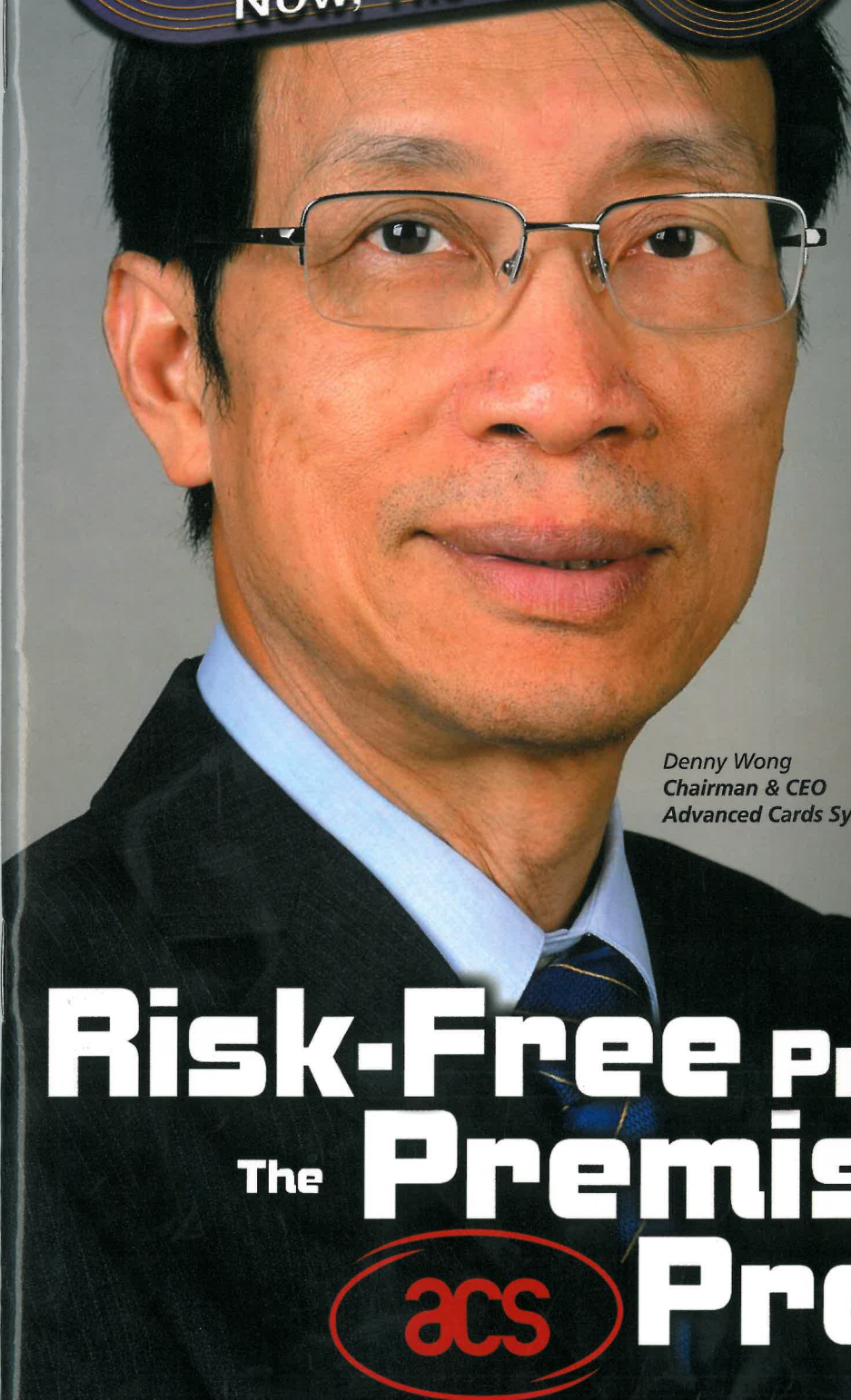


Pass AGE Now!

Now, The Age Of CONTACTLESS Has Arrived!



Denny Wong
Chairman & CEO
Advanced Cards Systems (ACS)

World's First Telematics
NFC Driver ID

Rugged Tags For
The O&G Industry

Better Canadian e-Passport
Now Available

i-Free NFC On Shopping Carts

Motorists Snapping Up MTA Tags

STMicroelectronics Powers
First NFC Fridge

Tap For Message
Revolutionises Greetings

Wind & BNL To Test
NFC Payments On MasterCard

First, Contactless Korea,
Next The World?

ROTI

Risk-Free Practice The **Premise** of **Promise**

It's always the quiet ones. You would not imagine an introverted, silent type to be one who takes up the challenge of starting a venture and bringing it global. That was exactly what Denny Wong set out to do nearly two decades ago, disproving that the quiet ones do not make ripples. But he can and he has – for who in our contactless & smart card industry today is not familiar with the name ACS of Hong Kong?

We had wrapped our sister magazine, CardsNow!'s concluding issue for the year 2004, with this Chairman & CEO on our cover. Once again we call upon Denny to find out how the past decade has treated him and his company. As ACS blows out 18 candles on its birthday cake this year, its history remains the same – a man who declares himself a daydreamer, while his wife is more the doer of the duo, had denied all doubts and dared to drive his destiny by forming a business in smart technology.

The reflective man speaks to PassAgeNow! about how dynamic and diligent his team of R&D and sales & marketing experts are. Their synergy is such that the team he has described as fearless, is able to carry out the duties of lesser interest to him, leaving Denny to enjoy the tasks he loves most. Together, they have firmly planted the company on the international platform; awarded with coveted accolades, acknowledged by loyal partners.

In retrospect, Denny admits that his years of experience has not been a bed of roses, though it is not entirely daunting, as he and his team treasure what they do. They celebrate their overcoming milestones, especially on the subject of quality. ACS has proven itself to be a trusted and high quality provider of contactless & smart card technologies from Asia.

PAN : It has been a decade since the world first heard the story of ACS through our sister magazine, CardsNow! Update us, through the years, is ACS any different today in terms of its offerings, strategy, customer & regional bases?

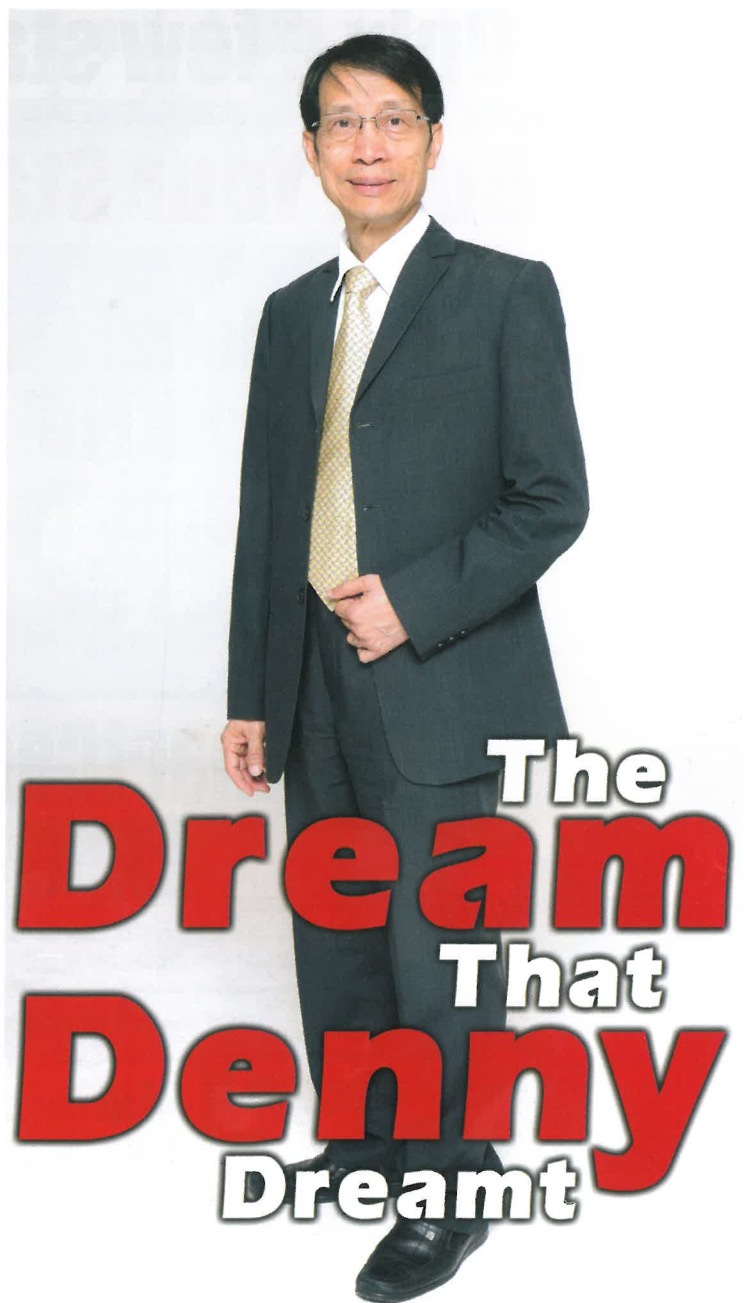
Denny : A decade ago, we supplied PC-linked contact smart card readers and proprietary card operating systems to the world market. Today the range of our smart card readers and card operating systems is much wider.

We considered the world to be the market. We have the same strategy today. We also entered the business of supplying automatic fare collection solutions for public transportation.

About five years ago, we wrote down our company's vision statement: "Combine scientific spirit and Confucius thoughts to build a sustainable electronic and IT business that is green in order to achieve the dual purposes of business growth and environmental protection." This vision is really a long-termed one and I expect that we do not need to change it in the next decade.

PAN : What is your personal witnessing & experience on how our industry has evolve since 2004 in embracing contactless even more and what role has ACS played in this development?

Denny : We launched the first contactless smart card reader as early as 2005. In 2007, we launched the world's first contactless smart card reader compliant to Microsoft CCID standard. In terms of the quantity of readers shipped, I believe that PC-linked contact smart card readers is still bigger than



The Dream That Denny Dreamt

contactless. However, in terms of value, the reverse may be true. At least it is true in our case.

If you consider "our industry" to include smart cards and smart card reading and writing devices as its products, this market is very small compared to other electronic industries such as the PC industry or the semiconductor industry. The blessing for industry players is that the lifecycle of most products are usually long.

More than a decade ago, we were talking about EMV migration in Europe. The process started not long ago in a huge market like China. India, with a population of 1.2 billion is basically an untrapped market, not to mention the whole of Africa, with one billion people. Since certain market segments have not taken off fast enough, some companies which focused on one such market segment or another might not be able to wait after burning a lot of investors' capital and consequently absorbed by another company. Outright bankruptcies were seldom.

ACS has started its business by serving small market segments. It is gradually accumulating smart card and reader technologies and earning a bit more capital funds and is moving to bigger market segment. We not only aim for growth, but for sustainable growth.

PAN : Is it easier or harder to do business on a global scale now as compared to those nascent years?

Denny : It is easier, owing to the proliferation of mobile and internet communications and owing to the irreversible trend of globalisation. As far as ACS is concerned, we have no choice but to go global. Hong Kong is a small market for the smart card industry. China is a big market but it is not fully open to Hong Kong. We are no different from an American or German company when we want to bid for most government projects in our trade in China. So no complaints about our fellow players in the western world for their hardship in China.

PAN : As ACS celebrates its 18th anniversary & 10th year listing on HKE, share with us the "sour, sweet, bitter & spicy" moments that moulded the successful ACS today. Surely there were many tough, nail-biting episodes you faced that were transformed into happier moments?

Denny : ACS was founded in Hong Kong which has remained as our HQ and the residing place of most of our key managers. Hong Kong is not the most ideal environment to build and grow a technology company like ACS for two reasons (1) government support is minimal and (2) science and technology degrees in universities are no longer attractive to high school leavers. Many fresh graduates holding such degrees may choose to enter into other industries, notably the finance industry. After all, Hong Kong is an important financial centre in Asia. There have been very few emerging, enviable technology companies in the last decade or two in Hong Kong in contrast to so many successful stories in China.

ACS is still very small. Our sales revenue was only USD20.5M in 2012 (after growing 37% from USD15M in 2011). However, we have built up multiple smart card hardware and software technologies, we have cultivated a broad customer base, we have summoned talented people and we are geared to take off. Though not a good place for R&D, Hong Kong is not a bad place for HQ. More importantly, as ACS has now more products and solutions to offer, we increasingly need more sales & marketing and management talents, of which Hong Kong is not short of. We will soon enjoy the benefits of having Hong Kong as our home base.

PAN : Share with us how you beat the harsh perception of low quality being found in an Asian product?

Denny : Yes, as an Asian company, we have this disadvantage. We have to exert extra effort to win customers' confidence in our quality. ACS received the 2009 Best Practices Award "Product Quality Leadership Award for Smart Card Readers" from Frost & Sullivan which helps. We do an annual customer satisfaction survey. Our ISO9001 certificate consultant reviews the results of the survey. It was a compliment to me when I heard from them that our survey results were impressive compared to those of their other customers. Defects or quality imperfections can hardly be eliminated completely. We want to ensure quality, but if we fail, we want to ensure that customers do not suffer from our mistakes. We are eager to compensate them fairly.

PAN : Has NFC arrived or is there still a long way to go to become more cohesive in contactless technology?

Denny : NFC is taking off. In this arena, we play the role of being an NFC reader supplier. NFC applications are multifarious and so are our NFC readers. We have a dozen models of contactless readers or dual interface readers (contact and contactless in one reader) in our portfolio and another half a dozen in our road map. We are an experienced developer of NFC readers. The new challenge for us is to develop new drivers that support many more new devices. Most of our NFC readers were previously used with the PC and the main OS we supported were Windows, Linux and MAC. Now we have to entertain tablets and mobile phones with different OS. Android is a nightmare. There are thousands of models of Android phones and tablets in the market. We cannot claim that our NFC readers support all the Android devices in the world. However, our focus on smart card reader technology in the past almost two decades gives us some advantage over newer players.

PAN : Most start-ups have difficulty sustaining through the first five years, let alone a decade or more. How would you advise those in such a threshold to rise above their own failure of the past, frustration in the present and fear of the future?

Denny : We picked a business area that we wanted to get into and set a mission. We must believe that we will succeed. This confidence must be shared among all staff members. We find people who really like the business and like their own job. They are willing to work hard because they enjoy the work and not because they are told to take up responsibilities. I am fortunate that we have many staff members who work hard because they enjoy their work.





// They have the confidence to build any technology I can think of for our industry. //

PAN : Enlighten us on what caused ACS to take great interest in Automated Fare Collection (AFC) lately? What are the golden opportunities in AFC that you & your team do not want to miss out on?

Denny : We have developed various smart card-based technologies in our history including card OS, card readers and terminals, cryptography and various types of software. We combine such technologies to build smart card-based solutions. Our limited resources do not permit us to offer many types of solutions. We focus on AFC and associated retail payment solutions.

In June 2009, the International Association of Public Transport (UITP), set an ambitious aim to double the market share of public transport worldwide by 2025. This ambition goes by the name of 'PTx2'. UITP. With the urban population due to reach more than half of the world's population by 2025, cities will be stuck if nothing is done. Also, quick increase of the number of private cars on the road, particularly in developing countries, aggravates global warming. Public transportation will alleviate this issue, owing to the more efficient use of fuel per mile of mobility of person. AFC enhances the efficiency of public transportation.

In the AFC business, we focus on the developing countries which cannot afford more expensive solutions from Europe or USA.

PAN : Briefly share the story of the creation of your ACR301-B1 bus validator – from conceptualisation to actual deployment. Pin down its key feature for AFC application. How has the market reacted to the reader so far?

Denny : Our "bus" validators are used in buses and in trains. We developed many smart card readers in the past years and before we started to develop a bus validator, we had had in our portfolio, smart card terminals with pin-pads and display; i.e. the desk-top model eH880 and the portable model terminal ACR880. The bus validators are similar to eH880 or ACR880 in the

capability to read and write on cards. However, the environment of use in public transportation is different. In particular, the bus environment is rough. The validator must be designed to endure wide voltage fluctuations, violent mechanical shocks and water splash. These were new things that ACS had to learn. We coped with all the challenges and acquired the know-how through our engineering ingenuity, strenuous efforts and relentless pursuit of product quality and reliability. The validators are equipped with wireless communication capabilities like GPS, GPRS/3G and Wi-Fi, and they have to function seamlessly in different environments. We overcame various problems and came up with decent validators. The market response has been very positive.

PAN : In the AFC arena, each country or region poses different challenges, how do you ensure that your offering is not just one-size-fits-all, but has the flexibility to be easily customised according to the real need or final requirements?

Denny : We want to put various generic features in the validator and add customised features whenever needed. ACS has the advantage of possessing a lot of smart card technologies in-house to do such customisation work.

Also some customised features may one day become generic. The wiring of the bus validators mounted in a bus may be deliberately cut by people who do not like the AFC system which prevents their faults in paper tickets. The tamper-proofed bus validator used in a rough place can be a generic validator used in a friendly place. Since the validators can be connected through wireless means, customisation and maintenance remotely are not impossible.

PAN : We notice that you participate in many global events; is that part of your sales & marketing exercise? What else do you engage in to raise the brand of ACS consistently?

Denny : Yes, we participate in some 10 events per year, worldwide. We have been participating in the same shows for many years and our staff turnover rate is low, including my colleagues who are usually deployed to man our booth in trade shows.

Our company name has been the same and there has been no major change of shareholding. Therefore, many industry players have learned much about ACS. We meet many old friends at these events on top of new friends. We do not do extra work to raise our brand image. We emphasise on product quality and customer satisfaction. Our name was made more widely known through word of mouth.

PAN : Of your annual turnover of USD20million+, how many percent of that is ploughed back into your continuous R&D?

Denny : We plough back around 20% of our sales turnover into R&D. By most industry standards, this figure is high. In order to remain profitable, we put less money in sales and marketing. We have continued to put resources to enhance our product design and quality control to ensure product quality. We exert our best efforts to keep our customers happy. Our customer retention rate is very high and so we have have relatively low sales and marketing expenses, while still managing to grow our sales revenue and bottom line.

PAN : At the rate we are burning fossil fuel nowadays, how viable is it to still protect the environment in your manufacturing process? Every effort counts as a drop of salt in the great ocean?

Denny : The industry we are in probably helps the environment. The secure e-Commerce through the use of smart card technology



“ We want to ensure quality, but if we fail, we want to ensure that customers do not suffer from our mistakes. We are eager to compensate them fairly. ”

reduces the use of papers for documents and reduces the need of person-to-person meetings, which consume energy owing to travelling. More use of public transportation in lieu of private cars reduces the use of fossil fuels, owing to more energy efficient public transportation to satisfy people's mobility needs. Our AFC solutions promote the use of public transportation.

PAN : Tell us more about ACS' presence outside its base in Hong Kong. Does being closer to your clients pose any real advantages in understanding & supporting various cultures in global business?

Denny : We have four main offices, namely in Hong Kong, Shenzhen, Zhuhai and Manila. Our staff members in different offices have different expertise and make their due contributions. We are gradually building more overseas offices. We have now, an office in Japan and one in the USA. Certainly, by being closer to customers, our staff can understand them better and serve them better. We are now selling our products to over 100 countries in the world. When we have reached a better economy of scale, we will set up more overseas offices. Presently, we are using various means to communicate with our customers. On top of participating in trade shows, we pay our customers visits. We have many customers visiting our Hong Kong office every year, including those passing through on their way to mainland China for smart card business or other businesses.

PAN : Contactless technology – is it still confined to the realm of payment for transactional success? Why?

Denny : Both market segments, payment and non-payment, are big if you include China. Examples of big payment applications are: (1) AFC for public transportation and (2) payment in retail outlets using a fare card or a contactless credit or debit card. Examples of big non-payment applications are (1) the second generation ID cards in China with some 800 million cards issued, (2) the German contactless ID cards and (3) numerous contactless cards used in access control in the world.

PAN : What is the ACS team caught up with lately? Any project you would care to give us a sneak peek into with your company's busy development schedule?

Denny : Recently, we have released a new product line called Mobile Devices Card Readers. ACS currently enables mobility by housing powerful readers in the smallest form factors. It was enough years ago for users to have a reader that fits in the pocket, to be plugged into a PC. But developments in mobile devices have presented us with a new challenge. Mobile devices can now perform many functions of a PC, and many users are starting to prefer the former for the majority of their activities. By developing readers that they can use with smart phones and tablets, ACS is enabling true mobility for such users. ACS has released two new mobile device card readers: the ACR38U PocketMate II and the ACR31 Swipe.

PAN : Touching on the project with SM Prime Holdings, how did your team manage to pull off this large scale deployment of equipping more than 1,000 of its retail stores & affiliates with your e-PLUS Tap to Pay?

Denny : SM Prime Holdings is the parent company of the SM Group's shopping malls. It is the largest shopping mall and retail operator in The Philippines. The parent of SM Prime Holdings is SM Investment which is the country's most valuable company and is under the control of the family of Henry Sy, The Philippines' richest person. They are very determined to have the payment system widely used for SM's Cinemas, IMAX Theatres, Directors Club Cinemas, parking facilities, skating rinks, bowling alleys,

amusement centres, food courts, select food and non-food merchants in SM Malls. Also, the card is accepted for payment in select transport shuttles and is even being deployed in some school cafeterias, bookstores and printers. By November, it will be accepted, according to the plan, in more than 1,000 SM Retail Stores and SM affiliates all over the country. We have the advantage of having an office in Manila with experienced staff doing part of the technology development work. Also, they carry out the customisation and deployment work there. SM Prime Holdings gives us a lot of support and co-operation in order to make the project a great success.

PAN : What is the one word you would use to describe the technical prowess of your team now? Is your hiring process for technical staff still as stringent as it is 10 years ago?

Denny : Fearless. They have the confidence to build any technology I can think of for our industry. Of course, we are very limited in resources and so we cannot move too fast. We are more stringent in hiring sales and marketing people than R&D people. Twenty percent of sales revenue placed on R&D is already a big figure. We want to ensure that we have new products and services in the pipelines so that our growth is sustainable.

PAN : Describe your style of leadership to us – are you more of a hands-on leader who will look into every detail at level of the work floor? Or do you believe in giving autonomy to your staff?

Denny : I am fortunate that most of the people directly reporting to me have been with ACS for more than a decade. Most of my staff are still very young as they joined ACS as new graduates from universities. They are talented and have great expertise in their responsible areas. I seldom interfere in their business, even though I am highly available if they want to talk to me. I am an introverted person. I constantly read and learn, but not talk much. I spend time in attempting to find methods, including the design and use of software, to do our work more systematically and effectively. I encourage my staff to learn about Confucius thoughts and I explain to them about Confucius sayings whenever possible.

PAN : Personally, where do you continuously draw your energy and passion for your job? How do you deepen your love for the contactless & smart card industry day by day after all these years?

Denny : Yes, I enjoy my work. I have the good fortune to be able to work on areas of the greatest interest to me, while entrusting the rest of the company's operations, to my staff. I have been engaged in the smart card industry for 17 years. The industry is evolving and so is ACS. There are new challenges and opportunities almost on a daily basis. There are lots of things to make me happy. The Quality leadership award from Frost & Sullivan, recognition from Forbes, Product Innovation Award from CardsNow! and various awards from independent parties brought excitement to me. Obtaining a new type of certificate of compliance to an industry standard, winning a contract for a tender, enrolling a much wanted person all give us good

reasons to celebrate. Most importantly, I have the mission to build a business which is sustainable and which is good to the environment. With this mission in mind, my days will never be dull.

PAN : Not many in the industry are blessed to have their spouse be part of the success team, tell us your experience with your wife, Alice, as the EVP of Operations.

Denny : Both Alice and I graduated from The Chinese University of Hong Kong. I studied physics and she studied history. When I founded the first business of trading, my wife was a teacher. She had worked as a history teacher in a high school for eight years before joining me in the business. She is a talent particularly in execution, while I am more specialised in daydreaming. My wife and I are two members of the management team. Both of us play a role as other key members of the team do. In China, there is a saying "举贤不避亲" (which means "No need to avoid employing a relative"). I give extra scores to family members of all existing staff members if they apply for jobs in ACS.

PAN : After a long day at work, how do you like to wind down? What are some of your favourite pastimes in the busy, bustling, cosmopolitan city of Hong Kong?

Denny : I like to read and to learn. I read a variety of books including management, history, classical Chinese literature, religion and nature. The book that I benefited the most from is "Lun Yue (论语)", which contains Confucius' words of wisdom. The magazine that I have been reading regularly in the last decade is "The Economist".

PAN : When you finally decide to retire, what do you want the industry to remember Denny Wong by?

Denny : I want them to remember me as the tough guy who led ACS in surviving the tough Hong Kong environment to build an IT business, surviving the tough industry of supplying smart card readers and finally becoming a decent-sized company, with the right environment for its staff members to develop their careers and contributing to the protection of the world's environment. **PAN**



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