"Architects of the Future"
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Good evening. I'm delighted to be here. Thank you, General Creighton and members of the faculty and, of course, the students of Westminster. It's an honor to be in this great place where so many leaders have come over the last 50 years. More than that, it is a thrill to receive an honorary degree on the eve of the 150th anniversary of this great college.

I am also delighted to be in this building designed by Sir Christopher Wren. I actually dreamed of being an architect when I was a young girl. I dreamed of creating something just like this, something lasting, and strong and beautiful.

This building has an amazing history. Just think about it: It was originally built in the 12th century, destroyed in the great Fire of London in 1666. It was then rebuilt by Sir Christopher Wren and bombed in World War II during the great Blitz, and left then blackened and without a parish until, of course, it was brought to back to life again after a trans-Atlantic voyage to be built right here in Fulton. You have to admire the people who kept this building vibrant, people who looked at a pile of rubble twice and said, "Let's bring that back again." What is it about this building that made people say, "Let's rebuild it," twice. Well, it certainly has a lot of value and not just dollar and cents value. It has that great thing we all talk about now - intangible value. The fact that this building remains so vibrant is a great tribute to its architect.

So what makes a great architect? Technical skills are a must, They're an assumed given. You have to have those understandings of engineering, of the strength of the materials you are going to use, of the building techniques. We assume you know how to do that, but it takes much more than that to be a great architect.

An architect must have creativity to be able to take an empty space and turn it into something useful and beautiful. Ability to take different materials and maybe use them in a way they’ve never been used before.
Ability to pay homage to a building's roots as Sir Christopher Wren did in borrowing from the Gothic roots of St. Mary's original building in the 12th century. Ability to reshape old ideas into new. An early architect in 2600 BC, Imhotep, was the first architect who was able to successfully create the smooth-sided pyramid. And it was later in this century that a similar gentleman, I. M. Pei, used those same ideas to create the glass pyramid outside the Louvre.

An architect must have vision. Sometimes it's a vision at first that no one else sees. Sometimes it's intuition, a spark, a picture in his mind's eye. But an architect must have the courage to act on that vision and turn the vision into a reality. To convince his client to fund the venture. To supervise the translation from blueprint to the materials. To ensure the spirit of the design comes alive in its form. In short, an architect must be a great leader. These are the same skills that business leaders need today.

Somewhere tonight, a group of people is probably working in a garage or maybe in a dorm room on this campus. They have already been working 15 hours and they are still not finished. And they'll be back tomorrow to work another 15 or 20 hours, and they'll keep going because they have a great vision, a great idea and courage to turn it into reality. These are the people who will be the architects of tomorrow's business world. Instead of worrying about the future, instead of trying to manage the future, they're designing the future.

They are building a future with unlimited possibilities.

Tonight I want to talk about several things: that entrepreneurial spirit of startup companies, of companies working out of garages, of how established companies are working to recapture just that spirit. I want to talk about how to leverage intangible assets, how to generate value out of those assets and how old economy companies are working very hard at becoming new economy companies. In fact, there is a CEO at a Fortune 10 company who has been known to say, "You know, the last five years has been the 'Revenge of the Nerds.' The next five years, 'The Empire Strikes Back.'"

But mostly, I want to talk about leadership. I want to talk about traits of great leaders, roles of leaders, and I also want to talk about how to develop great leaders. At times of great change, and certainly you have to agree that that's what we're going through right now, questions come to mind about leadership. How can you possibly be a leader when everything
is in flux, when no one knows exactly where we're heading, when today's discoveries quickly become discarded ideas tomorrow, when nothing is stable. That's the challenge facing leaders today. It is possible to be a great leader and, frankly, the possibilities are endless. As we enter this new millennium we are witnessing an historic period in business. We've been all talking about it today. Billionaires are being created seemingly overnight. The number of new ventures is frankly staggering.

If you're not involved in an IPO or in some kind of a dot.com business, you're just out of it. Is it all just a craze? Can you wake up tomorrow and hope to be back in the good old days? I'm sorry, the answer's no. And the urgency to move forward is paramount. Many of today's blue-chip companies were architects of the 20th century business. When they started out, those same companies pushed the boundaries. They were entrepreneurial, they wrote the rules, they constantly explored new ideas. They grew successful. They grew big, and now some are in danger of growing obsolete. Successful companies must constantly reinvent themselves, over and over again, much like this building has been reinvented over and over again.

A neighbor down the road, Bill Gates, said it best: "Success is a lousy teacher. It seduces smart people into thinking they can't lose. And it's an unreliable guide to the future." I can't agree more.

There's a new book out called "Blur," and it was written by a couple of guys from Ernst & Young. They suggest a new model for corporations - that maybe companies should be viewed in the same way as - catch this - bacteria. Now hang with me a moment here. Bacteria was on Earth long before all of we were. It will thrive long after we're all gone, and the reason is that bacteria doesn't get set in its ways. It changes every time it comes in contact with another organism. This same organic model can be applied to companies. Every day companies deal with customers, competitors, suppliers, partners. They are the oxygen and the sugar and the other substances that companies need to thrive. These are the nutrients for new products and new services - the nutrients needed to continuously reinvent themselves. Now, I really like this analogy, but I would frankly suggest to you not to go up to a current CEO and say, "Congratulations, you look like bacteria," but I think you understand what I'm getting at.

Companies are certainly in business to deliver value and everybody uses that term these days. Building products used to be the traditional way of
creating value. But we also now understand it can be done in many other ways, providing services, financing, leveraging the strength of a brand, leveraging the intellectual capital a company may own. Traditionally, companies were valued in an accounting sense by their tangible assets, by the value of the factory or the value of the tooling or the inventory of the finished products. It was when book value was more closely aligned to market value. But there are other ways to measure companies, ways that are much more meaningful. Cisco Systems is a great example. Many people love to look at the Fortune 500 list. I think Cisco is about 192 on that list, but in terms of value it is No. 1.

It's one of those companies that I think is a great example that has created more value out of its intangible capital than the tangible capital that it has in its hands. Today's companies are spending a lot of time asking themselves: "How much is our information worth? What's the value of our intellectual property, our trademarks and our patents? What's the value of our computer network? How much value resides in the brains of our engineers or the enthusiasm of our marketing team? Companies that answer these questions will be the architects of tomorrow's business world.

Everybody's focusing on providing more value - there's that word again - for customers, generating more value for shareholders and allowing employees to participate in valuable new opportunities.

Now here's some interesting points: Companies have to think differently about intellectual property - in fact that's exactly what's going on. If you look at the Fortune 100, you'll see that an estimated 76 percent of their value is related to intangible property, not tangible assets. That's quite a big difference in the last 10 to 20 years. Historically, companies held that intellectual property kind of in the back room. The legal department managed it and sought to protect the company's rights rather than capitalize on the company's assets. That's a huge distinction. The New York Times recently wrote, "intellectual property has been transformed - from a sleepy area of law and business, to one of the driving engines of the high-technology economy."

There's in fact a knowledge explosion going on with valuable ideas being created every day. The annual number of patents has almost tripled since 1980. In fact, 155,000 of them were issued in 1998, that's 2-1/2 times the average for the entire 20th century - a pretty profound set of facts, I think. And revenues from those patents increased 700 percent during the
1990s from $15 billion in 1990 to 100 billion in 1998. You may not know, but IBM actually generates 11 percent of its pretax profit from patent revenue.

Now, what's even more interesting to me is that patents aren't just for tangible things any more. Dell Computers has patented its manufacturing distribution in marketing systems. These are the assets that provide the value of Dell. They are the discriminators that make Dell more successful than its competitors. Amazon.com is another great example. Whoever thought that you could patent the click of a button. They have done just that, and the courts have upheld it over and over again.

Intellectual property has become the reason behind many mergers and acquisitions that are going on. AOL and Sun Microsystem's coming together for Netscape was exactly just that. In fact in my own company, our acquisition of Hughes was all about intellectual property. Knowledge is key to business success. According to Lester Thurow, a great economist, skills and knowledge have become the only source of sustainable long-term competitive advantage. That's why stock values are out of line with traditional asset values. That's why we can't go back to the way it used to be. That's why this period of unprecedented value creation is not irrational exuberance. Markets are now coming to understand the value of intangible assets.

Let me give you an example of a Boeing customer. AMR is the parent of American Airlines and they have recently spun off SABRE, which is a computer reservation system. Some of you may actually have used it. AMR has about 22 billion in working assets, 700 jetliners - fortunately, most of them are Boeing - nearly 100,000 employees and landing rights in 52 cities. SABRE is just a computer reservation system. It's the most used reservation system in the world, but it's still just a computer system. Its market cap is the same size as AMR. A single intangible asset worth the same value as a Fortune 100 company. And that's not an example of markets acting irrationally. Let me tell you why.

If you look at the situation in a traditional approach to measuring assets, maybe it doesn't make any sense. But if you look at the potential to generate revenues, market values make a lot of sense. Seven hundred airplanes, I mean, that's a lot of airplanes. It's huge, but it's finite. Its capacity to generate revenue is limited. You can fly on American Airlines, but on Christmas Eve - when they'd like to sell more seats - they can't just borrow 50 planes from somebody else. So there's a finite limit to that.
SABRE's potential, however, is not limited. They can handle a million-plus customers every day and not change their amount of equipment, their employees or their tangible assets. In fact, they now know they can scale to two million or three million a day and not change a thing. That's what the value is all about.

Success in the new economy means more than looking at value in a different way. It means throwing the whole business model up in the air, and asking basic questions. Who are we? What are we? Are we in the right business? Are we in the right market? Do we make the right products, and offer the right services? Companies just have to be constantly challenging their reason for being. They have to be willing to change everything. They have to be willing to explore new frontiers and be like Trekkies and boldly go where no man or woman has gone before. They have to be comfortable in dealing with ambiguity. That requires a special type of leader.

Let me go back to the architect analogy. Architects ask, how will my client use this building?

A business leader may ask, "What do my customers want, and how can I add value to their enterprise?" An architect determines the strengths of a structure. A business leader looks at the foundation of a company and how to build on it, what to keep and what to divest. Now architects often come up with solutions that aren't always traditional, in fact the best ones are most often controversial, kind of like I. M. Pei. A business leader also pushes the envelope. They know that a radical idea for something new will often meet with grand resistance from all constituents, at least until those averse to risk understand that the peril of standing still is much greater. A business leader and an architect need creativity and vision. But what they both really need is courage. Now, courage is an interesting word. It always conjures up the image, for me anyway, of the cowardly lion in the Wizard of Oz. The lion always had courage, he just didn't know it. He needed a medal to realize that he had it. He needed someone to push him out of his comfort zone. A lot of what we are witnessing in business today can be summed up in a few short words. Transforming ideas into value and with a lot of courage. When you pursue a new idea, you don't know all the answers. You have to trust your instincts; you have to deal with ambiguity. You have to be willing to make mistakes and have the courage to admit it and change. You have to be willing to go down an unlit path and you have to be able to take others along with you and get them to follow. You have to convert naysayers often stuck, firmly stuck, and standing still.
You have to feel the fear and do it anyway. That's really what I mean by courage. Companies that are succeeding in the new economy have several things in common. They didn't start with a rigid plan. Instead, they kind of started with an idea, a spark, an intuition. They had a vision of where they wanted to go, but they weren't exactly sure of how to get there. They were willing to make decisions before they had all the data. There was no paralysis by analysis going on here. And they had the courage, the intestinal fortitude to follow their convictions.

Leadership is all about seeing opportunity and having the courage to take your entire team there with you, and that requires knowledge and creativity and vision and the willingness to turn that vision into reality and the ability to communicate the vision and above all, that lionly courage. That's where I think schools like Westminster fit into the picture. Every school teaches technical skills, but are you teaching leadership skills? Companies today are looking for people with skills that just can't be taught in a regular classroom.

Let me address a few questions to the faculty here tonight. Are you teaching people to take risks or just to recall a few details from a lecture? Are you teaching people that it's okay to fail? Are they learning there is only one right answer to every question? Teaching leadership is hard. It can't be learned from a book or a lecture. It can only be learned by doing. Other leaders with proven track records can be a source of inspiration, but students need a laboratory for leadership. So what about creating a leadership lab? We have labs to practice chemistry and biology in. Why not have a lab to incubate future business leaders, a place to let students take risk, to form a new company, to transform their ideas into value. Practicing going public, or even doing it. To practice being leaders, motivating others, challenging themselves. You could form an adjunct faculty of current CEOs or past CEOs, security analysts, venture capitalists to come in and challenge their plans.

I am hearing about many students who are actually leaving school to join dot.com companies and other new economy environments. They want that experience that they are reading about. They want to feel the fear and do it anyway. So why not start right here? I promise you, there's a hot market for just that and after all, this establishment has a track record for tackling big ideas. I mean, Dr. McClure had the crazy idea to ask Winston Churchill here and look what's happened - 50 years of incredible leaders from all over the world coming here and talking about leadership. Dr. Davidson came up with another idea of transporting this magnificent
church here to commemorate Winston Churchill's famous "iron curtain" speech. In fact, he was even quoted by saying, "We were younger then, and crazy."

Well, I say, let's get crazy one more time. Let's build a leadership lab right here at Westminster.

Now let me address some questions to the students. Every business graduate has mastered financial analysis and management theory, and all those good things that we learn, but how are your leadership skills? Can you think on your feet, can you make convincing presentations, do you have the courage to take risks? Do you have the willingness to fail? And do you have the wisdom to change direction when you recognize that you are going down the wrong path? Can you create a vision that others will follow? I challenge you to seek and demand leadership experiences as part of your education. It is every bit as important as the rest of your curriculum. In today's business world, we need people who are passionate - who express ideas clearly, who can sketch a vision that everyone understands and then drive like mad to get there. We don't need people who want to manage the future. We have far too many managers already, far too many people who want to play it safe, who focus on the smallest details and never see the broader picture. We need architects, people who can listen, people who can synthesize complex ideas and turn them into simple pictures, people who can create a vision and aren't afraid of change.

We need people who can lead, people with the courage to say, "Let's just do it." People who like to work hard - good news for you - and play hard, and people who see unlimited possibilities. We need people who will build the future. And I hope that includes many of you here this evening.

Thank you very much.