

— The Google — Guys

SERGEY BRIN

“Sergey was a good boy,” his father joked, “when he was asleep.”¹



Russian Roots

Sergey Mikhailovich Brin is the son of a University of Maryland applied probability and statistics professor (his dad) and a NASA scientist (his mom). He was born in Moscow, Russia, on August 21, 1973. Sergey’s parents fled to the United States when he was 6 years old, and by the time he was 21 he was on his way to becoming a multicultural marvel.

In Moscow, the family, including the parents and Sergey's grandmother, lived in a crowded 350-square-foot apartment. Sergey's toddler playground was a grim courtyard, where the boy spent two hours a day playing, regardless of how cold the weather.² Additionally, the family met with anti-Semitism in the streets and in the workplace. The outlook was so discouraging that the family knew they must leave.

When Sergey was 17, they returned to Russia for a visit, despite their nervousness at the reception they might receive. After Sergey saw the crumbling infrastructure and bleak atmosphere of his native Moscow, he felt grateful that his parents had immigrated.⁵

"I think, if anything, I feel like I have gotten a gift by being in the States rather than growing up in Russia . . . it just makes me appreciate my life that much more."⁴

American Passage

The family, including parents, grandmother, and young Sergey, landed in America on October 25, 1979. With the help of the Jewish community that sponsored them, Michael and Eugenia Brin found work suitable to their education and settled into a new life in Maryland, just on the perimeter of Washington, D.C.

The Brins had not lived a particularly Jewish-centered life in Russia. "We felt our Jewishness in different ways," explained Michael, "not by keeping kosher or going to synagogue. It is genetic. We were not very religious.

My wife does not eat on Yom Kippur. I do. We always have a Passover dinner. We have a Seder. I have the recipe for gefilte fish from my grandmother.”⁵

Educating Sergey

For a while, young Sergey attended the Miskan Torah Hebrew School, but he didn’t like it and after a few years stopped going.

Sergey was enrolled in the Paint Branch Montessori School in Adelphi, Maryland. He spoke English with a heavy accent when he entered the school. He didn’t pick up language as quickly as the family hoped, but the bright-eyed, shy boy did adjust. His Montessori teacher, Patty Barshay, recalls, “Sergey wasn’t a particularly outgoing child, but he always had the self-confidence to pursue what he had his mind on.”⁶

His father gave him a Commodore 64 computer when Sergey was 9. By middle school, Sergey was recognized as a math prodigy. He went on to Eleanor Roosevelt High School in Greenbelt, Maryland, where, according to some accounts, he was cocky about his math skills, often challenging teachers on their methods and results.

“I didn’t systematically teach Sergey; he would ask when he wanted to know something,” his father recalled.⁷

The Road to Stanford

You might say Sergey went to high school, college, and graduate school at the University of Maryland. He began

studying math at the college when he was 15, and quit high school altogether after his junior year to enroll full time and graduated in three years.

After winning a National Science Foundation scholarship, Sergey applied to several graduate schools. Being rejected by MIT wasn't such a disappointment, since he had his heart set on going to California to attend Stanford. That school appealed to him because of its proximity to Silicon Valley and the nearby army of supportive high-tech entrepreneurs. Sergey headed west to earn his Ph.D.

He also welcomed the prospect of great weather. In California, Sergey easily took to campus social life, including skiing, rollerblading, and gymnastics.

When his father asked whether he was taking any advanced classes, Sergey replied, "Yes, advanced swimming."⁸

Rajeev Motwani, one of Sergey's advisors, remembers, "He was a brash young man. But he was so smart. It just oozed out of him."⁹

(*Note:* There is more on Brin's Stanford experience in the section "Forging the Stanford Connection.")

Boy Genius to Adult Genius

As an adult, Sergey is restless and edgy. His boyish good looks and low, sloping shoulders make him seem perpetually relaxed. He is active, studying the flying trapeze at a circus school in San Francisco (except that he

fell and hurt his back) and practicing springboard diving. His puckish sense of humor often grabs people off guard, and at times even comes across as juvenile. Nevertheless, his Levi's, faded t-shirt, and crocs with socks or rollerblades are a cover for a purposeful, serious, even aggressive personality. Both Sergey and Larry are notorious workaholics.

Sergey still speaks with a slight Russian accent and ends many sentences with “and what not.” Like Eric Schmidt and Larry Page, he overuses the word *scale*. Often, *scale* describes something that remains workable as it grows bigger, but in Googlespeak, it has come to mean something that can be developed into a profitable product.

Wedding on a Caribbean Sand Bar

It seemed curious that Sergey missed Google's 2007 Annual meeting, but then, the story came out that may have explained it. He was getting married.

Sergey's mother once expressed the hope that he would wed a “nice Jewish girl,” and her wish came true. He married Anne Wojcicki in May 2007, in the Bahamas. Anne's great-grandfather on her mother's side was a prominent Russian rabbi who came to the United States in the 1920s.

With the bride wearing a white bathing suit and the groom wearing a black one, Brin and his longtime girlfriend swam to a sandbar, where a friend performed the nuptials.

Anne, a former health-care analyst turned entrepreneur, is the sister of early Google executive Susan Wojcicki. The sisters grew up in Palo Alto, where their father is the head of the physics department at Stanford. Their mother is a respected journalism teacher across the street at Palo Alto High School. Anne attended Yale University, graduating in 1996 with a degree in biology. Like Sergey, she is high-energy and athletic. She was a member of her college ice hockey team and a competitive ice skater.

Sergey and Anne became parents for the first time in the winter of 2008 with the arrival of son Benji.

23andMe

Google put \$3.9 million into Anne Wojcicki's biotech startup, 23andMe. The company is built on the concept of individualized genetic mapping. Its name refers to the number of paired chromosomes in human DNA. Anne's company can tell you about your genetic origins, your propensity or resistance to certain diseases, and scores of other intimate details.

After submitting to genetic testing by 23andMe, Brin learned that he has a propensity for Parkinson's disease, a condition that affects his mother. In his blog, Sergey wrote:

This leaves me in a rather unique position. I now have the opportunity to adjust my life to reduce those

odds. I also have the opportunity to perform and support research into the disease long before it may affect me.

He added, “I feel fortunate to be in this position.”¹⁰

*Until the fountain of youth is discovered, all of us will have some conditions in our old age, only we don’t know what they will be. I have a better guess than almost anyone else for what ills may be mine and I have decades to prepare for it.*¹¹

Brin, along with his parents, contributed \$1.5 million to the University of Maryland’s Parkinson’s disease research project.¹² And he also is involved with the Michael J. Fox Foundation.

Anne Brin appeared on the Oprah Winfrey show and talked about her pregnancy and the baby. “I looked at Sergey’s profile and I looked at me, and we saw that the child has a fifty percent [chance of being] lactose intolerant. Because of Sergey, the child has a very, very unlikely chance of having blue eyes.”¹⁵

Warren Buffett did a 23andMe DNA test with musician Jimmy Buffett to resolve the long-standing question of whether they were related or not. “The report came back and it said if you don’t understand the results, give us a call. I did call and got Anne on the phone. She explained it again and asked if I understood it now.

I really didn't. She finally said, 'Let's put it this way. I'm more closely related to Jimmy Buffett than you are.'"¹⁴

Flying High

Sergey Brin's mother marvels at the height of her son's success. "It's mind-boggling," says Eugenia. "It's hard to comprehend, really. He was a very capable child in math and computers, but we could never imagine this."¹⁵

When asked how it felt to have sudden vast wealth, Brin said, "It takes a lot of getting used to. You always hear the phrase, money doesn't buy you happiness. But I always in the back of my mind figured a lot of money will buy you a little bit of happiness. But it's not really true. I got a new car because the old one's lease expired. Nothing terribly fancy—you could drive the same car."¹⁶



Has success and wealth changed him? "I don't think at a certain scale it matters," said Sergey, "but I do have a pretty good toy budget now. I just got a new monitor."¹⁷

Sergey also bought a pricey new home on the peninsula south of San Francisco and a New York apartment, but he still is careful with personal money. "From my parents I learned to be frugal and to be happy without many things."¹⁸

He likes to shop at Costco warehouse stores, where he bought his parents a membership. “It’s a store that he knows and understands,” explained Sergey’s father.¹⁹ Luckily, there is a Costco very near Google headquarters.



Larry Page, the intellectual of the Google guys, seeks exploration of space through his involvement in the Google Lunar X-Prize and by serving on the X-Prize board. However, Sergey, the trapeze artist, dives right in. Recently he traveled to Kazakhstan to visit the Baikonur Cosmodrome for a mini space vacation. Brin has paid \$5 million to travel into actual space. He’ll make the trip in 2011 with Space Adventures, a company that struck a deal with the Russian space agency to launch the first entirely private flight into space. Brin will get one of the two seats available on that mission.

LARRY PAGE

While Sergey Brin’s is an immigrant’s story, Larry Page, several generations away from the immigrant experience, was in most ways the typical American boy of his generation. Even so, as with Sergey, the seeds were planted early for him to pull the Prince Arthur sword from the stone of technology. Although perhaps

not consciously on the part of their parents, they both were groomed from childhood for the journey they would take. Their destiny evolved from their origins.

Like his partner, Sergey Brin, Larry comes from Jewish heritage. Page's maternal grandfather immigrated to Israel, where he lived in a desert town near the Dead Sea, and worked as a tool-and-die maker. Larry's mother was raised in the Jewish faith, but his father was too scientific for much religion. His focus was on the world of technology.

Cradled in a Computer Culture

Page's grandfather was a Detroit factory worker, but his grandson has had a far different life. Lawrence Edward Page grew up in Lansing, Michigan, surrounded by math, science, and computers. His father was a highly regarded professor at Michigan State, where his mother also taught computer programming. His parents divorced when Larry was 8 years old. Nevertheless, the boy grew up with both parents in his life. Larry's fun-loving father took him to Grateful Dead concerts as a child.

Page explained, "my dad was a computer science professor, so we had computers really early. The first computer we owned as a family was in 1978 [Larry would have been 5 years old], the Exidy Sorcerer. It was popular in Europe but never in the U.S. It had

32K memory. My brother had to write the operating system.”²⁰

Larry inherited at least one of his father’s traits—the tendency to have spirited discussions about everything. “In some ways [Carl] was a little hard to deal with,” said George Stockman, one of Professor Page’s colleagues at Michigan State, “because he wanted to argue about everything and he did, and . . . [he] shared a lot of that with his son. So intellectually they shared in a lot of discussion.”²¹

Nikola Tesla, Page’s Hero

Twelve-year-old Larry Page, an aspiring inventor, read a biography of Nikola Tesla, and it got him to thinking. The boy admired the phenomenal number of innovations credited to Tesla but was struck by the fact that Tesla led a life fraught with conflict, was bad with money, died in poverty, and was little-known outside scientific circles. Certainly, school children don’t study Tesla the way they do Thomas Edison.

Considered the father of modern physics and electrical engineering, Tesla invented alternating current (AC) power and the AC motor. He pioneered many scientific advances including robotics, remote control, radar, and computer science. Although Marconi claimed it, Tesla was eventually recognized as the inventor of the radio. His workable inventions aside, Tesla often was regarded

as a mad scientist, thanks to his behavior and a raft of wild ideas. Tesla also had difficulty commercializing or finding practical applications for his ideas and inventions and therefore did not seem to accomplish as much as he might have.

Page dreamed of being as creative and doing such great things, and he wanted his work to make a difference and change the world. Since some of Tesla's inventions did change the world, it would also seem that even at 12 years of age, Page also was aiming for recognition and financial reward.

TESLA'S STORY

In 1856, Nikola Tesla, according to legend, was born exactly at midnight during a raging electric storm, which may or may not explain his troubled life and his fascination with anything that sparked.

Tesla, a Croatian, studied in several respected Eastern European universities, but, despite his genius, never graduated. He experienced a nervous breakdown in early life but nevertheless found work in the emerging electrical power industry. When he immigrated to the United States, he went to work for Thomas Edison, but left Edison after an argument over wages. Soon, Tesla was off doing his own research and working on inventions in New York and Colorado Springs. The appeal of Colorado

was the wonderful electric storms of the Rocky Mountains. Visitors to Tesla's laboratories often found him at work, surrounded by man-made lightning. Although Tesla assured them the lightning bolts were harmless, the sight terrified the visitors.

Certainly, Tesla was quirky, most likely suffering from an obsessive-compulsive disorder. He was fanatically clean, had an aversion to overweight people, and became obsessed with the number three. He often circled the block three times before entering a building, demanded three napkins at meals, and would not stay in a hotel unless the room was divisible by the number three.

Tesla may have suffered from a rare neurological condition called *synesthesia*, in which one type of stimulation evokes the sensation of another. For example, hearing a sound or thinking of a number may produce the visualization of a color.

The inventor died alone and penniless at age 86 in room 5327 of the New Yorker Hotel.

The Tesla Car

Despite his tragic story, Tesla has many admirers, one of whom named an über-chic \$109,000 electric sports car after him.

The limited run of hand-built Teslas will travel up to 130 miles per hour and do 0-to-60 in about four seconds.

The Tesla also can go 250 miles on a single charge of electricity to its nearly silent motor. The car is powered by an innovative lithium-ion battery and costs a penny a mile to drive.

The car's developers chose to build a sports version because they knew the first generation of their car would be expensive, due to development costs. They also realized that many of Silicon Valley's billionaires pay homage to green technology and simple living, but also have a yen for fast cars. They have Corvettes, Porsches, and other costly sports cars tucked away in the five-car garage. They figured a whiz-bang electric model would have appeal.

During the economic crisis of 2008, Tesla Motors ran into financial trouble and has had to cut back drastically. But thanks to \$40 million from an angel investor, it has been able to carry on. By the end of 2008, Tesla had orders for more than 1,200 cars, and had delivered 50 roadsters. It was shipping ten cars a week.

Both Larry and Sergey have ordered the Tesla, as have actor George Clooney and California Governor Arnold Schwarzenegger.

Motivated by Montessori

Like Sergey, Larry attended a Montessori elementary school, where he was exposed to an educational method developed by an Italian physician, Maria Montessori,²² in

the early 1920s. Her ideas quickly spread around the world. Montessori once wrote: “There is a part of a child’s soul that has always been unknown but which must be known. With a spirit of sacrifice and enthusiasm we must go in search, like those who travel to foreign lands and tear up mountains in their search for hidden gold.”²³

Montessori believed that children wanted to learn and that development came in stages with each child. Playing was children’s work, and by directed play, children moved along with their phases of development into deep learning. As a result, children often became more self-managing, responsible, and committed to lifelong learning. Certainly, her methods seemed to have shaped both Sergey and Larry.

“We do not want children who simply obey and are there without interest,” she taught, “but we want to help them in their mental and emotional growth. Therefore, we should not try to give small ideas, but great ones, so that they not only receive them but ask for more.”²⁴

The Leadership Program

Later, Larry Page graduated from East Lansing High School, where he played the saxophone. He went on to graduate with honors and a degree in computer engineering from the University of Michigan. At UM, he served a term as president of Eta Kappa Nu, the National Honor Society for electrical and computer engineering

students. There, and in another special program, he began developing leadership skills.

“In particular,” he said, “the LeaderShape program was an amazing experience that helped me a lot when we started Google.”²⁵ LeaderShape is a UM personal development program that originated in the early 1990s in the College of Engineering.

The Solar Racer

It also was at the University of Michigan that Larry followed his interest in alternative forms of energy. As a member of the school’s solar car team, he took part in the early phase of building the champion 1993 Maize & Blue solar car.

The UM solar car ran in two races, winning a national championship in Sunrayce 93, the predecessor race to the North American Solar Challenge. It then went on to finish eleventh in the 1993 World Solar Challenge. Maize & Blue is now part of the permanent display at the Museum of Science and Industry in Chicago. The car had an evolutionary design descended from the General Motors Sunraycer and the University of Michigan’s first-generation car, Sunrunner. It is considered an early demonstration of energy-efficient automobile design.

Go West, Larry

After earning his undergraduate degree, Larry headed for Stanford University. However, having spent his entire

life in the familiar environment around Michigan, he set out to California with some trepidation. “At first it was pretty scary,” he said. “I kept complaining to my friends that I was going to get sent home on the bus. It didn’t quite happen that way, however.”²⁶

Tragedy struck during Larry’s first year at Stanford. His father Carl, a survivor of childhood polio, died from complications of pneumonia at age 58.

“I remember Larry sitting on the steps of the Gates Building and he was very depressed,” said Sean Anderson, a grad-school officemate of Larry. “A number of his friends were around trying to comfort him.”²⁷

Fortunately, he had family. Larry’s brother Carl was living in Silicon Valley as well. Larry remains close to his mother and brother. The three of them participated in a peace march in Oregon, protesting the Iraq war.²⁸

Lego-centricity

As the legend goes, Larry once built a programmable computer from Legos. Page has always had a fascination with the children’s building blocks, and Google has become a Lego-centric company. Craig Silverstein recalled that the company learned a lesson about quality control early in its life, thanks to the desire to build a hard-drive case out of Legos. The original Danish version was expensive, and to save money the Google team went to a discount store and bought a knockoff of

Legos. Sadly, the quality wasn't the same. The crew came in one morning to find that their hard-drive case had crumbled into a heap sometime during the night.

Nevertheless, Larry's love of Legos continues. When asked by a reporter what his favorite technology was, he replied, "The thing I'm most fond of is Lego Mindstorms. They're little Lego kits that have a computer built in. They're like robots with sensors. I've been doing some classified things with them."²⁹

Mensa Boy

As the engineer and mathematician who oversees the writing of the complex algorithms and computer programs at Google, Larry has a reputation as a deep thinker and major nerd. When he gave the keynote speech at the huge Las Vegas Consumer Electronics Show, he brought Robin Williams on stage with him. Williams mocked Page, calling him "Mensa boy." Williams piled it on, saying, "Larry, do you realize you sound just like Mister Rogers?"³⁰

Larry Gets Married

"This is the wedding that everyone's been talking about in Silicon Valley," proclaimed *Valleywag* editor-in-chief Owen Thomas.³¹ Larry Page wed Lucinda Southworth, his longtime girlfriend, on December 8, 2007. They were married on Necker Island, Richard Branson's Caribbean retreat. Necker Island, once a favorite spot

of Princess Diana, provided appropriate privacy and security. And no wonder—rooms there start at \$50,000 per week and can climb to \$300,000 per week.

Southworth, a pretty blonde, achieved something Page aspired to but did not accomplish—she earned her Ph.D. Lucy studied biomedical informatics at Stanford University after graduating from the University of Pennsylvania and earning a master of science from Oxford University. Additionally, she has done medical social work in South Africa.

The X-Prize

One April Fool's Day, Google announced plans to open Googlunaplex, a research facility on the moon. It sounded like a joke, but was it? Both of the Google founders exhibit an unnatural interest in worlds beyond our own. At the *Star Trek* Fortieth Anniversary convention in Las Vegas, Google set up a booth featuring tools suitable for intergalactic use.

Yes, Googlunaplex was all in fun, but Larry and Sergey get serious about the subject of outer space. Using Google's Sky software, found within Google Earth, Web surfers can view stars and constellations and take a virtual tour of the galaxies.

Page serves on the board of directors of the X-Prize Foundation and is the corporate spirit behind the Google Lunar X-Prize, a \$20 million reward to the first company

to develop a successful moon-exploring robot. At least ten teams from around the globe have signed up to compete in the nongovernmental race to the moon.

The team that collects the grand prize must soft land a privately funded robotic spacecraft on the moon by December 31, 2012. The robot must be able to rove 500 meters and beam specific video, images, and data back to Earth.

Larry sees all sorts of advantages of having a permanent base on the moon, ranging from solving some of Earth's energy problems to serving as a launching pad for more distant exploration of the universe.

Ramin Khadem, chairman of one of the competitors, Odyssey Moon, explains why the competition to get a foothold on the moon—again—is so exciting. “The moon is the eighth continent and we need to exploit it in a responsible way. We want to win the Google prize and, if we do, that will be gravy. But either way we are going to the moon.”⁵²

The X-Prize Foundation offers several other awards for groundbreaking work that will benefit humanity with an emphasis on scientific endeavors. In addition to the space prizes, there is one for automotive advances and genomics.

No More Laundry

When asked how success and wealth had changed his life, Page replied, “I don’t have to do the laundry.”⁵³

Laundry may be an important issue. The story goes that on the morning Google went public, Larry showed up for work, uncharacteristically, in a suit and tie. According to *GQ* magazine, he somehow sat in a plateful of crème fraîche. Sympathetic Googlers helped him remove the mess from the rear of his pants.³⁴

THE POWER OF PARTNERSHIP

When Larry traveled to Stanford for an orientation visit in the spring of 1995, Sergey already was a second-year student. They met on a walking tour of the campus guided by Sergey, and as the story goes, sparks flew. Apparently, they argued about every topic they discussed, which is not surprising, considering their matching levels of self-confidence and Larry's family history of confrontational debate. Each young man considered the other somewhat arrogant and obnoxious, yet the contentious conversation also was engaging. It clearly was interesting to both of them.

Despite their verbal differences, Larry and Sergey walked on common ground. While Sergey is an extrovert and Larry is quieter, they both are playful and a little wacky. They look so much alike they could be brothers, although Sergey more resembles the character Linguini in the Pixar movie, *Ratatouille*, than Larry does. Both men are sons of college professors, they

share a Jewish heritage, and both received a Montessori School education as children.

They each have one sibling, both brothers, although Sergey's brother is younger and Larry's is older. Carl Page Jr. also is a successful Silicon Valley entrepreneur. In 2000, he sold the company he founded, eGroups, to Yahoo! for \$432 million.

Both Larry and Sergey are math whizzes with a towering regard for academic achievement.

Sergey admits he mostly goofed off during much of his education. "I tried so many different things in grade school," he said. "The more you stumble around the more likely you are to stumble across something valuable."⁵⁵ Sergey followed this wandering path until he met Larry. Page, it seems, didn't waste much time getting to work on his graduate project.

After Larry arrived at Stanford and conferred with his advisor, he began developing a project called "Back-Rub," named for its process of analyzing back links to a website. Soon Sergey was working with him on the project out of Room 360 of the William Gates Computer Science building.

They were following the tradition of their industry, the road from princes to kings—that of partnering up two amazing brains on a single project. First, there was Hewlett and Packard, and then Bill Gates and Paul Allen formed a schooldays' alliance that continued for years

and changed the way the world works. Steve Jobs and Steve Wozniak followed at Apple. It happened again at Yahoo! with Jerry Yang and David Filo.

Larry and Sergey seemed to sense the nobility in their relationship, their similar brainpower, the same ideals, and the grit. With this kind of magic, all Larry and Sergey had to do was work hard and make good decisions along the way, and success was inevitable.

Okay, this sounds too easy, and in fact, few there be who can pull it off at the level Sergey and Larry were able to. It also takes imagination and an excellent idea.

Forging the Stanford Connection

Gates 360, the Stanford graduate student office shared by Larry Page and Sergey Brin, has practically become a computer science shrine. It is the birthplace of dreams, especially the dreams shared by young people excited by computers, innovation, and getting rich by launching a lollapalooza of a company.

A Creative Environment

Nearly all of the original search software and methods originated at universities. Carnegie Mellon, the University of Nevada, and the University of California at Berkeley were early development centers.

But Stanford University, inextricably linked to the scientific accomplishments of Silicon Valley and fueled by the venture capital community on nearby Sand Hill

Road, Palo Alto, has been the most fertile high-tech incubator anywhere. Hewlett-Packard, Excite, Cisco Systems, Yahoo!, and Sun Microsystems (*SUN* stands for *Stanford University Network*) and many other companies—including Google—were conceived there.

“The ecosystem we work in, our own network is really important,” says venture capitalist Randy Komisar. “Where our network is strongest is right around us in Silicon Valley. It is not a surprise that a lot of companies we back coming out of Europe, Israel, even coming out of countries like India, end up with the management teams coming to Silicon Valley to build their businesses, because that ecosystem is so reinforcing to them.”⁵⁶

“We were very lucky to have been there in the early days,” remember Yahoo! founders Jerry Yang and David Filo of the early 1990s. “It was virgin territory. There was so much creativity. Every time someone did something novel, it was monumental.”⁵⁷

Rajeev Matwani, one of the Google advisors at the university and an angel investor in various high-stakes ventures, says, “I credit Stanford for creating an environment where people in different areas can work with each other and do things where the whole is greater than the sum of the parts.”⁵⁸

Stanford makes it easy for graduate students to pursue work that could lead to innovation and the formation of a

new company. Its Office of Technology Licensing will pay for the patent process, then enter into long-term licensing agreements that let the budding scientists launch their startups, and with luck, hit the jackpot.

Stanford President John L. Hennessy says that coming out of school with a company is more productive than simply writing a thesis:

We have an environment at Stanford that promotes entrepreneurship and risk-taking research. You have this environment that gets people thinking about ways to solve problems that are at the cutting edge. You have an environment that is supportive of taking that out into industry. People really understand here that sometimes the biggest way to deliver an effect to the world is not by writing a paper but by taking technology you believe in and making something of it. We are an environment where a mile from campus they can talk to people who fund these companies and have lots of experience doing it.⁵⁹

A Poignant History

Stanford was founded in 1891 to honor the memory of Leland Stanford Jr., the son of railroad magnate and California Governor Leland Stanford and his wife Jane. Leland Jr. died of typhoid just before his sixteenth birthday. Among the members of Stanford's first class

was a future president, young Herbert Hoover. Stanford is at the top of its game in a number of fields of academic study, ranging from journalism to medicine.

The Stanford of today is virtually a city on its own. Its sprawling campus reflects the California landscape surrounding it, with palm, eucalyptus, and cypress groves, Mission-style architecture, and red-tiled roofs. The campus is rich with art, and students blithely pedal their bicycles among one of the best collections of Rodin sculpture anywhere. Most recent buildings seem designed to fit in, but the university's diversity of programs and its wealth have led to certain examples of more functional and less stylized architecture. Nevertheless, it is a leading-edge university, and the campus jumps with life.

Clearly, Stanford is a place where bright young people can make connections in their own field that last throughout their careers. Such has been the case for Sergey and Larry.

Because their parents taught in the field of computers and science, both young men had spent their lives in this social and political structure. They were well aware of the heady academic environment they were entering. This was where the learned sorcerers would put the crowning touch on their preparation for the future. Attending Stanford was a big deal for both of them.

An Academic or an Entrepreneur?

“I decided I was either going to be a professor or start a company. . . . I was really excited to get into Stanford. There wasn’t any better place to go for that kind of aspiration. I always wanted to go to Silicon Valley.”⁴⁰ At Stanford, Larry chose as his advisor the highly respected Terry Winograd, an early expert in human–computer interaction (HCI). Winograd is one of the foremost thinkers in the field of software design and is especially known for his work on natural language.

Like most computer engineers, Larry loved graphs. He viewed the Internet as perhaps the largest graph ever created, and one that was growing larger by the second. He and Winograd agreed that based on that concept, he should begin examining this link structure as a part of his graduate project. Page first called his search system “BackRub,” because it seemed that he was forming search links through a back door. Between 1996 and 1998, students and faculty increasingly used the search engine, and it became apparent that the technology could be the basis for a company. (There is more about the development of the company in the sections ahead.)

A Grim Goodbye

Perhaps the most difficult consequence of building a company for both Brin and Page was the need to drop out of graduate school. Both of them dreamed of earning

a Ph.D., a badge of honor in their families. At first, they took leaves of absence, and finally had to empty out their Stanford office space. In 1999, with initial funding in place (including a \$25 million venture capital war chest), Brin and Page realized they would be too busy to continue their graduate studies. Winograd recalls the day, a year later, when they finally cleaned out their office: “They had this grim look on their face[s] because they had to go to Stanford with empty boxes, and leave with them full.”⁴¹

Sergey’s parents were not happy with the development, either. “We were definitely upset,” said his mother. “We thought anyone in their right mind ought to get a Ph.D.”⁴²

NETWORKING AT ITS BEST

They left with their loaded-up cardboard boxes, but the Google guys’ connection to Stanford has never ended:

- Stanford was good to Google and Google was good to Stanford. In fact, Google and Stanford are literally business partners. One of Google’s main assets, the PageRank patent, is owned by Stanford University. Google paid the university in stock and cash for an exclusive licensing partnership, plus Annual royalties. The patent is exclusively licensed to Google until 2011. Typically, if the patent is producing results, it can be renegotiated at that time.

- It was one of their Stanford professors, David Cheriton, who introduced Larry and Sergey to Andy Bechtolsheim, who is not only a computer whiz, but also a wizard at spotting Silicon Valley startups, in which he invests. Cheriton became an early Google investor as well.
- Google's first employee was fellow graduate student Craig Silverstein. Silverstein now is Google's Director of Technology.
- Sergey's Ph.D. advisor, Professor Rajeev Montwani, became a company advisor when Sergey and Larry left Stanford. Montwani also was an early Google investor, holding an undisclosed amount of shares in the company.
- In 2002, Terry Winograd took a sabbatical from Stanford and became visiting researcher at Google. He spent his time there studying both the theory and practice of human-computer interaction.
- The designer of Google's logo, Ruth Kedar, was a Stanford faculty member.
- John Hennessy has served on the Google board of directors since April 2004. Before becoming president of Stanford in 2000, Hennessy held various positions, including dean of the School of Engineering and chair of the Department of Computer Science.
- Eric Schmidt has taught business courses, part time, at Stanford.

- For both Larry and Sergey, the Stanford connection became personal when they married women they met there. Sergey wed the daughter of the head of the physics department, Anne Wojcicki.
- Larry Page married Stanford graduate Lucy Southworth.

BURNING MAN

Just days after Google went public, the founders headed out to Burning Man, an indication, say friends, that wealth hadn't changed their priorities.

One of the first Google doodles was a stick figure added to the standard logo. It signaled to employees that Larry and Sergey had slipped away to make the long drive into Nevada's Black Rock Desert for the notorious festival of personal freedom.

They and Eric Schmidt are among the nearly 50,000 people who gather for the event each Labor Day week in one of the most barren and desolate landscapes anywhere. In fact, Larry and Sergey took a special interest in Schmidt when they interviewed him for the potential CEO of Google because he was the only candidate who attended Burning Man. Friends say that Larry and Sergey have received lots of inspiration from Burning Man.

Burning Man—from its 1986 start on San Francisco’s Baker Beach through its evolution into the bustling city it has become—always has been strange. It’s art, it’s music, it’s lifestyle, it’s freewheeling behavior and attire (or lack of attire)—it’s an outpost for radical personal expression. The ritual torching of a 40-foot effigy of a man has become almost secondary to all the other activities.

Those who show up must provide entirely for their own needs, and they come expecting (and no doubt hoping for) anything: A federal government employee was astounded to run into her boss strolling through Black Rock City (BRC). He was dressed in boots, chaps, a cowboy hat, and nothing else. A photograph circulates on the Internet of Schmidt at Burning Man, dressed modestly in a cotton-candy-pink cowboy shirt and hat. He was wearing pants.

If you go looking for Larry, Sergey, or even Eric at the gathering of the tribe, don’t expect to spot them. They surely will be tricked out in elaborate costumes and face makeup.