

Being a Leader in the Engineering Business Today and Tomorrow

A Speech to Women in Transportation Society

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Introduction

Two engineers, an attorney and two biologists go to a bar... They start talking about all sorts of issues local, regional, national and shared personal stories of their careers and families. We may have even solved a few world problems. After several rounds of beverages, one of the engineers turns to the senior-most biologist and says “you should give a speech on leadership to WTS!” The attorney, upon hearing this statement with a wine glass to her lips said – “He is a biologist – what does he know about legal shh – um, things?”

That my friends, is how I came to be here today.

That is a true story - and I thank Tracy Olsen, Cherese McLain and Mike Homza, and Jason Poulsen for that entertaining evening and for the excellent introduction to this presentation.

I started my career as a forest, fish and wildlife technician (aka firefighter) in 1977 on the military base once called Fort Lewis – now called Joint Base Lewis McCord. There were no cell phones, personal computers were still largely a dream, gas was around \$1 a gallon – life seemed slower and a lot simpler.

In the 1970s and 80s, professionals in the science, architect, and engineering field had simpler expectations. A steady paycheck, a nice work environment, challenging work, a chance to do some fieldwork, a visible career ladder, and some health benefits (if they were available) made up the most of the basic stuff necessary to build a career. Managers made sure projects were done on time and within budget, kept the peace between staff and clients, filled out forms and offered year-end bonuses if the firm did well. I’ll never forget some of the amazing experiences I was offered that shaped my career and professional outlook.

In preparing this speech, I reflected on my experiences over the past 35 years – successes, failures, revelations, and more.

Wow - things have drastically changed.

Gas is \$4 a gallon, benefits are mandatory, computing has revolutionized design processes and product development, communications are split second achievements and professionals in the

science, architecture and engineering field have many more opportunities and a quite diverse set of expectations that any leader must consider. People can work virtually – any place and any time. Productivity cannot accurately be gaged. A clever person on a computer can do a common 8-hour job in 2-hours. Mobile devices allow delivery of product electronically nearly instantly. The traditional conversation over the telephone is largely replaced with text messaging and email. Technology advances will continue to drive how and when projects get done. On top of all this, professional employees today understand terms like “social looping”, “SoMoLo”, “big data”, “osmosis marketing”, “digital nomads” and more while experienced managers still struggle with “sustainability”.

“Managers” are largely a thing of the past – today, we need “Leaders” with a much broader understanding of what needs to be done, what skills are needed to do it and how to complete a project in the face of rapid change. Leaders today have their work cut out for them. THE most often stated reason for employees leaving a firm is they were disconnected from or disliked their boss/manager/leader. This is a very expensive issue. Industry surveys show it costs the average firm 2.5 times the annual salary to recruit and train new employees. Turnover is not only expensive, but alters competitive advantage if employees leave with inside information that can be dropped into a competitors lap as they land in a new job. Some have said employee turnover is the great equalizer in the A&E industry.

I think there is a better way.

To be an effective leader in the A&E business environment, one must combine knowledge of human spirit within the context of service sector technology and societal settings. Every human has a competitive spirit and drive to be productive on a personal level. Tools to make our jobs easier will continue to be developed that provide faster, more comprehensive and easier to derive products – history already shows us this is true. Societal settings involving climate change, limited resources such as water, food, minerals or air quality – not to mention limited land for development and growth. I believe the expectations and demand of our society combined with technological advancements (computing, communications, etc.) form every new A&E employee’s perspective and work ethic. Building and developing great teams will depend on how well a leader understands these elements and how well they perform as leaders.

I broke down the word LEADERSHIP to make the top ten leadership attributes I think are most important now and into the future. I found a quote that helps illustrate each point.

Love it to lead it

All people – even the most stoic among us carries a passionate place inside them. To lead people in the science, architect, and engineering practices today, you must know

and understand where your passion lies and demonstrate openly how much you love what you are doing. A leader who enjoys their work and learns something new each day is a pleasure to work with. Start your leadership walk with passion for the work you do. Never lose it.

Steve Jobs said "The only way to do great work is to love what you do."

Engage enthusiastically

Engage people enthusiastically, it generates even more enthusiasm. It is contagious! Enthusiasm generates energy, passion, drive and many good things at work. These are the seeds that set people, teams, and companies apart. Leaders who can engage co-workers and teams enthusiastically build people up to achieve greatness. Effective engagement also means you must study and understand the current trends and common themes that all employees find relevant – junior and senior staff. Always be your enthusiastic self.

A note of caution here is necessary. Over-enthusiastic leaders can overwhelm some people. Engage each person tuned to their unique skills and attributes. Not everyone is geared as an extrovert and good leaders need to temper and time their enthusiasm to get the most from your team. Finesse defines great leadership.

"Enthusiasm spells the difference between mediocrity and accomplishment." – Norman Vincent Peale

Aware and available

Leaders must be "people people". No question in my mind about this. It is hard to lead from behind a closed door or if you are unavailable due to heavy workload or distracted by such things as the bottom line, the shopping list, weekend plans, or your career over the team you are to be leading. Being aware of the teams' needs means knowing their strengths and weaknesses; what stimulates and what distracts; and when to jump in and help. Effective leaders are in touch with their team frequently and not always on a schedule. A random "How are you?" is a great way to keep aware of your team personally and professionally.

Awareness must also include a bit of the unspoken communication you get from your team. Some folks just have a hard time stating what they want or what they aspire to become. Some want to take a risk but are afraid to try or afraid of failure. Effective leaders have an ability to detect unrest or anticipation with their teams. We have to

draw out these aspirations or issues so we can inspire and help people achieve their potential. This also involves some calculated risk taking and allowance of selective failure. Learning occurs at the highest levels when mistakes are made and corrected, or new solutions are found after initial approaches did not work out as planned. Leaders must allow for selective failure and embrace the learning opportunities this brings while balancing overall success objectives of the complete team or firm.

Here is an example of awareness: An “ah ha” moment in my career came to me when I realized how unaware I was about one critical item. Me. The team I was leading was watching me like a hawk (still is) – not so much to find dirt on me or fault, but they were learning and testing their skills against mine. What a revaluation! I was the bar of performance they set for themselves. Not long after this “ah ha” moment, I received a fortune cookie with a note in it that said “You are more influential than you think.” I keep the fortune taped to my binder to remind me a leader is always being watched.

Let me tell you of an example of availability. In our firm, all reports must go through QA/QC by a senior person in their field of practice. Over my career I have learned that very few teams beat the schedule – reviews come only a day or two before the due date looms for the client. When the call for a review comes in late, effective leaders find the time to perform the review rapidly. If you have been aware and connected to your team, the product you receive will be in pretty good shape making the review pretty smooth. If you have not stayed linked to the team, this condition can be unpleasant. Stay tuned to your team.

“No man has the right to dictate what other men should perceive, create or produce, but all should be encouraged to reveal themselves, their perceptions and emotions, and to build confidence in the creative spirit.” — Ansel Adams

Direct the drive

Every employee has a career objective and goal. In my view this is universal – some employees just do not know them yet because they have not thought about it sufficiently. These objectives and goals stem from the individual personality and drive inherent to each employee. To be effective, a leader must understand the drive that resides in each member of the team. As the Leader you are the keeper/facilitator/arranger of your employee’s careers. Above all else, your job is to develop the staff to achieve their objectives and overall career goals. Ask for and learn the 2-5-10 year career plan for each employee. When you ask an employee what their 2-5-10 year plan is and you get crickets, ask them to take a few days and write a plan down. Meet again and see what came from that exercise. Sometimes, today’s entry

level employees do not have such foresight to be able to craft a plan. Leaders today need to help junior employees consider the future and the career they desire. By helping them vision their career path, you become their partner. Revisit the 2-5-10 year plans at least annually and set performance expectations commensurate with that plan in mind. Offer suggestions and reality checks as appropriate. This is a most powerful tool for the leader. You can more effectively direct the drive in the team if you openly help them achieve their goals. It also helps you make management decisions regarding performance and achievements.

I'd like to share a story of an employee on a past team. Karen (not her real name) was the receptionist when I came into a leadership position with her group. At the time, Karen was – at best – a mediocre employee. She was often late, missed assignments, forgot details and more. After a couple of weeks as the Leader, I let everyone on the team know I wanted to have a one-on-one meeting with them to review their 2-5-10 year career plan. I made it clear that each and every team member was to participate. I was not surprising when Karen came to the meeting without a career plan. I asked why and she said she really had not thought about it. After a few more minutes of chatting we set a meeting the following day to regroup and go over her plan that she would think about overnight. The next day, we met and once again Karen had no plan for her career. I asked her the following questions:

1. What are you really, really interested in?
2. What activities give you the greatest sense of accomplishment?
3. If you could have the “perfect job” for you what would it be?
4. Where do you see yourself in two years?
5. Five years?
6. Ten years?

It took 30 minutes to talk about these questions and during the course of that conversation, we discovered she really did not like her job and she was only collecting a paycheck. She really did not want to be there. Karen really, really wanted to do was make beer, own a brewery and work with non-profits. I then asked why she was not doing what she truly wanted to do. She said no one ever challenged her to try. I made that challenge and offered her several ideas about where she could look for such opportunities and that I would be happy to make introductions if needed. I dismissed Karen of her duties that day. It was the first time I was thanked and hugged for dismissing someone by the person I fired.

“Too many of us are not living our dreams because we are living our fears.” – Les Brown

Encourage

Delivery is everything. Giving orders, shouting direction, freaking out, and generally micro-managing is not a good idea in today's workplace. I have heard encouragement described in many ways – mostly incorrectly. Start jobs and projects by allowing the team to see the scope, budget and schedule as early as you can. Encouraging them and allowing them to help put proposals and work assignments together is even better. Encouragement is more than the way you say something. It includes what you say and how you follow up. Check in often with the team as a group and individually from time to time. Be aware of lapses in judgment and as important, loss of enthusiasm for the assigned work. Encourage careful risk-taking early on in a project to vet new ideas. Do this with your teams – not for them. Set challenges that are fun and meaningful and can lead to exciting results.

“What lies behind us and what lies before us are tiny matters compared to what lies within us.” – Ralph Waldo Emerson

Realistically reward

After 35 years in business, money is still a driver and motivator with employees. However, not as strong as it was years ago. Today's professionals have deeper interests than a paycheck. Many have side businesses and want flexible hours, some want to work from home; others want the newest and most advanced tools. Most new employees today have a much larger social awareness for items like pollution, green infrastructure, low impact, carbon sequestration and similar environmental and social issues. Find or develop a mix of reward pathways you can use with your team. Variable rewards can be tricky but great leaders have options and flexibility to get the most from their teams and employees. In addition to the “rewards” you put in this toolbox – don't forget to say “thank you” and let your team know how much you appreciate them. Oh yes, set solid base pay scales and develop salary options that can be linked to specific employee conditions and accomplishments.

I have a great story to share that happened with me in 1989. I was the Natural Resource Division Manager for a small firm and we were looking to hire some support staff for wetlands, permitting, fisheries and more. We hired a young lady to grow the team. Her name is Lisa. Lisa had a very steep learning curve, she was out of her element, and had to do a lot of studying after hours. She tagged along with me basically on every field job we had to learn the skills needed to perform habitat mapping and impact assessment. After three years, Lisa not only proved that she learned the skills to

complete the tasks, but she mastered all the technical areas we asked of her and she became the most productive team member. After 3.5 years, Lisa hit a glass ceiling due to her rapid rise and skill development. The reward structure for her was capped and she was still early in her career development. Similarly, I was capped and my growth avenue in terms of reward and new challenges. On May 17, 1992 Lisa and I left that firm and started a new business. We became business partners and crafted a very successful small business focused on natural resources and permitting. Ten years after starting up, we sold Applied Environmental Services to GeoEngineers. Today, we are both active leaders at GeoEngineers and still business partners in real estate.

Rewards for performance have to be thought out and planned in light of the goals, objectives of the employees and the vision of the firm. Take the time to build a toolbox of reward options.

“Never work just for money or power. They won’t save your soul or help you sleep at night.” – Marian Wright Edelman

Success breeds success

Great leaders never stop being successful in their profession. Always keep some time for clients and practicing your chosen skill sets. Leaders demonstrate an awesome example when they stay engaged with relevant work perceived by the team they lead. Always remember leaders develop leaders. Successful employees look for successful leaders. Being successful is important.

Not long ago, we hired a young engineer named Gabe. Gabe came to us from WSDOT and had a lot of energy and enthusiasm for developing his consulting career. He was most interested in honing his business development skills. As a successful BD guy and a Leader at Geo, he asked that I help him obtain experience. One particular request for proposal caught his eye – it was for a set of 4 culvert replacements on forest roads. The prospective client was WDNR. Normally we would not submit a proposal on a request like this without advance information and a strong relationship. Gabe was extremely excited and it would have been a shame not to let this one play out a bit. Gabe was challenged to do what some would consider the impossible – call the client after the RFP is on the street and ask for a meeting. Gabe was more than up for the challenge. He called the WDNR contact, got the meeting set and booked my time to go with him to meet this client (neither of us knew him). Gabe and I made the long drive to their remote office and met the District Engineer. It turned out that nobody thought to call or get to know this person. He was extremely excited that we were interested in his project enough to come visit and chat. We learned a great deal of what he was looking

for and Gabe authored his first technical/competitive proposal with my oversight and review. That proposal was a true winner from the solid effort led by Gabe. He completed that project and exceeded the client's expectations – not to mention mine. Now, Gabe is one of our most creative river engineers and an extremely valuable – not to mention confident member of our river team.

“Success is walking from failure to failure with no loss of enthusiasm.” - Winston Churchill

Help – honestly

From time to time you will need to jump in, roll your sleeves up and help a team out. This does not mean to rewrite every report you get to “make it your own” during the final review! Be honest and accurate with the help you offer. Check the work, offer suggestions, encourage rewrites or redesigns. Suggest alternatives to design early in the process to avoid the schedule and budget demand last minute ideas create (see be aware and engaged above). Never fake a review or be disingenuous with your teams. Be the guru your team expects you to be.

“No one is useless in this world who lightens the burdens of another.” – Charles Dickens

Inspire – to innovate

News flash - not everyone is a self-starter and innovation does not come from the morning bowl of Wheaties! People and teams need inspiration – your job as a leader is to provide that inspiration.

Leaders today and into the future need motivational and inspirational skills like never before. These skills are perhaps the most difficult to perceive in current managers and even harder to develop. So what inspires A&E professionals today and into the future? How does a leader today really motivate? It starts with a clearly communicated vision of the business mission for the company or team. This is not so simple. Simply being “the best” or “the highest quality” does not cut it today in my opinion. What you are good at today is not what will be needed tomorrow or some new technology will emerge that makes what you do obsolete or uncompetitive. Your employees know this and they count on you – the Leader – to know this and leverage a meaningful mission vision.

How many of you wake up in the morning excited to go to work? Why? Can you capture the underlying reason for that euphoric feeling that you have the best and

coolest job on earth? I submit it is because you firmly believe in the vision and mission of your company and team. You have a stake in the game. You want to tackle new challenges and solve today's problems in new and exciting ways that make a difference. Once you wake up to just collect a paycheck – it is time to regroup and rethink the vision and mission affecting you.

Leader's today have a two-level responsibility in this realm. At the corporate level – we must be sure the overarching organization stays relevant in its vision and mission. From the top down, a leader must take that vision and mission and make it specific to each assignment and project – no matter how easy or difficult. Teams respond when they know what they do will make a difference, effect positive change or address big picture problems. Leaders provide the thread of connection to each daily assignment or task to the big picture vision and mission. THIS is where inspiration comes from. Using all the attributes discussed so far and tying them to the vision and mission provides the platform for inspiration.

If your actions inspire others to dream more, learn more, do more and become more, you are a leader.” — John Quincy Adams

Patience – it is personal

You and your teams will spend more time together than you will at home with your friends and families. Business and working together is personal – our lives depend on it – so find the pleasure in working with all your teammates. Show patience and understanding with all things your team experiences. Leaders never freak out. Leaders always have a path forward. Leaders hold the vision of where we are going and how we will get there. Your team counts on you every day, every minute for these attributes. They watch and learn from what you do and say. As you lead, you also learn from your team!

“Pleasure in the job puts perfection in the work” - Aristotle

Conclusion

Leadership is not a title – it is within each of us to cultivate and groom for the next stage. So after all the stories, examples and cool quotes – let me boil it down to three key points:

1. Be relevant and real. Know what is going on in the marketplace as well as your workplace. Know what matters to your team – what makes them happy, sad, glad, and mad (sounds like Dr. Seuss). Really be there for them.

2. Be fair and firmly within the mission vision. Treat everyone with respect and appreciation.
3. Have fun! You are doing the work you chose to do and leading a group of outstanding individuals that combine to make a truly amazing team capable of astounding work.

I leave you with the words of Michael Jordan:

“Earn your leadership every day.” – Michael Jordan

Thank you for your attention and hope you found this talk informative.