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The workforce, the workplace, and the future of both.

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The Auto Industry Jobs Of The Future (And Why They Sound More 'Tech Startup' Than 'Carmaker')



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The carmaker of the future may look more like a [tech](#) startup than a manufacturing giant.

That's the impression given by a list of the [auto industry jobs of the future](#) released by [General Motors GM](#) this month, a roster stacked with roles that may seem more likely to be found at a search engine or app designer than a Big Three automaker.

According to Ken Kelzer, GM's Global VP of Vehicle Components and Subsystems, many of the auto industry jobs for which demand will increase over the next several years will be focused on integrating consumer electronics--tablets, touchscreens, mobile technology--into vehicles.

"What we have to do is go from consumer electronics into vehicle electronics," said Kelzer. "If you think about a TV or a radio at home, it sits on a countertop. You put that into a vehicle, you have to transform it into a vehicle environment. Many times that means it's got to hang out at minus-30 on our dash in the hills of Arizona, or out in the parking lot at minus-20. You have to transform the electronics into what a vehicle can handle."

As a result, hiring is beginning to favor the professionals with skills in electrical, versus mechanical, engineering.

“If you look at our hiring statistics,” said Kelzer, “15 years ago it was by far mostly mechanical engineers, now you’re seeing that change significantly to the electrical side.”

It’s no surprise that it remains a great employment climate in which to be an engineer.

Electrical engineer, a role that’s gaining significance as automakers continue to explore ways of making electric vehicles more powerful and adaptable, leads the list, joined by job titles that signal the changing role of car and driver, such as autonomous driving engineer and 3D printing engineer.

Non-engineering jobs that previously may have seemed unrelated to the car industry make their way onto the list as well, such as analytics expert, web programmer, and sustainability integration expert.

But those who possess the skillset that GM and other automakers are increasingly seeking tend to take their talents to Silicon Valley, and the prospect of a career at a car company in Detroit doesn’t immediately generate enthusiasm among a crowd headed for sunshine and sweatshirts.

The dawn of “infotainment” and autonomous driving technology, however, has helped carmakers gain traction with the startup set.

[In pictures: 10 Auto Industry Jobs Of The Future.](#)

“You take a person out of Silicon Valley or MIT, they look at the auto industry as antiquated,” said Kelzer.

At Forbes’ [Reinventing America](#) Workforce Summit in Detroit earlier this month, [GM CEO Mary Barra](#) told my colleague Joann Muller, “When we design vehicles, we use a position called digital sculptors. We’re competing with Pixar for those individuals.”

According to Barra, 30% of GM’s post-bankruptcy workforce is new. Many young professionals, she added, are attracted to the idea of participating in Detroit’s renaissance, and taking their skills to a city where they have the opportunity to own a home.

Lower cost-of-living can be a powerful bargaining chip for industrial cities looking to lure talent away from the coasts, but Kelzer says GM has also made strides to adapt its culture and processes to appeal to a younger, more entrepreneurial and collaborative workforce. Physical changes to the workspace--such as strategically-placed coffee stations meant to promote informal collaboration--are meant to combat the company’s infamous silos and create an environment that might tempt hires away from companies like the aforementioned Pixar.

It’s a model, he argues, that’s actually more conducive to building increasingly complex automobiles than previous structures might have allowed.

“If you think of engineering in the past, people work in a cubicle and do their job. But because the vehicle is so complex [now], you have to develop those relationships across departments,” said Kelzer. “We have a lot of work being done on changing the facilities completely – coffee stations that are collaborative centers, benches, and TVs--so that you can have a more impromptu meeting on an informal basis.”

[To view the full list of 10 Auto Industry Jobs Of The Future, click here.](#)

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