

This anniversary issue looks at the future and we ask some leading Indian CEOs to share their vision of the workplace, impact of technology, principles that will lose relevance and those that will survive the test of time.

Forecasts and making predictions have never been easy – always fraught with problems including political polls including predicting the end of the world.

However, it is more difficult than it ever was. Volatility, uncertainty, wild cards and black swans upset the best laid plans. Most companies are now hiring futurists who can now build alternate scenarios for the future. BMW has begun to plan corporate strategy based on worst case scenarios and black swans. Norbert Reithofer, BMW's chief executive, admitted the austere climate in many Western countries, and slowing growth in emerging nations like India and China, made forecasting hard.

"I don't know what will happen in 2013," he stated. In response, BMW is trying to prepare for "black swan events", or unpredictable occurrences that can have a major impact on global companies. This means that they build flexibility in all their plans – assembly lines for SUVs can switch to sedans depending on consumer needs and fancies. Flexibility and adaptability are the basis of the new workplace

What is the future of 'work' and the 'workplace' as we know it?

By 2030 over 2 billion jobs will disappear according to Thomas Frey, author of *Communicating with the Future*

Career "paths" will become patchwork pieces. Baby boomers' future career trajectories will more resemble a lattice than a ladder, with more lateral moves on the way up. For younger generations, it will be more of a patchwork quilt: multiple jobs stitched together to form a more flexible work environment

. Shake-ups in the "C Suite": New corporate leaders with new skills are on the way. Corporate futures will be shaped by leaders adept in social networking, content management, data mining, and data meaning. Look for such job titles as Earned Media Officer, Chief Content Officer, Open-Source Manager, Chief Linguist, and Chief Data Scientist. —*Geoffrey Colon, "Shakeups in the 'C Suite': Hail to the New Chiefs," World Trends & Forecasts.*

simultaneously, both greater specialization and therefore a greater necessity to integrate different processes together to deliver a result. Work will become more specialized, complexities will increase, and therefore how [work] gets done will undergo a increased specialization, because of which we will have more freelancers or specialists. No longer will a company have all full-time employees. There will be full-time employees, subject matter experts, part-time employees, etc. Therefore, the brick-and-mortar industries will have to do a lot more of orchestration than t

revisit and redesign their talent management strategy to accommodate frequent movement and lower durability of employees. Today's corporates have a framework which has been created assuming that an employee will continue with an organization for 10-15 years, whereas the talent inventory that is churning out people in the market is only for 6 months to 2 years. of just in-time learning, easily interchangeable systems and well-structured and effective mentoring. Going forward, it is likely that most of the work necessary for any business will no longer be done exclusively or even (in many instances) primarily with 'employees.'

The distinction between work and leisure will get even more fuzzy. Workplace will be anywhere from where you can find a broadband connection, or send an online mobile message on your ever smarter phones.

Virtual teams will get more predominant than co-located teams. More problems will be thrown into the open source or crowd source domain, to get more creativity and also to get more variability in costs.

Individuals will build their personal brands through blogging, social media and a vast band of freelancers will emerge who prefer not to be 'organization' persons but experts for contract hire – often at huge premium.

An important trend will be the automation of white collar jobs where we believe today that human intervention is essential. This will increase needs for reskilling.

Work place infrastructure will become like the Server farm infrastructure – you rent space when and if you want. Taking this to a further futuristic model, home and workplace will co-located and be available as rentable parts of large managed infrastructures.

Companies will become facilitators – intermediaries who negotiate and coordinate with multiple partners to deliver services and goods to end clients – like it is already happening in the Building industry.

Compensation will move towards outcome based earning than just a fixed and variable model.

While change will be dramatic, I think you will also see an equal and opposite reaction. People will long for working in high human interaction environments, working in tightly bonded teams, sharing in a way that only physical proximity makes possible. Just as culture became global, a longing for localness increases. So also the more things change, the more they will remain the same as humans will demand human interaction.

This is the kind of environment that exists and work is extended to 24 hours a day, seven days a week.

Infact, I find the whole notion of 'out of office' messages archaic. You can no longer tell people, "I am traveling and will get back to you in two days." It is irrelevant whether you are at work, traveling or on a vacation—work happens 24 x 7.

Future at the Workplace

- 1) **What is the future of 'work' and the 'workplace' as we know it?**
- 2) **Given the rampant invasion of technology in learning and education, what do you think is the future of human interaction and personal mentorship?**
- 3) **Ten years from now, in your opinion, what will be**
 - (a) **the most overrated and overused management principle that will lose its relevance**
 - (b) **the single most important thing that a manager will need to know in order to succeed**
 1. Flexibility – volatility and uncertainty
 2. Technology does not take it away – Silicon Valley or Bangalore why do they cluster – they could be anywhere feeding o

3. Specialization of manufacture in manufacturing – multitasking – flexibility robots
4. Leadership skills

“By 2030 over 2 billion jobs will disappear.” – Futurist Thomas Frey, author of *Communicating with the Future*

Whatever you may be thinking when you apply for a job today, you can be sure your prospective employer is thinking, “Will this person add more value than a robot, a computer, or a worker in India?”

We all know that jobs are disappearing. In fact the newspaper headlines are full of downsizing companies and the toll it’s taking on society. But no one attempted to quantify the looming size of this problem until my keynote at TEDxRESET in Istanbul in Feb 2012.

The prediction of 2 billion jobs disappearing wasn’t intended to be a doom and gloom prediction. Rather, it was intended as a wakeup call, letting the world know how quickly things are changing, and letting academia know that much of the battle ahead will be taking place on their doorsteps

OUTLOOK 2013 – Futurist Update

<http://in-mg6.mail.yahoo.com/neo/launch>

<http://www.wfs.org/content/futurist/march-april-2012-vol-46-no-2/hard-work-jobless-future>

India will become a hotbed of “invisible innovation.” Rather than focusing on tangible consumer products like the iPad, innovators in India emphasize processes that improve efficiency. Future success will depend on modernizing the nation’s university system as well as its intellectual property laws. —*Nirmalya Kumar and Phanish Puranam, authors of India Inside, reviewed by Rick Docksai, May-June 2012, p. 54*

<http://www.wfs.org/blogs/ptucker/futurist-magazine-releases-its-top-10-forecasts-for-2013-and-beyond>

Check out the most popular stories from THE FUTURIST magazine in 2012



[Outlook 2013](#)

Human actions could become more accurately predictable, thanks to neuroscience. Nano-sized robots will deliver cancer-fighting drugs directly to their targets. And though many recently lost jobs may never come back, people will find plenty to do (and get paid for) in the future. These are just a few of the forecasts you'll find in this latest edition of Outlook. [Read more.](#)

[Dream, Design, Develop, Deliver: From Great Ideas to Better Outcomes](#)

By Rick Docksai

A better future doesn't happen on its own. We create it with our ideas, plans, and actions. In July, hundreds of futurists from around the world took the opportunity to *dream, design, develop, and deliver* the future together at WorldFuture 2012. [Read more.](#)

[The 22nd Century at First Light: Envisioning Life in the Year 2100](#)

A child born today will only be 88 years old in the year 2100. It's time to start thinking and caring about the twenty-second century. THE FUTURIST invited WFS members and friends such as Paul Saffo, David Brin, and Brenda Cooper to share. They sent in forecasts, scenarios, wild cards, dreams, and nightmares about the earth, humanity, governance, commerce, science and technology, and more. Here are their stories. [Read more](#)

[The Abundance Builders](#)

By Peter H. Diamandis and Steven Kotler

Progress occurs when inventive people solve problems and create opportunities. Here, Peter Diamandis and best-selling science writer Steven Kotler present just a few of the breakthroughs that offer the brightest prospects for a future that leaves austerity and deprivation behind. [Read more.](#)

[The Secret Life of Data In the Year 2020](#)

By Brian David Johnson

Author Brian David Johnson, a futurist for Intel, shows how geotags, sensor outputs, and big data are changing the future. He argues that we need a better understanding of our relationship with the data we produce in order to build the future we want. [Read more.](#)

[The Individual in a Networked World: Two Scenarios](#)

By Lee Rainie and Barry Wellman

Collaborative agent bots? A walled world under constant surveillance? Two information technology experts parse the future of human–network interaction. [Read more.](#)

[From Smart House to Networked Home](#)

By Chris Carbone and Kristin Nauth

Two foresight specialists describe how tomorrow’s integrated, networked, and aware home systems may change your family life. [Read more.](#)

[A Thousand Years Young](#)

By Aubrey de Grey

An "anti-aging activist" identifies the medical and biochemical advances that could eventually eliminate all the wear and tear that our bodies and minds suffer as we grow old. Those who undergo continuous repair treatments could live for millennia, remain healthy throughout, and never fear dying of old age. [Read more.](#)

[Engineering the Future of Food](#)

By Josh Schonwald

Tomorrow's genetically modified food and farmed fish will be more sustainable and far healthier than much of what we eat today—if we can overcome our fears and embrace it. Here's how one foodie learned to stop worrying and love "Frankenfood." [Read more.](#)

[Thriving in the Automated Economy](#)

By Erik Brynjolfsson and Andrew McAfee

Two management experts show why labor's race against automation will only be won if we partner with our machines. They advise government regulators not to stand in the way of human–machine innovation. [Read more.](#)

[Rethinking “Return on Investment”: What We Really Need to Invest In](#)

By Timothy Mack

Innovation means more than inventing new products for the world's growing populations to consume. Innovation also means solving the problems created by consumption. By investing in sustainable innovation and creativity now, we will enhance our future returns. [Read more.](#)

[The Best Predictions of 2011](#)

By the editors

Drawing from a variety of sources throughout the past year, the editors of THE FUTURIST take a look at some of the best predictions for the world's future. [Read More.](#)

[This is just a small sampling of the MANY stories we published in 2012.](#)

Benefits of Joining the World Future Society

When you join the World Future Society, you will not only receive THE FUTURIST magazine, you also become eligible for discounts to WFS events, such as...



The Annual Conference of the World Future Society: July 19-21, 2013, at the Hilton Chicago Hotel, Chicago, Illinois.



*Don't miss your chance to meet **Nicholas Negroponte.***

the globe.

Nicholas Negroponte is the founder of the MIT Media Lab, author of the bestselling book *Being Digital* and a seminal voice in education reform. His One Laptop Per Child program has distributed more than 2.5 million computers to children around

[**Register Today and Save \\$250!**](#)

The World Future Society's annual conference, **WorldFuture 2013: Exploring the Next Horizon**, will give you the opportunity to learn from others in many different fields, and to explore actions affecting our futures in as yet unimagined ways.

The conference will feature nearly 100 leading futurists offering more than 60 sessions, workshops, and special events over the course of two and a half days. And for those who want to take a deeper dive into key studies of interest, the preconference Master Classes allow for an in-depth look in a small group setting

Hard at Work in the Jobless Future

By James H. Lee

Many recently lost jobs may never come back, but there's still a future for work. **The economy may become increasingly jobless. Rather than worry about unemployment, tomorrow's workers will focus on developing a variety of skills that could keep them working productively and continuously, whether they have jobs or not. It'll be about finding out what other people need done, and doing it.** —*James H. Lee, [“Hard at Work in the Jobless Future,”](#)*

Jobs are disappearing, but there's still a future for work. An investment manager looks at how automation and information technology are changing the economic landscape and forcing workers to forge new career paths beyond outdated ideas about permanent employment.

Futurists have long been following the impacts of automation on jobs—not just in manufacturing, but also increasingly in white-collar work. Those in financial services, for example, are being lost to software algorithms, and intelligent computers.*

Terms used for this phenomenon include “off-peopling” and “othersourcing.” As Jared Weiner of Weiner, Edrich, Brown recently observed, “Those jobs are not going to return—they can be done more efficiently and error-free by intelligent software.”

In the investment business (in which I work), we are seeing the replacement of financial analysts with quantitative analytic systems, and floor traders with trading algorithms. Mutual funds and traditional portfolio managers now compete against ETFs (exchange-traded funds), many of which offer completely automated strategies.

Industries that undergo this transformation don't disappear, but the number of jobs that they support changes drastically. Consider the business of farming, which employed half the population in the early 1900s but now provides just 3% of all jobs. The United States is still a huge exporter of food; it is simply a far more efficient food producer now in terms of total output per farm worker.

In an ideal world, jobs would be plentiful, competitive, and pay well. Most job opportunities have two of these qualities but not all three. Medicine, law, and finance are

jobs that are both competitive and pay well. Retail, hospitality, and personal services are competitive but pay low wages. Unions often ensure that jobs pay well and are plentiful, only to later find that those jobs and related industries are no longer competitive.

Since 1970, manufacturing jobs as a percentage of total employment have declined from a quarter of payrolls to less than 10%. Some of this decline is from outsourcing, some is a result of othersourcing. Those looking for a rebound in manufacturing jobs will likely be disappointed. These jobs will probably not be replaced—not in the United States and possibly not overseas, either.

This is all a part of the transition toward a postindustrial economy.

Jeff Dachis, Internet consulting legend and founder of Razorfish, coined the phrase “everything that can be digital, will be.” To the extent that the world becomes more digital, it will also become more global. To the extent that the economy remains physical, business may become more local.

The question is, what is the future of work, and what can we do about it? Here are some ideas.

The Future of Work: Emerging Trends

Work will always be about finding what other people want and need, and then creating practical solutions to fulfill those desires. Our basic assumptions about how work gets done are what’s changing. It’s less about having a fixed location and schedule and more about thoughtful and engaged activity. Increasingly, this inspiration can happen anytime, anyplace.

There is a blurring of distinctions among work, play, and professional development. The ways that we measure productivity will be less focused on time spent and more about the value of the ideas and the quality of the output. People are also going to have a much better awareness of when good work is being done.

The old model of work provided an enormous level of predictability. In previous eras, people had a sense of job security and knew how much they would earn on a monthly basis. This gave people a certain sense of confidence in their ability to maintain large amounts of debt. The consumer economy thrived on this system for more than half a century. Location-based and formal jobs will continue to exist, of course, but these will become smaller slices of the overall economy.

The new trends for the workplace have significantly less built-in certainty. We will all need to rethink, redefine, and broaden our sources of economic security. To the extent that people are developing a broader range of skills, we will also become more resilient and capable of adapting to change.

Finally, we can expect that people will redefine what they truly need in a physical sense and find better ways of fulfilling their needs. This involves sharing and making smarter use of the assets we already have. Businesses are doing the same. The outcome could be an economy that balances the needs between economic efficiency and human values.

Multitasking Careers

In *Escape from Cubicle Nation* (Berkeley Trade, 2010), career coach Pamela Slim encourages corporate employees to start a “side hustle” to try out new business ideas. She also recommends having a side hustle as a backup plan in the event of job loss. This strategy is not just for corporate types, and Slim says that “it can also be a great backup for small business owners affected by shifting markets and slow sales.”

She says that an ideal side hustle is money-making activity that is doable, enjoyable, can generate quick cash flow, and does not require significant investment. Examples that she includes are businesses such as Web design, massage, tax preparation, photography, and personal training.

The new norm is for people to maintain and develop skill sets in multiple simultaneous careers. In this environment, the ability to learn is something of a survival skill. Education never stops, and the line between working and learning becomes increasingly blurred.

After getting her PhD in gastrointestinal medicine, Helen Samson Mullen spent years working for a pharmaceutical company—first as a medical researcher and then as an independent consultant. More recently, she has been getting certifications for her career transition as a life coach. Clinical project management is now her “side hustle” to bring in cash flow while she builds her coaching business. Meanwhile, she’s also writing a book and manages her own Web site. Even with so many things happening at once, Helen told me that “life is so much less crazy now than it was when I was consulting. I was always searching for life balance and now feel like I’m moving into harmony.” Her husband, Rob, is managing some interesting career shifts of his own, and is making a lateral move from a 22-year career in pharmaceuticals to starting his own insurance agency with State Farm.

Fixed hours, fixed location, and fixed jobs are quickly becoming a thing of the past for many industries, as opportunities become more fluid and transient. The 40-hour workweek is becoming less relevant as we see more subcontractors, temps, freelancers, and self-employed. The U.S. Government Accountability Office estimates that these “contingent workers” now make up a third of the workforce. Uncertain economics make long-term employment contracts less realistic, while improvements in communications make it easier to subcontract even complex jobs to knowledge workers who log in from airports, home offices, and coffee shops.

Results-Only Workplace Environments

Imagine an office where meetings are optional. Nobody talks about how many hours they worked last week. People have an unlimited amount of vacation and paid time off. Work is done anytime and anywhere, based entirely on individual needs and preferences. Finally, employees at all levels are encouraged to stop doing anything that is a waste of their time, their customers' time, or the company's time.

There is a catch: Quality work needs to be completed on schedule and within budget.

Sound like a radical utopia? These are all basic principles of the Results Only Work Environment (ROWE), as pioneered by Cali Ressler and Jody Thompson while they were human resource managers for Best Buy.

It's "management by objective" taken to a whole new level, Ressler and Thompson write in their book, *Why Work Sucks and How to Fix It* (Portfolio, 2008).

Best Buy's headquarters was one of the first offices to implement the ROWE a little over five years ago, according to Ressler and Thompson. The movement is small, but growing. The Gap Outlet, Valspar, and a number of Minneapolis-based municipal departments have implemented the strategy. Today, 10,000 employees now work in some form of ROWE.

Employees don't even know if they are working fewer hours (they no longer count them), but firms that have adopted the practice have often shown significant improvements in productivity.

"Thanks to ROWE, people at Best Buy are happier with their lives and their work," Ressler and Thompson write in their book. "The company has benefited, too, with increases in productivity averaging 35% and sharp decreases in voluntary turnover rates, as much as 90% in some divisions."

Interestingly enough, the process tends to reveal workers who do not produce results, causing involuntary terminations to creep upward. ROWE managers learn how to treat their employees like responsible grown-ups. There is no time tracking or micromanagement.

"The funny thing is that once employees experience a ROWE they don't want to work any other way," they write. "So employees give back. They get smarter about their work because they want to make sure they get results. They know that if they can deliver results then in exchange they will get trust and control over their time."

Co-Working

There are now more alternatives to either working at home alone or being part of a much larger office. Co-working spaces are shared work facilities where people can get together in an officelike environment while telecommuting or starting up new businesses.

“We provide space and opportunity for people that don’t have it,” Wes Garnett, founder of The coIN Loft, a co-working space in Wilmington, Delaware, told me.

Getting office space in the traditional sense can be an expensive proposition—with multiyear leases, renovation costs, monthly utilities. “For \$200 [a month], you can have access to presentation facilities, a conference room, and a dedicated place to work.” And coIN Loft offers day rates for people with less-frequent space needs.

According to Garnett, more people are going to co-working spaces as “community centers for people with ideas and entrepreneurial inclinations.” He explains that co-working spaces provide a physical proximity that allows people to develop natural networks and exchange ideas on projects.

“We all know that we’re happier and more productive together, than alone” is the motto for nearby Independents Hall in Philadelphia.

Co-working visas enable people to choose from among 200 locations across the United States and in three dozen other countries.

Silicon Colleagues

Expert systems such as IBM’s Watson are now “smarter” than real people—at least on the game show *Jeopardy*. It was a moment in television history when Watson decimated previous human champions Ken Jennings and Brad Rutter on trivia questions, which included categories such as “Chicks Dig Me.”

IBM’s Watson is a software-based knowledge system with unusually robust voice recognition. IBM has stated that its initial markets for the technology are health care, financial services, and customer relations. In the beginning, these systems will work side-by-side with human agents, whispering in their ear to prompt them with appropriate questions and answers that they might not have considered otherwise. In the next decade, they may replace people altogether in jobs that require simple requests for information.

“It’s a way for America to get back its call centers,” futurist Garry Golden told me. He sees such expert systems reaching the workplace in the next two to three years.

Opting Out

A changing economy is causing people to rethink their priorities. In a recent survey by Ogilvy and Mather, 76% of respondents reported that they would rather spend more time with their families than make more money.

Similarly, the Associated Press has reported that less than half of all Americans say they are happy with their jobs.

Given the stresses of the modern workplace, it is not surprising that more people are simply “opting out” of the workforce. Since 1998, there has been a slight decline in the labor force participation rate—about 5% for men and 3% for women. This trend may accelerate once extensions to unemployment benefits expire. Some of these people are joining the DIY movement, and others are becoming homesteaders.

A shift back toward one-income households can happen when the costs of taxes, commuting, and child care consume a large portion of earnings. People who opt out are not considered unemployed, as they are no longer actively looking for paid work. Their focus often reflects a shift in values toward other activities, such as raising kids, volunteer work, or living simply. This type of lifestyle is often precarious and carries risks, two factors that can be mitigated through public policy that extends the social safety net to better cover informal working as well as formal employment. But this way of life also carries rewards and is becoming a more and more attractive option for millions of people.

The Future of Work, Personified

Justin Caggiano is a laid-back rock-climbing guide whom my wife and I met during our last vacation in the red canyons of Moab, Utah. He’s also been guiding rafters, climbers, and hikers for the past six years.

We watched Justin scramble up the side of a hundred-foot natural wall called The Ice Cream Parlor, a nearby climbing destination that earned its name from keeping shaded and cool in the morning despite the surrounding desert. His wiry frame allowed him to navigate the canyon cliffs and set up the safety ropes in a fraction of the time that it took us to make the same climb later that day.

Justin’s rock-climbing skills easily translated into work as an arborist during the off-season, climbing up trees and then cutting them from the top down to prevent damage to nearby buildings. Since graduating from college six years ago, he has also worked as an artisanal baker, a carpenter, and a house painter. This makes him something of a down-to-earth renaissance man.

His advice is “to be as flexible as you can—and work your tail off.”

It’s an itinerant lifestyle for Justin, who frequently changes his location based on the season, work, and nearby climbing opportunities. Rather than committing to a single employer, he pieces together jobs wherever he can find them. His easygoing personality enables him to connect with people and find new opportunities when they become available.

In the winter, he planned to stay with a friend who is building a house, trading help with carpentry and wiring in exchange for free rent. He’s been living on a shoestring for a while now, putting away money every year. Longer term, he’d like to develop all of the skills that he needs to build his own home and then pay for land and materials entirely with savings from his bank account. He plans to grow fruit trees and become somewhat

self-sufficient. After that time, he says, “I’ll work when I’m needed, and live the debt-free, low-cost lifestyle when I’m older.”

Our concept of work is getting reworked. A career used to be a ladder of opportunities within a single company. For the postwar generation, the concept of “lifetime employment” was a realistic expectation. My father worked for 40 years at DuPont as a research scientist and spent almost all of that time at a sprawling complex called the Experimental Station. Most of my friends’ parents had similar careers. Over time, they were gradually promoted and moved up the corporate ladder. At best, it was a steady progression. At worst, they found their careers stuck in neutral.

The baby boomers had a somewhat different career trajectory. They still managed to have a single career, but it more closely resembled a lattice than a ladder. After working for an employer for five to 10 years, they might find a better opportunity elsewhere and continue their climb. The successful ones cultivated networks at related businesses and continually found better opportunities for themselves.

The career path for younger generations more closely resembles a patchwork quilt, as people attempt to stitch together multiple jobs into something that is flexible and works for them. In today’s environment, they sometimes can’t find a single job that is big enough to cover all of their expenses, so, like Justin, they find themselves working multiple jobs simultaneously. Some of these jobs might match and be complementary to existing skills, while others may be completely unrelated.

The future of work is less secure and less stable than it was. For many of us, our notions of employment were formed by the labor environment of the later twentieth century. But the reality of jobless working may be more in line with our values. If we can build support systems to benefit workers, wherever they are and whether they be formally employed or not, then we may be able to view the changes sweeping across society as opportunities to return to a fuller, more genuine, and more honest way of life.

Justin’s lesson is applicable to all of us; there’s a difference between earning a living and making a life.

About the Author

James H. Lee is an investment manager in Wilmington, Delaware, and a blogger for THE FUTURIST magazine (www.wfs.org/blogs/james-lee). He’s currently writing a book, tentatively titled *Resilience: An Upbeat Guide to the End of the World*, based, in part, on the ideas described above. Contact him at lee.advisor@gmail.com.

** The word "robotics" was removed from the printed edition. We were unable to find data to show job losses in the financial sector due to robotics.*

Shakeups in the "C Suite": Hail to the New Chiefs

Subject(s):

- [Management](#)
- [Commerce](#)



Geoffrey Colon,
vice president,
Social@Ogilvy

portrait of Geoffrey Colon

By Geoffrey Colon

How technology is altering corporate jobs and creating new community relationships.

When Facebook announced its new timeline for brands format, one of my friends in advertising commented, “Wow, if you think about it, in one fell swoop, Facebook has basically elevated the Community Manager role as the most important job function at any agency, large or small.”

I thought about it for a second and realized that what my friend was saying was correct. Technological innovation has empowered corporate community managers—who were once the servants of creative directors, strategists, and planners—to become true brand gurus. The masters of Facebook realized that the power in a brand page had always been driven by the community manager. No longer simply a Web page to maintain, an organization’s Facebook presence creates a narrative, an advertisement that is also a relatable story.

Businesses 35 years ago barely had marketing departments. Most relied on sales departments to do that job. The title of chief marketing officer (CMO) is relatively new; it became necessary when companies needed a “voice of the consumer” working internally.

So now as social communities grow and flourish, the role of community manager will become commonplace.

New job title creation happens every few years as technological shifts force changes in work functions. Here are a few more additions to the “C Suite” that we might anticipate as technological and economic trends shape the corporate future.

- **Earned Media Officer**, or EMO, will be one new role. We’ve been hearing a lot in recent years about the “Paid, Owned, Earned” model of marketing. (Examples: magazine ads are “paid,” Web sites are “owned,” and word-of-mouth buzz is “earned.”) Many companies want to move away from the “paid” silo and strictly operate in the “owned” and “earned” areas. Buying a TV commercial based on impressions (how many viewers might be watching—but also might be ignoring) makes little sense when a company can get customer engagement for half the price in an earned environment. Example: having a home-made video contest for the company’s Facebook fans and featuring the winner on its official Web site. This is why Procter & Gamble cut several thousand traditional marketing jobs recently. Its attitude is, why pay for something that we can get free? However, it is still an illusion that earned media is a free channel. Once companies realize that earned media is the dominant business model moving forward, the EMO will be in charge of exploiting this fact and pushing earned media impressions and engagement.
- **Chief Content Officer**, or CCO, will emerge as marketing moves from the creation of 60-second television spots to the development of rich content for various social channels, such as Facebook, Twitter, YouTube, Pinterest, and Tumblr. The CCO will work hand-in-hand with community managers to see that they are getting the right type of content for the brand they oversee for all the channels in which they need to publish. I see many former film producers, magazine publishers, and photographers fitting nicely into this role, as long as they have a handle on the emerging media landscape.
- **Open-Source Manager**, or OSM, would collaborate and share best practices with outside companies. In the future, the title and role of CEO will have much less credibility as Wall Street is drained of its power. As a result, an executive who works both internally and externally with open-source talent to find the best solutions will become a key player. Future companies will all be open sourced and focused on building a better standard of living. As a result, a CEO whose primary focus is to earn capital and return investment to shareholders won’t be necessary.
- **Chief Linguist** may be a new role that doesn’t replace anyone but is necessary to interpret how people speak within the world of social networks. We’re used to interpreting shorthand expressions like LOL, BRB, IDK, and BTW (laughing out loud; be right back; I don’t know; by the way). As future generations only learn to type within a 140-character limit, new slang will emerge, and it will be up to the linguist to configure the best way to communicate with the company’s audience.
- **Chief Data Scientist** will replace the chief marketing officer or the chief digital officer. Neither CMOs nor CDOs have enough analytical skill to understand what

to do with the emergence of big data. As a result, mathematicians who can crunch data to make sense of human behavior will replace C-suite titles that have less grasp of math or simply build digital strategies. In the future, it will be more important to interpret behavior that will be measured via analytics. It won't be enough to simply plot a digital course of action. One must execute the action, code it, create it, and interpret its impacts.

Even if we see these job titles emerge, how long will they last in the shifting workplace? As we move away from military-style hierarchies toward flattened, cooperative systems, the collaborative, open source, work-from-anywhere landscape could put even these titles out of commission. Only the future can tell.

Geoffrey Colon is vice president of Social@Ogilvy (<http://social.ogilvy.com>) and editor of the Futurist Lab on Tumblr (<http://futuristlab.tumblr.com>).

<http://in-mg6.mail.yahoo.com/neo/launch>

3 Trends That Impact Every Business From Intuit's CEO

[Comment Now](#)
[Follow Comments](#)



For the second installment in my “Visions from the CEO” series, I’ve interviewed Intuit’s CEO [Mr. Brad Smith](#). The first installment with [Polycom](#)’s CEO Andy Miller can be viewed [here](#). I asked Intuit’s Smith to define major opportunities and themes for 2013. He believes there are three fundamental themes that will impact all businesses, including Intuit’s, over the next year.

First, a business must provide an **“awesome product experience”**. Mr. Smith states an amazing first user experience is part of the “awesome product experience” because it impacts what [Intuit](#) calls time to benefit. Intuit defines awesome as getting from log on to benefit in the shortest amount of time. Mr. Smith states that once a consumer has downloaded an app or signed up for a service, the company providing the service has one opportunity to “Wow” the customer. For companies that have been producing products for years, such as Intuit, the company must re-imagine these products as if they were built as a mobile first and mobile-only experience. He believes a product must be designed or redesigned as if it had been created in the last thirty days and not the last thirty years. For example: How would you have built these products to take advantage of a sensor in a smartphone? Smith claims this trend will impact literally every business.

Secondly, Mr. Smith claims “We are entering a world where we believe you need to **enable the contribution of others**”. He defined this as a world where there is a commerce graph and a world where a business needs to think about two-sided problems in the market. Smith said “Enabling the contribution of others is basically looking to create a network effect.” He discussed Intuit’s Loan Finder pilot program as an example of this network effect. Two-thirds of Intuit’s QuickBooks customers were declined a loan due to poor FICO scores and other credit measurements. In the Loan Finder trial, a business could opt-in to allow banks to use QuickBooks data to evaluate if a prospect was a credit risk. As a result of this additional data, the banks provided several hundred new loans with an average of \$10 million dollars. He mentioned that TurboTax provides another example of “enabling the contribution of others”. The TurboTax live community enables businesses to support each other by answering questions. Its community members have contributed to others by answering over 20 million questions.

The third trend Smith mentioned was **the power of data for the little guy**. Intuit believes this is the great equalizer. Smith said Intuit is trying to help its customers understand their data and make smarter decisions that will improve their financial lives. For example, Mint is a free consumer product. With a consumer's permission it Mint.com will find products and services that save its customers' money, such as credit cards with smaller fees or ways to avoid overdraft fees. The Mint.com service has identified over \$2.4B of potential savings for its users. Smith claims Intuit will do the same for small businesses and provided an example with QuickBooks Online trends. This service anonymously aggregates customer data from its 400,000 QuickBooks online customers and allows a small business to instantly see how its income and expenses stack up against similar types of businesses.

I viewed a demo of this product. While there isn't sufficient data for every type business, it's a great service if your industry has enough businesses participating in the database. I've searched for true benchmarking tools for some time. Top line revenues and profits are two useful metrics to compare. However, the drilldown capability in Intuit's product is extremely valuable. For example, I could analyze how travel expense for my market research firm compares to other market research firms of similar employee size. Mr. Smith ended our discussion by recapping the above and adding that business owners must move beyond thinking of their companies as a product companies. Business leaders need to think of the business as a platform company that enables the contribution of others. "At the power and center of all of this is a wealth of (big) data. If you can find a way to unleash that data to improve the lives of your customers, you have a real opportunity."

I agree with Smith's comments. There is a raging debate about the importance of mobile first and mobile-only software. I'll add my comments on this debate in a later post. What the industry is actually debating is how we achieve that awesome product experience, which Mr. Smith described, across a wide range of devices. I also believe effective use of big data will allow a company of any size to be successful. We've had data forever. We just have more of it now. The question becomes how do we do something better and different with our data. I personally believe QuickBooks Online Trends will become extremely valuable as more companies move to the online version and provide data for the service. In 2013, I encourage business leaders to seek out a new service or insight they can provide their customers based on the anonymous aggregation and analysis of the firm's customer data. What services will you provide in 2013? Share your thoughts with me here or on Twitter @MaribelLopez.

What's next for me? When I'm not at Lopez Research HQ researching how mobile and big data will impact businesses, I plan to interview at least fifty-two C-level executives in 2013 for my Forbes blog. The next CEO interview will be with [PTC's Jim Heppelmann](#). He has a fascinating take on manufacturing. I'll post his comments on January 15, 2013. I'll also be launching the first blog on "The Future of Technology: A Chief Technology Officer's (CTO's) Perspective" on Tuesday January 8, 2012. I've interviewed Verizon's Enterprise Solutions CTO, [John Considine](#) for this. I hope you'll enjoy these posts.

lled out.

Preparing for a mobile-led shift in consumer behavior

By [Mickey Alam Khan](#)

January 2, 2013



Mickey Alam Khan is editor in chief of Mobile Marketer and Mobile Commerce Daily

Discussions around mobile in 2013 should no longer focus only on technology or marketing, but include a harsh reality about to hit marketers: consumer behavior toward marketing, shopping, entertainment, information and communication is rapidly changing.

Since the iPhone's launch five years ago opened the possibilities of using the phone as a computer, much has changed with the way consumers search, shop, play, communicate, inform themselves, read news and respond to advertising and marketing. One thing is for sure: consumers have become more demanding and less willing to tolerate shoddy experiences on any platform, least of all, mobile.

So where does this leave today's marketer, also strained by a slowing economy, unrelenting investor expectations and a customer base whose fidelity to the brand easily can be tested with lower price and fewer trimmings?

Sign up now!

Mobile Marketer Daily

The new name of the game is adapting. Start with the evolving behavior at the three key locations in a consumer's life.

Work

As businesses shift from desktops to laptops and from servers to cloud, consumers are moving toward smaller laptops, tablets and smartphones. Bring your own device, or BYOD, is catching on. This has vast implications for data security and corporate IT departments. Employees keep their smartphone next to their computer, at hand to text, email, tweet, post on Facebook, listen to music, shop, search, map or check the news. On the road, they are leaving the laptop behind for the dual comfort of tablet and smartphone, both connected to corporate email. Now, perhaps, is the time to debut a personalized application per employee that contains all files and folders needed while on the road or in the office.

Home

The tablet is becoming the in-house device of choice for entertainment and news, second only to the television set. At some point, expect the tablet to replace TVs in each bedroom, starting with the kids' room. The new norm is to watch TV, check out the Web and apps on the tablet, and text or tweet via the smartphone – all while conversing with loved ones in the bedroom, den, kitchen or living room. The Mobile-Driven Life is now a reality. What effect will this have on advertising as consumers tune out of commercials while immersed on tablet activity? That is something for agency media planners and brand and marketing managers to consider. And what of news and entertainment consumption? The signs are positive: big media brands such as The Wall Street Journal and The New York Times are training consumers to pay for digital content. With time, publishers will get more sophisticated with mobile advertising on smartphones and tablets. But low mobile CPMs of under a dollar may not save publishers' dwindling ad revenues. So go ahead and erect those paywalls – that will save the media brand and targeted advertising will get to live another day.

Shop

Why beat around the bush? Amazon is the biggest threat to retailers. Amazon's PriceCheck app is the Trojan horse in retail. Consumers wise to the game do not just walk into bricks-and-mortar stores to browse and touch-and-feel. They also want to check out the merchandise and compare prices by scanning the bar code on Amazon's app, which then offers an overlay of the price and availability of the same product sold by the Internet retailer. Amazon is turning all its competitors' stores into its own showrooms. So take showrooming seriously. It did not take long for Amazon to train consumers to shop by price and for convenience, and it will not take long for the company to train shoppers to compare prices and then make the 1-Click or one-tap purchase in its store. Some offerings such as same-day delivery, more loyalty dollops and matched pricing may help, but also break the bank. Focus on strengthening the relationship with the customer base to make the switching costs higher.

This is the new reality: mobile devices such as smartphones and tablets – with their content, commerce, entertainment and communications sophistication – have enabled

consumers to run their work, home and play lives with the utmost freedom, untethered and uncommitted to nothing but their own satisfaction and instant gratification. Mobile is taking product and pricing transparency to a new level. Mobile is calling the emperor naked.

Marketers, for their part, are nonplussed. Their margins are squeezed. No longer can they profit from the gap in information or eliminating for consumers the stress of aggregating or assembling a product. And the mobile-armed consumer is way too sharp to tolerate high margins for labor rendered. Mobile has simply accelerated the handover in pricing control. What then is left? Building stronger ties with consumers by offering products or services that cannot be matched elsewhere for quality, ease of shopping, speed of delivery and, yes, pricing.

The choice for marketers in 2013 is clear: either mobile-first or end up last.

Latest Trends for 2013

by  [Diane Creston](#) January 01, 2013

As I sit here hunkered down on a cold New Year's Day, my thoughts turn to the balance of the year. Where are we headed and what can we expect?

Fortunately, I was able to interview global futurist Frank Feather. Frank's track record is dead on...he forecast the last three recessions [1991, 2000, 2008] in his 1989 book **G-Forces** ...along with the next recession, which he still says will occur in 2019.

Major companies including AT&T, Bank Montreal, Bell Canada, GE, HP, VW, Ford, IBM, KFC, Kraft, Ciba-Geigy, and Nokia, among others have all sought Frank's expertise. For over 28 years, the government of China has also utilized Frank's consulting services...a pretty remarkable track record.

2013 Rebound Forecasts for Employment...When asked about the job market, Frank states, "In looking at unemployment, the rates in North America will continue to edge downward throughout the year. The US rate could drop as much as a full percentage point by year's end, perhaps even more. This is due to the Fed's continued easing of monetary policy, with low interest rates spurring business investment as well as consumer spending. Employment opportunities for the older age group of workers (50+) will also improve, although companies will continue to have a bias towards younger employees."

Employment Opportunities for 50 Plus Individuals.

One advantage for older workers includes the increase in telecommuting jobs where older workers are not in competition in a working environment filled with young employees.

For more information on telecommuting, I recommend the 27-page white paper and data from **The Latest Telecommuting Statistics** that can be found at:

<http://www.teleworkresearchnetwork.com/telecommuting-statistics>

According to their stats, the growth of regular telecommuting grew by 73% between 2005 and 2011 when compared to only a 4.3% growth of the overall workforce (this does not include the self-employed). The growth within different workforce business sectors varied considerably.

According to the U.S. Bureau of Labor Statistics industries and occupations related to health care, personal care, social assistance, and construction are projected as the fastest job growth categories between 2010 and 2020. Total employment is projected to grow by 14.3 percent over the decade, resulting in 20.5 million new jobs. Despite rapid projected growth, construction is not expected to regain all of the jobs lost during the 2007-09 recession.

For more information visit: <http://www.bls.gov/news.release/ecopro.nr0.htm>

Forecasts for Residential and Commercial Real Estate Markets. In discussing this important market indicator with Frank Feather, he said, "Real estate is already recovering, particularly residential in terms of new housing starts and re-sales. This improvement will continue as the unemployment rate falls and consumer confidence improves. However, there is still a large inventory of homes to be worked off, and a large percentage of home owners are under water (their homes are worth less than the outstanding mortgage). So price increases on real estate will be modest. rental accommodation will still be pricy due to constrained budgets of those who lost their homes.

"Commercial real estate will be much slower to recover. There is an over-supply of office space in most major urban areas. The weakest spot is in retail, where there still is a large inventory of vacant space. Very little new retail will be built in 2013."

According to Forbes, there are still too many homes for the current demand.

<http://www.forbes.com/sites/billconerly/2012/10/08/real-estate-forecast-2013-the-housing-market/>

Alternative Energy and Energy Prices. As far as alternative energy, Frank shares the following. "Energy prices will remain fairly high due the increased demand by the recovering economy as well as uncertainty in the Middle East. However, there should be no significant spikes in prices unless there were a major confrontation with Iran, which we do not consider highly likely.

"Alternative sources of energy will continue to gain share of market, especially solar and fuel cell technology. There could be a major breakthrough in fuel-cell technology during 2013 or 2014 that could have a meaningful impact on energy usage and prices in 2014 and the rest of the decade."

According to legendary Texas oil and gas executive and billionaire, T. Boone Pickens, one of America's best known entrepreneurs with a track record of innovations that covers a wide range of areas, the big news for 2013 is the development of new energy sources at the state level. In an article on LinkedIn, he indicates that states are looking for ways to generate revenue without raising taxes which would only serve to drive businesses out.

Pickens indicates that the 21st century gold rush is in shale containing oil or natural gas. Huge deposits have been discovered around the nation, instantly adding jobs – not just at the wellhead, but in the towns that surround the field where downtowns long abandoned are sprouting new stores to sell shoes, cut hair, and supply groceries to the oil and gas community.

Over the past four years, the ability to profitably recover oil and gas from shale deposits has turned natural gas from a closely guarded resource to an abundance that ranges from a 100 to 150 year supply depending upon the study.

Many people believe that this is only a viable idea if it can be done safely. Two major issues with fracking are it's dangerous and it poisons our ground water. They believe that too many people are getting cancer and its not a coincidence. I happen to agree with this view. So how do we address this?

Developments in Online Education Frank, who is very high on education and its digital component, shares his projections with us, "The digital revolution will continue to create change in all sectors of the economy and education is no exception. The old industrial-era model of delivering education through classroom and campus teaching is becoming increasingly costly and inefficient. The cost of a college degree is exorbitant and even with government supported student loans, it becomes less affordable.

"We will see continued expansion of online learning, led by organizations such as University of Phoenix. Due to the high cost of corporate travel, online learning will also become more commonplace inside organizations for employee training purposes. Seminar and workshop programs will also continue to shift to the webinar format."

Take advantage of developments in **FREE** online learning from Harvard, MIT, UC Berkeley.

www.scholars4dev.com/6930/edx-free-online-education

3D Printing Advances Feather states, "My own opinion is as follows: 3D will transform manufacturing in every sector. A big initial impact will be in the toy industry. Beyond that, complex jobs will be contracted to bespoke 3D manufacturers. Medium jobs will be done at Staples (already installing 3D printers in its stores). Simple jobs will be done by consumers on in-home 3D printers."

For toys, especially manufacturers in smaller companies, it will totally change the way that some toys are manufactured and distributed, and will lead to mass-customized toys where customers select specific modifications of their favorite toys.

For more information, check out the CNBC article:

<http://www.cnbc.com/id/100338112>

Increased use of Augmented Reality (AR) It's not surprising that augmented reality is ramping up, and I predict that it will continue to do so in 2013. AR has been around for a long time, but for those not familiar with the term, AR is a direct or indirect live view of a physical, real-world environment where elements are augmented by computer generated sensory input such as sound, video, graphics or GPS data.

This technology is perfect for the movie and entertainment industry with examples that include **Iron Man** and **Iron Man 2**, **Avatar**, **Top Gun** and **Robocop**, to name a few.

Read more: <http://techland.time.com/2012/12/31/10-tech-industry-predictions-for-2013/#ixzz2GeCNWZBL>

Mini Ice Age According to a number of Russian, British, and Japanese scientists, we could be headed for a mini ice age starting in 2013.

Based on what you might say? What about global warming? Well in 2011, the average global temperature was 0.68 degrees above normal. And, prior to that in the previous decade, the average temperature was 0.81 degrees above normal.

A mini ice age might be great news for the ski resorts, and winter coat and shoe manufacturers...not so great for those of us who are not in love with the cold.

Can we really count on this since the prediction has been going on for at least 100 years?
<http://www.globalresearch.ca/global-warming-or-the-new-ice-age-fear-of-the-big-freeze/30336>

Worldwide Uptick in Diabetes Diabetes is a growing problem around the globe. Doctors are now even seeing Type 2 diabetes in children. This was never an issue before.

It is predicted that the currently 366 million who have diabetes worldwide will grow to 552 million by 2030 according to information posted by Nancy Klobassa Davidson, R.N., and Peggy Moreland, R.N. <http://www.mayoclinic.com/health/diabetes-worldwide/MY02163>

In addition to the genetic component, there are many things that contribute to diabetes including obesity and a sedentary lifestyle.

Well over 15 years ago, I interviewed researchers from Flower Fifth Avenue Hospital in New York who were testing a strain of mice for diabetes. Exactly half of the mice were allowed to eat whatever they desired and were not limited to portions. Nor were the mice encouraged to exercise. The result? Well over 60 percent of the mice developed diabetes where the carefully controlled group remained healthy.

Tech in 2013

Gartner, a leading IT research and advisory company predicts that mobile devices will lead the move towards dominance. The PC will be overtaken by mobile web access.

There will a growth of the personal cloud which will reduce digital content on PCs and provide a common factor connecting many devices. As a result of this, mobile security, capability and management will become more important.

<http://www.imgrind.com/10-technology-predictions-for-2013-and-beyond/>

BMW prepares for "black swan" events

BERLIN: BMW, the luxury automaker, is aiming to modify its corporate strategy during a period of growth, and thus insulate itself from any potential future "black swan" - or crisis - events.

Speaking to [Der Spiegel](#), Norbert Reithofer, BMW's chief executive, admitted the austere climate in many Western countries, and slowing growth in emerging nations like India and China, made forecasting hard.

"I don't know what will happen in 2013," he stated. In response, BMW is trying to prepare for "black swan

events", or unpredictable occurrences that can have a major impact on global companies.

Flexibility is essential in tackling such issues, to which end BMW has formulated an "anti-crisis" plan, including more tightly matching working hours in its plants with precise alterations in demand.

Similarly, the firm's factories are developing the capacity to switch between making different vehicles, say SUVs or sedans, as vacillations in the market dictate.

Enhancing its manufacturing capabilities in countries including the US, China and Brazil should also help protect it from currency fluctuations and duties on imports.

BMW's provisional estimates for 2012 suggest it will provide the firm's best ever annual sales figures, yielding around 1.8m deliveries.

Reithofer added that periods of success were better to proactively implement change, rather than reactively responding to events, although overcoming inertia is challenging. "That demands a lot of energy," he said.

Linde Group, an industrial conglomerate, has enjoyed a six-fold increase in its stock market value during the last decade, but recently approved a new cost-cutting drive attempting to save €900m in the next four years.

"It has never been more difficult than today to give a precise prediction of future economic development," said Wolfgang Reitzle, Linde Group's chief executive, meaning it is vital to "be prepared for the worst-case scenario."

While the firm is streamlining some aspects of its activity, it also recently acquired Lincare, its US counterpart, for €3.6bn, indicating "an entirely different kind of flexibility" than in previous years.

Data sourced from Der Spiegel; additional content by Warc staff, 2 January 2013

NEW DELHI: Companies such as Hindustan Unilever, Bharti Airtel and Accenture are adopting "reverse mentoring" in India, where younger staff teach senior executives about new trends and technology.

Hindustan Unilever, the FMCG giant, has pursued this strategy at the highest level, with Nitin Paranjpe, its CEO, receiving insights into social media from Karthik Perumal, who is 17 years his junior and the organisation's media services manager.

"The skills I grew with up as a marketer are dramatically different from the skills and capabilities needed in the future," Paranjpe [told the Economic Times](#). "Reverse mentoring is important given the rate at which things are changing around us.

"Today, there is a generation of consumers that is growing up only in the digital space.

As the CEO of a consumer company whose business revolves around the consumer, how can I not be clued in to it?"

Pradeep Banerjee, executive director, supply chain, at Hindustan Unilever is also participating in this programme, as is Leena Nair, its director, human resources.

PricewaterhouseCoopers, the business services firm, asked its senior executives whether they would be open to pursuing such schemes, and had an 80% take-up rate, equating to approximately 200 staff.

"It is important for our leaders to realise that they do not know everything. This initiative will provide them opportunities to continue learning," said Mark Driscoll, PricewaterhouseCoopers's human capital leader.

This process of learning is two-way, offering insights into how managers work while informing them about new trends. "Both will benefit if we connect senior leaders with younger high performers," said Driscoll.

Krish Shankar, head of human resources at Bharti Airtel, the telecoms group, also regularly meets with Ila Wadhwa, its business development head, global voice solutions, who is 21 years younger than him.

"The future of technology will be defined by the youth, and unless we talk to the younger generation and observe them closely, we will not know their demands," said Shankar. "A programme like this sends a message that no matter how high up you are, you are never too old to learn."

Among the schemes pursued following these efforts are the repositioning of Bharti Airtel's brand on university campuses and shifting its sponsorship focus from cricket to football.

Similarly, this kind of initiative has assisted many leading managers at Accenture, the consultancy, in refining everything from decision-making strategies to in-house policies for new mothers returning to work.

"This has helped me in my problem solving skills. When I look at a situation, I also look at it from Gen Y's perspective – how they would look at that situation, and what could be a reverse solution to the problem," said Unmesh Pawar, Accenture's senior vice president, human resources.

Why Every Corporation Should Employ A Futurist

[Joshua Berlinger](#) | Dec. 17, 2012, 3:57 PM | 2,939 | [1](#)

-
- [inShare](#)90
-
-
- [Email](#)
- More



[Shawn Kelly/Flickr](#)

Most people and corporations are terrible at planning for the future, according to prominent futurist Dr. Peter Bishop of the University of Houston.

"The way the public — and particularly the way policy and decision makers talk about the future, is with way more certainty than they should have," Bishop explained in a phone conversation with [Business Insider](#).

"To tell you what's going to happen is asking the wrong question," he said. "It's not what the future will be, but what it could be or what it might be. **And the problem is that in the halls of decision, in the boardroom or the pentagon or something like that, That degree of uncertainty is not welcome.**"

Bishop says there are subtleties to future planning that can only be grasped by a futurist.

Several major corporations feel the same way, which is why [Google just hired futurist Ray Kurzweil](#) as director of engineering and [Cisco employs futurist Dave Evans](#). Bishop himself has worked with [IBM](#), [NASA](#), Nestle, and more.

Says Bishop: "We're encouraging companies to spend a little bit of time thinking about the future, single digit percents. They don't do it because they don't know how to do it so they think it's a waste of time, and the reason that they don't know how is because nobody in their schools has ever taught them how to do it."

So what are the keys to thinking like a futurist?

Futurists think in terms of "multiple futures" rather than one. Not only does this increase the chances that one will have a plan for the actual future, but it also "intellectually conditions" one to adapt to change.

Futurists also see value in challenging basic assumptions.

"What we do now is basically assume," says Bishop. "Then we go on and make plans, and those assumptions are fine. The problem is we don't challenge those assumptions, and what we've been taught in physics class is to state your assumptions. We were never taught to say, 'and what if those assumptions are wrong? What's different about it?'"

Just look at what happened in New Orleans in 2005:

"One of the classic cases of this was the plan for responding in New Orleans to a hurricane, like Katrina in 2005. On the very first page of that plan, published by LSU under a grant from the Department of Interior, and the very first assumption was, the levees will hold. They should say that, and they should make that assumption. The problem is that they should also have said, and what if they don't? Now that may have sent them off to go look at them, number one, that would have been a nice thing to do. And secondly ... what is the plan if the levees do not hold, because then water comes in pouring in from the lake and the river and stuff, and they had nothing about that."

Bishop says big changes are coming in our lifetime:

"There will be significant change within our tenure within any position within our lifetime for sure, that we will have to learn to live in a new world — to some extent. It's not completely new the way some futurists will say. But it will be new enough that we will be uncomfortable, we will be unprepared, and that we will have to learn new skills and new techniques in order to be successful in that future compared to how we are being successful today, or indeed how we were prepared to be successful when we were in school or training."

[Now see futurist Ray Kurzweil's vision of the next 20 years >](#)

Read more: <http://www.businessinsider.com/peter-bishop-on-futurism-2012-12#ixzz2HKW4z5zd>

With companies like [Google](#) creating self-driving cars and augmented-reality glasses, futurist Ray Kurzweil's predictions are starting to sound much more realistic.

Kurzweil, cofounder of Singularity University, became famous for creating the first text-to-speech software. [Forbes called him](#) "the ultimate thinking machine."

With technology advancing at increasingly rapid rate, and researchers making serious headway into discovering the mysteries of the brain, it seems as if we'll all be reconstituted as a computer someday.

Here's a summary of what our future will be like, [Kurzweil said](#) in a speech at the Demo conference in Silicon Valley this past week:

- Our brains will extend to the cloud, which will allow us to learn new things at any age.
- We will be able to selectively erase pieces of our memory.
- We'll be in augmented reality at all times.
- By 2029, [machines will be able to match the intelligence of humans](#), and they'll be able to make us laugh and cry.
- Around the 2030s, tiny "nanobots" able to repair and preserve our organs will keep us healthier and smarter.
- [3D printing](#) [will be even more common than it is today](#), with public 3D printing stations for people to print out clothes, toys, and anything else.
- Within 25 years, [computers will be the size of a blood cell](#) and we'll be able to connect it to the brain without the need for surgery.
- Society will reach a state of "technological singularity" in 2045 where technology enables superhuman machine intelligences to emerge and people and machines become deeply integrated.

Read more:

<http://www.businessinsider.com/ray-kurzweil-singularity-future-2012-11#ixzz2HKWJGIUV>

<http://www.businessinsider.com/how-to-manage-millennials-2012-12>

Employers also need to realize the extent to which millennials have been affected by entering the workforce during the worst economic collapse since the Great Depression. Rather than focusing their all on one career or one skill set, they keep options open, work on multiple things at a time, and experiment with their early careers.

"[It's] completely pragmatic and driven by this understanding that you don't want to put all of your eggs in any one professional basket," McCracken said. "Because, well, who knows how long this corporation will be around or how long your present profession will be around. It's almost the only sensible response to the sheer dynamism of the world and the disruption in the world and the black swans that keep transforming the world."

They've seen jobs get outsourced, entire professions disappear, and giant companies go down. The best way employers can respond is by making the effort to train millennials, to give them different options and novel experiences, rather than expecting or hoping that they'll be happy doing the same thing for a long period. Previous generations may have been content to stick firmly to one role they're given early in their careers, but millennials have learned from their environment that that's, as Dr. McCracken puts it, "a pretty bad career strategy."

Read more: <http://www.businessinsider.com/how-to-manage-millennials-2012-12#ixzz2HQEzr2PA>
