race forward
a new generation celebrates black history

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I see life as a string of experiences held together by lessons. Some lessons are hard-earned and remembered forever, others easily learned and forgotten. When photographer David Peterson and I visited an English as a Second Language class at the Charles E. Beatley Jr. Central Library in Alexandria, Virginia, for the EJUSA education story, I suddenly found myself watching others learn.

Twenty-four adults packed into a small room for their lesson. They came from Kazakhstan, Bolivia, Thailand and Mauritania, among other countries. Some had only been in the United States for a week.

First, they practiced reading and pronunciation by repeating lines from a book. Then they matched definitions with vocabulary words like “stereotype,” an often untrue judgment about groups of people or things sharing a particular trait. The students also learned how deceptive expressions like “bringing home the bacon” and “breadwinner” don’t describe food, but rather people who earn money to support their families.

Learning English improves their odds of finding work and adjusting to U.S. culture, but it is worth more than that. Knowing the language gives them a voice in an unfamiliar place.

Of course, my attempts to ask them if they were willing to be photographed brought out my inner mime. My erratic gesticulation may have left an all-too-lasting impression on them. But catching the flicker of understanding as it flashed across their faces, the smile that broke the flat line of their lips after they figured out what I was communicating — that’s what I’ll remember most.

Enjoy the newest stories in our pages. From girls who code to civil rights leaders of yesterday and today, these are stories of people growing from the challenges placed before them.

– Sasha Ingber

improve your **english**
and learn about **american culture**!

americanenglish.state.gov
Snapshots of America

Good Airport Food, Really
The reputation of airport food is taking off. In a comparison of global airports’ food and drink offerings by the Moodie Report, Atlanta airport’s Concourse F is rated the best food court. New York’s JFK Airport offers the tastiest fast-food restaurant, Shake Shack, and Denver International Airport’s Cru Wine Bar is the best wine bar a traveler could hope for.

Paperless
The demand for magazine and advertising paper in North America has fallen 21 percent in the past decade, according to the Pulp and Paper Products Council. About 120 paper mills have closed since 2000 due to declining demand. As more people turn to electronic tablets, e-readers and online information resources, including newspaper websites, the trend only stands to grow. By 2025, the amount of paper used for publishing may be down as much as 50 percent, predicts research group RISI.

Brain Games
Pen-and-paper pastimes have retained their popularity even as Americans spend billions each year on computer games. Ten million people play Sudoku, a number-puzzle game, twice a week. Just as often, 13 million play crossword puzzles to test their word knowledge. Both types of aficionados most often complete puzzles published in daily newspapers. A recent study shows that such puzzles may boost brainpower.

Opting for Alternatives
Most Americans support alternative energy. According to Gallup, 3-in-4 hope the nation develops more solar power, and the next highest share (71 percent) favors the expansion of wind energy. Only 46 percent feels the country should put more emphasis on oil production, and an even smaller share (37 percent) views nuclear expansion as a top priority.

Furry Friends and Fears
About 61 percent of Americans own a pet, and more believe that dogs make better pets than cats, according to a Public Policy poll. Snakes, on the other hand, generally terrify Americans, the survey reports.

The Silicon Touch
At least 25 places around the world refer to their local high-tech business cluster or industry as Silicon Something.

Silicon Alley, which for a time referred to a Manhattan neighborhood, is now used by the business press to identify New York’s tech sector. Silicon Pyramid refers to software-development companies in Egypt. Then there is Silicon Glen, another techie stronghold, near Edinburgh, Scotland.

All of them are looking for a piece of the innovative, job-creating magic associated with Silicon Valley in California, according to John McLaughlin, president of a local historical association. He understands. Until recently, his nonprofit was called the Santa Clara Valley Historical Association. After changing its name to Silicon Valley Historical Association, the staff saw visits to its website climb significantly and found that its new name was looked up at twice the rate of the original name on the search engine Google. “We should have done it years ago,” McLaughlin said.

61% of Americans own a pet
At Eastway Middle School, where I teach in Charlotte, North Carolina, the students’ restless hands shoot up as soon as I take out the day’s book — Elizabeth Claire’s *The New Boy Is Lost*, a graphic novel about a young Japanese immigrant in the United States.

“Can we sing it?” asks Roman Diyali, an eighth-grader from Nepal.

“You want to sing the book?” I ask.

All four students in the reading group nod with enthusiasm. One of them is already shredding an imaginary guitar.

I teach English as a Second Language (ESL). My students are refugees from Nepal, Somalia, the Democratic Republic of the Congo and Iraq, as well as immigrants from Mexico and virtually every country in Central America. They were brought to the United States by parents seeking opportunities or safety. Like the book’s protagonist, Taro, many of my students were nervous to start life over in a new place with a new language.

“I was afraid of coming here,” said Puran Bhujel, an eighth-grader who came to the United States more than a year ago from Nepal.

“I had no friends, and everybody was talking too fast. I did not understand anything.”

Today, Bhujel, who also speaks Hindi and Dzongkha, the national language of Bhutan, reads, writes and speaks English well enough to participate in a standard middle-school language arts class. He attributes his quick learning to good teachers and the availability...
of language-learning software on school computers. In fact, he says access to technology represents the biggest difference between his school in Nepal and this one in North Carolina.

Irvin Rivas, a fellow eighth-grader who emigrated from El Salvador to live with his mother, has found the learning environment at his American school vastly different from what he experienced in his home country. “We had only chalkboards. The roofs and the windows were bad, so when it rained, there was no school,” said Rivas.

**ESL Culture**

More than just technology and classroom infrastructure, ESL programs from kindergarten through secondary school implement strategies that integrate subject-area learning and language acquisition. Students don’t learn English in isolation, but instantly apply their new language to math, science or social studies, for instance. The Sheltered Instruction Observation Protocol, an aggregation of the most effective learning strategies that has been used for the last 15 years, uses visual aids and classroom activities that give the students realistic scenarios in which to practice their English.

Eastway Middle School teacher Emily Scott links classroom concepts to her sixth-grade students’ backgrounds. “We recently did a writing assignment about what family means in their individual cultures; we looked at the differences and similarities among cultures,” she said. Her approach helps create personal connections, as both student and teacher share their values.

Eliza Gardner, who teaches ninth- and 10th-graders at West Mecklenburg High School in Charlotte, said, “I like to talk to students before and after class. I also try to be very open about their grades, and I give them progress reports more often than I am required to.” That way, she said, they gain confidence by seeing how much their language skills are improving.

Roughly 80 percent of universities across the country also have ESL programs for their international students, according to U.S. News & World Report. They range from pre-entry to advanced-level classes. At Portland State University in Oregon, 10 percent of 2010 graduates had participated in ESL courses. At the University at Buffalo in New York, the English Language Institute offers a variety of additional programs for students, like a cultural orientation and a conversation partner program.

For both Gardner and Scott, being able to help newcomers bridge the language divide is rewarding. “I don’t think there’s any other occupation that I’ll be fulfilled in,” said Scott. “Teaching ESL is a perfect combination of my love for people, culture and education.”

**Finding Their Voices**

Back in my classroom, after each student has a copy of *The New Boy Is Lost*, I assign a few pages to be set to music and give the group 15 minutes to read, compose, rehearse and present its song. For a hastily formed vocal quartet, they give a heartening performance.
If you’ve ever wanted superhuman strength, healing powers or invisibility, then check out the inventions featured in “We the Geeks.” The webchat series started in 2013 in the White House as a way to highlight topics being discussed in the Office of Science and Technology. The office develops policies and advises the president on science and technology matters. The sector is important to the White House because the tech industry is responsible for the start up of thousands of companies that have employed millions of Americans.

“Our thought is we’re owning it. I’m proud to be a geek and that’s what the series is all about,” said Phillip Larson, policy adviser for space and innovation and one of the producers of “We the Geeks.”

In July 2013, “We the Geeks” unveiled the brainchildren of some innovative material scientists, bringing the stuff superheroes are made of into the realm of reality.

If we mimic human skin?” asked Chao Wang, a postdoctoral researcher in material sciences at Stanford University. He and a team of chemists and engineers made a synthetic skin that is touch-sensitive and self-healing, like human skin. A cross between a metal and a plastic, the gray-colored material restores itself even after multiple scalpel incisions. In fact, it heals much faster than real skin — in just 30 minutes.

One day, the skin may coat electrical devices and wires, repairing damages and generating electricity. Because it is also sensitive to pressure, it may allow a prosthetic limb to imitate the way a joint naturally bends.

It could also wrap around robots as a touch-sensitive sensor, enabling machines to understand how much pressure to apply when picking up different objects — a ringing telephone versus a crying baby. From practical to far-off uses, Wang said, “we just want to do something that can change the world.”
Chemical engineering professor Norman Wagner co-invented liquid armor at the University of Delaware with a U.S. Army scientist. The “shear-thickening fluid” is made up of concentrated ceramic nanoparticles that harden upon impact — stopping bullets, knives, shrapnel, ice picks and dangers as slight as a needle.

Since liquid armor protects people in high-risk situations, “you have to worry about all the ways you can use it; storing it in a trunk on a hot summer day, dunking it into cold water,” said Wagner. “Will it last?”

Beyond its planned use in clothing for the military and police, liquid armor could be added to medical gloves to protect the thousands of doctors and nurses who accidentally get stabbed by needles every year. Some contract HIV, hepatitis and other blood-borne pathogens that can lead to illness and death. The fluid’s shielding capabilities might also prove useful for spacecraft and astronaut suits, where micrometeorites and meteoric debris pose grave risks.

“It’s a wonderful opportunity to translate fundamental research into a product that benefits people,” said Wagner.

“We didn’t set out to make things invisible,” said David Smith, professor of electrical and computer engineering at Duke University. “The idea of making something as exotic and compelling as an invisible cloak suddenly became a real thing. That’s what we’re doing, just with some caveats.”

It started in 2006, when he began working with circuit-board materials — essentially copper on top of plastic. He and graduate student Nathan Landy were able to make waves curve around an object and emerge as though they passed through an empty space.

But what hides beneath the “cloak,” which spans just 41 centimeters, can still be seen by human eyes. It is invisible only to electromagnetic waves that transmit signals through devices like mobile phones, laptops and televisions.

That means that if the cloak wraps around an object that created interference during a phone call or television show, its “invisibility” could allow for clearer hearing. By bending acoustic waves and channeling them around a submarine, the cloak could conceal a submarine from sonar. Or it could enable doctors to find small tumors that ultrasonic detection often misses.

Someday, these inventions may prove so useful that they are woven into daily life with common household objects. Now if only someone could invent a device that predicts the future...
In San Francisco, you can get an inexpensive ride from a car owner with time to spare. In Normandy, France, you can rent an uninhabited castle. And in many places around the world, you can tap into Wi-Fi hot spots paid for by subscribers with bandwidth to spare.

People increasingly “share,” or pay fees to temporarily use, products (such as dwellings, cars and boats) owned by other people. And they share time and skills. “More people are starting to realize the benefits of these kinds of programs and marketplaces,” said Kevin Petrovic, the 19-year-old co-founder of FlightCar, a car-sharing company. Total revenues in the sharing, or peer-to-peer, economy topped $3.5 billion in 2013, according to Forbes Magazine. Revenues are expected to grow more than 25 percent per year during the next several years.

Doing More with Less

Sharing within a community is as old as humanity. But modern technology has added variety to the goods and services shared, which makes sharing attractive to potential borrowers and lenders.

Technology also means transactions are becoming convenient and cheap, according to April Rinne, head of the World Economic Forum’s Collaborative Lab. Online companies such as Airbnb, which lets people list and book temporarily unoccupied apartments and vacation houses, and BlaBlaCar, a ride-sharing firm, match owners and users and handle billing, while GPS-equipped smartphones let users locate goods they want to borrow.

The philosophy behind this business model is “You can do more with less, and you can have more if you share rather than own,” Rinne said. The fee-paying borrower accesses an expensive
Half of Americans rent, lease or borrow items including:

- Cars
- Bicycles
- Clothes
- Vacation homes
- Tools
- Appliances

SOURCE: 2013 SUNRUN SURVEY
Race Forward

A new generation celebrates black history
Workers place statue of jazz legend Duke Ellington in Washington’s Shaw neighborhood.
If a single building could ever tell a story of the black urban experience in the United States, it is the Howard Theatre in Washington.

In 1910, it became the first performance space built for African Americans in the United States. It hosted famous black musicians such as Ella Fitzgerald, Louis Armstrong, Billie Holiday, Nat King Cole, Marvin Gaye, Aretha Franklin, Dizzy Gillespie, Otis Redding and Lena Horne.

Earlier, after slavery was abolished in 1865, many blacks left the Southern farms on which they had been forced to work and settled in cities like Washington. Although no longer slaves, black people were segregated from white people across the United States by Jim Crow laws — named for a stereotyped minstrel-show character offensive to blacks.

All-black neighborhoods sprang up. “We had the same things that everyone else had,” said Dianne Dale, a native Washingtonian, historian and author, recalling Washington’s Jim Crow era. “It was just smaller.”

One such neighborhood was Washington’s Shaw, named for Robert Gould Shaw, the commander of a famous all-black Civil War infantry unit. It was in Shaw that the Howard Theatre was erected.

Until the 1960s, the strip that begins at the Howard Theatre and extends down U Street was known as the “Black Broadway.” Although born of racism, the community aspired to be as great as the famous Broadway in New York.

By the 1950s and 1960s, the civil rights movement demanded a society in which black people were free to live, learn and work wherever they pleased. Jim Crow laws were overturned by the Civil Rights Act of 1964 and the Voting Rights Act of 1965. But when Martin Luther King Jr. was assassinated in 1968, many black communities exploded with anger. Protesters burned down segregated neighborhoods in Washington and other cities, such as Newark, New Jersey, and Detroit. The federal government sent troops into neighborhoods like Shaw to put out the fires and restore order.

The riots caused many black families to leave Shaw and move into white communities that had been closed to them previously. Their old neighborhood suffered from poverty and crime. By the late 1970s, Shaw had become a difficult place to live, with crumbling schools and violence that was related to the illegal drug trade. Burnt buildings had been left abandoned. Go-go bands, which played a signature style of Washington music, performed some of the last concerts at the crumbling and rat-infested Howard Theatre before it was shuttered in the early 1980s.

Countless buildings lay in ruins until the late 1990s, when real-estate investors began flooding Shaw and other formerly mostly black neighborhoods in Washington. Public-housing buildings were torn down and replaced. Young professionals both black and white flocked to the area, restoring some of its Victorian-era row houses. Restaurants opened. Schools were repaired. Crime rates dropped.
More than a century after it was built, the Howard Theatre was reborn with a $29 million renovation in 2010.

Until the restoration, the Beaux Arts–style theater had been abandoned for 30 years. “Decline and sad, the theater was just another example of American ruins,” said artist Sean Hennessey, who bought a house blocks from the theater in 2003 and was later commissioned to sculpt the trumpet for the “Jazzman” figure that now crowns its edifice.

Today, the streets of the Shaw neighborhood reflect its origins in the Jim Crow era as well as its transformation over the last century.

Up the street from the Howard Theatre stands Howard University, established in 1867 to educate freed slaves. It enrolls more than 10,000 students and competes for black students with other top universities. The Howard University Hospital to the north “up Georgia Avenue” was originally built as Freedmen’s Hospital during the Civil War and still trains black doctors and dentists.

Famous neighborhood clubs, such as Bohemian Caverns and Republic Gardens, where jazz greats from Duke Ellington to Miles Davis once played, have been open again intermittently in recent years.

Shaw’s Anthony Bowen YMCA, established as a health club for blacks in 1853, reopened as a state-of-the-art, 4,100-square-meter facility in 2013.

Washington is more affluent today. As more young professionals head into the city, its identity is again changing. Many black native Washingtonians have mixed feelings about recent changes. “It’s like someone walked in your living room, came inside, and rearranged all the furniture,” said Dale, the Washington historian, about the changing neighborhood.

Many families who owned and rented houses through the years of instability following the riots find it unfair that today’s rising prices mean they can no longer afford to stay. They embrace the rebirth of institutions like the Howard Theatre, but fear they will not be able to enjoy the performances there.

“I still walk by the theater weekly and am always overwhelmed with pride and a sense of place, both geographically and as a marking in the historical continuum,” said the sculptor Hennessey. “The future is certainly one of continued renewal. Hopefully, it is a future that will include everyone.”

Natalie Hopkinson, Ph.D., is the author of Go Live: The Musical Life and Death of a Chocolate City and lives in Washington.
Inspired to Action

Americans born between 1977 and 1994 represent the largest share of young adults and most racially diverse generation in U.S. history. As they work to change their world, they look to the civil rights heroes who came before them.
Maya Thompson, 22
Fort Washington, Maryland
intern, Library of Congress

I was president of my secondary school’s National Association for the Advancement of Colored People chapter and focused on Africana studies in college. Now I work on the Voices of Civil Rights collection at the Library of Congress, organizing letters about racial segregation during the civil rights era. The stories of witnesses to history help future generations.

I am inspired by reporter Simeon Booker [pictured here with Maya Thompson], whose stories in *Jet* magazine would be lost to history if he had not had the courage to bring them to our attention. He took risks because he knew the weight of the issues at hand. He reported on the murder of a black teenager named Emmett Till, and the story and photos of Till’s body made the world wake up to atrocities that were going unnoticed by many.

Recently, I had the honor of meeting Mr. Booker. He talked about dangers he faced decades ago, but I was struck by his saying that he did not always know if he would be able to eat while working because, as a black man, he could not walk into a store or restaurant in many places. We need to remember what we take for granted, and we still need to fight for justice for people who are marginalized.
I’m a co-organizer of Know Your IX, a campaign to educate students across the country about their right to go to school free from sexual violence and harassment under a law called Title IX.

Rosa Parks is most remembered for her refusal to give up her bus seat to a white man, but by the time she did that, she had already been engaged for years in anti–sexual violence activism, documenting the testimonies of black women victimized by white men. Parks was far more radical than the character I read about in secondary school. She dared to critique accepted practices and demand the seemingly impossible. She knew that power concedes nothing without a demand — and all of us trying to make change today have got to remember that.

In secondary school, I was introduced to the Algebra Project, which teaches math in new ways. (Once, we went downtown, took photos of landmarks and used them to study math concepts.) The teachers helped me realize I could go to college, and I made a hard decision to take a break from playing football to focus on school. For five years I have tutored elementary-school children as part of the Young People’s Project.

I respect Bob Moses, who started the Algebra Project. During the 1960s, he was a leader with the Student Nonviolent Coordinating Committee and helped black people register to vote in the South. Like him, I want to help my community and my nation. Moses brought educational rights into the civil rights movement. All Americans deserve an education, and he deserves a lot of credit.

I use a wheelchair, and as a person with a disability, I’ve been able to succeed thanks to my support networks. As co-chair of the nonprofit Kids as Self Advocates, I help younger people with disabilities pursue their goals. I advise the U.S. Business Leadership Network, which pushes for inclusion of people with disabilities in the workplace. My hero is Ed Roberts, the first student with severe disabilities to attend the University of California–Berkeley — my school. Roberts fought to make the city of Berkeley, the state of California, America and the world more accessible for all. Known as the father of the disability rights movement, Roberts inspires me because he had a zeal for mentorship, for sharing his experiences with others: the key to changing public policy.

BlocPower and its partners promote and finance energy-efficiency projects at small businesses, churches and schools in urban areas. Our nonprofit startup employs local workers to retrofit buildings.

Diane Nash studied Gandhian nonviolence for 18 months with the Reverend James Lawson and other college students in the Student Nonviolent Coordinating Committee to learn how nonviolence could dismantle a violent segregationist regime in the American South. She defied local judges and voluntarily went to jail in Alabama while eight months pregnant. She placed her life at risk to act on her principles in a way that would destroy Jim Crow laws that kept races separate.

Our generation can learn from Nash’s fearlessness and strategic genius to achieve outsized outcomes. I hope to learn from her life as I help people solve problems of high unemployment and climate change.

“Nash placed her life at risk to act on her principles.”
Zim Ugochukwu, 25  
San Francisco  
founder, Travel Noire

In 2009, as a student at the University of North Carolina–Greensboro, I founded Ignite Greensboro to help open Greensboro’s International Civil Rights Center & Museum.

I recently started another project called Travel Noire to get more young people of color to travel abroad.

I admire Charles Neblett, a leader of the Student Nonviolent Coordinating Committee who sat at “whites-only” lunch counters in Greensboro, where I went to school. He did not wait for anyone’s permission to change the world. He stood in the face of injustice, unafraid and unwavering, and in doing that, inspires me to continue to challenge injustices.

Rose Bear Don’t Walk, 19  
New Haven, Connecticut  
Salish tribal member and student, Yale University

I’m working toward incorporating Native American traditional ecological knowledge in solving today’s environmental issues. As the secretary of an organization called Native Americans at Yale, I also work toward ending negative preconceptions of Native Americans.

I’m inspired by Benjamin Chavis, who coined the term “environmental racism” — a type of racism that targets minority communities by subjecting them to toxic conditions from nearby waste sites and facilities. This term resonates within Indian country because so many tribes have been subject to this kind of discrimination. Now, with movements like Idle No More, Native people are standing up to environmental racism, and I hope to join them. Because we were the original caretakers of this land, we must fight and care for it so we can all live in a more prosperous world.

Joseph Rocha, 27  
San Francisco  
law student, University of San Francisco

I was kicked out of the Navy for acknowledging I am gay. That led me to add my voice to those fighting the discriminatory “don’t ask, don’t tell” rule forcing gays and lesbians in the military to hide their sexual orientation. Their stories helped defeat a law at odds with the core values of the military and nation we love.

I take inspiration from Harvey Milk, the first openly gay city official in the U.S. He was a military veteran who believed there was no action more powerful than that of sharing your story. His life encouraged me to have hope and to give hope. I am still moved by his words: “Once they realize that we are indeed their children, that we are indeed everywhere, every myth, every lie, every innuendo will be destroyed once and for all.”

Erika Duthely, 26  
New York  
law fellow, Alliance for Justice

Making sure that everyone has equal access to our justice system is absolutely necessary for the protection of our most vulnerable citizens. I help Americans to solve their grievances in a court of law.

I have been inspired by many civil rights figures and activists, but if I have to choose, I choose the late seven-term congresswoman Shirley Chisholm. She was smart, passionate and paved the way for black women to play a significant role in politics (in my home state of New York, no less). Chisholm’s life inspires me as I strive for personal goals and as I fight for civil rights.

“Milk believed there was no action more powerful than telling your story.”
It’s an exciting time for Toni Blackman. Not only is the New York hip-hop artist, educator and writer in the final stages of completing a new recording and book project, she’s also collaborating with rabbis, bishops and imams to meld the worlds of rap and spiritual meditation. Add to that her constant collaborations with artists she has met around the globe as the U.S. Department of State’s first-ever hip-hop American Cultural Specialist, and it’s a wonder that Blackman can get it all done.

An award-winning performer, Blackman began her experience as a cultural ambassador in 2001, when she traveled to Senegal and Ghana, conducting workshops on hip-hop culture and music. Since then, Blackman has toured Southeast Asia as a participant in the Rhythm Road program through Jazz at Lincoln Center, taught and performed in Botswana and Swaziland, and collaborated on a video project in the Democratic Republic of the Congo that focused on battling violence against women.

In the United States, she works to empower women through her own initiative called Rhyme Like a Girl.

“It started in 2002 as me wanting to go into schools and communities, find young girls who rapped, and give them training and support,” said Blackman, “but it became a collective where I train young adult women who then go out and represent the power of hip-hop culture in its feminine form.”

Blackman and her colleagues appear at summits for young women, including events hosted by *Essence* magazine and the Girl Scouts. The Rhyme Like a Girl program gives young women performance experience that they might not get any other way.

Central to Rhyme Like a Girl’s mission is showing girls and women that rap can be something powerful and personal, rather than just music heard on the radio. “Rhyme Like a Girl brings in women who have been trained to rap like masters, and a lot of the young girls we perform for have never seen a woman rap like that,” said Blackman, whose own verses are often introspective:

... only treadin’ water when swimming is the goal
sit upon the rock but I can’t find the roll ...

so you ask how I’m doin’ and I say fine
in one day I done lied for the ninth time

“To them, it’s an eye-opening experience to witness the power of women who can rap improvisationally, in the moment, with the same mental dexterity that any guy could. ... They can do it, too.”

Trinise Crowder, a New York hip-hop artist and educator who performs under the name AtLas’, has been active in Rhyme Like a Girl for six years. “We teach confidence, self-awareness, honoring your voice and knowing that what you say matters,” she said, “but we are able to include other social and community messages as well.” For instance, Rhyme Like a Girl promotes financial literacy and anti-bullying.

For AtLas’, Blackman has been more than a colleague. “Toni is selfless and an inspiration,” she said. “She is willing to help you hone who you are as a person and artist and not force you into her idea of what you should be.”
Unconventional Influences
When it comes to crafting her own rhymes, Blackman’s influences are wide, ranging from R&B singer Marvin Gaye to folk artists.

“I was deeply influenced by both jazz artists and hip-hop innovators like KRS-One and Rakim, but also by great authors like [Paulo] Coelho, who wrote The Alchemist,” she said. “I like listening to thinkers and entrepreneurs who really work through problems, people like Howard Schultz, who founded Starbucks, and Cheryl Dorsey, the president of the Echoing Green foundation.”

“I’ve always done things that haven’t been done before, I’ve always had to seek my own path, and I’m always seeking stimulation,” she said, laughing. “I find inspiration in people who embody that in their own lives and work.”

Improvising Across Borders
Toni Blackman sees a movement building among young rap artists around the world and hopes to bring her own improvisational wordsmithing to a worldwide jam session.

“I’ve been in conversation with the Brooklyn Academy of Music’s education department about possibly creating a global, digital cipher to help nurture that movement.”

In hip-hop culture, the word cipher (sometimes cypher) refers to a gathering where artists take turns rapping improvised lyrics. Ciphers normally happen in person, but Blackman hopes to expand their scope with the help of video conferencing technology.

“I have people in other cities and countries waiting for us to connect, build a circle and conduct a freestyle workshop, and we will all do it together digitally,” she said.

Blackman has already led hip-hop-themed video conferences that included participants from the United States, Israel, Slovakia and beyond. “I’m excited to do it again, on a larger scale, and just see if it works!” she said.
As technology continues to be one of the fastest-growing and highest-paying business sectors in the United States, with 1.4 million jobs predicted to be available in the next five years, how many positions will be filled by women?

Women represent just 12 percent of all computer science graduates in the U.S. today. That statistic concerns Girls Who Code founder Reshma Saujani.

“Women make 85 percent of all consumer purchases,” said Saujani. “We tweet more. We Facebook more. We essentially own the Internet. We’re just not on the other side.”

In 2012, Saujani launched Girls Who Code, a program to cultivate tech-inclined females and to address their declining numbers. At a time when the high-tech industry offers increasing numbers of jobs and the pay in the tech industry is 75 percent higher than the national average, Saujani is striving to help secondary-school-aged girls take advantage of the opportunities.

“How do we get that 16-year-old girl who’s smart and who’s passionate about her education to think that this is something she should learn?” asked Saujani. “If you look at math and science tests for boys and girls, girls actually outperform boys.” Despite their academic success, Saujani believes there is an “encouragement gap” in the U.S. culture as girls approach adolescence. “Something happens where girls start saying, ‘Math is no longer cool.’ They opt out of taking those classes.”

For the past two summers, Girls Who Code has held free eight-week immersion programs that train participants ages 14–17 — most of whom are from lower-income families — in computer science, robotics, algorithms, Web design and mobile software development. And the instruction goes well beyond the ins and outs of programming. Participants receive mentoring from top female executives and engineers in the tech field. They learn how to build a website, how to build a mobile app and how to have a conversation with an engineer about a business plan.
The first eight-week program in 2012 took place in New York. In the summer of 2013, Girls Who Code held four programs in New York, three in California and one in Detroit.

Natasha Driver, a 16-year-old from the Bronx borough of New York, heard about the 2013 summer program from a guidance counselor. “I always use the computer,” Driver said, “so I figured why not go for it?” For eight weeks she commuted to the offices of IAC/InterActiveCorp, a media and Internet company in New York's Chelsea neighborhood. “We all sat in one room, the 20 of us,” she said. “It became a sisterhood. We all keep in touch, email each other and have each other’s phone numbers.”

In addition to email addresses and phone numbers, Driver took away a strong impression of the women in the tech industry who served as teachers and mentors. She described how she felt after the participants talked to Sara Haider, a software engineer for Twitter Inc. “It was really cool to meet a software engineer who was female, to hear her story and how much she enjoyed doing it. We realized, ‘Wow, this is something we can do. It’s possible for all of us.’”

The success of the summer immersion program has led Girls Who Code to create a version of the program in schools across the country. Programs are under way in New York, Boston and Philadelphia.

Girls Who Code partners with some of the big names in the tech industry who have a vested interest in helping to create as large a pool of future job candidates as possible. The 2013 summer program received support from Twitter Inc., eBay Inc., Intel Corporation, AT&T Inc. and General Electric Company.

The greatest hurdle girls face in the tech field, Saujani believes, is developing confidence. That’s what she feels is the girls’ most valuable takeaway from the program.

“Last summer our girls built Facebook apps,” Saujani recalled, “and they presented them to Sheryl Sandberg. When you’re 16 years old and you’re standing in front of the chief operating officer of Facebook demoing an app that you built, and she says, ‘Wow, we should really do this!’ that stays with you. And then when you go to your first-year computer science class in college, you’re like, ‘I got this.’”

“I knew I wanted to go to college,” said Driver of her goals before attending Girls Who Code, “but I had no idea what I’d major in. ... I went to Virginia Tech this past weekend to look at the campus and hear about their computer science program.”

“I had never heard of computer science, and now, I can’t imagine my life without it.”

-Kafilah Muhammad
How can you speak across languages and cultures?

“Cartoons can express feelings, sensations and knowledge that everyone understands,” said Rocío Martínez Jiménez, a winner of the Center for International Private Enterprise 2012 Global Editorial Cartoon Competition.

Jiménez is one of the artists from 83 countries who submitted hundreds of cartoons in three categories: democratic governance, entrepreneurship and youth empowerment. An eight-person jury, including renowned cartoonists Patrick Oliphant and Thomas Gibson, selected 10 finalists in each category. Three winners were chosen from among them by online voting.

The artists come from different backgrounds but share concerns that countries claiming to be democracies should be genuine democracies, a belief in youth’s place in shaping the future and an interest in developing entrepreneurship as a way of tapping into the creative potential of individuals.

“To me, the tyranny that needs to be broken is corruption,” said one winner, Taufan Hidayatullah. “The hope lies in the younger generation.” —A.Z.
“Cartoons are an international language to express beliefs and emotions, a language without border and nationality.”
— Seyedbehzad Ghafarizadeh
Rural Robot Takeover

On a sunny autumn Sunday in the small town of Accident, in a rural part of Maryland, members of a 4-H robotics club and their mentors huddle over projects spread on large tables in an industrial building. The secondary school students struggle to measure the robots’ chassis because measurements have to be precise.

The members of this club design, construct, program and test robots to enter in competitions. “We spend months and months preparing,” said Darrah Speis, a student on a team called G-Force, one of several teams that make up the club.

Members continuously come up with ideas for improvements to the robots, said Arlene Lantz, a teacher and team mentor. “Sometimes they get so caught up, they forget when it’s time to quit,” said Lantz, who has to remind them to stop working and go home.

Switching Gears

Seven years ago, Phil Malone, a software engineer with expertise in robotics, led the effort to turn a vacant warehouse into a communal work space. It was part of his plan to get students excited about science, technology and engineering. After retiring, he founded the nonprofit Garrett Engineering and Robotics Society (GEARS).

Garrett County, where Accident is located, lies far from major cities. There are few extracurricular activities competing for students’ attention. Malone was thrilled to learn that Lantz and another teacher, Chuck Trautwein, had been running tech and LEGO robotics camps before the launch of GEARS, paving the way for expanding robotics activities.

Interest in robotics grew greater when the 4-H launched a robotics program available to all local students in 2009. Community members, local businesses and the county contributed equipment and financial support. Malone invented SuGO, robots built by younger students with LEGO Mindstorms sets that engage in a robot version of sumo wrestling. Club members sell SuGO robots and related kits to raise money for other robotics equipment and activities.

During practices and tournaments, members learn mechanics, dynamics, computer programming and other disciplines. “We get to see ideas everybody has, see how they grow, see how they lead to making decisions,” said Robbie Browning, the programmer on the G-Force team.

Fellow teammate Speis likes the ingenuity that robotics fosters. “If you can think of it, you can make it,” she said.

Teamwork matters too. In a recent 4-H LEGO Challenge competition, Speis’ team got a perfect score, rejoiced and was then disqualified over a technical glitch. To re-enter the competition, the team members had to make a major adjustment and restart the robot within 30 minutes. “I thought it would never happen,” Speis said. “But we really pulled together, and we ended up winning.”

Speis, one of two girls on her team, does not feel singled out. “Everybody on the team has a similar mindset,” she said. On a previous all-girls team, she enjoyed wearing pink T-shirts, taking dance breaks to relax and debating the “legality and practicality of ‘bedazzling’ their robot,” she wrote in an article published by the Delmarva Farmer newspaper.

240 registered 4-H robotics clubs in the U.S.
4-H Basics

- With 6 million members, 4-H is the largest U.S. youth development organization. Established in the early 1900s, it aimed to teach students in rural areas how to apply science and technology to farm and household work. (4-H stands for “head, heart, hands and health.”)

- The economy’s shrinking reliance on agriculture and membership growth in urban areas shifted the focus of 4-H from farms to science and engineering.

- 4-H activities are supported by the U.S. Agriculture Department, 111 universities, private corporations (such as J.C. Penney Company Inc. and Lockheed Martin Corporation) and adult volunteers.

- 4-H members choose one project to work on for a year.

- A Tufts University study reports that 4-H members get better grades in school than nonmembers and are more likely to participate in science, engineering or computer technology programs.
MARDIGRAS
A Recipe for Tradition

Wendy Chatelain, a New Orleans native and marketing director for the oldest family-run restaurant in the U.S., Antoine’s Restaurant, is no stranger to the city’s culinary traditions. She names Creole gumbo and red beans and rice as the most iconic New Orleans dishes. A popular form of gumbo is made with oysters, shrimp and crab, all abundantly available in the port city. While restaurants like Antoine’s have their own well-established version of the dish, cooks making gumbo at home put their own spins on it. With less room for variation, the preparation of red beans and rice traditionally would start on Monday, “the day you would do laundry, so you could walk away and let the beans cook,” Chatelain said. On Tuesday, rice would be served alongside the long-simmered beans, resulting in a New Orleanian favorite.

Masked Mingling

When Mardi Gras started, masks were an “equalizer,” said Ann Guccione, who runs a mask shop in New Orleans. The carnival was a day when social classes mixed, and masks allowed people to fraternize with others in classes either higher or lower than their usual milieu without fear of judgment. While such social strictures don’t exist today, masks remain crucial to revelers’ costumes. Guccione recalls a man who bought an elaborate leather mask accented with real bull horns and taxidermy eyes from her shop for Mardi Gras. The next day, the man called Guccione to tell her what a hit the mask was. “He got invited to every VIP party,” Guccione said. “The mystery behind a mask changes everything.”

Music to Your Ears

Only the best musicians are capable of playing jazz well, according to Jason Patterson, music director at the Snug Harbor jazz club in New Orleans. Jazz is a unique form of popular music because of its highly improvised nature. Written music, said Patterson, only provides basic structure, like “the bones of a body. Jazz artists put the meat and blood into it.” Patterson encourages jazz enthusiasts to visit Frenchmen Street, where jazz was born and where today many venues still showcase traditional jazz. At dance halls along the street, people can dance to the music as they did back in the ‘30s.

Leisure

“You can get beads for days, but you can’t always get a coconut or a shoe. Those are coveted,” said Carrie Jo Martina, referring to special trinkets thrown to the crowds during New Orleans’ annual Mardi Gras festival.

The parade is held the day before Lent, the 40-day period observed by many Christians before Easter. Social organizations known as krewes sponsor and ride in the parade floats, tossing the trinkets to spectators along the parade route, which runs down the famed St. Charles Avenue.

Some krewes throw trademarked items, such as the elaborately decorated shoes tossed into the crowd by the krewe of Muses or the hand-painted coconuts handed out by the krewe of Zulu. Wade Wright, a member of the Zulu krewe, began painting coconuts in December 2013 for this year’s Mardi Gras celebration, which takes place March 4. He said he planned to decorate at least 300 coconuts before the big day.

Carlyn Worthy of the New Orleans Convention and Visitors Bureau said that Endymion, one of the super krewes — “super” denoting a large number of members — had the world’s biggest parade float last year. The float held 230 riders, cost $1.2 million to construct and featured pop singer Kelly Clarkson. For those who get to ride on the imaginative floats, it’s a hard-earned privilege they won’t forget.

For parade-goers, the handouts are often the most exciting part. Wright said that when he hands a painted coconut to a spectator, he enjoys watching the person examine it like it’s some kind of specimen.

“They’re looking at the artwork, how much work went into it,” he said. “That’s my favorite part.”

Previous page: Carnival riders throw trinkets from floats during the Mardi Gras parade in New Orleans.
Since its inception 13 years ago, the U.S. Ambassadors Fund for Cultural Preservation has contributed millions of dollars to preserve cultural sites and objects, and traditional forms of expression, worldwide.

Our new book *Priceless* depicts many of these preservation efforts. They include the restoration of buildings, conservation of manuscripts, protection of archaeological sites and documentation of vanishing crafts.

Each month *EJUSA* will feature one of these treasures. Check back next month for the Treasury of Petra in Jordan.
Tailwinds of the ’60s

LONNIE G. BUNCH III

The civil rights movement brought this nation some of its most memorable moments — the most memorable being the 1963 March on Washington.

What happened that day in the nation’s capital had significant impact on the 50 years that followed. Years later, women would march for equal rights; so would gays, and environmentalists, and the coalitions supporting equal rights for Native Americans, the elderly and people with disabilities.

Taken as a whole, what the civil rights movement gave people — all people — was the sense that profound change was possible (see pages 10–17).

Almost every movement that followed found some element of the civil rights movement to adapt to its cause.

The civil rights movement revealed that a mass showing in the streets worked, not only to bring media attention, moral grounding and leadership skills, but to inspire people to believe they were participating in something personally important. The marches for the Equal Rights Amendment showed that passion and theatricality were a good combination.

It was also essential to have a charismatic leader. Cesar Chavez spoke for the beleaguered farm workers during the late 20th century. When a leader for the burgeoning gay rights movement was needed, Harvey Milk led the crowds in San Francisco in the 1970s.

What was understood by the worldwide movements that grew up around the civil rights movement was the need for coalitions, ones that could push for legislation. The National Organization for Women was founded on that model.

It is part of the American story that legislation and court rulings are needed to solidify the work done on the ground. For the 1960s activists, the achievements came in the passage of several bills, beginning with the Civil Rights Act of 1964.

The breakdown of the old ways opened the way to political office. Then the causes of the street became the centerpieces of political platforms and legislative agendas. Woven into the successful Title IX legislation (which requires women to get the same opportunities as men in educational programs receiving federal money) and today’s rapidly changing laws and views on same-sex marriage are the tenets the civil rights legislation demonstrated.

And laws have led to new activism. Today, the women’s movement has nurtured 98 women in the current U.S. Congress and 20 world leaders. Those results were the core of everyone’s dreams 50 years ago. □

LAST WORD

As director of Smithsonian’s National Museum of African American History and Culture, due to open next year, Lonnie Bunch sees the long view.
**Resources**

**Aggregation** | to join or combine into a single group..., p. 5

**Atrocities** | a very cruel or terrible act or action, p. 15

**Brainchild** | an idea, plan, or creation of one person, p. 6

**Dexterity** | ...clever skill: the ability to think and act quickly and cleverly, p. 16

**Erratic** | acting, moving, or changing in ways that are not expected or usual: not consistent or regular, p. 2

**Gesticulation** | to move your arms and hands especially when speaking in an angry or emotional way, p. 2

**Immersion** | ...complete involvement in some activity or interest, p. 18–19

**Improvised** | to speak or perform without preparation..., p. 17, 26

**Inception** | the time at which something begins, p. 27

**Ingenuity** | skill or cleverness that allows someone to solve problems, invent things, etc. ..., p. 22

**Introspective** | the process of examining your own thoughts or feelings, p. 16

**Marginalized** | to put or keep (someone) in a powerless or unimportant position within a society or group, p. 15

**Media** | the radio stations, television stations, and newspapers through which information is communicated to the public ..., p. 9, 19, 28

**Minstrel** | ...a member of a group of entertainers who performed black American songs and jokes usually with blackened faces, p. 12

**Profound** | ...very great ..., p. 28

**Protagonist** | the main character in a novel, play, movie, etc..., p. 4

**Sector** | an area of an economy: a part of an economy that includes certain kinds of jobs..., p. 3, 6, 18

**Synthetic** | made by combining different substances; not natural, p. 6

**Trinket** | a piece of jewelry or an ornament that has little value, p. 26

**VIP** | a person who is very important or famous, p. 26

**Zoning** | a system of rules used to control where businesses and homes are built in a city or town, p. 9

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**Connecting the Dots**

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