



A Chinese Space Station by 2020

Korea's Finance Gurus Battle the Global Economic Storm

Japan's Party of Change Clings to Power 

ASIA-PACIFIC

Business &

WWW.BIZTECHREPORT.COM

Technology

REPORT

Vol. 3, No. 11, 2011

The Growing Watch Industry in Asia-Pacific



Ecotourism of Korea

Japanese at the Helm of Chip Technology Build World's First No-Power Memory Chip

Faster Resistance RAM for Flash Memory Cards Developed in Korea

The Indian Grand Prix

Philippine Government Broadband Project Attempts Comeback

Vietnam Mobile Phone Industry Rolls in Good Times Despite Inflation



9 772092 773001
ISSN 2092-7738

₩8,000 | £5.00 | €6.00
₹30 | US\$7.00 | CN\$7.00

I am your
POWER



*Max. Power
500ps*

Tata Daewoo Premium Truck
PRIMA

Also available in : Cargo and Dump Truck
Power range : 250ps to 500ps

**Free
2011 Membership to
IEEE Communications
Society**

When You Join IEEE

www.ieee.org/join

Promo Codes:

Regular Member: IEEECOMSOCP

Student Member: IEEECOMSOCPST

(Free offer expires on 28 February 2011.

New members only.)

Members entitled to
free digital subscriptions of
IEEE Spectrum Magazine &
IEEE Communications Magazine



Run Ahead of the Curve

IEEE Communications Society

Global Community of Communications Professionals



For free digital sample copy, go to
<http://www2.comsoc.org/Digital-Sample>

Society Membership benefits include:

- Monthly Digital Delivery of *IEEE Communications Magazine*.
- Online access to industry resources and technical papers.
- Online Tutorials, Webinars and other Educational Programs.
- Networking opportunities with technical experts around the world.
- Member discounts on the ComSoc Training, and the **Wireless Communication Engineering Technologies (WCET) Certification Program**.
- Monthly *ComSoc e-News* issues.
- Digital Delivery of *ComSoc Community Directory*.
- Additional ComSoc Member discounts on conferences, publications, and member-only products.
- Volunteer opportunities and eligibility for awards and recognition.
- Much more.

Become a 2011 Member – www.ieee.org • www.comsoc.org

Headquarters - New York, USA
3 Park Avenue, 17th Floor
New York, NY 10016 USA
Tel: +1 212 705 8900
Fax: +1 212 705 8999
society@comsoc.org, www.comsoc.org

Singapore Office
Fanny Su Beh No, Manager
1 Fusionopolis Walk, #04-07, South Tower
Solaris, Singapore 138628
Tel: +65 778 2873, Fax: +65 778 9723
fsul@ieee.org

China Office
Ning Hua, Chief Representative
Rm 1530, South Tower,
Raycom Info Tech Park C,
Haidian District
Beijing, 100190, China
Tel: +86 10 8286 2025, Fax: +86 10 8262 2135
n.hua@ieee.org

IEEE Member Services
IEEE Operations Center
445 Hoes Lane,
Piscataway, NJ 08854-4141 USA
Tel: +1 800 678 IEEE (4333)
Outside USA & Canada: +1 732 981 0060
Fax: +1 732 562 6380
member-services@ieee.org, www.ieee.org

Join us on Social Networks: www.facebook.com/IEEEComSoc • twitter.com/ComSoc • www.linkedin.com/in/ComSoc

Join hundreds of senior marketers worldwide

in providing valuable insight for Marketing Outlook 2011



Marketing Outlook 2011, the CMO Council's fifth annual benchmark of marketing priorities, spend allocations, and operational and organizational mandates, will evaluate how social, mobile and digital channels are changing the marketing landscape and mix. The results of this study will serve as a valuable and reliable barometer of media and marketing spend, as well as a sound indicator of where and how marketers expect to drive campaign effectiveness, efficiency, and yield in the months ahead.

Complete the online survey to receive a complimentary copy of the detailed findings report upon publication. Link to survey: http://www.cmocouncil.org/programs/surveys/mo_11/



Contents

Vol. 3, No. 11, 2011



Cover Image: Jose Garcia | Dreamstime.com

Publisher: MR. LEE DEUK HO
Editor-in-Chief: MR. LEE DEUK HO

Published by: Asia-Pacific Business & Technology Report Co.
Registration date: 2009.09.03
Registration number: 서울중. 라00307
Price: ₹30, ₩8,000, US\$7.00, CN\$7.00, £5.00, €6.00
Annual subscription fee: ₩62,000/US\$62

Senior Editorial Advisor: MR. SUNG-WOOCK CHO
Chief Consultant: DR. LAKHVINDER SINGH
Chief Business Development Officer: MR. KIM CHEOL HO
Editorial and Marketing Consultant: MR. PARTHASARTHI JENA

Editorial Advisory Board:
MR. SURESH P PRABHU
Former Union Cabinet Minister for Power, Government of India
MR. N K GOYAL
President, Communications & Manufacturing Association of India, CMAI
DR. MEZYAD ALTERKAWI
Associate Professor, King Saud University
DR. EMANUEL YI PASTREICH
Director, The Asia Institute
MR. JUNGSOO JANG
President, Korea Future Institute
MR. MICHAEL BREEN
Insight Communications Consultants
DR. DONALD KIRK
Author and Journalist
DR. EVA LATHAM
Corporate Social Responsibility Expert

To contact Asia Pacific Business and Technology Report for advertising, submissions, subscriptions or general comments please email to contact@biztechreport.com

The views and opinions expressed in the articles are those of the authors and do not in any way reflect the editorial policy of Asia Pacific Business and Technology Report

Vol. 3, No. 10, 2011
PRINTED IN SOUTH KOREA

COVER STORY

Good Times

for the Asia-Pacific Watch Industry

Page 8



J.D. Whitney — Page 12

Jack Covert — Page 23

Dr. Jeffrey Schott — Page 40

Dr. Jerome Delli Priscoli — Page 48

LEADERSHIP

11 Apple without Steve Jobs
BY MEENAKSHI SHANKAR

BUSINESS

14 Japan's Party of Change Clings to Power
BY DONALD KIRK

16 Korea's Finance Gurus Battle the Global Economic Storm
BY DONALD KIRK

17 Vietnam Mobile Phone Industry Rolls in Good Times Despite Inflation
BY ANURADHA SHUKLA

18 Fast-Speeding Life Sciences Industries in Asia-Pacific
BY MEENAKSHI SHANKAR

19 Thai Businesses on the Way to Boom Time with Google's 'Go Online' Campaign
BY KEVIN LIU

20 Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
BY RAJANI BABURAJAN

22 The State of Local Asian Publishers in the Digital Age
BY ANURADHA SHUKLA

TECHNOLOGY

26 A Chinese Space Station by 2020: Heavenly Palace
BY ELAINE XIANG

28 Every Asian Company Should Be ASUSTek
BY H. J. CHO

30 Korea's Tablet PCs are the Busy Buzz in its Digitization Growth
BY DING DING

31 Faster Resistance RAM for Flash Memory Cards Developed in Korea
BY XIE-YAN

32 Home Automation Grows with the Evolution of Mobile Devices
BY RAJANI BABURAJAN

33 Inkjet Printing Method for Thin Film Transistors Developed in Japan
BY DING DING

34 Lessons for App Developers as Asia's Mobile Apps Download Volume Reaches 5 Million
BY KEVIN LIU

35 China's Seabed Mapping Speeding Up
BY ELAINE XIANG

36 Philippine Government Broadband Project Attempts Comeback
BY ANURADHA SHUKLA

37 Japanese at the Helm of Chip Technology
BY DING DING

38 New High Tech Milestone: China is World's Biggest PC Consumer
BY DING DING

39 South Korea Best in Information Society: The International Telecommunication Union (ITU)
BY SMITH J. PARK

40 The State of Local Asian Publishers in the Digital Age
BY ANURADHA SHUKLA

41 The State of Local Asian Publishers in the Digital Age
BY ANURADHA SHUKLA

42 Ecotourism of Korea
BY JIN-SUK YANG

43 The Indian Grand Prix
BY SHAMILA JANAKIRAMAN

44 The Indian Grand Prix
BY SHAMILA JANAKIRAMAN

45 New Medical Welding Technology Introduced to Chinese Hospitals
BY XIE-YAN

46 The Right App to Get Things Done
BY MATTHEW WEIGAND

47 The Right App to Get Things Done
BY MATTHEW WEIGAND

FOR ADVERTISEMENTS AND OTHER BUSINESS ENQUIRES PLEASE CONTACT:

South Korea, Asia-Pacific, and United States:
• 207 2nd Floor, Construction Association of Korea Building
• 31-23 Taeyeongro 1-ga, Jung gu, Seoul Korea 100-101
• Phone: 822-766-8230
• Email: contact@biztechreport.com

India, Europe, and other regions:
• F-84, Basement, Lajpat Nagar-II
• New Delhi-110024
• Phone: 91-11-9811871191
• Email: parthnewdelhi@gmail.com



COMPANIES COVERED IN THIS ISSUE

COMPANY	ARTICLE(S)
ABB Ltd.	• Home Automation Grows with the Evolution of Mobile Devices
Airtel	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
AMX Corporation	• Home Automation Grows with the Evolution of Mobile Devices
BSNL	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
Control4	• Home Automation Grows with the Evolution of Mobile Devices
Crestron Electronics Inc.	• Home Automation Grows with the Evolution of Mobile Devices
Flytxt	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
GE Security	• Home Automation Grows with the Evolution of Mobile Devices
Haier Group	• Home Automation Grows with the Evolution of Mobile Devices
Home Automation Inc.	• Home Automation Grows with the Evolution of Mobile Devices
Honeywell International Inc.	• Home Automation Grows with the Evolution of Mobile Devices
inMobi	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
iSuppli	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
Lightolier Controls	• Home Automation Grows with the Evolution of Mobile Devices
Lutron Electronics Inc.	• Home Automation Grows with the Evolution of Mobile Devices
Schneider Electric Ltd.	• Home Automation Grows with the Evolution of Mobile Devices
Siemens AG	• Home Automation Grows with the Evolution of Mobile Devices
SmartHome Controls Ltd.	• Home Automation Grows with the Evolution of Mobile Devices
Smarthome Inc.	• Home Automation Grows with the Evolution of Mobile Devices
TRAI	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India
Vantage Controls Inc.	• Home Automation Grows with the Evolution of Mobile Devices
Vodafone	• Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India



DISCOVER THE WONDERS OF THE WORLD



Original. Remarkable. Exceptional.

Wherever in the world you travel, you'll be assured of a warm welcome with WORLDHOTELS, a collection of almost 450 of the world's most unique and interesting independent hotels.

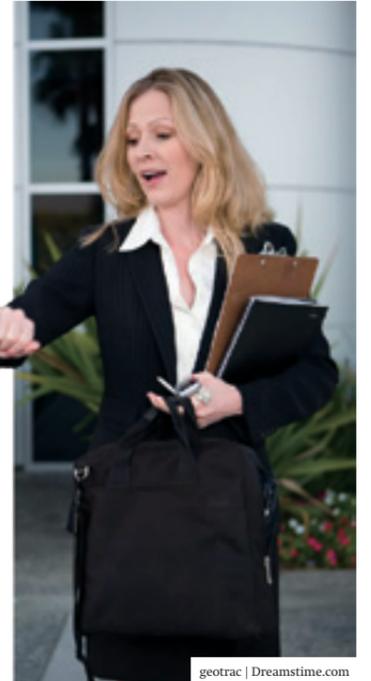
Book your unique stay at worldhotels.com or contact your nearest travel agent for Best Available Rates.

Good Times for the Asia-Pacific Watch Industry

BY SHAMILA JANAKIRAMAN

The brand names of Rolex, Tissot, Longines, Tag Heuer, Seiko, Titan, and others remind one of international luxury and celebrity models. A global ad campaign features Aishwarya Rai, Kate Winslet, and Taiwanese model Lin Chi Cing, well-known icons of beauty enjoying their Longines watches.

Like the luxury automobiles segment, high-end watches will also witness an upswing over the next five years. It is expected that the number of upper-middle class and upper class households in India will boom and so will the sales of fashion and luxury watches, as have the sales of other lifestyle accessories.



geotrac | Dreamstime.com

Although watches make style statements, increasingly they have started facing competition from a less related device, the mobile phone. Most youngsters depend on their phones for time and feel a watch on their wrist is not so cool. However, the watch industry in the Asia-Pacific region is fast-growing and there is stiff competition among nations.

The WorldWatchReport, an exclusive market research study that deciphers the demand related to 25 luxury watch brands as expressed by consumers located in 10 key markets, reveals that nearly 1 out of 3 searches for luxury watch brands is performed in the BRIC markets. China has emerged as the second largest market for luxury watch-making brands behind the USA. The study includes an analysis of hundreds of millions of searches as well as the official brands' presence on Facebook and YouTube.

In the nation of India, a limited number of consumers can afford the luxury brands mentioned above. However, Titan and HMT are household watch names in India. Until fairly recently, watches manufactured by Hindustan Machine Tools (HMT) adorned nearly every Indian wrist. Yet the increase in sophistication among buyers and sellers and the maturing economy in India are set to launch watch companies here into the big league of watch manufacturers.

Harish Bhat, chief operating officer of Titan Industries Ltd (watches), and also the

secretary general of All India Federation of Horological Industries (AIFHI), has said, "We will see a boom in high-end watches over the next five years."

In order for this to happen, the creation of a global manufacturing hub in India for watches and watch components is very important. China enjoys this facility already, although its competitive advantage is diminishing. The Indian government has to give priority under its manufacturing policy, introduce new technologies, and bring manufacturing and ancillary units near each other in specially-created hubs.

The Indian watch market can be spruced up by the introduction of a GST which will make the market easier to serve by organized players in the wrist watch industry. Rationalization of some duties like import and excise duties on high-value jewelry-like watches, and the much lower excise duties on economy watches will further develop the market, opines Bhat.

The high-end watches segment in India is currently impaired by high import duties. The AIFHI is striving to bring down import duties for high-value jewelry watches like that of other jewel-based items. The luxury watch sector also faces problems in availability of premium retailing space.

Moreover, the Weights and Measures Act stipulates certain conditions for packaging in watches, even though they are sold in the open and not in boxes. Customers are even allowed to try them on before buying. This 'unfair' Act imposed upon the watch industry thus leads to higher excise duties.

Like the luxury automobiles segment, high-end watches will also witness an upswing over the next five years. It is expected that the number of upper-middle class and upper class households in India will boom and so will the sales of fashion and luxury watches, as have the sales of other lifestyle accessories.

The market for premium and luxury watches including watches priced above Rs. 10,000 (US\$200) will get a fivefold boost between 2011 and 2016. This scenario occurred in China some years back and is expected to happen in India.

It is imperative for private manufacturers to set up hubs to produce parts and accessories which are now being imported from China and the Far East. The manufacture of watchcases and watch dials can be undertaken in India. But other parts like high-end leather bracelets, batteries and complex mechanical/automatic movements may still require outside help in technology.

If the Indian government could establish hubs for watch manufacturing, offer land and infrastructure support along with financial benefits, then India could easily become the global hub for manufacturing of non-Swiss watches by 2025.

As Chinese manufacturing is becoming more expensive, watch manufacturers are looking for other pastures like Vietnam and it is the right time for India to enter the fray and position itself advantageously.

In India, watch penetration is less than 40 percent, and many people own just one watch, with multiple watch ownership being less than 5 percent. However the growth in the watch market over the past five years has been quite remarkable and more people in metros nowadays own multiple watches. Such trends need to be positively encouraged by more investments and by launching marketing initiatives.

Over 60 international brands are catering to the high-end watch market in India with huge marketing and retailing investments. The market will grow fast as is proved by the increase in Indian celebrity models endorsing international brands and the airing of more advertisements in print and TV. This is sure to lure away In-



Roman Lipovskiy | Dreamstime.com



puma | Dreamstime.com

The market for premium and luxury watches including watches priced above Rs. 10,000 (US\$200) will get a fivefold boost between 2011 and 2016.

dian buyers from the Singapore and Dubai watch markets.

In China, the Chinese Clock and Watch Manufacturing Industry encompasses manufacturers of watches, clocks and other timing instruments such as chronometers. This industry also houses manufacturers of watch and clock parts and time switches with watch movements or synchronous motors. Other associated companies manufacture watch and clock components like straps, springs, wheels, hands, dials, and cases.

The time devices manufactured here can be segregated into the following classifications: clocks for specific purposes and other timepieces; high-end watches and clocks; low-end watches and clocks; and mid-end watches and clocks.

Shenzhen Fiyta Holdings Ltd., Ebohr Luxuries International Ltd., Zhuhai Gree Rossini Watch Industry Ltd., Tianwang Electronics (Shenzhen) Company and Zhuhai SMH Watchmaking Co., Ltd. are major watch manufacturers in China.

The manufacturing activities include making of clock and watch parts; quartz clocks, mechanical clocks, and clocks for special purposes; instrument panel clocks; quartz oscillators; time switches and also wrist watches, pocket watches, stop watches and watches for special purposes.

The Chinese watch industry is very large compared to the Indian scene. They operate nearly 500 manufacturing units located in and around Shenzhen. This huge scale helps the Chinese industry supply watches to the entire global market.

Tianjin Sea-Gull ranks among a few Chinese manufacturers who specialize in mechanical and automatic movements such as a double tourbillon.

Although the Chinese scenario seems robust, it does not, however, have large and powerful brands like the Titan, Fastrack, Maxima and Sonata of India. The Chinese market does not have huge brands and is more fragmented.

In Japan, the watch industry bloomed in

the first half of the twentieth century. Seiko watches manufactured by Hattori & Co set the ball rolling for competition in this industry. In the 1960s Seiko entered the world market by synergizing the American mass production system and the Swiss precision production system.

Seiko picked some Swiss high-precision watches and tried to produce them en masse using imported machine tools. The company faced problems as the parts were not interchangeable and the assembly ran on traditional lines until the end of the Second World War.

Later on, by hiring production engineers who had graduated from Japanese engineering institutions, and with the help of research organizations like the Department of Precision Engineering of the University of Tokyo, Seiko could finally implement a fully hybrid production system.

There the hybrid system of mass production combined with manufacturing of semi-handcrafted, quality products was standardized. The large-scale production in the United States and the industrial organization with division of production was combined with the system of using highly skilled workers as in Switzerland to arrive at the hybrid system by Hattori for making the Seiko watches.

The Swiss technologies adopted by Hat-

tori covered product characteristics such as movement type and parts with a focus on launching high-quality watches. But the difference lay in the fact that Hattori picked select models which were manufactured by the mass production system. It involved standardized products with interchangeable parts mass-produced by machines. The reference models adopted by Seiko were high-precision Swiss watches like Longines, some models of which were mass-produced.

Japanese manufacturers were restricted to few models and did not make any artistic effort in either watches or wall clocks. It was deemed not worth the while, and in order to make money in Japan it was imperative to stick to few models and produce them in great quantities, felt manufacturers.

After revolutionizing the watch industry with its quartz watches, Japanese watchmakers are now producing watches in the US\$1,000 to \$5,000 price range. These are characterized by high levels of reliability and mechanical sophistication and style. However, they are priced lower than Swiss watches. But the Japanese still have to market their creations aggressively to capture and retain their share of the global luxury watch market. (A-P)

FACTOIDS:

1. In India watch penetration is less than 40 percent, and many people own just one watch, with multiple watch ownership being less than 5 percent.
2. Seiko entered the world market by synergizing the American mass production system and the Swiss precision production system.

FURTHER READINGS:

- Ibis World
www.ibisworld.com.cn/industry/default.aspx?indid=680
- Pierre-Yves DONZE
www.unige.ch/ses/istec/recherche/colloques/PYD.pdf

Apple without Steve Jobs

BY MEENAKSHI SHANKAR

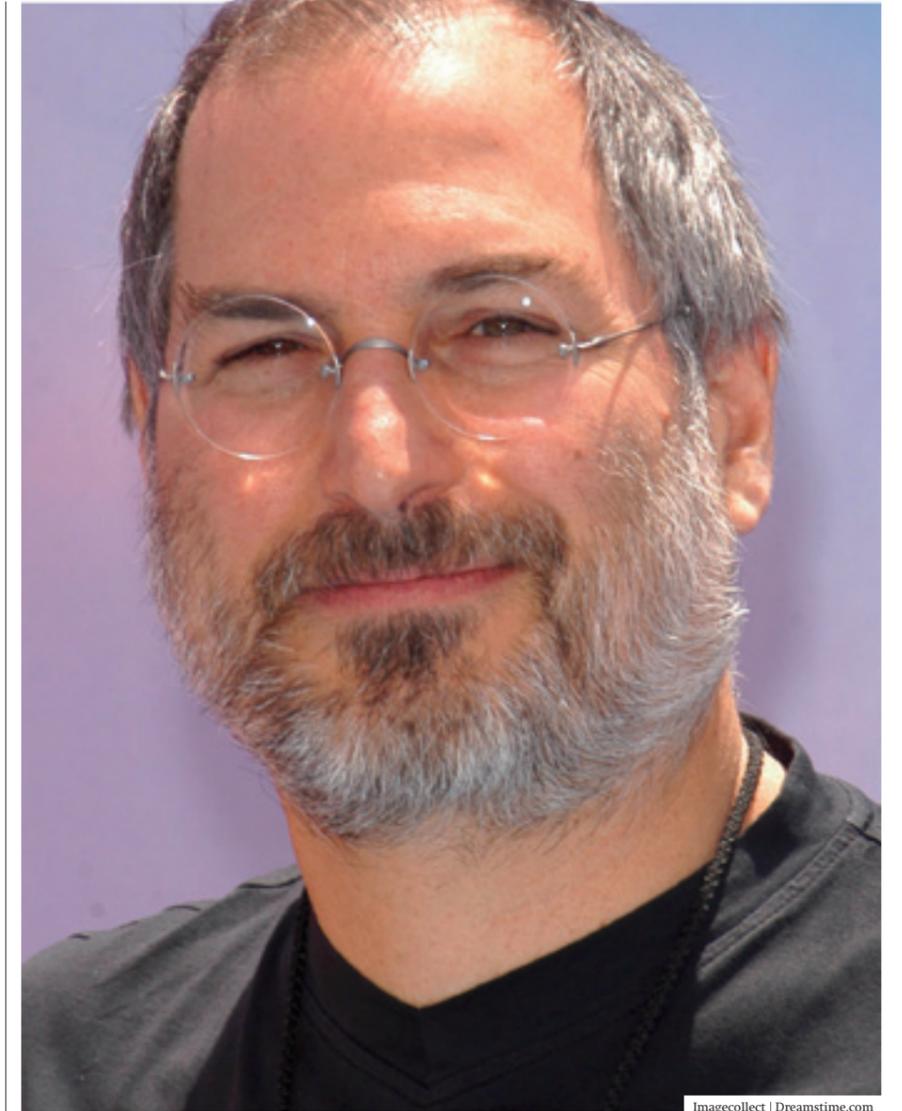
As Apple's lead in tablets reaches its pinnacle in the global industry, with its phone business well-accelerated, and the company strongly-valued globally, Steven Paul Jobs, an American entrepreneur and inventor, co-founder, chairman, and chief executive officer of Apple Inc., passed away in October leaving behind his company to think if they will be able to continue the same blockbuster success rate under Tim Cook, who has replaced Jobs.

Apple Inc. has everything from products to services to its own stores, all beautifully conceptualized and delivered. Apple's success in the past decade has been related more towards its delivery of hyper-designed, blue market gadgets which eventually became indispensable to consumers.

At Apple, Steve Jobs has always focused on stimulating innovation. In 2007, for example, when Apple entered the cellular phone business, the company came with the most admired launch of the iPhone, a multi-touch display cell phone. The phone, which also included the features of an iPod and its own mobile browser, revolutionized the mobile browsing scene. Soon afterward came the iPad, a real masterpiece achievement that created the world of tablets. Customers, it may be said, have now gotten used to Apple's elegance and sophistication blended with high technology innovation and ease of use.

Apple has secured its top position in the consumer technology world with its revolutionary iPhone, App Store, its family of iPod media players and iTunes media store, its Mac computers and iLife and iWork application suites. It was the iMac that changed the way consumers thought about personal computers and about Apple itself.

Under Jobs's guidance, the company increased sales significantly with the introduction of the iMac and other new products. Another recent addition to Apple's powerhouse line-up is the iCloud, a set of on-line services designed to link all of Apple's products and help people to access music, photos, files, and software across devices. The company also has recently introduced



Imagecollect | Dreamstime.com

Jobs has been the backbone to bring forth appealing designs and powerful branding that have worked well for Apple. However, with Apple set to take more gradual steps, the markets clearly have faith in the new set-up with Cook at the helm.

the iPad 2, which is noted to be the defining factor of the future of mobile media and computing devices.

Jobs has been the backbone to bring forth appealing designs and powerful branding that have worked well for Apple. However, with Apple set to take more gradual steps, the markets clearly have faith in the new set-up with Cook at the helm. He has no choice but to keep sharply focused on Apple's persistent innovation.

Will the magic of Apple get lost without Jobs? Will the company still move forward with the same level of skills that include vision, intuition, creativity and innovation? The challenge is going to be tough for the company. But now that Apple has developed a style and state, it definitely has the potential to build on it and continue to be a formidable innovation pacesetter. Consumers may do well to believe that Apple's most innovative days are ahead of it. (A-P)

By Victor Fic

J.D. Whitney is a native of the USA. Starting out as a music teacher, he then spent 10 years in non-profit management, including 3 years in Kenya. He is co-owner and COO of micMAC Global Solutions (www.micmacglobal.com), headquartered in Qingdao, China. Their programs are based on his MBA in International Development and global travels training people in language acquisition and cultural transition. J.D. sees that many expats fail at languages because of poor technique – not lack of talent. His language training program is based on science and practicality and works for students from Nike and Caterpillar.



Why is it important for an expat to learn the local language when English is spreading?

English is a great language to know. But language and culture are mixed together and it is very hard to really understand a culture without the language. It also deepens your professional and personal relationships and could save you in an emergency. In many places, the locals will also treat you with more respect when you can directly talk to them. You are less likely to be cheated, and more apt to receive fast and efficient service. They will see you as someone making a long-term commitment, as a learner and as someone who is seeking understanding. These attributes not only give you an edge in business but also help relieve isolation.

You insist that China and India are where a Western expat is most likely to fail – evidence?

Brookfield Relocation Services does an annual survey (brookfieldgrs.com) of issues related to international assignments. In fact, China and then India are consistently ranked as the two most difficult countries for expats, followed by the USA. The highest percentage of failed assignments for Westerners transpire in China and India.

Does language play a role here?

Of course, but it's not the only factor. Expats in India and China struggle to find decent housing and good international schools. It is possible in first tier cities such as Beijing or Delhi, but much harder if you are sent to a branch office in tier 3

and 4 cities where many companies are expanding to cut costs. However, I observe that many challenges are related to culture and especially the sense of isolation and risk that comes from not knowing the language. People commonly retreat into a bubble of fellow expats surrounded by a world they don't understand. This deeply affects family and carries over into the professional world and dooms them.

Recount for us how and why you failed to learn Spanish and how it made you feel dumb.

I figured learning languages wasn't my forte after two years of struggle. We were memorizing lists of words and translating the names of soap operas. I actually got a little but I never enjoyed it. I suspect many of your readers have a similar experience.

How did you end up in Africa learning Swahili?

I got some excellent language acquisition training before I went to Africa. I learned about different techniques and theories and developed a personal language learning plan. It was empowering to take responsibility for my own learning. I hired a tutor when I got to Kenya and pursued my plan. I worked hard – hours a day – but managed to give a speech in Swahili in my 4th month. I spent 24 nearly futile months on Spanish, so note the dramatic difference! Obviously, I had the same character, mind and background. Clearly, the nature of the learning experience was a key reason that I now succeeded and really loved it, too.

What was your deep insight?

Techniques that demonstrably work for you and keep up your motivation are the two cardinal factors in language learning. A good program cannot actually instill desire because the student must feel it for himself, but the program can kindle and channel the feeling. As for a poor program, well, that can kill a student's motive or disillusion him. Then the bitter feelings can transfer to the foreign culture or its people. Is that good for international or a personal business?

How did you train your local Western staff in Africa and did it work?

We sent all of our expat staff in Kenya through the same language acquisition program. But some techniques didn't work for some or all. Sometimes, a student needed more structure. That principle of knowing what this specific student needs was a key insight when we developed our program at micMAC.

Are you conversant or practiced in the various theories about teaching a language, e.g. the communicative method, etc., that instructors with formal training know?

I know and respect the intellectual dialogue and theories on language learning. My MBA and the nature of our company force us to take a very pragmatic view of language learning. Do learners like it and does it work?

Who are your clients for learning Chinese?

They are white collar professionals from companies such as Nike, Caterpillar and Kellogg's. Obviously, these are people who really need to learn, to show their skills every day. They could go to many other schools, but they came to us. Also, we draw people from many small and medium enterprises.

Why do you dislike texts?

A text is fixed. It can't change with the times or with the situation you, your firm and assignment are in right now. A good teacher can do that if you explain your needs and the former is sympathetic. But he or she often feels restricted by the textbook. Besides, a textbook makes you feel like you're back in school, which can be drudgery. One client told us that when he saw his teacher yank out a heavy text, his heart sank.

Your business world is dynamic and you are an adult. That doesn't mean we lack plans, but ours is fluid. It is more like choosing from a menu rather than set course. Also, we don't use the word student much. A student needs a teacher. We

prefer the term learner. A learner can benefit from a teacher but can learn in many other ways, too.

You insist that you mimic learning methods rooted in neurobiology. How did you learn that complex subject?

I read extensively. I love learning about current research. The challenging part is not just understanding the research findings, but connecting it with language learning. It's also easy to get caught up in the theory, so I keep teaching to test things in the real world of the training room.

Tell us more about your approach that follows the science.

To start, your brain builds paths of least resistance just like an electrical current does. If something is working for you mentally, you keep doing it. This includes language. To make a new language stick, you must get out of the old paths and create new ones for your new language. It is uncomfortable but it works. We provide more details in our program.

Also, you claim that your methods follow how kids learn – meaning?

We don't think adults have to learn just like kids – that is too simple. But there are useful things we can learn from them. For instance, kids comprehend an idea first and produce oral and written language second. This is the same for adults, but it is most easily observed in children.

How do you apply this in your exercises?

Most of our exercises start with a comprehensive activity. Once the learner is comprehending what the teacher is saying, even if it only takes 15 seconds, then we move on to a part where the learner begins to speak. You brain doesn't listen as well when you're talking. And listening is really important to comprehension and accent. You can't mimic something you never really listened to in the first place.

In the demonstration that I attended, you also use surprise as with your assistant snapping out orders suddenly, even if this interrupts the class...explain this, please.

The idea is that people learn better when they change environments, when you ask them how they want to do something and yes when they are interrupted. They need a mental break about every 20 minutes. These insights are not new in education, but very few people bother to apply it as we do.

How about the learner physically experiencing the ideas? You had me marching around, for example.

This comes from something called Total Physical Response. It means getting your whole body involved in the learning. It's very memorable and also helps learners get their blood flowing.

Your approach is also very visual, isn't it?

Mandarin is particularly hard for people to read and write because it doesn't use an alphabet. We use a lot of pictures in our regular exercises but when we substitute the Mandarin characters for the pictures learners begin to comprehend what they are seeing. It is a less painful way to build reading comprehension than traditional memorization.

How often does the learner have to study with you?

We work around the schedule and desire of our clients. Most companies do something weekly. Private clients sometimes want more. Our clients are usually very busy people and companies who don't have time to waste. Many have tried other things and got tired of working hard without results.

Report your results...do expats actually learn Chinese?

One of our clients has been working in

Sometimes, a student needed more structure. That principle of knowing what this specific student needs was a key insight when we developed our program at micMAC.

different places in Asia for more than 10 years. After 12 hours with us his wife reported that she saw him open a language dictionary for the first time. Another wife said that she used to do all the talking when they went out and now her husband wants to do it. These learners are interacting with China now, not avoiding it.

How about when you teach English to Chinese? Who are your clients?

We work with Doubletree by Hilton in Qingdao as well as some other smaller companies and private clients. We're launching a program for kids this year too.

Do they make rapid progress? What is the proof?

When we work with a total beginner, they begin to speak in full sentences that they can adapt to the situation in 5 hours of study or less. Of course, they only know a very targeted vocabulary after that time but that is what our clients are looking for. 

Techniques that demonstrably work for you and keep up your motivation are the two cardinal factors in language learning. A good program cannot actually instill desire because the student must feel it for himself, but the program can kindle and channel the feeling.





Mike Kwok | Dreamstime.com

BY DONALD KIRK

Japan's Party of Change Clings to Power

But Reverts to Old-Style Conservatism

Japan's new prime minister, Yoshihiko Noda, has taken over a regime that, although divided and weakened by disaster at the Fukushima nuclear power plant in March, has not been inclined to pervasive change.

That was the outlook after Noda, the surprise winner in an August vote for leadership of the ruling Democratic Party of Japan, put together a government dedicated above all to restoring confidence lost after the earthquake, tsunami and then explosions devastated the plant on the coast 140 miles northeast of Tokyo.

In that spirit, Japan appears mired in a pattern of mediocre leadership combining deep-seated conservatism with a brand of nationalism that epitomizes rising regional confrontation in Northeast Asia. More than two years after the Democratic Party of Japan defeated the long entrenched Liberal Democratic Party on a wave of social, political and diplomatic reform, the question is whether there's any difference between the two. Or, if there is a difference on some issues, what difference do the differences make?

In other words, said Miki Tanikawa, a lecturer on international relations and analyst of the current scene, Noda "... is probably not going to be any more effective" than was his predecessor, Naoto Kan, who was finally forced to step down amid claims of ineffectiveness in dealing with Fukushima. Despite divisions inside the party, the impetus is toward papering over the cracks and getting along with the Liberal Democratic Party, which for decades had what appeared as a stranglehold, broken only by an interlude of socialist rule, over government.

As a former finance minister, Noda has had to focus first on reforming an economy stuck in a pattern of low, slow growth while the value of the Japanese yen rises alarmingly against that of the dollar and the euro. Noda's concern about Japan's faltering fiscal health is evident in his most distinctive contribution to the political dialogue - his view, alone among his party's candidates for leadership, that higher taxes are inevitable. "The Democratic Party of Japan has learned from reality and matured," said Shunpei Takemori, a Keio University economics professor, at a forum sponsored by Asahi Shimbun, one of Japan's major national newspapers. "He was the only one who made reference to a tax hike at this stage."

Equally important in assessing the likely direction, or drift, of the Japanese government under Noda is the end of populist programs once espoused by the DPJ during its campaigns against the LDP. DPJ liberals dreamed of welfare programs that Japan cannot afford while repairing the damage of the earthquake, tsunami and explosions at the Fukushima plant that spread radioactive material over a wide stretch of land and sea. The fear of radiation in crop, animals and fish has diminished, but a team of 3,000 workers, led by engineers and technicians with an intimate knowledge of the intricacies of nuclear power, still has not been able

to bring three of Fukushima's four reactors to a "cold shutdown."

The best that Yoshikazu Nagai, an official at the Tokyo Electric Power Company, could say was that "conditions in these reactors are stable" though only one of the four has temperatures below 100 degrees centigrade. As for the other units, he said, "We are still trying to cool them down, but we are not sure when." In the meantime, no one without an official mission related to the plant can go inside a 20-kilometer "exclusion zone" that was set up right after the explosion.

Amid all these problems, in the interests of cooperation among political foes, Noda has promised to consult with leaders of the Liberal Democratic Party on reform programs. The populist promises of the Democratic Party of Japan, so clearly enunciated two years ago, are now forgotten or at least hardly mentioned, while Noda and his new cabinet focus on much more pressing economic issues at a time of global economic discontent. The adage, "The more things change, the more they stay the same," applies to Japanese governance and politics as the ruling party moves toward the center, toward moderation and conservatism.

In the wake of the Fukushima disaster, the instinct for conservatism appears paramount as the government persists in the steady clean-up of the nuclear power plant's four reactors.

As for bucking the trend toward nuclear power, Noda is pressing for safety and recovery from Fukushima but not for entirely turning back the clock on nuclear energy. Clearly, he does not want to risk a radical switch to other forms of energy that would result in higher electricity costs and which in any case might not suffice to power the country's huge industrial establishment.

That's all in contrast to when the Democratic Party of Japan, led by the reformist Yukio Hatoyama, drove the LDP from its majority in the lower house of the Diet, or parliament, in September 2009 and real change seemed seriously possible. Hatoyama took over as prime minister with dreams of sweeping reforms, including revision of the longstanding military relationship with the United States. He lasted less than a year, however, after giving up on his pledge to get US troops to leave their historic bases on the southernmost island prefecture of Okinawa.

Hatoyama fell in the face of US demands, loudly stated by Robert Gates when he visited Japan as Defense Secretary, to abide by a deal reached in 2007 for moving US forces to a new base on the island while shipping a division or so of marines to Guam. Nowadays Okinawa politicians still call for removal of American forces, but their voices no longer resonate in Tokyo as before. The sinking of the South Korean navy corvette Cheonan in the Yellow Sea in March of last year was enough to convince Japanese leaders of a threat from North Korea, and the Chinese have deepened concerns by building up their navy. "Okinawa is not a big deal," said Tanikawa. "People forget about it. The nuclear issue is on people's minds."

The fundamental conservatism of Japan's ruling establishment, no matter who's in charge, was evident in attitudes toward visits to the Yasukuni shrine, the memorial for millions of fallen Japanese soldiers, including more than 1,000 convicted as war criminals after World War II. In deference to aggrieved outcries from China, Taiwan and Korea, no Japanese prime minister has visited the shrine since Junichiro Koizumi paid the last of his six "private visits" in 2005 before stepping down in 2006.

On the 66th anniversary of the Japanese surrender last August 15, however, Noda veered outside his role of finance minister to say he saw no reason why a Japanese leader should not go there. He created more consternation, moreover, by suggesting those adjudged as "war criminals" no longer be regarded as criminal. Now that he's prime minister, after a runoff vote for party leadership dominated by vicious factional politics, Noda has said he won't be visiting the shrine in view of the sensitivities.

His words, however, had already betrayed the hard-edged nationalism of a leader striving for unity and recovery. Sensitivities are nowhere higher than in Korea in view of the record of 35 years of harsh Japanese rule that ended only with the Japanese surrender.

If Noda does manage to stay away from the Yasukuni shrine, he can still upset Koreans by laying claim to that outcropping of two large rocks in the waters between Korea and Japan that Koreans call the East Sea and maps of international agencies call the Sea of Japan. The Koreans hold the islets, which they call Dokdo, with a police garrison, operating a tiny post office on one of them while running tourist boats there across seas that are sometimes so choppy that the boats are unable to dock. The Japanese cannot do much more than refer to the islets as Takeshima and say they belong to Japan. Noda certainly is not going to change that policy even if he tries to avoid the topic.

In the wake of the Fukushima disaster, the instinct for conservatism appears paramount as the government persists in the steady clean-up of the nuclear power plant's four reactors. As far as that's concerned, said an official at the ministry of economy, trade and industry's nuclear safety industrial agency, "Basic policy will not be changed." In that spirit, the government is hoping that Japan's nuclear power plants, which produced one third of the country's energy before Fukushima, will return to that level and even exceed it some day despite calls by DPJ politicians to end all reliance on nuclear power.

Continued on Page 19

Korea's Finance Gurus Battle the Global Economic Storm

BY DONALD KIRK



South Korea's top financial policy-makers see Korea weathering the storm of financial upheaval on world markets but acknowledge that continuing to do so won't be easy.

"A short-term effect is inevitable due to the increase of volatility from overseas uncertainties such as the debt crises in the US and Europe," Finance Minister Bahk Jae-wan told a forum staged by The Economist in Seoul in September.

Nor was Bahk sure if it would be possible to bring the economy to pre-downturn conditions. "According to an old Korean proverb, it is very difficult to restore broken bone china to its original condition," said Bahk. "The same is true for fiscal soundness. Once it weakens, greater effort is needed for a full recovery."

Bahk said, however, that Korea's "economic fundamentals and financial soundness" have both improved since the 2008 financial crisis, "so the country is expected to be able to stand shocks to a certain extent." Buttressing his argument, Bahk noted that Korea by now has foreign reserves of more than \$300 billion, the world's seventh largest, and is a net creditor with foreign bond holdings exceeding its debt by US\$89.5 billion. Short-term debt, he said, accounts for 37.6 percent of the total external debt, "significantly less" than the 51.9 percent in 2008.

At the same time, Bahk said, "the country is also maintaining a relatively strong fiscal situation" with the ratio of gross domestic product to debt hovering around 33 percent, much lower figure than the OECD average of 97.6 percent.

"If the global economic recovery continues to falter and unease remains in international financial markets, there will be a negative effect on the Korean economy."

In addition, said Bahk, "the relative stability of the bond and foreign exchange markets compared to the stock market proves that there is confidence in the Korean economy's fundamentals and ability to respond to changes." Thus, he said, "the impact on the country's real economy is limited."

Employment, he went on, has grown for the past 10 months, with over 300,000 jobs created each month since October 2010. Overall, he concluded, "The recovery of the economy is continuing as capacity utilization remains at a high level and industrial production continues to grow."

Exports, meanwhile, have been increasing, up by 27 percent in August when the current global crisis started, from August of last year. "Korea's export market is highly

diversified with emerging economies accounting for over 70 percent of the total," said Bahk, yet the delayed recovery of advanced economies like the United States will have a limited effect on overseas shipments. Nonetheless, he warned, "if the global economic recovery continues to falter and unease remains in international financial markets, there will be a negative effect on the Korean economy."

Kim Seok-dong, chairman of the financial supervisory commission, spoke frankly of just that danger. "My take on the ongoing uncertainty in the global markets is that it is very much an aftereffect of the 2008 global financial crisis," he said at the same forum. "This time, however, he noted "considerable differences in the nature of the uncertainty and our capacity to deal with it."

In 2008, "in the face of a looming market collapse, policy makers around the world set a clear common goal of safeguarding the financial system and closely cooperated to achieve the goal," said Kim, speaking at the same Economist forum. "By contrast, the uncertainty we are facing now stems from the 'real sector' that remains sluggish even after sustained stimulus policies for the past few years."

The FSC chairman warned against wishful thinking. "We are not likely to see yet another round of forceful, globally unified action to tackle sluggish growth," he said. In fact, the reality this time may well be that the extended post-crisis expansionary policies have significantly diminished our capacity to further stimulate the economy." He based this assessment on a hard look "at the reality of the global economy," beginning with the euro zone sovereign debt crisis.

"Loss of autonomous exchange rate and interest rate policies more or less forced several euro-zone economies to rely too much on their fiscal options," said Kim. "They must now grapple with a mounting debt crisis. The absence of exchange rate and interest rate flexibility also means no effective risk adjustment or cost-sharing through the market. So uncertainty persists on how long it will take for the euro-zone to make a remarkable turnaround for their economic stability."

Kim was pessimistic about the capability of the United States to recover quickly. "For the United States, with its substantial twin deficits, it seems also difficult to restore momentum for a robust pace of recovery," he said. "With limited fiscal options and policy rates already near zero, it is doubtful whether additional monetary easing will in fact improve the performance of the economy in any meaningful fashion. Moreover, any sudden shift in the US dollar policy aimed at spurring export growth is probably not feasible in the near term, as it will upset the existing global trade relations."

Nor was the financial supervisory commission chairman optimistic about the outlook for Japan – or even China. "In Japan, the aftermath of the March earthquake, on top of an already underperforming economy, has heightened the likelihood of prolonged sluggishness," he said. And China, which he described as having "served as the world's factory and market," was "expected to continue monetary tightening to fight inflation." The result, he said, would "inevitably lead to a further contraction of a global demand."

Kim summarized this view by citing the outlook expressed by World Bank President Robert Zoellick at a forum of finance ministers and regulators. While "risks to the global economy are intensifying," said Kim, quoting Zoellick, "we have fewer options to deal with them." It was "unlikely that the global economy will encounter a sudden and unexpected outbreak of major crisis like the one we had back in 2008," he said, but he predicted "the economic turmoil we are facing will last for quite a long time."

Finance Minister Bahk promised three specific steps that he said his government would take "to stabilize the financial market, recover fiscal soundness, reinforce the structure of the economy and ensure continued growth."

For starters, he noted "the Korean economy's high level of exposure" raised the risk of "sudden excessive movement of capital to financial markets and macroeconomic management." In order "to facilitate close monitoring and quick responses," Bahk said, his ministry, along with the Financial Services Commission, the Bank of Korea and other institutions "are jointly operating a monitoring system on a daily basis."

Bahk cited three main measures that the government, anxious "to prevent sudden changes in the flow of foreign capital," was implementing. It had "lowered the ceiling on banks' foreign exchange forward position, revived a tax on capital gains from bonds held by foreigners, and placed a macro-prudential levy on banks for non-deposit foreign currency liabilities." At the same time, he said the government had "introduced a tax to reduce improper use of domestically-issued foreign currency bonds," known as kimchi bonds, in tax revisions set for next year.

Korea's second step to deal with the crisis, said Bahk, was to "increase mid- and long-term efforts to recover fiscal soundness." Rather than wait for another crisis, he said, "the government needs to enhance the country's fiscal capability, as Korea is vulnerable to external shocks due to the small scale and large exposure of its economy." Recovery, he added, would "make it possible to take good care of ordinary citizens, who are the first ones to suffer when there are economic difficulties."

Setting 2013 as the goal for "achieving a fiscal balance," he said, the government would "push for an early recovery of fiscal soundness" and carry out tight fiscal management, such as maintaining the yearly average of the expenditure increase at three percentage points lower than the revenue increase." The government, he went on, would "also expand the tax base by modifying tax exemption and reduction systems, and manage the country more frugally by cutting expenditures on under-performing state projects."

As for the third step, Bahk said the government would "reinforce the structure of the economy and act preemptively in response to potential risks such as household debts and savings bank insolvency to ensure that the economy will not be shaken by external shocks." Although "the level of household debts is high compared with the level of disposable income,"

Continued on Page 21

Vietnam Mobile Phone Industry Rolls in Good Times Despite Inflation

BY ANURADHA SHUKLA

After the internet, mobile technology likely has the fastest technology adoption rate. A recent research study by leading analysts Gfk Asia supported this fact.

The market research giant's report showed a surprising growth in the mobile industry in Vietnam, despite the rising inflation there. Though there was a drastic cut in spending, even on food, the mobile industry surprisingly showed a continued to growth of 27 percent in unit sales and 21 percent value gain in both feature phones as well as smartphones.

Inflation Hits Consumer Spending

As in the case of all inflation-hit economies in the past year, Vietnam too has had declining sales in different market segments. Worst hit were the food industry, IT industry, home appliances, electronic gadgets and almost all other sectors, whether directly or indirectly, with the surprising exception of the mobile phone sector, which continues to see greater spending.

Mobile Usage Dominates

The total population of Vietnam is about 82 million, with mobile-phone users totalling approximately 5.3 million. This number is likely to increase to 7.3 million by the end of this year.

The average price of a smartphone in Vietnam is about US\$300, almost five times that of a feature phone, which cost around US\$66. Statistics show, however, that every 1 in 10 mobile phones purchased this year was a smartphone, and their share in overall market grew by 10 percent to 34 percent.

Analysts Track Growth Reasons

In past year and more, various market analysts having been tracking the growth of the mobile industry. All reports point to a massive adoption of mobile technology by Asian and South East Asian countries, especially Indonesia, Malaysia and now Vietnam, due to three reasons:

1. Technologically faster networks. 3G is the main driving force in this regard. It is easier for users of these regions to access mobile devices than via trusted fixed telephones.
2. The downward spiral of data costs.
3. Low-cost, high feature web-usable mobile handsets.



Peresty | Dreamstime.com

All reports point to a massive adoption of mobile technology by Asian and South East Asian countries

Mobile Industry Growth Statistics

The report highlights the individual growth rates of two categories of mobile phones – smartphones and feature phones. However, smartphones seem to dominate, with over 70 percent more units sold this year in comparison to last year.

The smartphone industry in this region presents very high growth potential for the future. More competition is expected in the marketplace due to an increase in the number of manufacturers. This is likely to benefit consumers, with greater choice of smartphone brands along with competitive pricing as well.

Current High Spending on Mobiles will Continue

Though inflation has severely affected Vietnam's economy, the consumption of smart and feature mobile phones will persist. This is because of the value-for-money factor these devices provide, as well as their superior technology.

Along with innovative apps, these mobiles provide entertainment, business-handling opportunities and connectivity on a single device. They make life simpler, faster, and along with the great user-experience they offer, the adoption rate of mobiles is on the increase and hence the growing sales in mobile units. (A-P)

Fast-Speeding Life Sciences Industries in Asia-Pacific



Marco Rullkoetter | Dreamstime.com

MEENAKSHI SHANKAR

Geographically huge and culturally and economically diverse, the Asia-Pacific region is currently sprouting concrete growth and dominant economic trends.

This growth is riding high on the back of the life sciences industries, especially in China and India, which are experiencing growth at breakneck speed. One primary reason for this is that several pharmaceutical companies are expanding into the Asia-Pacific region to increase their market share and reduce costs.

Large economies like China, India and Korea, as well as smaller markets like Malaysia and Singapore, are all driving the life science industry growth. Not only are foreign companies expanding operations and investment in the region, but mergers and acquisitions and joint ventures are also taking place with local companies. Additionally, many of these local companies are aiming to develop their own life science investments with increasing financial support from governments. With such trends happening, the region has quickly risen as a favorable place for life science companies to operate.

Laws and regulations surrounding the industry, as well as industry codes of practice, have also been increasing exponentially. Several companies are coordinating with Asian governments in order to create a more transparent environment and are trying to find their footing in this complex and booming region.

China is the largest and fastest growing Asia-Pacific market. Along with China's enormous population, this certainly makes it a key strategic market for multinational pharmaceutical and medical device companies. Life sciences organizations are increas-

ing their investments there, in some cases moving global research and development capabilities to China and building manufacturing plants.

Next on the rankings list is India. Though the growth in India's pharmaceutical and medical technology markets is not as dramatic as China's, multinational pharmaceutical and medical technology companies are seeing high levels of opportunity there and are investing for the long term.

The challenge for life sciences companies operating in Asia-Pacific is to learn quickly, be adaptable, show leadership, and be flexible.

"We are likely to see a significant shake out and consolidation in the near future. While the current landscape is dominated by Indian companies today, over the next five years we will see innovation play a much more significant role," Hasit Joshi-pura, managing director of India and vice president of South Asia for GlaxoSmithKline Pharmaceuticals Ltd., said in a report.

A recent survey has indicated the combined annual revenues of Indian life sciences companies totals US\$21 billion, which accounted for 19 percent of the total revenues in the Asia-Pacific region. South Korea, Australia and Singapore followed India in terms of revenue.

Japan, however, has the most developed life sciences market in this part of the world, with the largest pharmaceutical and medical technology markets in the region and the second-largest globally after the United States.

The life sciences industry in the year

2010 recorded an overall growth trend with fresh mergers and acquisitions (M&A) in the Asia-Pacific region as compared to 2009. The industry recorded double-digit growth of 16.6 percent; clocking in at US\$128.26 billion in 2010 revenue. That year witnessed an increase in the number of deals to 166, valued at \$19.33 billion with an average deal size of \$490 million.

Novartis/Nestle Group led the acquisition table by acquiring Alcon, a leading eye care group company for US\$28.3 billion. This was followed by France's Sanofi-Aventis' acquisition of Genzyme. Sanofi-Aventis has publicly disclosed its US\$18.5 billion, \$69-per-share cash offer for Genzyme. Similarly, Merck KGaA acquired all outstanding shares of common stock of Millipore for US\$107 per share in cash, or a total transaction value, including net debt, of approximately US\$7.2 billion.

Several global companies such as Abbott Labs, Cephalon, GlaxoSmithKline, Cardinal Health, Novartis Pharma have also made significant investments in the APAC region by acquiring stakes or completely acquiring the companies from the region. Seven Australian companies were acquired in 2010, followed by five each from India and China and three from South Korea. The total value of inbound deals of the top 20 companies in 2010 stood at US\$10.69 billion.

The acquisition of Pirmal Healthcare Solutions of India by Abbott was one of the most talked about inbound deals that happened in 2010, as the latter acquired the former at US\$3.72 billion. The next to follow the list was the acquisition of Healthcare Scope of Australia by Carlyle Group and TPG, both from America, at US\$2.35 billion. Another leading deal witnessed during the year was the acquisition of Sigma Pharmaceuticals of Australia by South African-based Aspen Pharmacare at US\$806 million.

Besides inbound and outbound deals, the APAC region also witnessed domestic deals as well. This all signifies that the trend of companies in emerging markets such as India, Australia, China and South Korea are moving towards acquiring companies or stakes in developed markets to establish their presence in the developed markets.

While Asian drug-makers looked overseas to expand their market presence, foreign multinationals continued to invest in Asia by acquiring domestic pharmaceutical manufacturers. In May 2010, US pharmaceutical major Abbott Laboratories acquired Indian-based Pirmal Healthcare's generics business for US\$3.7 billion.

Apart from mergers and acquisitions, joint alliances are also becoming an increasing trend across the Asia-Pacific region. Many Asian companies are joining hands, thereby giving a strong support to the pan-Asian life science industry. Reportedly, Sinovac Biotech from China formed an alliance with Parenteral Biotech of India to expand its presence in the Indian market and 3SBio from China joined hands with Shanghai-based Ascentage Pharma to research, develop and commercialize their best-in-class targeted cancer therapeutics.

Similarly, QRxPharma from Australia entered into alliance with China's Aoxing to develop MoxDuoIV, for acute treatment of moderate to severe pain. In another deal between Asian firms, 3SBio joined hands with Taiwan-based Panacor Bioscience to develop

and commercialize Nephoxil for the treatment of hyperphosphatemia in China and Optomagic of South Korea entered into drug discovery collaboration with Shengen Pharma of China.

2010 also witnessed Drug Discovery-PPD, a leading global CRO, establishing a joint venture with China's Taijitu Biologics in the area of the discovery of novel biotherapeutics. Similarly, Bayer HealthCare and Regeneron, a drug research company, collaborated with the Singapore Eye Research Institute (SERI) for investigating the efficacy and safety of VEGF Trap Eye in patients with choroidal neovascularization (CNV) of the retina as a result of pathologic myopia.

Technological advances have also been driving the growth of the life science industry worldwide. The life science industries of Japan, China, and India will adopt cloud computing, says a new report from Ovum. Cloud computing provides a way to reduce costs, simplify management, and improve services in a safe and secure manner. Cloud services available to health and life science organizations go much beyond email and communications, meetings and collaboration. These services cover a much broad range of possibilities, including application development, data and image storage and sharing, and PC management and security.

"The challenge for life sciences companies operating in Asia-Pacific is to learn quickly, be adaptable, show leadership, and be flexible. The current economic situation further highlights the necessity of these characteristics," said Gerald Lema, president of Asia-Pacific for Baxter International, in a release. [A-P](#)

Continued from Page 15

Restoration of nuclear power seems economical compared to increasing reliance on thermal and gas turbine power. While undergoing safety checks, only a dozen of the country's 54 reactors are now operational, said Hiroshi Nishimoto, in the nuclear energy policy planning division of the economy, trade and industry ministry, adding that, "it's not decided when they'll go back on line." Nuclear energy now provides only one seventh of Japanese power.

Always, however, on paper and in public pronouncements, politicians and analysts have no problem paying lip service to reducing dependence on nuclear power. "It is desirable to invest in development of alternative energy sources, and it is only natural to tighten oversight of nuclear power plants," said Shunichi Kitaoka, politics and diplomacy professor at Tokyo University. "In that sense, there were no major differences among candidates in the DPJ presidential election."

Noda and his ministers prefer to give the impression of a rescue team sent in to cure the problems of their predecessors. In that spirit, the term "loach," for the bottom-feeding eel that exists in mud, became fashionable when Noda described himself that way. The media loved the analogy of "loaches mired in mud and sweating to get the job done." The ultimate success would be restoration of the status quo pre-Fukushima. [A-P](#)



Tim Martin | Dreamstime.com

Thai Businesses on the Way to Boom Time with Google's Go Online Campaign

BY KEVIN LIU

The initiation of Thai businesses and entrepreneurs into the nuances of web-based business processes has begun with Google and its partners' campaign - 'Thai Business Go Online'.

It has also introduced several self-help programs for businesses to learn the ropes of creating an online presence (web site creation) and monetization (advertising) with its Google GuRu and Blogger programs

Thais have Business Blinders that the Internet is only for Modern Corporations

Thais are definitely net-savvy; analysts' reports on web usage speak for themselves—every eight-out-of-ten Thais research online for products and services, prior to buying them on or off-line. However, only one in ten Thai businesses have their own websites.

Researchers have found that Thai businesses in every category are of the misplaced belief that having a website and conducting business online is appropriate only for fancy and tech-savvy entrepreneurs and not the right model for them.

Google's Campaign Begins the Processes of Removing these Blinders

Google, through a multi-platform campaign, is leading the charge to bring Thai businesses into the online economy. As a starting point, most Thais are now familiar with Google Maps, which they use as a smart navigation tool to escape snarling

traffic and hit the freeway for more convenient travel.

However, the fact that Google has an entire business platform created for entrepreneurs, small and big businesses, is now gaining popularity, as Google has taken the Thai Business Go Online special initiative to show Thais that websites and online advertisements will optimize business returns; and that furthermore, there is a global paradigm shift in the prevailing economic model, increasingly involving the permeation of internet technology. The campaign focuses on SMBs to realize that online business is like the freeway without any traffic-blocks.

The initiative illustrates with examples of local Thai businesses making it big by trusting internet technology to become their prime-driver. It shows, for example, how a business such as an enterprising entrepreneur selling crocodile essence could reach a global audience with a great website and online commerce, thereby liberating itself within minutes from the confining shackles of saturated local customers and thus reaching far greater profit potential.

What Does Google Have to Offer Thai businesses?

Internet technology, and especially how Google runs it, is the key-driver in creating a global village. Amongst its other online services, such as its search engine or the news, Google now offers this platform for managing businesses, which consists of a suite of integrated business applications for individual, home-based, and small-to-medium businesses. These are free for beginners and low-cost business-management software for professional businesses.

Its Chrome browser is built for secure and fast searches and is defining the way

Continued on Page 23

Pesky Calls Give Way to Full-Fledged Mobile Display Advertising in India

BY RAJANI BABURAJAN

Kabil Sibal, communications minister of India, recently announced that the National Do Not Disturb (NDND) service will be fully activated from September 27th of this year.

The Telecom Regulatory Authority of India (TRAI) has implemented a new set of measures including a fine of Rs. 25,000 to 250,000 (US\$500 to \$5000) on defaulting firms. Customers who register for the NDND services will be blocked from receiving marketing calls or SMSs. In another recent development, TRAI has also imposed a cap on the number of SMSs able to be sent per day by any subscriber to 100.

The DND system has been functioning well in developed countries, as well as several developing countries. While it's an effective way to curb pesky marketing calls, the DND procedure also imposes restrictions on mobile marketers to reach out to target customers. In countries like India, such a restriction could have a huge impact on the mobile marketing industry. India now has over 858 million mobile subscribers,¹ and the number of mobile connections in urban areas had reached 565.71 million by the end of July of this year. The overall wireless tele-density has touched 71.59. By 2014, wireless subscriptions in India will account to more than 97 percent of the country's population of 1.26 billion, according to market research firm iSuppli Corp.² Mobile marketers, who had enjoyed the freedom to impose their marketing offers on customers all this while, are likely to bear the brunt once the DND system is made completely active.

India, labeled as one of the world's largest consumer markets, has been the favorite target of several fast moving consumer goods (FMCG) companies, banks and media firms. Compared to their foreign counterparts in developed countries, an average Indian consumer has been more receptive to advertising and marketing offers. The consumer mindset in India is more typically lured by "buy 1 get 1 free" offers or "book an air ticket and get two movie tickets free" offers. For them, if it's the choice between a not-so-urgent flight and free movie tickets,



Fotografescu | Dreamstime.com

they will not find any harm in opting for a flight instead of a train. After all, they are going to get two movie tickets FREE!

With mobile phone reaching the majority of Indians regardless of their gender, economic class and profession, it has been a golden opportunity for these companies to target the world's largest consumer base in the most efficient manner. Mobile marketing is cheaper and more effective than conventional marketing methods involving personal visits and/or display advertisements.

While the NDND system has been active in India for many years, it did not yield the desired results due to lack of cooperation from telecom operators. Marketers succeeded in sending bulk SMSs to target customers and reaped benefits out of it. This was evident in the explosive growth of the mobile marketing segment in India. With the new NDND in place, subscribers are given the freedom to block all marketing calls/messages or opt for a few select services according to their preference. For example, if a customer is interested to get attractive offers on credit cards, he/she will get it only if they register for that service through the NDND registry. Suppose a customer who had already registered for DND now wants to get selective SMSs on his/her mobile; they will have to first deactivate the DND service and then repeat the entire process to register for receiving customized messages.

With this procedure, it becomes clear that the NDND will have a devastating effect on the mobile marketing business. Mobile subscribers in India generally fall into one of five groups, namely students, laborers, housewives, professionals, and senior citizens. If we analyze the general responsiveness of each group towards marketing calls, we can see that students and housewives are more receptive to marketing calls or messages, but in most cases they fail to generate business for the marketer as they are not the earning member in a family. The class of laborers and senior citizens usually discard these offers as most of these offers either do not match their financial status or are not relevant to them. The category

of professionals, which includes employees of all levels, is the best target of marketers because they have the potential to spend on items they want. This category of mobile subscribers is also the largest consumer segment in India as they spend most of their time outside home.

Having that said, the NDND implementation will cause marketers to lose their most prospective target, i.e., the professionals category, which is more educated and eager to get competitive offers from shops and service providers. The reason for this is that they are the category that is the most annoyed with marketing calls. In today's competitive scenario, professionals are facing the pressure to perform, and they do not have time to lend their ears to the long and monotonous speech of the telecaller to get him or her an attractive offer. The NDND is a boon to them, as it would stop the nuisance that follows these subscribers 24 hours a day, at home, office, party or wherever they are.

Once a customer registers for "DND", it is very unlikely that he/she will recall the service in the future. As more subscribers start enjoying this freedom, they are likely to advise others to follow the same procedure. No doubt, service providers are likely to receive as many DND registrations as the number of subscribers in their registry within a few months of installation of the newly completed NDND.

With Indian telecom authorities becoming stricter on pesky marketing communications, mobile operators have adopted a careful approach in implementing the system that would reduce inconvenience to customers. Leading operators like BSNL, Airtel, Vodafone and others have set up the DND Registry to allow customers to opt for DND according to their preferences. The request will be addressed within the stipulated time. Moreover, operators are also obliged to stop spam messages and e-mails getting spread through their networks.

As mobile penetration increases, the risks associated with data security will also rise. To tackle these challenges, operators will be forced to adopt advanced network technologies and platforms that could help them launch a hassle-free and secure service to their customers.

In such a scenario, it is worthwhile to have a glimpse at the future of mobile marketing in India.

Mobile Advertising a Lucrative Option for Marketers

With mobile SMS marketing taking a hit by NDND, mobile display advertising will emerge as the future opportunity for marketers. According to Abhay Doshi, senior director at Marketing Flytxt, future mobile marketing in India will be driven by advanced trends like Location-Based Services (LBS), Augmented Reality (AR), Mobile Internet, Mobile TV and social media. According to Doshi, the success of these advertising campaigns will be defined by their "relevance" rather than "reach or frequency." Services such as Augmented Reality enables marketers to present customized offers that meet the requirements of customers. For example, an augmented reality service may present a list of restaurants in a particular street close to the customer serving his/her favorite cuisine at discounted rates, instead

of providing him/her with the entire list of restaurants in the area. Such a customized offer will be irresistible to customers, so the conversion rates are also high.

With the proliferation of 3G service in major cities in India, marketers will find new ways to reach out to target customers through non-traditional means. They may leverage the service to launch intuitive multi-media advertising campaigns through social media, mobile Internet, and mobile TV. A study conducted by Wireless Intelligence⁴ estimates that 3G connections in India are set to grow three-fold between 2011 and 2015, to 400 million by 2015. The proliferation of cheaper smartphones will fuel the adoption of 3G among average Indian customers who prefer to stay connected 24-7. Mobile Internet and Mobile TV will replace traditional advertising platforms as the former offer live, enthusiastic offers as and when a customer needs them while on the move.

Despite the challenges offered by increasing regulatory measures like NDND, mobile operators see a great opportunity in the flourishing mobile advertisement markets. As the competition gets fierce, telcos look for ways to monetize from the available opportunities as a measure to sustain ARPU and manage customer churn. Mobile advertising is a tangible way to add revenues, so operators are keen to leverage this opportunity by forming partnerships with advertising firms and technology providers. Soon the mobile landscape will evolve from "that of a dumb pipe provider to a media owner," as said by Flytxt's Abhay Doshi.

Mobile advertising, especially display advertising, in India is picking up momentum, according to Naveen Tewari, CEO, InMobi, a provider of mobile advertising services to global customers. Currently, India is a US\$25 million market for mobile advertising. A recent survey conducted by InMobi establishes that 70 percent of respondents in India have realized the value of mobile

Continued from Page 17

he said, "the soundness of household loans and ability of repayment is at a good level, as the delinquency rate on household loans of banks is low and the high income class holds about 70 percent of the total household debt."

However, Bahk warned, "the ability to repay debt could be hindered if economic conditions change, such as by an increase of the interest rate or stagnancy of the real estate market. Thus, he said, "there is concern that household debt could be a risk to the economy." The government, said Bahk, had to "tightly manage the total amount of household debt so its increase will not exceed the speed of growth of the real economy." And, in a foretaste of the closure of a number of saving banks found to be insolvent, Bahk said the government would "push for restructuring of the banks and make them prevent any recurrence of insolvency by increasing supervision and improving governance systems."

Bahk worried, however, about "Korea's vulnerability to external shocks." The country "needs to set up a strong economic structure that can weather external shocks," he said. "To this end, the government will

The NDND implementation will cause marketers to lose their most prospective target, i.e., the professionals category, which is more educated and eager to get competitive offers from shops and service providers.

advertising. Tewari says it's time for advertisers to take up this opportunity.

However, lack of awareness still remains as one of the main reasons that hinder the adoption of mobile advertising in India. Mobile advertising is often interpreted as SMS advertising, so brands are reluctant to adopt the marketing initiatives in fear of being black-listed for spam. Mobile advertising brings tremendous revenue opportunity for advertisers as well as operators. A recent survey by Insight Express has found that mobile advertising is 4.5-5 times better in delivering ROI than online advertising. Mobile campaigns, according to Tewari, continue to be a powerful ad channel for marketers, outperforming online advertising by roughly three times across a variety of metrics, including ad awareness, message

association and purchase intent.

With telecom authorities going strict on the pushy SMSs and marketing calls, mobile display advertising remains as the best alternative to reach out to target customers. Customers are accustomed to display advertising seen through conventional channels, so the resistance to such ads is less. These ads usually appear along with subscribed apps or while browsing the mobile Web, so it becomes a voluntary ad invited by the user. The future of mobile advertising looks brighter as more and more mobile advertising firms emerge with cost-effective mobile marketing solutions and service providers offer affordable tariff plans to advertisers.

REFERENCES:

1. Telecom Regulatory Authority of India, July 2011
2. iSuppli, September 2010
3. Voice & Data, January 20, 2011
4. Wireless Intelligence: India 3G rollout (forecasts and market shares 2011 - 2015)
5. VCCircle, April 12, 2011

COMPANIES MENTIONED IN THIS ARTICLE:

- iSuppli
www.isuppli.com
- inMobi
www.inmobi.com
- Flytxt
www.flytxt.com
- TRAI
www.trai.gov.in
- Vodafone
www.vodafone.uk.com
- BSNL
www.bsnl.co.in
- Airtel
www.airtel.in

abolish entry barriers to high value-added sectors such as medical care, education, culture and content, and push for restructuring of the service industry." He also stressed the importance of encouraging small and medium-sized enterprises. "An economy can resist external shocks when SMEs, a basis of industries, are sound," he said, promising a reduction in taxes on SMEs from 22 to 20 percent beginning next year."

FSC Chairman Kim Seok-dong said, "Overall bank soundness has significantly improved" while the "the loan-to-deposit ratio, which used to hover around 120 percent, has remained stable at below 100 percent with a BIS capital ratio above 14 percent." He stressed, meanwhile, "steps to deal with household debt and the troubled mutual savings banks."

For household debt, "we have implemented a number of measures to bring it under control," said Kim. As for "the distressed mutual savings banks, he said, "restructuring will pick up the pace going forward, and no systemic risk will arise from them." In order "to make sure that the financial industry continues to thrive and advance," he went on, "we are undertaking new efforts to promote home-grown investment banks and introduce hedge funds."

A program to "reform our capital market system," said Kim, would "improve market efficiency and transparency," while revision of the Capital Markets Act would "pave the way for Korea's financial market to be more transparent and predictable so that it can equally compete with any other financial markets." Kim promised "more effective checks and balances on the management" and "tighter oversight on the banks' risk-taking activities." And, he said, "We will be looking to revamp the financial consumer protection structure as key part of our push for the advancement of the financial system.

Kim wound up with a reminder of the origin of the word "crisis," from the Greek word "krinein," a medical term meaning the turning point of a disease, for better or worse. "In the East, the word 'crisis' similarly denotes the duality of risk and opportunity," he said. "In many ways, Korea's success over the decades—the Miracle of the Han River—has been made possible by turning risk into opportunity to renew, reinvigorate, and regenerate." In that spirit, said Kim, "We will continue to look for new opportunities to sustain the dynamic growth of the Korean economy."

The State of Local Asian Publishers in the Digital Age



graphiquez | Dreamstime.com

BY ANURADHA SHUKLA

Publishing in Asian countries is often as old as their cultures.

Beginning with religious content publications, publication became a mainstream industry in the middle ages with sizeable literary works. With the mechanization of the publishing industry in the modern era, and now today in the digital age, publishers in the region are again at a crossroads to choose their way forward.

Almost every publisher, across all genres, is today grappling with the onslaught of digital content. Innovative digital devices are continuously offering more and more convenience. Going beyond mere instruments of mobile communication, they are fast transgressing into all spaces of media as a common form factor that can access documents, images and even conduct business.

Hence, there has been mass adoption of new digital form factors such as the iPad, which is just one and a half years old, courtesy of the master technologist Steve Jobs. He single-handedly rewrote digital history with first the desktop (Apple's Mac), then following it up with the industry's first smartphone (Apple's iPhone). Last year he spearheaded the launch of his futuristic hand form in the iPad, which was mocked as a phone too big to make calls. Today,

however, it has not only proved the doubting Thomas' wrong, but it is well on its way to revolutionizing the publishing world as well.

Publishers Across the Region in Difficulties, Even Before the Onset of Digital Onslaught

It has to be said that digitized content represents only one half of the adversarial issues that publishers, especially local and small-sized firms, have faced in the past few years. As readers reaching out to content off the shelves dwindled, so did the number of small and mid-sized publishers. Some of the larger local publishers have of course survived by virtue of adopting marginal profits and are now simply fighting to survive in business.

The publishing community has been banding together into various categories, from children story publishers to niche medicine-publishing genres, to tackle the issues with combined efforts.

However, as the industry has hit abysmal bottom lines, some of the more enterprising publishers have adapted fast to the digital format, showing the way to going digital and making marginal profits.

Growing Awareness of Local Asian Publishers and Networking

Realizing that networking is critical for successful Asian publishing in the varying

context of business and economic climate in various regions, publishers are building bridges to innovate and create opportunities for survival as well as delivering quality content.

As a step forward, publishers are joining locally to forge better ties and build local platforms to understand the demands of readers in the digital age.

In May 2010, publishers, illustrators and writers met for a conference on Asian Children's Content for the world, while an Asian Festival for Children's Content was held in Singapore.

In September 2010, the Asian Publishers Fellowship program was held with fifteen editors and publishers from across Asia-China, Hong Kong, Indonesia, Japan, Korea, Malaysia, Singapore, Taiwan, and Vietnam as the main participants.

Issues Publishers Confront

Populous China has had its own share of publisher problems. Shanda, one of its luminous giant publishing houses, grapples with day-to-day issues of portals breaching copyrights. The smaller publishers simply do not have the bandwidth to handle confront large funding-backed portals for infringing on publishing copyrights.

A staggering but true statistic: 530,000 Chinese websites use pirated books. Just as unbelievable is the fact that ninety-five percent of the book downloads happening in the country are unauthorized.

In the Philippines, despite high literacy rates, book-reading is not a very common activity and hence local publishers are highly vulnerable. Thus leading Filipino publishers such as Vibal or UP Press are proposing to move towards eContent. eBooks are becoming the chosen format of content delivery, which then makes Filipino literature accessible to the international community as well.

Another very serious issue most publishers have to face is the lack of funds required to restructure. Additionally, there is the limitation that most regional publishers face in having a well-established business model that is suitable for the new digital age.

A third issue is the lack of standardization of file formats and metadata, as each publishing giant thrives within its ecosystem and the industry per se is divisive.

Fourth, localization of content is both a bane and boon to the local Asian publishing industry. Where optimized local content bodes well for regional consumption, it is not able to break international barriers and breach global markets.

Some Solutions

Given the will to adopt newer methods of delivering content, most local publishers under their umbrella organizations have evolved several plans. Funding being the core problem, proposals to handle short- and long-term assistance are underway. New economic models to handle digital content publishing are being developed. Regional bodies are including higher standards of regulation to bring about regional standardization independent of the regional powerhouses.

Some Digital Growth Statistics

In the last two decades, digital growth has been exponential. In countries with the

world's leading population statistics such as China and India, the migration to digital content consumption has been phenomenal.

In fact, the current Chinese reader segment includes 120 million individuals. This in itself presents a challenge to the publishing industry, as publishers need to find solutions and customized features quickly that satisfy their modern reader audience.

In China alone, 750 million-plus internet users will look for digital content by 2015. Internet users are growing by 31.8 percent, and mobile users will reach 1.3 billion individuals by 2014. However, the most interesting part of this growth rate is in the digital reading. From 33.3 percent in 2009, it rose by 8.2 percent in 2010.

This translates to consistent good digital revenue growth for publishers. Hence, they need to be well-equipped with the right growth models to transform themselves into successful digital publishers.

Publishers' 3 Imperatives for the Digital Age

The regional publishing community has found three imperatives they define as the key to moving forward. The mantras of digitalization, transformation, and collaboration will ensure publishers match the fast-paced digitized content revolution.

This integrated approach should include developing a universal format standard for publishing and a well-evolved profit distribution along with pricing models. Engag-

ing/adapting current successful processes of publishing to digital business models is also an option worth exploring.

The fundamentals of the publishing community need to be well-developed. This will require conglomerates to build and deliver content. The innovation model DP is needed for professional publishers. Creating the right platform and the means to achieving this model is critical to publishing in the digital age.

Publishers also need to lay equal emphasis on developing content across all digital content carriers – mobiles, tablets, laptops and of course PCs.

Content format differs from mobiles to laptops, and publishers therefore need to develop appropriate mobile reading content.

Critical to all digitized content is its monetization. Publishers need to concentrate on content that offers greater scope for monetization across all formats.

Additionally, publishers need to be 'pro-adoption' towards publishing technology. There needs to be an acceptance that as technology changes, the faster and improved publishing technology has to be invested in.

Digital strategy relies heavily on new technologies, and not only will newer hardware and more sophisticated software help in improving publishing processes, but it will also drastically reduce the turnaround time for publication.

Publishers are also fast adopting co-oper-

ative methods of working and are choosing to collaborate on local, regional and international platforms to build a well-balanced portfolio, as there are technical differences in digital content industry.

Nuances of Digital Content Publishing

Publishers now need to look at different revenue-earning and sharing models. Especially with various formats of advertising already dominant in online content, affiliate marketing, pay-per-click and a hosting of ever-innovating advertising and monetizing models, publishers migrating to digital format will need to crystallize quickly the appropriate revenue-earning model for the niche or type of content they publish.

One advantage digital publishing offers is that the publisher has the wherewithal to create a one-to-one, Publisher2Reader, Writer2Reader connect, which to an extent was previously possible only with large newspaper and magazine publishers.

A Facebook page and a single click of a button to reach an already one billion connected users is almost a drop-in-the-ocean method of advertising, in comparison to the long and hard-fought multimedia campaigns of the past. Indeed, conventional publishing is a costly and taxing affair to the publishers.

Digital content, in contrast, will lead to a lesser spending budget but will involve a blitz of sophisticated technology-based advertising. 

Continued from Page 19

the world looks for information and uses it (through websites).

Thailand's Online Presence will Eventually Lead to a Unique Thai Identity

From an external point of view, it is critical to Thailand that it begins the processes of creating an online brand for itself. China, Japan, India all have unique brand presence created largely by users using the internet for local content, as well as for the promotion of international products and services. Thailand's rich culture, social practices and unique modern outlook all need to be transliterated for global visitors, and Google is the ideal vehicle to help Thailand achieve it.

The trickle-down effect of this digitization will lead to faster and secure monetization, greater economic growth, and will help ensure a better future for the Thai culture and society by retaining content in Thai language. Google has an excellent online program which can automatically translate from Thai and several other languages to English and vice versa.

Political Will is Key to Thailand's Boom Time

However, it requires government backing and building of technology infrastructure – faster, reliable, powerful networks and broadband connectivity. Political will definitely is critical to the success of Google's campaign in order to enable Thailand to achieve its digital goals – 'the next big opportunity.' 

Jack Covert

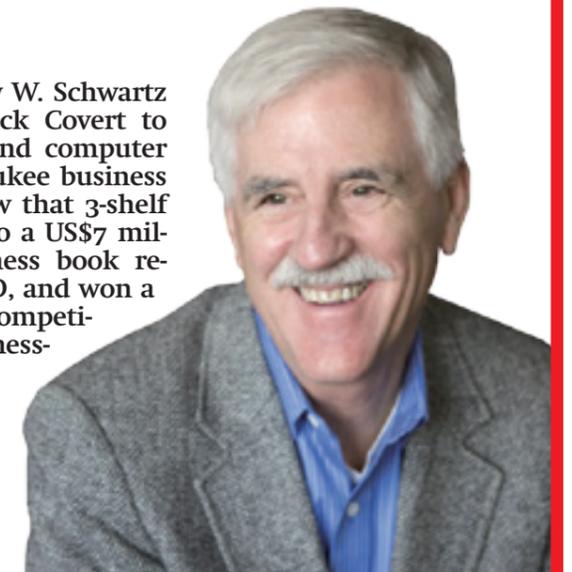
Author of "Jack Covert Selects" and "The 100 Best Business Books of All Time"

Must Read to Succeed: Jack Covert on the 100 Best Business Books

VICTOR FIC

In 1984, the Harry W. Schwartz Bookshops hired Jack Covert to promote business and computer books to the Milwaukee business community. He grew that 3-shelf business section into a US\$7 million specialty business book retailer, 800-CEO-READ, and won a reputation in the competitive world of business-book publishing.

Continued on Page 24



Covert has helped turn such books as *The Goal* into national best-sellers and his monthly best-seller list is standard reading. A Doubleday/Currency editor once described Covert as, "not simply a bookseller – he's a tracker and a prophet." In 2000, Jack began to write book reviews called "Jack Covert Selects" for national newspapers. This led him to write *The 100 Best Business Books of All Time*, which ranks the best business books and also references nearly 400 notable others, to be released in paperback in the United States in November 2011. He gave this exclusive interview to Victor Fic, our special correspondent for economics and politics.

Continued from Page 23

800-CEO-READ sells business books and spreads business ideas via its daily weblog and its monthly newsletter, *The Keen Thinker*; monthly essays in *ChangeThis.com*; its annual *Business Book Awards*; and its *Knowledge-Blocks.com*, a new online project to help readers turn what they know into knowledge they can use.

How many business books have you read in total?

It is impossible to know because I've been reading and selling business books for 27 years. Maybe 3000. To get a taste of how many books I read, each month since 2000, I have chosen 3 books to review for my Jack Covert Selects recommendations, or approximately 375 books. Double that because I imagine I reject at least 3 books each month as well. That's 750 business books in 10 years.

Is this a world record?

No idea. Are there world records for book reading – particularly biz books? But I doubt there are many folks out there who could rival that number, maybe simply because I've been doing this a long time.

What motivated you to tackle an ambitious project such as reading, categorizing and judging so many business books?

I was hired to sell business books for a local book shop chain after I closed my record store – a perfect fit perhaps because I had been a small business owner or because I was a book lover or because I am a salesman at heart. To sell business books, I needed to know them. Then after 25 years of this, it was time to consolidate all that information and experience into a book of my own. There were 11,000 biz books published in 2007, so you must have an expert to filter and recommend the best. We provided that service to customers through 'The 100 Best' and do it daily at 800ceoread.com/blog.

What are your sub topics?

I gravitate toward autobiographies, business histories and leadership. I find motivation in stories of success and wish to learn how to be a better leader. For 'The 100 Best', we broke the genre down into categories that best fit peoples' interests and professions; namely Personal Development, Leadership, Strategy, Sales & Marketing, Rules & Scorekeeping (or accounting), Management, Biographies, Entrepreneurship, Narratives, Innovation & Creativity, Big Ideas, and a chapter called Takeaways that are a bit like fast food meals. They are quick, tasty and easy to consume on the run.

East Asians especially love to list schools, people, etc., in terms of best to worst. What is the single best business book that you have read, and why?

That's a difficult question for a number of reasons, so we avoid ranking the books in *The 100 Best*. Is "best" the best book for me? Or is "best" the best academically or stylistically, or perhaps with the largest audience? But because best often means most important, such business books are often the first to tackle a subject in new and provocative game-changer ways. Examples are *In Search of Excellence* or Reengineering the Corporation or Drucker's writing on leadership. My favorite book in *The 100 Best* is *Age of Unreason*, by Charles Handy, because it was the first business book that spoke my language. And through it, Charles Handy offered me a way into business books.

Name and summarize your top books in each category.

First, I acknowledge my co-author, Todd Sattersten, because his list of top books would differ from mine. And for some, his list might sound more reasonable. These are my personal choices from *The 100 Best* in random order:

You: *Chasing Daylight*

Leadership: *Leadership Moment*

Strategy:

Discovering the Soul of Service

Sales & Marketing:

How to be a Rainmaker

Management: *Essential Drucker*

Bio: *Personal History*

Entre: *Art of the Start*

Narratives: *Moneyball*

Innovation:

Orbiting the Giant Hairball

Big Ideas: *Age of Unreason*

How did Dr. Suess, a children's writer, get in?

A reviewer must be open-minded because you can't judge a book by its cover. And here, my co-author was the book's

champion despite people's assumption that a children's book can't teach us a valuable and very adult message. As he wrote in his review, "It is this book's broad appeal and keen effectiveness that demands its mention here. 'Oh the Places You'll Go!' is self-help at its finest [just as] Thoreau and Emerson championed self-improvement on the individual level."

Why does *The Monk and the Riddle*, a work of philosophy, impress you?

It is unconventional about the real meaning of work, not the bottom line, and not the market value. "What would you be willing to do for the rest of your life?", the author asks, and not enough people can answer. Why is it important? You can't be a good leader without self-reflection, loving what you do and creating that positive environment for your employees to thrive in. Such books make us more well-rounded leaders. "It's the romance, not the finance, that makes business worth pursuing," is a brave statement in this book.

Are you courageous enough to identify the worst few – and defend your attack?

The 100 Best is a select group and many books were discarded, so there really aren't any "worst" there. But the worst overall use cheap sentiment and rehashed ideas to answer really complex questions for real working people. Books that are often derided, such as *Who Moved My Cheese*, can find an audience, and 14 years after publication in hardcover, it has sold many millions of copies.

Some self-made millionaires in business scoff at MBA programs and books, claiming that it takes instinct, hard work and experience to succeed. They insist that schools and texts are expensive, redundant or that they actually claim to instill understanding simply by promoting fancy theories, etc. What is your take on all this?

As a guy who barely graduated from high school, I tend to agree that hard work and luck – and experience with an open mind – can teach a lot. But building a foundation of knowledge through school or books shouldn't be over-looked because it can lower your learning curve. Books can be very effective teachers, such as, for instance, Ram Charan's *What the CEO Wants You to Know* – This is an excellent primer.

...building a foundation of knowledge through school or books shouldn't be over-looked because it can lower your learning curve.



Some observe the rise of a humanistic approach to management in the US – do you see it?

This trend started 20-plus years ago and was documented in *In Search of Excellence*, which asserted that organizations must be structured to account for the irrational people who work there. From our book, we explain Peters and Waterman's advocacy of humanistic values, including meaning, a small amount of control, and positive reinforcement, as a post-militaristic model – the soft stuff, such as 'culture and people matter'. This management approach hasn't been consistently implemented because being adaptive is hard but rules and consequences are easier.

Is the entry of women such as Carly Fiorina and minorities into business reflected in the books?

Business books reflect the business world over time. We chose the bulk of our books for *The 100 Best* from the writings of the past half-century when there were few female heavy-hitters in business and even fewer writing such books. Now, over 50 percent of people graduating with business degrees are female and that trend will rise in the coming years. Twenty years from now, if we rewrite *The 100 Best*, no doubt half the authors will be women. This same up-trend will be true for other minorities. Tony Hsieh, Youngme Moon and W. Chan Kim are leaders and authors of Asian descent.

What is the future or trend line in the topics and the advice that these books give?

Are there many new ideas to plumb? Maybe not. But there are new ways of teaching and learning that remain undiscovered. There will always be space in the genre for leadership books, strategy books, how-to guides to inspire better productivity or higher profits. I enjoy seeing the influx of big idea, multi-genre books. Business is a confluence of various disciplines such as economics, psychology, philosophy and statistics. Authors Dan and Chip Heath, Steven Johnson and Malcolm Gladwell make business books appeal to a wider audience.

Your selections are western-centric. How do they benefit readers in Japan, Korea, China or Singapore?

I sell business books to a mostly western market, so that influenced selections for *The 100 Best*. However, globalization has erased distinctions between East and West. Note the many translations – Japanese, Russian, simple and complex Chinese, Indonesian, Brazilian Portuguese, Thai, Korean and Polish – of *The 100 Best* because our collection synthesizes. The books featured are a curiosity but are also universal.

The 1980s saw a flood of Japanese management books. Can you judge which were excellent?

The Toyota Production System, by Taiichi Ohno, is included in *The 100 Best* and we also included Deming who helped rebuild Japan's industrial infrastructure. While not included in our top books, *The Art of Japanese Management* by Richard

Pascale and Anthony Athos was one of the first to introduce Japanese management to a western audience. Ten years later, *The Mind of the Strategist* was published in the United States, introducing Americans to Kenichi Ohmae. We see the influences of Japanese management in many books. Now it is more about integrated approaches as evidenced in some great books by Matthew May, such as, for instance, *In Pursuit of Elegance*, *The Elegant Solution*, or *The Shibumi Strategy*.

Is the the rise of China producing good books on Chinese management style? How about the Sun Zi classic, *Art of War*?

Just as China's economy is developing at near the speed of light since it joined the World Trade Organization in 2001, the Chinese management style is also a fairly new topic developing in business books. Certainly the way China does business is heavily influenced by their cultural values and political influences, and so it is not a management style that can really be adopted. But China has a powerhouse economy that produces quality products at a good price. So China has much influence on western business and books about China's remarkable growth and productivity are numerous. Our favorite is *China Shakes the World*, by James Kynge, the Financial Times bureau chief in Beijing for many years. Mr. China and Oracle Bones are also notable. Perhaps the best known is *The Art of War* and we certainly considered it for inclusion in *The 100 Best*, but to some degree it is the adaptations of the book's philosophy that have created its popularity and applicability in business. ☞

A Chinese Space Station by 2020: Heavenly Palace

Heavenly Palace



Brand EquityPg. 22
Peter J. Leitgeb.....Pg. 23
Korea-US FTA.....Pg. 24

BY ELAINE XIANG

China has successfully launched its first module Tiangong-1, known as 'Heavenly Palace', from the Jiuquan Satellite Launch Center, beginning a new era in the Chinese Space program. The future of Chinese space activity will now revolve around completing the space station.

A day before the National Day Celebrations, the assigned rocket Long March blasted off majestically into the night sky, taking the hopes of the entire nation with it. As scientists watched anxiously, within minutes of its launch at 9.16pm, Long March safely deposited Tiangong-1, the first module of the space program, into its correct orbit, just 350 kilometers away from the earth.

The First Docking Mission for China

The successful launch of Tiangong-1 has once again established China's prowess at achieving its space initiatives. A very important capability requirement of its ambitious space program is the docking facility, which is critical to the completion of China's planned Space Station by 2020.

By the time Tiangong-1 will reach a cycle of 343-kilometer orbit days, the Shenzhou VIII will be launched; this will be in November. Once Shenzhou VIII completes two days of orbit, the two craft will be set to rendezvous and dock for the first time.

The two will then decouple after twelve days. The second rendezvous and docking will be repeated some time later as well. Shenzhou VIII will then return to Earth and it is projected to land in the region of Mongolia.

Tiangong-1 will remain in orbit until next year, and two more rendezvous and docking missions will be executed. At a news conference after the successful launch, Wu Ping clarified that the technologies developed during the process of this mission will direct future lunar landings and deep space exploration. This is China's feasibility studies on manned moon landings.

Other Programs of this Mission

This will soon be followed by an unmanned Shenzhou VIII spaceship in November due to dock with the Tiangong-1. Next year, two more similar missions will send up the rest of the program modules as well as the astronauts, finally establishing Tiangong-1 as a space lab by 2016.

Once China completes this mission, it will become only the third country in the world to possess advanced capabilities such as rendezvous and dock technology, after the Soviet Union and United States.

History of the Space Station Mission

Beginning in 1992, Chinese space scientists proposed and sought approval from the government for a manned space program. After approval, the mission was granted 35 billion Yuan, equivalent to US\$5.47 billion.

The project was commissioned for execution in three stages:

1. 1992-2005

At this stage of the program, about 20 billion Yuan (US\$3 billion) were spent in launching six Shenzhou spaceships to develop the basic infrastructure for a space station. In this stage of the mission, a thoroughly planned system for transport of astronauts between earth and space was established.

2. 2005- 2011

In the present second phase, at a cost of 15 billion Yuan (US\$2.3 billion), capabilities of rendezvous and docking, as well as other Shenzhou VII projects, were successfully

The spokesperson clearly specified that China is definitely not looking at creating a war zone in space, and they are very clear in their intent of keeping the space zone peaceful.

launched as logical steps towards building the capabilities for a future space station.

This stage has been very critical to the success of this mission. Four key technology capabilities need to be achieved to successfully build the space station within the scope of this mission.

First, extravehicular activity has been achieved with the successful completion of the 2008 Shenzhou VII launch.

Second, rendezvous and docking technology is in various stages of achievement.

Third, establishing the cargo spaceships to ferry supplies to the space lab.

Fourth, to establish the technologies required for sustained life on space labs. The main concerns to be addressed are recycling air and water while living on the space station.

3. 2011-2020

In the last and final stage, the longest period of the mission is in building the 60-ton space station and completing it by 2020.

Goals of the Space Mission

The chief designer of this manned space program is Zhou Jianping, who has described in detail the goals of this mission – in particular, the space lab and a space station by 2020. The space lab is to serve the twin purposes of conducting experiments as well as achieving breakthroughs in materials studies and biological medicines.

In interviews to leading newspapers such as China Daily, he comments that, "several of the experiments made in the microgravity of space lead to unexpected results." Illustrating this, the chief designer goes on to explain that on the earth's surface, gas and liquid do not mix, but they react spontaneously and mix naturally in space.

On the ultimate goal of the space mission, the chief designer has this to say: "The primary purpose of China's manned space station is to peacefully explore space, and through it, serve mankind."

Some Doubts Raised About the Role of the Military in Space Mission

As with all other programs implemented in China, there is a military presence. However, the exact role or the significance of its participation in the space program is unclear, which has resulted in many misconceptions.

Commenting on these negative issues, the Ministry of National Defense spokesman Geng Yansheng says that, "The military plays a pivotal co-coordinating role. The space program is a very massive mission and requires close co-ordination across all the departments and agencies. Since the

military has better organizational capacity with respect to missions of this nature, their involvement is important as per international norms."

The spokesperson clearly specified that China is definitely not looking at creating a war zone in space, and they are very clear in their intent of keeping the space zone peaceful.

China's Future Space Programs – Some Unmanned Missions

In addition to this manned mission, China successfully launched two orbiters around the moon in 2007 and in 2010. Unmanned missions for the future also include a lunar landing in 2013 and a mission to bring back lunar samples in 2017.

Lunar Exploration Program

China has always coveted the role of key explorer of the moon. Manned lunar missions are scheduled to be achieved by 2025, with a moon rock sample to be obtained for analysis by 2017. The mission is called the Chinese Lunar Exploration Program and is denoted by a nascent moon with a pair of human footsteps.

In fact, the success of the lunar program, especially the stage of establishing a lunar base, is critical to the next phase of China's ambitious space program to Mars and to other planets of the galaxy.

The Lunar Exploration program has four phases. In the first phase, two unmanned lunar orbital probes were launched via the CZ-3A in 2007. In the second phase, 2012 will see the first moon landing of Rovers; in the third phase, which is likely to commence in 2017, using the CZ-5/E, two ambitious plans include moon landing as well as collecting a rock sample. The fourth phase, in 2024, the CZ-7 will launch a manned mission on a permanent basis.

Next Big Mission Leads to Mars

China has several ambitious plans to explore Mars and planets beyond that. In July 2006, the China National Space Administration began a deep exploration of Mars over the following five years.

The first Mars exploration program would be completed between 2014 to 2033 and later in 2040-2060. An orbiter named Yinghuo-1 and the Phobos-Grunt, launched along with Russia, will allow rover landers as well as manned missions in the near future.

In fact, to make exploration of Mars safer, a weather forecast system is planned to be completed in 2012. Satellites belonging to

Continued on Page 31



Yen Hung Lin | Dreamstime.com

Every Asian Company Should Be ASUSTeK

BY H. J. CHO

Forbes columnist Steve Denning wrote an article recently called “Why Amazon Can’t Make a Kindle in the USA.” In it he listed the specific parts of the Kindle and where they are manufactured.

Directly from the article, the following quote: “The flex circuit connectors are made in China because the US supplier base migrated to Asia.

“The electrophoretic display is made in Taiwan because the expertise developed from producing [sic] flat-panel LCDs migrated to Asia with semiconductor manufacturing. The highly polished injection-molded case is made in China because the US supplier base eroded as the manufacture of toys, consumer electronics and computers migrated to China.

“The wireless card is made in South Korea because that country became a center for making mobile phone components and handsets. The controller board is made in China because US companies long ago transferred manufacture of printed circuit boards to Asia. The lithium polymer battery is made in China because battery development and manufacturing migrated to China along with the development and

manufacture of consumer electronics and notebook computers.”

Denning went on to say that this overall trend is destructive to the American economy and that CEOs, accountants, consultants, investors, governments, politicians, and economists must change a large num-

This is the perfect time for Asia to take the lead in innovation. What is a loss for the US economy is a gain for Asia.

ber of policies to save the American economy. But there is another way that this can all be looked at.

That is, this is the perfect time for Asia to take the lead in innovation. What is a loss for the US economy is a gain for Asia. Denning gave the example of ASUSTeK, a company based in Taiwan that started out mak-

ing circuit boards for Dell computers. They negotiated from there to motherboards, then to computer assembly, then supply chain management, and finally computer design. At that point they had everything they needed to become their own computer supplier, and that’s exactly what they did. ASUSTeK should be looked upon as the perfect example company for companies everywhere in Asia. Their first expertise led to them developing another type of expertise, then another, and another. Now they are in the perfect position to make their own products and do their own innovation.

Innovation is not just some fairy dust to be sprinkled on people to give them new ideas. It comes from experience and the desire to do things better. It is a million little incremental steps, most of which seem obvious and simple to people in the thick of the industry, but which are seen as brilliance to those further away from day-to-day happenings in manufacturing or design. It takes a working manufacturing sector to fuel innovation – that and money. Asia now has both. It has everything it needs to make another Edison or Tesla. Expect to see the innovation driven by simple, clear steps and changes coming from the East now, while the West struggles to realize what it has lost.

However, there is a time limit on the time for Asian companies to strike, because the costs of outsourcing are rising rapidly, and soon it will not make much sense for US-based companies to do so. When this shift happens, they might begin to regain the innovation advantage. In the window between now and then, Asian companies are poised to take the innovation stage and become leaders in their own right in as many sectors as they desire. 

MAKE BIG IDEAS TAKE ROOT

BECOME AN AGENT FOR INSPIRED CHANGE IN YOUR ORGANIZATION

JOIN the Business Performance Innovation (BPI) Network



BPI NETWORK. INSPIRING CHANGE FOR THE BETTER.

www.bpinetwork.org



Korea's Tablet PCs are the Busy Buzz in its Digitization Growth



Arsgera | Dreamstime.com

BY DING DING

Korea has been a major hub for sophisticated electronic gadget manufacturing for several decades now.

More recently, led by such giant makers such as LG and Samsung, this nation has played a significant role of responsibility in the micro-revolutions happening in the Smartphone/mobile markets, and these same makers are now all set to create another seismic wave with their own tablet versions.

Korea: Fast Adopter of Technology

In Korea, where the technology adoption curve is very steep, the introduction of cutting-edge computational form factoring in a knowledgeable and adaptive market was truly a blessing in disguise to the tablet form. Even on a cultural and social level, Koreans are more likely inclined to use mobiles in comparison to consumers across the globe.

There is a curious law called the 'Law of Mobility', or 'McGuire's Law', that is driving customer integration and mobility into everyday aspects of consumers in a multi-platform environment.

Not only has this greater mobility led the established telecom device makers of Korea like Samsung, LG, etc., to move into manufacturing of this exciting new device factor, but it has also increased the opportunity for further innovation and introduction of more agile hardware and operating systems. For example, Samsung's tablet was one of the first of the major makers to switch to non-proprietary software platform.

Android or open source operating software for Smartphones, and now tablets, is fast defining the future of tablet's computing prowess in the coming years. Leading the charge of agile and more capable hard-

ware-software technology, these tablets and Smartphone makers (predominantly based in Korea) are creating seismic changes in the traditional, slow-paced personal computer segments.

Korea: Trendsetter in Tablet Consumption

It is, however, important to mention that Korea is both an intuitive tablet maker and a robust consumer. Korea is turning out to be a great testing ground for newer and faster tablets that manufacturers are now gunning for. With its broad spectrum of tablet consumers from high-end tablet users to standard-feature android tablets, Korea is now a trendsetter of sorts as consumers participate in testing newer models and their consumption patterns define their future.

Korea's leading manufacturers of core components of Smartphones, feature phones as well as tablets also play a very active role in partnering with leading software giants such as Microsoft in the making their branded devices.

Schools to Become Digital Centers of Learning on Tablet PCs

The Ministry of Education, Science, and Technology is keen on creating an interactive content environment by 2015. This ambitious plan shall take paper textbooks out of classrooms, and at an investment of US\$2 billion, it will introduce tablet PCs to provide interactive instructional content. This would be a tall task to achievement for any other country, but for Korea, it is merely another step towards achieving total digital competency. With national broadband connectivity speed seven times faster than any other country and a cloud storage model, digitalization of study content and delivery for all school grades is definitely achievable by 2015.

However, the device-type for the project is under consideration yet, while schools will make final decisions on the textbooks they can use.

Surely, this project is going to revolutionize education in Korea.

Koreans User Experience with Tablets on the Rise

That Koreans use technology easily is well-illustrated when you consider the innumerable business and social applications in which they are being used.

IPad as such has not been relatively successful, largely because of the lack of Korean content in its apps and services. Samsung's Galaxy, on the other hand, has been able to deliver on quality local digital content with Textore and Kyobo bookstores.

In fact, Textore consists of 8 newspapers, 10 magazines, and 25,000 books. Kyobo app includes 70,000 Korean books, justifying the increased preference for Galaxy by Koreans.

There is an interesting instance of the tablet PCs making inroads into the social structure. A tablet now handles dating in Seoul's prosperous Sinchon area. On August 8, 2011, an enterprising owner let his bar customers, a typical crowd, to first rate, talk, and then video chat and finally decide to share a table at the bar on all on its intralinked tablets.

Trends in Tablet Sales in Korea

Tablets are essentially mobile phones with PC features. Tablets are typically wireless communication devices, which double up as personal computers to almost 80 percent of the traditional machines' capability. In not just Korea, but practically in all parts of the world, the slow and steady rise in the sales of tablets is indeed significant. There are two aspects to this growth.

First – innovative applications or apps have revolutionized how every day human tasks are performed.

Second – tablets are probably writing the epilogue of traditional Personal Computers. Their unique technology that provides wireless connectivity is what truly sets these smart devices apart.

Sales Buzz

Samsung ranks second only to iPad in Korean tablet share. Acer and several similar tablet makers typically sell their tablets online, and as such, are not so popular amongst non-internet users. As their advertisement spending and distribution costs are drastically low, they are able to offer their tablets at very low prices.

LG has almost given up selling its tablets in Korea, while Apple Inc. continues to dominate, with its incredible iPad sales. In fact, several mid-sized brands have achieved remarkable success in the portable media players as well. Yet most of them are being limited by the high competition, content costs, and prohibitive manufacturing costs.

Apple's Patent Litigation with Samsung the Latest Buzz in Korean Tablet Market

Given the depth and the expertise of Korean tablet makers, unfortunately the third-party supply services, which some of the

Continued on Page 39

Faster Resistance RAM for Flash Memory Cards Developed in Korea

BY XIE-YAN

In a recent news report in "Nature Materials," Samsung Advanced Institute of Technology-based Korean researchers announced the creation of faster non-volatile Resistance RAM (ReRam) chips.

With switching speeds of 10ns, and capabilities of close to a trillion read-write cycles, they are faster by a million times than the current flash chips. These will now pave the way to upgrade to flash memory cards.

To understand this enormous electronic achievement, it is important to understand the technology of ReRAMs.

The ReRam Technology

ReRam (Resistance Random Access Memory) chips are non-volatile and hence retain stored information even in the absence of power. Typically, ReRam substances are dielectric in nature and infusion of sufficient quantity of power converts it to a conductor. Using filaments (or metallic gates in electronic circuit parlance), signals are carried through the dielectric substance and data is stored and removed from the chip.

The metallic filaments are used to carry out the signals through the dielectric substance in both directions. The filaments are gated where they are broken to allow the current to pass through or not.

ReRam Became Faster Running on New Research Technology

Oxide-based resistance memory has successfully surpassed the specifications for device requirements. It has been demonstrated that TaOx-based asymmetric passive switching devices can be used as a localized



Yong hian Lim | Dreamstime.com

These new chips consume less power and are excellent replacement for the current generation of flash memory devices.

resistance switching, which satisfies all requirements such as high density, switching speed, endurance, retention and, more importantly, power consumption.

The switching current drastically reduces the power consumption and results in extreme cycling endurance over 10¹², which now offers exploration into possible applications to the working memory along with the 10ns. This also allows possible applications to the working memory space along with the 10ns switching times.

How did the chips become faster?

These ReRam chips are usually made of tantalum film (Ta₂O₅), whereas the new research technology used in the new chips is based on the compound Ta₂O₅-X/TaO₂-x. Filaments now are two-layered in structure and are not merely metal coated. These new chips consume less power and are excellent

replacement for the current generation of flash memory devices.

The nature of conversion of chips from resistive to conductive phases – by using frequent jolts of electricity – and appropriate increase in number of pathways and filaments creates faster chips.

The new research technology introduces various filaments (gateways) and pathways so that a stupendous increase in the dissemination of information in using a single jolt of electricity is achieved.

Soon Faster ReRAMs for Commercial Applications

As of yet, the research is still to be completed and will not be ready to go to the market for some time. To bring ReRam to commercial development, however, HP is collaborating with a Korean company, Hynix Semiconductor Inc., to offer this technology. 

Continued from Page 27

the Kuafu series will be placed at Lagrangian Point L1 will assist in this aspect.

China's Space Projects in the Pipelines

The government of China proposes several short term and long terms programs, which are ambitious and when achieved will certainly reiterate China's power.

Some of China's immediate goals include setting up a remote space sensing system, along with the study of microgravity, life sciences, astronomy and space materials. Comprehensive satellite navigation positioning systems, as well as a full-fledged telecommunications network, are on the anvil.

Once China completes this mission, it will become only the third country in the world to possess advanced capabilities such as rendezvous and dock technology, after the Soviet Union and United States.

China is also excited about exploring the commercial aspects of satellite launch services. It is actively exploring the avenues of providing launch services for satellites from other countries. Given the great physical expanse of the country and the ideal launch locations, the possibilities of successful launches are very high.

China's successful launch of Tiangong-1 is only a spectacular start to a long list of space missions that the country intends to achieve. Its technical capabilities are being developed across all sectors and China's Heavenly Palaces, when completed, will be another successfully completed space mission, which will help it to develop a host of applications through the knowledge gained during exploration. 

Home Automation Grows with the Evolution of Mobile Devices

BY RAJANI BABURAJAN

The Worldwide home automation technology market is witnessing remarkable growth thanks to the demand for home automation and security systems that improve the efficiency of all kinds of homes.

Home automation technologies not only simplify living, but also increase energy efficiency and secure lives. One of the widely used home automation and control systems is lighting, which results in significant energy savings. The largest segment of home automation market, however, is in entertainment controls, which include audio/volume control, home theatres, keypads, multi-media room controls and touch screens.

Key Segments Covered in the Home Automation Market

The home automation market is divided into different segments, namely: HVAC, Lighting, Audio and Video, Security, Intercom, Robotics and other systems. They may be available under three main categories: Power Line systems, Wired Systems and Wireless Systems. Power Line systems leverage the existing power lines of your home to transmit information to a common control interface. They commonly use X10 technology, an international and open industry standard for communication among electronic devices used for home automation. The Wired Systems use Cat 5 cables to communicate information, usually connected to a proprietary control system or a more open control center. Wireless Systems do not require cabling behind the walls. Today wireless home automation systems also integrate with Wi-Fi networks, so they can be integrated into existing home networks, including computing networks.

Home Automation Market: An Overview

Globally there have been recent developments on both the demand and supply side of home automation products. The rise in standards of living, combined with the growing awareness of both security needs and energy efficiency, is driving demand. Though the economic crisis has somewhat dampened the construction of luxurious automated homes, researchers are of the view that it will once again flourish in the coming years, as the technology-savvy young generation of today becomes home owners in the near future.



Paul Moore | Dreamstime.com

The latest report on the global home automation and control systems market from Global Industry Analysts predicts that the global market for Home Automation will touch US\$2.8 billion by the year 2015. The report, titled "Home Automation: A Global Strategic Business Report," says the importance for safety and convenience, technological advancements in home automation, and rising demand from both European and emerging countries are the major factors driving growth in the home automation market.

Worldwide Home Automation Markets – North America

North America represents the largest market for home automation worldwide. According to a recent research from Electronics.ca Publications, the US market for home automation systems and devices was worth approximately US\$3.2 billion in 2010. It is expected to grow to almost US\$3.4 billion in 2011, and it is expected to exceed \$5.5 billion in 2016, a CAGR of 10.5 percent during this time.

Lighting, home entertainment, and security systems accounted for nearly 58 percent of the US home automation market in 2010. These components of home automation are estimated to be around US\$2.1 billion in annual sales and are expected to reach US\$3.8 billion by 2016, growing at a CAGR of 12.2 percent. The remaining 42 percent of the American home automation market consists of heating, ventilation, and air conditioning (HVAC) and energy management. This segment is expected to reach US\$1.7 billion by 2016 at a CAGR of 7.4 percent between 2011 and 2016, the report said.

European Home Automation Market

Earlier this year, Frost & Sullivan conducted a research of Home Automation market in Europe. The research, titled "European Home Automation Markets," finds that developments in adjacent sectors have created opportunities for Home Automation to reach a wider audience. From estimated earnings of €164 million in 2010 (approx. US\$215 million), the European home automation market will reach €228 million (US\$300 million) by 2015, according to Frost & Sullivan. Europe represents the fastest growing regional market for home automation worldwide and is poised to register a CAGR of more than 10 percent over the analysis period.

In 2008, ABI Research predicted that the number of home automation systems — both professionally installed and "do it yourself" (DIY) — will reach more than 4 million units in 2013, growing more than 50 times in number since 2008.

Home Automation Market in Asia

In the Asia-Pacific region, the growth of home automation is being fueled by high-speed broadband connections, developments in home networking and advancements in 3G communications technologies. Earlier, In-Stat estimated that the total Asia-Pacific home automation market will soar to over US\$500 million in 2011. Japan and South Korea will continue to take the lead position in the region while Australia and New Zealand present high development potential, according to In-Stat. Among these, South Korea has the highest penetration of home automation systems and services in the region. In-Stat study links the growth of home automation in this region not only to the interest of broadband service providers who hope to increase average revenues per user (ARPU), but also to mobile operators that can link home automation to 3G services. The report rates China, Taiwan, Thailand, Hong Kong, and Singapore as potential huge markets.

In India, the home automation market is growing at a compound annual growth rate (CAGR) of 30 percent. Smart home products are becoming an affordable luxury to the average Indian, while the increasing awareness of energy efficiency and smart living has been growing over the last few years. However, India is still not the lucrative choice for home automation majors. Honeywell Security, which has been prominent in the global home automation business over the last 20 years, launched its home systems business in India only in 2006. Legrand India, a subsidiary of the Legrand group based at Limoges, France, a manufacturer of electrical installation and information network products, has been in the smart home products space in the country since 2003. Researchers, however, conclude that home automation has a long way to go in India, but surely the interest is catching on.

Home Automation Trends

The global economic recession and a fall in the real estate market has had a negative impact on the home automation sector. However, the market is picking up, mainly because of the emergence of cost-effective home automation services. Conventional home automation systems are likely to expand with more technology innovation and competitive offerings from leading players. The DIY segment is also expected to exhibit significant growth over the coming years. Mobile devices like smartphones and tablet PCs have created innovative and affordable home automation systems by offering a luxurious and user-friendly interface, which has helped popularize them to a wider customer base. The convergence of these technologies has made installation and adoption of home automation systems simpler and more cost effective. Smartphones and tablets can also be used in collaboration with the Internet and wireless technologies for monitoring or signaling purposes.

Continued on Page 38

Inkjet Printing Method for Thin Film Transistors Developed in Japan

BY DING DING

In a recent Nature publication, Japanese researchers from The National Institute of Advanced Industrial Science and Technology (AIST) in Tsukuba, have described an innovative technique they have been working on — printing thin film transistors with Inkjet technology.



Vectorminator | Dreamstime.com

This research has led to a completely new product that works on flexible substrates. Typically, printers with large-footprints use silicon-based products. This increases the costs of production. Hence, with innovative methods such as using a room temperature process along with flexible displays, large sheets of sensors as well as electronic paper and solar cells, production costs are being lowered.

New Inkjet Printing Technique

The research team has introduced a technique to perform the anti-solvent crystallization with inkjet printing to produce organic semiconductor thin transistors. It was initially difficult to produce uniform semiconducting thin film due to movement of tiny particles in the solvent during evaporation, resulting in a coffee ring-like formation, or self-crystallization.

However, researchers have now introduced a two-step process to overcome the earlier performance levels of inkjets. With this new method, a single crisp and sharp crystal formation begins at a single point and consumes all the ink even as it adheres to the thin film.

This method uses two inks — first, anhydrous dimethylformamide, an insoluble ink with the semiconductor, is sprayed. The second ink with the organic semiconductor solvent is also sprayed over the first layer. As these two inks mix naturally, a thin film of C8BTBT is affixed to the substrate. The solvent evaporates slowly, resulting in the thin film formation. The mixture begins to form at a single point where a tiny crystal grows and consumes the entire pool of ink, resulting in a film which is 30-300nm thick.

The research team used a piezoelectric inkjet printing machine, which had double printing heads that eject droplets of 60 pl at a frequency of 500 Hz.

High Performance Transistors

Researchers have developed a method of combining a technique of anti-solvent crystallization with inkjet printing to produce

With this new method, a single crisp and sharp crystal formation begins at a single point and consumes all the ink even as it adheres to the thin film.

organic semiconducting thin films of high crystalline formation. The mixing of the anti-solvent and a solution of the semiconductor triggers the controlled formation of exceptionally uniform polycrystalline thin film that develops at the liquid air surface interfaces. The average carrier mobilities of the thin film transistors is high, at 16.4 cm²V⁻¹s⁻¹.

This technique establishes a considerable step towards the use of high-performance single-crystal semiconductor devices for flexible electronics applications.

Single crystal interfaces show the highest performance with their nearly perfect transitional symmetry and immensely high chemical purity.

The Future of Inkjet Spraying Technology

Researchers believe that this new technique is a stepping stone for their further development of transistors that are made entirely from Inkjet spraying technology to produce all printed electronic products. This technology ensures faster and better quality of printing, higher symmetry of printing and is maintained by a very high chemical purity. 

Lessons for App Developers as Asia's Mobile Apps Download Volume Reaches 5 Million

BY KEVIN LIU

The mobile technology in use today has come a long way from just making calls and receiving them. Apps, or applications, are driving mobile technology as sophisticated software helps us complete mind boggling tasks from the convenience of our mobiles. Cost-effective, safe and fast, apps are today unifying all the online technologies from ePayment, eBanking, eCommerce, eReading, watching movies or booking airline tickets.

Mobile App Download Volume Pegged at 5 Million in Asia

App developers today are able to provide specific apps for a whole host of tasks. There is an app to watch our e-wallets; one for reading the day's weather forecast; or there is an app to get onto Facebook and another app specifically for Twitter.

Analysts like Ovum have numbers to prove that by the end of 2011, the Asia-Pacific region will achieve 5 billion app downloads, almost four times the mobile app download volume of 1.6 billion last year.

If these trends persist, it is most likely that by 2016, the number of downloads could well pass 14 billion. There is expectation that paid app download trends will reach US\$871 million by the end of the year and around \$2.2 billion by 2016 globally. The Asian market segment are drivers of the non-paid app market and developers will have to target this consumer segment.

Prolific, tactile, and robust apps for mobiles are what users download, as much for running their business or keeping in touch with the office as for leveraging it for their personal use. The line of division between both is very thin and app developers should seek to address this dual category-use by consumers.

Developers now also need to focus on niche region-based markets, considering the rising disparity in content consumption. Every region has certain cultural, social and work-specific habits and there is to be a strong requirement for such mobile apps in the future. A single app for a particular task may not be as successful to an app store as would multiple apps for the same task but embedded with localized flavors.

Apps are the New Key-drivers for Content Consumption

Apps are currently the most significant 'influencers' of mobile phone users adopt-

ing Smartphones and Featurephones. Apps provide users not only with a unique user experience but lots of choice too. Besides, they are cost-effective and ensure users have a virtual assistant in their palm. Apps are becoming a necessity today, whether it is booking airline/railway tickets, finding a location using a GPS app, or reading an e-book; in each case, the quality and the technology of the app will define the user experience.

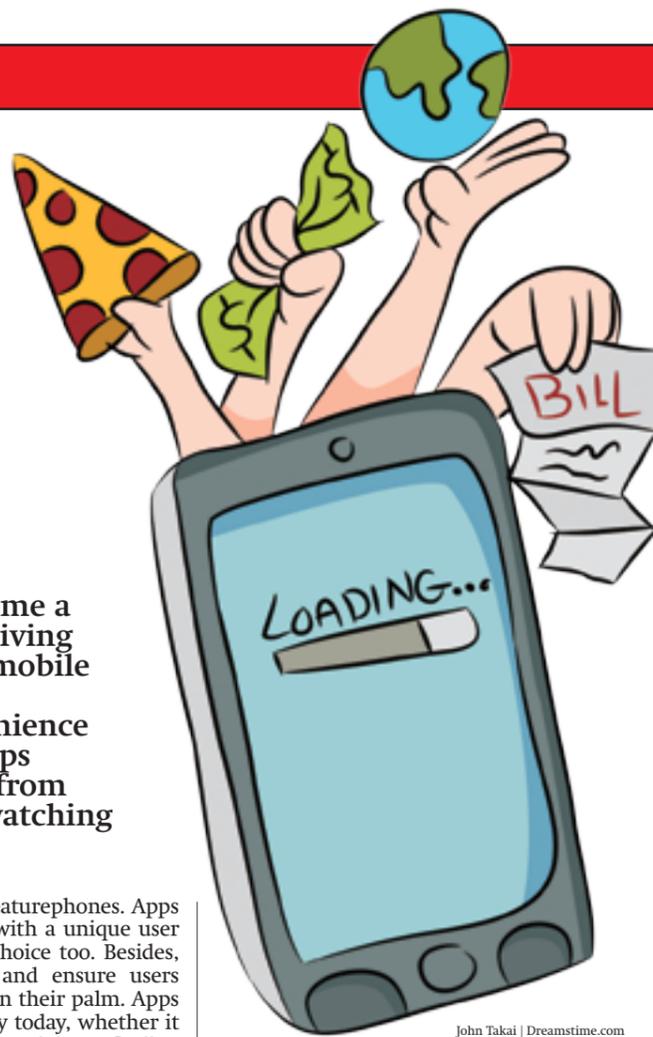
Mobile usage user-experience with a well developed app propels greater download volumes, and this is what is driving the unprecedented growth in the number of app users, especially in the markets of Asia and the Asia-Pacific region.

The mobile app consumption rate in this part of the world is primarily being driven with two clearly defined app markets - the first being China, followed by the fast-growing South Korean market. Earlier app usage, in contrast, was rather Europe-centric, with Germany and France leading the number of downloads of apps for mobiles.

Why are Apps driving the industry?

Application software is specialized computer software that performs or executes a specific task. Technically, apps have been around for several years, but it was only after the uncanny success of Apple Inc.'s App Store, with its unique monetization model, that the world woke up entirely to the opportunities and the technology.

The quantum jump in the usage of mobiles is due to two important reasons. First is the superior performance of the combination of new-age mobile hardware and operating systems. The second reason is the thousands of specialized software applications coming available, bringing value-addition to the traditional services of mobiles. They have emerged as the key-driver in the evolution of mobile technology today.



John Takai | Dreamstime.com

Analysts like Ovum have numbers to prove that by the end of 2011, the Asia-Pacific region will achieve 5 billion app downloads, almost four times the mobile app download volume of 1.6 billion last year.

Now, every mobile system manufacturer has built in the capability to offer apps unique to the ecosystem they provide on their phones. The number of apps available as well as the number of app stores offering these new age wares has changed dramatically in the previous financial quarters.

Peer reviews influence user's choice of apps for their mobile devices. The entire model of accessing, installing, and using these apps, along with customizing features are increasing their download and adoption rates.

Trends in App download

In the past few months, there has been an apparent trend in the type of app downloads happening. Low-priced apps are driving the download trends across all platforms. Secondly, Android app downloads are on the increase. This is far different from trends a few months ago, where Apple's iTunes apps store continued to dominate with a maximum number of downloads globally.

Expectations are running high around the Android, with the number of predicted downloads at 1.8 billion. Predictions for Apple iOS are around 1.5 million. Up until now, the trend has been about 244 million for Android this year, followed by 424 million for iOS during the same period.

Another interesting aspect with mobile app download numbers is that Android will achieve an astounding 6.07 billion downloads as opposed to 3.4 billion in 2016. These will be largely due to the increase in the number of individual players - Skype, Samsung, Google, etc. These mobile makers are now creating their own niche apps suited for their mobile ecosystem, thereby creating deeper inroads into this massive mobile app consumer market.

The mobile app market would then be poised for market consolidation, especially for position number three. It has been a foregone conclusion that Apple's iTunes will remain as the market leader, with close to 70 percent of the app market. Google's Android runs a close second with 16 percent. Likely contenders for third spot include Windows Phone, going one up on BlackBerry with an increase in the number of downloads and revenues up to 2015.

their brand of mobile phones.

The second type of software that mobile phones use is the freely available open-source software, which is generically called Android software.

Both software types (the operating systems) work differently and hence require operating system-based apps. This has spurred the increase in the number of app stores being set up and the software being made available.

Mobile usage user-experience with a well developed app propels greater download volumes, and this is what is driving the unprecedented growth in the number of app users, especially in the markets of Asia and the Asia-Pacific region.

Why do Some Apps Work only on Particular Brands?

Typically, there are two types of software running our mobiles, desktops and tablets. Branded proprietary software such as that available on Microsoft's latest models Windows 7 Phone and Apple Inc.'s iPhone 5 have their own specialized software to run the hardware skeletons of their various mobile phones. In fact, Apple Inc. have their own 'A series processors', such as the A5 processor for their iDevices. Microsoft, on the other hand, uses traditional processors and chips made by Intel and Nvidia to build

Analysts predict that this is where the competition within the mobile app industry will continue to happen, thus spawning further download trends. At one end of the spectrum are the Android Apps, numbering about a few thousand, and at the extreme other end is the branded Apple App Store, running up close to a million apps.

Why is there a Recent Boom in Mobile App Download Volumes in Asia?

Most mobile manufacturers and develop-
Continued on Page 39

China's Seabed Mapping Speeding Up

BY ELAINE XIANG

China, as per its Twelfth Five Year Plan for 2011-2015 and Gao Zhiguo, the director of the China Institute for Marine Affairs of the State Oceanic Administration, is poised to achieve further economic boom as per the last decade through exploration and development of the marine economy.

To help achieve its estimated growth potential, the government is proposing the acceleration of its deep seabed mapping,

said the President of the Chinese Academy of Surveying and Mapping, Zhang Jixian, while speaking exclusively to China Daily.

China's land survey and mapping industry is the largest in the world. In fact, in the last week of August, China released its new 1:50,000 seabed map as well as an electronic navigation chart.

However, Zhang pointed out that the offshore surveying and mapping is completely different from that for land. The reason for this difference is that water is flowing all the time and thus it is difficult for engineers and project managers to set a fixed target.

Surveying and mapping the marine areas, according to Li Jingwei of the Star Geomatics Park Investment Co. Ltd, will definitely aid people in understanding the undersea resources and the ocean in a better manner. This program thus stands to be accelerated and fast-tracked to optimize the economic boom the country envisages.

Surveying and mapping the marine areas, according to Li Jingwei of the Star Geomatics Park Investment Co. Ltd, will definitely aid people in understanding the undersea resources and the ocean in a better manner.

Cartographic Satellite for Greater Capabilities

The first Chinese cartographic satellite is to be launched in December and will further improve the surveying and mapping industry. With its immense lengths of seashores, economists project that the marine industries, by 2020 will bring in a gross product of 5.3 trillion Yuan (approximately US\$814 billion). Already, the 5,188m deep-diving submarine Jiaolong has been successfully accelerating deep-sea mapping in the areas of the South-west Indian Ridge for polymetallic sulphide deposits. (A-P)



Philippine Government Broadband Project Attempts Comeback

BY ANURADHA SHUKLA

The Philippines is all set to get a new Government Broadband Network (GBN) provided if all goes well with a project proposal to be headed by the Department of Science and Technology (DOST) Secretary Mario Montejo.

Considering the controversial past for an earlier National-wide Broadband Network (NBN), which almost threatened then President Arroyo's government, it would do well for GBN proponents to handle it with care.

Proposed GBN to Cost Much Less than NBN-ZTE

The earlier proposal for NBN was handled by the Department of Transportation and Communications and was lead by Romulo Neri, the Philippines' top economist. A controversial deal was signed with China-based ZTE (amidst allegations of commissions and kickbacks reaching high-ranking officials), along with the fact that it was a high-budget project costing close to US\$330 million.

The proposed GBN, on the other hand, is projected to cost much less, at around US\$20 million. Considering that the government spends US\$45 million for internet connectivity, this DOST-proposed project will cost the government less than half its current budget outlay for the high-speed internet connectivity and related capabilities for data processing, computing, and storage.

The GBN Project Specifications

The government network proposal consists of 3 scenarios along with the present one, offering three Gbps of capacity varying from 12.8 Gbps for a second scenario; 25.6 Gbps for a third scenario and 40 Gbps for a fourth scenario (see chart below).

	CURRENT SCENARIO		SCENARIO 2		SCENARIO 3		SCENARIO 4	
	6.4 Gbps capacity		Projected Government expense at 12.8 Gbps capacity		Projected Government expense at 25.6 Gbps capacity		Projected Government expense at 40 Gbps capacity	
Cost Detail	Existing Government Expense	With GBN	Without GBN	With GBN	Without GBN	Within GBN	Without GBN	Within GBN
Access Cost		548 Million		969 Million		1.74 Billion		2.4 Billion
Backbone Cost		250 Million		250 Million		250 Million		250 Million
Total Annual Cost	2 Billion	788 Million	3.6 Billion	1.219 Billion	7.2 Billion	1.99 Billion	13.4 Billion	2.65 Billion

The government proposal hopes to achieve complete independency from private-owned internet service providers, which not only burden the exchequer but also lead to unnecessary conflicts.

Greater Government Control in Handling this Project

Following the sea of controversy the ex-NBN caused in President Arroyo's tenure, the current President Aquino is exercising great caution and control on this project. At the end of June 2011, under the President's signed Executive Order 47, the Commission on Information and Communications

Considering that the government spends \$US 45 million for internet connectivity, this DOST-proposed project will cost the government less than half its current budget outlay for the high-speed internet connectivity and related capabilities...

(CICT) was placed under the direct control of DOST. In fact, CICT has now been rechristened as the Information and Communications Technologies Office, and it has brought along two agencies to DOST with which it was previously associated - the National Computer Center and the Telecommunications Office (TELOF).

The transfer of all these agencies to DOST is largely because they were all part of the previous NBN-ZTE deal. Hence CICT and TELOF are now well-monitored, since the Secretary of DOST Mr. Montejo is well-connected with President Aquino.

DOST itself has now become the agency handling the project, and the Department of Transportation and Communications is no longer involved. Thus, with its expertise it is well poised to handle the \$US20 million government broadband project competently in order to usher in greater technical competency to President Aquino's government.

Japanese at the Helm of Chip Technology

Build World's First No-Power Memory Chip

BY DING DING

Technology and innovation are synonymous with Japan. This June saw NEC Corporation (NEC), in association with Tohoku University, announce the development of the first ever memory chip which can be addressed by its memory directly.

The Content Addressable Memory (CAM) can process and store data on a circuit even when the power supply is off. Additionally, these chips are fast and as non-volatile as existing circuits.

CAM Technology Development Principles

NEC has used Spintronics Logic in developing the CAM chip. In the this chip, the electronic negativity combines with the spin magnetic moment utilizing vertical magnetization to store data on the circuit without the need for power. This is path-breaking technology, as existing Integrated Circuit Technology (ICT) equipment requires power supply for data storage in the memory itself.

NEC's "Spintronics nonvolatile function technology" was developed as part of its NEDO capabilities and has been appropriately modified to include logic integrated circuits. This technology lowers the num-

ber of writing switches per element; data retrieval in CAM is on par, if not faster than, the CMOS-based speed of 5 ns consuming 9.4mW power.

Advantages and Applications of CAM Technology

Technically speaking, CAM is a circuit that enables data retrieval at exceptional speeds, because it uses a combination of memory circuits and comparison circuits. Up until now, data retrieval was accomplished only by looking for addresses in the memory parts. CAMs will now allow astonishing data retrieval speeds, and this technology is soon to revolutionize electronic components power consumption features; as when using CAM, instant start and zero-electricity consumption in standby mode can be achieved.

In terms of energy consumption, CAMS offers a minimized footprint, as it needs less than half the circuit area of a conventional circuit. This is because the vertical domain wall-element connection placing is in series as the reading-writing current routing is re-directed. Secondly, by sharing transistors, the number of transistors is reduced from eight to three transistors for every pair of cells, resulting in a fifty percent area reduction in CAM chips.

Major Beneficiary is Cloud Computing

With the paradigm, shifting from internet technology to cloud computing technology, there is an increase in the number of ICT-based equipment, which has resulted in greater consumption of power.

Several other hardware segments pres-



IbanMontero | Dreamstime.com

ently using ICT equipment are likely to benefit once CAM technology begins to be used more extensively.

National Mission Behind Successful Development of CAM

The aim at NEC is to develop particles which are non-volatile, and which will thereby consume less power while offering more functionality.

Tohoku University evolved a simulation technology for circuit diagram for spintronic particles. Parallel technologies were designed for massive Integrated Circuitry involving the use of advanced logic for spintronics-based integrated circuits.

It is expected that NEC and Tohoku University's co-operation will continue to drive further research and developments in chip technology. The journey so far in this technology has been largely driven by a national-level initiative adopted by Japan to improve its prowess in advanced technologies.

The project concentrates on research-based development of competitiveness in cutting-edge technologies. NEC's association with the first ever memory chip that stores data without power is another first in its long-list of cutting-edge technology components. Expectations continue to ride high on NEC to deliver on newer technologies in the future.

Continued from Page 30

makers indulge in, is creating an unwanted buzz for the most unexpected reasons.

Apple is in litigation with Samsung (more as a pre-emptive measure) to protect its sales in some parts of the globe. As a poor impact of this piece-meal litigation, Samsung's tablet sales have been temporarily withdrawn from German markets. Germany in reality is a key-consumer market for android tablets like the Samsung's Galaxy series, which is currently at the root of this patent-infringement litigation.

Mention should be made of the fact that the tablet market that exists as it does today is largely a result of the efforts of Korean manufacturers. After the successful launch of Apple Inc.'s iPad tablet, it was left to Korean manufacturers to replicate Apple's success and to then turn around and develop their own series of smart hand held devices.

In fact, after iPad's debut, the only other maker of tablets was Samsung, which was then followed by a host of other tablet makers.

Korea's Digitization Growth is Tied Up with 'Right Form Factor'

Korea has, in the past two decades, maintained consistent focus on digitization. The arrival of tablets has enabled the nation to implement many of its ambitious social programs. Koreans are using tablets effectively to bridge gaps, whether academic, professional or for commerce. Most of the providers are capitalizing on the adoption of this unique form factor by all age groups to deliver Korea-specific or localized content. This in turn is driving greater migration to the form factor.

Despite a host of other task-specific form factors, such as eReaders, etc., tablets are leading the transformation towards a digitalized society, thanks to the entrepreneurial spirits of Koreans and the excellent backing by the South Korean government. It is not wrong to claim that tablets are, in a manner of speaking, the appropriate form factor for Korea's growth. The affordable

price factor, localized content delivered on apps, wide choice of brands for consumption and fast connectivity are compelling facts for the successful buzz that tablets are creating in Korean markets.

Korea is turning out to be a great testing ground for newer and faster tablets that manufacturers are now gunning for.

New High Tech Milestone: China is World's Biggest PC Consumer

BY DING DING

International market research firm IDC reveals that, in the second quarter of this year, the most voracious consumer of Personal Computers, or PCs, was China, ahead of the next largest consumer, the US. This is indeed a path-breaking technology milestone for China.

IDC's results also project that by 2012, China will soon overtake the US in PC imports, as it is estimated to import 85.2 million PCs in comparison to 76.6 million by American consumers.

IDC analysts say that this consumption trend is a clear indicator of mature markets reaching the saturation point, while emerging markets continue to grow ex-

ponentially. Technically, the recession and massive unemployment have also contributed to the lowered purchasing trends in America, while China's consumption grows rapidly.

China PC Market Gains Despite Smart Devices

Another significant factor is that, despite the runaway success smart devices such as tablets, smartphones and other form factors have had, China has continued its steady PC consumption. Additionally, China has already achieved maximum online usage globally, surpassing even the US in 2008.

China has continually scaled the technology curve, which was expected, but having achieved it in the second quarter of 2011 is a huge surprise to industry analysts.

By the following year, it is likely to continue its rank as the highest consumer of Computer PCs in the world, with America continuing to reel in economic hiccups while Europe markets also fall drastically behind in consumption of PCs over all quarters. [A-P](#)

Continued from Page 34

Price reduction is another major trend expected in the home automation market in the coming years, mainly driven by increasing competition among market participants and the pressure on manufacturers to reduce profit margins during the economic recession, according to Frost & Sullivan. The most important factor that has influenced home automation system prices is the introduction of the tablet computer, substantially reducing the cost of the overall system, particularly in the luxury segment of the market. This makes home automation more affordable, boosting sales of the mid-range product segment, the research agency said.

"The introduction of tablet computers – particularly Apple's iPad – has had a huge impact on the luxury segment of the home automation market," said Frost & Sullivan Research Analyst Hammam Ahmed. "Using a touch screen tablet computer as a user interface can save up to 50 percent of the home automation system price; home automation manufacturers should therefore shift their R&D focus from hardware user interfaces to software applications and embrace the new technology."

Advancements in wireless technologies have also resulted in the growth of the control systems market, as they allow users to control systems remotely and from great distances. Advanced technologies like Z-Wave and ZigBee are enabling the production of cost-efficient solutions, making them affordable to even low-income customers. The popularity of low-cost home

Conventional home automation systems are likely to expand with more technology innovation and competitive offerings from leading players.

automation systems will expand the reach and potential of this market. Further, the increasing availability of peripheral components for low-cost home automation systems will fuel further revenue growth for manufacturers.

Impediments

The biggest impediment to widespread adoption of home automation products are their high prices. Added to the cost of home automation technologies is the price of bandwidth that rules the proliferation of multimedia, which is an integral part of home automation systems. Deployment costs and labor are site-dependent and may represent a constraint until uniform packages are launched.

Home automation vendors are expected to deliver customized solutions that suit the demands of individual customers. This results in a lack of proper service strategy, including SLAs and pricing plans. Standardization of home automation technologies

and their seamless integration into existing home infrastructure will help address some of these challenges. Service providers are also challenged with the huge infrastructural costs associated with providing seamless communications to emergency home automation systems. In the present scenario, they are able to offer these services to areas where the penetration is high or likely to be high in the near future.

Major Players in Global Home Automation Market

Major players contributing to the growth of the global home automation market include AMX Corporation, ABB Ltd., Control4, Crestron Electronics Inc., GE Security, Haier Group, Home Automation Inc., Honeywell International Inc., Lightolier Controls, Lutron Electronics Inc., Schneider Electric Ltd., Siemens AG, SmartHome Controls Ltd., Smarthome Inc., Vantage Controls Inc., among others. [A-P](#)

FURTHER READING:

- CEPro: Number of Home Automation Systems to Hit 4 Million in 2013
- PR.Com: U.S. Market for Home Automation Systems and Devices Expected to Exceed \$5.5 Billion in 2016
- Connected Home World: European Home Automation Markets to Reach \$228M in 2015
- Digi Times: Asia Pacific home automation market to reach US\$500 million in 2011, says In-Stat
- Automation World: Smart Homes Catching On In India

COMPANIES MENTIONED IN THIS ARTICLE:

- AMX Corporation www.amx.com
- ABB Ltd. www.abb.com
- Control4 www.control4.com
- Crestron Electronics Inc. www.crestron.com
- GE Security www.gesecurity.com
- Haier Group www.haier.com
- Home Automation Inc. www.homeauto.com
- Honeywell International Inc. www.honeywell.com
- Lightolier Controls www.lolcontrols.com
- Lutron Electronics Inc. www.lutron.com
- Schneider Electric Ltd. www.schneider-electric.com
- Siemens AG www.siemens.com
- SmartHome Controls Ltd. www.seachange.co.uk
- Smarthome Inc. www.smarthome.com
- Vantage Controls Inc. www.vantagecontrols.com

Continued from Page 35

ers today are focusing on the increasing app download volumes of Asia. Distimo is an Apple app analytic firm and its latest analysis substantiates the claim that the boom-time in mobile app industry is largely due to Asia's two largest markets – China and South Korea.

Distimo actually noted some distinct features in the relevant social consumption patterns. In South Korea, local rules do not allow inclusion of games apps in the App Store. Despite this, South Korea has a better download volume, when considered in terms of the per capita consumption. Almost every other country's download volume is driven by games apps.

Asian Consumers are Price-conscious of the Apps

Distimo's market study has also revealed that Asian mobile app users are very conscious of the prices of the apps they want to download. In fact, almost one-third of Asians are less likely to purchase apps.

Therefore, the volumes of downloads are in the categories of games and entertainment. However, only low-cost apps and free downloads are the most popular downloads.

Therefore, developers need to adopt a different platform for effective app marketing. At one level, most apps need to be localized. The most popular apps in the western markets are not exactly in the top 10 apps in local Asian app stores. Therefore, the flavor and content on these apps need to be more adaptable for Asian consumers.

The Future of Apps

Presently the most popular method of app delivery is the off deck method. This is the model adopted by Apple for its App Store. However, in models like Nokia, an on-deck method is in use to load apps. In this method, apps come with the model and the monetization processes of this method is quite different. Hence, it can be said that the right price and technology will drive the future of mobile apps consumption.

Asia at the Forefront of Digital Consumption

A region-wise analysis of consumption patterns reveals that Asia and the Asia-Pacific region is prolific in the use of digital devices, especially the adoption of Android-based Smartphones. Asian consumers are the largest consumers of digital content thanks to the effective use of apps. There is a prolific use to perform almost all every-day activities on the super-sophisticated phones widely available today.

Hence, apps will play a very critical role in the continuing use of mobiles in this region. As long as apps remain good value-for-money, low-priced and deliver on good content, their usage is projected to cross the 3.4 billion mark in Asia and its neighbors alone. [A-P](#)

South Korea Best in Information Society: The International Telecommunication Union (ITU)



Andrey Zyk | Dreamstime.com

BY SMITH J. PARK

The International Telecommunication Union (ITU) has ranked South Korea as the most developed economy in information and communication technology.

In its 'Measuring the Information Society 2011' report, the ITU compared Internet access, use, and skills in 152 countries. Following South Korea were Sweden, Iceland, Denmark, and Finland. After that was Hong Kong, Luxembourg, Switzerland, the Netherlands, and the United Kingdom. The United States ranked 17th.

A new feature in the report is the ICT Development Index, or IDI. It not only ranks all 152 countries of the report by their level of ICT access, use, and skills, but it also compares 2008 and 2010 scores. This combined score was used for rankings this year. The report also compared ICT and average income levels per country. Korea, Australia, Japan, and New Zealand showed higher IDI levels than their respective income levels would indicate, according to the report.

According to Susan Teltscher, head of the ICT Data and Statistics Division at the International Telecommunication Union in Switzerland, "Mobile broadband is now leading the growth race among the different ICT indicators – much higher than the other key indicators that we look at, like regular mobile phone subscriptions, fixed telephone, or fixed broadband. Mobile broadband is really the most dynamic sector right now." The report indicated that total mobile

broadband subscriptions in the world numbered 872 million. The total number of mobile cellular subscriptions is over 5 billion, or over 90 percent of the population, and can now be declared ubiquitous.

South Korea also held the top spot in last year's report. In the report it is described as being a "leader in ICT diffusion and uptake for many years." Aside from South Korea and Hong Kong, the other notable Asian country was Vietnam, whose quick rise in the rankings was notable in the report.

The price of communication technologies, however, varies widely throughout the world. In some countries such as India, Mali, and Brazil, high-speed Internet access still costs more than the average household can afford. Hamadou Toure said in the report that, "The mobile miracle is putting ICT services within reach of even the most disadvantaged people and communities. Our challenge now is to replicate that success in broadband." In developed countries, broadband costs just 1.5 percent of average monthly household income, but in Africa, the cost of broadband was 300 percent of average monthly income, despite prices dropping 52 percent globally between 2008 and 2010.

The report also emphasized two big problems with Internet usage. The first is that there is a growing technology divide between those who have access to the Internet and those who do not, with increasing economic and educational differences. The second is that deceptive advertising about Internet speeds by Internet Service Providers is an epidemic problem. The report suggests that more steps be taken to increase broadband availability and that testing of existing broadband offerings is important in all markets. [A-P](#)

Dr. Jeffrey Schott

By Jennifer Chang

Dr. Jeffrey J. Schott, a senior fellow at the Peterson Institute for International Economics, focuses on international trade and economic sanctions. A former US treasury department official, he advises the US Special Trade Representative and the State Department on trade, environment, and international economic policy, and is the author, co-author or editor of numerous books on these topics. He responded to the following questions during a conference in Seoul organized by the Korea International Trade Association and Peterson Institute.



First off, what's the purpose of the conference?

The conference is to celebrate the great success in the Korean economy of expanding its trade up to levels that reach the highest among the world's leading trading nations, and to mark that success and what it means in terms of Korea's new leadership role in the world economy.

What did the conference conclude about the new vision South Korea should have for its trade?

It's a variety of ingredients that goes into a successful competitiveness strategy. And that involves both international trade policies and domestic economic reforms. There was discussion of many aspects, including the importance of improving Korea's trade in services as a boon not only for the expansion of services trade, but because services are so important in enhancing productivity in manufacturing and agriculture.

What's the secret of South Korea's economic success?

Reaching a trillion dollars in trade is an important milestone, but it is just an indicator. What it really indicates is that

there has been, over a long period of time – over decades – tremendous effort, dedication by Korean workers and Korean companies to achieve success in the home market and abroad in establishing demand and pride in Korean products. And I think it is noteworthy that in such a relatively short period of time Korea has vaulted from being a very poor nation to being one of the world's great success stories.

What's your vision for South Korea in the one-trillion-dollar trade era?

I think Korea, in part because of its strong leadership role in the G20, is now part of a council of nations that really helps give direction to the world economy and provides leadership in promoting greater economic growth, both in the region and around the world. And when you look at what Korea has done in terms of its trade policy, it is really beginning to set the standard for what a high-quality trade agreement should include. And if you look at the KORUS FTA or the Korea-EU FTA – very comparable – those are really now the state-of-the-art in terms of international trade agreements, in terms of the quality, comprehensiveness and coverage of the rights and obligations of a trade agreement.

The economic situation is uncertain around the world. Do you think South Korea can maintain its trillion dollar trade volume? If so, what should it do to continue posting 1 trillion dollars in trade every year after the end of this year?

We should expect significant growth in services trade, both because of the maturation of Korean industries and because of the entry into force of important trade agreements with Europe and the United States, which both contain important provisions with regard to trade and services. And I think those two agreements will help provide continued impetus for trade growth for Korea, even in a weaker economic climate.

What do you think the world will be like once South Korea enters its one-trillion-dollar trade era? Will it change?

That factor doesn't change anything. The world economy is a dynamic one, and Korea has been taking on increasing responsibilities in the world economy as its share of the world economy has grown. It deserves a lot of credit for assuming those leadership responsibilities,

and the current president of Korea himself has made a major contribution. I see that continuing because it is in Korea's interest and it expands Korea's influence, both economic and political, to take on these important responsibilities in the world economy.

What do you think should be done about the global economic crisis?

I think there are different problems in different regions. The Europeans have to deal with their debt problems and there have to be shared responsibilities among the countries in Europe. The United States has important problems given its fiscal policy, which is in disarray. And the Congress of the United States has to take steps to restore some better fiscal discipline over the medium to long term – not immediately, because we're in the middle of a downturn in the economy where further contraction would not be helpful, but we need to have over the medium and long term a better balance of tax and expenditure policies.

Is President Obama solving the economic crisis in the US? Is his tax policy good? What about his job stimulus package?

I'm afraid President Obama does not have the resources or ability to do it by himself. The way our system of government works, there has to be a working partnership between the administration and the Congress, and that relationship is not working very well right now.

Do you think South Korea and the US will implement the KORUS FTA?

Yes, because the agreement opens up important new opportunities for trade and investment in both countries, offers the promise of expanding trade quite significantly, and increases new investment opportunities in goods and service industries. It can also lead to important employment growth when in the US, in particular, unemployment is very high and youth unemployment here is also very uncomfortably high. So there are important reasons for both countries to finish the job, which means for the National Assembly and the

US Congress to complete the ratification procedures so that the agreement can enter into force and the trade reforms can be enacted. And I suspect that the US Congress will act next month and that will allow time for the administrative procedures to be done so that very substantial cutting of the tariffs will occur on January 1st, 2012.

Who do you think will benefit more from the implementation of the KORUS FTA, South Korea or the US?

I think both sides think they will benefit a lot from the FTA, otherwise they wouldn't sign it. And there is no metric to gauge whether one country does better than the other. The important thing is that both countries will be much better off than they are today.

Why do you think the KORUS FTA will be implemented next month after failing to get implemented for four years?

There are many reasons for the delay in the US over this period of time, but almost all of them were resolved when Korea and the US agreed to a supplemental agreement in December of last year, which largely covered automobile provisions but also included a few other issues. Because of that agreement, the KORUS FTA got unprecedented support by both business groups and labor unions. So there is now broad-based, bipartisan support for the KORUS FTA in the US Congress.

Why, then, has the Congress been dragging its feet on the FTA?

There is no substantive problem with moving for-

ward. And the ratification process has been slowed down not because of the agreement itself, but because of domestic politics between the Democrats and the Republicans. There is a great deal of mistrust which has built up over years of fractious legislative battles in the Congress on a variety of issues.

And so the White House and Congressional leadership have had to find a procedural way to ensure that the free trade agreement could be brought to a vote. I think there's now a clear understanding on how that will occur, and as proof of that, an important step in the process was cleared last week when the Senate voted on trade legislation which now opens the door for the House of Representatives to take up and vote on the KORUS FTA in the next week or two. Under that timetable, it's clear that the KORUS FTA can be passed by the entire Congress in the month of October.

How has South Korea's growing economic dependency on China affected South Korea's ties with the US?

I don't think that's a problem for the US-Korea relationship. It certainly is a challenge for US businesses that want to maintain market share. And the KORUS FTA provides a level playing field to do so. (AP)



...when you look at what Korea has done in terms of its trade policy, it is really beginning to set the standard for what a high-quality trade agreement should include.



Ecotourism of Korea

BY JIN-SUK YANG

Ecotourism is a form of nature tourism in which utmost consideration is given to conservation of the environment, including biological diversity, wildlife and ecological systems, with emphasis placed on educating tourists about the environment and how to conserve it. Ecotourism areas often include existing human settlements (or communities), especially of traditional peoples, and an ecotourism plan must consider ways to conserve local cultural traditions and identities and how to bring benefits to these local communities.

Although still a minor component of overall tourism development on a global basis, ecotourism is expanding rapidly, and it tends to attract tourists who are respectful of the natural environment and local cultures. Ecotourism has further potential for development, particularly in local areas that offer ecologically interesting natural environments that are often combined with settlements of traditional ethnic peoples. Because it normally tends to be on a small scale, ecotourism can usually be developed within the scope of local resources, but technical assistance to the local community is often required to ensure proper development and management. South Korea has recently launched several ecotourism programs to attract both domestic and international tourists.

Bird Watching Tours

Korea is one of the greatest countries to visit in eastern Asia for both serious and casual bird watching. With a varied landscape, a good road system, cheap public transport, and a rapidly-expanding network of local groups interested in promoting green tourism in their area, Korea offers the accessible spectacle of winter flocks of waterfowl, clouds of migrant shorebirds in spring or fall, or mountain forests in summer alive with the songs of thrushes and warblers. As a casual birdwatcher on a business trip or with family for a holiday, tourists will have the chance to see a number of interesting birds anywhere, but there are several places especially worth visiting, either in the main cities of Busan or Seoul, or at least within an hour or two of them by car.

For those in Seoul, a visit to any one of several of the temple complexes in the heart of the city is a must. Along with this, hiking in the mountainous National Parks is recommendable, or in mid-winter there are ample opportunities to watch ducks, geese or even eagles and vultures along the Han River. In Busan, bird watching is more difficult, but areas of trees and bushes at the base of Busan Tower can be interesting, and the spectacular Nakdonggang River and the extremely popular Junam reservoirs, an hour or so out of town, should provide tourists with a great experience.

For temple visitors, the world-famous Kyong-ju area has not only an abundance of cultural sites, but also rivers and hills for hiking. For those travelers wanting a weekend away it is recommended to try Namhae Island, with historical sites and beaches. Because of the still prevalent academic bias to "birding", however, there is still no real national network and it is difficult to get up-to-date information on birds or their status.

DMZ (Demilitarized Zone) Tour

As North Korea and South Korea begin to erase 50 years of conflict following a successful summit meeting in June 2000, conservation groups are offering another recipe for peace. They want to protect the DMZ between North Korea and South Korea, which has become a haven for endangered plants and animals. With the exception of a few military intelligence officers, no humans have crossed the barbed wire fence that defines the DMZ in decades. Because of its isolation, the area contains one of the last vestiges of natural habitat. Established at the end of the Korean War in 1953, the

240-km long, 4-km wide corridor traverses a major river delta, grasslands in the west and rugged mountain terrain in the east.

Before the Korean War, the country was known as the "land of embroidered rivers and mountains". But for the past four decades, the integrity of the area's ecosystems has been severely reduced. Industrial sites and urban centers have replaced most of South Korea's natural ecosystems. Plant and animal habitat has been drastically fragmented, modified or completely destroyed. In North Korea, rampant deforestation has caused severe soil erosion and flooding. Military operations have also contributed to environmental degradation.

The number of tourists who want to use the natural environment as the setting for comfortable recreation and leisure has increased greatly. However, considering that most of the famous places for tourism in the nation of Korea are rich in biodiversity, thoughtless tourism may cause damage to the natural ecosystem.

Yet as many as 678 species of rare animals and plants inhabit the DMZ that separates the two Koreas, a Seoul National University professor stated in a report after three years of research. The report confirmed that the DMZ was home to many types of flora and fauna. According to the report, 13 species of natural "icons," such as the white-naped crane, were among the animals and plants discovered in the DMZ. In addition, 11 species of rare animals were also found.

However, the report warned that the ecological system in the DMZ could be threatened seriously by clearing, road construction and water and land contaminants. Amid rising hopes for peaceful co-existence on the Korean peninsula, an eco-village is to be established within the DMZ, the place

that has stood at the heart of cold war politics for the past five decades. The initiative to turn the border zone into an environmental district has been taken by the newly formed Committee for Peace and Life Community.

Wetland Tour

Referred to as the Olympics of Environment, the 10th Ramsar Convention was held in Changwon in Gyeongsang-namdo Province from October 28, 2008 to November 4, 2008. The conference contributed to raising public awareness of wetlands in Korea. Since the end of the conference, numerous tourists have visited and continue to visit wetlands to enjoy the beautiful nature and observe the wide range of flora and fauna. In particular, Uponeup Wetland in Changnyeong, Junam Wetlands Park in Changwon, and Suncheonman Bay are major eco-tour destinations in Korea.

Straddling across four towns in Changnyeong, Gyeongsangnamdo-Province, Uponeup is the largest natural wetland in Korea. It consists of four swamps: Uponeup (1.28km), Mokpo (0.53km), Sajipo (0.36km), and Jjokjibeol (0.14km) and spans a total area of 8.54km. The wetland area (2.31km), which harbors water from floods or summer monsoon, is 210 times the size of a football field. It is also known as the oldest wetland in Korea: traces of dinosaur fossil 140 million years old are still preserved there.

Uponeup is a valuable habitat for such endangered species such as the spoonbill, wildcat, and thorn lotus. It is also home to 344 plant species like bulrush and bladderwort as well as 76 species of birds such as swan and spot-billed duck. Consequently, it was put on the Ramsar List in March 1998.

Junam Wetlands Park is the nation's largest migratory bird habitat. It is located in Changwon, Gyeongsang-namdo Province with about 10,000 to 20,000 migratory birds flying annually to the park. The Ramsar Culture Center, where visitors can learn about the Ramsar Convention and its mission, is also located in Junam. Since it is only an hour by car from Uponeup Wetland, many visitors come here after visiting Uponeup wetland to see white-napped cranes and Baikal teals.

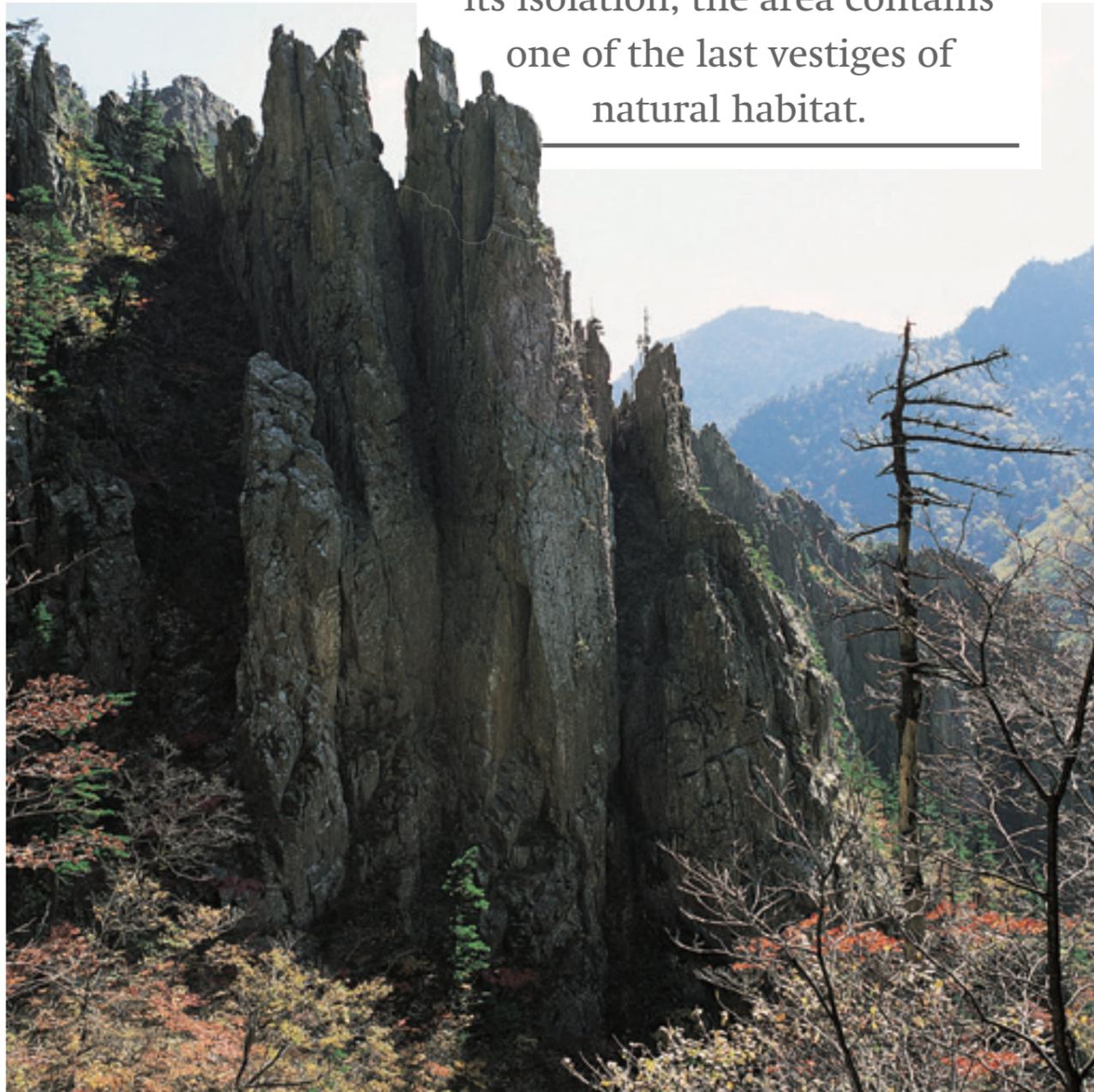
The biggest attraction of Junam Wetlands Park is its standing as the nation's largest migratory bird habitat. A migratory bird festival is held here every November, and the park is also called a live natural museum or a haven for migratory birds because of the wide variety of birds that stop here to partake in its abundant food supply and great location along their migration course. As mentioned, approximately 20,000 birds, including the rare endangered spoonbill and kite, as well as white heron, wild goose, and teal, stop here.

Suncheonman Bay is a coastal wetland comprising extensive fields of reeds and endless wetlands. It was the first coastal estuary in Korea to be put on the Ramsar list in January 2006 and recognized for its preservation utility worldwide. The bay is famous for golden fields of reeds that offer shelter for hooded cranes, a natural monument, and other migratory birds like the black faced spoonbill and swan. The S-shaped waterway provides stunning sunsets and is frequently visited by professional

photographers. As the venue for the annual reed festival held in October and November, the 1.2 kilometer-long field of reeds provides a perfect setting for a leisurely walk. During sunset, in particular, the reeds flutter in the wind to create a background of golden waves. Fascinated visitors love to take pictures with the reed field providing a dramatic background. To enjoy a panoramic view of the sunset landscape in Suncheonman Bay, climb up to Mt. Yongsan Observatory, where one is sure to be delighted by the harmony presented by the S-shaped waterway and the breathtaking sunset.

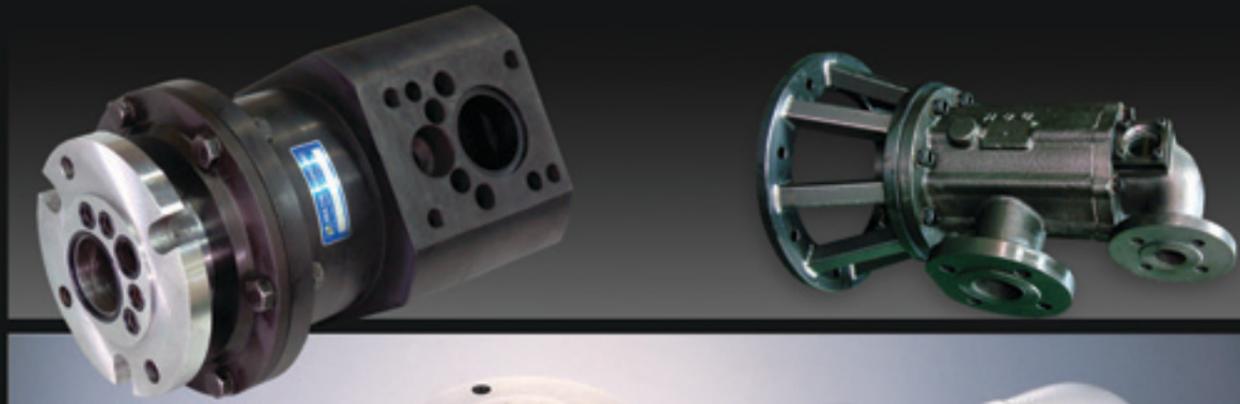
Recently, the number of tourists who want to use the natural environment as the setting for comfortable recreation and leisure has increased greatly. However, considering that most of the famous places for tourism in the nation of Korea are rich in biodiversity, thoughtless tourism may cause damage to the natural ecosystem. Thus, considerable counteraction must be set prior to opening up varieties of ecotourism programs. (A-P)

With the exception of a few military intelligence officers, no humans have crossed the barbed wire fence that defines the DMZ in decades. Because of its isolation, the area contains one of the last vestiges of natural habitat.



MULTIS HYDRO

ROTARY JOINTS



2004. Design ver. 1.0



336-29, Doksan 1-dong, Kumcheon-ku, Seoul, Korea
 Phone : 82-2-864-2591 Fax : 82-2-864-2594
 E-mail : multishydro@hanmail.net



Kiankhoo | Dreamstime.com

The Indian Grand Prix

BY SHAMILA JANAKIRAMAN

The excitement was palpable when it was announced that India will host its first Formula 1 Grand Prix on October 30, 2011. For car racing aficionados this decision by the World Motor Sport Council was ‘manna from the skies’ as the addition of the Indian GP to the F1 calendar will make 2011 a 20-race season for the first time.

The Buddh International Circuit built specially for the event is a 5.14-km long track located on the outskirts of Greater Noida, 35 km from New Delhi. It was constructed at a cost of \$350 million by Noida-based Jaypee Sports International (JPSI) and was designed by German racetrack designer Hermann Tilke, the designer of the F1 circuits in Malaysia, Bahrain, China, Turkey, UAE and South Korea.

The average time per lap taken by a racing car has been timed at about 1 minute 24 seconds. The track involves straights, 16 quick corners and elevation changes. The stands have a spectator capacity of 100 to 120 thousand people, and the main grandstand with a fabulous curved roof located near turn 10 and 11 alone can seat 30,000 people.

The F1 cars can zoom ahead at a 210 kmph average speed. The cars can reach 320 kmph in the main straight before braking into turn 4, making the track one of the fastest globally. An added feature is that the track can also be used for MotoGP and Superbike races.

Former F1 driver Narain Karthikeyan said that the track at Noida will promote Indian motorsports like it did in Malaysia.

“I am very happy and excited by the announcement. To have an Indian team on an Indian circuit will be a treat for home fans. This will also ensure participation of the automotive sector in motorsports,” Karthikeyan said.

Brands in the Race

The Indian F1 has driven marketing

and brand building activities to a frenzy in order to leverage the three day event to the maximum. JK launched carting events and pre-race parties two months prior to the event. Title sponsor Airtel announced a reality show to choose the grid girls and a competition to lay hands on the coveted A-ticket for those playing Airtel’s online racing game.

The investment is a whopping US\$400 million but it is projected that the group will make a loss of US\$35 million every year on the track. Which begs the question: why would a company launch itself onto such a loss-making project?

Not far behind, brand Vodafone also initiated activity-based marketing by conducting a contest to choose two consumers and two global enterprise consumers who will spend the race weekend with the McLaren Mercedes team. They also offered to put the logo of small and medium enterprises on a McLaren Mercedes car which traveled across metros in India to do laps and roads shows to promote the event.

JPSI and Mercedes Benz will establish a Performance Driving Academy in 2012, along with several other activities on a prolonged basis. All brands have leveraged the presence of the two Indian drivers Narain Karthikeyan for Hispania Racing Team and Karun Chandok for Team Lotus to promote their brands.

About 50 percent of the event tickets were complimentary, given by companies to promote their brands. The branding exercise also involves selling of company merchandise during the event.

The Economics of the Race

The organization behind the great event is JPSK Sports, owned by Jaypee Group. The investment is a whopping US\$400 million but it is projected that the group will make a loss of US\$35 million every year on the track. Which begs the question: why would a company launch itself onto such a loss-making project? Bhanu Pande and Ravi Tej Sharma gave an interesting account of the scenario in a September Economic Times report.

The operating structure of F1 gives race circuits global recognition only but no money, as it is the other associated opportunities which are lucrative. F1 comes under the Formula One Management (FOM), in which private equity firm CVC Partners holds 70 percent and financial services firm JP Morgan holds 20 percent. However the actual reins are in the hands of minority shareholder Bernie Ecclestone.

Ecclestone negotiates with teams and circuits and generally controls the outcome. The all-powerful FOM benefits from all revenues made from the sale of TV and Internet rights, gaming rights, and event and track sponsorships.

The revenue made by FOM is shared among the teams guided by a formula. The circuits do not get any money but have to pay FOM US\$35-45 million a year as license fee. The contract lasts for 5 years at a time with Jaypee spending US\$15-20 million in operational costs that cover track and event management, logistics, and transport, taking the total spent to US\$50-65 million.

However the revenue grosser for the circuit is the ticket sales. A huge turnout at the stands is a foregone conclusion and no seat is expected to be empty during the races (the 2004 and 2010 maiden races in China and South Korea respectively did not draw enough audience spectators, owing to the high ticket prices).

Razlan Razali, the CEO of Sepang International Circuit, which hosts the Malaysian F1 race, opined, “India, unlike China, has some motor sport history. If it is promoted well, the event will draw greater traffic than it can handle.”

Continued on Page 49



Stefano Lunardi | Dreamstime.com

New Medical Welding Technology Introduced to Chinese Hospitals

BY XIE-YAN

The Guangzhou General Research Institute for Industrial Technology (GGRIT) has forged an agreement with Ukrainian-based NASU Institute to bring ‘tissue welding on human’ technology to hospitals across China.

Commenting on the welding of live tissues, the Director of GGRIT, Qiu Xianyang, says that when compared to the traditional coagulation method after surgery, this process can effectively reduce the risk of bacterial infection and the formation of scars as well as decreasing the operating time.

The researchers at the institute are waiting for further clearance from health departments before clinical application can begin.

Advantages of this technology

The head of the Guangdong Provincial Department of Science and Technology, Li Xinghua, says, “the welding technology can save patients the pain of removing stitches, and it is especially good for bowel surgeries, because it can reduce the risk of infection. So we are working hard to help our own research institutions to introduce it to Chinese hospitals.”

In the Ukraine, more than 50 hospitals and more than 65,000 operations have been successfully completed using tissue welding technology.

Ukrainian welding technology for live tissue

This unique technology was developed by E.O. Paton Electric Welding Institute of the National Academy of Sciences of Ukraine (NASU) by a group of Ukrainian-based international team of specialists. Tests on animals were conducted from 1993 to 1998 on over 1,000 animals to perfect this innovative welding technique. It needs special-purpose software, bipolar welding tools (running on power supply), as well as devices/instruments on a special assembly.

Dr. Jerome Delli Priscoli

ADVISOR, U.S. ARMY CORPS OF ENGINEERS, INSTITUTE FOR WATER RESOURCES
WORLD WATER COUNCIL BOARD OF GOVERNORS
EDITOR IN CHIEF, WATER POLICY

By Jennifer Chang

Dr. Jerome Delli Priscoli works at the U.S Army Corps of Engineers' Institute for Water Resources and is Editor in Chief of the journal Water Policy. He is a world leader in conflict management, water resources and security. He answered questions during a conference in Seoul organized by the Global Green Growth Institute where he spoke on climate change in the Asia-Pacific. These are his own views and do not represent official policy of any type.

How has this conference reached a better understanding of the threat of climate change to the Asia-Pacific region?

We had some discussions about, "What does climate change mean?" Now, for the water people, this is an important component of this entire question; after all, water management has always been about climate change.

Essentially, water management tries to define changes in climate: Is it abnormal, normal? What does normal mean? Are we looking at 100 years, 200 years? And so forth. So in the sense that I think people have heard a lot more of the views on what climate change may mean and different perspectives on this, it helped clarify our ideas.

But I think it also shows that just saying 'climate change' is not enough. You have to be specific. What kinds of events are we talking about? What's the probability these events may happen; as best we can think of them?

There were several presentations that talked fairly specifically about what they saw as trends in the region. And they pointed out some areas of vulnerability – urban areas, gender impacts, port areas around these, where the poor are located and what that really means. I think that's helpful.

So what is climate change?

To us, in this water business, it's really the variability over time of extreme events. In the water community, variability and rainfall and runoff and precipitation occur at different times of the year and so we must establish some sense of probability in order to manage the resources: it is all based on probabilistic management. Because that gives you a baseline to decide on what type of design to recommend to decision makers to deal with floods, droughts and storm surges. If you have some idea of the frequency of these events and where they may happen, then you can talk about people and what we may have to do to either help the people, whether that's behavioral or structural, or whether they should move; whether or not you should structurally invest, or whether or not you try to increase efficiencies. What's clear is that just saying 'climate change' does not get you to the level of specificity necessary to make serious analysis which would allow good information input to significant public investment decisions.

So just seeing changes is not enough?

If you say that you've observed changes over the last 20 years, over the last 100 years, what about 500 years ago? It may be that something was changing faster or



We need to grow. We need to create employment. But we don't need to destroy our ecology or our life support system to do so. So, green growth is a venue that seeks to provide a basis for such negotiations.

less. So change alone doesn't necessarily tell you what is needed: What does the change mean?

The reason we talk about these changes and the variability is that once we understand them and their historical context then we're able to set up a kind of a probabilistic management that allows us to say we think the risk is at a certain level and to estimate the uncertainty. This allows you to build actuarial tables better so you understand what damages may be. It allows you to put some finance and economics onto your investment decisions on how to reduce risk.

What determines whether policymakers will actually change the system? You said it's more than just observing change.

The big issue is that we are settling in big cities, near oceans and vulnerable areas. We're settling in places that will be affected by these big events, extreme events, regardless of the causes of these events. And we really do have to make some effort to think about helping those likely to be affected by events in the next generation. Will these events hit us in the way we're settled or do we have to change our settlement patterns or are our risk reduction systems robust enough to deal with different possibilities? Now what I have said is for the rich countries in many ways. It's very clear, like in almost every other issue, the poor and the vulnerable will be hit in the worst way.

In the workshop I raised the question: are the rich countries resilient because they're rich, or did they become rich because they invested in resiliency along the way? This is an important question. We think that basic investment in managing uncertainty around water resources, which is what we're talking about now, is a necessary precondition to establish a platform for growth to break poverty; to break the cycle of poverty and to encourage investment money to move. Once that platform is achieved, people can move in various ways about development; they do not have to mimic the developed world.

Is there a global climate change crisis now?

Climate is always changing. And if we say, is there a crisis now, what does that mean? From the perspective of water resources, it's very difficult to say in the terms that you use in the question. For example, the recent flooding in the Indus River, which had huge impacts, was not an unusual event...events this size have occurred in the twentieth century. In the water managers terminology it was probably a 50 year return event. So is that climate change? But we know it had huge impacts because so many people have moved into various vulnerable areas, because so much activity has occurred and little has been done to manage the uncertainty around the increased vulnerability to these people. All this despite the fact that projects had been proposed to do so over the last 25 years. This means that a frequent event, rather than a huge, extreme event, can have huge impacts; but does that mean climate change?

So, a crisis, yes. But what does that really mean? It means that we need to look at where people are, what we think frequency of these extreme events may be, and understand what we may have to do to try

and prevent the loss of life, to reduce the amount of damages that could occur; and to look at what water related risk reduction actions over the next generation could do – many would call this adaptation.

What, if any, solutions, policy options and political action did the debates at the conference come up with to tackle the threat of climate change to Korea and the Asia-Pacific?

The big debate is how much of the water risk reduction investments should be structural intervention versus how much should be behavioral individual change. Well, actually you need both. It's a mistake to say you rely on one and not another. In the rich countries – there's a different equation to how much you rely on one or the other – poor countries that don't have very much of basic infrastructure usually need more structural measures. I think the job of the rich countries is to discuss this need in ways that poor countries can have infrastructure, but infrastructure that helps mitigate some of the costs that we've learned, especially ecological costs, over time. You can probably build a lot of mitigation into new structural investments.

There's another important point that came out in this conference, which was the discussion about insurance and what this means. The insurance discussion is very important because these are the areas where people actually try to quantify some concept of risks and what it really means. I thought that was a very important part of the discussion and there should be a lot more about this.

Continued from Page 47

Other ways to make money from the tracks are through MotoGP and Superbike series of motorbike races. The track can be rented for testing purposes for automobile and tire manufacturers. The site can also be used to host trade shows like the biennial Auto Expo, organized by the Indian Trade Promotional Council. The infrastructure surrounding the track can be used for conferences and concerts too.

Another business idea is to collect fees from individuals who wish to drive a F1 car, as is done in the Malaysian circuit. There is no dearth of ideas to leverage the track in various ways to realize profits according to Jaypee Group officials.

The Indian Grand Prix will be made special by the participation of racing stars like Michael Schumacher, Fernando Alonso, Jenson Button and others. The event is exciting not only for fans but it is welcome as an employment provider for staff like engineers, medics, pit crew, racing managers and marshals.

The logistics support required is humongous and needs huge investments in hotels, transport, security and international standard sporting facilities. The Indian Grand Prix will surely result in an uplift in physi-

What new opportunities did the conference identify and seize upon that support a common green growth strategy for Korea and the Asia-Pacific?

I don't know about a "common" "green growth" strategy. I think you'll find that what different countries do under a term called green growth may be different. To me, the most important thing about green growth is that it invites groups of people, people who normally might not talk with each other to the table and says let's discuss what we do with our resources.

We need to grow. We need to create employment. But we don't need to destroy our ecology or our life support system to do so. So, green growth is a venue that seeks to provide a basis for such negotiations.

What new partnerships with experts, policymakers, research, civil society and the private sector were explored at this conference?

One of the most important mentioned was the insurance industry, which is both private and public. We saw many variations. It's really about the concept of re-imbursment and reactions to disasters. Another aspect of partnership is the construction industry and its relationship to environmental designs.

How must the Asia-Pacific region formulate its water policy given the current global climate change crisis?

Generally speaking, I would say they clearly have to discuss infrastructure in-

The big issue is that we are settling in big cities, near oceans and vulnerable areas... places that will be affected by these big events...

vestments, number one, along with what you may call behavioral changes. Another important issue will be when various countries in this area, which are highly developed in many cases, look at their current infrastructure; is that sufficient to deal with the kinds of events that people may see? You'll never have 100 percent certainty. And as you try to approach such certainty, investments become more and more expensive at an accelerated rate.

All of this is about social choices. That means that you can have a well-designed program, a well-engineered solution, if you will, and it works, but people still get wet and something happens. This is what's called residual risk; there's always some risk left, and people need to understand that. This reality is probably the hardest part of dealing with publics and what we talk about in terms of risk in the future.

FURTHER READING:

- **F1 News**
ibnlive.in.com/news/f1-comes-to-india-first-race-on-oct-30-2011/130568-5-24.html
- **Indian Grand Prix**
timesofindia.indiatimes.com/topic/Indian-Grand-Prix
- **F1 India**
www.f1india.org/about-f1/f1-guide/60-race-guide/740-pit-crew-and-pit-stop
- **Jaypee Sports**
www.jaypeesports.com

FACTOIDS:

- The Budh International Circuit built specially for the event is a 5.14-km long track located on the outskirts of Greater Noida, 35 km from New Delhi.
- The investment is a whopping US\$400 million but it is projected that the Jaypee group will make a loss of US\$35 million every year on the track

cal infrastructure too. Further, the domestic automobile sector will get new avenues for growth.

According to Indian F1 driver Karun Chandhok, "With the Indian GP, more people in India will have access to not only F1

but motorsports in general. For me personally, it will be thrilling to be on the grid and hear the Indian national anthem before the start of the Grand Prix."

This sums up the excitement in the hearts of racing fans in India.

The Right App to Get Things Done

BY MATTHEW WEIGAND

One of the things that people usually find out about themselves in college is that accomplishing what you set out to accomplish is not easy.

In fact it can be terrifyingly frustrating. So when David Allen created his methodology called 'Getting Things Done', it became an instant hit. After publishing a book in 2002, the man has been doing seminars, giving talks, and generally living the good life. His methods have been especially popular with IT professionals, which has inevitably led to software implementations of the GTD methodology. And now with the advent of smartphones, even more smartphone apps have been created to help you follow his ideas on your phone. But with popularity comes imitation, with imitation comes choice, and if you want to get or buy one of these applications the choices become more difficult.

Let's say you want to get into the digital GTD world. You've got a smartphone, you've got a computer, and you regularly access the Internet. Without looking at any of the possibilities, you can start off by imagining that the best type of ToDo list application would be one that you can access on your phone, on your computer, and on the Internet as a web application, just in case you are away from your computer and your phone's battery has died. Also, this type of setup makes sense from an information technology perspective, because the standard rule of data preservation is that if it doesn't exist in 3 places, it doesn't exist at all. That's why companies always want local data, an off-site backup, and a second off-site backup in another location. Ideally, at least each company should, but some value their data more highly than others. But ideally, in order to be proof against almost all accidents, you should have data in 3 places. Also, it would be great if it's all not too expensive, or perhaps even free. And since you're just starting out on this GTD journey, it would also be good if there were a set of simple applications, nothing too fancy. Given these ideals, one can then go out into the world and search for the perfect GTD application.

Doit.im

The first stop in this journey could very well be China. Even though China is not well-known for its software applications, one intrepid company, Snoworange, located in Hangzhou, China, has built a GTD application for a wide variety of platforms called Doit.im. You can find the web application at www.doit.im, which is the launching-off point for everything else. Doit.im has applications available for the iPhone, Android

OS, iPad, Windows, Mac Mini, and the Web. The only way you could be left out is if you were running Linux.

It is rated with 4 stars in the Android marketplace. The white and light-blue color scheme throughout the application is pleasing to the eye. It seems to be quite well-designed, with a simple interface that belies complexity beneath. If you are a new user, the simple Add Task box is easy to use – just type a short line and you're done. The web site also gives a quick rundown of the GTD methodology in 4 easy steps, which helps even a novice GTD user to get started. If you want to learn more about the GTD methodology and use contexts or projects, those options are also available to you. You can also forward tasks to contacts that you have in the application. All the information syncs between your computer, the web site, and your phone seamlessly. Finally, the best part is that it's free.

ThinkingRock

But if China isn't your style, or you use Linux, perhaps you might find yourself eyeing an offering from Australia-based Avente. Their ThinkingRock application is also touted to be a GTD system. In fact, their web site, trgtd.com.au, has the tagline "Trusted System for GTD." The web site isn't as polished as Doit.im, however, they do offer versions for Windows, Linux, Mac, iPhone, and Android OS. Also, unlike Doit.im, the data only exists in two locations – on your computer and your phone. The phone and computer can only sync through a wifi connection. The ThinkingRock team recommends using another program, DropBox, to back up data and synchronize it between multiple computers. The phone has less functionality than the full desktop version as well. It is limited to viewing the data and collecting new thoughts, which

is the ThinkingRock's term for adding to-do items. The web site is quick to point out, though, that it is not just a to-do list. It emphasizes total life organization complete with goals and long-term projects. It is not free, costing US\$40. Also, if you want upgrades, you should pay a membership fee of \$10 per year. The Android and iPhone apps are free, but do not work without syncing with the desktop application.

Nozbe

If Australia or China are not close to you, or you prefer green to blue, you might want to give Nozbe a look over. The claims for this US-based company are the same as the others – it follows GTD concepts to simply get everything done that you need to. The software offering started out as a web-based application at first so its web site is very robust and Web 2.0-decorated. The software itself has all the bells and whistles that you may have come to expect from a GTD-based web site, such as projects, contexts, and next actions. The Android app looks functional. Nozbe Desktop, the desktop-based Nozbe client, is currently under development for Windows and Mac. One extra thing about Nozbe is that it integrates with a host of other web applications like Evernote, Gmail, Dropbox, Google Calendar, and Twitter. So if you use any of those other online applications regularly you can squeeze some more functionality out of Nozbe. However, all of this is not free either. It comes in three packages. For a single user you can pay US\$9.95 per month. A team of up to 20 users can get 10 GB of storage and pay US\$49.95 per month. You can try it out for 2 months without paying, in a limited fashion of 1 megabyte of storage and 5 maximum projects.

So in the end, it comes down to how much money you are willing to spend, and what color scheme you would prefer. If you use Linux, of course you have a much smaller selection, but otherwise all three of these should satisfy you on any platform. 



Alvera | Dreamstime.com

Welcome to Naminara Republic
Nami Island, Korea



Outsourced Product Development Unleashed...



Innominds

US Address

2055 Junction Avenue, Suite 122,
San Jose, CA 95131
Phone: 408-434-MIND
Fax: 408-904-5820

India Address

#8-2-334, SDE Serene Chambers
1st Floor, Road No. 7
Banjara Hills
Hyderabad - 500 034
Phone: +91-40-66126300
Fax: +91-40-66126330