

Randy Pausch – Time Management
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Transcript by Friederike Sophie Brand.
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Gabe Robins:

Welcome to the University of Virginia. I notice a lot of folks here from out of town and we appreciate your coming.

We are very fortunate to have today with us my friend and mentor, Randy Pausch. I first met Randy in 1992, when I became a professor here at UVA, and I was lucky enough to recognize Randy's greatness early on, and his honesty, courage and grace were very striking even back then. As a mentor, Randy has been sort of a cross between Yoda, Captain Kirk and Jim Carrey, and his unique combination of wisdom, leadership and humor has taught me many important life lessons over the years. Randy always gave me, and everybody else, honest advice that was untainted by political correctness, and in fact sometimes untainted by politeness even, but I appreciated that greatly, because as a mentor, that's exactly what you want. I owe a lot of my success to him, and he's been a perfect mentor.

There's an old saying, that "Talent does what it can, but genius does what it must." And Randy's genius has been a valuable asset to me and to many, many others over the years. His sharp wit has made us laugh many, many times, and still does. Randy repeatedly reminded us that those who think that you can't have a lot of fun while getting an education probably don't know much about either. Indeed, Randy has raised the level of fun in education to an entirely new dimension. We'll forever be grateful to him for doing so and for the wonderful value that he added to our lives. Randy's impact will continue to touch and affect many, many people across the world for many, many years to come.

And now we would like to introduce our dean of engineering, Jim Aylor, who has a few more things to say about Randy. Thank you.

Jim Aylor:

Wow. It's really great to see everyone here, and the School of Engineering and Applied Science is really excited that you've come to help us honor our colleague and friend, Randy Pausch. My understanding is that every seat is filled so we really do appreciate everyone being with us.

What I want to do is to give you a little bit of background on Randy. I know a lot of you know about him either directly or indirectly but then I want to make a couple of announcements that are special to us here at UVA and the School of Engineering, and in special in terms of initial announcements of things that are going to happen.

Randy received his B.S. in Computer Science from Brown University in 1982 and his Ph.D. in Computer Science from Carnegie Mellon University in 1988. Directly from CMU, he joined the faculty of the Computer Sciences of the University of Virginia, where he successfully was granted tenure. During his

time at Virginia, he established a major research activity in the general area of human-computer-interaction. Probably more importantly, he was a dedicated educator and served as a mentor for many students and many of his colleagues.

One of the most important and most successful initiatives while at Virginia was the ALICE software project, a computer animation design tool, which has proven very effective at getting and keeping middle school girls interested in computers. In fact, thanks to an agreement with Electronic Arts, the next version of ALICE will use the 3D characters and animation from The Sims, the most popular PC video game in history. This is an outstanding accomplishment for Randy, but even more important, it will be a major contribution to efforts to increase literacy in Computer Science.

On behalf of Bob Pianta, dean of the Curry School of Education and myself, I am pleased to announce that the University of Virginia Young Women Leaders program, a well-established mentoring program at the UVA's Women's Center and the Curry School of Education, that pairs at-risk middle school girls with college women with the goal of boosting the self-esteem and leadership skills of both groups, is now planning to incorporate ALICE into its mentoring program through a collaborate effort with the Department of Computer Science. This initiative will allow both middle-school girls and their college mentors to receive exposure to computing concepts to the design of 3-dimensional animated virtual worlds. This will impact several important fronts, all near and dear to Randy's heart, including encouraging young women to enter technology fields, helping at-risk groups and building cross-disciplinary bridges. The university is honored to be able to incorporate Randy's great legacy into this worthwhile endeavor.

At CMU, Randy co-founded the Entertainment Technology Center, an activity based on the principle of having technologist and non-technologist works together on projects that produce artifacts that are intended to entertain, inform, and inspire. He has also worked for a period with Walt Disney's Imagineering. I'm also pleased to let you know that Disney-own publisher Hyperion has just announced plans to publish a book about Randy called "The Last Lecture" which will be co-authored by Randy and Wall Street Journal reporter Jeff Zaslow.

Throughout everything Randy does, there is an infectious and inspiring enthusiasm. That spirit is intact today, even though he is facing a very difficult time. A husband and the father of three, Randy is a smart, funny, courageous man. I am thankful that he chose to spend this day with us and I'm honored to welcome him back to the University of Virginia grounds. And now, please join me in welcoming Prof. Randy Pausch.

Randy Pausch:

Thank you, that's very kind, but never tip the waiter before the meal arrives.

Thank you, Gabe and Jim, I couldn't imagine being more grateful for an introduction. These are two people that I've known a long time, I taught here at UVA, I love this school, it's an incredible place filled with tradition and history and respect, the kind of qualities that I really admire, that I want to see preserved in American society. And this is one of the places that I just love for preserving that. I think the honor code alone at the University of Virginia is something that every university administrator should study and look at and say: "Why can't we do that too?" I think there are a lot of things about this place to love.

I'm going to talk today on the topic of time management. The circumstances are, as you probably know, a little bit unusual. I think at this point I'm an authority to talk about what to do with limited time. My battle with pancreatic cancer started about a year and a half ago. Fought, did all the right things but as my oncologist said, if you could pick off a list, that's not the one you'd want to pick. On

August 15th, these were my CAT scans. You can see that if you scroll through all of them, there are about a dozen tumors in my liver, and the doctors at that time said, - I love the way they say it: "You have three to six months of good health left." Optimism and positive phrasing. It's like when you are at Disney: "What time does the park close?" - "The park is open until eight." So I have "three to six months of good health." Well, let's do the math: Today is three months and twelve days. So what I had on my day-timer for today was not necessarily being at the UVA. I'm pleased to say that we do treat with palliative chemo, they're going to buy me a little bit of time on the order of a few months if it continues to work. I'm still in perfectly good health. With Gabe in the audience, I'm not going to do push-ups, because I'm not going to be shown up. Gabe is really in good shape! But I continue to be in relatively good health, I had chemotherapy yesterday, you should all try it, it's great.

But it does beg the question, I have finite time - some people said: "So why are you going and giving a talk?" There are a lot of reasons I'm coming here and giving a talk. One of them is that I said I would. That's a pretty simple reason. And I'm physically able to. Another one is that going to the University of Virginia is not like going to some foreign place. People say: "Aren't you spending all your time with family?" And by coming back here for a day, I am spending my time with family both metaphorically and literally because it turns out that - many of you have probably seen this picture from the talk that I gave, these are my niece and nephew Chris and Laura. My niece Laura is actually a senior... a fourth-year! here at Mr. Jefferson's university. Laura, could you stand up, so they see you've gotten taller? There you are. I couldn't be happier to have her here at this university. The other person in this picture is Chris, if you could stand up so they see you've gotten much taller? They have grown in so many ways, not just in height. It's been wonderful to see that and be an uncle to them. Is there anybody here on the faculty or Ph.D. students of the history department? Any history people here at all? Anybody here who is from history, find Chris right after the talk. Because he is currently in his sophomore year at William and Mary and he's interested in going into a Ph.D. program in history down the road and there aren't many better Ph.D. programs in history than this one. So I'm pimping for my nephew here! Let's be clear!

What are we going to talk about today? We're going to talk about - this is not like the lecture that you may have seen me give before. This is a very pragmatic lecture. One of the reasons that I had agreed to come back and give this is because Gabe and many other faculty members had told me that they had gotten so much tangible value about how to get more done, and I truly do believe that time is the only commodity that matters. So this is a very pragmatic talk. It is inspirational in the sense that it will inspire you by giving you some concrete things you might do to be able to get more things done in your finite time. I'm going to talk specifically about how to set goals, how to avoid wasting time, how to deal with a boss, - originally this talk was how to deal with your advisor, but I tried to broaden it, so it's not quite so academically focused. How to delegate to people, some specific skills and tools that I might recommend to help you get more out of the day. And to deal with the real problems in our lives, which are stress and procrastination. If you can lick that last one, you are probably in good shape.

You don't need to take any notes. I presume if I see any laptops open you're actually just doing IM or email or something. If you're listening to music, please at least wear headphones. All of this will be posted on my website and to make it really easy, if you want to know when to look up, any slides that have a red star are the points that I think you should really make sure that you got that one. Conversely, if it doesn't have a red star, well...

The first thing I want to say is that Americans are very, very bad at dealing with time as a commodity. We're really good at dealing with money as a commodity. We are, as a culture, very interested in dealing with money, how much somebody earns is a status thing and so on, but we don't really have time elevated to that. People waste their time and it always fascinates me. One of the things that I've noticed is that very few people equate time and money and they are very, very equatable. The first thing I started doing when I was a teacher was asking my graduate students: "Well, how much is your

time worth an hour?" Or if you work at a company: "How much is your time worth to the company?" What most people don't realize is that if you have a salary, let's say you make 50,000 \$ a year, you probably cost that company twice that in order to have you as an employee because there's heating and lighting and other staff members and so forth, so if you get paid 50,000 a year, you are costing that company - they have to raise 100,000 \$ in revenue! And if you divide that by your hourly rate, you begin to get some sense of what you are worth an hour. When you have to make trade-offs of "Should I do something like write software or should I just buy it or should I outsource this?", having in your head what you cost your organization an hour is really a staggering thing to change your behavior. Because you start realizing that, wow, if I free up three hours of my time and I'm thinking in that in terms of dollars, that's a big savings! So start thinking about your time and your money almost as if they are the same thing. Of course Ben Franklin knew that a long time ago.

So you've got to manage it and you've got to manage it just like you manage your money. Now I realize not all Americans manage their money, that's what makes the credit card industry possible. And apparently, mortgages too. But most people do at least understand - they don't look at you funny if you say: "Can I see your monetary budget for your household?" In fact, when I say "your household budget", you presume that I'm talking about money when in fact the household budget I really want to talk about is probably your household time budget.

At the Entertainment Technology Center at Carnegie Mellon, students would come in during the orientation, I would say: "This is a master's program, everybody is paying full tuition." It was roughly 30,000 \$ a semester, and the first thing I would say is: "If you're going to come into my office and say: "I don't think this is worth 60,000 \$ a year", I will throw you out of the office. I'm not even going to have this discussion." Of course they would say: "Oh god, this Pausch guy is a real jerk." And then they were right! But what I then followed on with was: "Because the money is not important. You can go and earn more money later. What you'll never do is get the two years of your life back. So if you want to come into my office and talk about the money, I'll throw you out, but if you want to come into my office and say: "I'm not sure this is a good place for me to spend two years", I will talk to you all day and all night because that means we're talking about the right thing, which is your time, because you can't ever get it back."

A lot of the advice I'm going to give you particularly for undergraduates - how many people in this room are undergraduates, by show of hands? Okay, good! Still young! A lot of this - put it to Hans and Franz of Saturday Night Life if you're old enough: "Hear me now, but believe me later!" A lot of this is going to make sense later, and one of the nicest things is that Gabe has volunteered to put this up on the web. I understand that people can actually watch videos on the web now. So a lot of this will make sense later, and when I talk about your boss if you're a student, think about that as your academic advisor, if you're a Ph.D. student, think about it as your Ph.D. advisor, and if you're watching this and you are a young child, think of this as your parent because that is the person who is in some sense your boss.

The talk goes very fast and I'm very big on specific techniques. I'm not really big on platitudes. Platitudes are nice, but they don't really help me get something done tomorrow. The other thing is that one good thief is worth ten good scholars. And in fact, you can replace the word "scholars" in that sentence with almost anything. Almost everything in this talk is to some degree inspired, which is a fancy way of saying lifted, from these two books [Cathy Collins: Time Management for Teachers, 1987; Career Track Seminar: Taking control of Your Work Day, 1990], and I found those books very useful but it's much better to get them into a distilled form. What I've basically done is I've collected the nuggets for your bath.

I like to talk about "The Time Famine". I think it's a nice phrase. Does anybody here feel like they have too much time? Okay, nobody, excellent. I like the word "famine", because it's a little bit like thinking about Africa. You can airlift all the food you want in to solve the crisis this week but the problem is

systemic, and you really need systemic solutions. A time management solution that says, "I'm going to fix things for you in the next 24 hours" is laughable, just like saying: "I'm going to cure hunger in Africa in the next year." You need to think long-term and you need to change fundamental underlying processes because the problem is systemic, we just have too many things to do and not enough time to do them.

The other thing to remember is that it's not just about time management. That sounds like a kind of lukewarm, a talk about time management, that's kind of milk-toast. But how about if the talk is: How about not having ulcers? That catches my attention! So a lot of this is life advice. This is, how to change the way you're doing a lot of the things and how you allocate your time so that you will lead a happier, more wonderful life, and I loved in the introduction that you talked about fun! Because if I've brought fun to academia, well, it's about damn time! If you're not going to have fun, why do it? That's what I want to know. Life really is too short, if you're not going to enjoy it... People who say: "Well, I've got a job and I don't really like it", I'm like: "Well, you could change?!" "But that'll be a lot of work!" - "You're right, you should keep going to work every day doing a job you don't like. Thank you, good night."

So the overall goal is fun. My middle child Logan is my favorite example. I don't think he knows how to not have fun. No, grant, the lot of the things he does are not fun for his mother and me. But he's loving every second of it. He doesn't know to do anything that isn't ballistic and full of life. He's going to keep that quality, he's my little Tigger, and I always remember Logan when I think about the goal is to make sure that you lead your life - I want to maximize use of time, but that's the means, not the end. The end is maximizing fun.

People who do intense studies and log people on videotape and so on say that the typical office worker wastes almost two hours a day. Their desk is messy, they can't find things, they miss appointments, are unprepared for meetings, they can't concentrate. Does anybody in here by show of hands ever have any sense that one of these things is part of their life? Okay, I think we've got everybody! So these are a universal thing and you shouldn't feel guilty if some of these things are plaguing you because they plague all of us, they plague me for sure.

The other thing I want to tell you is that it sounds a little clichéd and tried, but being successful does not make you manage your time well. Managing your time well makes you successful. If I've been successful in my career, I assure you it's not because I'm smarter than all the other faculty. I mean, I'm looking around, and I'm looking at some of my former colleagues, and I see Jim Cohoon up there: I'm not smarter than Jim Cohoon. I constantly look around at the faculty at places like the University of Virginia or Carnegie Mellon, and I go: "Damn, these are smart people!" And I snuck in! But what I like to think I'm good at is the meta-skills, because if you're going to have to run with people who are faster than you you have to find the right ways to optimize what skills you do have.

Let's talk first about goals, priorities and planning. Anytime anything crosses your life, you've got to ask: "This thing I'm thinking about doing, why am I doing it? Almost no one that I know starts with the core principle of, there's this thing on my To Do list, why is it there? Because if you're start asking like, why am I... my kids are great at this. That is, all I've ever heard at home is: Why? Why? Sooner or later they're going to stop saying "Why", they're just going to say: "Okay, I'll do it." So ask, why am I doing this, what is the goal, why will I succeed at doing it, and here's my favorite: What will happen if I don't do it? The best thing in the world is when I have something on my To Do list and I just go: Hmm, no. No one has ever come and taken me to jail.

I talked my way out of a speeding ticket last week, that was really cool. It's like the closest I've ever going to be to attractive and blonde. I told the guy why we had just moved and so on and so forth, and he looked at me and said: "Well, for a guy who's only got a couple of months to live, you sure look good!" I just pulled up my shirt to show the scar and I said, "Yeah, I look good on the outside but the

tumors are on the inside." He just ran back to his cruiser and... ! So that's one positive law enforcement experience for me.

The police have never come because I crossed something off my To Do list. That's a very powerful thing because you've got all that time back. The other thing to keep in mind when you're doing goal setting is, a lot of people focus on doing things right. I think it's very dangerous to focus on doing things right. I think it's much more important to do the right things. If you do the right things adequately, that's much more important than doing the wrong things beautifully. Doesn't matter how well you polish the underside of the banister. Keep that in mind.

Lou Holtz had a great list: Lou Holtz's 100 things to do in his life. He would once a week look at it and say: If I'm not working on those 100 things, why was I working on the others? I think that's an incredible way to frame things. There's something called the 80/20 rule. Sometimes you'll hear about the 90/10 rule, but the key thing to understand is that a very small number of things in your life or on your ToDo-list are going to contribute the vast majority of the value. If you're a salesperson, 80 percent of the revenue is going to come from 20 percent of your clients. And you better figure out who those 20 percent are and spend all your time sucking up to them. Because that's where the revenue comes. You've got to be willing to say, this stuff is what's going to be the value and this other stuff isn't and you've got to have the courage of your convictions to say, therefore I'm gonna shove the other stuff off the boat.

The other thing to remember is that experience comes with time and it's really, really valuable, and there are no shortcuts to getting it. Good judgment comes from experience, and experience comes from bad judgment. So if things aren't going well, that probably means you're learning a lot and will go better later. This is, by the way, why we pay so much in American society for people who are typically older but have done lots of things in their past because we're paying for their experience because we know that experience is one of the things you can't fake.

And do not lose sight of the power of inspiration. Randy's in an hour long talk and we've already hit our first Disney reference. Walt Disney has many great quotes. One that I love is: "If you can dream it, you can do it." A lot of my cynical friends say, ya-di-ya-di-ya... to which I say: Shut up. Inspiration is important and I tell you this much, I don't know if Walt was right but I tell you this much: If you refuse to allow yourself to dream it, I know you won't do it. So the power of dreams are that they give us a way to take the first step towards an accomplishment.

Walt was also not just a dreamer. Walt worked really hard. Disneyland - this amazes me because I know a little bit about how hard it is to put theme park attractions together, and they did the whole original Disneyland park in 366 days. That's from the first shovel full of dirt to the first paid admission. Think about how long it takes to do something, say, at a state university. By comparison! It's fascinating. When someone once asked Walt Disney, "How did you get it done in 366 days?", he just deadpanned: "We used every one of them." So again, there are no shortcuts, there's a lot of hard work in anything you want to accomplish.

Planning is very important, one of the time management clichés is: Failing to plan is planning to fail. Planning has to be done at multiple levels. I have a plan every morning when I wake up and I say, what do I need to get done today, what do I need to get done this week, what do I need to get done each semester, that's sort of the time quanta because I'm an academic. That doesn't mean you're locked into it! People say: "Yeah, but things are so fluid! I'm going to have to change the plan!" And I'm like, "Yes! You are going to have to change the plan. But you can't change it, unless you have it!" And the excuse of, I'm not going to make a plan because things might change is just this paralysis of: I don't have any marching orders. So have a plan, acknowledge that you're going to change it but have it so you have the basis to start with.

To Do lists. How many people here, if I said, can you produce it, could show me their To Do list? - Okay, not bad. The key thing with To Do lists is you have to break things down into small steps. I literally once on my To Do list, when I was a junior faculty member at the University of Virginia, I put: "Get tenure." That was naive! I looked at that for a while and I said: Oh, that's really hard. I don't think I can do that. My children, Dylan and Logan and Chloe, particularly Dylan, is at the age where he can clean his own room, thank you very much. But he doesn't like to, and Chris is smiling because I used to do this story on him but now I've got my own kids to pick on. Dylan will come to me and say: "I can't pick up my room, it's too much stuff!" [sighs exaggeratedly] He's not even a teenager and he's already got that move! And I say: "Well, can you make your bed?" - "Yeah, I can do that." "Okay, can you put all the clothes in the hamper?" - "Yeah, I can do that." And you do three or four things, and then it's like: "Well, Dylan, you just cleaned your room!" - "I cleaned my room!" He feels good! He is empowered! And everybody is happy. Of course, I've had to spend twice as much time managing him as I could have done it by myself but that's okay, that's what being a boss is about, is you're growing your people no matter how small or large they might be at the time.

The last thing about To Do lists or getting yourself going is, if you've got a bunch of things to do, do the ugliest thing first. There's an old saying: "If you have to eat a frog, don't spend a lot of time looking at it first, and if you have to eat three of them, don't start with the small one."

This is the most important slide in the entire talk.

	Due Soon	Not Due Soon
Important		
Not Important		

If you want to leave after this slide, I will not be offended, because it's all downhill from here. This is blatantly stolen, this is Steven Covey's great contribution to the world, he talks about it in the Seven Habits book. Imagine your To Do list - most people sort their To Do list either "the order that I've got it", throw it at the bottom, or they sort it in due-date list, which is more sophisticated and more helpful but still very, very wrong. Looking at the four- quadrant To Do list, if you've got a quadrant where things are "Important and Due Soon", "Important and Not Due Soon", "Not Important and Due Soon" and "Not Important and Not Due Soon", which of these four quadrants do you think, upper left, upper right, lower left, lower right, which one do you think you should work on immediately? Upper left! You are such a great crowd. Okay. And which one do you think you should probably do last? Lower right. And that's easy. That's obviously number one, that's obviously number four. But this is where everybody in my experience gets it wrong. What we do now is we say: "I do the number ones, and I move on to the stuff that's "Due Soon and Not Important". When you write it in this quadrant list, it's really stunning, because I've actually seen people do this and they say: "Okay, this is due soon and I know it's not important so I'm going to get right to work on it." The most crucial thing I can teach you about time management is, when you're done picking off the "Important and Due Soon", that's when you go here.

	Due Soon	Not Due Soon
Important	1	2
Not Important	3	4

You go to "Not Due Soon and Important", and there will be a moment in your life where you say, "Hey, this thing that's due soon and not important: I won't do it! Because it's not important! It says so right here on the chart!" And magically, you have time to work on the thing that is not due soon but is important so that next week it never got a chance to get here because you killed it in the crib. My wife won't like that metaphor! But you solve the problem of something that's due next week when you're not under time stress because it's not due tomorrow. And suddenly you become one of these Zen-like

people who would just always seem like they have all the time in the world because they figured this out.

Paperwork. The first thing that you need to know is that having cluttered paperwork leads to thrashing. You end up with all these things on your desk, and you can't find anything, and the moment you turn to your desk your desk is saying to you: "I own you! I have more things than you can do! And they are many colors and laid out!" So what I find is that it's really crucial to keep your desk clear, and we'll talk about where all the paper goes in a second, and you have one thing on your desk because then it's like: "Haha! Now it's thunderdome! Me and the ONE piece of paper." I usually win that one. One of the mantras of time management is, touch each piece of paper once. You get the piece of paper, you look at it, you work at it, and I think that's extremely true for email.

How many people here - I'm going to take it for granted that everybody here has an email inbox. - How many people here have more than 20 items in their email inbox? - Oooh! I'm in the right room. Your inbox is not your To Do list. My wife has learned that I need to get my inbox clear. Sometimes this means just filing things away and putting something on my To Do list. Remember, the To Do list is sorted by importance but does anybody here have an email program where you can press this "Sort By Importance" button? It's amazing how people who build software that really is a huge part of our life and getting work done haven't a clue. And that's not a slam on any particular company. I think they all have missed the boat. I just find it fascinating. Because most people I know have this inbox - oh, I've got to ask. How many people have more than 100 things in their inbox? - Oh, I'm just not going to keep going, this is too depressing! You really want to get the thing in your inbox, look at it and say: "I'm either going to read it right now or I'm going to file it and put an entry in my To Do list." That's a crucial thing because otherwise everytime you go to read your email, you're just swamped and it's just as bad as the cluttered paper.

[He shows a picture of him and his wife on the wedding day.] You're all trying to figure out how that heading goes with that picture. A filing system is absolutely essential. I know this because I'm married to the most wonderful woman in the world but she's not a good filer. But she is now! Because after we got married and we moved in together and we resolved all the other typical couple things, I said: "We have to have a place where our papers go and it's in alphabetical order." And she said: "That sounds a little compulsive..." And I said: "Okay, honey..." I went out to IKEA and I got this big, nice, way too expensive wooden fake mahogany thing with big drawers so she liked it because it looked kind of nice, and having a place in our house where any piece of paper went and was in alphabetical order did wonderful things for our marriage! Because there was never any of this, "Honey, where did you put blahblahblah?" And there was never being mad at somebody because they had put something in some unexpected place, there was an expected place for it. When you're looking for important receipts or whatever it is, this is actually important and we have found that this has been a wonderful thing for us. I think file systems among groups of people, whether it's a marriage or an office are crucial, but even if it's just you, having a place where you know you put something really beats all hell out of running around for an hour, going: "Where is it? I know it's blue... and I was eating something when I read it." I mean... This is not a filing system! This is madness!

A lot of people ask me: "So, Randy, what does your desk look like?" As my wife would say, "This is what Randy's desk looks like when he's photographing it for a talk." [see picture below] The important thing is that I'm a computer geek so I have the desk off to the right, and then I have the computer station off to the left. I like to have my desk in front of a window whenever I can do that. This is an old photograph, these have now been replaced by LCD monitors but I left the old picture because the crucial thing is, it doesn't matter if they're fancy high-tech, the key thing is screen space. Lots of people have studied this. How many people here have more than one monitor on their computer desktop? Okay, not bad! So we're getting there, it's starting to happen. What I found is that I could go back from three to two but I just can't go back to one. There's just too many things and as somebody said, it's the difference between working on a desk like at home and trying to get work done on the little tray on an

airplane. In principle the little tray on the airplane is big enough for everything you need to do. It's just that in practice it's pretty small. So multiple monitors are very important and I'll show you in a second what I have on each one of those. I believe in this multiple monitor thing, we believed in it for a long time, that's my research group [shows a picture], our laboratory a long time ago in Carnegie Mellon, that's Caitlin Kelleher, who's now Doctor Kelleher, thank you, and she's at Washington University in St. Louis doing wonderful things. But we had everybody with three monitors and the cost on this is absolutely trivial. If you figure the cost of adding a second monitor to an employee's yearly cost to the company, it's not even one percent anymore. So why would you not do it? One of my walkaways for all of you is, you should all go to your boss and say: "I need a second monitor. I just can't work without it, Randy told me to tell you that." Because it will increase your productivity and the computers can all drive two monitors, so why not?



What do I have on my three monitors? On the left is my To Do list, all sorts of stuff in there. We're all idiosyncratic, my system is that I just put a number of 0 through 9 and I use an editor that can quickly sort on that number in the first column, but the key thing is that it's sorted by priority.

In the middle is my mail program. Note the empty inbox! I try very hard, I sleep better if I go to sleep with the inbox empty. When my inbox does creep up, I get really testy, so my wife will actually say to me: "I think you need to clear the inbox."

On the third one is a calendar. This is from a number of years ago but that's like my days would be, I used to be very heavily booked. I don't care which software you use, I don't care which calendars, I don't care if it's paper or computer, whatever works for you, but you should have some system whereby you know where you're supposed to be next Tuesday at two o'clock. Because even if you can live your life without that, you're using up a lot of your brain to remember all that. I don't know about

you, but I don't have enough brain to spare to use it on things I can have paper or computers do for me.

Back to the overview. On the desk itself, let's zoom in a little bit, look, I have the one and one thing I'm working on at the time, I have a speaker phone - this is crucial. How many people here have a speaker phone on their desks? Okay, not bad, but a lot more people don't. Speaker phones are essentially free, and I spend a lot of time on hold, and that's because I live in the American society where I get to listen to messages of the form: "Your call is extremely important to us. Watch, while my actions are cognitively dissonant from my words." It's like the worst abusive relationship in the world. Imagine a guy who picks you up at your first date and he smacks you in the mouth and says: "I love you, honey". That's pretty much how modern customer service works on the telephone. But the great thing about a speaker phone is, you hit the speaker phone and you dial and then you just do something else, and if it takes seven minutes, it takes seven minutes and hey, I just look at this like somebody's piping music into my office. That's very nice of them. I also found that having a timer on the phone is handy so that when somebody finally picks up in Bangalore, I can say things like: "I'm so glad to be talking with you, by the way, if you keep records on this sort of thing, I've been on hold for seven and a half minutes." But you don't say it angry, you just say it as "I presume you're logging this kind of stuff", and you're not angry, so they don't get angry back at you but they feel really guilty. And that's good, you want guilty! A speaker phone is really great. I find that a speaker phone is probably the best material possession you can buy to counter stress. If I were teaching a yoga and meditation class, I'd say, we'll do all the yoga and meditation, I think that's wonderful stuff, but everybody also has to have a speaker phone.

What else do we have besides the speaker phone? Let's talk about telephones for a second. I think that the telephone is a great time-waster, and I think it's very important to keep your business calls short so I recommend standing during the phone calls. Great for exercise, and if you tell yourself: "I'm not gonna sit down until the call is over", you'll be amazed how much brisker you are.

Start by announcing goals for the call. "Hello Sue, this is Randy, I'm calling you because I have three things that I want to get done." Because then you have given her an agenda and when you're done with the three things, you can say, "That's great, those were the three things I had, it was great to talk to you, I'd love to talk to you again, bye." Boom - you're off the phone.

Whatever you do, do not put your feet up. If you put the feet up, it's just all over. And the other handy trick is, have something on your desk that you actually are kind of interested in going to do next, so the phone call instead of being, "Wow, I could get off the phone and do some work... mmm... Or I could keep chit-chatting!" Usually the person you've called, they'd like to chit-chat too. So this is where the time-waster in the office goes, and if you're a grad student... [pauses] Well, if you're a grad student, you already know about time-wasting. Having something you really want to do next is a great way to get you off the phone quicker, so you've got to train yourself.

Getting off the phone is hard for a lot of people. I don't suffer from an abundance of politeness. My sister, who has known me for a long time, is laughing a knowing laugh. When I want to get off the phone, I want to get off the phone. I'm done. And what I say is: "I'd love to keep talking with you, but I have some students waiting." Now I'm a professor. Somewhere there must be students waiting! It's got to be!

Sometimes you get in a situation like with a telemarketer. That's awkward because a lot of people are so polite - I have no trouble with telemarketers, I'll just go there with them! If you're a telemarketer and you call my house, you have made a mistake. "Yeah, I can't talk right now, but why don't you give me your home phone number, and I'll call you back on dinner time." Seinfeld did a great bit on that. Or if you want to be a little bit more over the line: "I'd love to talk with you about that, but first, I have some things I'd like to sell you!" The funny part is, they never realize you're yanking with them, that's... But if you have to hang up on a telemarketer, what you do is, you hang up while you're talking. "Well, I

think that's really interesting and I would love to keep --" I mean, talk about self-effacing! Hanging up on yourself! And they'll figure it out and if they'll do and call back, just don't answer! Ten years from now, all everybody will remember from this talk is hanging up on yourself.

The other thing is, group your phone calls. Call people right before lunch or right before the end of the day. Because then they have something they would rather do than keep chitty- chatting with you. So I find that calling somebody at 11:50 is a great way to have a ten-minute phone call. Because frankly, you may think you're interesting, but you are not more interesting than lunch. I have become very obsessive about using phones and time productively so I think that everybody should have something like this [puts on a headset] - I don't care about fashion, so... I don't have Bluetooth and I have this big ugly thing: "Hi, I'm Julie from Time Life!" But the thing this allows me to do because I'm living the limit case right now of, I've got to get stuff done and I really don't have a lot of time. So I get an hour a day where I exercise on my bike and this is me on my bike and if you look carefully you can see I'm wearing that headset, I've got my cell phone. And for an hour a day I ride my bike around the neighborhood. This is time that I'm spending on the phone getting work done and it's not a moment being taken away from my wife and my children. It turns out that I can talk and ride a bike at the same time. Amazing, the skill sets I have! It works better in warm weather climates but I have just found that having a headset frees me up even if it's just around the house, you wear a headset, you can fold laundry, it's an absolute "twofer". And I just think telephones should have headsets and someday we will all have the Borg implant and it'll be a non-issue.

What else is on my desk? I have one of those address-stampers because I got tired of writing my address, I have a box of Kleenex. In your office at work, if you are a faculty member, you have to have a box of Kleenex. Because if... Jim is laughing! At least if you teach the way I do... There will be crying students in your office! And what I found to defuse a lot of that is that I would have CS 352 or whatever written on the side of the Kleenex box. I would turn it as I handed it to them and they would take the Kleenex and they would be like, "Oh..." I said, "Yeah... it's for the class. You're not alone!" So having Kleenex is very important.

And Thank-You cards. I'll now ask the embarrassment question, and I don't mean to pick on you but it just points things out so well. By show of hands, who here has written a Thank-You note that is not a quid pro quo, I don't mean, "Oh, you gave me a gift, I wrote you a Thank-You note." And I mean a physical Thank-You note with a pen and ink and paper. Not email. Because email is better than nothing but [in high-pitched voice] it's that much better than nothing. How many people here have written a Thank-You note in the last week? Not bad, I do better here than at most places because it is UVA. Chivalry is not dead. How many people in the last month? How many people in the last year? The fact that there are a non-trivial number of hands not up for the year means that anybody who is in this audience, his parents are going, "Oooh... that was my kid." Thank-You notes are really important. They're a very tangible way to tell someone how much you appreciated things. I have Thank-You notes with me and that's because I'm actually writing some later today to some people who've done some nice things for me recently and you say, "Oh god, you have time for that?" and I'm like, "Yes, I have time for that, because it's important." Even in my current status, I will make time to write Thank-You notes to people. And even if you're a crafty, weasely bastard, you should still write Thank-You notes. Because it makes you so rare that when someone gets a Thank-You note, they will remember you. It seems that the only place that Thank-You notes are really taken seriously anymore is when people are interviewing for jobs. They now sometimes write Thank-You notes to the recruiters, which I guess shows a sign of desperation on the part of the recent graduate. But Thank-You notes are a wonderful thing, and I would encourage all of you to go out and buy a stack at your local dime store and have them on your desk so when the moment seizes you it's right there, and I leave my Thank-You notes out on the desk readily accessible.

As I've said before, gratitude is something that can go beyond cards. When I got tenure here, I took my whole research team down to Disneyworld on my nickel for a week. I believe in large gestures but it's

also been a lot of fun, I wanted to go too! I didn't send them without a proper shepherd running after all.

What else? I have a paper recycling bin, and this is very good because it helps save the planet but it also helps save my butt. When I have a piece of paper that I would be throwing away I put it in that bin, and that takes a couple of weeks to get filled up and then actually sent somewhere else. What I've really done here is, I've created the Windows/Macintosh trash can you can pull stuff back out of - it works in the real world too! And about once a month I go ferreting through there to find the receipt that I didn't think I'll ever need again but I suddenly need and it's extremely handy. I suspected that if I were giving this talk in ten years, I would say I just put it in the auto-scanner because I find it almost inconceivable that ten years from now - first off that a lot of the stuff would be paper in my hands anyway. But if it were paper then I would have any notion of doing anything other than putting it on the desk where it goes "zzzk", and it's already scanned because it touched the desk. This kind of stuff is not really hard to do. So I think that's what's going to happen.

And of course I have a phone book. Note pad... I can't live without Post-it notes. And the view out the window of the dog. Because the dog reminds me that I should be out playing with him. When I got married, I married into a family. I got a wife and two beautiful dogs. There's the other one. Could you help me with a debate I've had with my wife? [He shows a picture of him sitting on the couch, the dog on his lap.] By show of hands, how many people would semantically say: "The dog is on the couch"? Nobody! Thank you! Thank you! Because the dog was not allowed on the couch. And my wife came in one day... Anyway, thank you for agreeing with me, it makes me feel very good. So the dog is wonderful. The dogs have long gone on but they are still in our hearts and our memories, and I think of them every day and they're still a part of my life.



I've presented to you how I do my office, how I do things, it's not the only way. One of the best assistants I've ever met was the one named Tina Cobb, and she has a really different system, she's a spreader. If you think about it, there's a method to her madness: Everything here is exactly one arm's radius from where she sits. It's like a two-armed octopus. She got so much stuff done and I never presume to tell somebody else how to change their system if their system is working. Tina was much more efficient than I was, so I would just say, do what works for you, and everybody has to

find a system for themselves but you've really got to think about, "What makes me more efficient?"

Let's talk about office logistics. In most office settings people come into each other's offices and proceed to suck the life out of each other. If you have a big cushy chair in your office you might as well just slather butter all over yourself and send yourself naked into the woods for the wild animals to attack you. I say, make your office comfortable for you and optionally comfortable for others. So no comfy chairs. I used to have folding chairs in my office, folded up against the wall. So people who want to come in to me and talk with me, they can stand. And I would stand up because then the meeting is going to be really fast because we want to sit down! But then, if it looks like it's something we should have a little bit more time on I very graciously go over and open the folding chair, I'm such a gentleman! Some people do a different tack on this, they have the chair already there but they cut two

inches off the front leg so the whole time you're in their office you're scooting yourself up. I'm not advocating that but I thought it was damn clever the first time I saw it.

Scheduling yourself. Verbs are important: You do not FIND time for important things, you MAKE it. And you make time by electing not to do something else. There's a term from economics that everybody should hold near and dear to their heart, and that term is "opportunity cost". The bad thing about doing something that isn't very valuable is not that it's a bad thing to have done it. The problem is that once you spent an hour doing it, that's an hour you can never again spend in any other way. And that's important. How do you keep these unimportant things from sucking into your life? You learn to say "No". It's great, my youngest child Chloe is at an age where this is her new word, about two weeks ago she learned it. And it's like now everything is "no!" "No! No! No-no-no-no-no! No!" She should be giving this talk! I asked her, and she said: "No!" So she's home playing!

But we all hate to say "No" because people ask us for help and we want to be gracious, so let me teach you some gentle "No's". The first one is: "I'm really strapped, but I want to help you, I don't want you to be in the bind, so if nobody else steps forward, I will do this for you." Or: "I'll be your deep fall back but you have to keep searching for somebody else." Now you will find out about the person's character at that moment because if they say: "Great! I got my sucker!", and they stop looking, then they have abused the relationship. But if they say: "That's great, my stress level's down at zero, because now I know it's not going to be a disaster but I'm going to keep looking for somebody for whom it's less of an imposition." That's a person that will get lots of this sort of support.

When I was in graduate school, we did a moving party with four people, a lot of moving parties, carry heavy objects, we had four people, we should have had twelve. It was a long day. And after that, I enacted a new policy, I said, from now on, when somebody says: "Will you help me move?", I'd say: "How much stuff have you got?" And they would tell me and I would say: "Hmm, that sounds like about eight people. If you give me the names of seven other people that will be there, I'll be there." And I never again was at a moving party that went for 14 hours, in January in Pittsburgh.

Everybody has good and bad times. The big thing about time management is, find your creative time and defend it ruthlessly. Spend it alone, maybe at home if you have to. But defend it ruthlessly. The other thing is, find your dead time. Schedule meetings, phone calls, exercise, mundane stuff, but do stuff during that where you don't need to be at your best. We all have these times. And the times are not at all intuitive. I discovered that my most productive time was between ten p.m. and midnight which is really weird but for me it's just this burst of energy right before the end.

Let's talk about interruptions. There are people who measure this kind of stuff who have stopwatches and clipboards and what they say is that an interruption takes typically 6-9 minutes, but then there's a 4-5 minute recovery to get your head back into what you're doing. And if you're doing something like software creation, you may never get your head back there, the cost can be infinity. But if you do the math on that, five interruptions blow a whole hour. So you've got to find ways to reduce both the frequency and the length of these interruptions. One of my favorites is, turn phone calls into email. If you phone my office at Carnegie Mellon, it says: "Hi, this is Randy, please, send me email." Again, I presume everybody here has email, how many people here, when a new message comes in, does your computer go "ding" or make some other noise? Do we still have people doing that? - What the heck is wrong with you people? I love the fact that computer scientists just know nothing about anything so for years by default all these packages out of the box would go "ding" every time you get a new piece of email so we had taken a technology explicitly designed to reduce interruption and we turn them into interruptions. So you just got to turn that off. The point of email is you go to it when you're ready, not you're sitting around like Pawlow's dogs saying, "Oh, maybe I'll get another email!"

In the same way you try not to interrupt other people. I save stuff up so I have boxes for Tina or for my research group meeting and I put stuff in those boxes, and then once a week or however often when

When I meet with students, and this is I think just as appropriate for people in a workplace, I say: "What's your schedule?" You have a set of fixed meetings every week and what you have to do is, you have to look at those and identify the open blocks where you're going to waste time, and I can tell you you're going to waste time just by looking at it. [He shows a picture of a schedule.] So in this case you've got a class where... you've got a class at a certain point, and then you've got a gap until the next class so I've identified those here. And the gaps between classes that in this case last an hour or an hour and a half, this is just prime time to be wasted! So what I always told my students was, make up a fake class. The fake class is, go to one specific place in the library during that hour and when you're sitting there with just you in the library and your books, there's a pretty good chance you might actually study. Don't go and hang out with friends for an hour, just make that a fake class, make your own little study hall. It's a simple trick, but it's amazing how effective it is when somebody just explicitly does it.

When you've got your time journal data, what do you figure out from that? What am I doing that doesn't need to be done? What can someone else do? I love every day saying, what am I doing that I could delegate to somebody else? My sister is again laughing because she knows who that person was in our youth. What can I do more efficiently? And: How am I wasting other people's time? When you get good at time management you realize that it's a collaborative thing. I want to make everybody more efficient, it's not a selfish thing, it's not me against you, it's: How do we all collectively get more done? As you push on the time journal stuff you start to find that you don't make yourself more efficient at work so you become some sort of über-worker person, you become more efficient at work so you can leave at five and go home and be with the people that you love. People call this work-life balance. For the junior faculty, you may have heard of it in some sort of mythical sense but it is possible. I found that I worked less - I worked fewer hours after I got married and I got more done. And I was always fascinated in graduate school that the people who graduated fastest with their Ph.D.s were the people who had a spouse and kids. I said, how can that be? That's like a built-in boat anchor. You've got all these other demands on your time and I'm a single guy and I've got all the time in the world and that's the problem. I approach it like I've got all the time in the world so my time isn't precious. When you've got a spouse and little kids, your spouse is likely to say things to you like: "You better not be into that grad school more than 40 hours a week!", so when you come in, you're not sitting around playing computer games. Not that I ever did that! But when you come in, you're coming in and you're doing work and I found like most people that once I got married and had kids my whole view of time management really got - I mean, we were playing for real stakes now! Because now there are people whose lives are impacted if I'm spending too much time at work.

The other thing about time management that makes you really start to look through a crystalline lens and figure out what's important and what's not - I love this picture. [He shows a picture from a newspaper article.] I blanked out her name, but this says: Blahblahblah, this is a pregnant woman, and it says: "She is worrying about the effect on her unborn child from the sound of jackhammers." So they're doing construction and the people here are laughing because they can see that this woman who is so concerned about the jackhammers affecting her unborn child is holding a lit cigarette. You've got to get really good at saying, "I've got to focus my time and energy on the things that matter and not worry about the things that don't." Now I'm not a medical doctor and I don't play one on TV but I'm willing to bet that if I were the fetus I'd be saying, "Put the cigarette out, mom!! I can deal with the noise!!"

I want to tell you a little story about effective versus efficient. I actually was going to give this talk a couple of weeks ago, and I talked with Gabe about it, and we were going to come up here because as a surprise for my wife, her favorite musical group in the whole world is The Police and has been for a long, long time, a wonderful group, and so we said, hey, we're going to drive up to Charlottesville and see them and we actually got some tickets and I said, "Well honey, as long as we're up there, I promised Gabe a long time ago that I wanted to give my time management talk", and she said, okay, because it's about an three hour drive so it's very efficient to couple these two trips together. And

about two days later she said: "You know, honey, I know how you are with talks. And before you give one for a couple of days, you start to obsess." As we talked through it, she said: "So we're going to go up in this couple's time away, we've gotten our sitter to watch the kids, and this couple's time away is going to be eaten up by you obsessing over preparing this talk." I thought about it, I said, "Okay, so obviously the right solution is, we should keep our couple's time our couple's time and we'll go up and see the concert we'll have our time together and I'll just schedule a different day and I'll go up on a one day trip and I'll do the talk!" And she said: "Wow, that was easy!" And that's right! Once you've framed



it in the right way, you say: "Yeah, the cost here is that I have to do the drive a second time." But it turns out I'm doing the drive with my nephew Christopher and we talk and my mom turned up, so the time wasn't even dead time so there is no loss at all. But the key thing was we said, it's not about efficiency, it's about effectiveness and best overall outcome. And of course one of the nice things was that we did get to the Police concert, and I really want to thank Gabe and Jim Aylor because we really went to the concert! And my wife was very happy. I'm the guy in the back, saying: "She's not paying any attention to me today!" But it was wonderful, and he is a charming gentleman in person, he is absolutely charming.

Let's talk about procrastination. There's an old saying: "Procrastination is the thief of time." Procrastination is hard and I have a little bit of an insight here for you: We don't usually procrastinate because we're lazy. Sometimes people rationalize their procrastination. They say: "Well, gee, if I wait long enough, maybe I won't have to do it." That's true. Sometimes you get lucky. Other people say: "Gee, if I start on it now, I'm just going to spend all the time on it. If I only give myself the last two days, I'll do it in two days because that's, the work expands to fill the time available, Parkinson's law." That's marginally true, but I think the key balance here is to understand that doing things at the last minute is really expensive. It's just much more expensive than doing it just before the last minute. So if you're doing something and you can still mail it through the U.S. mail, you've suddenly avoided the "oh my god, I've got to do the whole FedEx thing". Now I love FedEx. FedEx supports our whole universal habit of procrastination. But it also allows us to get stuff there when it really has to be there in a hurry, so that's a wonderful thing. But I think you have to realize that if you push things right up to the deadline, that's where all the stress comes from. Because now you can't reach people, if somebody is out of the office for just one day, your whole plan is upset, so you really have to work hard on this kind of stuff.

The other thing is that deadlines are really important. We're all essentially deadline-driven so if you have something that isn't due for a long time, make up a fake deadline and act like it's real. And that's wonderful because those are the deadlines, when push comes to shove, you can slip on by a couple of days and it's all right so they are less stressful.

If you are procrastinating, you've got to find some way to get back into your comfort zone. Identify why you are not enthusiastic. Whenever I procrastinate on something, there's always a deep psychological reason. Usually it's, I'm afraid of being embarrassed because I don't think I'll do it well, or I'm afraid I'm going to fail at it.

Sometimes it involves asking somebody for something. One of the most magical things I've learned in my life is that sometimes you just have to ask and wonderful things happen. But you just have to step out and do that. - I won the parent lottery, I have just wonderful parents. My dad unfortunately passed

away not too long ago. [He shows a picture of him and his dad and his son riding a monorail.] But this is one of my favorite photographs because my dad was such a smart guy, I could almost never surprise him or impress him because he was that good! But we were down at the family vacation at Disneyworld, and the monorails were going by and we're going to board the monorail and we noticed that in the front, up here in the cabin, I don't know if you can see it in this picture, but there's an engineer who drives the monorail and there are actually guests up there with him which is kind of unusual. My dad and I were talking about that and I knew, because I've done some consulting for Disney. My dad's saying: "Oh, they probably have to be special VIPs or something." I said: "Oh, there is a trick. There is a special way you get into that cabin." And he said: "Really? What is it?" I said: "I'll show you. Dylan, come with me." And Dylan, who's - the back of his head you can see there, we walk up and I whisper to Dylan: "Ask the man if we can ride in the front!" And we go to the attendant and the attendant says: "Yes, you can." And he opens the gate and my dad is just like... [stares with eyes and mouth open]! I said: "I told you there was a trick, I didn't say it was hard!" Sometimes all you have to do is ask. And it's that easy.

Let's talk about delegation. Nobody operates individually anymore and you can accomplish a lot more when you have help. However, most people delegate very poorly. They treat delegation as dumping. "I don't have time to do this, you take care of it." And then they micro-manage and it's just a disaster. The first thing if you're going to delegate something to a subordinate is, you grant them authority with responsibility. You don't tell somebody: "Go take care of this, but if you need to spend any money, you've got to come back to me for approval." That's not empowering them, that's telling them you don't trust them. If I trust you enough to do the work, I trust you enough to give you the resources and the budget and the time and whatever else you need to get it done. You give them the whole package.

The other thing is, delegate but always do the ugliest job yourself. So when we need to vacuum the lab before a demo, I bring in the vacuum cleaner and I vacuum it. Do the dirtiest job yourself so it's very clear that you're willing to still get the dirt on your hands. Treat your people well. People are the greatest resource, and if you are fortunate enough to have people who report to you, treat them with dignity and respect and to sound a little bit corny, the kind of love that they should have from someone who cares about them and their professional development. And for crying out loud, staff and secretaries are your life line! If you don't think you should treat them well because it's the decent thing to do, at least treat them well because if you don't, they will get you. And they will get you good and you will deserve it and I will applaud them.

My giving a talk with Alf Weaver in the audience - where is Alf? There he is. - that's like talking about surviving the Johnstown flood if Noah was in the audience. One of the things that Alf Weaver taught me is, whether it's to a colleague or to a subordinate, if you want to get something done, you cannot be vague, and he said: "You give somebody a specific thing to do, a specific date and time - "Thursday" is not a specific time. "Thursday at 3:22" gets somebody's attention. And you give them a specific penalty or reward that will happen if that deadline for that thing is not met", and then he paused, and he said: "And remember, the penalty or the reward has to be for them, not you!" - "I will be screwed over if you don't meet that deadline!" [ironically:] "Oh, bummer." This is an important point to not get wrong.

Challenge people. I've been told that one of the tricks is, you delegate until they complain. I don't know about until they complain, but what I've found is that underdelegation is a problem. People are usually yearning for the opportunity to do more, they want to be challenged, they want to prove to you and themselves they can be more capable so let them.

Communication has to be clear. So many times people get upset with their bosses because there's a misunderstanding. And particularly in a time of email, it's so easy to communicate via email. Even if you've had a face-to-face conversation, send a two-line email just to be specific afterwards. And it's not we're trying to be all lawyer-like, it's just that as judge Wapner said: "Get it in writing!", if you

remember the People's Court, and judge Wapner said: "If there isn't a problem, it's not a problem, it didn't take you much time, but if there ever is a problem, well - wait a second, there won't be a problem, because there is a written record." And that's the magic. There won't be a confusion because you can't disagree about the written word.

Don't give people how you want them to do it, tell them what you want them to do. Give them objectives, not procedures. Let them surprise you with a way of solving a problem you would never have imagined. Sometimes those solutions are mind-blowing. Good or bad. But they're really much more fun than just having them do it the way you would have done it. And you know what, if you're at an university, your job should be to have people smarter than you, i.e. your students, and they will come up with stuff you would never have thought of.

The other thing is, tell people the relative importance of each task. Some people say: "My boss is an ogre, they gave me five things to do!" I'm like: "Oh, did they tell you which one was the most important?" - "Oh, yeah. I guess I could ask that." Knowing that, if you have five things, which are the ones to get done is really important because if you're flying blind, you've got a 20 percent chance of getting them done in the right order.

Delegation can never be done too young. Does everyone see the difference in the two pictures? [He shows two pictures of him and his daughter sitting in a chair, in one he is holding her milk bottle, in the other one she is holding the bottle herself.] This is my daughter Chloe, I love her to death, but I want her to grow up to be a wonderful person, and I know, the sooner she holds her own bottle, the better.

Sociology. Beware upward delegation. Sometimes you try to delegate and people try to hand it back to you. One of the best things I ever saw was someone who had a secretary trying to say, "I can't do this, you'll have to take it back", and he just put his hands behind his back and took a step backwards. Then he waited. And then eventually the secretary said: "Or maybe I could find this other solution." And he said: "That's wonderful! I'm so proud you thought of that." It was just an elegant gesture.

Reinforce behavior you want be repeated. One of my favorite stories in the One Minute Manager is, he talks about, did you ever wonder about how they got the killer whales to jump through the hoop? If they did it like modern American office managers, they would yell at the killer whale: "Jump through the hoop!" And every time the killer whale didn't jump through the hoop they'd hit it with a stick. This is how we train people in the office place. Read the book if you want to see how they actually do it because I'm curious. I know now. But it's really cool how they get them to do it.

Reinforce behavior you want repeated. When people do things that you like, praise them and thank them. That's worth more than any amount of monetary reward or a little plaque. People really like to just be told straight up: "Thank you, I really appreciate that you did a good job." The other thing is that if you don't want things delegated back up to you, don't learn how to do them! I take great pride, I don't know how to run photocopiers and fax machines, and I am not going to learn it. That's certainly not how I'm going to spend my remaining time.

Meetings. The average executive spends more than 40 percent of his or her time in a meeting. My advice is, when you have a meeting, lock the door, unplug the phone and take everybody's BlackBerrys. Because if it's worth our time, it's worth our time. If it's not worth our time, it's not worth our time but I don't have any interest in being in a room with six people who are all half there. Because that's very inefficient.

I don't think meetings should ever last more than an hour with very rare exception. And I think there should be an agenda. I got into a great habit a couple of years ago when I just started saying: "If there's no agenda, I won't attend." The great thing about that is, whoever called the meeting had to actually think before they showed up about why we were supposed to be there because otherwise it's like:

"Why are we here?" - "Because we're having a meeting. It's on all of our calendars." It's just a classic Dilbert moment.

Most important thing about meetings, and again, this comes from the One Minute Manager, one-minute-minutes. At the end of the meeting somebody has to have been assigned to inscribe, and they write down in one minute or less what decisions got made and who is responsible for what by when and to email it out to everybody because if you don't do that, you have your next weekly meeting next week, and you're all sitting around going like, "Who was going to do this?" It's very inefficient. And it's so fast, you just do these one-minute-minutes.

Let's talk about technology. I'm a computer scientist, so they say: "Which gadget will make me more time-efficient?" And I don't have any answer for that, it's all idiosyncratic, but I will tell you that my favorite comment about technology comes from a janitor at the University of Central Florida who said: "Computers are faster, they just take longer." That's Zen right there. That's another way of saying, only use technology that's worth it and worth it is, in the end, did it make me more efficient? That depends on how you work and we're all different. Remember that technology is getting insane, I walked into McDonald's and I ordered Happy Meal number two and they said: "Would you like a cell phone with that?" I went to the grocery store to buy 16 slices of American cheese and you get Grolier's Encyclopedia so with 16 slices of cheese you get all of men's knowledge for free! That's just spooky scary!

Remember that technology really has to be something that makes your life better, you guys may have seen this, I just find it very humorous. [He shows a video clip of a guy angrily smashing his PC keyboard against the monitor.] Only use technology that helps you!

I find that technology is good if it allows you to do things in a new way. Just doing the same things a little bit faster with technology is nice but when technology changes the workflow... So I was carving pumpkins a few years ago and [shows some pictures of him and his friends carving pumpkins] this is F.M., a good friend of mine, and if you can see it, down by her right knee is a pattern and you lay this pattern over the pumpkin, and you get this little special carving knife, and you can instead of these amateurish pumpkins like I made, you get this "howling at the moon", and her husband Jeff and I thought this was really cool but in sign of a reactionary burning man kind of a moment we grabbed our power drills and we carved our pumpkins that way! Use technology if it changes the way you do things because - believe me, the results of a power drill, you get these little - oh, it's just gorgeous.

Let's talk briefly about email because email is such a large part of all our lives. First off, don't ever delete any of it. Save all of it. I started doing this ten years ago. An interesting thing is that all the historians talk about, "Oh, it's such a shame we don't have people keeping diaries, we don't know what their days are like", and I'm like: "You fools!" We have just entered a society circa about ten years ago and I'm a living example of it. Every piece of my correspondence is not only saved, it's searchable. If I were a person of merit, a historian - which is a big stretch, a historian could actually look at my patterns of communication much better than the most compulsive diary writer. Now we could talk about whether or not I am being introspective, that's about content, but in terms of quantity it's great, and of course you can save your email and you can search it, and that's just wonderful because you can pull back stuff from five years ago. So never delete your email.

Here's a big email trick. If you want to get something done, do not send the email to five people. "Hey, could somebody take care of this?" Everyone of these five recipients is thinking one and only one thing: "I deleted it first!" - "The other four people will take care of this, I don't have to." So you send it to one and only one person. But if you really want it to be done, send it to somebody who can do it, tell them, watch again, Alf Weaver: specific things, specific time, and the penalty can be more subtle like you just CC their boss.

And the other thing - I had this conversation with every student in my entire career because they send email and then they just wait for the person to respond. And I say: "If the person has not responded within 48 hours, it's okay to nag them, and the reason it's okay to nag them: Because if they have not responded within 48 hours, the chance that they are ever going to respond is zero." Maybe not zero. Maybe that small. But in my experience, if people don't respond to you within 48 hours, you'll probably never hear from them so you just start nagging them.

Let's talk about the care and feeding of bosses. There's a phrase: Managing from beneath. Because we all know that all bosses are idiots. That's certainly the expression, the sense I've gotten from everybody who has a boss. When you have a boss, write things down, do that clear communication thing. Ask them: "When is our next meeting? What do you want me to have done by then?" So you've got sort of a contract. "Who can I turn to for help besides you because I don't want to bother you?" And remember, your boss wants a result, not an excuse.

General advice on vacations. Phone callers should get two options: The first one is - the first option is: "Contact John Smith, not me, I'm out of the office, this person can help you now if it's urgent." Or: "Call back when I'm back." Why? Because you don't want to come back to a long sequence of phone messages saying: "Randy, can you help me get care of this?", and you call them back, and you've been on vacation for a week, they already solved it.

The other thing is that it's not a vacation if you're reading email. Trust me on that. It's not a vacation if you're reading email. I can stay in my house all weekend and not read email, and it's a vacation. But if I go to Hawaii and I've got a blackberry, I'm not on vacation. And I know this, when I got married, my wife and I got married, and we left our reception in a hot air balloon, which did not have wireless on it, and dean Jim Morris at the time - we took a month long honeymoon which was great but not really long enough - and I said: "I'm not going to be reachable for a month." And Jim said: "That's not acceptable." I said: "What do you mean, it's not acceptable?" He said: "Well, I pay you. So, that's the "not acceptable" part." And I said: "Okay. So there has to be a way to reach me?" He said yes. And I said okay. So if you called my office there would be a phone answering machine message that said: "Hi, this is Randy, I'm on vacation. I really took 39 to get married. And so we're going for a month. And I hope you don't have a problem with that. But apparently, my boss does so he says, I have to be reachable. So here's how you can reach me. My wife's parents live in blahblahblah town. Here is their names, if you call directory assistance, you can get their number. And if you can convince my new in-laws that your emergency merits interrupting their only daughter's honeymoon, they have our number."

Here's some more of my most important advice, we close with some of the best stuff: Kill your television. People who study this say the average American watches 28 hours of television a week. That's almost three quarters of a full time job. So if you really want to have time back in your life, you don't have to kill your television, but just unplug it and put it in the closet and put a blanket over it. See how long it takes you to get the shakes.

Turn money into time, especially junior faculty members or other people who have young children. This is the time to throw money at the problem. Hire somebody else to mow your lawn, do whatever you need to do but exchange money for time at every opportunity when you have very young children because you just don't have enough time, it's just too hard.

The other thing is, eat and sleep and exercise above all else! You always have time to sleep. Because if you get sleep deprived, everything falls apart.

Other general advice: Never break a promise, but renegotiate them if need be. If you've said: "I have this done by Tuesday at noon", you can call the person on Friday and say, "I'm still go to my word but I'm really jacked up and I'm going to have to stay and work over the weekend to meet that Tuesday

deadline. Is there any way there's any slack on that?" And a lot of times I say: "Thursday's fine." Because I really needed it Thursday, but I told you Tuesday." Or they'll say: "It's no problem, I can have Jim do that instead of you. He has some free time." Now if they say: "No, there's no wiggle room here", you say: "That's okay, no problem, I'm still go to my word."

If you haven't got time to do it right, you don't have time to do it wrong, that's self-evident. Recognize that most things are pass/fail. People spend way too much time - there's a reason we have the expression "good enough". It's because the thing is "good enough"!

The last thing is, get feedback loops. Ask people in confidence because if someone will tell you what you're doing right or doing wrong and they'll tell you the truth, that's worth more than anything else in the whole world.

I recommend these two books. [Kenneth Blanchard/Spencer Johnson: The One Minute Manager; Stephen R. Covey: The Seven Habits of Highly Effective People] Time management is not a late-breaking field, both these books are old books but I recommend them highly.

It's traditional to close a talk with this like, "Here's the things I told you about." I'm not going to tell you the things I told you about, I want to tell you the things that you can operationally go out and do today. First thing: If you don't have a day-timer or a Personal Digital Assistant, a Palm Pilot or whatever, go get one!

Put your To Do list in priority order, you can use the four quadrants or do what I do, just put a number from zero to nine, but sort it by priority.

And do a time journal, and if that's really too much effort, just count the number of hours you watch of television in the next week. That's my gift to you.

The last thing is, once you've got your day-timer, make a note for 30 days from today - it's okay if that one goes "ding" to remind you! - and revisit this talk in 30 days. It will be up on the web, courtesy of Gabe, and ask: "What have I changed?" If I haven't changed anything, then we still had a pleasant hour together. If you have changed things, then you'll probably have a lot more time to spend with the ones you love. And that's important. Time is all we have. And you may find one day you have less than you think. Thank you.

Gabe Robins:

Well, that was amazing.

When me and Randy first talked about him giving this talk, I said: "We'll pick the biggest auditorium on campus, Cabell Hall, right here, 850 people." And he said: "Do you really think we can get 850 people in a room to listen to this?" And I said: "Not only we'll do that, but we'll have to turn people away and it will be the biggest attendance since the Dalai Lama came here and gave a talk." And he said: "Big hitter, the Lama." And after I started getting hundreds of emails from all of you and many other people who couldn't find seats here but who will have to see it on the web, I called Randy and I said: "We're gonna need a bigger boat!" And that's how it went.

So Randy, thanks again, we love you and it was great.