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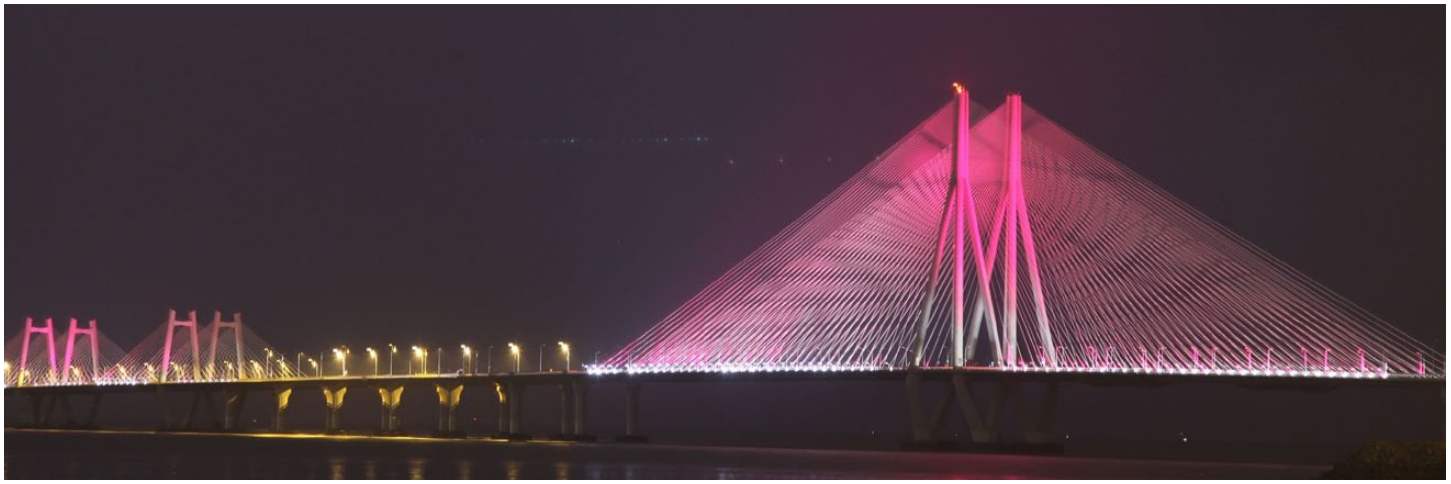
Bandra-Versova sea link to give city one more cable-stayed bridge

{HYPERLINK http://indianexpress.com/article/cities/mumbai/bandra-versova-sea-link-to-give-city-one-more-cable-stayed-bridge}

The proposed Rs 5,975-crore Bandra-Versova sea link will give the city another cable-stayed bridge, a structure that has over the years found place among landmarks such as the Gateway of India and Chhatrapati Shivaji Terminus that are often used to depict the city pictorially.

This will be the third such bridge in Mumbai after the one on the Bandra-Worli Sea Link and a much smaller version on the city's first Metro corridor.



Smaller version of main cable-stayed bridge of Bandra-Worli Sea Link planned

SM Ramchandani, joint managing director, Maharashtra State Road Development Corporation (MSRDC), said, "Just like the requirement in the Bandra-Worli Sea Link, we need a longer span than usual at certain places for the Bandra-Versova sea link for navigational needs of the fishing community. For this one stretch we studied all possible alternatives and came to the conclusion that a cable-stayed bridge would be best suited. However, this would be smaller than the main cable-stayed bridge of the Bandra-Worli sea link."

Although expensive, a cable-stayed bridge, which is built with one or more columns called pylons with cables supporting its deck, is useful for stretches where the span, or the distance between two piers, is longer than usual.

The Bandra-Worli Sea Link, which was opened in 2009, gave Mumbai its first cable-stayed bridge - a 500-metre-long structure. The cable-stayed bridge planned for the Bandra-Versova sea link will be on a 300-metre stretch, with a central span of 150 metres and side spans of 75 metres each. The one built on the 11.4-km Versova - Andheri - Ghatkopar Metro corridor over the Jog flyover in Andheri is 175 metres long with a main span of 83 metres and side spans of 46 metres each.

"The rest of the bridge will have spans of 50 metres each, just like the Bandra-Worli Sea Link, to make it look continuous," Ramchandani said.

Apart from a cable-stayed bridge, the Bandra-Versova sea link will also have two 250-metre-long balanced cantilever bridges for other stretches where longer spans are needed for navigational needs. A balanced cantilever bridge, which is more cost-effective, has two well-anchored arms and one span between the arms. The Vashi bridge built over the Thane creek to connect Vashi and Mankhurd uses the balanced cantilever method of construction.

The Bandra-Versova sea link would be 9.3-km long - 14.8-km including the entry and exit ramps at various places. The sea link, which is proposed to have five toll stations, will have approaches at Carter Road and Juhu besides the terminal points of Bandra and Versova.

As per MSRDC estimates, by 2020, the sea link, which will help skip 14 traffic signals, is likely to be used by 45,465 vehicles including cars, light commercial vehicles, buses and trucks. This number is expected to grow to 1,26,666 vehicles by 2045. The MSRDC is planning to implement the project on public-private partnership model and has invited requests for qualifications in this regard.

Top 4 Medical Technology Innovations

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

Against the backdrop of health care reform and a controversial medical device tax, medical technology companies are focusing more than ever on products that deliver cheaper, faster, more efficient patient care. They are also making inroads with U.S. Food & Drug Administration regulators to re-engineer the complex review and approval process for new medical devices.

Cutting Back on Melanoma Biopsies

With the most deadly form of skin cancer, melanoma, a huge number of dangerous-looking moles are actually harmless, but has always been impossible to know for sure without an invasive surgical biopsy. Today dermatologists have new help in making the right call — a handheld tool approved by the FDA for multispectral analysis of tissue morphology. The MelaFind optical scanner is not for definitive diagnosis but rather to provide additional information a doctor can use in determining whether or not to order a biopsy. The goal is to reduce the number of patients left with unnecessary biopsy scars, with the added benefit of eliminating the cost of unnecessary procedures. The MelaFind technology (MELA Sciences, Irvington, NY) uses missile navigation technologies originally paid for the Department of Defense to optically scan the surface of a suspicious lesion at 10 electromagnetic wavelengths. The collected signals are processed using heavy-duty algorithms and matched against a registry of 10,000 digital images of melanoma and skin disease.

Electronic Aspirin

For people who suffer from migraines, cluster headaches, and other causes of chronic, excruciating head or facial pain, the "take two aspirins and call me in the morning" method is useless. Doctors have long associated the most severe, chronic forms of headache with the sphenopalatine ganglion (SPG), a facial nerve bundle, but haven't yet found a treatment that works on the SPG long-term. A technology under clinical investigation at Autonomic Technologies, Inc., (Redwood City, CA) is a patient-powered tool for blocking SPG signals at the first sign of a headache. The system involves the permanent implant of a small nerve stimulating device in the upper gum on the side of the head normally affected by headache. The lead tip of the implant connects with the SPG bundle, and when a patient senses the onset of a headache, he or she places a handheld remote controller on the cheek nearest the implant. The resulting signals stimulate the SPG nerves and block the pain-causing neurotransmitters.

Needle-Free Diabetes Care

Diabetes self-care is a pain-literally. It brings the constant need to draw blood for glucose testing, the need for daily insulin shots and the heightened risk of infection from all that poking. Continuous glucose monitors and insulin pumps are today's best options for automating most of the complicated daily process of blood sugar management - but they don't completely remove the need for skin pricks and shots. But there's new skin in this game. (Philadelphia, PA) is developing technologies that would

replace the poke with a patch. The company is working on a transdermal biosensor that reads blood analytes through the skin without drawing blood. The technology involves a handheld electric-toothbrush-like device that removes just enough top-layer skin cells to put the patient's blood chemistry within signal range of a patch-borne biosensor. The sensor collects one reading per minute and sends the data wirelessly to a remote monitor, triggering audible alarms when levels go out of the patient's optimal range and tracking glucose levels over time.

FunnyQuotes

The real problem is not whether machines think but whether men do.

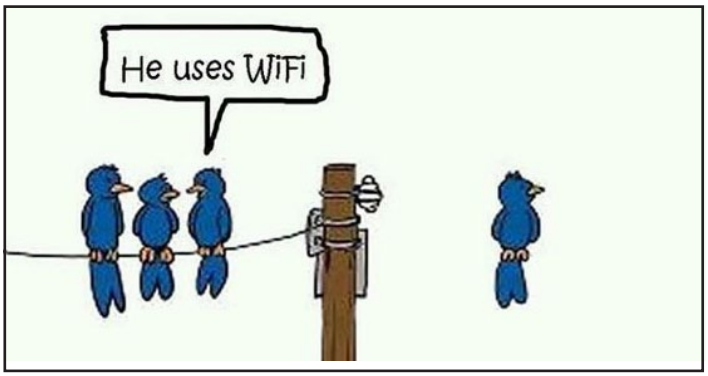
–B.F. Skinner, (1904-1990), American Social Philosopher

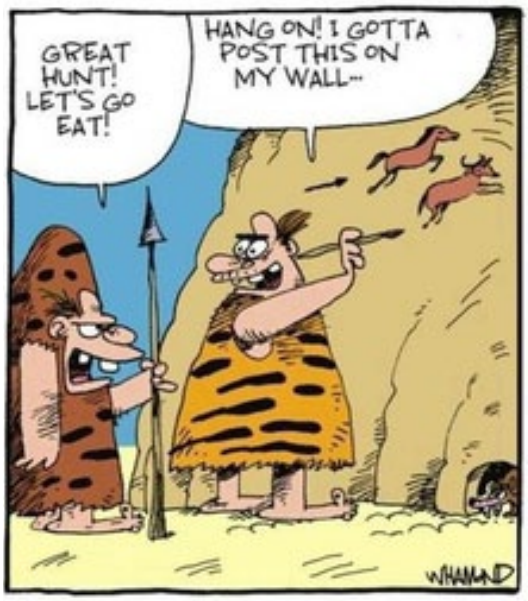
Getting information off the Internet is like taking a drink from a fire hydrant.

–Mitchell Kapor, Founder Lotus Development Corporation

Robotic Check-Ups

A pillar of health reform is improving access to the best health care for more people. Technology is a cost-effective and increasingly potent means to connect clinics in the vast and medically underserved rural regions of the United States with big city medical centers and their specialists. Telemedicine, well established as a tool for triage and assessment in emergencies, now goes one step further- it can now patrol hospital hallways on more routine rounds, checking on patients in different rooms and managing their individual charts and vital signs without direct human intervention. The RP-VITA Remote Presence Robot produced jointly by iRobot and InTouchHealth is the first such autonomous navigation remote-presence robot to receive FDA clearance for hospital use. The device is a mobile cart with a two-way video screen and medical monitoring equipment, programmed to maneuver through the busy halls of a hospital.





Early Facebook

Gizmo Talk

Apple reveals 'Health', its new app for tracking fitness and wellbeing

Health app will unite data from a number of separate fitness and wellbeing apps into one iPhone app

WWDC 2014: Apple reveals 'Health', its new app for tracking fitness and well-being

Health app will unite data from a number of separate fitness and wellbeing apps into one iPhone app

Health will be powered by Healthkit, a set of tools that will allow developers to build bespoke apps around health and well-being.

Apple unveiled its highly anticipated health data monitoring app on Monday, announcing a slate of more than 20 medical partners in the US and Europe.

Speaking at Apple's annual conference for developers in San Francisco, the senior vice president of software engineering, Craig Federighi, introduced Health, an app for iPhone and iPad.

It will be powered by Healthkit, a set of tools that will allow developers to build bespoke apps around health and wellbeing, from sleep monitoring and stress reduction to exercise and blood testing.

"Developers have created a lot of apps for monitoring your health," he said. "But up to now the information gathered by those applications lives in silos. But now you can with HealthKit. A single place where applications can gather the data. And there's an app - Health.

Federighi assured the audience that the privacy of users health information would be protected. "We carefully protect your privacy – you can decide what you want to share between apps."

Partners include Cambridge University Hospitals NHS in the UK, and Mount Sinai, UCLA Health and Stanford Hospitals in the US.

Wearable Technology In Education

{HYPERLINK http://cloudtweaks.com/2014/06/future-smartwear-technology/" \t "_blank}

New innovations have transformed the learning and teaching process in which students deal with knowledge in an active, self-directed and constructive way. As an educational tool, wearable technology can help children exercise their creativity and innovation and interact with their surrounding in an easier and a more natural way. It provides opportunities for students to learn more quickly and access information with less effort or mental input. It is important to keep in mind that using wearable technologies in teaching and learning process is very different from the traditional learning experience where students come to class at a fixed time and location. Teachers should learn how to manage effectively the new learners and how to use effectively wearable technologies in an educational setting.

These technologies can be used in education to develop student's skills for cooperation, communication, problem solving and lifelong learning.

The **Autographer** helps students to capture photos of the teacher's direct notes. So, they will always have exact information from their teacher.

Keygloves are wireless open-source input glove that can provide flexibility and convenience for gaming, design, art, music, data entry, device control, 3D object. This device can also facilitate singlehanded tasks and is perfect for handicapped or disabled users. Muse can display students' brain's activity directly onto a smartphone or tablet. When students are working on a project or studying for an important test, for instance, Muse can be used to measure their brainwaves and detect what activities they need to be active in and can help their mind stay focused and less stressed out.

Virtual Reality (VR) gives students an opportunity to get hands-on experiences and increases their knowledge. It can present complex data in an accessible way to students which is both fun and easy to learn. Students can interact with each other as well as they can interact with the objects in that environment in order to discover more about them. Furthermore, Smartwatches are able to provide information and remote applications like camera, fitness applications, games and tools applications for measurements and calculations for students. All of the facilities afforded by smartphones are squeezed into Smartwatches. A study on utilization of smartwatches found that this technology can enhance learning outcomes and allow students to access education flexibly, calmly and seamlessly.

In addition, iPod technologies offer great opportunities for flexible learning. A study conducted in 2009 found that the iPod as an effective learning tool can empower students to think more creatively about their subject matter and encourage the development of collaborative learning. Hence, it gives a sense of self-empowerment and autonomy to the individual. Moreover, GoPro is an interesting and unique camera that has the ability to capture students and teachers' view of events, to record instruction, and to explore novel possibilities. The GoPro camera helps teachers to examine their students' behaviors and to make more informed pedagogical decisions.

Another pretty awesome innovation is **Google Glass**. Google Glass is a web-connected wearable computer with an optical head-mounted display (OHMD). In other words, Google Glass integrates eyeglasses with a wearable and connected microcomputer. Users can interact with Google Glass with their voice and information is shown on the display screen. Teachers and students can share information in various modes of interaction by using this technology. Google Glass can help educators and students to search, take a picture, record

a video, answer questions and translate their voice to foreign languages. A study conducted in 2014 found that Google Glass can be successfully integrated into simulation-based training exercises without disrupting the learners' experience. It can increase learners' experiences and their attention on a current task and the people with whom they are interacting. In addition, Google Glass can revolutionize graduate medical education. It allows medical students watch different medical procedures in real time. Hence, this new technology can improve education and patient outcomes.

By Mojgan Afshari, Senior Lecturer in the Department of Educational Management, Planning and Policy at the University of Malaya

Tech trivia

{HYPERLINK http://www.omgfacts.com/Technology/28-of-IT-professionals-hide-their-career/58485"}

- A diamond will not dissolve in acid. The only thing that can destroy it is intense heat.
- One third of the world population has never made a telephone call.
- No one has received more U.S. patents than Thomas Edison – 1,093 to be exact.
- The first laser was made in California in 1960.
- MIT students developed a wristband that can regulate the body's temperature, thereby possibly eliminating the need for central heating and cooling in the future!

Voyat Intros a Smart CRM Platform to Increase Hotel Revenue

{HYPERLINK http://hospitalitytechnology.edgl.com/news/Voyat-Intros-a-Smart-CRM-Platform-to-Increase-Hotel-Revenue94244}

Announces today that it is launching out of beta with $1.8 million in seed funding led by Metamorphic Ventures, Eniac Ventures, BoxGroup as well as various strategic angel investors, including Brett Crosby, co-founder of Google Analytics. The company introduces the first two products from the Voyat platform: V-CRM and V-Direct, which will provide hotels with guest analytics and business intelligence gathered from a wide network of potential and actual hotel guest information. Voyat has piloted with leading hospitality brands and is entering the space in partnership with Morgans Hotel Group, The New York Palace, and W Hotels. Voyat's platform and products can be seamlessly integrated into every hotel's website, on-property Wifi, concierge applications or existing/legacy data storage systems. As guests sign onto the hotel's Wifi or website using a social network profile such as Facebook, LinkedIn, Twitter, Google+ or even email, Voyat automatically creates a smart interactive profile for guests that consists of a wide variety of metrics. V-CRM has increased the marketable guest audience that way up to 500%

for its beta clients. Complementing this is V-Direct, which allows hotel staff to offer custom services, discounts or offers that meet the guests loyalty level and individual preferences to ultimately increase direct bookings. V-Direct enables hotels to both communicate in a highly targeted manner, and increase conversion rates across acquisition channels as a result.

How V-CRM works: Data collection via WiFi Integration: enables social authentication, manages data profiles, redirects to the hotels' individual landing page Ability to analyze each audience: traffic of how many guests are at each property, guest demographics and behavior of what they are interested in, insights into what guests are buying and key trends across each property to see what is changing over time Allows hotels to identify the most loyal and valuable guest: Voyat algorithmically identifies key guest attributes, tags each guest with a loyalty score, and makes CRM interactive and actionable for hotel managers.

How V-Direct works: Allows hotel to communicate one on one: hotels can increase guests engagement directly by sending targeted email campaigns or social notifications to guests in real time. Promote services & offers in real time: V-Direct promotes the right services, to the right guests, at the right time - to increase revenue per available room. With V-CRM and V-Direct, Voyat connects a large range of data sources to drive guest personalization and re-targeting opportunities, and provides powerful analytics to help increase revenue and customer satisfaction.

Byte Back

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Kwiz

Q1. Which programming language was first known as "Oak"?

1. Python 2. Java
3. BASIC 4. COBOL

Q2. In characters, what is the maximum possible length of a Website's domain name (including the .com)?

1. 25 2. Unlimited
3. 67 4. 12

Q3. Which widely used site was founded by Col Needham?

1. imdb.com 2. ign.com
3. allmusic.com 4. reddit.com

Q4. In which year did Tim Barners-Lee introduce the phrase World Wide Web?

1. 1980 2.1985
3. 1990 4. 1995

Q5. What can you use to share and save the places you visit on your smartphone?

1. Tango 2. Foursquare
3. Whatsapp 4. Safari

Q6. What is the name of the Microsoft's diagram and flowchart software?

1. Vision 2. Cambuche
3. Viewer 4. Visio

Answers of July issue

Q 1. Mac OSX **Q 2. Wikipedia**
Q 3. 2.75G **Q 4. China**
Q 5. Flickr

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