# Dan Warmenhoven
# Oral History

---

## COMPUTERWORLD HONORS PROGRAM INTERNATIONAL ARCHIVES

---

Transcript of a Video History Interview with
Dan Warmenhoven
Chairman & Chief Executive Officer
NetApp

Co- Recipient of the 2009 Morgan Stanley Leadership Award for Global Commerce

---

Interviewer: Ron Milton (RM)
Chairman, Board of Trustees,
Computerworld Information Technology
Awards Foundation

Date: April 28, 2009

Location: Phoenix Biltmore Hotel
Phoenix, Arizona

Today is Tuesday, April 28, 2009 and we're interviewing Dan Warmenhoven, Chairman and Chief Executive Officer of NetApp.

Dan is the 2009 co-recipient of the Morgan Stanley Leadership Award for Global Commerce

The interview is taking place at the Phoenix Biltmore, and is made possible by Morgan Stanley and the Computerworld Honors Program.

The interviewer is Ron Milton, Chairman of the Board of Trustees for the Computerworld Information Technology Awards Foundation.

The Honors program was established in 1988 to seek out, honor, and preserve the history of the global information technology revolution. It was founded by Patrick McGovern of International Data Group, and Roger Kennedy of the Smithsonian Institution's National Museum of American History. It is now the world's largest IT awards program.

This oral history is being recorded for distribution to more than 350 national archives, museums, universities and research institutions in more than fifty countries on six continents around the world, and program's archives on-line.

Without objection, the complete video, audio and transcripts of this interview will become part of these international scholarly research collections and made available to the public on the web.

This discussion, however, is private and should any participant wish to withhold from the public record any part of these sessions, this request will be honored. All present here are honor-bound to respect this, and by remaining here, they accept the personal, professional and legal responsibility to abide by this agreement.

With no objections being heard, we will proceed.

Ron Milton: Dan let's start with your early years. I understand at sixteen you had already decided you were going to be a CEO.

Dan Warmenhoven: Actually I decided to be a CEO I think when I was a senior in high school. I was probably seventeen. Yes, it's the time in your life when you try to decide where you're going to go to school, what you are going to major in, and what are you going to be when you grow up.

I had already developed an interest in computing. In the era when I went to high school, the computer was just emerging. I was very fortunate as a high school student to have access to a computer. I really got enamored with the computer industry at that time. It was in its infancy and I thought that's a great place to have a career, and yet I knew I didn't want to be just an engineer. I knew I wouldn't have the patience to do that for my career.

My father was an executive at General Foods and I spent a lot of time shadowing him around and understanding the business and I really had a big interest in that too. So I basically decided to be a business executive in the computer industry, and then I stepped back for a minute and thought, 'Well if you're going to do that you might as well be the top dog.' So I decided, 'Okay let's go be a CEO of a computer company.' I had no idea what that meant at the time. It just seemed to be something nice to aspire to, but I did set an agenda for both building a technical competence and a business competence, and then building a career around those that set a particular direction in my life.

I remember I also expected it to be a big company. I expected it to be a Fortune-500 company. I mean that was the list right? Fortune-500, if you're not going to go big, stay home right? But I always thought it would be a company that I was part of that I moved up the organizational ladder and eventually became the CEO of, and my career started at IBM; that was the first target. I never thought I would be building one. It turns out NetApp this year is about 147 spots I think, from the Fortune-500 and certainly within the next year or two we'll be in that category. But I never ever anticipated I would build a Fortune 500 company from scratch.

RM: Was your father a big influence on you?

DW: My father was a big influence in many ways. He was a terrific father and role model. He was very much interested in my personal development. Even though he was a very successful executive, he made sure he always had time for family. Family always came first. I learned a lot from his dealings and sense of people. He was on the fresh produce packaging side of General Foods, Birdseye division. He was running the production for all of North America at the regional headquarters there but he still walked the factory every day. And everybody there, the line workers all knew him, the guys in the warehouse knew him and he wasn't even running the plant.. H. He felt as though there was no reason why he shouldn't be on a first name basis with everybody in the organization. So philosophically it just kind of set a model. I remember I asked him, "Why don't you like it when people call you Mr. Warmenhoven?" He said, "Because my name is Pete." You'll notice my email is Dan. It's Dan@NetApp.

RM: Talk about the other influences on you before you went to Princeton other than your father.

DW: My high school was a really big influence. In fact I look back in terms of formative stages of my life, and say the high school experience I had at McQuaid Jesuit in Rochester was probably the one that had the biggest impact on my personal philosophies around life, and the career, and society and so on. The Jesuit model is to build men for others, build people who are very successful and are leaders in the community. Basically the idea of the Jesuit Order is to try to make the world a better place. Essentially one of the ways you can interpret their mission is to build heaven on earth, keep making improvements until eventually we've developed the perfect world, and that's really something to aspire to over time as well right?. It really is built on the notion that we individually are here for a purpose; that there's a greater purpose in life than to just procreate and pass on the gene pool and go have a good time along the way.

Philosophically I think that had a big impact on me. I try to model that, and I try to model that for my kids. I've been very involved and active in a lot of non-profits in the community. My wife is very active. We have a family foundation. My kids are trustees; they're now in to the giving process. My son went to a Jesuit high school. I just think that model is valuable, but they also build people who are very achievement oriented. It's not just about do-gooders. They are very competitive. The high school I went to prized itself on always fielding the winning team in the state of New York in Speech and Debate. From a small school in Rochester New York to take on the schools from New York City, that is amazing. So really it's not just about being a good person. It's about achievement and maximizing your performance relative to your own abilities. So it really drives you into almost a competitive frame of mind, but it's a competition where you're competing with yourself; how can I do better? It really is, I think, a terrific philosophy, continuous improvement. You can continue to learn. You can continue to do better, and at the same time those things which are the rewards of that, you should probably share with the rest of the community.

RM: How did you get involved in technology? What was the interest as a teenager in technology?

DW: Well the school I went to was very physically close to Rochester Institute of Technology, and one of the math instructors at the high school knew a professor over there, and they got a new computer that the students could use. I was a very gifted math student and this particular instructor took an interest in me. So he asked his friend if I could program their computer. I just thought it was fascinating.

If I told you what it was now you'd say wow how old is he? It was FORTRAN; FORTRAN Two where you could go write some algorithms and get them to run. Well I started to get fascinated with it and then I - now I'll really test your memory - anybody remember RPG and Report Programming and wiring circuit boards? I had a small job at my father's office to basically run a billing application. But the interest kind of built, and I found fascination in the way the technology of both hardware and software were both evolving - the theory of languages; computer languages and how they relate to English languages and things like that. I just found interesting questions that hadn't been answered; things that could really stimulate your thinking and stimulate your creativity.

RM: Talk about the important parts of your years at Princeton.

DW: I was probably a bit of an enigma at Princeton. I wasn't a particularly serious student but I was serious about learning. I spent most of my time in the computer center. They had a terrific computing facility, and I like to tell people I was kind of self-educated at Princeton. I did graduate with honors. I did go to class and get some formal education, but I really found the computing center to be where I would learn the most, and I became part of the computer programming staff. I wrote both operating system functions and business functions. It was just one of those places where you could get into the depth of it. We were changing the micro-code in a machine and a variety of different things that you really couldn't do in an academic environment, and I feel as though it was a great experience for me, but I don't think it was so much around the classroom. I did have professors who were terrific advisors along the way. There were a number of them, but they weren't so regimented that I had to be in their class to get a grade. It was a lot of individual study and things like that, and it was great.

When I decided that I wanted to be an executive in a computer business and didn't want to be an Engineer, I actually turned down the opportunity to go to schools like MIT. My grandfather was heartbroken. To him that was the pinnacle of an educational opportunity. How could I be so stupid as to turn that down? But I felt that I wanted a very broad education, one where Engineering was the centerpiece of it, but it was a lot more than that. I really felt as though Princeton provided me that opportunity. So I took courses in Philosophy and History of Religion and other kinds of things well outside Engineering; Chaucer; some Economics, and a variety of other things that are well off the scope of a normal Engineering program. I really think Princeton had that diversity of program that really allowed me to build kind of a balance between preparing myself for a leadership role, a business oriented role, and a technical role.

RM: Was IBM your first job after Princeton?

DW: Yes IBM was my first job out of Princeton. I graduated on a Tuesday and started on a Monday. I was broke and I had a ton of debt so I had to go to work and pay it off. Yes, that was a good experience. That was great.

RM: How about chip design? Did you enjoy that?

DW: Well the chip design I did actually in the summer between my junior and senior year at IBM. I had managed to get myself a summer internship. It was about twelve or fourteen weeks and I was part of a design team for an A.L.U., Arithmetic Logic Unit, for what turned out to be the controller for the supermarket systems and the cash issuing systems for banking. I really enjoyed the experience. I enjoyed the people. I enjoyed the company. But I realized afterwards that's not what I want to do for a career. Once you've done a chip, I mean lay it out, the logic in the circuits and the placement and the wiring, you kind of conclude, wow, that's tedious. Most of it is so constrained. The design constraints are such that you don't really get to be creative. I realized that software is really kind of pure thought stuff. There are no constraints really. Obviously there's some memory or performance, but fundamentally you're not constrained by any design rules. Whatever you can think up is good enough.

So I went back, and in my senior year I took every course I could in software development, software theory. In fact somebody asked me one time, "What did you get your degree in?" I said, "Computer Science." This happened to be the guy who runs the Computer Science department at Princeton. He said, "Let me tell you, when you went to Princeton, Computer Science was a course. It wasn't a department." And that's true, I have my degree in double E because software was just emerging as an area of study, but it was great. I was kind of at the leading edge of the discipline around software development. It was the era when the art of computer programming came out, and things of that nature - how to write efficient algorithms - and it was just a great time to get in the software game.

RM: You went from IBM to Hewlett Packard. Those were two different cultures at that time.

DW: They were about as far apart as you could get. IBM and Hewlett Packard are both great companies, but they are incredibly different. IBM is a very, well not only is it large, but it is very structured. It is very hierarchal in notion, and it's very process oriented. Hewlett Packard is much more collegial and it's much more built around the notion of individual autonomy for the various operating units. The two are radically different, althoughI think both have their strengths and weaknesses. They are both terrific companies. You can't find two better companies, but internally they are very different.

I think I learned from those two, the best and worst aspects of each culture. As we started to blend together the NetApp culture, those were very prominent in my thinking as to what do you want to do. I thought the IBM system basically stifled creativity. In a way it drove out risk taking. The Hewlett Packard one was a consensus-oriented system, but what that lead to was analysis paralysis. It just couldn't move fast enough; couldn't make decisions, decisions could get re-reviewed. It couldn't move fast. So basically we wanted to have a system where risk taking was rewarded, where we could make decisions quickly but it was consensus based; it was all collaborative. So we crafted it to be one that would move fast, but have the best attributes of HP.

RM: How did the NET experience add to those two other experiences?

DW: I now think of NET as part of my business school training in what not to do. NET, at the time I joined it, was apparently a high flyer. It was experiencing enormous growth. I left Hewlett Packard and went there as the President and Chief Operating Officer, and the plan was that over time I would become the CEO. Well when I got there the very first quarter I remember I went home and told my wife, 'Wow that was ragged. I know it's a small company but there must be better processes in place to control the business than this.' I had only been there about six weeks. Well it was shortly thereafter the guy who was basically the Controller, not the CFO but one of his subordinates, came in and saw me and said, "You know some of that stuff we reported as revenue yesterday is sitting in a warehouse in San Jose with instructions not to ship until later." Anyway that was the unraveling of it. It turns out there was malfeasance. There were a variety of things that were wrong. We restated prior quarters; ones before I got there. The stock drops from 30 to 6. We laid off a third of the workforce, and this apparent high flyer became essentially a wreck. It was a train wreck. But you learn in that what not to do, and how not to push the edge of the envelope to the point where the envelope is torn, and I think that's really kind of what they did in the rush for share.

But I also learned a lot about corporate culture. That was a very dysfunctional culture. The prior CEO didn't end up building a team. He pitted people against each other thinking he would get the best performance out of the contest, as opposed to building a team that would collaborate. So when I got there nobody trusted each other. It was a real challenge. Once that culture is imprinted on a company, on any organization, I believe the only way to change it is to swap out all the players and start all over. You can't do one at a time because even if you hire the right profile from the outside, they're quickly integrated into that culture and they become one of the inmates.

So yes, I learned what not to do from a business perspective. I learned what not to do from a cultural perspective, and when you hit the wall like that, it's harder to rebuild a company that has had a great reputation than it is to build one from scratch. Because when a high flyer hits the wall, you lose the confidence of the investor community, the employee community, the customer community. You are now tarnished. It's like you have a record. It's like you have been sent off to prison, and when you get out you still haven't been fully rehabilitated. So it's actually easier to start with a clean record than it is to rebuild one, even if it's got apparently bigger assets. There was a reasonable balance sheet, we had enough cash, we had customers who were dependent upon us and loved us, but it was still really, really hard.

RM: So the clean start is NetApp?

DW: The clean start is NetApp. Yes the clean start was NetApp. After I left NET I spent some time thinking about what I would like to do next. You know its funny; I took nine months to just kind of reflect on where I was in my career, where I was in life, what I wanted to do. I interviewed for a variety of different jobs in a variety of different sized companies; small, large, and really concluded that I would like to take a company that was really at the stage of going to market. A company that had a great idea, had developed a product, the product had demonstrated some degree of commercial feasibility, meaning they had a customer or two. They figured out how to solve a customer problem, and I would see if I could use my experience to help build that into something worthwhile. It was probably about mid-summer. I left at the end of the calendar year, so about six months into my retirement period - which was terrific, I came across NetApp. It was then called Network Appliance. It was through an executive recruiter. They called me and said, "Why don't you look at this deal?" Well I was enamored with it because it looked to me like and I had some background in this technology area from my experience at Hewlett Packard. It looked to me like it would build on a lot of the product technology and market knowledge I had.

The model very simply from a business strategy viewpoint was, we were going to be the Cisco of storage, and our whole pattern was to go do in the storage world what Cisco had done in the networking world. The business model was patterned that way, and even the product was patterned very similarly that way. So that vision of, let's go build a kind of a category killer for storage, is still kind of a driving force in the company today.

RM: Tom Mendoza joined six to eight months ahead of you as the first direct sales champion. How did you and he hit it off?

DW: Tom and I have an interesting parallelism in our lives but it's like they keep crossing over. He's six days older than me. Tom was born November 21 and I'm November 27. So he had the same life experiences, you know Vietnam and all these other kinds of things; first man on the moon. I mean it was very similar formative experiences. What I mean by crossing over was, I was the Catholic boy from a Catholic high school who went to a Protestant college. He was a Protestant boy who goes to a Catholic college called Notre Dame. He starts his career in sales, and I start my career in Engineering. It was just kind of like we kept crossing over and never quite connected.

Tom, at the time that I became the CEO, lived in Dallas, and I had a chance to meet all the executive team prior to me being announced except for Tom. He was never in town. So I got his phone number from Dave or James, and I called Tom the day before the announcement was going to come, and he already knew. They'd already told him what was going on. So I called him and I said, "Tom, I'm Dan Warmenhoven. I just wanted to introduce myself. I said tomorrow it's going to be announced that I'm the new CEO of NetApp." He goes "Hot dog"! I thought that was great. There was an immediate connection.

I had already ascertained from my look at the company that the biggest issue was all around sales. The product and technology was great, in the right zone with the exception that we hadn't figured out how to put it in front of customers and explain to them why it was a good solution for them. The channel models were all broken. So out of the very short conversation that we had - you know Tom lived in Dallas - and I knew he was a football fan. I didn't realize it was college football at the time as opposed to pro, but I said, "Do you follow the Dallas Cowboys?" He said, "A little bit." So I said, "You're my Emmett Smith. Let me tell you what my game plan is. I'm going to hand you the ball until you just can't run with it anymore okay?" I said, "I'm going to get everybody else to be in support of that, but you're going to be the one that gains all the yards." He said, "That's great" He said that was exactly the role he wanted to have. At the time he was running just North America, and it wasn't too much after I was in the company that the guy who was running all of the international was diagnosed as having a lung cancer condition; Mike Paul. So it had been split between two sales executives, and Mike got stricken and he left the company. So I turned to Tom and said, "How do you feel about running international?" He looked at me and said, "Okay." But the point is, in everything we did it was a very collaborative experience.

We come at things, as you can tell from these interviews, very differently, and yet the compliment has always been I think stronger than either individual could achieve on their own. That goes beyond just Tom and I too. You've met Dave and James Lau, who was the co-founder with Dave. You won't find more diverse personalities than the four of us, and I include thinking styles in that as well. And yet we all seem to kind of coalesce to the same basic business answer from basically four different directions. You get those four different viewpoints aligned and it's a very powerful force. It's also a very powerful force in terms of explaining it to different people in the company. They see a certain degree of consistency and alignment. Dave has a much better rapport with the Engineers than probably anybody else, and Tom with the sales people, etcetera. And yet I think we can all relate to each one of those functions particularly well, so it's a really great combination. It's the soup. You put all the ingredients in and it comes up something different. That's exactly what we've got from the executive leadership team.

RM: One of the things that's obvious in talking to all of you is your passion for people and that has to be part of that culture that's allowed you to grow.

DW: I believe, and I think everybody does at NetApp, that a technology company, which is really an intellectual property is all about the people. The people make the company. What is a company? Is it an article that's incorporated in Delaware, or is it a product that you ship? In my view it's all about the people, and I think everybody there feels that same way. A company is comprised of the people who work there and pursue a goal together. It's like asking, what is a country? Well a country is the people who live there who share a common purpose. That's not different than a company. We share certain philosophies. We share certain business objectives, and we have a great deal of respect for people who achieve greatness inside the company.

To understand the NetApp culture, you've got to understand how it got formed. Shortly after we went public - we went public in November of 1995 - actually it was Tom's birthday; November 21, 1995. Yes, we went public on November 21, 1995, which Tom Mendoza thinks was the best birthday gift he ever got. You know, there is a bit of euphoria right? You're a start-up, you've gone public, and you've demonstrated you're going to be profitable. You're going to have a viable position in the market. Generally for most start-ups, it's kind of "the goal". We got to that point, and so shortly after the holidays were over, I pulled the executive team together and asked, "What you want to do? We got through goal set one, so what do you want to do as a follow-up?" I first asked them, "Do you want to go further? Have you achieved what you wanted to achieve?" And unanimously everybody came back with, "No I really think I want to proceed on the course we're on as long as I can scale to whatever the company demands."

So we basically set our sights on building a new market category that we would lead. We called it Network Attached Storage; NAS. Nobody had used the term NAS at that time. We would have a particular approach to that market which would be very distinctive and allow us to gain share, and that we would double every year for five years. To which Tom said, "Easy for you to say. I'm the sales guy." But here's the implication on the culture; I had certain ideas in my mind about what kind of culture I wanted my company to be, which is what Dave and Tom and everybody else shared. One thing you conclude if you're going to double every year is you can't manage that growth. Double is viral, and if you try to manage it or control it too much you'll basically underperform against your objective because you've stifled it. Well if you're going to double every year and you're not going to have the kind of situations that we had at NET, what do you do? So we decided that we will have a values based system that provides a framework for the behavior we expect, and then we'll go hire some really talented people who are self driven and achievement oriented to go pursue big goals. And we'll tell them, "Look, you figure out how you achieve that goal. We're not going to tell you. Here's the goal. You go do it. Call if you need help." Then we turn around and go hire the next person and give them the same speech. "Here's your assignment. Here's your goal." It's like mission impossible. "Let me know if you need help." That attracts a certain type of person, a certain type of personality.

We made sure that in the background it was very collaborative; very cross-functionally oriented and so on. No silos, and everybody on the same page, and we made sure there was a high degree of integrity in the operation of it. There was a lot of emphasis on trust and integrity, and that blend seemed to work very well and people love it. That's how we got to be a great place to work. I believe that culture still persists today. It's had to take on little different entrapments to make sure it stays global and all the rest; It's a little harder when it's eight thousand people than one hundred, but nonetheless that's still the culture that pervades the company today.

RM: Dan you've been quoted as saying "Culture equals Value + Behavior". Can you explain that a little bit?

DW: The corporate culture that you experience is a set of collective behaviors, and those behaviors are rooted in a set of, I hope, shared values. So the notion is, if you can affect the value system that people use to make decisions, and they shape their actions to reflect those values, then what you see in that system is what collectively we would call a corporate culture. How do people interact is a cultural question right? You can see this reflected in various cultures, for instance in American Indian cultures there was a notion for instance of a "talking stick". Only the person who had the stick was allowed to talk. When they were done, they would pass it to the next person who wanted to speak. So there's a value that says we want to hear each voice, and the behavior then is reflected in only one person talks, and the culture has a great deal of personal respect for each individual.

So our notion was that we could craft a corporate culture if we choose the value set, and then help people understand what that means relative to what we expect in their behavioral system. We use lots of examples. There are some simple ones that are really trivial. I'll share one with you. We point out to people that this is a fabric. That we have a set of values, and these fabrics are intended to be reinforcing, to really make it strong. So we have one value around simplicity; minimized bureaucracy to allow people to work as efficiently as possible, and minimizing the amount of controls. That balance is with trust and integrity; we trust that you will do the right thing. The graphic example I use is the business travel system. In most companies it's pretty standard procedure for an employee to have to get a manager's signature to take a business trip, to go book the hotel room, or book the flight. In our system that's not required. We trust our employees to use their time and the company's resources to further the objectives of the business, and to help our customers. So we make it as simple as possible. Now if you come back from Tahiti, we're going to ask you, what customer were you working with in Tahiti? And after the fact we try to figure out where the deviants are, and then we go take care of the deviants. Because you have to get rid of bad behavior just like you have to reward good behavior. But the notion is that it's a value system that's really lived in the sense that the people in the company becomes kind of a composite set of behaviors that you think of as a culture.

There are certain examples around teamwork. I'll give you another one. We have an email list called DL Sales. Our sales organization is probably now about three thousand people spread around the globe. Every one of them is on this mailing list. You find these cries for help come from a sales rep somewhere. These people have some little texting code to keep it short. IHAC means, 'I have a customer', or IHAP means, 'I have a prospect'. These cries for help go out to three thousand people. None of those people have an obligation to respond. They're not going to get any credit for it. Yet you can watch the responses come in, just flowing in. In fact Tom's always concerned about we're overflowing everybody's Blackberry's. But the point is that's a great demonstration of teamwork of people who in many cases have never met each other but who share a common purpose and a strong sense of teamwork helping each other achieve the maximum.

RM: What do you think your biggest successes have been at Network Appliance in the early years?

DW: The early years of NetApp, you know we think of our evolution of the company in phases; the start-up phase, the growth phase, and the transformational stage. As I look backward I think the biggest single success has been the continuity of the culture that was established during that period. The business mix has been different. The products have been different. The customers have been different. It's really quite interesting, the number one issue that came back from the employees - when there were only about a hundred people in the company – is, 'Can we sustain this culture as we grow?' Because they knew we were going to double every year.

The number one issue in employee population as we hit a thousand employees was, 'Can we continue to grow and still maintain this culture?' When we got a billion dollars and there were twenty-four hundred employees, guess what the number one issue was? 'How are we going to continue to grow and sustain the culture?' Then we had a real true test. We hit the wall. The bubble burst; the tech bubble in 2001. Our revenues dropped, and here we had been growing at almost 100% per year. That five-year period we grew at 87% per year compounded, and all of a sudden wham, we were down 20% in year over year. Now that's shocking to anybody's system. We were concerned that would be the big test, and yet we came flying right through it. So we re-engineered the company to go after enterprises, and so on, and different products and different customers, and the number one concern when we came back out of it was, 'Can we preserve the culture?' The number one concern when we got to eight thousand people was, 'Can we preserve the culture?' So I look at it and say, well you know actually we've done a pretty good job of preserving the culture so far. So maybe we ought to keep reinforcing that this system can in fact scale, and can in fact survive over time. That's not a function of size. It's a function of individual behavior.

RM: How do you define innovation?

DW: Innovation to me is really the application of technology in a very imaginative way to solve a problem and a very creative solution. I think it's something like Polaroid. People had desired to see their pictures more quickly. That was really very creative, and it solved the problem. It's not about the technology. It's about addressing a need.

Once at Hewlett Packard I remember reading a paper given to me by John Doyle, who was one of the Executive Vice Presidents. He was a British guy, and his business school training was in Britain, and he handed me somebody's thesis that he had read. It was only fifty pages long. It was a study on great companies and how they'd been able to survive over time. And the number one characteristic that this student could find that was common among these companies was an imaginative understanding of user needs. That really struck home. It's understanding that there's a need there, using your imagination to really get behind it and think about how you can address that need. That's what I think leads to real innovation.

There have been innovative products that I didn't think particularly were needed. I think of the Wankel rotary engine. It was a very innovative engine. The engineering was terrific. I didn't think the world needed another internal combustion engine, but it was very innovative in many ways. I define innovation as, it solves a problem in a very differentiated way, and makes progress in the world. You know the Wankel was one that just didn't make it.

RM: You kept the culture going. You've preserved the culture like you said at NetApp. How do you enable more innovation?

DW: Innovation is like a flow. It's like a river. If you don't screw up the sources and dam it up and some point, you'll get it. Once you get the mechanism working, it's going to be self feeding and self propagating. The engineers pride themselves on new ideas. They compliment themselves on new ideas, and they are rewarded for new ideas. I think it starts with Dave and James, who are the two founders, who have come up with some very innovative concepts for how to organize data on disks. The WAFL File System is still unparalleled in the industry I believe. But that set a tone, and they set a tone of their expectations for innovative approaches.

Innovation implies risk in some sense but what do we mean by risk? Well the idea may not work but that's not risk to the individual, and so the reward system is, if you had an idea, we'll help you figure out whether or not it will work. We'll probably even put that into some kind of advanced funding category and if it works, great. If it doesn't, well you know, we didn't lose anything did we? The engineers really feel as though they've got an opportunity to do something special and pursue an area on interest. I don't mean as research. I mean as product development. They're supposed to go solve a customer problem. It's worked out very well. They actually compete for the opportunity to get their idea funded. It's great. That'll keep the ideas flowing.

RM: What do you believe is crucial about leadership?

DW: I personally teach the Leading at NetApp class. I think we're now at thirty-five sessions and I personally have done three and a half hour segments in each of them except for four. My ideas on leadership and values and culture are all kind of woven together. I'm a big fan of John Kotter, and I really believe that Kotter got it right, that leadership complements management skills. Management skills are analytic. They're skills of the brain. They're on organization and process and budget; and leadership is all around inspiring the heart.

I really do believe that most people who have the aptitude to get a college degree can be great leaders if they work at it; but it is work. I use the analogy all the time in the class about being a great golfer. Most people can pick up a golf club and swing it, but most people are not going to be able to compete with Tiger Woods unless they dedicate their entire life to it. He's known to have the best work ethic on the tour relative to practice, practice, practice. The same is true of leadership. Leadership requires a diversity of different skills that have to be honed and taught and learned, and you have to have good feedback mechanisms. You need good coaching, and you need an honest personal assessment of your own development and introspection. So I really think that leadership is a set of skills that can be developed in any individual if they commit themselves to develop it, and they are provided with the resources to develop it.

We invest heavily in terms of leadership development. At the rate we're growing, we never have enough leadership capacity in the company to do all the things we want to do. So we are personally invested in trying to help the people we have who are very bright and very dedicated to develop the kind of leadership skills we need to get us through the challenges and reach the objectives we have.

RM: How is leadership different in these turbulent economic times?

DW: I don't think leadership is any different now than it is when times are great. You might think it's easy when everything is running real well, but in fact when you look at really high performing teams, you can identify a really good leader that stood out even when times are good. I think it becomes more obvious who the good leaders are when times are bad, when people become more concerned about their own situation - will I have a job tomorrow, the value of my house is down, how's my IRA? They get more concerned about their situation. And good leaders, I think, are more clearly visible to be able to pull them back, to get back and focus on what they've got to do. But I think the good leaders are good leaders in good times and bad times. They're just more visible in the bad times.

RM: Our chairman and founder Pat McGovern has an expression, he says, 'The biggest room in the world is a room for improvement." Is there any room for improvement in the Dan Warmenhoven legacy?

DW: Oh yes, there's always room for improvement. It gets right back to the Jesuit philosophy. We still haven't created the Kingdom of God on earth, so we've got more to go do. The same is true at NetApp. I really think that if you look at the areas for improvement, I don't think they're fatal flaws, is maybe one way to put it in context. There's always room for improvement. You can always be more efficient. You can always be more effective. You can always handle customer situations better. You can do a lot of things better. I can do a lot of things better as an individual, but I tend to think that I'd give us a pretty solid B or B+ in most areas of performance.

RM: I don't think I've met a group of executives in the technology industry that talk so much about integrity, honesty and passion for people. Do you think that's a big part of your success?

DW: I think our connection with the people we have - and I mean that in the sense of knowing them, trusting them, asking them for that trust to be returned, helping them develop in their career - is a big piece of our success. They are very, very loyal to the company and to the people. We have all the sales leaders gathered here in Phoenix right now as we do this interview. I think we could tell them we'd like them to walk through fire next year and they would just ask us, 'Which fire?' There is a tremendous sense of loyalty but also a tremendous sense of commitment.

There is no metric to determine leadership in the sense of a score or a grade. Even in golf you get a score. But there's no measurement of leadership. The measurement of leadership is the ability to develop follow-ship. At NetApp we really have tried to develop follow-ship in a sense of personal connection with the organization. And those people, I think, feel a sense of commitment to us because we feel a sense of commitment to them. It's a bi-lateral kind of arrangement. We're always there to help them.

We talk about the inverted pyramid inside the company, that once the objectives are set, people like Tom and Dave and myself work for the other people in the company - let us know what you need us to do to help. That builds tremendous commitment, that yes, they will do what it is that we need done. I think the whole notion is that we're all in it together, and that we're really committed to their success and helping them be successful. We've got enormous trust in them and their judgment; not just in their actions and behaviors, but their decision making goes a long way toward giving us an edge in the market. We're competing against companies which are much larger than us, and I mean larger in size and scope; three times our size in revenues and employees, and so basically we need every individual out there to be three times better than their counterpart at our largest competitor, and three times more committed. I really think they rise to that challenge because they know they've got eight thousand other people right behind them that are going to help them reach their objective including all the leadership team.

So yes, I think there is a bit of the success of the company which is tied directly to the notion of trust in the employees and integrity - that we demonstrate and they demonstrate back - the commitment to win together as a team. All those things show through in our performance.

RM: Do you see the challenges ahead to be technical or social?

DW: Challenges in the tech world come in all flavors; technical, social, whatever. Our industry is going to go through a lot of transformations in the not too distant future. I think the disk drive industry in particular is going to see a really radical change because of flash memory, and that's going to change system architectures like ours.

I think there are some issues around social as well. Maybe more in the way the customers think about what we do, and the value we offer, than it is our own way of thinking. More customers would prefer to buy their IT infrastructure as a service as opposed to as a set of hardware; the assets. So their buying patterns in a social sense may lead to us having a different way of going to market, and if we don't make that transition we can get left behind.

On the other hand, I don't think either market shift and customer preferences, nor technological shifts, puts us at risk as long as we've got the right attitude inside the organization, and we've got the right people. Those transitions represent opportunities; opportunities for us to gain share, differentiate ourselves, move ahead of the competition or whatever. It's this will to win that I think really drives us every day. My father was in the frozen food business. Guess what, that doesn't change a lot, and it's rather slow moving. The tech industry moves at the speed of light. I always used to think that the tech companies are similar in a business sense to the fruit fly, because they have a very short life expectancy but they keep re-populating very fast. I've seen years and years of transitions of generations of fruit flies go by in the short time that I've been at NetApp. And I think we've been able to power through all of those different changes that have occurred over the last fifteen years just because of an attitude that says we don't define our business by what we did yesterday. We define our business by what we're trying to do tomorrow and we're going to continue to gain share, and we're going to continue to offer the best product in the marketplace, continue to delight customers and make them successful, and we're going to continue to prosper.

RM: Sounds like there's a lot you're still excited about doing at NetApp.

DW: Oh yes. We started off building the culture and the objective of doubling every year, and the goal we adopted as kind of a framework, for what we were trying to do, was to be a featured story when 'Built to Last Version Two' is written. At that time in the mid nineties *Built to Last*, which I think Collins & Porras wrote, was very popular. It chronicled great companies. So our objective was to be a featured story in 'Built to Last Version Two'.

Now when you drop back and you think of that as an objective you go, wow now that's a BHAG all by itself. That's where the BHAG term came from; big hairy goal. But the idea was that you can't apply for this. You have to be chosen, and you have to be chosen by probably a set of constituents that include customers and shareholders and employees, and they've all got to say great things. If anyone says, 'I don't think that company qualifies', you are probably dismissed from the list. So you can't just be a great place to work. You can't just be a place where customers say, 'Gee that's a great product, great company, and great support,' whatever. You can't just be a company that has terrific returns to the shareholders and impeccable business integrity. You've got to satisfy all of them; business partners, the community, all of them. There are a lot of constituents around there. They've all got to say, 'That's a great company,' and that's how you qualify. That's a big goal. That goal's not done yet.

RM: That goal might not be done from your point of view, but you just got the number one ranking from Fortune Magazine for the best place to work. That's great.

DW: Being ranked number one as the great place to work by Fortune is personally, for me, the crowning glory of my career. And I don't mean to say I did it alone. Don't misinterpret that. But to have the company that we have worked so hard to be a great place finally recognized as the best, is quite an achievement. I actually got the message, found out that we were number one when I was on the road. I was in Europe so the time zones are different. I got up and I looked at my Blackberry for what had happened the day before, and I read that we were number one, and I was astonished, and then I was floored. It was such an honor that I just sat there and looked at it. I became almost paralyzed by the concept that we actually had achieved one of the highest rankings that we had set out to achieve. Now I also hear that from shareholders and from customers and from business partners, so I think we'll qualify for 'Built to Last Version Two'.

RM: How do you want to be remembered in the industry?

DW: I personally want to be remembered as someone of extremely high integrity, aggressive in a business sense, but always considerate in a personal sense. I want to have a reputation of somebody that built a great company and set it on the right course, but more importantly was a terrific mentor for others.

One of my proudest moments was when I was with Paul Maritz. Paul just recently took over as CEO of VMWare. He is a former Microsoft executive. He was kind of new to Silicon Valley, and he was kind of doing some "Who's Who?' checking. And VMware is a big partner of ours. He and I have met on a regular basis. One day at the start of the meeting Paul said, "You know I'd really like to feed back something to you I've picked up from people I've talked to." He said, "You've developed a reputation as a great developer of CEO's." He rattled off about five or six names of people who had been at NetApp who were Vice Presidents and General Managers who had moved on to CEO roles. I hadn't stopped to think about it, but in fifteen years there have been at least seven or eight people who have left NetApp and gone on to be really highly regarded CEO's. I looked at it as kind of a testimony to a goal; to help others develop their own career and so on. In some sense every time those employees left I felt at a loss, a personal loss since I had invested in them and their development. The company had invested in them, but at the same time I really felt as though it was probably the right thing for them to do personally, to go pursue their own goals. But I really felt honored to have somebody who I respect in this industry; Paul Maritz that I've developed this reputation. That's the kind of reputation I wouldlike to have twenty years from now when people will ask, " who was Warmenhoven?"

RM: What are your hopes for humankind?

DW: If you aspire to the Jesuit theory, you hope that humankind continues to make progress; to provide justice in the world and equality for everybody in the sense of equitable treatment, and the opportunity to prosper and have a good life. If you could define the perfect world, that's exactly what you'd like to keep driving towards, where you eliminate disease and starvation, at the same time that people live in peace and harmony and everybody's got justice for all. That's been I think the mantra for the progress of mankind since we evolved from the apes, but we've got a long way to go.

RM: Dan thanks so much.

DW: It's been my pleasure. Thank you.