

Olin College Commencement Speech

Jeff Hawkins, May 15, 2011

President Miller, faculty and staff, families, friends, students, and most of all to the graduates of the class of 2011, I offer my congratulations. I am thrilled to be here today as your commencement speaker.

When President Miller asked me to give this commencement address I asked him what he thought I should talk about. Without hesitation, he said, "Just tell them about yourself". Well, it isn't my custom to talk about myself. I don't like to do that. However, in this case it serves a purpose, and...President Miller asked nicely. So here it goes.

I studied electrical engineering at Cornell. I started three companies, two have gone public and the third is still in development. I started and ran a non-profit institute to study brain theory. I am an author of a book about Intelligence. I am an inventor on over sixty patents. I designed products including the first successful handheld computers and smart phones. I have received numerous awards, spoken at TED, been profiled in nearly every business publication. I have given invited lectures at dozens of universities. I have also been able to pursue several philanthropic interests including the support of secularism, equal rights for LGBT citizens, and fighting for the rights of Dream Act students. I was elected to the National Academy of Engineering in 2002.

You might be impressed by that list, but you shouldn't be. I am no different than you, except for one important thing. I am older.

As a student I received good, but not exceptional grades. I have a bachelor's degree in engineering, not a master's, not a PhD, not an MBA. I am an engineer. I am a pretty good engineer, but not a great one. Everywhere I have worked I have partnered with people who were better designers, better programmers, and better managers.

Some people feel I have had an exceptional life. There is no doubt my work has positively impacted many people. So...I often wonder, "How did that happen?"

Let me talk about what an engineer is. The general public imagines an engineer as someone working in a lab testing materials, designing computers, or debugging software programs late into the night. These are all useful activities. I have done them.

But an engineer can be more than that. Engineers are curious. They take things apart, discover how they work, and use that knowledge to build new and better things. Let me repeat that, engineers are curious, they take things apart, discover how they work, and use that knowledge to build new and better things. That is the engineering process. We can use this process to build products such as better medical devices, computer programs, and cars.

But the process of engineering can be applied more broadly. It can be applied to changing how people **think** about energy conservation, discovering new business models, enacting laws for better education, and reducing prejudice. The list goes on. The engineering process is the best one for many of the most difficult challenges we face. Exceptional engineers use the engineering process on broad challenges, not just those we traditionally think of as engineering problems.

Here is an example. For over thirty years I have worked to understand how the brain functions. I have worked with and employed many people in this endeavor. What kind of people do you think are the best at this challenge, at figuring out how the brain works? Neurobiologists? Mathematicians? Linguists? Psychologists? Physicists?

No. By far, the best people are engineers. The brain is a complex and messy system. If you approach the problem with preconceived notions of how it works, you will not succeed. I have found engineers best because they are driven by curiosity with a penchant to disassemble something until they understand it. Engineers are not afraid to bring whatever tools they can find to solve a problem.

Every engineer has the potential to help solve the large problems we humans face, but most engineers don't rise to that potential. Tackling big problems is hard! You have to talk to people in fields outside of your own, which is awkward and uncomfortable. You have to take actions that put you at risk and make you feel vulnerable. You have to aim so high that others will mock you, and secretly, and sometimes not so secretly, hope you will fail. You must be effective at communicating. And you have to be good at motivating your peers while simultaneously being polite to your critics. It is hard.

That brings us to you, the students and graduating class at Olin College. You are lucky. You live in the United States with its enviable freedoms. You have unlimited access to good food, clean water, clean air, good healthcare, and public education. Two thirds of the world's population would trade places with you in a heartbeat if they could.

But you are lucky in one more special way that is extremely rare. You went to Olin College.

What makes Olin unique is its focus on the very skills you need to be an amazing engineer, not an average engineer. From the moment you stepped onto this campus you have learned how to present to others, how to carry yourself with determination, how to persuade others. You have been exposed to big problems and encouraged to think big, and work on problems collaboratively. It is these skills you need to solve big problems and it is the application of these skills that lead to an exceptional life.

Two years ago I spoke at a conference in Durham North Carolina. The conference was about the fourteen grand challenges laid out by the National Academy of Engineering.

My talk was on reverse engineering the brain. At that conference I sat at a lunch table which by chance was occupied by Olin students. I was impressed with them, with their curiosity, their professionalism, and outgoing nature. It was there that I realized that Olin students and an Olin education were exceptional. That is why I agreed to fly across the country to talk to you for ten minutes.

All engineers, indeed all humans, have the opportunity to lead an exceptional life. I can't speak about you individually, but as a whole, the students of Olin College and the graduating class of 2011 are as well prepared as anyone on this planet, on this planet, to lead exceptional lives in the 21st century. I encourage you to do so.

Leading an exceptional life should not be a burden. I was thirty years old before I realized that maybe; just maybe, I was capable of doing something interesting! You have plenty of time to figure out what you want to do when you "grow up". Don't sweat it.

Plus, an exceptional life can be a normal life. When my kids were at home I had a rule to eat breakfast and dinner with them every day. I never went to the office on weekends.

Commitment, integrity, and a driving curiosity are far more important than working long hours.

It is well known that almost no one remembers who their graduation speaker was or what they talked about... I am ok with that. Even though you will not remember this speech I am going to try a trick to plant a meme in your brain. There are many times in your life when you will be asked to state what you do for a living. My favorite is the immigration form you fill out every time you enter or leave a country. You are sitting in an airplane, the flight attendant comes down the aisle and gives you this little form, and one of the fields is labeled "Occupation". This question used to puzzle me. What should I write? It is unlikely anyone cares what you put in this field. It is unlikely anyone will even read it. So it is more of a personal question. "How do I view myself?" "What do I think I am?"

First I put "student", then "engineer". But later I had choices. Maybe I should put "entrepreneur". That sounds cooler than engineer. How about "serial entrepreneur"? Cooler still, but it sounds a bit like a criminal. Later still I could write "brain scientist", or "author", or "business executive". I could write all of them! Which one sounds the best, which one is the most impressive? I finally settled the matter. I always write "Engineer", with a capital "E". Being an engineer you can actually do anything. You can do anything that requires curiosity and a desire to improve. It is the most versatile profession. So from now on, whenever you have to write your occupation on a form, no matter what you are actually currently doing or what your business card says, I want

you to write Engineer, Engineer with a capital “E”. When you see that field labeled “occupation”, I want you to think back to your education at Olin and ask if you have taken advantage of the opportunity you have been given to lead an exceptional life.

I want to congratulate everyone here, the parents and relatives, the students, the faculty, and especially the graduating class of 2011 on choosing to be an engineer and for choosing Olin College of Engineering as your alma mater.

Congratulations and thank you for sharing your accomplishment with me.