Commencement Speech
Carnegie Mellon West Coast Campus
Edward H. Frank
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Thank you, Martin. First, my congratulations to all of you who are graduating today, and to your friends and family who have joined us here. As a co-founder of the west coast campus, I’m honored to have the opportunity to speak to you. I am also a graduate of Carnegie Mellon, and I hope you have found that your time spent at CMU has changed your life, as my time at CMU changed mine. We are a Carnegie Mellon family: I have a PhD in Computer Science from CMU, my wife Sarah has a BFA, and our older daughter Whitton, an actress in LA, has a BHA in Drama and English. (Our younger daughter Naomi went to USC) Carnegie Mellon is a unique and elite institution, and I hope you feel that being here was a worthwhile expenditure of your time and energies.

As a member of the CMU Board of Trustees I’ve had the privilege to sit through a dozen or so graduations and listen to a dozen or so graduation speeches. And in doing so, I’ve come to realize that while all of us who are asked to give a commencement address are honored to do so, we all have the same basic reaction: How do I make my talk a worthy reflection of all of your hard work?

In thinking about what I might say today, I used a variant of a technique I’m sure all of you have used during your time at Carnegie Mellon: learning by example. In this case I decided to find some great examples of Carnegie Mellon Commencement addresses and hopefully gain some inspiration from them.

Immediately last year’s CMU commencement address by Aron Ralston came to mind as one that had received great praise. If you don’t know Aron, he is a CMU engineering graduate who ultimately decided to follow his bliss, and spend his time biking and hiking in the Utah wilderness only to have an accident that resulted in him having to cut off his own hand in order to survive. Pretty compelling stuff. They even made a movie about it!

Another great speech, which I’m sure you are all aware of, is Randy Pausch’s Last Lecture. Though technically not a commencement address, it could have been, and of course it is wildly popular.

And finally, though not a CMU commencement address, I had recently read Steve Jobs’ commencement talk to Stanford graduates several years ago, and since I’m a Stanford grad and an Apple employee, I figured it would be okay to learn from Steve.

So cut and paste short-cuts in hand, I opened all three speeches in my editor, and prepared to do my mashup of Aron, Randy, and Steve. But that’s when I ran into trouble. No, it wasn’t that I was worried about infringing copyrights, as after all I’ve already given credit and notice. And I wasn’t too concerned that you would feel cheated that you hadn’t gotten an original “Commencement Address”. No, the reason I ran into trouble is that as I read through these talks I realized that as good as they are, I basically disagreed with some of the things Aron, Randy, and Steve had to say. So the more I
thought about it, I decided that rather than giving an address that recapitulated the ideas from 3 outstanding speeches, I would give a talk about why I think what they said is, well, in some ways wrong.

Let’s start with Aron’s speech. First you need to know that he is a really wonderful speaker, very funny and engaging, and it was especially touching that he was a CMU grad giving the address. One of the funniest, and most poignant lines from his talk was “You’ve never had a really bad day until you’ve had to drink your own pee.” Yup, he said that right in front a big crowd of students, parents, and grandparents, there in Gesling stadium. What he was referring to was the fact that in order to survive out there in the Utah desert, with no water available, and his hand firmly stuck in a crack in the rocks, he had to drink his own urine. And on the surface of it, that kind of does sound like a really bad day. But on reflection, I’ve come to realize that that really isn’t the definition of a really bad day. Here’s why: Aron’s really bad day had impact only on Aron. And to be blunt, the situation he was in was basically his own fault, a combination of hubris and accident for which he has suffered the consequences. Don’t get me wrong, I wouldn’t wish what happened to Aron on anyone. But at the end of the day, the only person impacted, essentially, was Aron.

Let me give you my definition of a really bad day. And since almost all of you are engineers, I think you will appreciate it. A really bad day is when a product you’re responsible for harms someone else: Loses their family photos, injures them, or god forbid kills them. That is a really bad day. The difference I hope is clear. Aron’s really bad day was all about himself. My really bad day is all about other people. As engineers many of us will be involved in designing and building products that other people use. And when a product you’ve been responsible for, helped design, have code embedded in, or whatever, fails in some way, you’ve created a bad day for someone else, and you ought to take it personally. It ought to be a really bad day for you. So one of your goals as an engineer should be to avoid having really bad days, and this leads me to Randy’s Last Lecture.

Randy Pausch and I were in grad school together at CMU in the early 1980’s. He went on to be an energetic and beloved professor at CMU, founding things like the Entertainment Technology Center. Randy died a few years ago after bravely battling cancer for a long time. The CMU Last Lecture series was meant to give professors and others an opportunity to convey their personal thoughts in the scenario of what you would want to say if this were your Last Lecture. Unfortunately in Randy’s case it effectively was. If you haven’t read it or watched it I encourage you to do so.

So what could Randy have possibly said that I find flawed? It was this: “It doesn’t matter how well you polish the underside of the banister.” Randy said this in the context of Time management. He didn’t want you to waste time on irrelevant details. In and of itself, seems like good advice, but there are many problems with it. First and foremost, when it comes to engineering, and in reality most other things in life, it turns out there aren’t many cases where the details are irrelevant. As to the banister, I have several in my house, and I’m always running my hands underneath. And I’m really glad that they are well painted and polished. But even more to the point, when it comes to building really great products, it turns out that it is exactly the details that make
products great, and that in many cases it is the seemingly irrelevant details that count the most.

Think about it for a moment. Exactly what part of an airplane would you be comfortable with someone not paying attention to? Some of you are thinking perhaps the window trim or the seats. But have you ever been on a plane where the window trim is falling off? I have. And you immediately start wondering “If they aren’t taking care of this, what else aren’t they taking care of?” And that’s the problem with not polishing the underside of the banister: Where do you draw the line? How do you decide what’s unimportant? And if you are on a project with multiple people, who decides? When it comes to most things in life, and especially products that will be used by other people, the more you sweat the details, even seemingly irrelevant details, the better the product will be. It will work better, delight more, be of higher quality, last longer, and most important less likely to create one of those really bad days. One of those days that’s much worse than having to drink your own pee. [Drink]

Related to Randy’s remark is a common cliché: Don’t let the perfect be the enemy of the good. The idea being that it’s not possible to build perfect products, and in trying to do so one might just miss getting a “good enough” product out the door. Again, that seems wise enough, but in the end wrong. The better cliché to follow is “don’t let the good be the enemy of the perfect.” When you do things in life, when you design and engineer products, strive for perfection. This doesn’t say you won’t ultimately have to make compromises in order to meet a schedule and ship the product. But it creates a much different mindset: It’s how you land a rover on a planet millions of miles away and send back pictures of Martians.

Now it’s a bit unfair of me to pick on something Randy said without him being able to respond. But alas that’s how life is. And it’s this thought, that’s how life is and what to do about it that is subject of my last commentary.

For me, one of the best commencement addresses of all time was the one that Steve Jobs gave at Stanford. Though famously not a college graduate, Steve gave a talk that was very personal, very inspiring, and from the heart. I encourage you to find it on the web and read it. One thing Steve talked about in his speech is a line he had heard as a teenager, that I’m sure all of you have heard as well “Live every day as though it’s your last.” “Steve talked about this in the context of making sure that if you find yourself doing something you don’t enjoy for too many days in a row, that you should find something new to do. That life is short, and you don’t want to waste it. This advice is all the more poignant given Steve’s untimely death last year.

But nonetheless, every time I hear the line “live every day like it’s your last,” I can’t help but think that it’s just not generally correct. So suppose you know it’s your last day to live. Well I suspect on that day it doesn’t really matter what you do, but hopefully you will get to spend it with friends and family whom you love. And in that sense, there is, without a shred of doubt, great wisdom in “live every day like it’s your last,” in that you should try to spend every day with friends and family whom you love. And like you might do were it your last day to live, be quick to forgive and quick to ask for forgiveness. Indeed, my wife Sarah and I will celebrate our 33rd year of marriage in
September, and though I can’t say I’m anywhere near a perfect practitioner, being quick to forgive, and quick to ask for forgiveness is among the best advice I can give to anyone on how to have a happy marriage.

But to be honest, I don’t think that’s the sentiment in which the phrase is normally used. Since most of us will have no idea when we are going to die, suggesting that one live every day like it’s your last isn’t really very helpful.

I have a better idea. Live every day like it’s your first. On the day you were born you were instantly forced into a new situation where you had to learn to cope. You were dependent on loved ones to help take care of you, and you were extremely inquisitive. You wanted to learn. More than wanted, you were driven to learn. You were curious. Amazingly curious. Though you didn’t know how to do many things, you had a brain and you had a body, as you do now, that are designed for learning and for doing.

Live every day like that. Be curious, be bold, take risks, ask why. Have the courage to depend on loved ones and friends. Behold all the possibilities, try some, and try some more if those don’t work out. On your last day of life there is no longer time to do those things. On your first day of life there are essentially an infinite number of days ahead to accomplish amazing things. Now that you are graduating, today is such a first day. Work hard and take advantage of all the days ahead, lest you get to that last day and have no time left.

I could end my talk here, however I have a few more comments I’d like to make: First, be willing to challenge what you hear. In preparing my remarks I found 3 speeches, really great speeches, speeches among the best. And in reading them I realized that as good as they are, I didn’t agree with them entirely. Now in the end you get to decide whether Aron, Randy, and Steve are right, or Ed is right. But what I want to leave you with is that whatever you do in life, do everything you can to be curious, be informed, and have the courage of your convictions, even when others might disagree with you. And work hard. I hope that besides learning important methods and techniques while here at Carnegie Mellon, you have also learned to work hard. For all that I have said today are just so many words without the bedrock of hard work. In founding Carnegie Tech, Andrew Carnegie very much understood this. That the combination of Education, focus and hard work could accomplish great things.

Finally, I have a request: Please don’t forget Carnegie Mellon once you leave here today. I have a deep belief that America’s Research Universities are among its greatest assets. And Carnegie Mellon is one of the best. CMU’s impact on the world is through the work of its faculty, staff, and students. Through you. For that to continue requires all of us who are Alumni, which in a few moments will include you, to find ways to help secure Carnegie Mellon’s future, so that next year, and in the years that follow, future students will have the opportunity to learn here and work hard. Therefore, I ask that you not forget Carnegie Mellon. Please stay involved, attend Alumni events, and, if you are able, contribute financially.

Thank you, congratulations, and all the best of luck and love.