate and law) gets an adrenaline rush overseeing multimillion-dollar mergers and acquisitions. But ask him where his heart lies, and he’ll tell you it’s teaching. It’s teaching that helped Ramsey become a success in the business world, he says. “You don’t really learn a subject until you start teaching it,” says Ramsey, who taught for seven years in the College of Business Administration as a lecturer. Ramsey has not been in the classroom for a few years — the demands of being an executive have forced an extended leave from teaching — but his impact will still be felt at Cal Poly Pomona. The former student and instructor has now become a benefactor.

In March, the university announced that Ramsey had made a $1 million gift to create the Dr. J. Douglas Ramsey Financial Markets Room in the new business building complex. Then, just a couple of months later in May, he pledged $50,000 to provide two fully funded scholarships for student-athletes over a five-year period.

“Cal Poly Pomona gave me the skills to be successful, so there was never any question in my mind that I was going to give back,” Ramsey says. “I’m glad these gifts will help future generations of students.”

Ramsey began his teaching career at 24 years old, fresh out of the University of Chicago’s MBA program. He set high standards for his students and prided himself on lively class discussions. “He’s not just a professor,” says Paul Martino, Ramsey’s former graduate student, who is now one of his confidantes in Texas. “When he walks out of the classroom, the teaching isn’t over.”

Inspired by the academic environment and his tenured colleagues in the finance, real estate and law department, Ramsey earned his doctorate in business and financial economics from Claremont Graduate University. Ramsey, however, would never get a chance to apply his doctorate at Cal Poly Pomona.

Ramsey didn’t know it at the time but mentoring a student club would change the course of his career. He served as faculty advisor for the Cal Poly Pomona chapter of United Shareholders of America (USA), a now defunct shareholders rights group created by T. Boone Pickens. While attending a USA meeting, Ramsey had the opportunity to meet Pickens and, from the beginning, the two struck up a professional friendship. Through Pickens, Ramsey met another oil tycoon, Doug Miller. Ramsey left California for Dallas and was hired at Coda Energy Inc. as a financial analyst and assistant to the president where Miller was the CEO. Ramsey later became vice president of finance for EXCO Resources Inc., in which Pickens serves on the board and is a shareholder and Miller works as the company’s CEO.

When he isn’t deal-making on behalf of EXCO, Ramsey is brokering mergers and acquisitions for Centennial Fine Wine and Spirits, of which he serves as co-owner. Under Ramsey’s direction, Centennial recently purchased another large liquor store chain, positioning the company as the largest in North Texas with plans to become the largest chain in the state.

When Ramsey was in the position to make gifts, he tapped into his experiences as a student and professor to decide the best way to give. The years spent playing on the Cal Poly Pomona tennis team instilled in Ramsey discipline as well as the ability to be competitive, qualities that have served him well in the business world. He hopes that by providing these merit-based scholarships, the university will be able to recruit some of the best student-athletes in the region. Priority for the scholarships will be given to finance students, but the award is available to all business majors.

While at the University of Chicago, Ramsey was involved with a student-run investment fund. He found the opportunity to manage a fund with real dollars so useful and practical that he wanted students at Cal Poly Pomona to benefit from those experiences as well. The Cal Poly Pomona fund will be regularly managed in a new financial markets room that will be equipped with hardware and software used by financial analysts and portfolio managers. The room will also be used as a teaching space and research area for faculty members, another amenity that is drawn from Ramsey’s teaching days.

Dean Richard Lapidus says Ramsey’s gift will build a unique learning environment.

“I’m grateful that Doug shared the college’s vision in creating a vibrant learning space for students and faculty,” Lapidus says. “I know this gift will take hands-on learning to a new level, which is something we continually strive to achieve in the college.”
CAMPAIGN
Gains Momentum

Unprecedented $150 Million
Fundraising Effort Ahead of Schedule

Less than one year after publicly launching its largest comprehensive fundraising campaign, Cal Poly Pomona has reached $90 million of its $150 million goal. Since last July, Cal Poly Pomona received a record $42 million challenge grant from the W.K. Kellogg Foundation, recorded dozens of lead gifts from top supporters, and raised more than $9 million from a kick-off gala (with more donations coming in).

“Phantom of the Opera” Alumnus Leads Campaign

“The response from donors has been very encouraging. They’ve helped build a momentum that’s pushed us ahead of schedule,” says Robert Balzer, executive director of the comprehensive campaign. “There’s a lot to celebrate, but we still have a lot of work to do to reach our ultimate goal.”

In the next two years, the campaign steering committee, University Advancement development team and representatives from across campus will strategically reach out to a broader base, Balzer says. The goal is to leverage the visibility of this year’s successful campaign to ensure that a quality college education is within reach for future generations of students. The campaign will strengthen the university’s ability to provide a hands-on education, to prepare students for the changing demands of the workplace, and to increase research and scholarship opportunities for students and faculty.

The fundraising campaign relies on the support of the entire campus community, from alumni to faculty to friends of the university. The following stories highlight ways members of the community have chosen to leave their mark on future generations.

TAKING PHILANTHROPY IN A NEW DIRECTION

Ron Gregoire, a successful businessman and supporter of Cal Poly Pomona, has provided a major gift to the College of Business Administration through a unique type of gift, the charitable lead trust, which is the first of its kind to the university.

“Since he graduated 46 years ago, Ron has always been a strong supporter of the college and of the university,” says Dean Richard Lapidus. “I am grateful for his continued commitment to the college, and I’m sure about the impact this gift will have on our future students.”

A 1971 accounting alumnus, Gregoire has generously donated to the university for many years, endowing a scholarship through the President’s Council Scholars program, serving as vice chair of corporate giving for the comprehensive fundraising campaign and sitting on the National Development Council. He also serves on the University Educational Trust, the President’s Council and the Business Advisory Council.

Charitable lead trusts allow donors to pass equity to their beneficiaries while avoiding most gift or estate taxes.

“This is a unique gift for thoughtful people who are planning to transfer specific assets to the next generation,” says Dan Wood, director of planned giving. “It allows donors to support the important missions of Cal Poly Pomona over time while simultaneously giving specific assets intact to their heirs.”

LAUNCHING EARLY CHILDHOOD EDUCATION

Philanthropists Art and Sarah Ludwick have established a critical faculty position in the College of Education & Integrative Studies designed to launch the study of early childhood education.

“This is the cornerstone,” says Peggy Kelly, the college dean. “We have robust credential programs in elementary and secondary education, as well as master’s and doctoral programs. What we’ve been missing is the other end of the education spectrum. This gift addresses that.”

The gift will establish the Ludwick Professorship in Early Childhood Education, a position that will be filled after a national search.

The new professor will serve as a liaison with the campus Children’s Center and spearhead fundraising for a facility to accommodate toddlers and infants. The collaborative programming will be beneficial for both early childhood education majors as well as the children who use the center, Kelly says.

Education has long been a passion for the Ludwicks. In fact, Sarah focused on early childhood education in college.

“The attitude of children toward learning and socialization—that their need to be successful—is so important early on,” she says. “The child who doesn’t feel a sense of self-worth at an early age really has a hard time finding it later. It takes talented teachers to nurture that self-image.”

ELEVATING MODERN ARCHITECTURE STUDIES

Steve and Marian Dodge, friends of the university and patrons of modern architecture, have pledged $3 million through a bequest gift to advance the study of modern architecture in the College of Environmental Design.

Their bequest includes their Los Feliz home, an architecturally significant building designed by architect Raphael Soriano, and an endowment to maintain the home in perpetuity.

“As a teacher, I know how important education is. We also both love modern architecture,” Marian says. “This way, we can honor both of those passions. It’s a win-win situation.”

The Dodes’ connection to the university was built upon several meetings with Soriano while he was an instructor at Cal Poly Pomona in the late 1980s. After his passing, the university retained his drawings and professional materials and established the Soriano Collection and Archives.

“The forward thinking of Steve and Marian is a testament to their long-term vision and their commitment to supporting higher education,” says Dean Michael Woo. “Their vision allows them to fulfill their passions, benefit the College of Environmental Design and its students, and preserve one of Los Angeles’ architectural treasures for future generations.”

Learn more at www.yourcalpolypomona.com

View the campaign video at bit.ly/thisciscalpolypomona or scan the QR code with your smartphone.
By Esther Chou

Civil engineering senior Chris Aguilar walks through the geotechnical lab in Building 17 with the fondness of a longtime pal and the pride of a satisfied customer. Each piece of equipment is part of his college success story and has helped him earn his first job.

“Look at this lab,” says Aguilar, pointing to the shear machine. “Other schools don’t have this equipment.”

After Aguilar walked across the commencement stage in June, he immediately started working full time as a staff engineer in the Burbank office of Gecon West, a civil engineering consulting firm. Aguilar says his training in the College of Engineering’s geotechnical lab directly led to an internship last summer with the San Diego-based company, a part-time job this past year, and a permanent position upon graduation.

“Everything I do in here, I do at work,” Aguilar says. “You always hear this about Cal Poly Pomona — their graduates are ready to work. It’s so true.”

Aguilar credits the faculty for cultivating a polytechnic culture in the college.

Most of Aguilar’s classes were structured around projects that required understanding theory and application to a real-life situation. He learned to set goals, meet deadlines and produce a quality, final product. As a civil engineering major, Aguilar trained with industry-standard equipment and knows firsthand the uses of the direct shear test, hydrometer test and Atterburg limits test.

For his senior project, Aguilar conducted an environmental and geotechnical assessment of an undeveloped property in Pomona. He and a team of seven civil engineering majors fully inspected the property as though they were working for a real client, determining the geotechnical feasibility of the land, studying the impact of storm water runoff, and designing post-construction best management practices for the site.

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— Chris Aguilar, Class of 2011

“Engineered to Succeed”

2011 Graduate Finds Early Start to Hands-on Education a Key to Job Preparation

“Aguilar was introduced to engineering in his freshman year at Martin Luther King High School in Riverside through hands-on assignments, such as designing a balsa wood bridge and building a car out of a mousetrap.”

Mike Martin, engineering teacher at King High School, remembers how the PLTW program quickly sparked Aguilar’s interest in the technical fields.

“I remember Chris having a knack, a gift, early on. I could tell from his freshman year,” Martin says. “Engineering is just applied math. When he realized that engineering was just real-life word problems, that was the hook he needed.”

Once Aguilar arrived at Cal Poly Pomona, his high school training provided a smooth transition to the college curriculum. Anecdotally, he says, several of his PLTW classmates from King High School also studied engineering at Cal Poly Pomona and nearly all have found jobs before graduating.

“I don’t know how it ended up that way or if that’s the way it is. Maybe it’s because we were goal-oriented beginning in high school,” Aguilar says. “I would totally recommend Project Lead the Way. It has helped me become the engineer I am today.”

“Gearing Up for Engineering Education”

Sparking an interest in math, science and technology starts well before college, and the College of Engineering is working to promote those fields in middle and high schools. As one of two Southern California training centers of the Project Lead the Way program, Cal Poly Pomona prepares K-14 teachers with a hands-on engineering curriculum they can bring to their respective schools and students.

The Project Lead the Way curriculum gives students a head start in engineering by introducing them to the creative, hands-on aspects of engineering and the experience of working in teams and giving presentations,” says Cordelia Ontiveros, associate dean of the college.

Teachers learn a year’s worth of instruction during two-week summer sessions. Six courses are offered at Cal Poly Pomona: introduction to engineering design, computer integrated manufacturing, digital electronics, principles of engineering, and basic and advanced gateway to technology.

The curriculum was introduced in 12 New York high schools during the 1997-98 academic year. Today, the programs are offered at nearly 4,000 schools in all 50 states.

Since Cal Poly Pomona’s first Project Lead the Way training session in 2009, the program has attracted 150 teachers from about 115 schools, including Upland High School, Fremont Middle School in Pomona and Don Lugo High School in Chino. This summer, 85 teachers from 60 schools have registered.
Manipulative and vicious, Shakespeare’s “Richard III” steps at nothing to attain power and the throne, marrying the widow of a prince he murdered, killing his wife, executing his older brother and ordering the deaths of his young nephews. Director and lead actor Lisa Wolpe promises a swift, passionate performance about politics and power—and really crazy people. “It will be a fast, vicious, murderous journey,” Wolpe says. “I hope it will retain a good deal of Shakespeare’s gleeful poetry as we hurtle along with Richard on his psychotic vision of world domination.”

The seventh season of the Southern California Shakespeare Festival at Cal Poly Pomona brings together 14 student actors and five professionals from the Actors’ Equity Association for the two-hour performance. Opening night and the gala reception is Saturday, Sept. 10, at 8 p.m.

Theatre Professor and festival Artistic Director Linda Bissett says students have a marvelous opportunity to learn from Wolpe, a critically praised Shakespearean expert. “Lisa is one of the most talented people I’ve worked with,” says Bissett, who plays Queen Elizabeth. “Her knowledge of Shakespeare is off the charts. She’s an excellent director.”

As artistic director of the Los Angeles Women’s Shakespeare Company, an all-female, multicultural theatre company, Wolpe is known for cross-gender casting. Besides herself playing the title character, Michael Kachingwe (Actors’ Equity Association) plays Margaret, widow of King Henry VI. In addition, Wolpe shifts the setting from the original late 15th century to the fictitious, fascist England, between the first and second world wars.

Theatre major Daniella Tarankow, who plays the Duchess of York, says students will be challenged to work in a professional environment with experienced actors. Unlike the campus productions during the academic year, the festival has fewer rehearsal dates and a longer performance schedule. “The demands are different because on the first day of rehearsals, you’re off to work,” says Tarankow, who played Horatio in last year’s production of “Hamlet.” “There are higher standards. I like that.”

Tarankow isn’t the only veteran student in the “Richard III” cast. Robert Shields, who played Horatio in last year’s production of “Hamlet,” says students will be challenged to work in a professional environment with experienced actors. Unlike the campus productions during the academic year, the festival has fewer rehearsal dates and a longer performance schedule. “The demands are different because on the first day of rehearsals, you’re off to work,” says Tarankow, who played Horatio in last year’s production of “Hamlet.” “There are higher standards. I like that.”

Robert Shields and Daniella Tarankow perform in the seventh Southern California Shakespeare Festival for its production of “Richard III.” (Photo credit: Matts Run/Walk)

“Richard III” Southern California Shakespeare Festival production
Studio Theatre 8 p.m.
(909) 869-3900
21 BroncoFusion
This all-day event welcomes new students to campus and concludes with a free concert in the evening.
(909) 869-5335

July 23
Homegrown Mania Competition
Enter your homemade produce in the competition at the Farm Store. Registration required.
Farm Store at Kellogg Ranch
(909) 869-2299

Aug. 19
3rd Annual Alumni in the Outfield
Collins Hospitality Society will take you out to the ball game for the Los Angeles Angels vs. Baltimore Orioles. Pregame networking at 5 p.m. at the O.C. Sports Grill.
Angel Stadium 7 p.m.
(909) 869-2963

Sept. 10–Oct. 2
“Richard III” Southern California Shakespeare Festival production
Studio Theatre 8 p.m.
(909) 869-3900

Sept. 10–Oct. 2
“The Collins College Wine, Food and Arts Tour of Tuscany, Italy
This alumni trip to Italy includes cooking classes, food markets, museums and family-owned wineries.
www.csupomona.edu/~alumni/italy/

Oct. 6–14
11-Dec. 3
“Persian Visions” The exhibit highlights the work of 20 contemporary Iranian photographers.
W. Keith and Janet Kellogg University Art Gallery
(909) 869-4302

11 Fall Career Day
University Quad
10:30 a.m. to 2:30 p.m.
(909) 869-2342

12 Engineering/High-Tech Job Fair
University Quad
10:30 a.m. to 2:30 p.m.
(909) 869-2342

Nov. 3
“Social Media in Business” Author and educator Beverly Macy will speak as part of the College of Business Administration Alumni Chapter executive speaker series.
Kellogg West Conference Center 6 p.m.
(909) 869-2963

15 Matthew Myers
5K Run/Walk
The community is invited to run or walk the 5K. Proceeds benefit student scholarships.
W.K. Kellogg Arabian Horse Center 8 a.m.
www.mattsrun.org
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