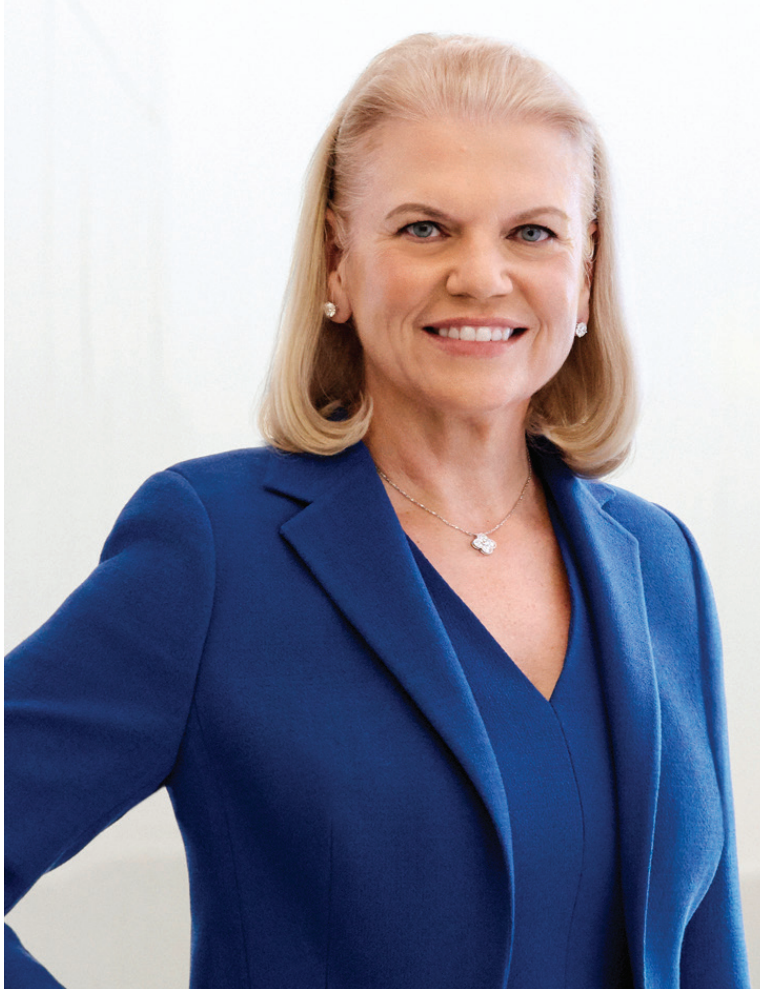

HIRING SKILLS, NOT DIPLOMAS

How to Ignite the Next Generation of Talent

Written by Ginni Rometty

In order to remain one of the world's leading technology companies, at the forefront of cloud and quantum computing, IBM also needs to employ the world's leading technologists. That's why the company has been heavily invested in efforts to promote STEM education and career preparation. Here, IBM CEO Ginni Rometty explains the challenges and opportunities the company's P-TECH initiative seeks to address.

Right now, there are more than seven million open jobs in the U.S. That's a historic number because, for the first-time since 2000, there are more job opportunities in this country than there are people looking for work. Competition for talent is fierce. But employers face another major challenge in filling some of their top paying roles: a lack of candidates with the right mix of skills. That begs a question: How can companies do more to foster the next generation of innovators?

None of us can afford to put this off. The pace of progress in areas like AI and quantum computing is only going to accelerate, further exacerbating the urgent need for qualified workers. AI, in particular, is one of the greatest opportunities of our time but also one of the greatest challenges. This is not because it will put some people out of work. Rather, it is because AI eventually will transform 100 percent of the jobs we know today in addition to creating entirely new roles and professions.

The solution to the current and future skills challenge must start with greater investment in the future of skills training and in teaching millions more people how to use the technologies that are rapidly reshaping our global economy. Technology clearly will solve some of the most important issues in society today, but it also can create some of the biggest divides between the haves and have-nots of the world—much of that based on education and skills.

Take it from those of us who see this challenge up close every day. In a recent survey conducted by the IBM Institute for Business Value, more than 5,600 global C-level executives reported that they are "increasingly crippled by a workforce whose skills have not kept pace with changing requirements." It showed that 60 percent of executives, who lead all kinds of businesses, struggle to keep workforce skills current and relevant in the face of rapid technological advancement.

Skills versus Credentials

Closing the high-tech skills gap requires rethinking traditional approaches to education and hiring. It also means embracing a cultural shift toward hiring and advancing for talent, not diplomas. It's simply no longer the case that there's only one path to a great career in technology. Today, the necessary skills can be acquired in many different ways.

We no longer can insist that every person needs to be a university or a Ph.D. graduate to be productive in society. The workplace today is full of jobs that do not require bachelor's degrees but do demand special skills, typically related to digital technologies. We call them "new collar" jobs, and they are in high demand, like app developers and cybersecurity analysts.

The necessary training and experience for new collar jobs can be acquired through community colleges, digital bootcamps, reimagined public schools, or 21st century apprenticeships.

Truly transforming our workforce for the era of new collar jobs requires that we radically rethink and reimagine education as early as possible. That's the driving idea of the Pathways in Technology Early College High School—or P-TECH—model. P-TECH melds the best of high school, community college, professional mentoring, and hands-on career learning that better prepares students for success in college or new collar careers.

Since its 2011 launch—through a partnership among IBM, the New York City Department of Education, and the City University of New York—the P-TECH program has expanded to more than 110 schools across eight US states, Australia, Morocco, and Taiwan. More than 500 industry partners—from American Airlines to Mastercard and Kaiser Permanente—and 77 community college systems are participating in this new model and training students for a wide range of careers.

At these P-TECH schools, students build skills for life-long careers—not just jobs. Graduates earn both a high school diploma and a no-cost, two-year associate's degree in a competitive STEM field. The curriculum taught at these schools is designed with industry needs in mind, with IBM employees acting as mentors and IBM providing the students with internships. The model's on-time completion rate for an associate's degree is four times the US average for community college students.

A key element of P-TECH's power is that it empowers historically underserved youth with a two-year degree along with a business partner's commitment to interview them for new collar job opportunities after graduation. These graduates also are taking their first steps toward competitive careers—without the student debt that burdens so many early professionals in America.

Facts & Figures

60,000+

The number of students IBM's P-TECH program has served in the last seven years, across four continents.

Public-Private Partnerships

Of course, no one company and no single program can accelerate the dramatic change needed in education today. Private-public partnerships are more essential than ever.

A positive step in this direction was the recent modernization of the Perkins Career and Technical Education Act. Signed into law this summer in the US, Perkins provides a modern framework and more than $1.2 billion in funding for schools to better align their curriculum with the most pressing labor market needs. Its implementation is the direct result of a collective push by hundreds of businesses, education leaders, civil rights groups, and policymakers.

Now, the next critical policy priority should be rethinking how we structure our federal student aid and loans. Students can today receive aid for traditional schooling at universities and colleges, but not always for innovative, career-aligned education programs like coding camps and technical schools. That needs to change. It is time to modernize the Higher Education Act and make it easier for students and mid-career professionals to apply student aid toward career-oriented education opportunities.

Federal college work-study programs, which dispense nearly $1 billion to help students work to earn their college tuition, also are overdue for an update. Currently, most of these jobs subsidized with federal funds are low-wage and limited to college cafeterias and libraries. Using this program to foster meaningful internships in private companies would help students build the skills they need for new jobs and earn more for their tuition.

I've seen the impact of modern approaches to skills training and hiring firsthand. In today's IBM, about 15 percent of employees hired in the US have stepped into new collar roles after following non-traditional career paths. They work in fields from cybersecurity to cloud computing and digital design—areas essential to the future of our company.

The Time Is Now

One thing is certain: Demand for talented new collar professionals is only going to grow as new technologies reshape our world. For the United States to retain its position as one of the world's great centers of innovation, we need to accelerate new ways of elevating talent and preparing more students and workers for these well-paying roles. This requires moving beyond the confines of dated education and hiring models and forging imaginative new public-private partnerships.

In doing so, will we ensure not only that we create the highly skilled workforce of the future, but also that we provide the kinds of opportunities for all Americans that were once available only to the few.

Author Biography

Ginni Rometty *is the Chairman, President and CEO of IBM. Since becoming CEO in January 2012, Ginni has led IBM through the most significant transformation in its history, reinventing the company to lead in the new era of AI, blockchain, cybersecurity, and quantum technologies, all delivered on IBM's enterprise-strength cloud platform. Today, IBM is the world leader in AI and cloud computing for business, underpinned with trust and security. Throughout IBM's reinvention, Ginni has worked to ensure that new technologies are developed and deployed in a way that is ethical and enduring. IBM was the first, for example, to publish long-held principles of trust for AI, data responsibility, and data transparency.*