Reflections From a Software Pioneer

Albert M. Erisman: You have been a very successful businesswoman in the high tech field, at a time when there weren't many businesswomen at all. How did you get started?

Dame Stephanie Shirley: I was born in Germany and my traumatic childhood is important because it formed my character. Even now 65 years later I am conscious of the drive that it has given me. So many awful things happened to the Jewish families but I was very lucky. I was five years old in 1939 when my parents put me on a Kindertransport and sent me to England, into the arms of strangers. They did not know where I was going. I was brought up by wonderful foster parents.

I was doubly lucky because I was ultimately reunited with my sister and with our parents after the war, but it never really came right. That has given me a feeling that change is inevitable; that tomorrow is not going to be like today, certainly not like yesterday. Most people find that uncomfortable but I have learned to actually welcome change. That has probably helped as I moved to technology.

Also, I have this feeling that my life was saved, so I really need to make it worth saving. I try to live each day as if it was my last and enjoy it fully. I make sure my time is spent on worthwhile things and not just frittered away.

We lived modestly, but my school education was fine. When I started to show some talent in mathematics, the nuns in my convent school could not teach me anymore, so I had to take a scholarship and get to another school. A later secondary school also could not teach me mathematics at all, so I had to attend a boys' school for those lessons.

I was a pure mathematician, planning to solve Fermat's last theorem. I was going to really make an impact on the world, and started working in a research station at British Telecom at Dollis Hill, just northwest of London, at the age of 18. It was a very good academic type of establishment with about 200 graduates, and I worked there on transatlantic telephone cables, the first electronic telephone exchanges, etc.

It had a very good atmosphere, and taught me some of the basics of technical life: using early electronic equipment, writing figures neatly to be accurate, and basic statistics. I soon discovered, of course, that I did not have it in me to make a contribution in pure mathematics, but I enjoyed mathematics and still do.

SELLING SOFTWARE?

How did you get into the software field?

It was in the early days of computing that I met what we now call information technology. It was like falling in love. It was not the big drive of mathematics, but it was having the excitement and the passion. Somehow, software allowed me to make a contribution that is unique, wrapped up in my femininity. I am classed as a late pioneer of computing but very early in the game in software, doing things differently, not to be different but because women's brains work differently. Software was then given away free with the hardware, and I was trying to sell it! People thought I was quite mad. Nobody would buy software. But you have to follow your gut feel on these things. It is a unique industry, the first in which you can sell the product, but still have it! When I started my software house in 1962, the expectations for women were all about home and domestic responsibility. The thought of actually starting a business that was concerned with computing and mathematics and financial services—not just running a tea shop or selling hats at the market—was so alien to everybody that to be taken seriously, I changed my name from

Dame Stephanie Shirley is a highly successful entrepreneur turned ardent philanthropist.

Having arrived in Britain as an unaccompanied child refugee from Germany in 1939, she started what is now Xansa on her dining room table with £6 in 1962. In 25 years as its chief executive, she developed it into a leading business technology group, pioneering new work practices and changing the position of professional women (especially in high tech) along the way.

Since retiring as honorary Life President in 1993, she has served on corporate boards such as Tandem Computers Inc. (1992 to '97), the John Lewis Partnership (1999 to 2001) and the European Advisory Board of Korn/Ferry International (2001 to '04). But her focus has been increasingly on philanthropy based on her strong belief in business people giving something back to society. Her main interests are autism and making better use of IT in the voluntary sector.

Her charitable Shirley Foundation is now one of the top 50 grant-giving foundations in the UK with £50m donations committed over the past seven years.

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Stephanie to Steve. I still liked to be called Steve. It was a very sexist world, and I needed a man's name in order to get people to reply to my letters!

Has that changed substantially?

Well, certainly in the Western world it has. It is yesterday's issue, although people are still taking about it. But this November I am going to the Kingdom of Saudi Arabia, where I hope to be able to help some educated women who are going to get the vote only next year.

Having founded my business, I quickly got into management. You start it because you love the software, but very quickly you have to delegate that and concentrate on the business aspects. I turned into a businesswoman. It suits me very well.

Did you have any further formal training?

No. I think the lack of training has been advantageous because nobody had taught me what you are supposed to do or what you were not supposed to do. So I founded a company without offices. I founded a company without staff. It was all freelance women with domestic responsibilities. From the start we had an employment policy: "to provide jobs for women with children." Soon after, I changed that "to provide careers for women with children."

As I became more involved in some of the social issues, I realized that a lot of women were looking after disabled partners, or eldercare, as it is called. So our company offered "careers for women with domestic responsibilities." It remained an all-female company for 13 years, from our start in 1962 until equal opportunities legislation made such positive discrimination illegal. Since then the company has re-branded as Xansa and is now well balanced between the sexes. Which is as it should be.

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WOMEN IN COMPUTING

Do you think it is a problem that there are so few women in the computing technology field today? It seems that this starts at the university level where women are under-represented in computer science fields.

Forgive me, I do not think that that is a real issue if people choose not to become astrophysicists, or whatever it is. The jobs are open; the skills are available. If women choose not to do them because they perceive the role as being too "techie" and not attractive, that's just a choice. This is really the result of poor selling. There could not be a career more exciting and open for women. There is no requirement for physical strength or anything else that might be a deterrent to women. Yet, women are not choosing the industry.

What are you doing today?

I concentrate on strategic issues and try not to get too tied up in the day-to-day nitty gritty I had when building up the company. I gave up being chief executive in 1987. It has allowed me to think less about the current problems of the business and more about how the technology could help society. A lot of things that turned out to be right may have been for all for the wrong reasons! I became known, not for any clever software but for being able to lead and inspire people to produce quality work, to pick out excellence early, and develop quality controls and targets that are meaningful in the world of technology.

PAYING FOR RESULTS, NOT HOURS

You are regarded as a pioneer in recognizing that people could be paid for work that has been done rather than for the hours put in at the workplace. This is a very intriguing concept. Can you say a bit more about that?

Most innovation is a result of some sort of real need. My need was to disguise the inherent domesticity of my software house. We had women working flextime from home, and needed to sell the concept of providing a branded service to do the task, rather than provide agency staff. So instead of saying it would be done by people working from home, I would just talk about the job content and charge on a fixed price basis for work done. Suddenly, the credibility of this quirky, innovative, amateur, new service changed overnight. To make this succeed, we broke tasks down into work parcels, as we called them, and estimated them including doing some risk analysis. As the tasks got larger, we broke them down so that no single part was

larger than something that we had successfully carried out before. So we began to get some sort of control on the software development, which at that time was totally ad hoc. The standard statement from those days was, "We are 90 percent complete; we have just a few more bugs to get out." I moved it from that into something that was software engineering.

It seems that most companies still pay people by the hours spent in the office instead of the task completed. Yet this concept is rooted in the industrial revolution. It doesn't have much to do with the kind of tasks people do today.

That has a lot to do with management styles. In a command-and-control environment, you tell someone what they are to do between 2:30 and 3:00. Whereas we set targets for what we were trying to achieve, and then left people to use their innate wisdom and judgment to come to some solution. It takes an element of trust to manage by leading rather than the definitive, "Do this, do not do that." I think the service industries are likely to develop more in the trust direction.

We were one of the first to brand a service company by its values, what we termed a charter. A key element was trust—the trust between management and the workforce and also trust between the organization and its customers. Contrary to what other people were doing at the time, what we were supplying to the customers was the same reports we used internally. So we were quite honest about problems we were having and what we were doing about them.

Although the company has changed radically from the female organization that I started, and which I dreamed would continue, the quality of trust and ethical behavior and openness and transparency remains today. This is true even though Xansa is spread around the world with 3000 people in the UK and America, and nearly the same number in India.

CREATING TRUST

What inspired you to trust people rather than to create a typical command-and-control environment?

It is dead easy to involve people in the little decisions, isn't it? It is less natural to trust them with the big ones, the important sales call that is crucial for the company. I found that people really do their best when they have a stake in what is happening. So the natural next step was to take the company to be co-owned by the staff. It never really seemed to me like my company. The skills were with the people doing the work. So in the

1970s, in the midst of trying to run the company, I started meeting with legal and tax people to figure out how we could build co-ownership. Over a long period starting in 1981 and culminating in 1988, I succeeded in getting 24 percent of the shares of the company into the hands of the workforce at no cost to anyone but me. This makes a real difference in the relationships between colleagues. It is "our" company and there really cannot be any "them and us." Even today when the company is quoted on the London main exchange, it is nearly 20 percent owned by the staff. That means the top management, the senior managers, the designers and technicians, secretaries—everyone really, including the consultants.

How are the arrangements put in place with people in the business who are going to make decisions in the rapidly moving technology field?

I am not sure that the software industry moves as fast as people imagine. It was 25 years before we paid a dividend; even Microsoft took 10 years before they paid their first dividend. There may be industries that work differently, but I was more conscious of surviving than of how the industry was moving. But starting things is easiest when one can work fast and incisively.

Do you have any comments on the business ethics scandals that have increased in the last five years—particularly in the U.S., although I have seen similar scandals in the rest of the world, in Europe?

It is interesting to note that the whistle blowers were female in the three major American ethics scandals. The business of trust allows people to blow a whistle, but it is a painful process actually to let it happen. We blew the whistle on a client many years ago and we lost a lot of business by doing it. It is often very clear what is right and it is very clear what is wrong and when it is wrong you have to speak out. There will always be people who are greedy; I think it is the nature of human beings. So since you are not going to be able to change the human condition, one has to put in checks and double-checks and triple-checks to ensure that it is very difficult for people to start on that slippery slope. It always starts with something quite small and people get away with it and think, "Oh, this is easy," and lose sight of the irremediable aspect of evil.

It takes an element

of trust

THE PURPOSE OF BUSINESS

It seems to me one of the key factors in companies going off track is getting their purpose wrong. Many assume the purpose of business is to make as much money as possible, to maximize shareholder value, and then there is never enough. Unfortunately, business schools in many parts of the world perpetuate this way of thinking.

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I was lucky because the company was more as a crusade for women than to make money. The money followed slowly after many years, but it was never our purpose. Since I have retired from day-to-day management, I have been an independent director of a retail organization in the UK called The John Lewis Partnership. The founder's aims for the business were nothing to do with money at all, it was happiness of the workforce. It's in its third generation. They still talk about making the workforce happy. That company influenced me a great deal to start thinking of the workforce, not just as a route to more money, but as an entity in its own right. Then you start to generalize and think in terms of the customers and the wider stakeholders in society.

This makes it a lot more fun, apart from anything else. I do not believe it is possible to divide people up into small boxes. You certainly cannot divide me up into the businesswoman, the philanthropist, the wife, the mother. I am one human being and if I have had any success, it is in taking an organization forward with all its aspects. This includes boring things like cash flow and profit and sales and marketing, but also the human resources and development of people—demonstrating that

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when you trust each other all sorts of things are possible. We created a different sort of company that was considered revolutionary at the time, though is now much more mainstream.

THE TECHNOLOGY FACTOR IN BUSINESS ETHICS

In what way do you think technology has played a role in ethical and cultural challenges in business today?

Some years ago, I was invited to speak in a debate about the Internet and pornography. I find the whole concept of pornography reprehensible, but I declined the invitation on the basis that I really did not know anything at all about the issue. I put the phone down and then realized I ought to know something about it. That started a pursuit of considering the extent to which technology facilitates good or evil.

I do believe that science and technology are neutral, and we use it for good or ill according to our nature. I have given $20-million sponsorship to launch the Oxford Internet Institute (OII) as the first multidisciplinary research institute on the Internet, concerned not with the technology as such, but with its social, economical, legal, and ethical issues. Nobody else had really been saying that these areas are appropriate for study.

So, one is looking at a new technology applied, let's say, to democracy, and we might immediately say, "Oh! It must be a good thing." But it is not quite as clear as that. You have to consider what would happen if we had instantaneous voting on issues. There are some very tough problems to be considered.

For example, there are a whole new collection of ways that elections can be rigged. Technology can create an amplification factor. When was the Oxford Internet Institute started?

It took nine months from inception to start up in 2001. Today it has 30 staff members, including five professors and two part-time chairs, and has been running a summer school every year. This June it was held in Beijing, so it is becoming international in scope. I am not technically up to date enough to provide counsel there. I serve on its strategy advisory board concerned with management, marketing, internationalism, partnerships, empowerment of the staff—issues that are the bread and butter of any organization. The OII is providing monographs and working papers, it is leading some debates, it is the beginning of a new way of looking at some of these issues. I am convinced it is the role of academe to ask questions, not necessarily provide definitive answers.

The long-term issues are social and cultural, not just technological. The world is getting smaller. We are now working on a global scale; the Internet is one of the major factors. In 1999 I started the first Web conference in the world of disability, 'autism 99,' that had 112,000 delegates, all on the Web. We peer reviewed papers, had chat rooms, and a social side as well, all of which led to the portal site www.autismconnect.org. In addition to the conference, the website allows families with autistic children to connect. The Web is a facilitator and when it does so on behalf of philanthropy, it becomes very powerful. I have not had much success yet in fundraising over the Web, but it might become a significant factor.

THE AUTISM CAMPAIGN

Tell me a little more about your interest in autism.

It is a communications disorder. I did not choose to work in the field of autism; it found me and has come to dominate my life. My late son, our only child, was born a beautiful baby. He would have won beautiful baby competitions, but regressed at the age of about three-and-a-half and began losing the skills that he had. He lost speech and never spoke again, later became epileptic, but the particularly inhuman part of autism is the children's inability to socialize. They are unable to communicate, not just with language, but with body language. They even lack eye contact.

There is a spectrum of conditions, from people like my son, whose quality of life was really very poor, to people with Asperger's syndrome, who have no learning disability or communication difficulties, but lack imagination and some of the human aspects of their being. They are intelligent, so they study things such as maths and computers, but may be unable to make relationships, support themselves, or hold down a job.

So, I have become an ardent philanthropist, enjoying giving my money away even more than I enjoyed making it in the first place. I started in a very traditional, classic way, setting up a charity that would support my vulnerable son and later others like him. I have moved on from that to some 30 projects including setting up a specialist school for pupils with autism inspired by the Higashi School in Boston. I was astonished at the results they were achieving, using sport and exercise to stimulate the brain.

A few years ago, I moved (perhaps inevitably) to medical research. I am not a medic. But together with the University of California-Davis, University of Washington, Oxford and Cambridge in the UK, we set up a major project to get to the causes of autism by 2014. Once you start proactively—"What is it I am trying to do?"—you approach things in a different way. You will finish up with concepts such as: We need the medics to work cooperatively rather than competitively (the whole system encourages them to work competitively). We need to use the power of computing to make sure that the datasets are interchangeable between different centers of excellence. That seems so obvious and to everybody's benefit, but somebody has to start by actually investing in the infrastructure. So, I got involved in some of these issues, and two years ago, joined with the National Alliance for Autism Research (NAAR) in the U.S. I serve on the board of trustees and bring a certain amount of business input into its deliberations. I am hoping to move it to a more strategic, global stance and have started NAAR in the UK. I am leading a small research team into Saudi this year and to India in February.

It is very exciting to try to make a difference in the field of autism. My son is now dead six-and-a-half years, and I am restored in spirit and remain engaged with autism. I have committed over $70-million to the sector and can use my scientific and managerial ability. I am also able to give something to parents because I have been through their particular hell.

BUSINESS AND PHILANTHROPY

Is this independent of your career in business, or do you see a link?

Business and philanthropy are much closer than people imagine. The issues of developing people or growing people are similar. Organizations that have an ethical basis have a sustainability about them. They are there for the long term. Certainly philanthropists have that long-term vision. So, I find it very natural to move from one to the other. In a sense, there is no such thing as true altruism. We get from activities as much as we put in. That is true whether it is business or philanthropy.

I don't like to be bored. I find each week goes so quickly that I cannot measure progress in that timeframe. You must look at the changes in years, not weeks. As an entrepreneur, I learned a lot of lessons in the software business and am now trying to transfer that learning to others. Software is an exciting industry, and I was very lucky to be an early pioneer there. But in a sense, the fact that it was a software industry is almost immaterial to the lessons of life.

Sometimes people emphasize the cerebral activity of business, and forget how much fun business is. I've got such a full life, very hard working but great fun.

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