Inside America's IT Talent Crisis

MUST-KNOW TRENDS AND HIRING STRATEGIES FOR DIGITAL SUCCESS

celerity

WHAT'S HOLDING YOU BACK?

Securing the Talent Advantage

As more companies sprint to bring new apps to market and reap mobile's full rewards, they find themselves engaged in fierce competition. Not just for customers, but for agile teams of IT professionals capable of executing their digital strategies.

While the IT talent shortage has been brewing for some time, it's been exacerbated by **explosive growth of mobile platforms, open source tools, content management systems**, **IT security** needs, and other areas requiring specialized skills. And there's a real premium on developers, designers, and project managers who can think on their feet and excel in the business environment.

But as the demand rises, the supply is dwindling. *Why?* And how does this shortage affect your digital strategy and your hiring practices?

This e-book delves into four key market trends wreaking havoc for business leaders and IT hiring managers.

You'll learn what's behind these trends, as well as effective strategies for finding and keeping top IT talent needed to stay competitive in the digital era.

Problem Trends
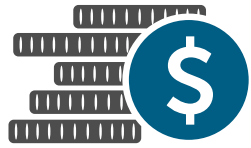
By 2015, information-smart businesses will increase IT spending by 60% per head.[1]

THE SKILLS GAP

1.7 million cloud-related IT jobs went unfilled in 2012.[2]

HYPERSPECIALIZATION

36% of CIOs are actively looking to staff up, but only for very specialized tech positions.[3]

DEATH OF JOB LOYALTY

74% of IT employees are either actively searching for a new job or open to new opportunities.[4]

Acquiring top talent will enable CIOs and business leaders to operate critical initiatives more efficiently.

[1] Gartner, Top Predictions for IT Organizations and Users, 2011

[2] IDC report sponsored by Microsoft Corp.

[3] InformationWeek Report

[4] TLNT: The Business of HR

The Spending Frenzy

One of the biggest factors driving the unprecedented demand for IT talent today is also one of the oldest: money.

Worldwide, IT spending will exceed $3.7 trillion in 2013. That's up 4.2% from 2012.

The days of tentatively exploring and experimenting are over. Companies have moved into high-stakes competition, doing what it takes to stand out and push their digital brands forward, or at the very least keep pace with what's happening in the market. Moving too slowly, or not investing enough in emerging technology, can have dire consequences. (Just ask Kodak, which declared bankruptcy last year after not moving quickly enough to digital).

"Moving" is the operative word these days, as mobile dominates the technology to-do list. And for good reason: **Two-thirds of Americans who own cell phones use them to access the Internet and check e-mail,** according to a recent study by the Pew Internet & American Life Project. That doubles the amount from 2009, when only 31% of people said they used their phones to go online.

Companies are willing to loosen their purse strings to give customers what they want, when they want it. However—and this is a big caveat—they need talented technology professionals capable of executing their digital strategies and bringing their ideas to life. And these IT professionals are in short supply.

80% of organizations reported their business had been negatively affected by failures to keep pace with technology.[1]

Worldwide IT Spending Forecast (Billions of U.S. Dollars)

|	2012		2013		2014	
	SPENDING	GROWTH	SPENDING	GROWTH	SPENDING	GROWTH
Devices	627	2.9%	666	6.3%	694	4.2%
Data Center Systems	141	2.3%	147	4.5%	154	4.2%
Enterprise Software	278	3.3%	296	6.4%	316	6.8%
IT Services	881	1.8%	927	5.2%	974	5.1%
Telecom Services	1,661	-0.1%	1,701	2.4%	1,742	2.4%
Overall IT	3,588	1.2%	3,737	4.2%	3,881	3.8%

Source: Gartner, January 2013

Do you have the people in place to get the most from your digital investments?
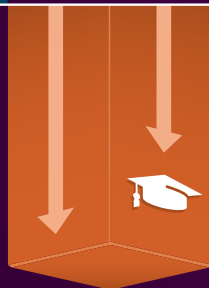
[1] The Computing Technology Industry Association

Between 2003 and 2012, **the number of computer and IT jobs grew by 13%— but the number of people with degrees in these fields dropped by 11%.**

13%
INCREASE
in number
of IT Jobs
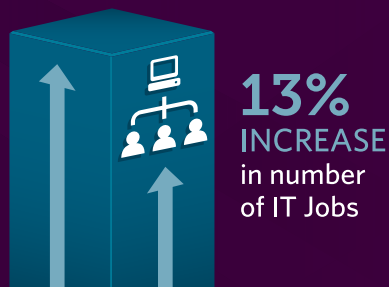
11%
DECREASE
in number of
people with IT
and computer
degrees

Source: CBS News

The Growing IT Skills Gap

Companies are struggling to hire skilled IT professionals largely because there are fewer of them entering the job market these days. The statistics paint a picture of demand:

In the United States, job growth increased only 1.5% overall in 2013, but IT job growth jumped by 5.7%.

We know why companies need good IT help. But why is it so hard to find?

The national unemployment rate stands at 7.7%, yet the unemployment rate for tech workers is less than 4%.

A systemic problem lies in America's talent pipeline, or lack thereof. Even if students wanted to go into programming, related courses are only offered in 10% of American high schools. Computer science is the only STEM (science, technology, engineering, and mathematics) field that has actually seen a decrease in student participation over the last 20 years.

Another reason is that companies are unable to get offshore support for technologies like Oracle databases and CRM applications. They are bringing these operations to America for faster time-to-market, a better end product, and improved customer service.

How long do your positions stay vacant?

Specialization Nation

Ruby on Rails, Grails, Django, Spring Roo, Alpha Five, AppFlower
—there's a seemingly endless stream of open source and COTS systems
on the market, with more on the horizon.

New systems require new programming languages and specialists that speak them. So companies not only need IT talent, they need talent with highly specialized skill sets. There's hardly such a thing as just a "software developer" anymore—but there are Django developers, Ektron developers and Java developers, just to name a few.

36% of CIOs are actively looking to staff up, but only for very specialized technology or business positions.

This trend of hyperspecialization (coined by Harvard Business Review) was rampant in CIO hiring practices in 2012. When InformationWeek asked organizations what their current approach to hiring permanent IT staff was, 36% of CIOs polled said they were actively looking to staff up, but **only for very specialized tech or business positions**.

The hyperspecialization craze is unlikely to change anytime soon. Experts with their fingers on the pulse of innovation say **we can expect to see as much evolution in IT over the next seven years as we witnessed in all of the 20th century.**

This trend is apparent in tools we use everyday. Datasift, the cloud platform that backs Twitter, leverages niche technology to provide complete and compliant access to social data.

IBM has already created "cognitive computers" inspired by the human brain, which will require a new kind of programming far different than today's machines, which still derive themselves from FORTRAN (a programming language developed in the 1950s for ENIAC).

Amid perpetual change, experts capable of speaking the latest languages or operating the newest open-source platforms will be in high demand. **Niche IT specialists are fully aware of their value and scarcity, which makes it even harder for hiring managers to attract, find, and keep these precious resources.**

22 NEW PHP

3 PERL
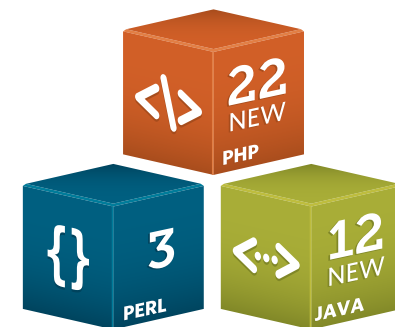
12 NEW JAVA

In addition to the thousands of content management systems (CMS) already out there, 22 new PHP and 12 new Java CMS solutions hit the market in 2012.

Are you confident your current IT staff has the skills needed to execute your strategy and give users the best digital experience possible?

Job Loyalty Is Dead

You don't need to be an economist to arrive at this formula:

High demand plus short supply equals a candidate's market for talented IT specialists —particularly those with the rare combination of technical skills, collaborative spirit, and the drive to conquer the next big challenge.

Top-performing IT consultants can demand higher salaries, be more selective about their assignments, and walk away from contracts, knowing more options are waiting just around the corner.

According to the Society for Human Resource Management Customized Benchmarking Database: "Now that the U.S. recession is over and the economy is moving in the direction of a recovery, voluntary turnover will reemerge as a critical component of workforce planning. High performers will see opportunities to switch jobs and take their in-demand skill sets with them."

In addition, many developers are launching startups and becoming wildly successful on their own. Take Pusher.com, which was started 'accidentally' by two developers communicating over Twitter—and is now supporting global companies to create a new generation of online apps.

In any market, turnover is expensive and painful. **It may cost as much as $150,000 to replace an IT employee who earns $60,000 a year,** according to the Houston Chronicle. Much of the expense qualifies as indirect costs, such as loss of training, loss of institutional knowledge, productivity losses, consulting fees and overtime expense.

Overall Employee Job Satisfaction: 2002–2012

Year	Satisfaction
2002	77%
2004	77%
2005	77%
2006	80%
2007	79%
2008	82%
2009	86%
2010	84%
2011	83%
2012	81%
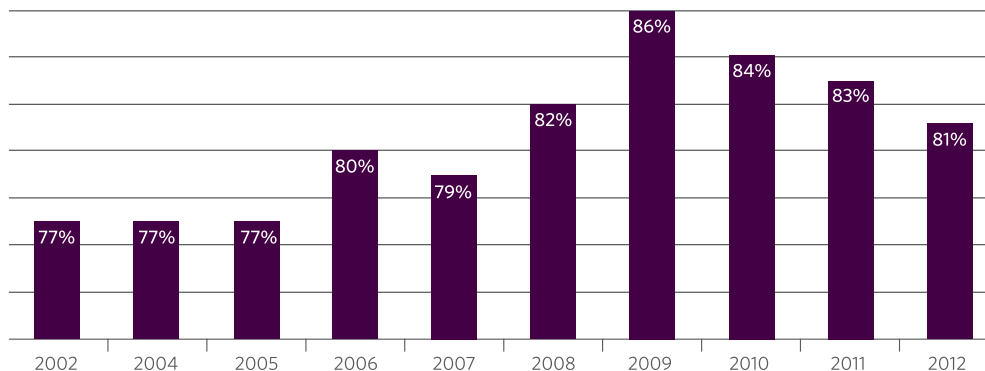
Source: SHRM 2012 Employee Job Satisfaction and Engagement: How Employees are Dealing with Uncertainty

How loyal are the members of your IT team?

74% of IT employees are either actively searching for a new job or open to new opportunities.

You Know About the Trends Conspiring Against You. **NOW WHAT?**

What can you do to overcome these trends and come out ahead? Even in the current market, there are effective proven tactics to find and keep top IT talent.

Finding Talent

1. **Get social.** Make sure you're engaged on digital networking sites, including the biggies like LinkedIn, Facebook, Twitter, and Google+. When possible, stand out as a thought leader online by posting blogs, contributing to LinkedIn Groups, and creating Facebook groups.

2. **Build your pipeline.** Proactively build your pipeline of IT talent throughout the year, even when you're not hiring. Constantly source passive candidates to keep your name top of mind and keep their information current.

3. **Reach out.** Use networking sites like Meetup and attend events focused on specialized technologies or IT skill sets. Consider running frequent e-mail campaigns to stay in touch with passive candidates.

4. **Make connections.** Develop relationships within specialized online and offline communities. Make yourself known among the thought leaders in your field and those involved in relevant technologies. These people may be able to refer you to promising prospects when the need arises.

5. **Use multiple sources.** The days of using just Monster.com are gone. To find the best IT talent you need to engage in different strategies — from using social media and various job boards to joining online groups, attending in-person events and proactively looking for referrals.

www.celerity.com

5 Ways to Keep Top IT Talent

1. Diversify. Offer your IT teams a variety of challenging projects to work on. Chances are they're eager to be at the forefront of what's next and tackle the next big technology challenge.

2. Reward curiosity. Establish a stimulating environment that nurtures curious mindsets and rewards team members for coming up with bigger and better ideas.

3. Find the right fit. Investing time up front to find candidates that match your company culture and job requirements pays off in the long run.

4. Boost the benefits. Put together a competitive benefits package to combat diminished job loyalty.

5. Give back. Help your employees feel good about where they work by giving back to the community and offering opportunities to participate in philanthropic outreach initiatives.

Explore an Agile Staffing Model

Given the difficulties of finding and keeping the right IT talent in today's market, successful companies are increasingly opting to integrate **blended staffing models** (a.k.a. "agile staffing") into their hiring strategies.

Freelancers, contract workers, and consultants now number nearly 17 million, or 12% of the American workforce. The number of temporary workers jumped more than 50% since 2009. No other sector even comes close.

12%
Consultants or Contractors

88%
All Other Jobs
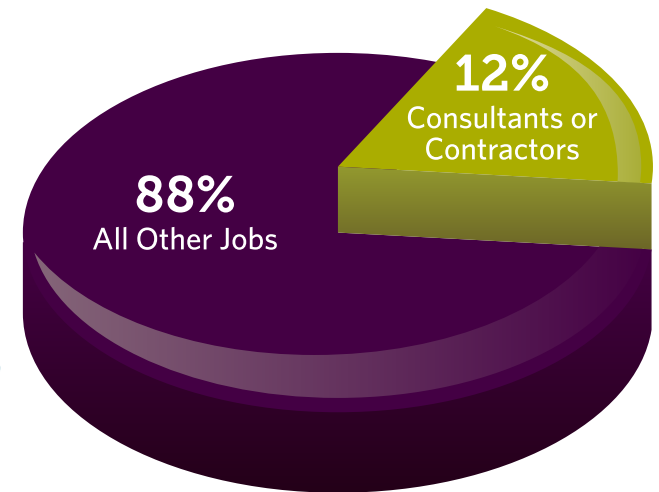
The agile staffing model uses blended resource types—including full-time hires, contractors and consultants—in order to secure the best and brightest IT talent and push digital strategies forward. More organizations across highly regulated industries like financial services, healthcare, media, education and nonprofits are being forced to seriously consider an agile staffing model to get projects completed on time and to quality.

Leveraging outsourced IT talent as needed is ideally suited for today's agile IT environment. Managers have the increased flexibility to assemble teams with the skills they need for defined periods of time and reap a host of **benefits** such as those described on the next page.

The Benefits of an Agile Staffing Model

1. **Speed:** Finding the right-fit IT specialists means new initiatives, projects and products get to market faster.

2. **Costs:** Using contractors and consultants means less overhead and less time spent searching. You can also try candidates in actual working situations before making any full-time commitments, which decreases attrition and the costs of turnover.

3. **Productivity:** The talent provider can manage resources for you, removing management burdens and ensuring high productivity and efficiency from each resource.

4. **Flexibility:** You have the flexibility to release the consultant when the project ends. The talent provider is then responsible for redeploying them to another client project, or placing on bench.

5. **Quality:** Contracted talent brings a fresh perspective, along with specialized skills and a "consultant mindset" which translates to a desire to find a better, faster way to get the project done.

The employment services industry saw 18% sales growth during 2012.

The bottom line: Blended models of full-time, part-time, and contracted talent are becoming more of the norm than the exception. Companies that embrace these models will be in the best position to secure the most elusive, talented IT professionals capable of pushing critical projects, brands and businesses forward.

How will your company overcome the IT talent crisis?

How to Find Talent Fast

Companies are going a step further in their hiring search, relying on specialized IT talent firms to find exceptional tech talent fast.

It takes the typical company three to six months to onboard and ramp up a new employee and make him or her productive. **In the IT space, the average time to fill positions is 37 days**. But talent experts like Celerity, with access to large networks of niche tech professionals, can fill requirements within 14 days. Those **23 saved days can make all the difference** when speeding apps to market.

If You Already Have an IT Talent Provider

If you're using a talent vendor to fill your open positions, it's a good idea to assess their performance from time to time to ensure they're keeping up with industry and competitor trends.

5 QUESTIONS TO ASSESS YOUR TALENT VENDOR

How can you be sure your talent vendor is doing everything possible to source and retain top talent at competitive rates? Just ask yourself, or your vendor directly, the following questions.

Does your IT talent provider:

1. Find candidates matched to your culture and requirements, not just a job description?

Savvy recruiters who understand the technical needs of your company are great, but are performing only half the job. Make sure your vendor is providing the right fit for your culture, environment, functional requirements, and business style.

2. Give consultants excellent benefits, including healthcare and field support?

Make sure your vendor is providing good health care and wellness benefits, not only to retain great talent, but also to provide the support necessary for employees to stay focused on the mission at hand. Adding an extra layer of field support in the form of a Consultant Care Specialist / Resource Manager helps to keep on-site consultants satisfied and connected to their firm. At Celerity, we hire most of our consultants as full-time employees, providing them with excellent benefits, support, and redeployment opportunities.

3. Provide flexible contractor and contract-to-hire structures to fit your business needs?

Your IT talent vendor should deliver flexibility and various options around contractor and contract-to-hire (permanent placement) services. This way you can "try before you buy" and pre-screen candidates on the job before making a long-term commitment and employment offer.

4. Anticipate your project needs and pipeline talent in advance?

Your talent vendor should understand your business, culture, initiatives, and talent needs. They need the proper foresight to proactively pipeline based on your forecasted projects, business initiatives, and hiring needs. Avoid reactive bustling to build your team!

5. Align talent with business strategies and value?

Perhaps we should have this at number one. Talent augmentation is supposed to improve results and increase value. But if talent is not properly aligned to your strategic business objectives, it's often difficult to derive the full value and demonstrate business results.

In the end, your talent vendor should be removing extra management and administrative headaches from your workload so you can focus on accelerating IT adoption, project speed, and business success. It's as simple as that.

Sources Quoted

THE SPENDING FRENZY

Gartner Says Worldwide IT Spending Forecast to Reach $3.7 Trillion in 2013

CIO Magazine Tech Poll/Tech Priorities Survey

IDC Predictions 2013: Competing on the 3rd Platform

Survey: 62% of Executives Expect Increased Advertising/Marketing Spend on Facebook

IT Spending: Can You Keep Up with the Joneses?

The Computing Technology Industry Association

The Pew Internet & American Life Project

HYPERSPECIALIZATION

Failure to Keep Up with Technology Is Destroying Major Companies

Master List of Content Management Systems 2012

The Rise and Fall of Languages in 2012

IBM Develops Programming Language Inspired by the Human Brain

A Jack of One Trade: The Age of Hyperspecialization

THE SKILLS GAP

Tech Jobs Continue to Outpace Overall Job Growth

Study: IT Workforce Unprepared for Cloud Jobs

Can We Fix Computer Science Education in America?

5 Reasons Outsourcing Is Here To Stay

Gartner's Top Predictions for IT Organizations and Users, 2011 and Beyond: IT's Growing Transparency

America's IT Talent Crisis: A Supply & Demand Problem

Five Signs that IT Outsourcing Is on the Rise

Despite Job Boom, Fewer Students Study Tech

JOB LOYALTY IS DEAD

Job Loyalty Is Dead — 5 Ways to Engage with a Transient Workforce

2012 ERC Turnover & HR Department Practices Survey PDF

Executive Brief: Tracking Trends in Employee Turnover

U.S. Companies Increasingly Turn to Transient Work Force

2012 ERC Turnover & HR Department Practice Survey

Survey: 74% of Workers Are Passive Job Seekers Ready to Consider a Move

IT Employer Information — Cost of Hiring / Retention (COH)

The Average Cost to Hire a New Employee

About Celerity

As business acceleration specialists, Celerity exists solely to speed up results.

We provide personalized talent solutions to help our clients accelerate IT adoption and integration. Because we've spent the last two decades building relationships with top consultants in niche fields, our clients benefit with fast and easy access to well-qualified IT experts.

Celerity also offers services to help companies break through stuck points and accelerate business results in areas of:

- Web & Mobile Solutions
- Enterprise Technology Solutions
- Business Process Management
- Project & Program Management
- Information Security and IT Risk Management

Learn more at www.celerity.com.

celerity

WHAT'S HOLDING YOU BACK?