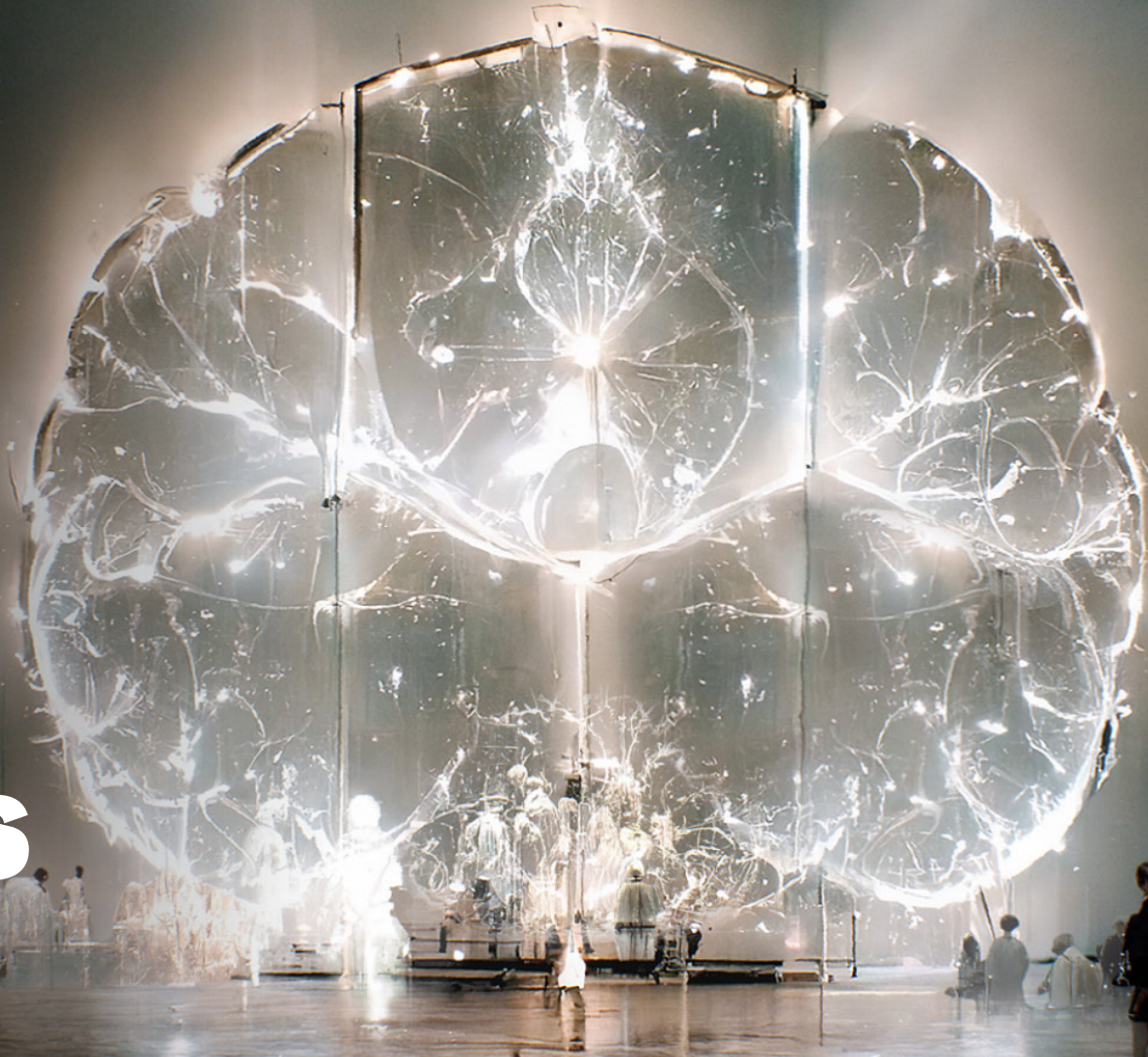**Deloitte.**
Insights

Tech Trends 2023

Trend 4
Flexibility, the best ability: Reimagining the tech workforce

Organizations have been competing for a limited supply of tech talent. A winning long-term strategy instead creates, curates, and cultivates new talent.

The history of technology conjures images of lab coat–wearing PhDs wrangling information out of room-size mainframes. Previously synonymous with advanced scientific knowledge, the use of technology is now ubiquitous and becoming more democratized, and recently, more decentralized. Technologists have exchanged lab coats for crewnecks and black jeans; yet, when it comes to technology talent, organizations are still on the lookout for advanced scientific knowledge, in the form of advanced degrees and years of engineering experience.

In the last year, workers with this type of knowledge have been at an all-time shortage: More than half of IT executives were unsuccessful in filling a position.[1] Headlines about the Great Resignation abound, and companies often appear to be engaged in a heated competition for tech talent. But with technical skills becoming outdated every 2.5 years on average,[2] hiring for current needs is not a winning long-term strategy. Rather than competing for scarce tech talent, leaders would be wise to consider an abundance strategy, wherein technology talent can be curated, created, and cultivated. In other words, don't compete when you can create.

> "My strategy is to create an environment that unleashes the potential of my staff. They should be getting poached by the best companies and yet not leaving because they love the work."
>
> —Sathish Muthukrishnan,
> chief information, data, and digital officer,
> Ally Financial[3]

Since 2015, *Tech Trends* and the *Global Technology Leadership Study* have predicted the emergence of a new breed of IT worker, capable of infusing creativity, design, and emotional intelligence into the expanded definition of a technology team. Today, low-code/no-code technologies are increasingly common[4], modernization has been accelerated by the pandemic, and code repositories are abundant. As a result, respondents across industries in our forthcoming *2023 Global Technology Leadership Study* identified creativity, problem-solving, and other human skills as greater differentiators for tech talent than ever before.[5]

Over the next 18–24 months, technology leaders can reimagine the workforce and workplace to focus on the skills (both human and technical) needed to deliver IT products and services. Leading companies are likely to get creative and tap into new sources for finding talent, while providing a compelling talent experience to retain top performers. To win the battle for talent in the long-term and prepare for further changes to come, organizations should be prepared to eschew IT orthodoxies and prize flexibility as the best ability.

Now
Zero-sum blues

The COVID-19 pandemic catalyzed many technology workforce shifts that have persisted longer than anticipated. Many technology workers have opted to stay remote, creating a more fluid workforce. In fact, 85% of IT divisions plan to be hybrid or fully remote going forward.[6] At the same time, given the rate of digital transformation, enterprises are demanding more from their technology teams and are sourcing talent globally. It's therefore no surprise that in April 2022, the unemployment rate for tech talent was 1.3%, about one-third of the US unemployment rate.[7] It's also no surprise that 72% of US tech employees are considering leaving their jobs for greener pastures.[8]

To attract talent, organizations are often relying on a single approach, such as increasing compensation, providing flexible work arrangements, and reskilling or upskilling. However, as the talent shortage continues, choosing just one of these solutions is unsustainable. As other companies match or improve their job offers, tech talent may keep leaving for new opportunities, leaving organizations to play a zero-sum game to attract talent. For instance, in the last year, 82% of US enterprises were prevented from pursuing digital transformation projects due to a lack of resources and skills.[9]

Rather than competing for the same talent using the same methods as others, technology leaders should recognize there is no one-size-fits-all strategy for talent. For instance, Joe Weider, chief technology officer (CTO) of Lincoln Financial Group, says he couldn't match the salaries offered by large tech companies, but he retained his talent in other ways. "We're taking employees out of the market by doubling down on our flexibility and our company culture, including bringing in staff for engaging offsites and creating opportunities for peer recognition," says Weider.[10] By expanding how they think about the tech talent problem beyond a single approach, enterprises can expand the scope of their solutions over the coming months.
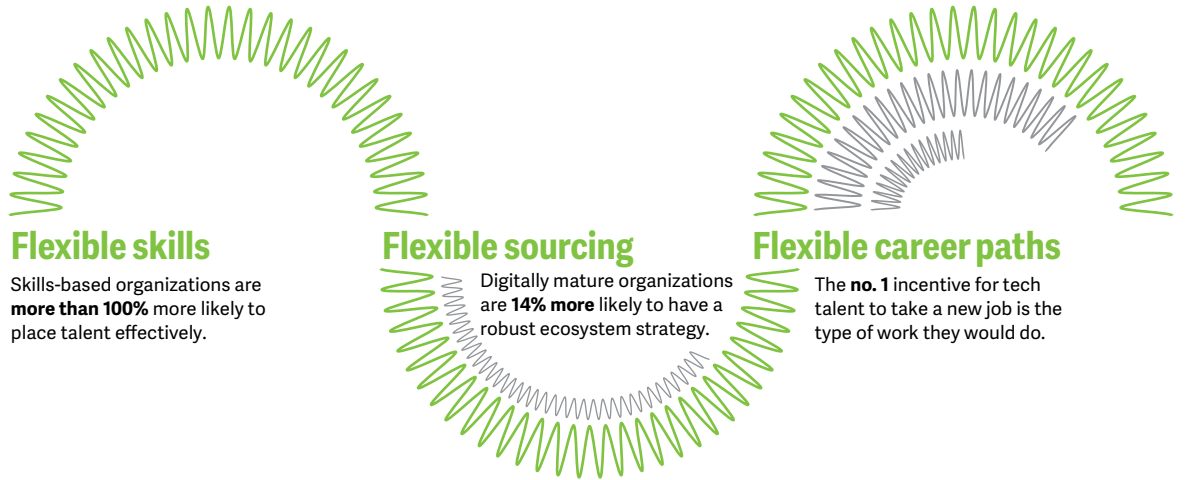

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New
Flexibility is the best ability

Over the next two years, the tech talent crunch may continue to impact the bottom line. Organizations that want to protect and pursue their transformation projects require a strategy-driven, differentiated approach to finding staff. Those who meet their talent goals will likely expand their conception of how technology work is planned and executed, instead of over-fitting for current technical needs (figure 1).

FIGURE 1: Prioritize flexibility to curate tech talent

Flexible skills

Skills-based organizations are **more than 100%** more likely to place talent effectively.

Flexible sourcing

Digitally mature organizations are **14% more** likely to have a robust ecosystem strategy.

Flexible career paths

The **no. 1** incentive for tech talent to take a new job is the type of work they would do.

Source: Deloitte analysis.

Flexible skills

Deloitte research has shown that the traditional concept of a job is one of the key hindrances to meeting targets for growth, agility, and diversity, equity, and inclusion (DEI). Many organizations are pivoting toward talent models that center on skills rather than jobs. For instance, Mercedes-Benz has organized some of its IT talent into "capability sets" to improve flexibility for assigning staff to new roles or new products.[11] The results speak for themselves: Skills-based organizations are more than 100% more likely to place talent effectively and 98% more likely to retain high performers.[12] In fact, recent shifts have made a skills-based approach more attainable, according to Patrick Noon, Bechtel's chief information and digital officer: "Recruiting for critical skills is easier because I can recruit from anywhere for jobs for remote work."[13]

Technology leaders looking to adopt this model should start with their business requirements and determine which human and technical skills are needed to fulfill those requirements. Then they can segment their needs into hard technical (e.g., data science), tech-related skills (e.g., Agile QA or customer success), and human skills (e.g., resilience), based on a forward-looking strategy. Crucially, a skills-based approach can enable organizations to be more creative in addressing their talent shortages. For instance, the SecureAmerica Institute, a public-private research collaborative focused on US manufacturing resilience, has helped manufacturers train talent accustomed to manual labor to be advanced machine operators.[14]

Flexible sourcing

Organizations that develop a flexible approach to skills may find it easier to adopt an abundance strategy when it comes to sourcing talent for those skills. Instead of only hiring, they can plan to outsource, offshore, train, or retrain talent, or leverage other components of their ecosystem to fill their needs.

Enterprises ahead of the curve are already crowd-sourcing talent, through gig workers or contractors, to fill gaps and free up their internal resources to focus on the most challenging and interesting work.[15] Debbie Browning, CTO of Workwear Group in Australia, did just that when she had trouble hiring talent. "We're a lean organization," she says. "It's more effective for us to scale with managed services than internal hiring."[16] Moreover, Deloitte research shows that digitally mature organizations are more likely to have a robust ecosystem strategy that can expand their access to skills (54% vs 40% of average organizations).[17]

At a time when 78% of technology talent said DEI initiatives are an important factor when accepting job offers, leaders should consider that a skills-based approach can make it easier to promote equity.[18] For example, some CIOs have partnered with organizations to offer a nine-month training program from which underrepresented

candidates graduate to work in cybersecurity and programming.[19] Such initiatives, coupled with the right development opportunities (e.g., mentoring, rotational programs, externships) can even empower organizations to create fresh talent instead of fighting over a limited supply.

Flexible career paths

Employees are looking for interesting work and flexible career paths—and companies should adapt to meet these needs. This shift in mindset is perhaps best represented by a move from "10X"[20] engineers to "10-job engineers": serial specialists who can build depth in multiple areas over the course of a career. Businesses can explore some of the following methods to create careers and experiences that retain employees:

- **Lateral moves.** Contrary to conventional vertical pathways, organizations should design career paths that allow for lateral progression between different technologies. Seventy-four percent of workers believe they need to update their skills at least once every six months to do their job effectively in a digital environment.[21]

- **Talent marketplaces.** An internal talent marketplace where employees can find short-term projects or new teams can promote internal mobility and allows them to discover purposeful and meaningful work. For tech talent, the No. 1 incentive in a new job (chosen by 54% of respondents) was the work they would do. Or, as Diogo Rau, chief information and data officer of Eli Lilly and Company, says, "You can't pay good engineers enough to do boring work. Offer a purpose that excites people."[22]

- **New operating models.** IT divisions are not known for their flexibility. To create experiences that allow for employees to work at the right pace with the right partnerships, organizations should consider instituting a few different modes of operations for technology work, as we'll discuss in our forthcoming *2023 Global Technology Leadership Study*.

"Today, the flexibility of talent to perform work is dependent on creating a culture of mobility that facilitates workers taking on new roles and learning new skills."

—*Fortune* 100 CIO

Modern training for modern engineering

Foundational training is critical to developing a flexible and capable technology workforce. New technical hires should receive dedicated training time, through a rigorous boot camp for instance, which exposes them to the full technology stack, the interplay of business and tech, and the internal culture of engineering. The ideal training not only provides a skills foundation, but also trains new hires to adapt quickly and develop a continuous learning mindset.

At many companies, that involves simulation-based practice and an apprenticeship model where new hires can learn the ropes from experienced engineers in a "two-pizza" team (as discussed in *Tech Trends 2022*). Especially when it comes to learning the intersection of business and technology, technical staff should have the space to learn detailed concepts and interaction skills during the natural flow of real work. At the same time, experienced engineers need regular upskilling on the latest technologies as well, through a combination of e-learning, vendor-led classes, and certification programs.

Moreover, flexible career paths require understanding different functions of the business.[23] Whether through rotational programs, lunch and learns, or on-the-job shadowing, tech talent should be exposed to a variety of disciplines, including product management and customer experience. Then, if they want to pursue lateral moves later in their career, the learning curve may be less steep.

Crucially, once training and upskilling have been delivered, engineers should be encouraged to get creative and write custom apps that better serve the business, instead of being limited to application maintenance. Curating a developer experience that reduces friction (from outdated systems and inefficient processes) can allow technologists to focus on their craft and drive business innovation and outcomes. As all companies increasingly become technology companies, modern engineering becomes the fulcrum upon which strategy rests. Developer, architect, and engineer training and experience may soon make the difference between winners and losers in the market.

Next
Brush up on your humanities

Businesses are at an inflection point in terms of talent. Over the next decade, technology will likely continue to get better at executing given tasks, freeing up tech talent to focus on higher-order problems: how to adapt to business needs, best partner with their digital colleagues, and innovate.

Just as the workforce of today would groan at the prospect of having to write code in an outdated language, the workforce of tomorrow may balk at not having AI assistants. In the Age of With™—an era defined by human *with* machine collaboration—if time-consuming computations are delegated to AI, human coworkers can focus on the tasks that need the human touch. For instance, American Airlines recently reduced a laborious four-hour gate assignment process, which once required a team of people working late into the night to assign flights to gates and account for the day's

cancellations, to a 2.5-minute procedure using AI. This freed up their team members while providing an improved experience for their customers.[24] Similarly, the **Virginia Department of Health** is developing a chatbot to handle the nearly 2,000 basic customer inquiries received each week, allowing administrative staff to focus instead on higher-level problems.[25]

As we discuss in *Opening up to AI: Learning to trust our AI colleagues*, tech talent is multiplying productivity by partnering with digital colleagues. Product Manager Mike Geyer at **NVIDIA** believes future engineers "are going to learn about how to set up problems for AI, so it can do the grunt work, instead of solving the equation themselves."[26] As AI automates problem-solving, enterprises may soon be on the hunt for humanities majors who can guide a set of accessible and capable AI technologies toward business results. Despite a steep decline in such degrees,[27] the big-picture thinking, ethics, and problem-framing of the humanities

may soon be in demand again. The upside? Geyer's team of AI specialists forecasts 30% efficiency gains for the clients it serves.

"We're a global company with a diverse workforce, which means we also actively recruit globally. With the shortage of skilled cybersecurity professionals, it has become essential to rely and invest in AI technology to continue our drive for innovation."

—Peter Oggel,
chief technology officer, Irdeto BV[28]

Finally, the rising prevalence of technology innovation officers promises a future where technology teams are shaping the business instead of working to keep the lights on. Sixteen percent of organizations now have this position, which was rare just three years ago, and technology budgets dedicated to innovation have increased by 8% since 2020.[29] As discussed in our recent *Innovation Study 2021: Beyond the buzzword*, innovation is concretizing as a discipline.[30] Some companies have already started innovation divisions, while others have invested in developing a series of internal "mini startups" to provide the innovative work tech talent craves.

As automation frees up precious human time to navigate what's next, the battleground of the next decade may not be in finding tech talent, but in pioneering technology for the future.

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