

## Villanova School of Business - Business Leaders Forum

Tom Klein

October 1, 2014

Thank you Pat and good evening everyone. Since we are on campus, let me begin by sharing with you the THESIS for my talk. In today's world, innovation INSPIRES and FUELS success. However, innovation is also elusive. So as leaders, we need to *purposefully* go on a search. A personal search to determine what role we must play to ignite creativity. A search to be the fire-starter. That is tonight's story.

In fact, my personal search certainly started right here on this campus and has brought me this gracious invitation tonight.

I love being back at Villanova and getting to see first hand all of the wonderful things going on with our campus, our faculty, and our students. Father Peter, Dean Maggitti and the entire team here at Villanova are global citizens and innovators – and they are igniting change to make Villanova better.



I am so proud to be a Villanova alum and to be here with you tonight – and especially to be part of the ceremony to recognize Mr. Naclario for receiving the Bartley Alumni Medallion.

Growing up in North Jersey and going to school here, I had a lot of odd jobs as a young guy. One of those jobs was delivering Bryn Mawr Pizza. I learned very early that Villanova students – and really, all other customers, were better tippers than the women of Bryn Mawr College. For Bryn Mawr deliveries, I usually got dimes and quarters while Villanova runs would be worth a buck or two.

Living in Texas now, I have trouble keeping up on Mainline news, so when I recently read that the Eagles' LeSean McCoy tipped a waiter just 20 cents, I thought WOW... things really do change. I didn't know that LeSean had gone to Bryn Mawr!

So apparently while Bryn Mawr was busy admitting men and building a football program, Villanova was building a Center for Innovation – which hopefully will make Villanova students' search for innovation far less elusive than it has been for me.

As you heard, I am a business guy. I happen to be in tech, and I am privileged to work at what I often describe as the MAGICAL intersection of technology and travel.



Here is what I mean by magical intersection. Every day, Sabre processes three billion travel related transactions – including airport check-ins, pilot flight plans, and hotel reservations.

If you flew here or are staying at a local hotel tonight, I hope you had a great travel experience because there is a good chance Sabre technology helped make it happen.

Most of our innovation comes from computer scientists and engineers – and I am neither of those. I am, however, a guy who figured out how to combine a great Villanova University education with a little New Jersey street smarts and some basic salesmanship... another intersection – though the magic is debatable!

Today, one of the most important parts of my job is SELLING the value of innovation to 10,000 people at Sabre every day – and putting a spotlight on the importance of innovation to our customers and the health of our business.

I've gained confidence that I can influence our ability to focus on and ignite innovation – but it isn't easy.

Leaders in business are comfortable with traditional disciplines, but that comfort often abandons us in our search for innovation.

Why is that? Why is innovation so hard?

Actually, there are some really good reasons why it's so difficult.

Edward Hess from the UVA business school summed up this issue very well in an article in Forbes Magazine. I'm paraphrasing, but basically he said that innovative thinking is an unnatural act for most people, and that we have an overwhelming bias to confirm what we ALREADY KNOW.

And, as you have probably experienced, people who are natural creative thinkers confound us.

If you read or watched *A Beautiful Mind*, the story that explores the life of Princeton mathematician John Nash, you see the conflict that exists between our intuition and logic. Nash saw things that others didn't see. When he was right, he was viewed as a creative genius, but when he saw things like extraterrestrials that others couldn't see, he was viewed as insane.

Of his situation, Nash said, "the ideas I had about supernatural beings came to me the same way that my mathematical ideas did, so I took them seriously."

So, no wonder we struggle.

But there is good news. Like other disciplines, innovation requires a leader's personal time and engagement – and when you have that focus, you can make a big impact.

So, for your CONSIDERATION, I'd like to share with you the lessons I've learned in the innovation trenches – and especially the lessons related to the personal commitment and engagement needed by leaders to ignite innovation in any organization.

In my own search, I found the answers in a surprising place – not in a strategy book or a corporate training class. My answers came from the roles that I personally have to play.



#### **FOUR UNIQUE AND VITAL ROLES:**

I will admit that I am far better at some of these roles than others, and in some cases, I still have a lot of work to do.

Imagine... that standing in front of me right now, you have an ARCHITECT, an INDUSTRIAL ENGINEER, a CHEMIST and an EVANGELIST.

Here's the magical part. I have to play all four of those roles... and so do you.

This is an eclectic group for sure... so let me explain.

Starting with a leader as **ARCHITECT**

I visited Oxford University with my family last year, and during that trip we learned that JRR Tolkien, CS Lewis and other writers would bring their informal group – The Inklings – together at the public houses (or pubs) around Oxford to share ideas and help each other with unfinished works of fiction. I'm sure the Guinness helped! The environment let them discuss their work; which is by its nature a solitary task; they shared ideas, thoughts, and knowledge that allowed them to progress their stories.

This is one of many stories suggesting that innovation occurs at the intersection of open minds, creative ideas and collaboration – and that the environment is often the catalyst that best melds these dynamics together.

Our technology leader at Sabre – Deborah Kerr – is a product of such an environment. Deborah started a 10-year career at NASA’s Jet Propulsion Laboratory when she was just 16 years old after graduating high school at age 15. Like many innovation labs, the JPL environment was a lot like a college campus.

JPL had incredible diversity – scientists from more than 80 countries... a passionate melting pot that bubbles over in the halls and in conversations in the gym and cafeteria – all focused on “missions” to literally go where no human has ever gone before.

So, based on her experience, Deborah is pushing Sabre to ARCHITECT an even stronger environment to support interaction and collaboration. Today, Sabre is pretty open, but we see opportunity to make our spaces more conducive to collaboration.

Thanks to Deborah’s leadership, we’re pushing our organization in exciting new ways – using physical and virtual spaces as backdrops for unconventional challenges... like experiments in which we pull diverse teams together, put them in a lab, give them a specific problem – and ask them to use new technologies that they’ve never used before to solve it.

In a recent example, one of our teams developed a prototype in about ten days that our hotel customers believe could meaningfully change their business – and improve the customer experience at their properties.

As architects, we need to create environments and invest in tools that allow our teams to work collaboratively – whether down the hall from each other or several time zones away. While also remembering that our teams, like us, need the ability to think, to get away from the buzz, to digest the value of collaboration – so we can’t just tear down every wall. It’s a balance.

With this first role as ARCHITECTS, leaders must strive to create work environments that stimulate energy, creativity and interaction, while respecting the need for private time. When properly balanced, it can be the lifeblood of innovation.

+++++

Now some of you might be skeptical about the ARCHITECT role, but this next role appeals to our pragmatic side.

The second role of an innovation leader is the **INDUSTRIAL ENGINEER**

IE's measure, validate, and optimize. They reject the idea that you can't measure innovation, its pace, or progress. Innovation, like any other important discipline, can and must come with expectations, predictability, and measures.

As IE's, we can demand relevant expectations and measures around the important innovations that make us more competitive, more customer focused, and more cost effective.

Here are a few examples -- with mobile development at Sabre, we can do rapid A/B testing. A/B testing is creating multiple concepts – like workflow changes or user interfaces – and measuring their effectiveness with real time user feedback. This is kind of like when the eye doctor asks you to “choose A or B” when they're flipping the different lenses during an eye exam.

This is a great way to measure both the effectiveness and the pace of incremental innovation. We look for our teams to measure, with clarity, the results of our tests so we understand our success rates. I will often challenge them to accelerate the pace of the activity.

So, if a mobile development team is testing multiple concepts a day, we might ask them to really amp up some specific test areas that we know are moving the dial on the user experience. You get the picture – the A/B test helps us understand the pace and success rate of innovation.

We also measure activity and innovation pipelines much like we use traditional sales pipelines. Ideas move through a funnel – with many at that top – and fewer and fewer as you get to the narrow part of the funnel.

We try to understand what killed ideas early and learn from that. We also push ourselves to make sure that it isn't only the “easy” ideas that are moving through the

funnel. Again, like in sales, we need our share of big and difficult deals to close, not just the ones we are “supposed to win”.

So as the INDUSTRIAL ENGINEER of Innovation, we are free to demand and to expect that there are some measures around our innovation pace, output, and results.

All the while, knowing that innovation isn’t necessarily a high percentage game and that talking about and celebrating the creative and riskier failures of your team is often as important as ensuring you are seeing some wins along the way.

+++++

Now we come to the third role of the innovation leader, the **CHEMIST**

So just like over in the Mendel Science Center when you mix potassium and water and get a serious, explosive reaction – you can get equally volatile reactions when you mix talented, creative people from different disciplines together.

To explore the role of talent CHEMIST, let me share a story I heard over dinner with Mickey Drexler, the brilliant and volatile retailer. Mickey took The Gap to great heights before being dismissed – and now he is having a great run with JCrew. I had read and heard lots about Mickey and didn’t know what to expect – but I found him to be engaging and at peace with his evolving role as a retail icon – and as a mentor to other leaders. He was much more like an encouraging uncle than his tyrant reputation.

Mickey was on the board of Apple and became Steve Jobs’ collaborator on the design and launch of the Apple Store – today, the most productive retail space on the planet. If you knew or have read about Jobs you know he was brilliant, but also difficult. Steve was THE SHOW. Well Mickey was THE SHOW, too – so this collaboration could have been a real disaster.

As Mickey told it, despite him being busy in his own right, Jobs would call him anytime day or night to discuss ideas for the store.

He said Steve was the only one with the gall – not exactly what he said – to call him in the middle of the night. He also said he left his phone on, which he didn’t need to do

because the excitement of the collaboration and their collision of ideas was energizing to him.

He wanted the calls.

And I suspect the stores wouldn't have turned out quite the same without the chemistry between these two men.

This got me thinking that the challenge for all of us as CHEMISTS is – what if we have to manage a Jobs and a Drexler?

Different people, tough personalities, both believing they are right because they usually are. How do we put those people together, how do we help them work together, how do we encourage them to let their ideas collide and morph into something great?

Recently we have started to add new talent at Sabre. Historically, we've been pretty strong in computer science, applied mathematics and operations research – but now as we're adding depth in data science, cognitive science, artificial intelligence, and human factors – we get a new dynamic, a new chemistry.

A few years ago, if someone came to me and said, "I want to hire an anthropologist to join our development team," I would run them out of my office. Today, I get excited when I hear a request like that and want to know what an anthropologist might bring to the table.

As leaders we have to mix up the team to ensure opportunities are viewed from a variety of lenses, sometimes pushing together the folks whose ideas and approaches are farthest apart – that's often our best chance to enable innovation.

+++++

The fourth and final role is the Chief **EVANGELIST** for innovation

You can be the day-to-day evangelist or you can really get your organization focused with a big, audacious moonshot goal. Getting this right can galvanize your team and send them on a true mission.



When it comes to EVANGELISM, I have lately been very inspired by Bill Gates and Michael Bloomberg.

Here are two first ballot business Hall of Famers – but also two guys who will be more remembered for their philanthropy than for their business accomplishments. Why? Because they are true innovation EVANGELISTS – and they are transforming philanthropy.\

And, in true Gates and Bloomberg fashion – they are going big. Along with other big initiatives, Gates is publicly leading an effort to get every American high school student to graduate “college ready” – while Bloomberg is fighting to end smoking. And together, they are working to permanently eradicate polio around the world.

Clearly, these are big swings and require a different type of motivation. I’m sure if we asked the people working with the Gates Foundation and Bloomberg Philanthropies, they would say they’re working to save the world. They are locked into the emotion and the mission.

Gates and Bloomberg have faith that a disease CAN be eradicated. They call out a moonshot – and their emotionally-committed believers attack it with unprecedented creativity and innovation.

+++++

So, when you put it all together, what I’m really saying is that to enable innovation to reach its full potential in any organization, leaders need to play a role... four of them actually... that we must personally embrace.

And, those four roles are the **ARCHITECT**... the **INDUSTRIAL ENGINEER**... the **CHEMIST**... and the **EVANGELIST**.



When I think about this whole package, my favorite innovation leader today is Elon Musk. In the last 15 years, he has launched transformational innovations in three widely diverse industries – online payments with PayPal... automotive with Tesla... and space exploration with SpaceX. And, he’s also working on at least two others... solar energy with SolarCity... and mass transit with the HyperLoop.

As an **ARCHITECT**... At SpaceX, Musk’s team is leveraging a different type of collaboration environment. Rather than passing designs among traditional engineering workstations, the SpaceX team manipulates 3D CAD models using hand gestures and virtual reality glasses – technologies that allow faster, more intuitive and real-time design collaboration.

As an **INDUSTRIAL ENGINEER**... At Tesla and SpaceX, their development, A/B testing and rapid prototyping is extraordinary – a step function in innovation and continuous improvement. At Tesla, this capability allowed the Tesla S to go from concept to *Motor Trend Car of the Year* in just four years. And, at SpaceX – to put the first privately funded rocket into orbit just six years after the company was founded – and less than two months after it’s first launch attempt failed.

As a **CHEMIST**... At PayPal, they built the early company around a group of smart people who wanted to learn and debate with each other. Since leaving PayPal, the so-called PayPal Mafia has achieved crazy success founding dozens of companies, with seven reaching billion dollar valuations.

As an **EVANGELIST**... Every one of Musk’s companies has started with a “big idea” that drove a transformational mission – virtual payments, the “software” car, and reusable rockets.

To me, Elon Musk personifies the four roles I've discussed tonight. He is the most inspiring innovator today – by delivering on moonshots that no one else can or will take.

+++++

So all this talk about innovation is perhaps interesting, but you may be thinking that for your organization, it's not as critical. Maybe no competitive disruptor is knocking on YOUR door. While I'd ask you to reconsider, I won't push it....

But do consider this... we all hope there is a young Elon Musk somewhere on this campus tonight – especially the Development Office!

But for the rest of us mortals, we should be encouraged that we can participate in an innovation challenge.

The challenge is this.

America has – and will continue to have – the seminal leadership position globally for our lifetimes. I believe that, not with arrogance, but with a pragmatism that says, "if not America, then who will lead"?

Our economic position, one of the enablers of that leadership, has been built by the innovation of our Founding Fathers, who embraced democracy, and their predecessors, who embraced free markets and created industries.

That leadership has now been passed to us... our responsibility... and our duty.

But, the world is a very different place today... and it's evolving more rapidly than ever. Our grandchildren will inherit a different America, one that can still lead, but with an economy second in size to China.

Other countries have strong technology, natural resources, they have big labor forces that are hungry to reach the middle class and beyond. They are motivated, and they will make progress in a globally competitive world.

All that said, while other countries have narrowed the gap, American innovation is second to none.

But, if we want to preserve America's ability to lead – if we want to hand off an economy to our children and grandchildren that affords them the unique opportunities of the American dream that we've all benefitted from – then we have no greater priority as leaders than to embrace, encourage, and do everything we can to make innovation a central focus of our leadership agendas – to keep America as the world's innovation leader.

The lessons here align perfectly with the words of Saint Augustine, who said, "Faith is to BELIEVE what you do not see... and the reward of this faith is to SEE what you believe."

That is magical, is it not?

Searching for innovation, working to find and harness it, making it our legacy, these are the things that will create sustainable enterprises that will allow our colleagues, our team members and all of America to successfully compete and serve in our global economy for generations to come.

Thank you very much, and again, it's such an honor to be here with you tonight.