



Pat Gelsinger
CTO
Intel

At the time of this interview, Pat was CTO of Intel. Pat joined Intel in 1979, and has held a variety of research, development and general management positions at the company, including responsibility for the Intel chips and Pentium® Pro processor families and management of Intel's Desktop Products Group. He most recently served as CTO of the Intel Architecture Group. He has a master's degree in electrical engineering from Stanford

University and holds six patents in the areas of VLSI design, computer architecture and communications.

professional

What are top 3 principles for success in your industry?

Success in our industry? First, a degree of excitement and passion for the role that you can play; I think people have to be ready to work hard in our industry; and finally, you have to be pretty smart.

What character qualities do you look for when hiring?

There are two views of that: the world's view and the Christian perspective. There are some commonalities and some differences to be successful in business. You have to have a work ethic to be successful in business. I think uniquely you have to be ready to look at things very objectively to be a success in business. As a Christian I want to bring a moral and ethical standard to how I conduct my daily business activities.

What makes a great leader?

To be a great leader, people have to be willing to follow. You have to be the kind of person, the kind of role, the kind of direction setting, vision setting person for the organization so that people are compelled to get behind you and want to follow you. I think some of the unique characteristics of a leader end up being someone who is willing to do what they believe is right, and go implement that, and get a strong view, and convey that passion to the organization - in that direction - to the organization. And then be willing to: 1)take the responsibility if you fail in that direction and; 2)if you are successful, not take that recognition onto yourself, but pour it out over to the organization that's been following you.

Who are your heroes and why?

Well, clearly one of my mentors, that I've learned from and followed, has been Andy Grove. One time when I was in the middle of the 386 project at Intel (random afternoon - I was very busy), I was focused on my job and in the middle of that he calls me up. And if you've ever seen an engineer at work, the last thing they want to do is answer the phone. So I reach over, I pick up the phone, and I say "hello" (in the most derogatory voice that I was possible of) and he says, "Hi, this is Andy." Just to build on my cynicism I say, "Andy who?" and his response is "Andy Grove" (in a very professional tone.) At this point I was one level above peon and he's the President of the company. And I'm blah, blah, blah, you know, barely able to respond in an intelligible voice and he starts asking me ... he had been in a meeting with me a few weeks before... and he starts asking me my career objectives: What am I going to do to succeed at the company?; What am I reading?; What am I doing and where am I going? And I gave him lousy answers just because I was so beside myself with the call. And he says, "Those are lousy answers", which they were. Then he says, "Be in my office in two weeks with better ones." And that began a mentoring relationship that I had for many years with Andy. Also Gordon Moore, one of the founders of Intel, to me has always, from a technologist's perspective, he's one of the greatest visionaries of the industry. I've greatly appreciated the relationship with him as well over many years. Well, when I met with Andy a couple of weeks later, I gave him my impotent, ill-formed,

inadequate responses, just with more thought behind them. He proceeded to rip me to shreds, and basically tell me a whole bunch of things that he thought that I needed to do to be successful long-term at Intel. At that point I was very narrow and focused just on technologies. And he said, "That's not good enough. Start reading the Wall Street Journal every day and send me a report on what you read and what you found interesting". Some other opportunities to broaden my horizons came and a number of other situations where he saw things in me and would come back and in the most aggressive way point out to me those areas of failing and what he saw: what I needed to do to be successful. Some of the time it felt like a surgeon without nova cane. It's just these painful insights into my personality that I wasn't quite ready to hear at the time. Those were a pretty impressive set of relationships with some of the real leaders in the industry that have really impacted my view of Intel, the industry, and my career.

What was your worst career decision or mistake?

There are so many. I ran a big project for Intel called Pro Share, a video conferencing start up for a company, sunk \$150 million into it and it was a failure. At the end of it we ended up shutting down the project and selling off the piece of business. I can point to a number of successes of different technologies that we produced as we ran that project, but at the end of the day it was a failure. People have said that you learn more in your failures than you do in your successes and that was one of those instances where I learned an awful lot: I learned an awful lot about what it means to fail. You learn more in failure because you need to analyze yourself far more deeply. Why did I fail? What did I really do wrong? What could I have done differently to be successful? That was one example for me that was an awful lot of learning.

What are two or three of your greatest professional accomplishments?

I was the architect and the design manager for the 84, 86 chip - that was the most important chip to Intel at the time. It became the most important chip for the entire industry. When I was 25-years-old, I was asked to be in charge of that program. I managed it and brought it to the industry. One of the proudest days was seen in the first four advertisements and in the Wall Street Journal. It was just a great event to watch that. Another example might be I was also in charge of the Pentium Pro. That was particularly unique for me since I moved to Oregon and started up an entire new design center for Intel. At that time all of the major chips were being done in Santa Clara so this was seen as risk-taking - to move out of the Bay Area, Silicon Valley and to go start up a new design center in Oregon. And out of that we started the Pentium Pro which became the mainstay for the corporation. For pretty much the five to eight years it's been that design that has been the big cash cow for the entirety of Intel.

p e r s o n a l

What does balance mean to you? How important is balance to success?

For me, had I not had balance, the wheels would have fallen off years ago. Literally, I would have overworked and I would have burned out. One of my favorite cartoons of all time was where frame 1 was 'poof', frame 2 'poof', frame 3 'poof', and frame 4 was 'pow!' and somebody said, "What was that?" and he said, "That was a whiz kid that burned out." And I think for me, that would have been the situation. I had a wife and a lot of other mentors in my life that really emphasized this need for balance and priorities. Against my own better judgment, they drilled that idea into me of balance. I've really learned what that means and had I not, literally, I'm certain the wheels would have fallen off. I would have made bad decisions along the way: I would have overworked and found myself in situations that I couldn't be successful in. As you're in those situations, you try to work harder to be more successful, which is exactly the wrong thing to do. You're already working too hard, you're already trying to do too much yourself, you're already to the point where you're no longer affected. Priority and balance are the things that you need to learn.

Have you ever had a wakeup call in your life?

My Pro Share project had failed, and my manager at the time sat me down and had a conversation with me about some of those areas of failures. To me it was like a knife in my heart at the time. I don't



think I ever in my career I had just left work - in the middle of the day, noon, and just went home. That day I did. I was really devastated with some of the failures and some of the things that I had been successful with there. That was one of those occasions that I would say was a real wake up call.

s p i r i t u a l

Can you follow Christ and still have a successful career, family and such?

Well, I've gone from being a technician, grade two at Intel (and that's just about the bottom of the totem poll), through every engineering rank, through appointed officer, to corporate officer, to chief technology officer while I believe: living my faith every step of the way. Inside Intel people know I'm a Christian, and I'm unashamed to tell people that I'm a Christian. Hundreds, if not thousands, of people are very well aware of my faith. And yet, being a great employee, being focused, being a hard worker, applying yourself and your passion to your work life, you can absolutely be successful. And I think in many ways, be more successful than a non-Christian because you cannot only be successful in the work place and in the projects that you're doing, you can also be successful as a witness for Christ along the way.

How does your faith help you in your professional life?

Having an undeniable, unceasing view of your position in Christ and your self-worth, gives you incredible confidence. People can attack you, and view your projects as failures. They can look at all of those things and they're not attacks on you personally any longer. You have absolute confidence in your position and what you're doing and what you're trying to achieve. Based on that, you can become so much stronger as an individual in those situations. You can, in fact, step up and do far more than ever before.

When work is consuming and you're not clear what you're looking for, what advice can be given?

Write your personal mission statement to chart the path. When you're in a work project, what do you do? You plan the work and then you work the plan. Well, why don't you do that for your life? Make that plan, make your mission statement, what do you want to do, specifically your goals and objectives, and where you want to get to? And then live by it. Review it, labor over it, and then prioritize your personal devotion time. It's something that is a discipline, a practice. Begin it early, live it your whole life. Prioritize your family time. Get very clear on how you are going to keep your family as a priority and those trade-offs you're going to make to do so. Be a great employee. If you're going to have a witness at your job, at your place of profession, you have to be a great employee; somebody that people respect based on the working environment as well. And your morals, ethics, your work environment, et cetera, should be impeccable as you do that. Be a clear witness. Be ready to communicate what you believe in. Don't be a spineless, flow with the wind guy. Be ready to stand up for what you believe is right in both work context as well as what you believe is right in the context of politics, religion, et cetera. Be somebody who is ready for people to look at, follow, and respect.

How important is faith to career success?

Faith ends up being when you look inside of yourself and ask why are you doing what you're doing? Are you doing it simply to be successful, measured in your career terms or your work terms, as you succeed or fail? Your success ebbs and flows in the process. That's how a lot of people are in the work place today. That is their only definition of their self-worth. For me, as a Christian and as a believer, I am absolutely confident in my self-worth, in my position in Christ, and my eternal salvation. There's no doubt. Then you look at verses like Colossians 3:23, "Work heartily as for the Lord, rather than men, knowing that it is from Christ Jesus you receive your reward of your inheritance." Those are things that I am working for. Period. In my work I'm working as a soldier of Christ and as long as he has called me to the work place in the position I'm in, I know that's where my worth is. Whether the project succeeds or fails, that's okay. Because I'm not working for Intel ... I'm employed by Intel and I'm working for the Kingdom.

