PATRICK J. MCGOVERN ORAL HISTORY

COMPUTERWORLD HONORS PROGRAM INTERNATIONAL ARCHIVES

Transcript of a Video History Interview with
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DSM: Let's begin with having you state your name and tell us where and when you were born.

PJM: I am Patrick Joseph McGovern, and I was born in 1937, August 11th, in Queens, New York.

DSM: Queens, New York, and your parents?

PJM: My father was born in Philadelphia and my mother was born in New York. Their parents were both born in Ireland. My father's parents came from the county Cavan, which is in the north-central part of Ireland. My mother's parents came from Mayo, which is a county just west of Cavan, right on the seacoast.

DSM: How long did you live in New York?

PJM: For the first 5 years I was living in Queens, just about a mile from the LaGuardia airport, which was then the Marine Terminal. One of my earliest recollections was asking, "How do young babies come?" I was told that, "The stork arrives with the babies." So I would look out of my window and I would see these floating birds all made of metal coming down and landing in the water. I thought that this was the stork arriving, and a little door in the belly would come out of the stomach of this mechanical plane, and out would come 50 or 60 people. I thought these were new babies being delivered. I thought how nice it was that each came fully clothed, carrying whatever necessities they had so that they were prepared for life in the world. I thought, how productive this stork was, to deliver so many young babies in such an efficient and well-prepared style.

DSM: Do you have brothers and sisters?

PJM: Yes, I had one sister who was 5 years older than I was. I always had great respect for women, because when you spend many earlier years being beaten by a taller and more physically capable woman than you, you learn to respect and be very unthreatening and supportive of women.

DSM: The late 1930's, up until the war broke out, were hard times nearly everywhere. For people who are going to be looking back on this from 100 years perspective, what was it like growing up, those first 5 years in Queens, as much as you can remember, but also your later years in Philadelphia?

PJM: The aspect of the war was psychologically influential because one would be told as an early child that there was possibly going to be bombings.

We were given little profiles of the various German planes, and were told to keep looking at the sky so if we spotted any of these aircraft we were supposed to tell Civil Defense. At night, often there would be sirens that would be sounded when some unidentified flying object was in the area. Then searchlights would be flying back and forth, and of course in our imagination.

DSM: Did you have blackouts?

PJM: Yes, they had to turn out all the lights when these threats were apparent. So as a young child one imagined that one could be evaporated by a bomb at any moment. It was a little terrifying.

At school we all were given emergency survival practice by rushing underneath our desks and holding our heads down to avoid the flying glass and shrapnel, and things like that. Of course we were never exposed to any such violence, but psychologically, I know that one was very much aware of that potential threat, and realized how delightful the thought of peace was going to be. We wondered why these silly adults would behave in such an irrational way to threaten each other and cause such destruction.

I was delighted that we were given a chance to feel we were contributing to the solution of this problem because we were encouraged, when we were 5 or 6 years old to make what was called a Victory Garden. You would go to your front lawn or an open lot nearby your home and plant vegetables and grow them up. This was going to allow the civilians to have adequate food so that the food necessary for the troops could be in more plentiful supply by being able to export more of our agricultural product.

DSM: Between the stork and the Victory Garden, your introduction to things biological came very early.

PJM: That's true. I learned the wonderful aspects of growing things. You learn the satisfaction of things that you have achieved yourself. The most delicious lettuce and radishes and carrots I've ever eaten are the ones that came from the garden. I guess, psychologically, the joy of saying, "I made this myself," and of course the marvelous freshness of the food that you are eating shortly after picking it right from your garden.

DSM: When your sister was about 10 years and you were about 5, then you picked up and moved from Queens to Philadelphia. Do you remember the move?

PJM: Yes, I remember arriving in Philadelphia and we moved into an area that was all row homes, each one identical to the one next to it on either side. There were about 25 homes in the row that I lived in. I remember moving in and being inside, and then coming down and walking down to the end of the street, then looking back and seeing all of these identical homes and panicking, because I didn't remember to notice the number. I thought, "How will I ever find our home again?" I thought I would be totally lost and embarrassingly knocking on doors and no one had ever seen me before, and they wouldn't even know where I lived.

DSM: Is the old neighborhood still there and intact?

PJM: Oh yes, it's still there. A few years ago, we went back to Philadelphia and tapped on the door of that home. We explained that we had lived there and wondered if we could come in and be reminded of the physical reality of the house. We went all over, including the basement where I used to run a lot of my little businesses. Of course, it is amazing how the home had shrunk dramatically from my recollection of it. When I was 6 or 7 years old I saw it as 3 to 4 times larger than the actual reality I experienced when I went back.

DSM: I want to talk a little bit about your basement businesses. I heard some things about paper routes and how that financed some early experimentation. What was your first business then?

PJM: When I was 8 years old, I had a cousin nearby who had a paper route for a few blocks, delivering about 60 papers a day. He called me up and said, "I'm really getting uninterested in keeping this up. Why don't you take it over? One problem is that you have to be 10 years old to qualify for a paper route. You're only 8, but you're tall. So I think they might believe you were 10." So I went down and said, "Oh, yes, I am 10 years old and ready to take over the paper route." The person said, "Fine."

So my first set of responsibilities for the commercial world was fortunately, in the publishing business. I went out and had the joy of delivering a daily newspaper to people everyday. I could see that when their paper was not immediately found on their doorstep, they would come by or call my home and say, "Where is the paper?" I began to understand this was obviously a product that is really needed. I could see the demand. It was very good discipline, because every Saturday I had to go and collect for the weekly delivery.

It was also a great way to meet a lot of new people and learn how to communicate with people of different cultural backgrounds, or different lifestyles. You had to prospect, call on people who were not yet accepting the newspaper, and try to sell them on getting the newspaper delivered.

It was actually a very helpful experience at an early age. It helped me feel comfortable about dealing with people in all types of circumstances, and seeing the joy and value of information as a product that helped people feel well informed and up-to-date, the sense of due diligence that they had by going through the people from front page to back.

DSM: Absolutely. At the time you were doing this, this was right at the end of the Second World War, or just at the beginning of the peaceful period?

PJM: I started about 1944, I think. Those were the exciting times, when every newspaper was really the source of news. You didn't have any of the video news. The only visual news you'd have at the movie theater where you could see the "March of Time," or the other movie programs that come with the Saturday matinee, which we would go to. The newspapers, in addition to the radio, were the key sources to knowing what was happening in the world.

DSM: Was your family immediately touched, personally, by the War? Your dad would have been a little too old, I guess, to have been in the war.

PJM: They way I was touched was that my father was a construction project manager. So when the war came he had to go to sites that were distant from our home to help with projects that were related to the war. He was in Bermuda for about a year, helping to build the air base there. It was a key part of the war effort to have a mid-Atlantic site for the planes to land and then go on to Europe or back. Another time he was up in the Finger Lakes helping to build an Air Force base up there in upstate New York. Because of the war he was often gone, probably 9 out of 12 months a year.

DSM: You started grammar school in 1942?

PJM: Yes, September of 1942.

DSM: Did you know how to read before you got into school? I didn't learn to read until I was nearly 7. Were you a precocious child going into grammar school?

PJM: I think what helped me was that my sister was 5 years older than me, and I was always so curious as to what she was doing. I would have a big interest in reading her books and finding out what was going on.

I remember that we had acquired a set of what was called the Book of Knowledge, which was an encyclopedia that had narrative discussions of things. There were longer articles on subjects. When I was about 4 years old, I was very curious about the little math problems that they had there. I tried to learn those, and then go to my friends and show them the geometric problems or the arithmetic problems. They all tried to see how good they could do at solving them. They also had a French language course. So I would be trying to learn the number of words to discuss.

I remember having the ambition to try to read every volume of this Book of Knowledge. I think I got through about 9 volumes by the time I was 9 or 10 years old. I had the initial thought that this was the sum of all human knowledge, and once I had gotten through all 20 volumes I would know everything there was to know that was related to the knowledge needed for life. Then I recognized how much was changing, and that if I knew every word and idea in that book, it would be totally obsolete within a few years. I thought I should best spend more time on contemporaneous developments than looking in the rear view mirror on the historical reports.

DSM: Mrs. McGovern, when I asked her, before this interview, if there were some things I should ask you about. She said that I should be sure to ask you about your mom's influence on your attitude toward education and the importance of it. Did she play an important role?

PJM: Yes, she was very interested in literature. She had excellent, very strong literary skills. Another influence the war had was that my mother needed to go off and supplement the family income because of the economic changes during the war. She took jobs in insurance companies and worked as an actuary. She was not only a very good mathematician, but they used to call her Hawkeye because she would detect any literary or typographical mistake in a policy. They would give it to her first and she would make sure it was right at the end.

She encouraged me greatly to read, and she read out loud to me a lot. Every time I would have homework, she would make sure that she sat down with me and asked me the questions involved with the homework, to make sure that I really had gotten all the answers. She was a good motivator to pay careful attention to be conscientious about completing homework.

DSM: Did you have favorite teachers? Any teachers in your grammar school career really stand out for you?

PJM: Yes, I remember in the 8th grade I had a teacher who was a Sister in the religious order, Sister Elizabeth Ann. She told me that I was very good at math. She made me the class captain in math.

When we were doing the math portion she would ask me to walk up and down the aisles, and if anyone had any questions they were to ask me how to approach this math problem, and how to solve it. I think the sense of being special or skilled in that area made an impact on me and changed my perception of my own skill in that area. I remember being proud of being identified as having that capability. It was a big motivation to learn more about math, so I began paying even more attention to my sister's math books. When I was in 8th grade I was reading her Calculus and Analytical Geometry books. I was excited about being able to figure out some of the problems that a senior in high school was dealing with at that time.

DSM: You were doing these things in the 8th grade. I didn't even ask you the name of your high school. You didn't go to a public high school.

PJM: I went to a parochial school, St. Martin's High School in Philadelphia.

DSM: It was a major advantage, do you think?

PJM: I think so, because the teachers were very dedicated to conscientious learning. I felt they put a lot of extra time into making sure that the course materials were there and well presented. They made sure you were paying attention and being very focused on accomplishment. I think it was a very good attitude toward respect for the importance of continuous learning. The sense of moral and ethical responsibility was constantly impressed because you would have a regular class in religious philosophy and religious principles. Everything was interpreted as, "What was your responsibility to society and your fellow man?" You were to live a life that would merit salvation, or being able to move on to a heavenly state, because you had avoided the physical temptations and mental problems of not respecting honesty, and not having a proper respect for other people and preserving their dignity and contributing to helping their life being as moral and ethical as possible.

DSM: In 1950-51 in your transition to high school you are already doing math. You continued math as your major interest in high school. What sorts of things were you doing outside of your academic career when you were a high school kid in the 50s in Philadelphia?

PJM: I got enthusiastic about the sense of responsibility and accomplishment, and also the economic benefits of having an after hours job of some type. I had done the paper route for about 3 years, and at the end of the street that I lived on was a grocery store. The owner had passed away and his wife was trying to run it, so she asked me to come by after school and Saturdays and Sundays to help her run the store. I found that was valuable because you had to learn to deal with a lot of people.

It was also good for my math because those were the days you didn't have calculators. So everything that someone bought, you would write the number on the paper bag. Then you would have to do mental arithmetic, you would count 20 or 30 numbers and add them up, etc.

DSM: Mistakes are immediately obvious.

PJM: Exactly. That was a good exercise.

Then, when I was a freshman in high school, the seniors had to take a Physics course. One of their responsibilities was to make a physics project. I remember one senior I knew said, "Hey Pat, you're good at doing things." He knew I had a little workshop in my basement with a jigsaw and carpenter equipment. So he said, "Why don't you make my science project for me?" I told him I would try. I got a little book on how to make a cloud chamber, and I went down and got the dry ice and the compressing equipment and the glass that would cause one to be able to see alpha and beta particles going across this condensing cloud. Then other people heard about this and all of a sudden I had a nice business of making all these projects like galvanometers and voltmeters and everything.

DSM: Did you actually see a particle? You're not going to believe this, I did the same project and I never saw a particle.

PJM: Really? No, I would see one or two traces almost every other time that we would go through the compression and decompression of the chamber.

DSM: That's extraordinary, that's terrific.

PJM: That was good fun.

During the summers I would do things like paint homes. I did two summers of painting home projects. I was always very active in terms of some enterprising activity. I enjoyed both the sense of accomplishment and the value of having the extra ability to contribute to the household income.

DSM: I understand you got involved in Junior Achievement?

PJM: Yes, and that was very valuable because you went through a whole process forming with a team, a company. You would do some research to find a product that you could make yourselves, that would have some market value. You would go out and talk to people about different products, and get a sense of what people might be interested in. Then you actually form a company and you issue shares.

Each student invests a little bit, $10.00 or so, and the company issues shares. Then you have to get the production equipment and make and sell the product, collect money, prepare a P&L on your business, a little subversion of a balance sheet. Over one school year you had to go from market research to business formation to dealing with everyone getting paid a little bit in the company. So you had employee relations problems and marketing and selling and production and fulfillment. At the end of nine months you had to wind up and liquidate the company and give the shareholders their appropriate dividend, or explain to them why the business was not successful, and why they weren't going to get anything back on the money they invested in the company. I did that from my sophomore, junior and senior years of high school.

I thought that was enormously valuable because you developed a gut feel for the whole process of starting and running a business. Those steps, to me, seem very natural. I often forget that other people haven't had that experience.

DSM: You did it in your teens.

PJM: I'm often surprised that people don't have an immediate knowledge of all the steps to take to form the company and get the capital structure, because I did that so early in my career that it was just a habitual behavior from having that experience.

DSM: And you did it 2 or 3 times.

PJM: Yes.

DSM: Were you mentored through this? Was there a teacher?

PJM: Yes, they would ask the business people in the community to come by and help with mentoring the company over the course of the nine months in which it was established. I think that was very helpful because often if we were doing a manufacturing project. One year we made a flower planter, and we had a little pump and water reservoir so you could water the plant by pumping the little handle, and water would come out of the reservoir in the planter and feed the plant for a week or so. They would take us down to their company and show us the way they organized manufacturing and production and inventory. So you would see a physical reality of a mature business doing this. That was a very useful experience in terms of planning this.

DSM: What other jobs did you have as a teen?

PJM: I worked as a caddy. It was an opportunity I found to get economic benefit, and also to enjoy the summertime around Philadelphia. I enjoyed playing golf, and there wasn't a neighborhood golf course that I could belong to.

I found that, not only could you earn a nice living as caddy, but you could also meet a lot of very interesting people. You could spend about 3 hours chatting with them about what was happening in the world in some business discussion or some social or cultural discussion. Monday was caddy day, so you could go out and play your own round of golf on a very nice, challenging, first-class golf course. So I spent about 2 years as an active caddy during my high school days.

DSM: How good did you get? Is that a fair question?

PJM: In playing golf? I was probably down to about a 12 handicap shooting at 82. I think that probably my peak was when I went to college. I went to MIT, which is a school where people really focus on doing studies in technology. There is not a great natural athleticism involved with qualifying to go there. They put a notice up saying, "Golfers needed to perform on the MIT golf team." Since I had some experience I went to play, but I think I shot about an 89 on my first course. I think we played the Harvard golf team, which were all very well experienced, frequent golfers. It was somewhat of a humiliatingly bad defeat. After about six months of the MIT golf team I thought I had better focus on other skills that I could maintain with more frequency.

DSM: Acting. The beginning of a lifelong interest of acting in the theater began when you were in high school, I gather?

PJM: I remember the teacher who was teaching English was also the Drama coach, and came in the class one day and looked at me and said, "You're Pat McGovern. Okay, you're going to perform in our school play." I said, "Why me?" I guess they had asked some of the other students who said, "Pat is someone who is a real performer, likes to express himself in different and more dramatic ways." I guess in some issues I would be enthusiastic about arguing a point view in class debate. To my complete surprise I was asked to take one of the male leads in the play that was being performed called "The Man Who Came to Dinner."

I enjoyed that process, the sense of being able to connect to the audience, and getting a rhythm at delivering the lines; you sort of build up a small laugh, and then a larger laugh, and larger laugh. I remember, after we did four days of this performance, on the last night we started to innovate, and were throwing out lines as they would occur to us. Sometimes we got a much bigger laugh from the line that we would toss out as an improvisation than we did from saying what was actually in the script.
That led to the thought, "Gee, this is nice to be able to get immediate feedback on results." Seeing the process of momentum building, where all of a sudden people got into a very "this is funny" mood, and were laughing and building up.

Actually, that came back into my life much later. Every year we bring all the managers from around the world at IDG together for a meeting. We have people from 40 countries coming around and meeting each other and sharing knowledge. At the end of the event was an awards dinner where we give special recognition, and it occurred to me that people liked being recognized by someone as high in authority as possible. The first time we were doing a meeting in Hawaii. So I thought, "Why don't I dress up as a Hawaiian King," and I went around in the King's nice feathered crown and sarong, and would act out the part and say, "You are being honored, here in my kingdom, for the following achievements." People seemed to get very impressive psychological uplift from being recognized in public among all of their peers for their particular achievement with the sense of the leader of the empire acting out.

We went to Austria the next year, and I was Kaiser Franz-Joseph. We were in China one year and I had to be Confucius, representing the recognition of wisdom and respect for learning, and harmony values.

DSM: Knowing that we can embargo any of this, and not wishing to put you really on the spot, but I will anyhow, is there a favorite world leader that you have played?

PJM: Actually, the one I probably enjoyed playing the most, because of the natural empathy and sympathy and admiration for the character was Benjamin Franklin. We had one meeting in our hometown, Boston, and I played Franklin, who was born and raised in Boston. I read his autobiography when I was 8 or 9 and I really saw his principles of enterprise, and honesty, and scientific investigative curiosity, and achievement, and of course his interest in publishing. A lot of my life priorities really came out of the intellectual stimulation of reading about his life and achievements. I came to Boston from Philadelphia, so we had a similar connection, although in opposite directions. I really enjoyed playing Benjamin Franklin, and recognizing people as a diplomat and as an author and as a publisher.

DSM: I want to talk about a science project that you did in high school, but I can't let you get out of high school without talking about friends, rivals. Were there particular close friends that you had in high school that had an effect on you, or a particular rivalry or competition that you remember from those days?

PJM: Yes, there was a very stimulating intellectual competition. I went to a high school, which had 5,000 boys in 3 years. I had about 1,600 boys in my sophomore, junior and senior year classes. In those days they divided everyone into intelligence scores, or achievement scores. You had Senior 1, Senior 2, Senior 3, and Senior 4, going through 30 different classes. There was huge competitive rivalry to get to be in Senior 1 and get the highest scores. I was lucky enough to get into the number 1 class and then, since people who are doing well in something like to be the best, there was a lot of intellectual rivalry by getting the best Math score, the best English score, and winning the prizes in different subjects. You learned to want to be close to the people who were best at what you were interested in, because you could monitor how effective they were. You were talking a lot with them but also spying on them to see how much knowledge they were getting; what were their methods of staying ahead? I remember having a number of friends who were the number 1 or my best rival for number 1 in the different categories of Math or English or History.

I think that sense of meritocracy was stimulating because when I was in grade school going to high school I had two choices. One, you could go to a private high school, which was considered academically much superior, or you could go to the public school which was free to anyone. Since my family didn't have the economic resources to send me to the private high school, I went to this "open to everyone" school.

The expectation was that we were getting a much-diluted level of course material and we weren't learning as much. We weren't getting the school discipline, and when we went to college we would be dreadfully behind. There was a sense of needing to compensate. We all spent a lot of extra time in the library after school, or on weekends, preparing ourselves to keep up. I found that when I actually went to college, that I had so overestimated how much ahead the people from the private schools were, that I was six months ahead of them in the course materials.

So for the first six months of college it was like, "Doesn't everybody know this already?" I tended to misjudge the events. But it was a good challenge, a good stimulation to believe you had to work a lot harder just to keep up with your former colleagues who were going to these prestige schools.

DSM: Sometimes peer pressure is helpful. I want to get you out of high school and into MIT, but I can't leave high school without having you tell the story of the tic tac toe.

PJM: As part of keeping up, I would be haunting the public library. They have a huge public library in Philadelphia along the Ben Franklin Parkway. It was about 13 miles from my home, so I would get on my bike, often, one, two, or three times a week, and pedal down and spend three or four hours in the library there, poring around.

One day I discovered this book which had just come in called "Giant Brains or Machines that Think." It was the first book that talked about computers and their role as an amplifier of the human mind. They said that these devices would essentially be able to build huge storage, which is like an extension to human memory. When you wanted to have facts, you wouldn't have to rely upon this sometimes-irregular associative memory to recall something. You would be able to draw it out from these huge databases. Then you would make very quick analysis of comparisons with information, and see patterns and insights in information, and make more efficient, insightful decisions.

I got very stimulated, thinking the human mind is the one part of the human capabilities which differentiates us from all other living things. I thought, "What an empowerment to mankind's intellectual skills." Then I took some of the money I was earning from my different part time jobs, and went to the local hardware store and bought plywood boards and bell wire and carpet tacks and linoleum strips and built a relay-based computer system. That was what computers were being built of in 1953. It played the game of Crosses and Knots or tic tac toe. I designed it so it could never lose. You could tie it, or it would win. I found that when I presented this intelligent machine, so to speak, to people, they were just fascinated to play with this device that seemed to be making good, intelligent decisions. They sort of personified it as a brain that they were playing against. I noticed that they were frustrated they could never win, so I put a little circular counter in the back, and every 40th move would be taking a random, rather than pre-programmed move. So occasionally you could win against it, and that kept people's enthusiasm. It gave them hope that one of these unexpected times they would actually beat the computer.

I submitted that to a science project and the people who were in charge of the alumni association at MIT in Philadelphia had gone by and seen that, and asked me to consider applying to the school. No one at my high school had ever gotten admitted to MIT. So when I told the rector and others at the school that I was going to apply, they said, "Forget it, it will never happen. You'll just frustrate yourself."

DSM: You're not going to a Catholic school?

PJM: They said I should go to a nice Catholic school. They wanted me to go to Villanova or Notre Dame. I applied, and to everyone's amazement, I was admitted and got a full scholarship to go to MIT. That was very exciting and satisfying.

DSM: You enter MIT at an extraordinary time for engineers and engineering. This was about '55?

PJM: Yes, I entered in September of 1955.

DSM: What was MIT like in 1955?

PJM: It was very exciting, because you were gathering the very best of people around the world in areas of mathematics and physics and engineering. You had a sense of dealing with people who had a lot of enthusiasm and skill and achievement in the areas that you were most interested in, and that was very challenging. It was also somewhat deflating to your own sense of superior capability. In high school I won the math prize all the time, the science prize, so I was considered the scientific genius and the math genius. You got a lot of positive feedback from this. So you built your self-identity on the basis of being the best in these categories.

You go to MIT and you find out you are right in the pack, and not number one. It does cause you to lose a lot of that positive feedback from the crowd around, but it also challenges you to keep growing and improving, because you can't coast anymore, thinking you are safely number one. You have to keep working hard to try to do well.

DSM: MIT was an all-male bastion in the mid 50s?

PJM: It was 3% coeds, which is interesting, because one would think that the coeds would be deluged by invitations to go on dates with this 30 to 1 ration that they were dealing with. But like most male egos, everyone is afraid of rejection. Everyone was afraid to ask a coed out, thinking, "What are my chances of being accepted among the 30 other males contending for her interest?" If you asked a coed for a date she'd say, "Of course, I'd be happy to, it's the first time someone's asked me in weeks."

DSM: This is great. When you went to MIT did you know that you were going to be doing Biology?

PJM: I know that I was interested to understand the human nervous system. I thought that if these computers are really going to amplify our intellect, we have to find the physical basis of intellectual performance. I was interested in studying the human nervous system. I feel that we understand how the neurons function as cell components in an intelligent system, and how the associations of these interconnected devices in the brain cause the memory to be established and retained and associated and recalled and understood.

I went into the Biophysics program there. I took a series of special courses in the area of the nervous system, structure of the nervous system, neurophysiology. I learned that the tools available to understand the nervous system were still very primitive. The complexity of interneuron connection had hundreds and hundreds of connections for each of many billions and billions cells, and the computers were really much too slow to really work through any degree of complexity.

The tools for monitoring the behavior in individual cells were fairly gross. It was very hard to be able to put a microelectrode in a single neuron. You had to deal with groups of neurons, and the signal is sort of confused. I felt to really begin to make progress on understanding the human nervous system and the brain, the tools would have to be improved. That led me to think that to do this you had to help stimulate such advances. Before people can achieve something they have to conceive of the possibility of that achievement, and information is the seed of that conception.

When I read this book about the "Giant Brains or Machines that Think," I was inspired to move ahead in that field. I thought, "Gee, if I could be a major contributor to the flow of information so that people could understand the possibilities of computers and communications and electronics, and then inspire that technology and improve the ways to apply it, then eventually we would be able to make much greater use of this in enhancing the quality of human life."

That's when I noticed on the student bulletin board that a first magazine about computers had started. It was right in Newton, Massachusetts, very close to the campus. They were looking for an editor to come out to help them prepare the articles. I applied and was fortunate enough to be selected. I joined them as my college part-time work as editor of this magazine. I felt so amazed that as an editor I could call anyone in the country or the world and they would all of a sudden talk with me, which I would imagine they would not thought to do before. That’s the power of saying, "I'm an editor."

I would sit and talk with top engineers and scientists in industry and academia and the government and think, "What a wonderful way to learn."

DSM: How old were you when you were doing this?

PJM: I was 19 years old when I became the Assistant Editor of the publication. Then during the summer I would go off and take some trips around and visit the computer companies and interview the people and see their activities. I really got enthusiastic about combining my enthusiasm for advancing technology and becoming an information service supplier through publications. That is really what led me to decide not to try to become a practitioner of the technology in terms of continuing in a strict engineering or science profession, but to become a communicator.

I wanted to bring the possibilities to people and get them stimulated about understanding how this technology could help, and then invest to develop the technology. I wanted to help people to be smart and wise about quarrying and using it well, because if they did that, the successful use would be a stimulation or role model to others, and would send more people to follow in their footsteps, and then become a sort of self-reinforcing system.

DSM: I was going to ask that question. I suppose if you hadn't found that ad for *Computers and Automation* on the bulletin board, you would have been sorely tempted. You graduated in 1959 from the premier engineering school in the world, at a time when the first astronauts were being announced, engineering was king. You never considered going into medicine or going to graduate school? Were you really that hooked? You weren't tempted?

PJM: I would say that I was considering that what I should do is go into some form of medical research to continue to study the structure of the nervous system, even though the tools were not up to what was really needed to make a lot of advances. I thought, "Maybe I should contribute to this." I just got hooked on the experience of being an editor, and then became Associate Publisher of the publication. It seemed like a lot of fun. So I thought, "Why don't I just try this for a while," and after a while if it no longer was interesting and stimulating, I would go back to take graduate program and become a professional practitioner of biological science. I found the publishing field so interesting and stimulating, in the sense of influence and a sense of providing intellectual leadership to the community, of people reading the publication, was very satisfying. It led me into the field of information services about information technology.

DSM: Well thank goodness for *Computers and Automation*. Who hired you there, who made the decision?

PJM: It was a small business started by gentleman named Ed Berkeley, who turned out to be the author of that book I had mentioned.

DSM: Oh, really.

PJM: That was sort of an interesting coincidence. He was one of the first people involved with using computers. He was an actuary at a big New York insurance company and they were one of the first computer users, UNIVAC 1 installation. He got involved and was one of the founders of the Association for Computing Machinery, which was the first association of people involved with professional use of computers. When I saw his name I thought, "He's the author of this book that got me stimulated." I think maybe because I had read his book and was familiar with it is probably why he chose me to join his little company.

He only had about five people in the company putting out this monthly magazine. I thought that was the way publications were, you could do a monthly magazine with five people. I went to New York after a few months and went to another monthly magazine and saw 120 people, I said, "What possibly could all these people be doing?" It just amazed me that they could absorb so many people putting out a publication, which wasn't too much larger than the one I was involved with with such a handful of people.

DSM: Extraordinary. Do you still have your copy of Berkeley's book?

PJM: I think I do have a copy somewhere back in Boston.

DSM: You were editor at *Computers and Automation* for about four years, after you got out of school?

PJM: Yes, from 1960-'64.

DSM: While you were there, sometime during that period, an idea emerged about doing a piece of research on where computers were and who was using them. Can you tell that story for us?

PJM: Yes, I remember it was in February of 1964, and I went down to New York for a day. In the morning I went to a press briefing being run by RCA, which was one of the active computer companies back then, on a new semi-random access memory that they had created, that took punch card size devices and coated them with Mylar film so that it made a magnetizable surface, and then put them into a chamber. Then by electrical signals, would extract them from the chamber, shoot them about a yard down the little channel, and then try to wind them around a drum, and we would read it and shoot it back into the cartridge. It seemed like every hundredth time the wind or pressures would be somewhat different, so it would get into the wrong slot in the cartridge. I asked the engineers, "What is the purpose of this?" They said, "The purpose is to impress our competitive engineers with the electromechanical skills that we have in dealing with moving all these physical objects under electronic control." I said, "What is the application?" "Oh, we hadn't thought about an application, but we thought that this was going to be the most clever random access memory methods that are now available."

Then I had a meeting that afternoon with the head of Univac, which was then the number two computer company. I explained that I was a little bit concerned that we were investing millions and millions of dollars in new technology development, but often driven by no knowledge about what the needs of the market were. He said, "You are a hundred percent correct. That is just what I worry about, that all this money is going without guidance from the marketplace. We try, at our company, to go out finding where the computers are installed, and how they are being used. We try to do it through our own sales force. We find that there are two kinds of sales personalities. There's someone who is constantly devoted to meeting people and trying to sell, and you ask them to take time to fill in reports as to what computers are at the site they are visiting, and what the people want to know and what they'd like to acquire in the future, and they don't want to be bothered. They do sell well, so we have orders where we have no information in the territory. We have other sales people who love paperwork, love to sit at a desk and fill in forms. We get complete documentation but we get very few orders. So we know a lot where we have no business, and we know almost nothing where we have a lot of business. Somebody could put together a database that described where computers were now installed, and what their configurations were, what people wanted to have in the future, what were their key applications, what were some requirements about new peripheral devices they wanted. This would be very helpful."

I thought, "Gee, I knew there were about 10,000 computers installed, because one of the things I did at *Computers and Automation* was keep a count of how many computers were installed by model. So I said that I could contact the companies whose size or assets or activities would make them logical users of computers and interview them by phone or send them questionnaires and compile such a database. He said, "How much would it be to put that together?" This was in 1964. I said, "Oh, about $15,000." "Oh," he says, "unacceptable, unacceptable." So I thought that he was obviously asking me to keep the cost down, so I said, "My office is near a high school. I could probably get the high school students to do the work, to keypunch the data in and work economically and maybe cut cost to $12,000." He said, "No, no, you don't understand, Pat. No one would use information that was so cheap as you are proposing to provide it. They wouldn't believe it had any quality or reliability. You should charge at least twice as much and then we'll take it pretty seriously, and we'll get a lot of application benefit from it." I said, "The higher the price, the more usefulness?" He said, "Absolutely." I said, "Wow, what a wonderful business concept this information business is." He said, "Don't only sell it to me, but offer it to the other computer companies and you'll have many more resources to build the best database to help our industry understand the future needs in the market."

So I went from his office to Penn Station in New York in and jumped on the train to go back to Boston. As I was going back I wrote a proposal to do this research. I was thinking what name I should give to the company to start out. I called the owner of the magazine and said, "This person wants us to do some research and we'll have to make an investment to get going." He said, "I'm not interested in research, but if you want to do it on the side, that's fine. You just do it, take the risk yourself." I sat on the train thinking, "What would I call this company that was supposed to do this research?"

I had little index cards and I wrote different names down that I thought might be elements of such a name, like "data" and "national" and "computer" and "systems", etc. I shuffled the cards and picked three cards and they came out as "international" and "data" and "corporation." I thought that sounded like a sufficiently general name that would give me lots of freedom to move in any direction in the market. I put that down as the name on the proposal and had it typed up over the weekend. On Monday I mailed it out to 20 companies, thinking I'd never hear another thing about it. To my absolute astonishment and amazement, I got 12 checks for $15,000 prepayment within two weeks.

DSM: To put this in some sort of economic perspective, what sort of salary would the Associate Editor of *Computers and Automation* be making in 1964, compared to a $15,000 check?

PJM: Let's see, the salary I think I was making $60 a month, so this was big money. Dreaming of even seeing a check for $15,000 was inconceivable.

These checks came in, of course made out to International Data Corporation, so I ran to the bank to deposit them. They said, "Well, you can't deposit this check because you don't have a Board of Directors authorization to open an account with us." "You mean I have to actually have a company?" I panicked, because I never even checked on that. I thought this was just a flyer, that I would never hear anymore, so I didn't want to invest any serious resources in preparing to actually register a company. Then I thought maybe the company's name had already been registered and I would have this difficulty. To my delight, I found out the name hadn't been registered, so I registered the company and got the bank to accept the checks.

That was the capital of starting the company. I decided I needed a base capital, so I sold my car and I got about $5,000 and put that in as the base capital. I tried to ask a few friends if they believed in me enough to invest in the company. Only my wife and my sister had enough belief in me to go invest, and each went to the limit of their belief, they gave me $10 each. They knew me pretty well, I guess. One of my satisfactions is that $10 is now worth $4 million. They got some benefit out of the project.

That was really the start of our research project on IDC. What it taught me was the importance of having your Board of Directors be your customers. If you listen to what people want and you respond, then you do very well. If you try to dream up what you'd like to do and try to force it into the marketplace, then you are going to have much higher risks that you won't be as successful because you're not responding to other peoples' needs.

DSM: I didn't realize, for a time you were doing both *Computers and Automation* and IDC. When did the break become permanent?

PJM: I continued to work with *Computers and Automation* for another three years on a part-time basis. I split the time between IDC and *Computers and Automation*. Starting in the beginning of 1967 the business of IDC had grown to the point that it really required my full-time attention.

DSM: 1967 was not only landmark in the growth of IDC, but another landmark in your publishing career, or I guess, the first landmark in your publishing career. Can you talk about why you did what happened in 1967?

PJM: We were conducting a research project for a client to find out what the sources of information were for people who bought computer systems, and where were they getting the information? We went down and interviewed about 40 people who were data center heads or computer center heads. They all were telling us the same story. They said, "I get a tremendous amount of literature from the manufacturers." In fact, one of their primary sources of information was literature and presentations by the manufacturers, each telling them their version of where the technology was going to go, and what were the products that were important to get, and what the applications they should be taking next. "What I don't get is visibility of what my colleagues are doing. Because I know that they're having the same concerns about acquiring and using this equipment effectively and well, and problems with some of the reliability of the equipment, and how do they train their people, is a shared challenge for us. There isn't anyone who keeps us connected as a community, who keeps us up to date and keeps us aware. There are so many things happening, we'd really like to get high frequency information. We are only getting the publications in the field, which are all monthly, and they're not able to be as fresh as we would like to see them."

They also said, "Many of the publications are free, sent to us without charge. We feel that they are all being paid for by the advertisers, so we feel they are not courageous enough to tell us a report on the real problems that we have with some of the manufacturers' reliability or terms of trade or support." What they all wanted was something that they felt was on their side, and would speak as an advocate for the customers in the industry.

At the end of one day of interviewing in New York, we said, "We keep getting a message that people want something, a publication that reports on what their doing, that builds a community among the people who head up data centers. They want it frequently, and apparently they're willing to pay a subscription fee for it, so that sounds like a business opportunity." So we said, "Gee, there's a computer exposition in Boston in 2 weeks. That might be a good time to launch this." Never having been involved with a newspaper, we just decided, "Oh well, let's try it." We went down to a newspaper printer in the south shore of Boston and sat in their office and wrote the stories and made up the newspaper. I remember I had wanted to call it *Computer World News,* because there was a newspaper about the medical field that I often read called the *Medical World News*. I thought that was a nice sort of image of covering news and covering the world. So that was the name of the publication we had decided on.

We had made up our little data sheets on it, and just as we were going to press with the newspaper, a person doing the typography said, "To get an adequate size type, I can't all those words across the top of the page. In fact, I can't even get you space between "Computer" and "World. We'll just have to go with one word, *Computerworld*." We said, "Oh, this is awful because we announced the publication in all of our press announcements as *Computer World News*." So we had to tear up our press release and our old data sheet, and redo it under this new name, *Computerworld.* Then when we presented it, it got an amazing reaction from people, "Oh, just what we wanted, nice *Computerworld* that said "the news weekly for the computer community." That's our paper, the people's paper, the people who are buying and using this technology. At last, we have an advocate for our cause.

We got about 20,000 paid subscriptions in the course of about two months. Thank goodness, because we had totally underestimated how much it would cost to start a weekly newspaper. We had acquired about $50,000 of accumulative profits from the research over three years, and we were going to bet it all on starting this weekly.

At the trade show, where we launched it, other publishers came running up saying, "Where did you people come from? We hadn't ever heard about you. We hadn't heard about your project. We always hear rumors about a new publication months in advance. How long have you been working on this?" I said, "We started 10 days ago." They said, "Well, how much are you investing?" I said, "We're going to invest $50,000 to get this launched." They said, "This is ridiculous, it costs at least a million dollars to launch a weekly newspaper. This is very useful for us because you are going to be our test case. You are going to put this out and you are going to die because you don't have enough money anyway. But if you show that there is a need for this, we're going to come in and do a real big blast weekly newspaper for the market, too. You are going to test the market at your expense, not at ours." They all said, "We're going to sit back and watch and see what happens."

What they didn't realize or expect, we didn't either, was how instantaneously popular this proved to be. All the money we got as prepaid subscriptions. We got enough working capital to go. It was fortunate we did, because we started our "lets tell it like it is," and we would write up "Disk Drive Crashes, 1,000 Records Destroyed at Bank," or "Hospital Data System Loses All this Data." The industry was horrified that we were writing these stories about bad performance, bad applications. No one would advertise with us. They said, "You are the enemy of our industry." We put out the publication, almost without any ads at all for the first six months. Then the people apparently did some readership studies and found out that even though our circulation was only about a third the size of the magazines that were all being mailed out en masse, as controlled circulation or free publications, more people were reading our publication and relying on it than anyone else.

They would call us and say, "I really hate to have to do this, but my research, and also our sales people are calling me to complain. They say, “The publication I find on the desk of my prospect is this *Computerworld*, and why aren't we advertising there? That's where the attention of the prospect is. So I'm going to have to advertise. It really burns me up to do it."

To really make matters worse, our Editor who was in the English, Journalistic tradition, which is very aggressive and investigative, started a column called "Measure for Measure," in which, any time an ad appeared in the publication, he would review the copy for justification and accuracy and completeness. Of course, since almost every ad sort of relies on hyperbole of some fashion, or over-dramatization, almost every ad would be excoriated by his report. The advertisers just couldn't believe it. Not only did they have to advertise in a publication that criticizes their company, but their ad itself, is going to be critiqued and blasted for incompetence.

DSM: Who was selling the advertising?

PJM: Many people. After a while they would quit. They would say, "I just hate to send the ad in, because I know after your column appears I'm going to be called by this chap and he'll say, 'What the heck is going on, you're tearing my ad apart, and my boss is asking how we can we have such a stupid ad."

DSM: Who were your first advertisers? Which companies?

PJM: I remember Memorex was one of our first advertisers. I remember their ad, which claimed all this reliability, "Is it live, or is it Memorex?" That was totally destroyed by the attack that this was all done without evidence or justification, a meaningless claim.

DSM: How many pages was the first *Computerworld*?

PJM: It started as eight pages. As we grew, we were so happy to be 12 pages. Our dream was to be 16 pages a week. That would be just perfect because we would have a little heft. We were a little bit embarrassed that we were so thin, because our principle competitor then was called *Datamation*, and it was a 400 pages a month publication. It had this gigantic size, and we were this thin, little, almost like an underground newspaper. Then after a year and a half, when all of a sudden all this readership research came in that showed that we were in fact, the most influential publication with key buyers, then things took off. In 1969 we were growing about 30% a month in additional ads. We projected this out, if this was continuous for 2 years, we would have to become a daily publication to sustain the number of ads we were being asked to run.

We actually had made a plan to go daily. We were going to spin out the section we had on the computer industry, talking about what the companies were doing as industry companies, as a separate weekly publication for the industry. Thank goodness for sanity, in the beginning of 1970 the industry went through a little recession, and advertising dropped off.

The thing that boosted us was this big competitor, *Datamation*, decided to double its frequency exactly a month before the industry took a big drop in business and cut a lot of advertising. So they went from 400 pages an issue to publishing twice a month with half the number of ads. They came out with issues of 100 pages each. Most people don't pay attention to the frequency, they just see the publication and pick this up and say, "What's happened to our big publication? It's a quarter of the size, it's going out of business. This is terrible."

DSM: In the meantime *Computerworld* is maintaining.

PJM: Yes, we kept our weekly frequency, so we were maintaining a reasonable size. That was the breakthrough. People before had thought we were the upstarts, the unconventional publishers, just hanging in there. Then we began to be seen as the number one publication in both pages, advertising pages and circulation growth, and then in market share.

DSM: I know you've always had a strong interest in ongoing readership research and analysis. Is this what taught you that lesson?

PJM: I think one of the things that really helped us as a publishing company is the roots we had in market research. For three years we did nothing but go out an ask people questions similar to, "What are your needs? What would you like to see done to fulfill those needs? How would you like to see it done? How much would you be willing to pay?" We just constantly got the culture of listening and reacting.

So when we started our publication, *Computerworld*, we had a practice every three months going out and asking a very detailed survey of two types. One was the direct survey, where we'd say, 'This is *Computerworld*, we want to improve our service, how can we do better?" The other would be a blind survey. We would go out under a different name, saying, "Please tell us what publications you read and how you compare them?" So we would see how what we were doing compared to all of the other publications in the computer-related field. This gave us guidance.

Actually, I was always curious that people would be much more critical when they were talking to you directly. I guess they said, "This is my instruction on how to improve." They would say, "You need to do more of this and more of that." In the comparative one, we would be rated absolutely the best, number one in quality, usefulness, timeliness, and it was reassuring that with all of the ways that we could improve, we were still considered best of breed within a comparative study.

DSM: That's really counterintuitive. I would have guessed that it would have been the other way around; they'd have been very polite.

PJM: That's the difference, between the reader who just sees you as a service group, who wants to get more and more help, and the computer industry. If you talk to someone in the industry, of course they know that what you write about has a lot of influence. So they are tending to be less critical, and to be very positive. In fact that is one of the problems about going to the industry to introduce a new publication. They tend to be so polite to the press for fear of begetting any bad will. You ask, "Would you be interested in this new publication about CAD cam? Or this new publication about data communications?" They would say, "Oh yes, it's a great idea, bright of you to suggest it. Oh yes, I encourage it, go right ahead." Then you come back and ask for the order and they say, "Unfortunately our budgets and our needs don't quite allow us at this time." We learned through our market research to never just ask the opinion, always ask for the order. If you are really interested, we would like you to give us a commitment for the first 12 months of the publication. That way we knew what was politeness, and what was sincere need being fulfilled.

DSM: A lesson well learned at *Computerworld* from the origins of IDC, as well.

PJM: That's something I think distinguishes our company. All of our publications -- now we have 310 around the world, and every three months there is a detailed readership survey. We get the results and it's our way of monitoring how well they are performing in their own marketplace. It would be impossible for us to go over and tell our German publishers how they should report to the German audience, or Chinese, or Japanese, or Indian. This way we get a very relevant and timely measure by insisting upon the feedback from these independent research studies. It allows us to continue to evolve the publication and be on top. When people compare *Computerworld* from 1970, 1980 and 1990, they say, "The subject matter is so completely different." We say, "Yes, but the audience is the same. We are serving the same person, it's just that their information needs evolve as the technology and the applications evolve."

DSM: Taking that pulse every quarter.

PJM: Exactly.

DSM: We were talking about a really exciting period between 1967 and about 1970. You made many hires during that period. I want to ask you about two folks, Walter Boyd and Bill Murphy. Can you talk about those guys?

PJM: Well, when we started the newspaper, we realized that we didn't have anyone who really was familiar with running a newspaper type of business. We had so little money that the thought of running a "Help Wanted" ad was beyond our budget. I said, "What we'll do is we'll look for people with initiative. We'll look into the publications about the publishing field, and look for a positions wanted ad to find somebody who is advertising themselves." I looked in the publisher's magazine, and I saw this "Positions Wanted," someone who was a Publication Manager at *Transaction* magazine, which is a social science magazine in St. Louis, was interested in a position with a company with some publishing promise. I sent him a letter, and he said, "All right. I'm on my way to Europe. I'll stop in Boston."

I was afraid that when he saw that we were located in a four story walk-up in Harvard Square, with six people putting this publication out in very shabby circumstances, that he would immediately say, "There is no future in this business," and go on. So I met him at Logan Airport. I said, "You're not too familiar with this area. We'll go down to the south shore, we'll go have a lobster lunch together and then we'll go over and show you the office. So we kept talking and talking during the lunch. Then, unfortunately I said, "Oh, Walter, we have no time left to get over to the office to show you. It's the top floor of a nice building in Cambridge, so I'm sure you'll love it. He had to get back to the airport to fly to Europe. I wrote him an offer and he accepted it. He showed up on January 1, 1968 and he said, "Here is this wonderful building, where is the elevator?"

He was a wonderfully capable and organized person, just the kind of spirit we needed. We were heavy on the creativity side and promotional side. Walter said, "Let's get organized and get everything lined up and put everything together." Of course, those are wonderful times, when you are starting this publication, which is almost like a counter-cultural revolutionary publication. The reason we went to Harvard Square was that we couldn't afford to get regular professional editors and reports, but we knew that there were a lot of literary skilled people going to Harvard and Harvard Graduate School. We would hire them on an as needed basis.

The day we would put the paper together was on Monday. On Monday night, at about 6:00, about 12 people who were hired as freelancers would come over and we would go through all the articles that had been submitted and all the press releases, and then we would actually make up a layout. We'd say, "All right, we have a 12 column story on page 2, we'll talk about a new tape transport." So someone would sit there and write it up right on the composing machine. They would just be creating a story until they said, "Oh, I only have four lines to go." Then they'd figure out a way to finish the story so it would exactly fit into the spot. You learned how to pre-organize everything in your mind based on how much space you were allocated. Then we would know how it is we were going to press the last little three-inch spot that was unfilled. We had to make a story. We would be sort of creating this publication on the fly. Things would go on until about 5:00 in the morning. It was really like a hugely creative explosion.

DSM: You had a total staff of about how many?

PJM: Maybe about 12 people were putting this together.

DSM: Obviously, when he actually saw the four-floor walk-up it didn't drive him out. Walter was with you for over 20 years.

PJM: That's right, actually 25 years he worked for the publication. Of course, he became the president of our publishing company, and then the president of IDG.

DSM: Now in 1969, this was the year of your first venture outside the United States?

PJM: Yes, in 1969 we decided that our market research field should start its international operations. We went over to England and started IDC Europa, and took an office in an area where there were a lot of people who are in the law profession. We needed to have people with a lot of skill about making up reports to give to the industry based on the survey information that we were developing in the U.S. and interpreting it for the European market, and then doing a lot of basic research there. That was our first international office. We began our first international publication in Japan in 1971.

DSM: Now, you are also beginning to deal in pounds as well as dollars, and you hire a CFO in 1970 named Bill Murphy.

PJM: Yes, we hired him in the fall of '69, and he started January 1, 1970. This was just the beginning of this turn down in the industry. All of a sudden our sales growth was flattening a bit. I remember we were all down in Acapulco celebrating the fantastic 1969 we'd experienced with 30% a year growth.

He called down and said, "I've just looked at the bookings for the next 3 months, and we're in trouble, here. We're spending like we're going to continue to grow, and revenue is growing much less rapidly than expenses. Cut this darn party short and come back here and let's get to work." That was the first public pronouncement of our CFO. He got everyone's attention very nicely.

DSM: With IDC and *Computerworld* it's heart, you grew IDG to be the dominant publication conference group and training group, providing information about information technology in the world. How did you grow? What was your philosophy of growth? How did you decide to grow this company?

PJM: I started out like most founding entrepreneurs. You want to make sure that everything is done right and being in control of things. So I would want to approve any major new financial commitment. I would want to meet all the key people being hired by the company. I always loved to be in touch with the customers, so I would constantly be traveling. I would travel for 10 days or 2 weeks, and when I would come back I would see a big sack of things in my in basket. I remember one evening seeing this 18-inch stack thinking, "Oh my God, I'm slowing the growth of this company rather than accelerating it." I said, "Well what does it really take to make a successful business?"

The first humbling thought that I had was that there were tens of thousands of very successful businesses that never had any advice, or guidance, or suggestions from me at all. I said, "I really can't be an essential part of business success. Why am I keeping all these people waiting for a decision? What is really the basis of success? The first thing is to find a fertile market, find a need out there that you can fulfill at a cost that is less than perceived value, so you can make a little profit of a positive cash flow and have a healthy business. Then you have to find someone who's passionate and inspired by the opportunity to fulfill that need, someone whose passion and energy and enthusiasm attracts others to join them and they can provide leadership to them.

Then you have to support that person the way you would like to be supported in their position. You want to have trust in them and you want to encourage them. You want to celebrate their successes. You want to give them the resources that they ask for. You want to get out of their way and let them do it the way they think is right, let them listen to the marketplace and the customers and let that be the guiding force rather than looking over their shoulder and telling them what your opinion is, because you are not the customer. The real bosses should be in the marketplace. You need to maximize the amount of time they can spend in touch with the market and minimize the time they have to spend in internal communications."

I really changed the whole philosophy of our business at that point saying, "Every new project we have, we're going to treat it as a new business. We'll launch a new company and hire a CEO, and tell that person that they are really the CEO. We will form a Board of Directors for that company so that that person wouldn't have to report to a boss. They would report to the Board like any other true CEO." Then we would ask them to tell us what they need. We would give them what they asked for and tell them to tell us any problems they have and we could give them help. We would have a quarterly board meeting review just to keep in touch with what they were doing. Our mission was to be a positive feedback mechanism for them and give them as much encouragement and support, and we created 10 corporate values that tried to express our philosophy to focus on the market.

We thought the most important thing to do would be to listen to customers and base your plans on the needs of the market. We want to always acquire the evidence that you are number one in quality and number one in service, number one in usefulness, and to keep humility about change. The biggest room in the world is the room to improve. We believe in always driving to improve in every fashion and every way, continuously. We always wanted to invest in our team through training and education, so their skills were constantly advancing. We wanted to keep out of peoples' way. We committed to having a very small headquarters team. Headquarters of IDG now, with millions of dollars in sales and 12,500 people is only 19 people. We don't have any people to get in peoples' way. In fact, any time there is a request for another business analyst to join, or another business development person, I immediately apply the request and put it into my paper shredder, because I think those people do is collect huge amount of data and take up peoples' time. It is extremely expensive and it doesn't really accomplish very much. That time is taken away from the time that the company needs to really get the information it wants to succeed to be in the marketplace.

The feedback we really use are our surveys from the customers, these customer satisfaction surveys that we run. That is the real guidance mechanism. If we see that the customers are getting less satisfied, that we are no longer number one, then we'll feed back the result and we'll ask the manager what steps they are taking to do that.

One of the key things that allows us to continue to grow and maintain the leadership with very little supervisory, top-down work, is that we are a very open company which shares the results of every business with everyone else. If you are publishing *Computerworld* in Germany, you are going to see the results of 58 other *Computerworld*s in other countries.

If you say, "Oh, *Computerworld* in France has a better profit margin than we do." They call the team together and say, "This is not right. We Germans should be highly efficient, more effective. We are not satisfied to be number three. We want to be number one in productivity and market growth and profitability." They set their own goals within the framework of knowing what everyone else is doing. It is actually a very self-motivating system.

In fact, one of the most interesting experiences I had as we evolved each company is that initially we would ask each business head to come in and explain their plan for the next three years. Each one would come in and say, "I'm from Italy and we had many economic problems. We have a lot of difficulties with the competitors, and we have a lot of challenges. We can only expect 2% revenue growth and 3% profit growth, and this is the best we can do." They were the experts in their market. It was hard to argue with them in their own country's situation. Then one year we changed and we said, "Don't present to us, present to the heads of the other companies." All of a sudden we noticed the leader would say, "We are a very efficient company. We have great people. I'm a wonderful leader. We're going to grow 25% in revenue and have 30% profit growth. I'm going to be the best in our category." There was a natural sibling rivalry within the company, and was causing them to come up with much more ambitious goals. This is great. We don't have to push them for performance. They are doing it on pride now.

DSM: Talk about the first of the companies that was launched under this new decentralized philosophy that is the bedrock of how you operate now.

PJM: The first company in the U.S. that was launched was our exposition company. We started IDG World Expo and its initial project was to run a family of trade shows around the United States. We thought in 1970, with the recession in the industry, that the industry needed a real stimulus. We said, "Let's find a way to bring the buyers in each of the major cities together with the industries" so that they had a better dialogue and build the market. We decided to do a trade show that went to 10 cities in 10 weeks.

Again, we didn't know too much about the trade show business. It sounded very simple to do. It turned out to be a logistical nightmare with all these booths that we set up in major convention centers or major hotel ballrooms. We were going through the winter and there would be snowstorms and whiteouts and everything, and all of our booths were prefabricated and moved from city to city so we always had to worry about our equipment trucks.

The other problem we found was we would sell a company and sell the manager of the company on the project, and he would want to supervise how they were doing. He would spend 10 weeks with us traveling across the country. When he would go back to his office after being away for 10 weeks, he would often find someone sitting in his chair saying, "I've been carrying on your other projects while you've been away. In fact you'd better talk to your boss." About 60% of people would no longer be at the company that they had been with, because their absence had been so extensive that someone else had filled in.

However, we do pride ourselves that we arranged about 10 marriages during the course of this cycle. People spending 10 weeks in some of the best hotels around the country somehow led to some relationships that were enduring. We call this project the Computer Caravan, and we have about 25 Caravan children.

DSM: There are how many publications in IDG?

PJM: Today we have 310 publications in 85 individual countries.

DSM: How many users of information technology do you think you touch in those countries?

PJM: We measure that we now have 100 million people who read one or more of our publications each month, on a global basis. That's really the number that stimulates me because what I'm trying to do is stimulate the diffusion and use of information technology around the world. I think it really intellectually stimulates people and increases their quality of life, increases their sense of productivity.

Our dream, and the way I really measure our progress, is how many additional people we touch. My goal is to reach 500 million by the year 2005, and 1 billion people by the year 2010, which we think we can do based on our plans for continuing the spread of our information services. Particularly now with the World Wide Web, people, no matter how remotely they are located geographically, can instantaneously get access to our information. That's the sense of mission accomplishment that's most important - how many people are we touching and benefiting?

DSM: With that number of publications and businesses, and every one of them, I am sure, is a fascinating story. I would like to ask you about some specifics that are of particular interest to me. If there are some that you want to talk about, and I know it's impossible to choose, please do so. The ones that I would like to be sure to talk about is your entry into Japan, and I'd like to talk about China, because I know there is a good personal story about you're getting into China.

PJM: Originally I went over to Japan in 1968 to give a talk, because the Japanese were always very long term planning. They had one of the earliest concepts of the information society and the 21st century. They asked me to go over and give a talk on what I viewed as the way information technology would improve society in the 21st century.

DSM: Is this you first time in Japan, in '68?

PJM: Yes, that's right. I remember it was in a huge hall they have for business meetings. There were about 600 people in the audience, and I was one of the first people asked to talk. I gave my talk for about 20 minutes, and there was sort of a light ripple of applause. I sat down, and the next speaker who got up was a Japanese gentleman. Of course I couldn't understand what he was saying, but he really got a nice reaction from the audience. Every minute and a half he would get a round of applause, a round of applause. I said, "This person knows how to really get this audience engaged and inspired. I need to show my appreciation for what he is doing." I started to notice when the audience was starting to react, and I would be applauding loudly from the dais while this was going on. After about four or five of these times, the chap next to me tapped me on the shoulder and said, "Ah, McGovern-san, perhaps you should restrain your enthusiasm. That gentleman is translating your talk." I am happy that technology now allows simultaneous, rather than consecutive translation.

Through that talk I met a publishing company who was interested in doing a publication like *Computerworld* as a weekly in the marketplace. What I noticed was that they took an extraordinarily long time to decide to do it. We would have three meetings and they would consider and evaluate. Once they decided to do it, they were able to get the first issue out in only a few weeks or so. What I've admired about the Japanese is that they don't do something until the whole group has been briefed and commits to it, from the ground up. Once they decide to do it, everybody is aboard and everyone cooperates and executes very quickly.

They were very detail oriented. They came over with a team, and spent about three weeks at our office, sitting next to each of the job functions in putting out a weekly newspaper. They took pictures and took copious notes. When I went over and saw their first issues, I noticed that in their database of subscribers, they had a five character postal code. I said, "Why do you have that?" They said, "Because that's they way you have it in the United States." I said, "We have a zip code over there. That's not the way you do your postal system." Everything was like magic. They had to duplicate every process.

DSM: Now your publication has been in Japan for nearly 30 years and is marvelously successful.

PJM: We are the only foreign owned publishing company. We decided to become 100% owner of the company. We bought out our partner because we wanted to add a lot of additional projects, to invest more than the partner wanted to do. I think we are the only internationally owned publishing company, of any size in Japan. The rest of the industry is all Japanese owned because publishing is considered sort of a culturally sensitive area.

DSM: In 1980, you literally went where no Americans had been before. You sort of have a history of doing interesting things in China. Tell us that story.

PJM: That was in 1978. We didn't even have diplomatic relations with China back then. I thought here are a billion people who I knew were very respectful of learning and education and the Confucian philosophy. In the United States the Chinese people were very successful in engineering and math and sciences, so I knew this was a natural interest of theirs. I dreamed that if I was ever going to fulfill our mission of being able to help tens of millions and hundreds of millions of people with information, I had better get involved in China as early as possible.

I was told that there was absolutely that I could get a visa to go to China. We didn't have diplomatic relations. So I said, "What I'd like to do is just get a little flavor of the country, so I'll plan a trip. "I had to go to Japan to have a board meeting, and then there was a computer exposition in Moscow that I would go to. I noticed that there was a flight that went Tokyo to Beijing, and then a flight that went to Moscow. I just said, "I'll take this service and I'll arrive on one day, and then I'll go back and on the next day I'll just be in transit." I thought I would, at minimum, be able to stay at the airport and stay at the airport and see what's going on.

I went to our local booking office of the travel agency who didn't know anything about international regulations, so they wrote up the ticket this way. I went to the airport in Tokyo, and they said, "Oh, you know you are going to get off in Beijing. Where's your visa?" I said, "Oh no, I don't need a visa. I'm only in transit." They said, "No, there is no transit." I said, "Oh yes, my airline reservation people checked this out, no problem." I just went aboard the plane. The pilot said, "There will be a few minutes delay. We have some paperwork to complete." Then all of a sudden three people came aboard the plane with big documents. They said, "Mr. McGovern, before this plane must leave, must sign waivers of liability for this airline." There were two chaps from the airlines and another from the Airport Authority. They all wanted me to sign that I was not going to hold them responsible for this apparent violation of international travel.

I just said, "Well, I'm going." So we went, and we arrived in Beijing. I looked and the airport hangar was like a Quonset hut. I thought, "Uh-oh. There is obviously not any real transit here." As I was getting off the plane, a woman looked at me and said, "What country are you from?" I said, "The United States." "Oh no, you're not." I said, "Yes I am." "You can't be." I said, "Why do you ask?" "I handle the U.S. interest section at the Canadian Embassy and there are no Americans coming here for the next six months." I said, "I'm only here on transit." She said, "Oh no, we're going to hear a lot about you." As we walked to the terminal I said, "They can't put me back on that plane." I went in and gave my passport. They said, "Visa, visa." I said, "Transit, transit. I am only staying one day. Tomorrow evening I leave by air flight." They all went into the back room for a 20-minute heated discussion, and then they came out with a piece of rice paper. They had hand written a visa. They said, "Put this in a paper clip in your passport, and as you leave, tear it up. Never tell anyone where you got this."

I was able to get into Beijing, get around and walk through the city. I saw bookstores crowded with people three deep. I thought, "This is a publisher's dream. I've got to get involved here as soon as I can." As soon as [Dung Xiao Ping] announced the open door policy in the beginning of 1980, for the first time foreigners could invest and create a business in China. I immediately went over and organized a technical seminar program where I had speakers from Microsoft and Sun Microsystems, database companies, etc. While there I met the Minister of the Computer and Electronics Industry. They had strange naming systems. They would call it the 4th Ministry of Machine Building. You would never know what it was about. The computer making factories were called radio factories because that was their word for electronics. People would say, "Where are you visiting?" "I'm going to a radio factory, " and they would ask, "What are you doing that for?" I had been told by many that it would take years to get a project going. It's the world's largest government bureaucracy and there are many permissions to get. I was fully expecting this to happen.

When I met the minister he said, "We need to inform our people about the information economy and the information age. Your information service would be very helpful to our growth and we would like to form a joint venture with you and make a weekly newspaper." I said, "That sounds very interesting." For two days we met in the morning, and we completely defined all the terms and conditions of a joint venture. It turned out we were the first people who were putting this into operation. Most of the terms had no precedent.

As we were making the budget I would ask, "What are the social charges that we should add to the salary that we are going to pay to the people working in the company?" They asked, "What do you mean?" I said, "Well, the government pays for education, for healthcare, for housing, so there must be some charge we have to pay the government as a contribution toward this." They said, "We have no national accounting system that ever has put out these numbers." So they asked, "What is it in other countries?" We said, "It's 60% in France and 40% in Germany." So they said, "Well, we'll just take an average of those." We just put down this as the way of establishing the basic economics.

In total contrast to the so-called experts who told me it would take years to get a project going, they had it all approved by the State Bank of China and the State Council, and we were in operation within just a few months. When the first issue came out it was announced on their national television. We had 20,000 paid subscribers in the first week, and now it is the thickest computer publication in the world. *China Computerworld* runs over 10,000 pages of advertising every year. It's been an enormous success, and has over 2 million readers now. From that base we've launched 19 other periodicals in China. In fact, now, because we are well established as a publishing company, international publishers have asked us to help introduce their publications in China. So now we do a motor magazine, a music magazine. We do *Cosmopolitan* magazine. We do *Esquire* magazine. We are going to do a bride's magazine. We actually have a broad consumer portfolio there that's built on the fact that we have the largest publishing infrastructure in China.

DSM: You have had 20 years of experience there. I understand you are also an honorary citizen.

PJM: That's right. We were the first joint venture for the new operation, and we've always grown and reinvested. I've had the privilege of meeting the President who gave a special recognition for the way in which our activities were actually motivating a lot of people who had left China to study in the United States to come back to China and join some of the enterprises that IDG has created, or is supporting over there.

The Premiere gave us special recognition. He also comes in and gives the keynote at some of our trade shows that we run over there. We've been fortunate in the support that we have received and the encouragement that we have received in China.

China is now actually our third largest country around the world. We have over $120 million dollars of annual revenue in China. If you reinvest in China you get your taxes reimbursed, so we've actually set up a little technology investment company and have about 70 investments in companies in China. About 8 of the top 10 Internet companies are in that category now. It's been a fun experience, and as long as this Internet valuation portfolio enthusiasm keeps going, it might be economically rewarding as well.

DSM: The order of the launches, the United States, Great Britain, Japan, Germany; have all been in a very logical order. Did you ever step out of that natural sequence?

PJM: Yes. Sometimes coincidental developments occur. I remember in the fall of 1975, it was about December 27th, I was in my office in Boston and there was a big snowstorm outside. My telephone rang and I picked up the phone and a chap said, "Hi, I'm calling you from Rio de Janeiro, and I understand you are the world's leading computer publisher. We want to start a computer magazine in our country. Could you be of any advice to us?" I said, "What's the weather like there?" He said, "Well, it's 93 degrees and everyone is out on Copa Cabana beach." I said, "Is it all right if I see you tomorrow morning?" I went down to Boston Airport and flew down and we discussed for a couple of days. We sat on the beach and made a business plan.

I found out that they have to make sure that the business plan is being accepted to the spiritual forces. On New Year's Eve we went down to the beach where it is believed that gods and priests come out. The ritual is that you take your plan or your wish and make it into a piece of paper and you fold that into the form of a paper boat. Exactly at midnight you put it right on the edge of the water. If the first wave of midnight picks it up and takes it out to sea, that shows that the gods are in favor of your project and that they are going to make sure that it is successful. If it is pushed back on the sand by the first wave, it means that your idea is unfavorable to the gods and is not going to work. So with great trepidation we put the business plan right on the exact spot it should be on the stroke of midnight, and the first wave came in and lifted it off and headed it off toward the Azores and we said, "Hurrah! We're going to be successful." It was amazing, how this became the confidence of the team. Their execution was so high that they became the largest professional and technical publishing company in Brazil in only about 10 years. It was a great satisfying success in a very sort of unconventional and unsystematic launch schedule.

DSM: In the very literal sense. There were very different temperatures and different story when you went to the Soviet Union, at that time the Soviet Union, to Russia.

PJM: That was interesting. We had read that the Supreme Council had declared, in 1988, that it was the first time they would accept foreign investment, and you could create a business in Russia, or the Soviet Union. We went over immediately and we met with the Academy of Sciences and the Printing and Publishing Ministry. We explained to them that we wanted to start a joint venture publishing company like we had done in other countries. They said, "Not possible, you cannot have foreign capitalists in our country. We won't accept this." We said, "Well here is the decree of the Supreme Council saying this is now improved." Their information flow was so bad that they hadn't even heard of this new regulation. They said, "Give us a copy and we will study and then come back in a few months and we'll tell you."

So we came back in a couple months and they had checked us out and decided this was a good thing to do. They all wanted to be our partner, but they all wanted to be our only partner. It was a big battle. We finally got all three of these groups together, who wanted to be our partners, into the same company. We said, "We wanted to really have a very impressive first issue to show everybody. We'll make 150 pages, of which 120 pages will be editorial, and you will take care of doing 60 pages from your sources in the Soviet Union, and we'll take 60 pages from the best international articles and then we'll sell 30 pages of ads."

As we went out to do that we found that for a lot of the companies export controls prevented them from selling their products in the Soviet Union. So they couldn't really do business there. We said, "Well, before there is a share of market there is share of mind. You have to build the awareness of your company, so when things will change in the future you'll be ready to do business." After a great deal of effort we got 30 companies to give us 30 full-page ads.

We sent them over three weeks in advance of the production date and then went over with a lot of the clients to have a launch party for the first issue. We took over the ballroom of the National Hotel. Everything was going swimmingly. When the first issue came out it was exactly 150 pages, but it only had four ads in it and everything else was articles. We said, "Oh, there must be a printing assembly error, probably some little mistake. We'll check into this." So after the big party we went back to the office and we said, "What happened with the ads?" They said, "Yes we did get the ads, but in our country the Editor in Chief is in charge of everything about our publication. So we submitted these ads to the editor and he read them and he found half of them were boring. They didn't have enough technical content to be suitable to present to his readers. Eleven of the other ads were mentioning companies that were already reported on in the articles."

So he said that they didn't want to be redundant and have this information presented in the ad that's being covered elsewhere. Only four of them were sufficiently interesting and new to be acceptable to him. I said, "Did you ever hear of Perestroika? We're going towards a market economy and if we don't get the advertising, we don't have any revenue and we can't pay the bills. We can't pay your salary. It's not good for your family."

The idea that they had to get money from customers was a concept that they hadn't really gotten their heads around. They thought that the Institute had always paid all the bills, and we were the institute then. So we were going to pay all the bills respective of income. We said, "That's not the way it's going to work." We were able to convince them to hire their own ad manager with his own pages. It was an amazing experience. I guess the czarist economy was very centralized, so the whole idea of having to deal with customers, rather than having resources provided by the state was a big cultural shock for them to deal with.

DSM: In one sense you could argue that it was a natural extension of the early computer world tendency to critique the ads, taken to the extreme.

PJM: That's true. I never thought of that before. You're quite correct. Maybe that was good reflection of our culture. Maybe they heard that story and said, "I like IDG. What they do is critique all the ads, and get rid of the ones that don't serve the customer well."

DSM: We've talked about some of the geographical diversity of IDG. If you would talk for a little about how you've managed to handle the technological diversity in the fastest growing, arguable the most diverse industry in the history of humankind. How do you keep up with that change?

PJM: A great deal of it comes from our constant communications to people who are either current users of the technology, or about to be. We look at a publication as serving a community of shared interest and common enthusiasm. So *Computerworld* was developed for the people who manage computer systems for the enterprise.

When the mini computers started to come out, and these were more for individuals or for departments within companies, we saw that this was another audience, a different audience than would be served by our *Computerworld*. So we created *Infoworld* as a weekly newspaper to serve people who were using these microcomputers in their business or educational affairs, but saw it as individual devices rather than application devices for broad enterprise.

When the individual personal computer came out, that's when we started *PCWorld*, which was for the person who had his own computer and was really focusing on the applications that they were using in their home or their office or their education experience. Initially we thought, "We'll make a personal computer magazine, and we'll talk all about personal computers." We found out that people really only wanted to have information immediately useful to them. Each type of computer had programs that were only going to work on their standard. People only wanted to know things that were immediately useful to their type of computer. So as every new personal computer came out we launched a publication for it. When the TRS-80 came out, the Radio Shack computer, we launched *80Micro*, when Commodore came out we launched *Run* magazine for the Commodore 64 and Commodore 128. When the Macintosh was launched we launched *MacWorld* on the same day the first Macintosh was introduced. For each major type of computer we had developed a dedicated magazine. Then as the enterprise systems required a lot of networking to interconnect and make people work as a system we developed *Network World* for the networking professionals. We found that they had a lot of technical they needed to know that would not be appropriate to the directors of information systems.

Then with the new Internet economy, we launched a weekly to support the people who are leaders in the Internet industry and the Internet economy, called *Industry Standard*, which has been a phenomenal success. In two years it has become the thickest magazine in America. It can average more ad pages that any other publication in U.S. publishing history. That's been a satisfying launch in these special economic circumstances of the Internet.

We keep watching for each new wave of technology that creates a differentiated audience that's interested in that wave. If it is something that is coming out, like a new form of scanning device, but most of the people interested would be reading one of our PC publications, then we will cover it within that. If it was a device that would reach people who are normally not reading our current publications, then we would consider creating a special edition for it.

DSM: I was particularly interested that one of your most successful publications us a print publication in the age of the Internet, which is, in a way going to do away with all print advertising. What's been your response?

PJM: There's a huge history of new electronic technologies coming in that have been predicted to be the death of print. As early as the 1880s with the arrival of the telephone, people said, "Well, what will the telephone impact?" They said, "Well, what is it like?" They said, "We have this Teletype." They had the printing Teletypes that make ticker tapes. "

The telephone is a voice Teletype, and therefore you will listen to the news on the telephone. You will get today's news today and you don't have to wait until tomorrow for the newspaper." All forecasts were that newspapers would be dead by 1900. Everyone would be getting their news by listening. Of course they completely missed the fact that people really would like to talk with other people, and the great application of the telephone was personal communication, not some form of prerecorded information.

When the radio came about, that was going to be the death of newspapers. TVs were going to be the death of newspapers. The Internet was supposed to be. In fact, we find that the role of the Internet is a wonderful compliment to the print publication. What people love to see in print is text that allows them to have commentaries, case studies, columnists, analytical reports, because they don't like to read more than a few hundred words on the screen. It's really not that comfortable. They like the Internet for breaking news. They can get it immediately. They love its interpersonal communications. They like to be interviewer in forums and the chats. Of course it is very good for commerce. In a way, the Internet is acting like a multimedia version of the telephone. If you want breaking news you might call your broker for the latest news. You can get the latest stock quote, or the newsbreak on the screen rather than on the telephone. You can have communications with groups, audio conference. And you can buy things, pick up the phone and buy things by your telephone. Now you can buy them with even more information empowerment on the Internet.

When we studied people's behavior we paradoxically found that the more time they spend on the web site of our publications, they increased their reading time of the print, which is just the opposite of what most people thought. They had said, "They are going to displace time from the print to the web." We asked readers, "Why are you spending more time reading the publication?" They said, "Well, now I am involved with a lot of these forums and chats and I want to be well briefed on the subject so that I can fully participate." It's been a wonderful experience.

We used to get one hour of time for a typical magazine we would deliver to people. Now we are getting three to four hours. They are increasing their time on print by 50% and they are doing an hour and a half to two hours on the web site for each issue that we are putting out. Essentially in the publishing business, most of the money is coming out of advertising, which is really derived from the value of the attention and time that you get from your readers. You go from one hour to three or four hours of people's time. That's an enormous increase in economic value and increase in revenue that you get from every one of the readers. It has been a very healthy experience for us, and why each of our publications have created a web site to support their service to their audience and their readers.

For very specialized markets, where there are huge amounts of rapid change, like the Java market, or the Linux market, we have created webzines, which are web-only publications, because the information is coming out almost every day. Most of the interest is to get the news and to get the community discussion.

DSM: Talk for a minute about the benefits of working for and with the organizations that are part of International Data Group. You talked early on about publishers' conferences and sharing information across the whole group that enables people in individual publications to benefit, International Data Group is increasingly owned by its employees.

PJM: Yes, I always feel that people should have a stake in the economic success that they are contributing to. In our decentralized style, where each business is a focused enterprise, and there are very strong bonus systems on individual achievement, the thing you want to promote is a motivation for sharing. Each business is doing a lot of R&D, trying lots of new things, learning a lot of new things. If they had no interest other than using those techniques themselves, then the success of our total system would lack the empowerment of that knowledge sharing.

So we created worldwide participation in our employee stock ownership plan so that people throughout the world own a stake in IDG. So when they get some request for help from France, or from Brazil, or from Russia, and they give that help, and they help the success of that company, it boosts the value of IDG overall. So we are all benefiting. Rather than a lot of rivalry between the companies, there is a sense of passing the know-how back and forth. Every product and every activity has a global product support center, which collects all the know-how of what's happening, and the best business practices in that product, and redistributes it around the world. We have meetings by product line and by job function. When we ask them why they stay with IDG, particularly in these times when there are so many get rich quick offers from these pre-IPO companies out there, they tell us that they are learning so much and improving their skills and knowledge so continuously in IDG. Those are the reasons that they don't want to disconnect from that system of empowerment that comes about through knowledge sharing.

DSM: After 30 years of intense practical experience in terms of positive response feedback systems, it comes full circle to your interest in biological feedback systems and the human brain. I would like for you to talk about what the McGovern family has done with MIT recently.

PJM: I felt, in the beginning of the 1990's, that the development of super high-speed computers really could make neural network modeling effective. There were major advances in the ways that one could measure the individual behavior of neurons and supermicro pipettes. There was the ability to change the behavior of cells through genetic modification and gene knockout adjustments. There were marvelous advances in whole-brain imaging. Now you can measure the electrical activity of all parts of the brain simultaneously. So as you are having some form of experience perception, or thought process, you could see where in the brain that was active. I said, "Now the tools are really available to make some major advances in understanding how the brain receives information, analyzes it, understands it, stores it, retrieves it, prepares it for re-communication.

So we formed an advisory committee of leading neuroscientists from around the world and said we would like to contribute to this advance by developing an interdisciplinary center to focus on advancing brain research. They gave us a list of outstanding practitioners in this field, and university sites which could be the location of this. We came up with seven centers where the right supportive research resources were there, where there was great faculty, where there was a spirit of collaboration that would allow this type of interdepartmental cooperation to occur. In many academic communities, there's a stovepipe effect of departments being very isolated and uncooperative with each other.

So we spent three years visiting and getting proposals from all these centers, and to my personal delight, as an MIT graduate, MIT turned out to be objectively rated as number one in this evaluation. The results of our analysis said that you had to have about 16 principal areas of research going from genetic modification of a neuron, to networking, to whole-brain imaging, to cognitive research. The 16 research centers would need a support staff of about 300 people. Everyone felt there was a sort of critical mass that was very key. If you had too few people, you couldn't get enough momentum to really make major advances on brain research. If you had too many they would fractionalize into niches and they wouldn't cooperate. This seemed like the critical size where there would be a strong sense of community and enough bandwidth to really do the progress we wanted. In analyzing the budget necessary to support 300 people in a research center, it came out that we needed to support it with a $350 million donation, which we announced a few months ago.

I am very excited that Nobel Laureate, Phillip Sharp has been selected to be the head of this. He has been at MIT for 20 years, is a great leader in biological research, and respected around the world. He is extremely excited and his plans are marvelous. We are now in the midst of recruiting some of the leading neuroscientists from around the world. I think everyone is going to be amazed if our dreams come through and we get the acceptances that we expect in terms of some of the people most respected in the brain area, who are coming to join the center.

DSM: You are building up and the center fully functioning by when?

PJM: It starts now. We have 140,000 square feet when the full facility is built. I think about 20,000 square feet are now being used by the initial team. We hope the building will be designed and fully constructed by the middle of 2004.

DSM: What were some of the most important lessons you learned during the process of setting up the Institute?

PJM: There were two. One was the importance of building a sense of community and collaboration among the people. One of the surprises I had as I visited other research centers, they said, "One thing to avoid is to give us too much space. If you do that you are going to cause us to be isolated in cells. The secret of progress is to get people who have different views of the same problem to share those perspectives, and then we get major advances." The design of the building and maximizing interpersonal contact, having white boards over the walls so that every time you run into someone you can start to excitingly talk about a new idea, is key. Maximizing the sense of interconnection among the people is really key to advance the project.

The other we discovered from talking with other philanthropists, and that is the importance of acting early on whatever dream you have to contribute your resources back to society. You want to have an active voice in the way in which your resources are used to fulfill the dream you have. A lot of philanthropists have waited too late in their life, and by the time they are making their donation they are at an age in life where their physical and mental energy really doesn't give them much sense of ability to have leadership on the use of their resources. Many times they give the money with an intent and a document, but the people actually using it have their own interests and they go off in different directions. In a few years, the work being done is very different from what the dream of the donor originally was.

I think those people who have been fortunate now in this new economy to gain a substantial net worth at an early age, have a great opportunity to become what we call an enterprising philanthropist. To go out and build a great institution that they can be very proud of being associated with and that their great-grandchildren will look up and say, "Gee, I'm proud to have a member of my family been involved in building this great educational center or great research center, a great contributor to advancing society."

DSM: Given what the technology is doing in biology, you may have another 120 or 130 years to enjoy it.

PJM: One of our limits of growth is how well our information can be received and understood by people. There is an element of value to IDG there, because we understand how to present information in a way that will make it more immediately understandable by the brain, and better memorized, and better understood, than people get more value from information. The value of all of us in the information field will be enhanced.

DSM: Extraordinary convergence. We have talked about some extraordinary products and principles. There have been some extraordinary people associated with the growth of International Data Group over time. Can you talk about some of those people?

PJM: As I think back on all of our success, it always came out of interaction with other people. From the story I told you about the origination of IDG, someone who told me a principle of how to create value and encouraged me to go out and take the initiative to create it. He got me started. If I hadn't had that conversation, perhaps IDG would never have been started.

Over the years we've had people on our Board who have been very helpful. Abraham Siegel, who is the dean of the Sloan School has been on our Board for over 10 years and is a wonderful counselor and a great expert on human relations and business organization. Steve Coit has been a member of our Board for 15 years. As a venture capitalist he knows how to organize and motivate teams of people to help to start and launch new things and how to invest in them rather than just giving them an unlimited check. He knows how to invest it in stages so that there is a motivation to achieve each of the appropriate stages of growth in the business.

My long term colleagues, whom you have mentioned, Bill Murphy and Walter Boyd are on our Board. They continue to give advice and oversight, and have great operational experience in the company. That has been very good.

Bob Metcalfe, who is an excellent technologist, is on our Board. He is the founder of 3Com and Ethernet. He also has been serving as our CTO, Chief Technology Officer. His function is really to be a pundit and communicate forecasts of new technology change and it's impact on society.

DSM: You are known as a real believer in the positive impact of this technology on society, to the point of being considered an idealist. I would like to ask you next, what are your hopes for the future as far as the progress of this revolution through time and space? If any fears, do you have any concerns about the negative impact of the revolution on society?

PJM: I think that as a younger man, as I traveled around the world, I found that most of the perceptions that went to human conflict were caused by misinformation and miscommunication. When I was a college student I took a trip to the Soviet Union. I remember talking with people there and they would say, "Where are you from?" I would say, "The United States." They would say, "You must be so embarrassed to be from such an evil country." I said, "What do you mean?" They said, "Well, we know that all your minorities are in prisons and stockade camps, and that most of your people are starving. You are so jealous of our economic success that you are planning a surprise nuclear attack to destroy our country. Why are you doing? This is awful." I said, "Where would you get this information?" They said, "Well, it's in our daily newspaper, every day. It's what's happening in the world."

I thought about how dangerous the world is, that here is a country with this nuclear arsenal believing that we are the great enemy about to destroy them. With that misinformation somebody is likely to, by impulse, start a counterattack if they anticipate or believe that there is this attack about to come.

I found that the Soviet Union was so different from what was being told in the United States by Senator McCarthy, and all these people saying that this was the great enemy, that they are trying to destroy our country. Of course they feel that they have been the victims of endless invasions. They lost 20 million people during World War II. They want to be left alone, raise their children, have a normal life. They were very poor and economically underdeveloped country. I said, "If we are going to make this a survivable world, where we are going to have advance in civilization and the quality of life, we are going to have to improve communication so that everyone really understands each other and understands what's happening."

My delight is that technology has created global communication systems. People do share common media around the world. I am delighted that IDG has played a role in at least spreading information about technology and it's application benefits. We can cover the world by helping people have a shared vision of this possibility.

The Internet interconnecting people allows us even to be more thorough in our ability to communicate. The ability of countries, or groups, to sort of control information and shape the vision of reality to suit their own personal interests and their own person survival is being totally undermined by the Internet and the global media. That allows a much better optimism about the future.

We, by getting the facts directly from the authorities and from the sources of evidence, can attack global environmental control problems and we can attack global health problems. We can help prevent nuclear proliferation. We can work on the great global problems that are threatening the ability of this planet to support human life. I am very encouraged about the positive impact that this technology is having in giving people access to the facts that are globally understood. We realize that we have so much more in common, as human beings, than we have differences. The big issue that we have is to work together as a global human society and address these problems of advancing education, advancing standards of living, improving health, improving the quality of life. These are things which we can use technology to understand the solution and then get global cooperation on resources.

DSM: Would it be fair to say that your concerns are less about the dangers of the spread of technology and more about the obstacles standing in the path of that?

PJM: Yes. I think the application benefits can be so positive that any of the things that impede the flow of access to these communications and information technologies will delay the benefits that will delay the benefits that will be available.

DSM: You've been in the business of communicating information about some of the most important innovations, the most innovative people, the most innovative solutions to some of the most difficult problems in all of human existence, for the past 30 years. Any insights, in that time, to their roots in innovation? Where do bright, innovative people come from?

PJM: I have always found a correlation between people who can be very innovative and creative. I differentiate innovation from improvement. Improvement is a logical extension of making something more useful. Innovation is a way to see new combinations of ideas and possibilities and come up with an unexpected, but beneficial, solution.

I find that people who are in their younger years and have had the chance to travel, or to be in many locations, often see that the human condition can be addressed in so many different ways. There are different ways of dressing, ways of speaking, ways of living, housing, food and every other part of life. Yet they are all having their own good satisfactory benefits for the people who are experiencing them.

The thought that the way life should be is the way I lived and grew up in my community, is changed to what a wonderful set of creative alternatives the human beings have thought of to adjust and fulfill their basic needs. People who have had that experience at an early age, to see the diversity of the human condition around the world, I find have a very instinctive creativity in their thought process that is not often available to people who have experienced a long time in the same environment. I think a great deal of that creativity comes out of the degree of life challenges and experiences and alternative solutions.

What travel shows you is the products and services that you immediately see are marvelously useful in another country. At IDG, many of our projects have started in other countries. We could see them as being highly useful around the world. We would globalize a new telecom publication in China, or a new industry directory out of Australia, etc. That's why I'm traveling 250,000 miles a year, because I find it extremely intellectually stimulating and educational. It creates a lot of understanding of new, innovative ways to do things by constantly being challenged intellectually by the new languages and new business cultures and new lifestyles as you go from country to country.

DSM: I have 2 more questions that I would like to ask. Both of them are always difficult and you don't have to answer either of them if you don't want to. I'm going to ask anyhow. The first one is about family. For the sake of people listening to this, I've stopped asking questions about family because many of the people that I've interviewed, because of the environment of the world today, are fearful of talking about their immediate family because of threats from the outside; kidnap threats, violence threats. There is a whole culture out there that doesn't like people who are in information technology. On the other hand, I like to give folks a chance to talk about their family if they think it's appropriate. Given that, tell me about your family if you think it's appropriate.

PJM: We are very proud of our family. Lore and I were married 20 years ago. We already had two children, each from a prior marriage. Together we were very proud of those four.

My oldest son is head of electronic commerce at one of the leading Linux companies. In fact, *Forbes* magazine just put us on the cover because he was characteristic of this instant wealth syndrome. He called me up six months ago and said, "My company's just gone public, I'm worth $50 million. Dad, you can retire, you're financially secure for life." Six months later he called me up and said, "Dad, my stock has gone down 90%, I've overextended, can I borrow some money?" You have to be able to adjust rapidly to changing circumstances with these young people today.

My daughter is a medical doctor focusing on family medicine. I'm very proud of her. She spent a lot of time going to areas like Ecuador and Guatemala and Mexico and Indian reservations in the southwest to help people in diminished and impoverished circumstances to improve their health care. She is going to be practicing her medicine near Boston, not too far from where IDG is located. So I get a chance to see her more frequently.

Lore's daughter is at MIT and getting a Masters Degree in eBusiness, eCommerce. Our other daughter is helping to run an electronic web company that helps people who want to hire technical experts. You know, find the right expert in the right terms and conditions. It's a nice exchange marketplace for skilled labor and people who need their help.

We are super happy. They all turned out well. My philosophy is that I don't believe in people joining the family business because I think it is a no-win situation. If they are in their mother or father's business, they are always considered as there because of special connections. No matter how much they achieve they don't get credit for it. If they don't do well then they are like a disgrace to the family. I am glad they all wisely went off to fields outside of our information business.

DSM: My last question, you've been part of the history of this information technology revolution, and certainly everything that IBC, the publications and now the broader IDG has stood for has driven this revolution. You have recorded it's history in an ongoing sense, in those publications, and made possible the more formal attempts to record part of the history of this revolution, of which this interview is a part. This is always a hard question to ask, because I have found a surprising number of extraordinary people in this industry never considered themselves in this light. How would you like to be remembered by graduate students who are going to look back on this period from 200 or 300 years from now? What would you like to say, "Ah, Pat McGovern, I remember him."

PJM: I hope that I can be remembered as contributing to the process that led to so many wonderful advances in the quality of life for people because of the development of computers and communications and electronics. And that people would see that this achievement was being empowered and reinforced by the flow of timely and accurate and provocative, stimulating information. We would show people what the latest advances were and where the next could be, and what they could be doing to contribute to it. The speed with which this technology was able to achieve application benefits was greatly accelerated by that Pat McGovern built a global information system to try to make this information and this inspirational sense of ideas and goals and achievements available to people over time. I hope that people will judge that the process that IDG has created has accelerated the benefits of this technology for the benefit of future generations.

DSM: Do you have any really major hopes for the future?

PJM: The biggest hope is that the human race can survive with all the threats that exist as the means of mass destruction become so much cheaper and more available. I hope the sense of mutual understanding that technology contributes to reducing tensions between people. Whatever would drive some group to try to destroy great parts of the world from the aggravation that they feel about being mistreated would go away.

I don't know if there is any tape left, but I am very contrary to contemporary thinking about business organizations. Most people are trying to build a larger organization and the role that I always have taken is once a business gets to the size of 200 people, I divide it up into 2 or 3 groups. Totally against every practice that an MBA is learning about how to administer a larger and larger organization. The accountants go crazy because when I do that I raise cost. Now we have 3 HR organizations and 3 production groups and 3 marketing groups, etc. They are exactly right that the expenses go up. They say that is wrong. If we consolidate we reduce expenses.

What they don't realize is the organization has a huge effect on revenue. The fact that you have dedicated, passionate people who feel that everyone in their company is only interested in one objective work much better and their revenue goes way up and their profits go way up. What I found is you take one company and you divide it up into 3, their bottom line always improves, even though their costs do rise. The revenue is rising much faster because they are so much more productive in dealing with responding to the needs of their customer. People hate this who want to be CEOs of vast empires and have big organizations.

The happiness of people working in a group where they know they are important, they know everybody who is in the team, they know exactly what they are achieving is so much higher, that their retention rate is better, their job satisfaction is much higher and it works much better. That is why IDG is a family of 110 companies who are all in this 50 to 150 people size.

DSM: Anything else?

PJM: You've been very thorough, very organized.

DSM: It's wonderful of you to spend this time.

PJM: You are a very thoughtful listener. It is always good to talk to someone who not only asks questions but also listens to the answers and has logical follow-up.