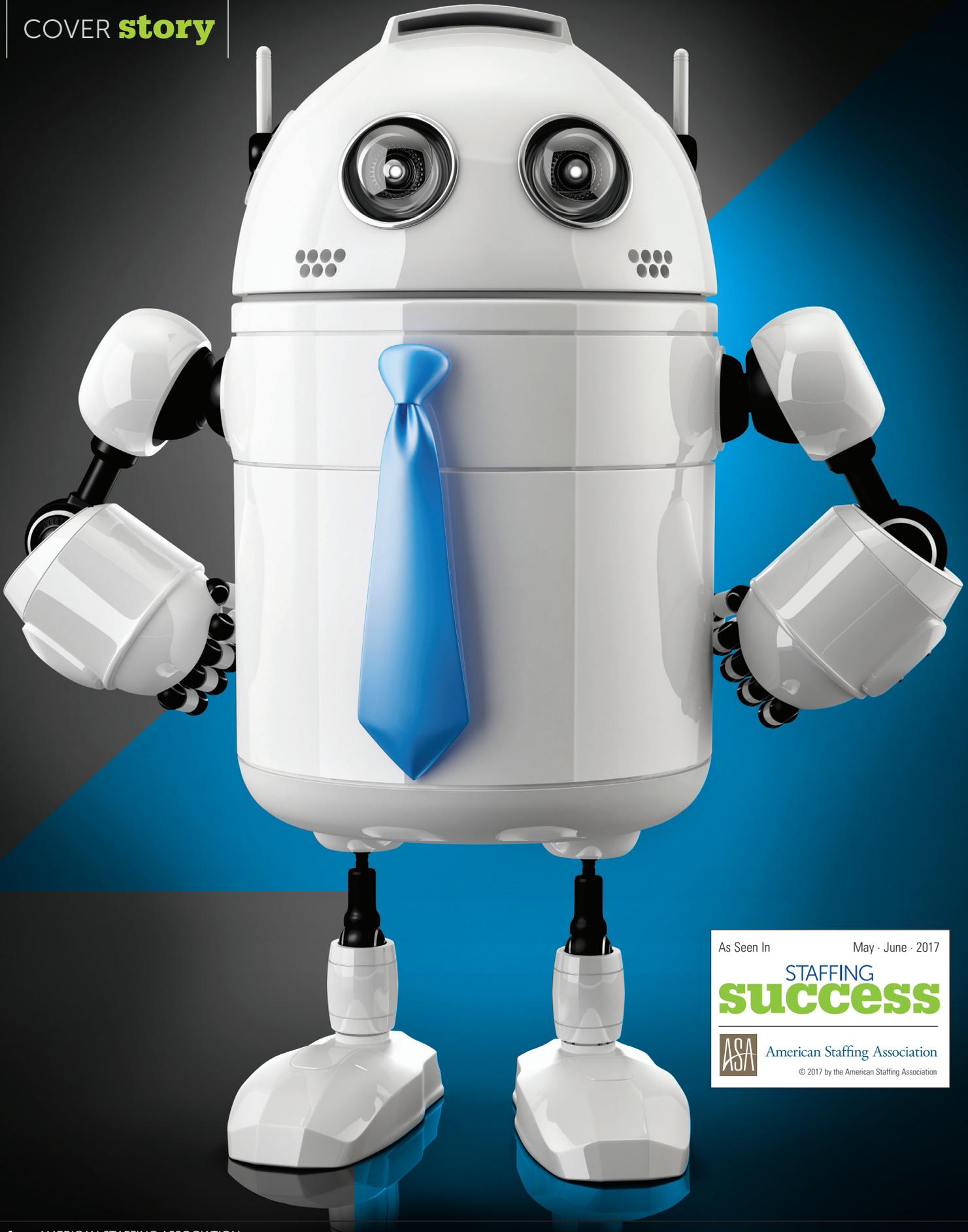


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As Seen In May · June · 2017

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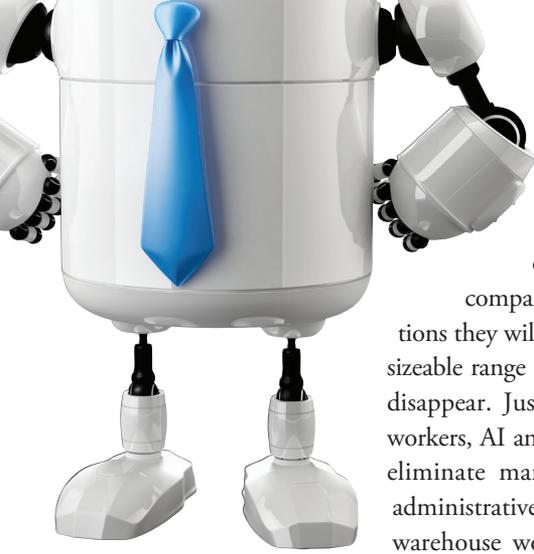
Rise of the Worker Machines

It's no longer just buzz—artificial intelligence has infiltrated the world of staffing and recruiting, and the disruption is real. **From scrutinizing candidates for current job openings to shaping the kinds of jobs that will be in demand in the future, AI technology is on the rise.**

By Adam Stone

If you don't think artificial intelligence (AI) and the rise of machine learning are going to radically disrupt the staffing and recruiting industry, then perhaps taking a closer look at what's happening right now may convince you.

Adecco Group North America, based in Jacksonville, FL, is piloting an AI-driven automated attendant that can prescreen a candidate: "I see you're 22 miles from the location. Is that commute acceptable for you?" the virtual attendant asks. By the time the recruiter takes over the task, AI has done the procedural but necessary administrative work, sifting through routine questions and narrowing down the talent pool to those with a genuine interest in the job. >>>



Industry experts say technologies like these—which have been operating in similar ways in other industries for some time now—will continue to drive change for staffing companies and determine the types of positions they will be called upon to fill. For example, a sizeable range of traditional administrative jobs may disappear. Just as robotics once displaced factory workers, AI and related technologies may effectively eliminate many lower-level and some mid-level administrative positions. Clerks and underwriters, warehouse workers, and clerical positions are all potentially on the chopping block. But the rise of AI also means there will be new jobs to fill, including skilled professionals who program the computers and operate the robots.

“The world of staffing is going to look very different five years from now. Everybody needs to be on watch,” says Amy Hunter Glaser, senior vice president for Adecco Group North America. Here’s a look at the coming AI disruption specific to the industry, along with key insights into how staffing and recruiting companies can prepare for the changes ahead.

Robots Mimicking Humans

The rise of the thinking computer is a big business proposition. International Data Corp. predicts global revenues for cognitive and AI systems will reach \$12.5 billion this year, up 59% from 2016. Ongoing growth in this area undoubtedly will continue to change the jobs landscape. Financial industry analysts, for example, say that by automating routine tasks, AI will reduce employees in capital markets by 230,000 people.

Robots reduced the need for factory workers by mimicking the actions of human bodies. By teaching computers to think like people, AI will similarly displace knowledge workers.

“Restaurants are adding tabletop kiosks. Now what happens to the role of a server, when you can place your own order? We don’t staff restaurant servers, but when you see technology making inroads into something that prevalent, you start to get a sense of how big and how disruptive this could potentially be,” says Jason Leverant, CSP, TSC, CSC, CHP, president and chief operating officer of AtWork Group, a multispecialty staffing franchise headquartered in Knoxville, TN.

“If I was a paralegal right now I would be shaking in my boots, because a lot of what they do can be done with AI. It’s the grunt work, skimming through pages of documents looking for signatures.

Those jobs are tremendously at risk,” says Leverant.

For some staffing companies that future is now. Christine Hoffman-Hicks, TSC, CSP, is president and chief executive officer of San Diego-based Staff Smart, which provides talent to high-tech firms—and many of them were among the early adopters of AI technology. Those clients are turning over routine tasks to computers, and that’s affecting the demand for staffing support.

“We have seen that on the infrastructure side—the system engineers, the system administrators—a lot of the need for those resources has already been automated,” says Hoffman-Hicks, who also serves as chairman of the ASA engineering, IT, and scientific section—one of five sector-specific groups ASA members can join. “Technology has replaced the need for those hands-on wrench turners. We have already seen a significant reduction in that segment of the workforce.”

Technology experts agree: The impact of advanced computing will run broad and deep, touching all sectors of the economy. Consider the rise of the self-driving car, which most analysts say will likely emerge as a viable market force within the next few years. “One in 10 jobs is tied to transportation in some way,” says Bart Selman, Ph.D., a computer science professor at Cornell University. “So, these cars will have a concrete impact on the employment of one in 10 people within five to 10 years.”

But how exactly will AI erode employment? Which jobs will go away, and what new jobs might potentially arise? It’s worth taking a deeper dive.

Examining the Technology

To understand the potential impact of advanced computing on the jobs landscape, it’s helpful to take a closer look at the technology driving these changes, including:

- **Artificial intelligence.** A branch of computer science that aims to enable machines to carry out human tasks, such as basic decision making.
- **Machine learning.** A subset of AI that refers to the ability of a computer to develop its own knowledge base through experience by “learning” new skills without having to be programmed.
- **Neural networks.** Computer systems designed similarly to the human nervous system; this is the computational model that allows computers to learn through observation.
- **Big data applications.** Driving the back end of these technologies are developments in big data, because AI and machine learning often rely on the ability to harvest, categorize, and analyze vast volumes of information.

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ATWORK GROUP

Taken together, these tools and technological processes have the potential to make obsolete a broad range of routine procedures in the workplace. It's not just the manual work that goes away. AI has the potential to automate jobs that many once considered to be expressly human, tasks that required perception and judgment.

For example, "we see it in loan processing and underwriting," says Moshe Y. Vardi, a professor in computational engineering at Rice University. "It's routine, but you also have to apply some judgment. Is this person a good loan risk? With the newest machine learning technology, we can make those judgments."

Homing in on the staffing world, Leverant says he sees this trend unfolding in the light industrial space. "There's been automation in manufacturing for years; robots have taken people's jobs. But now that we add intelligence to it, it's different," he notes. "When the robotic arm can see the size and shape of a package on the back of a truck and load it on to a conveyor system, making those decisions with no human intervention, that takes it to a whole new level."

Help desk, clerical jobs, administrative positions, accountants, "all the people who perform certain tasks over and over based on a set of regulations or rules," can be replaced to an extent by technology, Selman explains. "We can train to the level of required knowledge, and the computer can perform at the level of a good human employee—or even higher."

This is an attention-grabbing statement, for sure—especially for staffing companies filling orders for clerical and administrative positions. These firms could see demand wane for certain positions and increase for others. Plus, for staffing companies operating in the IT sector, the demand for talent with AI-related skills could soon skyrocket. Prepare for the proliferation of the knowledge workforce.

Scouting Growth Opportunities

Experts agree that the coming of AI in the knowledge workforce will make many positions obsolete, but it also will create demand for a new cadre of workers—and the staffing industry may be uniquely poised to meet this demand.

"Now that companies are gathering this massive amount of information, you need folks who can process that information and tell them what it all means," explains Hunter Glaser of Adecco.

Preparing for the Robot Recruiter

The rise of artificial intelligence and machine learning also will have an impact on staffing firms' internal operations—if it hasn't already. Soon, AI could help take the place of human recruiters performing applicant screening tasks.

"I hope it has a big impact," says Christine Hoffman-Hicks of Staff Smart. Like many forward-thinking staffing executives, she envisions computer-aided screening as a way to cut down on the often-tedious part of recruiting, freeing up staff time to focus on more strategic and complex issues.

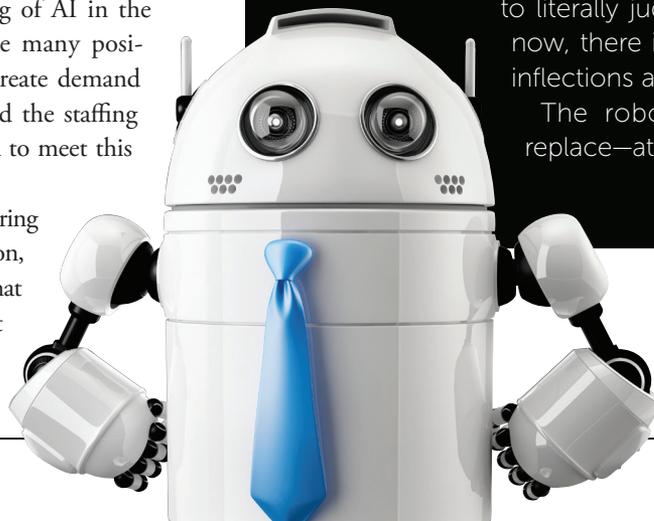
"Think about Match.com: That is effectively where we are heading with recruiting. I would love to have that kind of algorithm, one that can go out and find people without you having to identify prospective candidates," says Hoffman-Hicks. "You need this skill set, this geography, this price point? Boom, here are the people you need to talk to. It will minimize the time we spend on searching."

Amy Hunter Glaser with Adecco Group North America sees the AI trend as a natural extension of the ongoing effort to streamline staffing operations. "As we automate things like payroll and prescreening, it frees up our recruiters to spend more one-on-one time with the candidate and to do deeper customer service," she says. "This would give people the freedom to have strategic conversations, to help customers craft business plans. We can talk less about the tactical stuff, the hard skills, and instead talk at a much more strategic level."

That could potentially make staffing a more valuable partner, but some caution against too much exuberance in the rush to automate screening. They say the best AI will never be able to do what a human recruiter can do.

"Ultimately that is such a nuanced role. It's about body language, the intonation of someone's speech. AI is not at that point," says Jason Leverant, CSP, TSC, CSC, CHP, of the AtWork Group. "You can automate certain components: 'Did you fill out this application? Did you check the boxes?' That's easy. The challenge is in the screening process, where you have to literally judge a candidate's response. Right now, there is no technology that can pick up inflections and intonations."

The robot recruiters can help, but not replace—at least not yet.



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CORNELL UNIVERSITY

Hoffman-Hicks of Staff Smart says she already has been observing this trend in the IT sector, where the demand for machine learning has spurred a widening call for talent with AI-related skills. “The engineers who are building these automation technologies, they are increasingly in demand. They are the ones who create the scripts to take care of repetitive tasks, who make the automation possible,” she says.

She likens the situation to the rise of robotics in the auto industry, where machines have replaced human windshield installers. “You can have a robot do it, but you need to have someone who runs that robot,” she notes. “Instead of a person who installs a windshield, you need a person who knows how to run the machine to install the windshield. For those of us who are fortunate enough to be in the technology sector, we see these skill sets shifting and evolving. A lot of these new skill sets are gearing up, even as other areas are slowing down.”

This kind of thinking will not ease everyone’s concerns. After all, an AI-driven operation may put 10 people out of work, but it will take only one or two engineers to run that operation. That would seem to be a net loss for the staffing industry.

The result? Some envision dramatic changes ahead: What if staffing firms eventually migrate away from placing human workers and instead become suppliers of robots and digital assistants? Effectively leveraging AI as an entirely new form of labor to be brokered and managed just as staffing firms manage the human labor supply today?

While not beyond the scope of imagination, this is likely a distant scenario. Whatever changes

AI may bring, experts say, there still will be ample human work around for staffing firms to support in the near term—and much of that work will be tech-centric: Staffing firm clients increasingly will need developers, engineers, robot operators, and other skilled individuals to support and maintain the coming wave of automation. Thus, a more immediate concern arises: Where will staffing firms find the people to fill those roles?

Anticipating the Talent Demand

“There is already a huge skills gap. We will have to help build that workforce of tomorrow,” says Hunter Glaser. Adecco Group North America has a youth development board that seeks to nurture such talent, and has promised to fill 10,000 internships in the U.S. by 2020. “We can’t just take a general data-entry person and place them in a business analyst role,” notes Hunter Glaser. “We need to partner to build that future workforce.”

Leverant says he’d like to see government do more to help build that talent base. He serves on the board of directors for Jobs for America’s Graduates in Tennessee, and he urges other staffing company executives to take similar leadership roles in the states in which they operate.

At a national level, ASA and JAG formalized a strategic educational and hiring partnership in 2016 to help prepare at-risk youth from across the nation for their future roles in the workforce. Under the terms of the partnership, ASA connects member staffing firms with JAG students to help enhance the students’ employability skills. (See the sidebar, “Tackling the Talent Shortage, Preparing America’s Youth.”)

Tackling the Talent Shortage, Preparing America’s Youth

Jobs for America’s Graduates is a nonprofit youth development program committed to helping America’s most at-risk kids excel in high schools, prepare for success in college, and embark on a rewarding career. Since its inception in 1980, JAG has served more than one million at-risk youth, and is currently serving more than 50,000 students in 32 states. JAG students have a graduation rate that exceeds 90%, and approximately 80% of those graduates go on to postsecondary education, military service, or full-time employment.

ASA and JAG formed a partnership last year in which the association agrees to connect member staffing firms with JAG students to help enhance the students’ employability skills. Learn more at americanstaffing.net/JAG.



Staffing firms don't have to wait and just hope that the talent they need starts knocking on their doors. "You can get involved on the front lines now," Leverant says. "This is the workforce you are going to be putting to work. The more invested we are in building that workforce, the better it is for our industry."

To that end, members of Hoffman-Hicks' team at Staff Smart volunteer with the local continuing education board in San Diego. Staff Smart

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TSC, CSP, STAFF SMART

brings to the table a deep understanding of local employers' workforce requirements, and they use that knowledge to help shape educational offerings in support of emerging job needs.

"We are on the front lines of understanding what our clients are looking for and where they are heading," says Hoffman-Hicks. "As we see skill sets changing, we need to convey that out to help educational institutions gear up and start providing curricula around these things."

In this sense, the rise of AI technology represents an opportunity, a chance for staffing firms to deepen and enrich their client relationships. "Now is the time to have strategic conversations with clients," says Leverant. "Are they looking at automating jobs? If that is on the roadmap, how can you work with them to prepare for that? We are always trying to build rapport with the customer," he adds. "This is a chance to truly solidify that relationship." ■

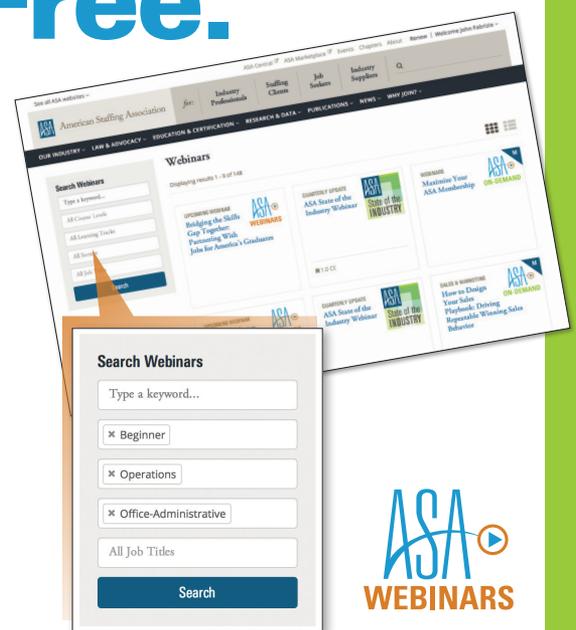
Adam Stone, a freelance writer based in Annapolis, MD, is a regular contributor to *Staffing Success*. Send feedback on this article to success@americanstaffing.net. Engage with ASA on social media—go to americanstaffing.net/social.

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