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SBI launches six digital banking branches

The State Bank of India launched six digital branches across the country as part of its programme to offer next generation banking solutions to the growing mobile phone and internet savvy customer base.

These branches, named sbiINTOUCH, will facilitate services such as instant account opening with personalised debit cards, instant loan approval for car and home, remote expert advisors available via video links, along with interactive walls and table displays.

Besides Delhi, where sbiINTOUCH branch was inaugurated by Finance Minister Arun Jaitley, the other such branches are located in Mumbai, Bangalore, Chennai and Ahmedabad.

"With the innovative technology and user-friendly features at the digital stores, SBI has led the way in digital innovation in the Indian banking industry," Mr. Jaitley said.

He expressed hope that other banks would follow suit by opening such branches.

"India is in the midst of a major demographic transition and we recognize that our customers increasingly expect digital services to help them manage their financial needs," State Bank of India Chairperson Arundhati Bhattacharya said.

sbiINTOUCH branches are primarily targeted at servicing the youth in the country. "Today, more than half of India's population is under the age of 25. By 2020, India's average age will be just 29 years - this is a digital demographic: one that expects businesses to provide solutions immediately. At the same time, the mass-affluent - no matter what their age - have similar expectations. These branches are a first step in the journey to offering full digital services across the nation," she added.

The bank has engaged Accenture to develop the digital business strategy for its programme.

"Accenture helped SBI in designing the branch layouts, implementing the digital processes and technology at the branch, and providing back-end integration including employee training," Piyush Singh, Managing Director and head of Financial Services, Accenture, said.

Meanwhile, speaking to reporters on the sidelines of the event, Ms. Bhattacharya said there is no magic wand to deal with bad loans, which rose to Rs 61,605.35 crore at the end of March, 2014.

"We are seeing some lessening of stress but...there is no magic wand, we have to work through our way. As the GDP goes up, demand goes up, the capital market will begin to respond, people are able to raise equity, we will see things becoming better," she said.

Graphene and Rubber Bands Could Revolutionize Health Monitoring

http://spectrum.ieee.org/nanoclast/biomedical/devices/graphene-and-elastic-bands-could-revolutionize-health-monitoring

By Dexter Johnson

One of graphene's most attractive properties is its flexibility. It's this property that has led researchers to consider in the electrodes of organic solar cells. Researchers at the University of Surrey and Trinity College may have found another use for that flexibility—adding graphene to rubber bands to give elastics electronic properties

In research published in the journal the researchers explain a simple process for infusing graphene into elastic bands such that they become

extremely sensitive strain sensors.

The researchers claim that the sensors are extremely cheap to produce and could be used as wearable sensors for monitoring a patient's breathing, heart rate, or irregular movements.

"Until now, no such sensor has been produced that meets these needs," said Surrey's Dr Alan Dalton, in a press release. "It sounds like a simple concept, but our graphene-infused rubber bands could really help to

Contd. on page 2

IT innovation: We have seen a lot, but haven't really seen anything

{Hyperlink https://www.asme.org/engineering-topics/articles/bioengineering/top-5-medical-technology-innovations}

I have spent 25 years in the world of IT. My first project at Intel was to make our New Mexico fab go paperless. Twenty one years later, I completed the transition of our fabs to 300 mm wafers with complete automation. Throughout this period, I saw first-hand the impact that IT had on our manufacturing capabilities - from reducing throughput time (TPT) to improving quality - through workflow automation and data analytics. Since then, I oversaw the application of IT in the enterprise and chip design world. Everywhere, IT brought cost reduction, efficiencies and scale. What I saw in this microcosm is now playing out everywhere, in a much bigger arena.

IT is turning out to be an enabler of social and national causes. It is radically transforming how we live and work, our future opportunities, our societies and our economies.

These are exciting developments that are changing our country in profound ways-socially, economically, and digitally. They are challenging old paradigms.

Large IT giants who made themselves India's calling card are being joined by startups that are also focused on IP creation and product development. At the macro level, there is a new focus on building a holistic tech ecosystem. While India did a great job in becoming a powerhouse in software and services, we have lacked focus on building a tech ecosystem that can meet the needs of local consumption, especially in the device manufacturing space. Having a vibrant ecosystem that takes advantage of our current software and services excellence is a must. At the micro level, this is translating into innovation across dimensions, with emerging domestic companies playing alongside global ones.

Over the next decade, I see innovation and use of technologies playing a key role in accelerating business transformation. The relentless pursuit of Moore's Law has resulted in transistors that are thinner, lighter, power-efficient, more powerful and affordable. This is enabling devices to become ubiquitous, and that is leading to what we refer to as a virtuous cycle.

As devices become ubiquitous, they drive more computing power in data centres and the need for more services, which, in turn, create the demand for more devices. This has resulted in staggering numbers when it comes to data transactions, connectivity and mobility. But what's making mobile devices really interesting isn't just the thing in your hand; it's what they're connected to and what they can connect you to.

Computing is shifting from being task-based to defining our lifestyle, to becoming totally integrated in everything we do.

Today, even though we have seen a lot, we haven't really seen anything - as measured by computing penetration or harnessing the power of computing. The era of wearables and Internet of Things (IoT) is ushering in application of exciting new technologies - from voice and gestures to use of video and media, predictive analytics and security. Ultimately the paradigm of today - the number of devices per person - will become irrelevant, as devices become thoroughly integrated into our lifestyle and environment, including those that are ingestible and injectable. The economy will become one of digital services. The winners will be the enterprises that most aggressively adopt technology and make it a way of doing business.

As a foundational building block supplier, Intel is excited to be a catalyst of this transformation and to enable innovation in every segment of this digital economy.

By Kumud Srinivasan
The writer is president,
Intel India

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revolutionize remote healthcare- and they're very cheap to manufacture."

Professor Jonathan Coleman from Trinity College, Dublin added: "This stretchy material senses motion such as breathing, pulse and joint movement and could be used to create lightweight sensor suits for vulnerable patients such as premature babies, making it possible to remotely monitor their subtle movements and alert a doctor to any worrying behaviors."

The researchers have already tested the graphene-infused elastic bands for measuring joint and muscle motion as well as breathing and pulse.

Future Construction Technologies and Techniques

http://www.constructionglobal.com/equipmentit/219/Future-Construction-Technologies-and-Techniques

The future of the construction industry seems brighter than ever. Aside from providing various jobs to those seeking careers in this field, evolving techniques have enabled different living options for people to better suit their styles and preferences.

Condos in key cities, for example, have provided people with an alternative way of living, aside from the standard residences that people are more accustomed to. As more and more, buildings and condominiums in major cities are being built, the industry is also keeping in track with the latest technologies to better improve the quality of said buildings, geared towards the future of man's day-to-day living through sustainable construction practices.

Future construction technology

When it comes to construction technologies, the possibilities are endless, and the current rapid innovation and technology of construction will shape the appearance of future buildings.

In terms of building construction, the construction workers of the future could be robots. The Harvard School of Engineering and Applied Sciences and the Wyss Institute for Biologically Inspired Engineering have designed termite-inspired bots which can already perform construction tasks.

They can build structures without supervision and even without pre-determined roles. Four years have been allotted by the researchers to develop TERMES, the team of small robots that can build 3D structures from foam bricks. They plan to use similar robotic systems such as these for construction projects that may be too risky for humans.

Italian robotics engineer Enrico Dini has said: "We might print not only buildings, but entire urban sections." This may well hold true, with architects already producing the first 3D-printed houses. Last January 2013, Universe Architecture had designs of a two-storey house that looks like a Möbius Strip and designers plan that it will be concretely printed on site.

Universe will be collaborating with Dini with this D-shape machine, which is considered the largest 3D printer in the world. In 2010, it built a single-room structure resembling a mountain hut with two windows; an interior that has a workspace, platform bed and a sink.

These kinds of printed buildings might offer a glimpse of the future of building construction, but because of its fragile parts, the buildings must be printed with supporting structures to prevent them from collapsing while under construction. The support can be removed once the concrete filling has been added. At present, the whole process has been estimated to cost around €5 million: rather prohibitive, but constantly falling as the technology is refined.

Building materials of the future: Greener, more intelligent

Future building materials will take their cue from current scientific technologies. As a self-healing concrete developed by microbiologist Henk Jonkers and Eric Schlangen, a concrete technologist, involves the genus Bacillus' mixed bacteria spores. Its nutrients, when activated by water, will feed on calcium lactate to produce a primary component of limestone, which is lactite.

This self-healing concrete may be available within the next few years if tests are successful. Once proven, it could eliminate concrete cracks and expensive concrete maintenance.

Alongside and influencing these technologies is a greater awareness and need to build greener, with sustainable materials used at the construction phase. Malama Composites has started manufacturing foam material from plant materials like hemp, kelp, and bamboo that will be used in turbine blades, insulation, and furniture.

The foam can provide high moisture and high resistance to heat, and when used can also give protection against molds and pets. It even improves the quality of living, thanks to its better insulating properties and higher thermal resistance. Plus, it can also give your living spaces the right kind of acoustics.

Re-defining future design

While it may be easier to stick to familiar construction methods, the industry is changing and the new, innovative greener techniques, while challenging to develop to the point that they become standard, can be highly beneficial to the quality of the urban environment, and often ingenious.

In Indonesia, Skidmore, Owings & Mills has revealed its design for a 99-storey Pertamina Skyscraper that is shaped like a budding flower's petals. What's interesting to note here is that to harness wind energy, the said skyscraper will slightly open its peak to allow its wind funnel to convert high speed winds into energy sources.

The design team, as part of its green architectural design plan, also took steps to minimise the solar heat, adding solar panels to the façade of the skyscraper to take advantage of the natural daylight coming from the sun, thus decreasing carbon dioxide emissions.

Elsewhere, to decrease construction costs and at the same time reduce waste, VS-A and Chartier-Corbasson unveiled their skyscraper design made from the tenants' trash. Dubbed as, "The Organic London Skyscraper", it will be made of durable panels made out of plastic waste and discarded paper.

The said building will grow as its initial residents produce more trash for the construction materials. The plastic casting can be completed in a year, and to be able to generate its own electricity, the hollow tubes in the embedded scaffolding will be provided with wind turbines. Recycled materials will be converted to durable panels installed across the building.

Gizmo Talk

Epson Welcomes JBKnowledge to Moverio BT-200 Smart Glasses Developer Program

http://www.constructionglobal.com/equipmentit/245/Epson-Welcomes-JB-Knowledge-to-Moverio-BT200-Smart-Glasses-Developer-Program

Epson America has announced that, nbsp;a technology consultant and solutions provider to the construction, insurance and risk management industries, has joined its Moverio Developer Program to bring an immersive augmented reality viewing experience of its application to the Moverio™ BT-200 smart glasses.

SmartReality is JBKnowledge's latest application developed for commercial builders that combines 2D plans and 3D project models for an enhanced, mobile visualization of construction projects.

Utilising the full Android operating system on the Epson Moverio BT-200 smart glasses, SmartReality allows builders, developers, project owners and others to simply look at 2D plain paper construction plans through the smart glasses and view 3D interactive Building Information Modeling (BIM) files of the structure, offering an unobstructed, real-world perspective of projects for planning, design and construction management.

"We are excited to join the Epson Moverio developer community as we bring our app to builders, contractors, and developers in construction markets around the world," said, president of JBKnowledge. "The Epson Moverio BT-200 smart glasses are a perfect complement to our SmartReality app in the office and for construction uses in the field."

"We are pleased to support JBKnowledge in their mission to simplify document and work flow management for the construction industry," said Eric Mizufuka, product manager, New Ventures for Epson America, and Moverio developer program lead. "JBKnowledge is an exciting Moverio developer creating innovative, real-world use-cases in the enterprise space."

Leveraging Epson's patented core technologies, the Moverio BT-200 offers an unparalleled binocular smart glasses experience optimised for augmented reality applications. Micro projectors located on each side of the eyeglasses project transparent overlays of digital content directly in the user's field of view over the real-world environment.

In addition to the Moverio BT-200's sensors for head-motion tracking and hands-free navigation, the smart glasses include a front-facing camera for video as well as image capture that detects real-world markers for augmented reality (AR) applications.

Future of Learning: Educational Reforms in India via Technology

http://www.huffingtonpost.com/sriya-chakravarti/future-of-learning-educat_b_5539554.html

There has been uproar about modifying a three year degree program to a four year one in India. There were arguments for and against the introduction of a four year undergraduate program. While the four year college education would help students who aspire to go abroad for higher studies, the same would mean a disaster for students from a lower middle class section of the society, who want to quickly graduate and join the workforce.

Being brought up in India and having studied in the Indian education system, I believe that our higher secondary education and undergraduate programs are quite rigorous and they prepare students well to compete internationally. However, research, technology and life skill training are not strong points of our current (undergraduate/graduate) education system.

It would be a highly desirable move if the Indian education system decides to incorporate basic research training modules, technology and life skill training sessions in the curriculum. Also, investing in online learning management systems, databases and

other resources can greatly benefit the above cause. Developing a MOOC (Massive Open Online Course) platform and providing some free MOOC education modules to students can be a major game changer in the field of Indian education system. Giving students full degree credit for completing MOOC courses can solve the three or four year degree dilemma.

The future of learning is fast changing, especially with the help of technology. With proper infrastructure, trained teachers and technology, access to quality education in every corner of India can become a possibility. Though it is a complex task, educational reform can begin when the following requirements are in order:

- Qualified teachers: Attracting and retaining top teaching talent is the key to solid and quality education. Unfortunately, the current pay structure, privileges and standard of living provided to a teacher are not very impressive. Regardless, most teachers invest because of their passion towards the field of education. Serious consideration must be given to attract brightest minds in academia.
- Major overhaul of learning resources, facilities and infrastructure.
- Fixing student teacher ratio in classrooms.
- Designing curriculum keeping the current industry standards and requirements in mind.
- Creating educational options that are flexible and can adapt with the changing times.

In the end, I would like to say that education reform should be such that it enhances student experience, gives them a robust standing wherever they may be, and open a variety of career avenues for them to choose from. From a faculty standpoint it should be such that it adds value, vigor and excitement in the life of the teachers. Finally, the expectation of the nation from an educational reform would mean -- well educated/informed citizens who are tolerant of one another, can comprehend the vastness of knowledge, understand and apply logic, innovate ideas that can start or sustain industries for job creation and become stalwarts for upcoming generations.

- Sriya Chakravarti

Educator, Researcher, Policymaker, and a Curriculum designer

Apple's Officially Embracing Hotel Apps!

http://stayntouch.com/apples-officially-embracing-hotel-apps/

One of the most respected brands in the world made a huge splash in hotel technology - Apple. During the unveiling of their new products, we were introduced to the Apple Watch and Apple's collaborative efforts with Starwood Hotels and Resorts Worldwide to produce an app that will act as a digital room key. It doesn't end with Starwood. American Airlines is partnering with the tech giant to create an Apple Watch app that will allow travellers to manage their bookings. It's huge news for the traveling sector. Apple, always a forerunner in tech trends, deciding to invest in new technology for the hospitality industry means we are only at the beginning of innovative tech solutions for traveling.

For the last year, we've watched brands like Marriot, Aloft Hotels, Hilton Worldwide, and Yotel race towards the newest and most innovative hotel technologies available. They've introduced robot butlers, digital concierge, and an array of hotel apps. Although each brand currently offers its own unique tech amenities, most of them have committed time,money and resources towards mobile check ins, and keyless room entry technology for the near future.

Currently the technology only works with a couple of door lock providers -the delay with major global hotel brands to invest in new locks has slowed the process down, but it has not stopped the savvy ones from getting the ball rolling.

Hilton recently announced that starting in 2015, they would implement the technology required for doors to be unlocked with guests' smartphones. Yotel in New York brand has partnered with us to provide their guests with the ability to open doors and craft their own stay via a smartphone, all the while increasing revenue and enhancing customer service. Marriot has begun allowing their guests to check in on their smartphones in over 300 locations, and they are adding more through 2015.

The tech-savvy millennial generation is the driving force behind the rush to adapt new and innovative technology for hotels. They will soon have the largest purchasing power in many industries, and have an inclination towards self-service and automation. Apple joining the growing list of brands racing to enhance the traveler's experience is a step in the right direction, and undoubtedly will help expedite the process of finally having a thoughtful digital experience.

By Ronnie Coleman,
Sales Executive at StayNTouch. Inc.

Pop-Up Solar Can Be Installed Anywhere

http://news.discovery.com/tech/alternative-power-sources/pop-up-solar-can-be-installed-anywhere-140623.htm

Millions of people live off the electric grid, either by fate or choice. A group of innovators in Florida think they have a way to provide solar power, clean water and Wi-Fi to those people. The technology can be used to power military or emergency response personnel or create a sustainable oasis for people living in poverty

The Ecos PowerCube, developed by Stuart, Fla.-based Ecosphere Technologies, is a self-sustaining solar-power system housed in shipping containers. These containers travel quickly and easily, since everything in the world is shipped in these 10′, 20′ or 40′ metal boxes. Once on site, the container can be opened to deploy the solar panels.

The panels can generate up to 15 kW of electricity, which can be used to power wireless telecommunications, Internet access and mobile water treatment systems. Those systems could work effectively for disaster relief teams or even give off-grid hospitals, command centers or temporary schools a way to connect.

Ecosphere Technologies recently acquired a patent for the technology and build first working PowerCube.

Kwiz

Q1. What does the HT stand for in both HTTP and HTML?

1. Hyper trial 2. Hyper time
3. Hyper text 4. Hyper tone.

Q 2 Which technology company has products such as Adwords and Adsense?

1. Apple 2. Dell
3. Google 4. Microsoft

Q3. What company created Bluetooth?

1. Siemens 2. AT&T
3. Ericsson 4. Apple

Q4. Which company created the game "Angry Birds"?

1. Rovio 2. Zynga
3. Valve. 4. Rockstar games

Q5. What country seemed unconcerned about its battle with google, since its biggest search engine was the homegrown Baidu?

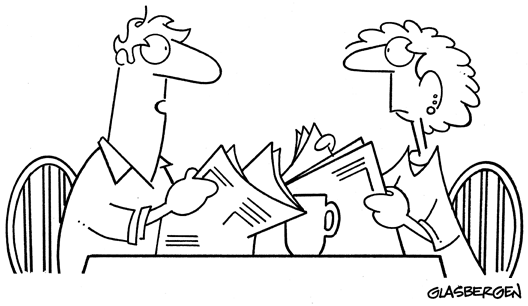
1. China 2. Taiwan
3. North Korea 4. Russia

Answers of August issue

Q 1. Java **Q 2. 67** **Q 3. imdb.com**
Q 4. 1990 **Q 5. Foursquare** **Q 6. Visio**

Tech trivia

- There are 6.8 billion people on the planet and 4 billion of them use a mobile phone. Only 3.5 billion of them use a toothbrush.
- Every minute, 100 hours of video are uploaded on YouTube by individual users.
- Of the 60 billion emails that are sent on a daily basis, 97 percent are considered spam.
- The thermometer was invented in 1607 by Galileo.



"A set of Siamese twins were born yesterday. They're connected by Bluetooth."

Please send in your articles and feedback to kbytes@kohinoorgroup.co.in

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