



THE ACADEMY OF ELECTRICAL CONTRACTING

PAPER PRESENTED BY FELLOW
SKIP PERLEY ('06)

Our Opportunities and Challenges During a
Technological Growth Spurt and
What We Can Do About It

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If you are paying attention to the many business publications, you can't help but read stories about disruption coming to us.

For example, a recent article in *Business Insider Magazine* featured a Marriott Hotel being built in New York City that, at 360 feet, will be the tallest modular building in the world to date. It's expected to take only 90 days to assemble. Its 168 guest rooms are being built – along with all other modules – in Poland and will arrive fully outfitted with beds, sheet, pillows, flooring, and toiletries.

On a similar note, *Connected Real Estate Magazine* reported on the first “Intelligent Building” in Texas which is being constructed in downtown Fort Worth. Integrated into this building's design is a significant use of new Power over Ethernet (POE) technology including all of the lighting and the bathroom mirrors which feature built-in televisions.

The developer, who is pushing manufactures to do more with POE, has repeatedly commented, “We don't need electricians.”

These are just two of the dozens of technologies and building methods that will disrupt our industry. IIOT (industrial internet of things), distributed energy production, artificial intelligence, augmented reality, 5G networks, and robotics are a few more to watch closely.

All of these trends create an incredible growth opportunity for us as electrical contractors; they also challenge the status quo.

As you look down the road just a few years and imagine what our work could look like, there are several fronts to consider including process, competition/collaboration, and workforce.

Process

- Installation work is becoming less technical while designing, purchasing, managing, programming, and maintaining these buildings is becoming more complex.

- Our current regulatory environment will have trouble keeping up with the technology changes and we may be caught between developers and building officials regarding code and licensing issues.
- Prefabrication will continue to meet the owners' need to build more, build better, build faster, and build for less money.

Competition/Collaboration

- Leading manufacturers will get stronger at pitching solutions directly to owners and developers.
- Our existing collective bargaining agreements may struggle to keep up with the rapid pace of change.
- Construction will need to become much more collaborative and less adversarial.
- Competition will come from not just electric contractors, but also may include low voltage contractors, manufacturers, or work built overseas.

Workforce

- We will need more highly technical workers while, at the same time, every industry will have the same need.
- Our employees, especially our highly technical employees, will be highly valuable to other businesses and sought after.

When we think about the possibilities and the threats, many are out of our direct and immediate ability to impact because other people and agencies have to take action first.

The one area that is within our complete control as electrical contractors is what our organizations look like and how we operate.

Since that is the area where we have the most control, the rest of this paper will focus on what we can do all by ourselves to prepare our

companies and to set them up for success in this disruptive time.

As you reflect on the picture in your mind of our work in the near future, you will see that *so much of what will make us successful will need to be executed by a diverse team of individuals.*

While that seems like such a simple statement, it is very complex and requires a great deal of effort on the part of company leaders. Let's look at that statement and break it down while we explore the impact on our companies.

Diversity

First let's look at "diverse." We generally think of diversity in terms of race, religion, or gender. While these differences can play a part, many of the other ways we are different have a large impact on our ability to be highly productive.

Generational differences can have a large impact on how we think about a particular issue and, even more importantly, how we think about solutions. There is no doubt that people new to our industry can bring out-of-the-box ideas and are generally much more comfortable with new technology.

As leaders, this means encouraging the sharing of new and innovative ideas, especially from those people who are bright but have trouble voicing their opinion in a group setting. We all know people like that. If we don't help coach other leaders throughout our companies to draw out all of these unvoiced ideas, we may miss out on the next big thing or the perfect solution to a problem.

There's also diversity in expertise. Technical people approach problems differently than financial people or sales people. Many of the challenges we are facing will need input from all three of these skill sets to put together the best approach for the client.

We are all more comfortable working with people that are like us. As leaders, we must push our people to get uncomfortable, to listen, and to learn from those who are different.

Teams

All of this factors into why I use the term "team" so much. To me it is very simple logic: Just as we are seeing technologies merge, the people that understand those technologies must work together to assure a viable solution.

The members of these teams may all be within our company or they may be part of a different company that has no contractual responsibility to us.

If a factory automation system is going to communicate on the IT network, or the lighting system is using POE switches, the people responsible for the network must work hand-in-hand with the lighting or automation engineers and installers. No longer are these systems independent with just a few connection points. They are part of a system that depends on each other to work safely and securely.

As we move into the internet of things, we enjoy the ease of being able to connect with thousands of devices from our smart phone, but that same connectivity opens the door for hackers and/or spies. Do we really believe that

the person that knows the most about how to automate a factory also knows the latest hacking tools and how to fight them off? Of course not. It takes a team.

Our industry and our companies have grown up in an environment of separation. We have contracts and spec books that spell out in hundreds of pages exactly what each of us is responsible for. Inside our companies, we have silos that were built out of necessity and incentive plans that continue to support them. We have fabulous tools like BIM that all too often are not used to their full potential

because of the fear of liability between architects, engineers, general contractors, owners, and subcontractors.

Meanwhile, we are seeing outsiders like Kattera, a technology-driven offsite construction company, going to market with an entirely different model. We must learn to work effectively as a team and that can start now in our own organizations.

Individuals

The last word in my earlier statement is “individuals” We can’t build an effective team, diverse or not, without attracting, hiring, developing, motivating, and retaining the best people.

Everywhere you look there are worker shortages, especially in technical fields. We can complain about why this is happening or we can focus more on *what we are going to do about it*.

Let’s make sure we have skilled professionals responsible for recruiting, hiring, and developing our talent. This can no longer be a task that is delegated to someone who already has too many things to do. Someone with knowledge, experience, and passion must lead these efforts. It is truly an investment of time and dollars in our employees.

We must make an effort to make our companies attractive to the types of people we are attempting to recruit. Right now, for most of us, Millennials are our target. We have all heard the horror stories about them, but there are also many desirable traits that line up with what we need going forward. If we are not attractive to the largest group of potential employees – people who have many other options - where will the talent we need come from?

Attracting this critical workforce includes taking a fresh look at our company from every angle. For example, when a candidate explores our company online, what do they see? Do they see a vibrant company that is an exciting place to

work and is doing things to support the communities they work in or a company stuck in their grandparents’ day?

The same applies when they walk in the front door for an interview. How are they greeted? Remember in today’s worker shortage, the candidate is interviewing *us* as much as we are interviewing them.

When a candidate checks us out on social media (and they will), what do they learn from us and, even more importantly, what do they hear from our employees and our clients? For decades, our company has been very involved in our communities, but we didn’t talk a lot about that. We have learned that we need to put that information out to the public in order to attract the best talent and, in more and more cases, the best clients.

Other questions worth asking ourselves include:

- Is there a development plan in place for a new candidate as well as for existing employees?
- Are we giving enough feedback?
- Are we coaching more than managing?
- If we want our people to collaborate, have we created a workplace that supports collaboration and teamwork? This applies to the physical environment as well as the atmosphere created by the long-term employees.

These are just a few ways to think about the culture of our organizations. And to me, culture is the bottom line.

A high-performance culture cannot be created by handing out books or having a rally. It comes from the top down and is embodied by how you interact with employees and customers every minute of every day. It comes in the decisions that are made daily by the entire leadership team and whether or not those decisions reflect the culture that you desire and are talking about.

There are hundreds of places to go to learn all of this stuff and hundreds of people you can bring into your company to help. Only you know what is right for your company; by utilizing a variety of the available resources, you can bring your cultural vision to life. The goal of this paper is to challenge you to think about how your company will be best prepared to meet the demands placed upon us from this day forward.

The Bottom Line

One of the best things about NECA is that we are made up of a very diverse group of individual contractors that come together to help each other and to fight common battles.

If you lead a company that is already doing these things or perhaps doing even more, I applaud you and hope to learn from you. If you are not, I urge you to think about how you can take action today.

Oh, and by the way, we *still* have to actually do electrical work safely, efficiently, profitably, and to very high-quality standards. We will still have to work on many things like collective bargaining issues, regulatory issues, and competition from who knows where. Challenges that we have not even thought of will surface.

But if we do these things – if we cultivate talented, dedicated, motivated teams skilled at working together and utilizing a diverse set of ideas – we will not only meet the coming challenges but grow and prosper.

To me, that sounds like a recipe for success.

About Skip Perley

Skip Perley had just graduated high school when he applied for a local electrical apprenticeship program; three years later, in July of 1976, he joined the program and worked his first day at Thompson Electric Company, a TEC Corp company. Though Skip took entrepreneurial leaves from TEC Corp twice – once to start a security company and the

second time to found a company focused on backup power solutions – he returned to promotions at his home in TEC Corp. each time.

In 1997, Skip stepped into the presidency of Thompson Electric/TEC Corp after Craig Thompson, Sr. retired, making him the first company leader from outside of the Thompson family. Two years later, he was named CEO of the organization, a role he continues to hold today.

For Skip, the thrill of electrical work was the immediate gratification of restoring power to a downed plant or building. He has since found an even deeper sense of satisfaction in his leadership roles where the thrill comes from being a part of the whole team's successes.

Skip's passions outside of electrical engineering are his wife of 30 years, Cathy, their two adult children, and flying.

To learn more about Skip and TEC Corp, visit www.tec-corp.com.



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Academy of Electrical Contracting * 3 Bethesda Metro Center * Suite 1100 * Bethesda, MD 20814
301-215-4555 * diane.jacobson@necanet.org