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Guest Lecture: “The Day my career went up in flames”



Abstract

In this guest lecture, Dr. Christoph Leser (Virginia Tech Alumnus, '88, '90, '93) reflects on his educational journey, a 30-year career in business, and the principles of purposeful career development and community service. Beginning with his early life in West Berlin and undergraduate studies at the Technical University of Braunschweig, Dr. Leser describes how taking a "leap of faith" to study abroad transformed his worldview, cultural understanding, education, and career.

The presentation details his professional transition into the working world, starting as a test engineer at Mercedes-Benz in Germany and navigating early workplace challenges, workplace jargon, and technical trial-by-fire scenarios. It outlines his 27-year tenure at MTS Systems Corporation in Minnesota, during which he intentionally cycled through eight distinct internal roles across sales, marketing, software acquisitions, Formula 1 high-power-density electric motor sales, and the product management of the core product of mechanical testing systems.

Concluding with his decision to retire early to pursue community belonging and service (*Ut Prosim*) through volunteer work with Virginia Tech's Global Education Office and The Lyric Theatre, Dr. Leser synthesizes key business and career lessons for early-career professionals. His advice emphasizes the importance of mastering domain terminology, positioning oneself at the core of business revenue, embracing lifelong learning, prioritizing early in-person presence, and mastering foundational workplace professionalism.

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1. Who I am, where I grew up, and education



I was born in a small town in western Germany with a history stretching back more than 1,250 years. Although my family moved several times during my infancy, I spent most of my childhood and teenage years in Berlin during the 1970s and 1980s.

Growing up in Berlin was a unique experience. West Berlin was an island of democracy surrounded by communist East Germany. We understood early on that our freedom depended on the presence of the Allied forces — especially the United States. Without their commitment, West Berlin could not have survived the Cold War.

In November 1989, one of the most remarkable events of my lifetime and the 20th Century as a whole occurred: the Berlin Wall fell. Historians often describe the collapse of the Soviet bloc as inevitable, but at the time, almost no one expected it to happen so suddenly

or so peacefully. It remains one of history's most extraordinary examples of political transformation without large-scale violence.

Unlike many of my classmates, I decided to leave Berlin after high school to attend university in western Germany. Choosing a field of study wasn't easy; I didn't have a single overwhelming passion or obvious talent. I simply knew I wanted to pursue something technical.

Mechanical engineering felt like the broadest choice. It offered opportunities across numerous industries, giving me the flexibility to discover my specific interests later rather than forcing me into a narrow specialty right away.

I chose the Technical University of Braunschweig, about three hours west of Berlin. Founded in 1745, it is the second oldest technical universities in the world. One of its most famous historical professors was the mathematician Carl Friedrich Gauss, whose name many of you recognize from the Gaussian—or "bell"—curve.

I quickly realized engineering was going to be tough. Before classes even began, the university held a two-week mathematics review course to refresh high school topics. Unfortunately, much of it felt completely new to me.

At the time, admission to German public universities was relatively open—if you earned your high school diploma, getting accepted was straightforward. Staying in, however, was another matter. The underlying philosophy was simple: **admission is easy, graduation is hard.**

Professors viewed the first year as a filter to weed out students. Even today, dropout rates of 30 to 40 percent in German engineering programs are common. Students even developed a tradition of awarding a humorous "Golden Saw" each semester to the professor whose course had the highest failure rate.

Teaching was rarely the faculty's primary focus—their real passion was research. In fact, the German word for a university lecture literally translates to "*the reading*." One professor took this definition literally: he stood behind the lectern and simply read aloud from the textbook he had written. As you might imagine, attendance and enthusiasm declined rapidly.

Despite these hurdles, there was one major advantage: higher education was essentially free. My semester fees were roughly equivalent to \$100 today. There was zero tuition, and students from lower-income families received government support—first as grants, and today as a 50% grant and 50% interest free loan to cover all living expenses for the duration of the degree.

After completing my undergraduate degree, I wanted to study for one year abroad, so I applied for an ISEP exchange program. The exchange coordinator at my school gave me a choice between Virginia Tech and another American university.

To be honest, I knew almost nothing about either school. In fact, I didn't even realize Virginia and West Virginia were two different states! I chose Virginia Tech simply because the German coordinator personally knew the coordinator in Blacksburg and spoke highly of the program. That seemed like reason enough. One key feature the program offered was that I was allowed to study anything I wanted for the year. I chose Economics despite

my undergraduate degree being in Mechanical Engineering as I was curious about the subject and wanted to broaden my horizon.

I expected to spend one year in Blacksburg. Instead, that single year turned into seven and three degrees, in Economics and Engineering Mechanics.

Looking back, that choice and the one-year exchange experience was the most transformative decision of my life. Virginia Tech expanded my life in ways I could never have anticipated—reshaping my education, career, worldview, cultural understanding, and personal life.

The lesson I want to share with you is that **the biggest opportunities in life cannot always be researched or planned; sometimes you just have to take a leap of faith.** What made the experience so meaningful wasn't just moving to another country but arriving with genuine curiosity—a desire to understand a different culture, learn the language, meet new people, and see the world through another lens.

International education is about far more than academics. It builds adaptability, humility, cultural fluency, lifelong friendships, and professional networks that grow more valuable every year. My journey from Braunschweig to Virginia Tech changed the trajectory of my life entirely, and it all began by taking the initiative to go abroad.

2. My transition from education to the working world



My transition from student to professional was far from seamless. Having been abroad for so long, I decided I wanted to return to Germany to work. However, the German economy was in a deep recession as the post-reunification surge of 1990 wound down.

Having spent so many years in academia (an undergraduate degree in Germany plus three graduate degrees at Virginia Tech), I had grown accustomed to the "free life" of a student. While student life isn't always easy, it has two key advantages: everything you work on directly benefits you, and you have relative freedom over your schedule day to day and between semesters.

I eventually landed my first job through a personal recommendation from a neighbor who mentioned his company might be hiring. The position wasn't even formally advertised, but they considered me a strong fit based on my background.

My first job was that as a test engineer at Mercedes-Benz in Germany, working on midsize truck development. In reality test engineering is very interesting in that it is a truly interdisciplinary field, first you need to understand how something works and then you need to find out how something fails and then you help re-engineer the part such that it will last longer if needed.

However, many parts of the job were frustrating and tedious. Being the "new guy," I was frequently reminded of how little I actually knew about the practical side of the work. One recurring source of friction happened in technical meetings: I would speak up to offer an opinion on a failure—explaining why and how a component broke during a test—only for a senior colleague to shoot me down, saying I was wrong, and then repeat the exact same facts and reasoning using the company's internal jargon.

That taught me an early, vital lesson: **it is not enough to be factually correct; you must also learn the specific language and "jargon" of your company and industry.** That vocabulary isn't something you learn in school.

What I *did* love about the job was seeing the practical application of what I had studied. For the first time, concepts didn't exist in an academic vacuum; equations and theories translated into real physical products. While only about 10 percent of the specific material I learned in school applied directly to my daily tasks, mastering the core fundamentals of my discipline gave me the baseline required to solve complex problems and be a productive team member.

3. First Job, what I learned



You Don't Know What You Don't Know

One of the most essential workplace skills is learning how to work effectively with people. You are already learning this at Tech through group projects and experiential learning, but this was not part of my studies.

Results don't happen in isolation. You will always rely on a team, and as a junior staffer, you want all the guidance you can get. Senior colleagues provide context on *why* things are done a certain way, which is often far more important than the *how*.

Early in my time at Mercedes, I had my first major reality check. We set up a truck on a rolling chassis dyno—a test stand where the vehicle drives onto rollers that simulate road resistance and load the engine. Even though I was the junior member of the team, I was put in charge of supervising the test that day because I was the only one who knew how to operate the specialized data recorder.

What I didn't realize was the immense amount of heat and energy generated during the test. And the instrumentation line provided by the technicians to measure engine oil temperature and pressure was made of plastic tubing instead of metal.

An hour into the test, the plastic tubing melted. High-pressure oil sprayed everywhere across the hot engine and the truck caught fire. Fortunately, an alert technician hit the emergency stop stopping the dyno and grabbed a fire extinguisher before a fuel explosion could occur.

We all got severely chewed out by the unit director at the end of the day. Nobody lost their job though, but I walked away with a profound respect for heavy machinery—and a stark realization of how minor details can cause massive failures. It was a textbook case of not knowing what I didn't know.

As Mark Twain famously put it: *"Good judgment is the result of experience, and experience is the result of bad judgment."*

4. Rest of Career, highlights and major projects



After three and a half years, I felt I had learned all I could from the role and had stayed long enough that moving on wouldn't look flighty. I applied broadly across the United States and received two very different offers on the same day: one as a researcher at Southwest Research Institute in Texas, and another as a pre-sales support engineer at MTS Systems Corporation in Minnesota.

I accepted the position at MTS. At the time, I didn't fully grasp how different these two roles were and how one aligned so well with my strengths and interests. That is a common challenge early in your career: **you don't know enough about yourself yet or the job types out there to easily identify the perfect fit.**

I then spent the next 27 years at MTS Systems Corporation in Minneapolis—a state neither my wife (a native New Yorker) nor I knew much about initially.

It turned out to be an exceptionally fulfilling career for one simple reason: **I was allowed to move into new internal roles every three to four years.**

Over nearly three decades, I worked across pre-sales, sales, marketing, product development, and product management. I led cross-functional, global teams across different time zones, including offshore teams in Eastern Europe and China. I

experienced the complete product lifecycle—from initial concept and prototyping to market launch and eventual "end-of-life" phase-outs.

My favorite role was that of a **Product Manager**. A product manager operates like a quarterback: you have to see the entire field, understand your team, anticipate the competition, and handle every critical decision that comes across your desk—whether technical, commercial, or legal. The downside is that you sometimes feel like a babysitter responsible for every operational detail. But going from an individual contributor to an effective team leader was immensely satisfying. You gather input and listen to your team, but product management isn't a democracy; you ultimately have to make the call, even if it goes against the advice of more senior engineers on your team. (Pro tip: always make sure your boss has your back!)



During my tenure, I was involved in three major product lines:

1. **A Software Acquisition:** We acquired an engineering software package with the incredible title of *Engineering Office* to complement our testing hardware. On paper, it looked like a smart vertical integration. In reality, the founder of the software company had recently split from his partners and used the sale primarily as a "revenge move" against them. I quickly learned that **revenge is not a viable business model**. The acquisition ultimately failed, and around 50 people lost their jobs. Because I was on the acquiring side, I wasn't let go, but I was reassigned to a role I didn't enjoy. Six months later, I took the initiative to transfer internally from automotive testing to aerospace testing. *The lesson: Despite your best efforts, business strategies fail, and you must be proactive in managing your own path.*
2. **High-Power Motors for Formula 1:** I spent time selling a specialized, high-power-density motor that MTS developed for Ferrari's hybrid F1 engines. These motors were incredible engineering feats—a unit the size of a soda can produced 60 kW (80 horsepower). The catch? They cost \$50,000 each. While Ferrari could

justify that cost for Formula 1, the commercial market outside of racing we had hoped to capture never materialized. Even Ferrari's road-going supercars couldn't justify the price point, and as a niche supplier, MTS lacked the manufacturing scale to drive costs down. MTS still supplies derivatives of these motors to Formula E, but the high-volume dream never panned out.

3. **Core Mechanical Testing Systems:** Eventually, I transitioned to product management within MTS's core business: materials testing systems. Here the challenge and interesting part was that the machines would be built in China, while the development was done in Minnesota.

By some traditional corporate metrics, my career might not look stellar — I never managed people directly, and I ended up in a similar role to the one I started with at MTS. But I intentionally held 8 different positions over 27 years. I chose what I wanted to do, had fun doing it, learned something new every single day, worked with brilliant colleagues and loyal and smart customers, helped build system that improved the quality of products and that made human lives safer.

5. *Ut Prosim* or why I am here today



After 30 years in the engineering business, I chose to retire early. I reached a point where corporate life no longer satisfied my core curiosity. But I also knew I couldn't just sit at home or lounge on a beach. A career provides far more than a paycheck—it offers community, social connections, and a sense of purpose.

In retirement, I set out to focus on two things:

1. **Belonging:** I wanted to be part of a community, a cause, and a group of people. Virginia Tech was the natural choice; it provided some of my most formative years, and I wanted to remain connected to it.
2. **Service (*Ut Prosim*):** I wanted to give back to the institution that gave me so much—a world-class education, the foundation of my career, and lifelong friendships.

I am deeply motivated to contribute my time, experience, and perspective to initiatives supporting international student exchange, cross-border research collaboration, and student well-being.

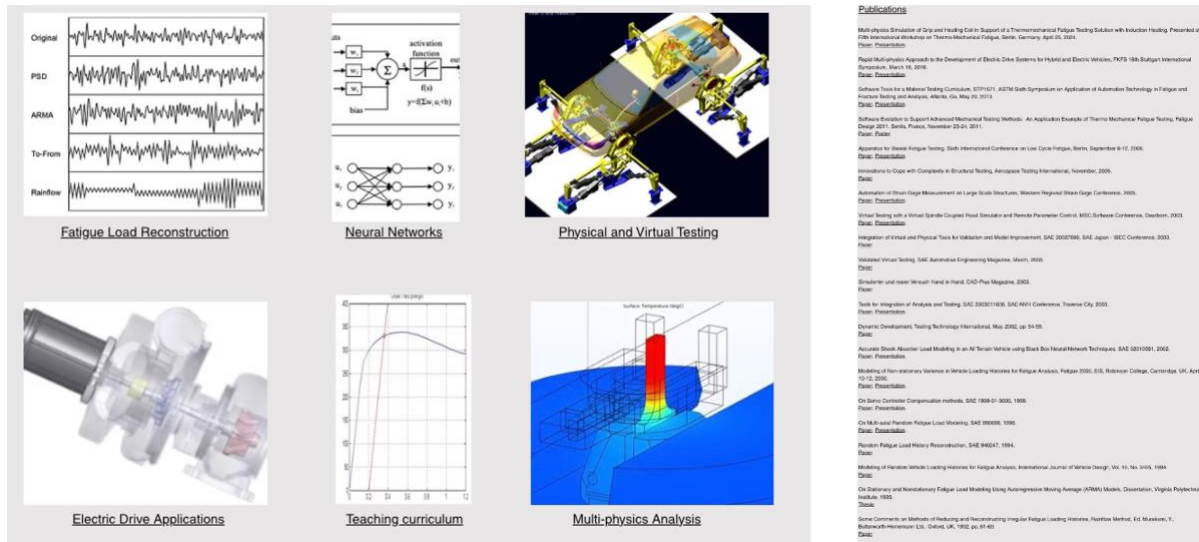
My own path from TU Braunschweig to Virginia Tech fundamentally altered my life trajectory. International exchange builds mutual understanding, adaptability, innovation, and global networks — qualities that are essential in our interconnected world and for a lasting career.

I am now volunteering with the Global Education office as an “Exchange Ambassador” to the German Partner Universities. Therefore, I must make a quick pitch for this office. This is a team of people dedicated to help you to go abroad. There are several programs with exchanges lasting from a couple of weeks to 1 semester to one year. There are scholarships and lots of other help available. They have a service called “peer advisors” where you meet with a student who him or herself has been abroad and they will orient you on possible options.

My other volunteering activity is with the Lyric Theater downtown, which is a non-profit organization. They recently remodeled with all new seats. I sell the popcorn (free on Mondays!) and after the show I sweep up what people spilled. It is a great cause with a great cohort of fellow volunteers who come from all walks of life, students, Tech staff, and retired people like me.

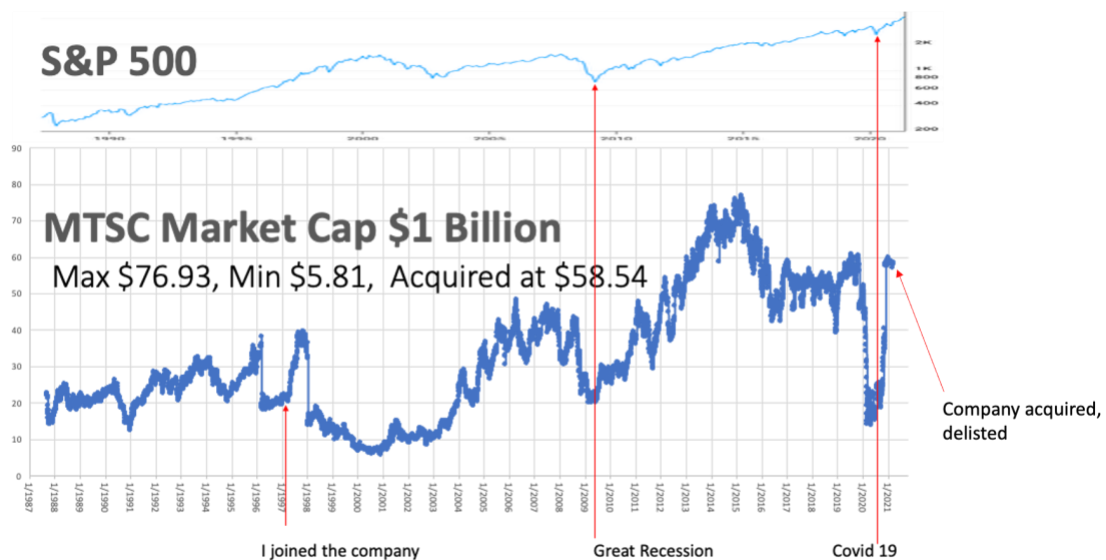
Both of these volunteering activities are meaningful to me as they are associated with entities in whose cause and mission I believe in and they provide social connections to Blacksburg and Tech.

6. Business lessons I think are important



<https://www.leserliaiseconsulting.com/publications>

- **Corporate cultures vary drastically.** My first job at Mercedes was intensely formal. The idea that work should be "fun" was completely alien. In Germany, colleagues often remained on a last-name basis even after working together for years, and every morning began with formal handshakes. While the technical expertise was outstanding, the tension between technicians and engineers was constant. Moving to Minnesota was a 180-degree turn—my team at MTS traveled constantly, and there was a shared, collaborative drive across departments to solve customer problems and close sales.
- **Aim to be respected, not just liked.** Respect isn't earned by the degrees behind your name; it is built by being reliable, helpful, and productive. It is what will ensure opportunities to advance,
- **Accelerate your learning curve through co-authorship.** Whenever I started a new role, I made a point to learn the domain, terminology, and customer applications as quickly as possible. Since the best way to learn is to explain something to someone else, I offered to co-author technical papers, trade articles, or internal publications with senior staff. This gave me an excuse to sit with experts and forced me to master the industry "lingo". It also raised my internal (leading to respect) and external visibility and thereby benefitted me and the company.
- **Position yourself at the core of the business.** Try to work on the products or services that drive the company's primary revenue. That is where the investments go, where job security is strongest, where career growth happens, and where you'll find the most motivated and smartest people.
- **Expect communication and meeting creep.** Early in my career, email barely existed, and we had a single daily standup meeting at 6:45 AM. By the time I became a Product Manager, I spent up to 5 hours a day in meetings and processed over 150 emails daily. Interestingly, despite decades of software evolution, the vast majority of real-world business data processing is still powered by Microsoft Excel!



- **And a fun note on stock prices.** This chart shows the evolution of my company. The lesson here is, despite the insight into products, customers and competition, I could never have guessed that the stock would hit \$5 or close to \$80. So, investors should be cautious of buying any single stock and more so of buying your company's stock as part of your retirement plan. You are already investing with your time and energy, so you may want to diversify your money to other entities.

7. My thoughts on the future of business, and your future as entry level employees



There is a famous quote attributed to Mark Twain:

"When I was a boy of 14, my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21, I was astonished at how much the old man had learned in seven years."

You may be reaching a similar phase in life, realizing how much wisdom your parents and mentors actually possess. But learning doesn't stop at 21. There is a classical progression to education and humility:

- **Undergraduate Degree:** You feel like you know everything required to conquer the world.
- **Master's Degree:** You realize you actually know very little.
- **Ph.D.:** You realize you know very little—and the same is true for everyone else!

As we saw during the pandemic, dramatic disruptions happen quickly. You will need to reorient and rebalance throughout your career. But foundational values do not change:

Be prepared. Be helpful. Stay curious.

Here are my closing pieces of advice for your journey:

- **Don't make money your primary goal.** If you choose work you genuinely enjoy, you will excel at it—and when you excel, financial rewards will follow. Look beyond what a job pays today and evaluate what doors it will open for you three or five years down the road.
- **Accept that you will decide important decision with limited information.** Think about how you chose your university. Did you truly know how things would turn out? You made the best decision you could with the information you had, and the real value came from unexpected opportunities along the way. Job searches are identical. Glassdoor reviews and interview questions only reveal so much—you simply cannot know what a job is truly like until you step into it.
- **Prioritize in-person presence early on.** Avoid remote-only roles at the start of your career. You need "soak time" around experienced colleagues. Walking over to someone's desk to work through a complex problem is infinitely faster and more educational than trying to schedule a 30-minute video call.
- **Commit to lifelong learning.** Technology and domain knowledge are evolving at an accelerating rate. You cannot learn everything in university—you must remain a student for the rest of your career.
- **Embrace the routine realities of work.** Work isn't a continuous series of high-level brainstorming and revolutionary product launches. Much of it is ground-level coordination. The critical data you need won't be neatly indexed by AI—you will need to build relationships and talk to people to find answers. Great results are almost always the product of team effort, so invest deeply in the relationships you build along the way.
- **Master the fundamentals of professionalism.** If you show up 5 minutes early, come prepared to meetings (read the previous meeting notes or take your own if no one took any), and remain fully present during meetings, you will instantly perform better than 95 percent of your peers.

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